

Intro to Java

JAVA History

Java was a project named 'Oak' started by James Gosling in 1991 at Sun Microsystems.

Java was influenced by C++

Renamed to **JAVA** in 1995

Sun Microsystems was acquired by Oracle in 2010

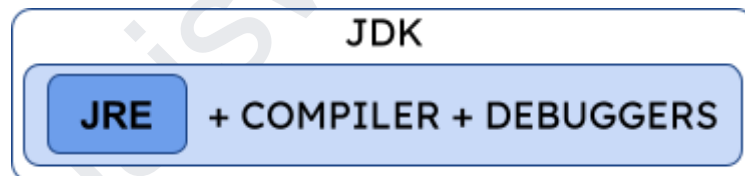
Why has it become so popular?

- Platform Independent
- Security
- Object oriented
- Multithreading
- Simple to learn
- Robust

JVM, JRE & JDK

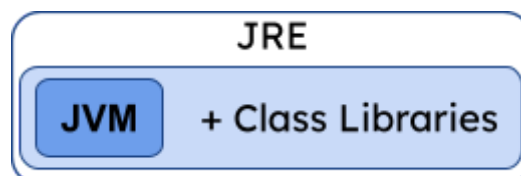
Java Development Kit - (JDK)

JDK provides an environment to develop and execute the java program. JDK is a kit that includes two things - Development Tools to provide an environment to develop your Java programs and JRE to execute your Java programs.



Java Runtime Environment - (JRE)

JRE provides an environment to only run (not develop) the java programs onto your machine. JRE is only used by the end-users of the system. JRE consists of libraries and other files that JVM uses at runtime.

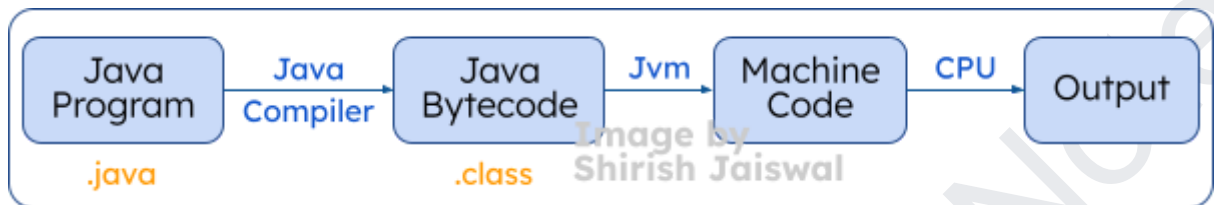


Java Virtual Machine - (JVM)

This is responsible for converting Bytecode to machine code.

Compiler converts your source code to java bytecode → Then bytecode is executed on JVM.

The JVM is used for both – translating the bytecode into the machine language for a particular computer, and actually executing the corresponding machine-language instructions as well.



What is a Console application?

1. A console application is an application to works with data input and data output
2. These applications don't have GUI (Graphical user interface)
3. Mostly used for education purposes

Java Console Program

We will create Source code which is a **.java** extension file, where code is written.

Then a java compiler (javac) converts java source code to bytecode which is a **.class** file which contains byte code produced by javac.

Then JVM will execute bytecode that is .class file.

Integrated Development Environment - (IDE)

It is a software application that provides comprehensive facilities to computer programmers software development

Consist of source code editor, build automation tools, debugger, compiler.

The most popular java development Ide are:

- Eclipse
- IntelliJ Idea
- Net Beans
- Android Studio (for android application)