

# **ASSIGNMENT**

## **JAVA VERSION FROM BEGINNING TO TILL DATE WITH CHANGES**

- Overview Of Java Versions From The Beginning To The Present, Highlighting The Major Changes Introduced With Each Version:

### **1. JDK 1.0 (January 1996)**

- Initial release.

### **2. JDK 1.1 (February 1997) -**

Inner classes.

- JavaBeans.
- JDBC (Java Database Connectivity).
- RMI (Remote Method Invocation).
- AWT event model improvements. - Reflection (introspection only).

### **3. J2SE 1.2 (December 1998)**

- Swing API.
- Collections framework.
- Java Plug-in.
- IDL (Interface Definition Language) and CORBA support. - JIT (Just-In-Time) compiler included.

### **4. J2SE 1.3 (May 2000)**

- HotSpot JVM included.
- JPDA (Java Platform Debugger Architecture). - RMI over IIOP.

### **5. J2SE 1.4 (February 2002) -**

assert keyword.

## **P. Geetha Mounika**

- Regular expressions.
- Exception chaining.
- Logging API.
- Image I/O API.
- Integrated XML parser and XSLT processor (JAXP).
- New I/O (NIO).

### **6. J2SE 5.0 (September 2004) [also known as Java 5] - Generics.**

- Metadata (annotations).
- Autoboxing/unboxing.
- Enumerated types.
- The enhanced for loop.
- Varargs.
- Static import.
- Concurrency utilities (java.util.concurrent).

### **7. Java SE 6 (December 2006) - Scripting Language Support (JSR 223).**

- JDBC 4.0.
- Improvements in GUI.
- Compiler API.
- Pluggable annotations processing API.
- New APIs for web services.

### **8. Java SE 7 (July 2011) -**

The diamond operator.

- Strings in switch.
- Try-with-resources.
- Improved type inference for generic instance creation.
- Simplified varargs method invocation.
- NIO.2.
- Fork/Join framework.
- JavaFX 2.0.

**9. Java SE 8 (March 2014) -**

Lambda expressions.

- Method references.
- Default methods.
- Stream API.
- Optional class.
- Nashorn JavaScript engine.
- Date and Time API (java.time). - Base64 encoding and decoding.

**10. Java SE 9 (September 2017)**

- Module system (Project Jigsaw).
- JShell (the interactive Java shell).
- Factory methods for immutable collections.
- Enhanced @Deprecated annotation.
- Stream API improvements. - HTTP/2 client.

**11. Java SE 10 (March 2018)**

- Local-variable type inference (var keyword).
- Time-based release versioning.
- Application class-data sharing. - Root certificates in the default keystore.

**12. Java SE 11 (September 2018) [Long Term Support] - New HTTP client API.**

- Local-variable syntax for lambda parameters.
- Removal of Java EE and CORBA modules.
- New Epsilon garbage collector. - Flight Recorder (Java Flight Recorder).

**13. Java SE 12 (March 2019)**

- Switch expressions (preview).
- Shenandoah low-pause-time garbage collector.
- Microbenchmark Suite.

**14. Java SE 13 (September 2019) -**

Text blocks (preview).

- Reimplementation of the legacy socket API. -
- Dynamic CDS archives.

**15. Java SE 14 (March 2020)**

- Records (preview).
- Pattern matching for instanceof (preview). -
- Switch expressions (standard).

**16. Java SE 15 (September 2020) -**

Sealed classes (preview).

- Hidden classes. - Text
- blocks (standard).

**17. Java SE 16 (March 2021)**

- Records (standard).
- Pattern matching for instanceof (standard). -
- Vector API (incubator).

**18. Java SE 17 (September 2021) [Long Term Support] -**

Sealed classes (standard).

- Foreign Function & Memory API (incubator). -
- New macOS rendering pipeline.

**19. Java SE 18 (March 2022)**

- Simple web server.
- UTF-8 by default.
- Code snippets in Java API documentation. -
- Deprecate finalization for removal.

**20. Java SE 19 (September 2022)**

- Structured concurrency (incubator).
- Foreign Function & Memory API (preview).
- Vector API (second incubator). - Pattern
- matching for switch (preview).

**21. Java SE 20 (March 2023)**

- Scoped values (incubator).
- Virtual threads (preview).
- Structured concurrency (second incubator). -  
Record patterns (preview).

**22. Java SE 21 (September 2023) [Long Term Support] -**

- Virtual threads (standard).
- Sequenced collections.
- Pattern matching for switch (standard).
- String templates (preview). - Record patterns  
(second preview).