CONSTRUCTOR:- It is used for creating instance of class.The constructor role is only initializing the object and new keywords role is creating an object.

Rules For Constructor:

- Constructor name should be same as class name.
- It should not contain return type.
- It should not contain modifiers.
- In its logic,return statement with value is not allowed.

Example:

```
public class MyJavaClass
{
  int a;
  boolean bool;
  public static void main(String[] args)
 {
   MyJavaClass myclass=new MyJavaClass();
   System.out.println(myclass.add(1,2));
 }
}
```

- Constructor can be classified into 2 types:
  Default constructor
  Parameterized constructor

Default constructor:- A constructor that is automatically generated by the compiler in the absence of any programmer defined constructors.It has no parameters.

Example:-

```
public class MyJavaClass
{
  int a;
  boolean bool;
public MyJavaClass()
{
System.out.println("default constructor");
}
```

```
  public static void main(String[] args)
 {
    MyJavaClass myclass=new MyJavaClass();
    System.out.println(myclass.add(1,2));
 }
}
```

Parameterized constructor:- A constructor that is created by the programmer with one or more parameters to initialize the instance variable of a class.

Example:

```
public class MyJavaClass
{
  int a;
  boolean bool;
public MyJavaClass()
{
System.out.println("default constructor");
}
Public MyJavaClass(int a,Boolean bool)
{
Super();
this.a=a;
this.bool=bool;
}
  public static void main(String[] args)
 {
    MyJavaClass myclass=new MyJavaClass();
    System.out.println(myclass.add(1,2));
 }
}
```

LOCAL VARIABLE:-The local variable are declared in methods,constructor or blocks.

- Access modifiers cannot be used for local variables.
- There is no default value for local variables,so local variables should be declared and an initial value should be assigned before the use.

INSTANCE VARIABLE:- The Instance variable are declared with in a class directly,but not outside a method,constructor or any block.

- Access modifiers can be given for instance variables.
- Instance variable have default values,for numbers the default value is 0,Boolean it is false and object references it is null values can be assigned during the declaration or with in the constructor.

STATIC /CLASS VARIABLE:- Static variable are declared with static keyword in a class.

- Static variable are stored in static memory .It is rare to use static variables other than declared final and are used as either public or private constants.

GARBAGE COLLECTOR:- This will be the responsible candidate for checking if the memory allocated for application is sufficient or not.

OBJECT COUNT:- It order to count the number the number of objects we need to add a count variable in the constructor and increments its value by 1for each invocation.