

# Variables

- Variable is a container or a placeholder which is used to store a single value.
- Variable is a named memory location that is used to contain a value.
- We have two types of variables , they are:-

1) Based on Types Variables are of two types:-

- a) Primitive Variables
- b) Non -Primitive Variables

2) Based on Scope Variables are of three types:-

- a) Local variable
- b) Static variable
- c) Non static variable/instance variable

## 1) Based on Types :-

### a) Primitive Variables

- The variables which is used to store a primitive value is known as primitive variable, such as number, boolean, character.
- We can create primitive variable with the help of primitive data type.

Syntax to create primitive variable:-

PrimitiveDataType identifier1, identifier2.....;

Example:-

int a; ----->primitive variable of int type

boolean b; ----->primitive variable of boolean type

## b) Non-Primitive Variables

- The variable which is used to store a reference is known as Non primitive variable.
- It is also known as reference variable.

Syntax to create a non primitive variable:-

`NonPrimitiveDataType identifier1, identifier2,....;`

Example:-

`String str=new String();`

## 2) Based on Scope:-

### a) Local variable;-

- The variable declared inside a method block or any other block except class block is known as local variable.
- We can't use local variable without initialization if we try to use local variable without initialization then we will get **compile time error**.
- Local variable will not be initialized with default values.
- The scope of the local variable is nested inside the block where it is declared, hence, it can't be used outside the block.