

# Java

## (Unit - I)

Introduction: Java is a high-level programming language originally developed by sun-Microsystem and released in 1995. It runs on a variety of platforms such as MacOS, Windows, android etc.

### Features of Java:

- ① Java is Simple: Java programming language is easy to learn. Java code are easy to read and write.
- ② Java is familiar: Java is similar to C/C++ and its syntax matched with C/C++ so everyone is familiar with Java as C/C++.
- ③ Java is Object-oriented: Java has all OOPS features such as abstraction, polymorphism, encapsulation, Inheritance etc.
- ④ Java is robust: Java does not use complexity of pointers. Java uses automatic garbage collection so its very reliable and robust.

⑤ JAVA is secure: JAVA uses compile time and run-time Type checking using security manager and does not make machine code (only byte code). So no virus attack is possible on JAVA program.

⑥ JAVA is multi-threaded: JAVA language built with multi-threaded capabilities that make it high interactive and responsive.

⑦ JAVA is platform independent: Java code is compiled into byte code, which can be executed on any system that have JVM. such as Windows, Mac OS, Android etc

# Compiling and Running JAVA Program

- ① Open notepad
- ② Write java program
- ③ Save with ".java" extension
- ④ open command prompt C:\
- ⑤ Compile java program  
C:\> javac prog1.java ↵

- ⑥ Run java program  
C:\> java prog1 ↵

```
prog1.java      public class Prog1
{
    public static void main(String[] args)
    {
        System.out.println("Hello Java");
    }
}
```

Compile: C:\> javac Prog1.java ↵

Run : C:\> java Prog1 ↵

Output: Hello Java