

3) Platform Independent.

Java is a write once, run anywhere language. A platform is the hardware or software environment in which a program runs.

4) Secured.

With Java, we can develop virus-free systems.

Java is secured because.

- explicit pointer.
- Java programs run inside a virtual machine sandbox.
- Classloader.
- Bytecode Verifier.
- Security Manager.

5) Robust

- It uses strong memory management.
- There is a lack of pointers that avoids security problems.

6) High Performance.

- Java is faster than other traditional interpreted programming languages because Java bytecode is 'close' to native code.

7) Portable.

8) Dynamic :-

Java is dynamic language. It supports the dynamic loading of classes. It means classes are loaded on demand.

Q About Java technology : And its Component.

- Java is a high-level, general-purpose, O-O and secured programming language developed by James Gosling at Sun microsystem in 1991.

Editions :-

Java Standard Edition :- It is used to create programs for a desktop computer.

Java Standard Edition :- It is used to create large programs that runs on the server and manages heavy traffic and complex transactions.

Java Micro Edition :- It is used to develop application for small devices such as set-top boxes, phone.

Q How JVM Works - JVM Architecture.
→ JVM runs Java application as a runtime engine. JVM is the one that calls the main method present in a Java Code. JVM is a part of JRE (Java runtime engine).

Java applications are called WORA (Write Once Run Anywhere). This means a programmer can develop Java code on one system and expect it to run on any other Java-enabled system without any adjustment. This is all possible because of JVM.

