

Java Version Long-Term-Support (LTS)

Oracle product releases after Java SE 8, Oracle will designate only certain releases as Long-Term-Support (LTS) releases. Java SE 8, 11, 17 and 21 are LTS releases. Oracle intends to make future LTS releases every two years meaning the next planned LTS release is Java 25 in September 2025.

Java 8 (March 2014) – “The functional leap”

- Lambda expression and Streams API – Functional style and bulk data processing.
- java.time modern date/time, optional, CompletableFuture, default/interface static method.

Java 11 (September 2018) – “modern runtime & HTTP”

- HTTP Client become standard, replacing the old HttpURLConnection.
- First appearances of Z GC (experimental), Flight Recorder/Mission control open-sourced.
- Local-variable syntax for lambda params ((var x)->...) and numerous small library addition.
- Removed Java EE and Corba modules from JDK.
- Launch single file source code programs.

Java 17 (September 2021) – “records and sealed type”

- Restore always strict floating-point semantics.
- Enhanced pseudo-random number generator.
- New MacOS rendering pipeline.
- Deprecate the Applet API for Removal.
- Strongly encapsulate JDK internals.
- Pattern matching and switch.
- Remove experimental AOT and JIT compiler
- Deprecate the SecurityManager for removal
- Foreign function and memory API (incubator)
- Vector API for SIMD instruction access (2nd incubator)
- Context specific deserialization filters

Java 21 (September 2023) – “Virtual Thread era”

- Virtual thread (JEP 444) – lightweight threads that make millions-of-concurrency straightforward.
- Structured concurrency (2nd preview) and scoped values for thread-local-like data.
- Record patterns and final pattern-matching for switch.
- String templates and SequencedCollection hierarchy.
- Generational ZGC – lower pause time for large heaps.

Java 25 (planned September 2025) - “finishing Valhalla & more tooling”