core java

installing java

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jdk

https://www.oracle.com/in/java/technologies/downloads/#jdk22-windows

eclipse ok

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**JDK**: (Java Development Kit) : to develop and run java application the req environment is JDK. JDK provides an environment to develop and run java applications.

**JRE: (java Run time environment) :**  Just to run an application the required env is JRE.

**JVM(Java Virtual Machine)** : JVM is responsible to run our java code line by line.

So

JDK = JRE + Development Tools

JRE = JVM + library classes

* Java is a platform independent language.
* This is based on phenomenon write once and run anywhere.

**Data Types Variables in Java**

Variable is basically a reserved space or memory locations to store some sort of information.

Information can be of any type. It can be

Byte : 8bits ( non decimal value)

Short: 16 ( non decimal value)

Int: 32 ( non decimal value)

Long 64 ( non decimal value)

Float (it takes decimal value)

Double (it takes decimal value)

Boolean (True or False)

Char – single quotes // if string then in double quotes

Public static void main(string[] args)

Explanation <https://www.geeksforgeeks.org/java-main-method-public-static-void-main-string-args/>

* Note a single package have n no of class.
* Can create multiple packages

Class1111

class

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Access modifiers | Inside class inside package | outside class inside package | outside package with inheritance | Outside package without inheritance |
|  |  |  |  |  |
| Public | yes | yes | yes | yes |
| Protected | yes | yes | yes | no |
| Default | yes | yes | No | No |
| Private | yes | No | No | No |

Operators in java

Assignment operators: =

Arithmetic operators: -, +, \*,/, %, ++, --

Relational Operator: >,<,>=, <=