

class :

1. class represents blueprint of a real world object.
2. it is used to create a **user defined datatype**.
3. Every class name is a non-primitive datatype

Example :

1.

```
class Student {  
  
}
```

Student is a non-primitive datatype.

2. class Laptop {

}

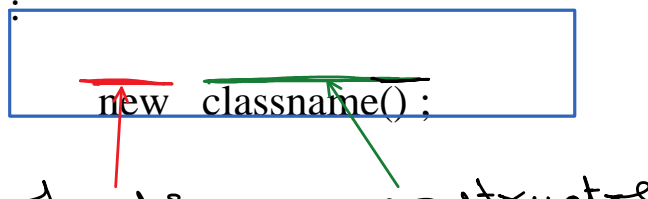
Laptop is a non-primitive datatype.

Object / instance of a class :

1. A block of memory created for a class during runtime is known as object or instance of a class.
2. Each object represents one real world object.
3. An object will be created in the **heap area**.
4. For one class we can create infinite number of Objects.

Steps to create an object for a class :

syntax :



```
new classname();
```

new classname()

new classname() ,

Operator (unary) constructor

new :

1. new is a unary operator, it is used to create an instance for a class(create an object for a class).
2. new operator returns the reference of the Object created.
3. Every time we use new a new Object is created for the said class.

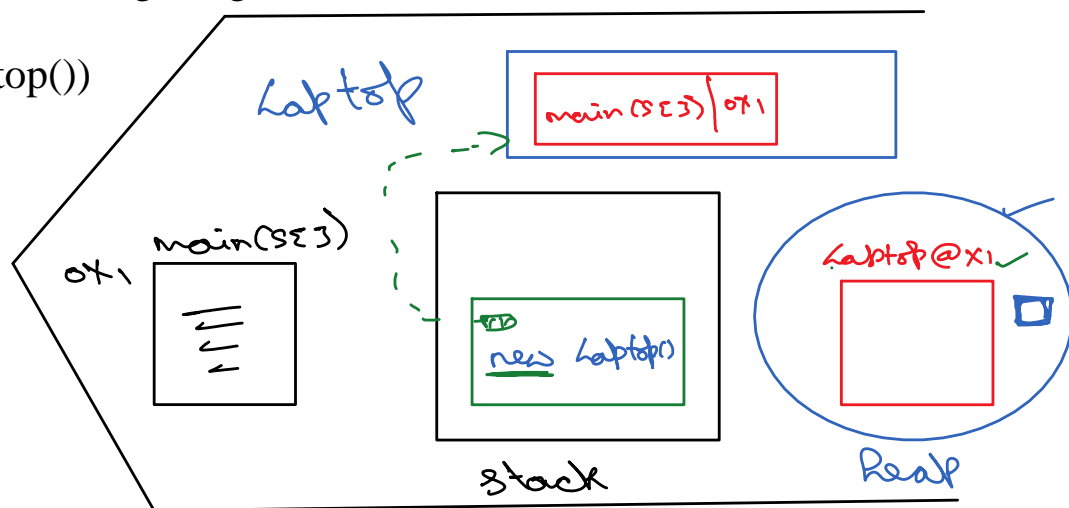
Note :

1. We can create an object for a class, within the same class or in any other class.

example :

```
class Laptop
{
    public static void main(String[] args )
    {
        S.o.pln( new Laptop())
    }
}
```

Java Laptop

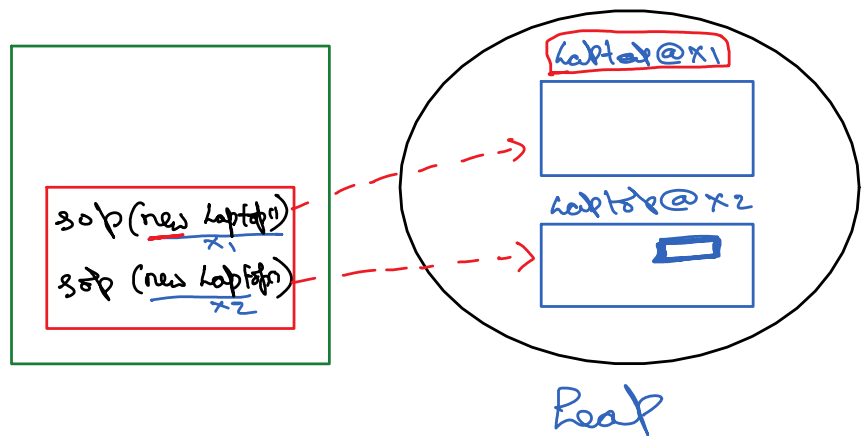


```
class Laptop
{
```

```

class Laptop
{
    public static void main(String[] args)
    {
        System.out.println( new Laptop() );
        System.out.println( new Laptop() );
    }
}

```



Can we store the reference of an Object created ?

Yes we can store the reference of the Object created with the help of variable.

1. We need to create a reference variable. (a variable used to store the address of the object)

Syntax to create a reference variable :

classname variable ;
Non-primitive data type *reference variable*
 Non-primitive variable

Therefore, we can create a reference variable for laptop class as follows :

Laptop a ; *→ Laptop type ref variable .*

Note :

1. null is the default value of reference variable. (non-primitive)

What can be stored inside a non-primitive (reference) variable ?

1. null
2. reference/ address of the object of same type.
refer app9/Driver1.java

Questions :

1. What is a class ?
2. What is an object ?
3. What is the syntax to create an object ?
4. Can we reuse the reference of the object ? justify with the program.
5. What is a class name ?
6. what is null ?
7. How many objects can be created for a class ?
8. What is new ?