

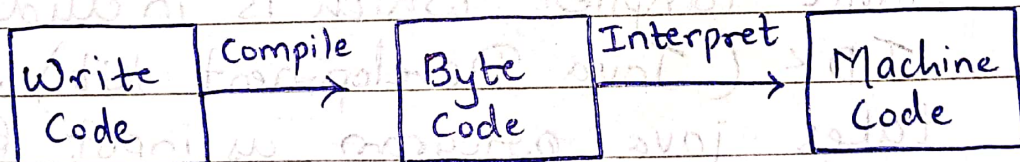
Code Cosmos

Java Notes

Chapter 1 : Introduction to Java

- Java is a class-based object oriented programming language. Java was developed by James Gosling at Sun Microsystems Inc in May 1995 which was later acquired by Oracle Corporation.
- How Java Code Executes ?

The execution of Java Code involves 3 steps



① We write the source code using a text editor or any IDE, which is saved as (.java) extension.

② We use the java compiler (javac) to compile the code that converts the source code into byte code which is stored in a (.class) file. The byte code is platform-independent & using JVM it can be executed on any machine.

③ The JVM executes the compiled code & converts it into machine code which is specific to operating system & hardware.

- What is JVM ?

JVM stands for Java Virtual Machine which is responsible to execute the byte code. It is used so that the output of Java programs is same across different platforms.

Once we write the java code, the compilation is done by the Javac compiler which is included in JDK (Java Development Kit). It takes java program as input & gives byte code as output.

Then when we run the byte code JVM executes it.

- JDK → (Java Development Kit)

~~Collection~~ Collection of tools used for developing & running java programs.

- JRE → (Java Runtime Environment)

Helps in executing java programs.