

Java

Source File \Rightarrow Compiler \Rightarrow Byte Code \Rightarrow JVM

Naming Convention

Variable	camelCase
Method	camelCase
Class	PascalCase
Interface	PascalCase
Constant	ALL CAPITAL

Data Types

- Primitive Data Types
 - Boolean
 - boolean : false , 1 byte
 - Character
 - char : '\u0000' , 2 byte
 - Integral
 - Integers
 - byte : 0 , 1 byte
 - short : 0 , 2 byte
 - int : 0 , 4 byte
 - long : 0L , 8 byte
 - Floating Point
 - float : 0.0f , 4 byte
 - double : 0.0d , 8 byte
- Non-Primitive
 - String
 - Array
 - Class

Data Type Notes:

- By default point values are double in java
- Implicit Conversion: When data conversion happens itself
- Type Casting / Explicit conversion: When we forcefully convert from one data type to other.
- String can be used with Switch() after Java: 1.7.

Operators:

1. Arithmetic Operators (+, -, *, /, %)
2. Bitwise Operator (&)
3. Relational Operator
4. Logical Operator

Class

- Defines structure for an object
- Defines working of an object
- It defines the behaviour of object

Object

- Instance of a class
- It knows something: the data that is provided by class
- It does something: the methods that allows to perform some action
- Whenever we create a reference, it does not consume memory. We locate the memory using new keyword.

Constructor

- A member method
- Same name as class
- does not return anything
- Every class has a default constructor, even when not defined by us.
- It is called automatically whenever an instance of an class is created.
- It is used to allocate memory for class members, and initialize the value.
- Memory is allocated in heap.

Access Modifiers

- Restricts the access of parts of code using some modifiers
- 4 Access Modifiers are there in java:
 - private : Most restricted, Accessible only in same class
 - default/when no access modifier is defined : same class, same package subclass, same package non-subclass
 - protected : all from default and if from outside package then class should be a subclass
 - public : accessible from every where
- Outer class can be only default or public
- Inner class can be any of the modifiers