OBJECT
AND
CLASS

OBJECT :

- Any substance which has existed in the real world is known as an object.
- Every object will have attributes and behaviors.

OBJECT IN JAVA :

- According to object-oriented programming,
  - -> object is a block of memory,
  - -> object is created in the heap area ,
  - -> objects are created during the runtime
  - -> objects represents a real-world entity.
- A real-world object consists of attributes and behavior.
- Attributes are represented with the help of non-static variables.
- Behaviors are represented with the help of non-static methods,

CLASS

- According to real-world situations before constructing an object blueprint of the object must be designed.
- It provides the specification of the real-world object.
- Similarly in object-oriented programming before creating an object, the blueprint of the object must be designed which provides the specification of the object.
- This is done with the help of class.

DEFINITION OF CLASS

- It is a user-defined non-primitive data type.

- It represents the blueprint of the real-world object.

- The class provides the specification of real-world objects.

- NOTE : We can create any number of objects for a class, it is known as an instance of a class.

STEPS TO CREATE AN OBJECT

STEP 1: Create a class or use an existing class if already created.

STEP 2: Instantiation

INSTANTIATION : The process of creating an object is known as instantiation.

Syntax to create an object

```
new className();
```

new

- new is a keyword.
- It is a unary operator.
- It is used to create a block of memory inside a heap area during runtime.
- Once the object is created it returns the reference of an object.

EXAMPLE

Step 1: Designing a class

```
class Mobile {
        String brand ;
       int ram;
       double price.
        }
```

Step 2: Instantiation

```
          new Employee();
```

NON PRIMITIVE DATA TYPE

- Every class name in java is a non-primitive data type.
- Non-primitive data types are used to create a non-primitive variable to store the reference of an object.

EXAMPLE

```
class Mobile {
String brand ;
int ram ;
double price;
   }
```

```
Class MobileDriver{
 public static void main(String[] args){
       Mobile m1 = new Mobile();
       System.out.println(m1); //ox123(The address of m1)
      }
 }
```