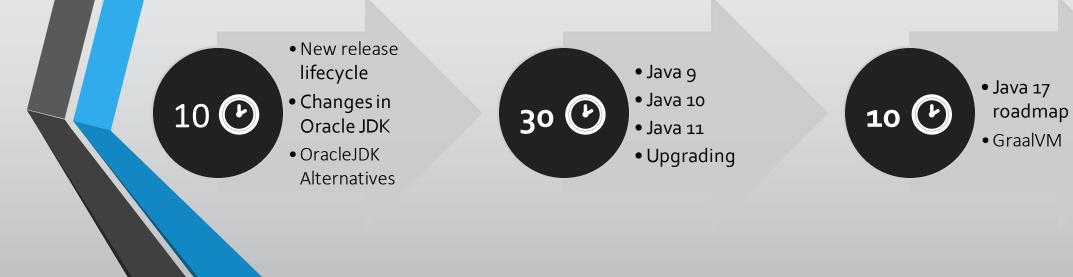
From Java 8 to Java 11



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bit.ly/waes-java11



Java SE versions before

Version	General Availability	End of free public updates	End of extended support
JDK Beta	1995	1	1
Java 6	December 2006	April 2013	December 2018
Java 7	July 2011	April 2015	July 2022
Java 8	March 2014	January 2019	March 2025
Java 9	September 2017	March 2018	1

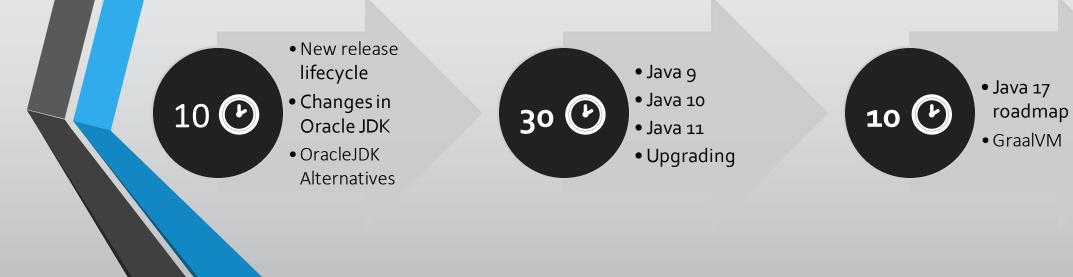
Java SE versions now

Version	General Availability	End of free public updates (OpenJDK)	End of extended support (OracleJDK)
Java 8 (LTS)	March 2014	January 2019	March 2025
Java 9	September 2017	March 2018	1
Java 10	March 2018	September 2018	1
Java 11 (LTS)	September 2018	March 2019	September 2026
Java 12	March 2019	September 2019	1
Java 13	September 2019	March 2020	1
Java 17 (LTS)	September 2021	March 2022	September 2029?

OracleJDK key changes

- OracleJDK code ≅OpenJDK code
- OracleJDK not free to run in production.
 - Many kind of licenses.

Alternatives?



Java 9

91 features

JShell Private methods in interfaces Utility methods in Streams Utility methods in Optionals Collections "of" factory mathods. StackWalker Modules Jlink

Java 10

12 features

Local Variable Type Inference

Immutabilty helpers

Optional.orElseThrow

Improved container awarness

Java 11

18 features 7 modules removed

Java HTTP/2 client var in lambdas Shebang New String methods Optional.isEmpty() Predicate.not() Java Flight Recorder Removed modules

When upgrading to Java 11...



Choose your JDK vendor



Don't rush to use modules

It's unlikely that you can leverage jlink for now

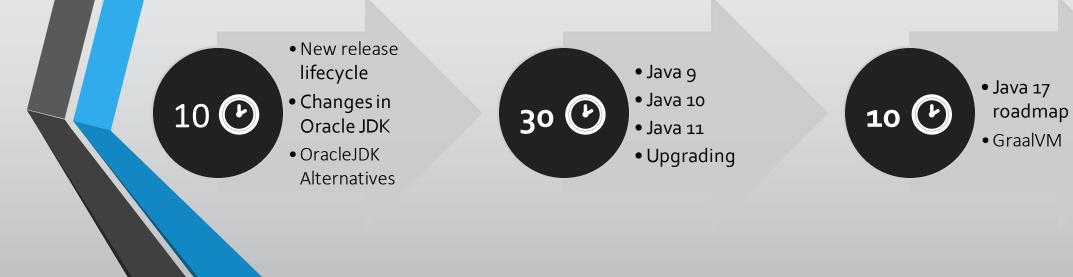


Add missing modules as dependencies if needed

Test all workflows in your application



Make your application work and then start using new features



Java 17 roadmap

- Project Amber
 - Syntactic sugar
- Project Valhalla
 - Valued types and specialized generics
- Project Loom
 - Improving multithreading performance
- Project Metropolis
 - JVM rewritten in Java

Interesting projects

- OpenJ9
- GraalVM
 - Micronaut
 - Quarkus
 - <u>Helidon</u>

- Slides: <u>bit.ly/waes-java11</u>
- Code: github.com/cesdperez/java8-to-java11-demo

- [Tool] sdkman!
- [Reading] <u>Java is still free</u>
- [Presentation] <u>Exploring Java 9: The Key Parts by Venkat Subramaniam</u>
- [Presentation] <u>Var with Style by Stuart Marks</u>
- [Presentation] <u>JIT and AOT in OpenJ9 with Mark Stoodley</u>
- [Presentation] GraalVM for Java developers by Oleg Šelajev