

Java Releases



Java SE Releases (1996–2025)

One version per slide with:

- Release date
- Time since previous
- Key highlights

Java SE 1.0

Java Arrives: Write Once,
Run Anywhere

- Release date: 1996-01-23
- Time since previous: —
- Highlights:
 - Initial Release: Core APIs, JVM, and basic tools
 - AWT, I/O, Networking, Applets



Java SE 1.1

- Release date: 1997-02-18
- Time since previous: ~1 year
- Highlights:
 - Inner Classes
 - JavaBeans
 - JDBC 1.0
 - Reflection (introspection)
 - RMI

Beans, JDBC & Reflection
Spark



Java SE 1.2 (Java 2)

Collections & Swing: The
Big Upgrade

- Release date: 1998-12-04
- Time since previous: ~1 year 9 months
- Highlights:
 - Collections Framework (List, Set, Map, ...)
 - Swing GUI
 - JIT compiler integration
 - Java Plug-in for browsers



Java SE 1.3

HotSpot Ignition

- Release date: 2000-05-08
- Time since previous: ~1 year 5 months
- Highlights:
 - HotSpot JVM default
 - Java Sound API
 - RMI over IIOP (CORBA interop)



Java SE 1.4

NIO, Regex & Logging
Built-In

- Release date: 2002-02-13
- Time since previous: ~1 year 9 months
- Highlights:
 - Assertions
 - NIO (non-blocking I/O)
 - Regular Expressions
 - Logging API
 - XML APIs (SAX, DOM)



Java SE 5.0 (1.5)

- Release date: 2004-09-30
- Time since previous: ~2 years 7 months
- Highlights:
 - Generics
 - Annotations
 - Enhanced for-loop (for-each)
 - Autoboxing / Unboxing
 - Enums
 - Concurrency Utilities

Generics & Annotations Revolution



Java SE 6

Scripting & Web-Services Era

- Release date: 2006-12-12
- Time since previous: ~2 years 2 months
- Highlights:
 - Scripting API (e.g., JavaScript)
 - Pluggable Annotation Processing (Compiler API)
 - Web Services: JAXB, JAX-WS
 - JVM/JIT performance improvements



Java SE 7

Project Coin & Fork/Join Power

- Release date: 2011-07-28
- Time since previous: ~4 years 7 months
- Highlights:
 - Project Coin (diamond operator, multi-catch, etc.)
 - NIO.2 groundwork
 - Fork/Join framework (concurrency)
 - Strings in switch
 - Try-with-resources



Java SE 8

- Release date: 2014-03-18
- Time since previous: ~2 years 7 months
- Highlights:
 - Lambda Expressions
 - Stream API
 - Optional
 - Default Methods in interfaces
 - Date & Time API (java.time)
 - Nashorn JS engine

Lambdas & Streams Wave



Java SE 9

- Release date: 2017-09-21
- Time since previous: ~3 years 6 months
- Highlights:
 - Modules (Project Jigsaw)
 - JShell (REPL)
 - Collection factory methods
 - Enhanced Process API
 - Private interface methods

Jigsaw: Java Goes Modular



Java SE 10

var Lands: Lighter Locals

- Release date: 2018-03-20
- Time since previous: ~5 months
- Highlights:
 - Local variable type inference (var)
 - G1 GC enhancements
 - Start of time-based 6-month release cadence



Java SE 11 (LTS) — LTS

LTS Reboot & Modern
HTTP

- Release date: 2018-09-25
- Time since previous: ~6 months
- Highlights:
 - HTTP Client API
 - var in lambda parameters
 - Removed modules (Java EE, CORBA, ...)
 - Nest-based access control



Java SE 12

- Release date: 2019-03-19
- Time since previous: ~5 months
- Highlights:
 - Switch expressions (Preview)
 - JVM Constants API

Switch, Meet Expressions



Java SE 13

- Release date: 2019-09-17
- Time since previous: ~5 months
- Highlights:
 - Text Blocks (Preview)
 - Dynamic CDS Archives

Text Blocks Debut
(Preview)



Java SE 14

- Release date: 2020-03-17
- Time since previous: ~6 months
- Highlights:
 - Switch Expressions (Standard)
 - Records (Preview)
 - Pattern Matching for instanceof (Preview)

Records & Pattern
Matching (Preview)



Java SE 15

- Release date: 2020-09-15
- Time since previous: ~5 months
- Highlights:
 - Text Blocks (Standard)
 - Sealed Classes (Preview)
 - Hidden Classes

Sealed Classes Preview +
Hidden Classes



Java SE 16

Records Go GA; Cleaner
instanceof

- Release date: 2021-03-16
- Time since previous: ~6 months
- Highlights:
 - Records (Standard)
 - Pattern Matching for instanceof (Standard)
 - Vector API (Incubator)



Java SE 17 (LTS) — LTS

LTS: Sealed & Steady

- Release date: 2021-09-14
- Time since previous: ~5 months
- Highlights:
 - Sealed Classes (Standard)
 - Pattern Matching for switch (Preview)
 - Foreign Function & Memory API (Incubator)



Java SE 18

- Release date: 2022-03-22
- Time since previous: ~6 months
- Highlights:
 - Simple Web Server (CLI)
 - UTF-8 by default
 - Pattern Matching for switch (2nd Preview)

UTF-8 by Default & Tiny
Web Server



Java SE 19

- Release date: 2022-09-20
- Time since previous: ~5 months
- Highlights:
 - Virtual Threads (Preview)
 - Structured Concurrency (Incubator)
 - Record Patterns (Preview)
 - Pattern Matching for switch (3rd Preview)

Virtual Threads Preview
& Structured
Concurrency



Java SE 20

Record Patterns & FFM Advance

- Release date: 2023-03-21
- Time since previous: ~6 months
- Highlights:
 - Record Patterns (2nd Preview)
 - Pattern Matching for switch (4th Preview)
 - Foreign Function & Memory API (2nd Preview)



Java SE 21 (LTS) — LTS

LTS: Virtual Threads Go
Mainstream

- Release date: 2023-09-19
- Time since previous: ~5 months
- Highlights:
 - Virtual Threads (Standard)
 - Sequenced Collections
 - Pattern Matching for switch (Standard)



Java SE 22

FFM Finalized + String
Templates

- Release date: 2024-03-19
- Time since previous: ~6 months
- Highlights:
 - Foreign Function & Memory API (Final)
 - String Templates (2nd Preview)
 - Structured Concurrency (2nd Preview)



Java SE 23

Markdown Javadoc & Generational ZGC

- Release date: 2024-09-17
- Time since previous: ~5 months
- Highlights:
 - Markdown in Javadoc
 - ZGC: generational mode default
 - Preview features: Structured Concurrency, Flexible Constructor Bodies, Module Import Declarations, Primitive Types in Patterns/instanceof/switch



Java SE 24

Stream Gatherers & Class-File API

- Release date: 2025-03-18
- Time since previous: ~6 months
- Highlights:
 - Stream Gatherers
 - Class-File API
 - Ahead-of-Time Class Loading & Linking
 - Synchronize Virtual Threads without Pinning
 - Quantum-Resistant ML-KEM (KEM)
 - Permanently Disable the Security Manager





Java



Spring