

SHRUTI (AF0406944)

Java SE 1.0 (1996)

Initial Release

First version of Java, code-named Oak.

Included core features like applets, AWT (Abstract Window Toolkit), basic libraries, and Java Virtual Machine (JVM).

Java SE 1.1 (1997)

Key Enhancements

Event model, JDBC (Java Database Connectivity), RMI (Remote Method Invocation).

Inner classes, JavaBeans, and internationalization features.

Java SE 1.2 (1998)

Major Update (Java 2)

Introduced Swing, Collections Framework, and the "2D API".

Performance enhancements and the JIT (Just-In-Time) compiler.

Java Plug-in and Java IDL (Interface Definition Language).

Java SE 1.3 (2000)

Improvements

Performance improvements, HotSpot JVM included.

New APIs such as Java Naming and Directory Interface (JNDI).

JavaSound and RMI-IIOP.

Java SE 1.4 (2002)

Key Features

Introduced assert keyword, Java Web Start, and regular expressions.

Exception chaining, NIO (New Input/Output), logging API.

XML processing support.

Java SE 5.0 (2004)

Significant Changes (formerly 1.5)

Generics, enhanced for loop, autoboxing/unboxing.

Metadata annotations, enumerated types, varargs.

Concurrency utilities (java.util.concurrent).

Java SE 6 (2006)

Enhancements

- Scripting API, improvements to Web Services.
- Compiler API, pluggable annotations processing.
- Performance improvements, enhanced Swing, and desktop APIs.

Java SE 7 (2011)

Features Added

- Project Coin (small language changes): try-with-resources, diamond operator, switch on strings.
- Fork/Join framework for parallelism.
- NIO.2 (more flexible filesystem access), and new file I/O library.
- Improvements to the JVM and Java language.

Java SE 8 (2014)

Major Language Enhancements

- Lambda expressions, Stream API, and the new Date and Time API.
- Default and static methods in interfaces.
- Optional class, [Nashorn](#) JavaScript engine.
- Type annotations and compact profiles.

Java SE 9 (2017)

Modular System

- Introduction of the module system (Project Jigsaw).
- [JShell](#) (REPL), collection factory methods.
- HTTP 2 Client, Process API improvements.

Java SE 10 (2018)

Minor Update

- Local variable type inference (var).
- Time-based release versioning.
- Application class-data sharing, garbage collector improvements.

Java SE 11 (2018)

LTS Release

- New standard HTTP client.
- Removal of Java EE and CORBA modules.
- Nest-based access control, dynamic class-file constants.
- Preview features like switch expressions.

Java SE 12 (2019)

New Features

- JVM Constants API, improved G1 garbage collector.
- Switch expressions (preview), microbenchmark suite.

Java SE 13 (2019)

New Additions

- Text blocks (preview), dynamic CDS archives.
- ZGC (Z Garbage Collector) improvements.
- Reimplemented the legacy socket API.

Java SE 14 (2020)

Updates

- Switch expressions (standard).
- Records (preview), pattern matching for instanceof (preview).
- Helpful NullPointerExceptions.

Java SE 15 (2020)

New Features

- Text blocks (standard), sealed classes (preview).
- Hidden classes, Edwards-Curve Digital Signature Algorithm (EdDSA).
- Foreign memory access API (incubator).

Java SE 16 (2021)

Enhancements

- Records (standard), pattern matching for instanceof (standard).
- Sealed classes (second preview), strong encapsulation for JDK internals.

Foreign linker API (incubator).

Java SE 17 (2021)

LTS Release

Sealed classes (standard), pattern matching for switch (preview).
Strong encapsulation for JDK internals by default.
Context-specific deserialization filters, macOS/AArch64 port.

Java SE 18 (2022)

New Features

Simple web server, UTF-8 by default.
Code snippets in API documentation, vector API (third incubator).

Java SE 19 (2022)

Updates

Pattern matching for switch (third preview).
Virtual threads (preview), foreign function & memory API (second incubator).
Structured concurrency (incubator).

Java SE 20 (2023)

Enhancements

Pattern matching for switch (fourth preview).
Virtual threads (second preview).
Record patterns (second preview), foreign function & memory API (third incubator).
Scoped values (incubator).