



Java - Introduction

Presented by



Algorithm

- Step by step process to perform a task

Ex:

- Step 1: Start
- Step 2: Read 2 nos. Call them num1,num2
- Step 3: Add num1, num2. Call the result as
sum
- Step 4: Display sum
- Step 5: Stop



Process Instruction

- An instruction to the computer system in any language

Ex:

- Declaring a variable
- Arithmetic operation
- Assigning a value to a variable
- Displaying the result etc.



Program

```
HelloWorld.java X
1 package hello;
2
3 public class HelloWorld {
4
5     public static void main(String[] args) {
6         System.out.println("Hello World!");
7     }
8
9 }
```



Introduction to Java

- Technology to develop various applications :
 - Stand alone Apps
 - Web Apps
 - Enterprise Apps
 - Micro Apps [Java for Android]
- Java was originally designed for interactive micro devices
- But it was too advanced for the digital devices at the time
- Initiated by James Arthur Gosling and team



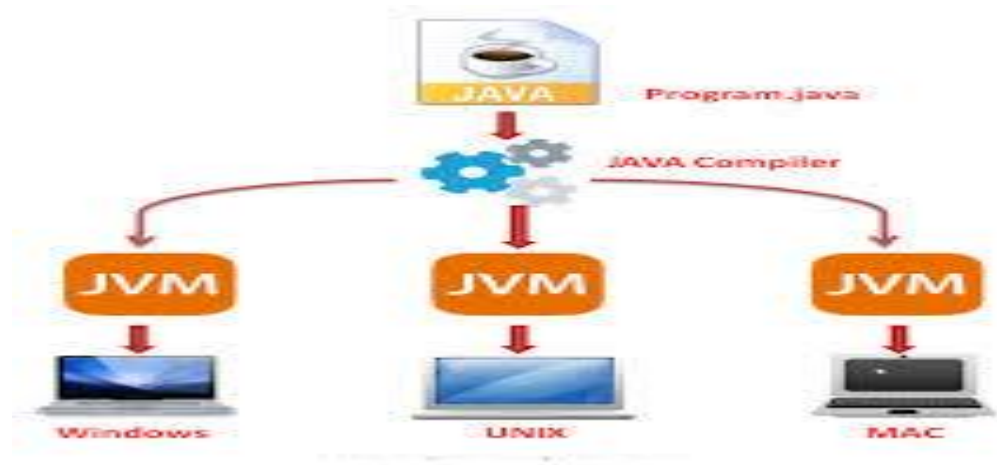
Features of Java

- **Simple:**
 - Automatic memory management
 - Flexible to create arrays of unlimited size
 - No Pointers
- **Object Oriented:** No coding outside the class
 - Organizing software as a combination of different types of objects that incorporates both data and behaviour.
- **Robust:**
 - Strong in type checking, memory management,
 - Lack of pointers provides security
 - Strong type checking and abnormal situation at run time



Features of Java

- Platform independent
 - Platform is OS platform
 - Java code can be run on multiple platforms e.g. Windows, Linux, Sun Solaris, Mac/OS etc.



Features of Java

- Secure



- Protects you from malevolent programs
- A Java program runs only inside JVM sandbox.
- The sandbox prohibits untrusted programs over networking
- The advantage is you don't need to figure out what code you can and can't trust, and you don't need to scan for viruses.



Features of Java

Good Performance: Up to 50% - 100% the speed of C++

Distributed: HTTP , FTP were developed in Java

Remote system's resources can be accessed through internet rather than writing code on the local systems.

Automatic Memory Management: Garbage collection - Removing unwanted resources automatically so that memory space is reclaimed



Features of Java

- Portable

