

# 2023 State of the Java Ecosystem

At a glance



# Java 17 user adoption grew 430% in one year

For Java long-term support (LTS) versions, 56% of applications use Java 11 in production. Java 8 is a close second with 33% of applications using it in production.





### Java 14 is the most popular non-LTS version

Uptake for interim, non-LTS Java versions remains extremely low compared to LTS versions in production with only 1.6% of applications using non-LTS Java versions. Java 14 is still the most popular with Java 15 a close second.

0.95%

+

+





### Amazon is now the most popular JDK vendor

Recent years have seen changes in the source of Java Developer Kit (JDK) distributions in use. The use of Amazon has increased dramatically to 31% of the market, while Oracle slipped to 29%.





# Containers rule everything around us

Containerizing applications has become mainstream—70% of Java applications reporting to New Relic do so from a container.

#### **Compute settings in containers**

Engineering teams are moving away from single-core settings in containers, with only 36% in use, and moving toward multi-core settings, with 30% using an eight-core setting.



#### Memory settings in containers

When comparing memory settings, there's a tendency towards smaller instances in containers. In addition, 30% of containerized applications explicitly request an upper bound on Java virtual machine (JVM) memory through -XX:MaxRAMPercentage flags.



<=512 MB <=1 GB <=2 GB <=3 GB <=4 GB <=8 GB <=16 GB <=32 GB <=64 GB >64 GB JVM memory settings heap size Containerized No container

## Garbage in, garbage out

Given its central role in JVM performance, garbage collection remains a hot topic in the Java community. The Garbage-First (G1) garbage collector is a clear favorite for those using Java 11 or later versions, with 65% of customers using it.

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