

Java & Selenium

Introduction

Java:-

Java is a programming language and computing platform first released by Sun Microsystems in 1995.

Java is an Object Oriented Programming Language.

It revolves around object so it known as object oriented language

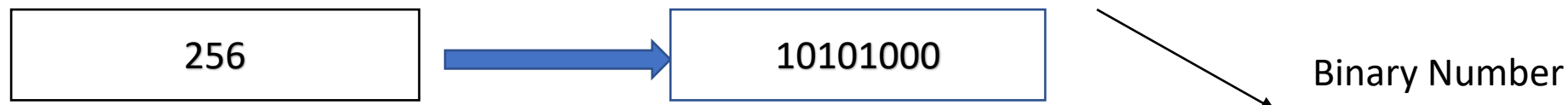
Java offers a very effective boon to its users by providing the feature of platform independence that is Write Once Run Anywhere(WORA) feature.

Java supports portability feature

Binary Number :-

The binary number system, also called the base-2 number system, is a **method of representing numbers that counts by using combinations of only two numerals: zero (0) and one (1)**. Computers use the binary number system to manipulate and store all of their data including numbers, words, videos, graphics, and music.

For ex :- For any values let suppose



High-level language

- It can be considered as a programmer-friendly language.
- It is easy to understand.
- It is easy to debug.
- It is simple in terms of maintenance.
- It requires a compiler/interpreter to be translated into machine code.
- It can be run on different platforms.
- It can be ported from one location to another.
- It is less memory efficient, i.e it consumes more memory in comparison to low-level languages.
- Examples of high level languages include C, C++, Java, Python.
- It is used widely in today's times.

Low-level language

- It is also known as machine level language.
- It can be understood easily by the machine.
- It is considered as a machine-friendly language.
- It is difficult to understand.
- It is difficult to debug.
- Its maintenance is also complex.
- It is not portable.
- It depends on the machine; hence it can't be run on different platforms.
- It requires an compiler and interpreter that would translate instructions.
- It is not used widely in today's times.

For example :- Machine Language(Binary)

Hi good morning

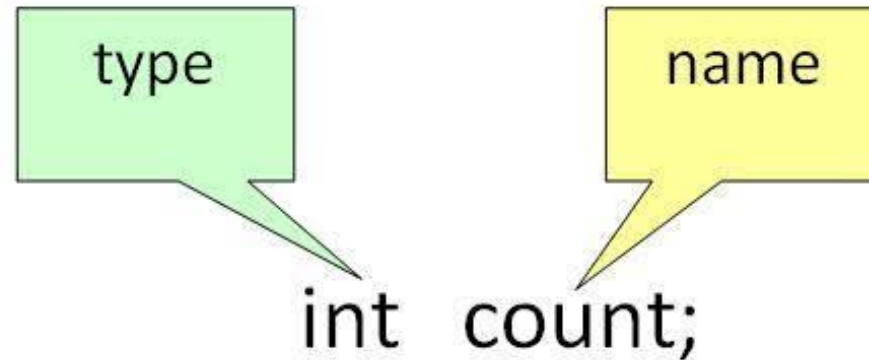
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Variables:-

A variable is a name given to a memory location. It is the basic unit of storage in a program.

- The value stored in a variable can be changed during program execution.
- A variable is only a name given to a memory location, all the operations done on the variable effects that memory location.
- In Java, all the variables must be declared before use.

•Declaration of Variable:-



For Example:- we have a boy names Rahul whose age is 15. Now to save such Data in any program we have to declare some variable:-

```
String name = "Hello"  
int age = 20
```



Java Virtual Memory
Count{ }

Selenium :-

Selenium is an open-source automation testing tool which is used for automating tests carried out on different web-browsers.

Selenium is basically used to automate the testing across various web browsers. It supports various browsers like Chrome, Mozilla, Firefox, Safari, and IE, and you can very easily [automate browser testing](#) across these browsers using Selenium WebDriver.

Advantages of Selenium:-

- Language and Framework Support like :- maven, Gradle, Ant etc
- Open Source Availability
- Multi-Browser Support
- Support Across Various Operating Systems
- Parallel Test Execution