

Here are some of the new features and improvements in the LTS (Long-Term Support) releases of Java:

Java 8:

- Lambda expressions: A new way to express anonymous functions that can be passed around as values.
- Stream API: A set of classes and interfaces for processing collections of objects.
- Date and Time API: A new API for representing and manipulating dates and times.
- Nashorn JavaScript engine: A lightweight, high-performance JavaScript engine that can be embedded in Java applications.

Java 11:

- HTTP Client API: A new standard API for performing HTTP requests and handling responses.
- Launch Single-File Source-Code Programs: A new feature that allows you to run a Java source file directly, without needing to compile it first.
- ZGC: A new low-latency garbage collector that is designed to handle very large heaps.

Java 17:

- Records: A new language feature that allows you to declare classes that are meant primarily to store data.
- Sealed classes: A new language feature that allows you to restrict the subclasses of a class or interface.
- Vector API: A new set of classes for performing vector calculations on modern CPUs.
- Enhanced Pseudo-Random Number Generators: Improved algorithms for generating random numbers.

Note that this is not an exhaustive list, and there are many other changes and improvements in each version of Java.