Code at Random (OPC) PVT. LTD.

Constructors in JAVA

Constructors

- It is the member-function used to create and initialize the object with legal set of values.
- It has same name as that of class
- They are automatically called at the time of object creation.
- They can have parameters, therefore they can be overloaded.
- It do not have a return type, not even void.
- Generally they are made public.
- Constructors are not inherited but can be accessed through child class constructor.
- **Different types of Values are**:-
- Legal Values:- Those values which are assigned by the user or by the programmer are called legal values.
- Dummy Values:- The values which are assigned by the Java Compiler are called dummy/garbage values.

Example of Constructor

```
public class MyClass {

   MyClass() {
        System.out.println("CodeAtRandom.com");
   }

   public static void main(String Args[ ])
    {
       MyClass obj = new MyClass();
        ….

    }
}
```

New Keyword creates the object of **MyClass**& invokes the constructor to initialize the created object.

Java Constructor Vs Java Methods

CONSTRUCTOR	METHODS
It is a block of code which instantiate a newly created object.	It is a collection of statements, always return a value.
They are invoked implicitly.	They are invoked explicitly.
It does not have any return type.	It may return a value.
It's name should be same as the class name.	It's name should not be same as the class name.

Types Of Constructors

- **Non-parameterized Constructor**:- A constructor which do not accepts any parameters are called non-parameterized constructor.

  Example:

```
class Rectangle {
    public Rectangle() {
        --------
    }
```

- **Parameterized Constructor**:- A constructor which accepts some values through parameters are called parameterized constructor.

  Example:

```
class Rectangle {
public Rectangle(int a, int b) {
  a=5;
  b=8;
 }
```

Default Constructor

- It is a non-parameterized constructor automatically provided by JAVA.
- It is used to create and initialize the object with dummy values.
- It is provided by Java until we does not creates a constructor; but when you creates a one, Java will not provide any constructor.

This Keyword

- It is used to point to the current object of the class.
- It is used to differentiate between local and global variable when they both have same name.
- It cannot be used in static methods.

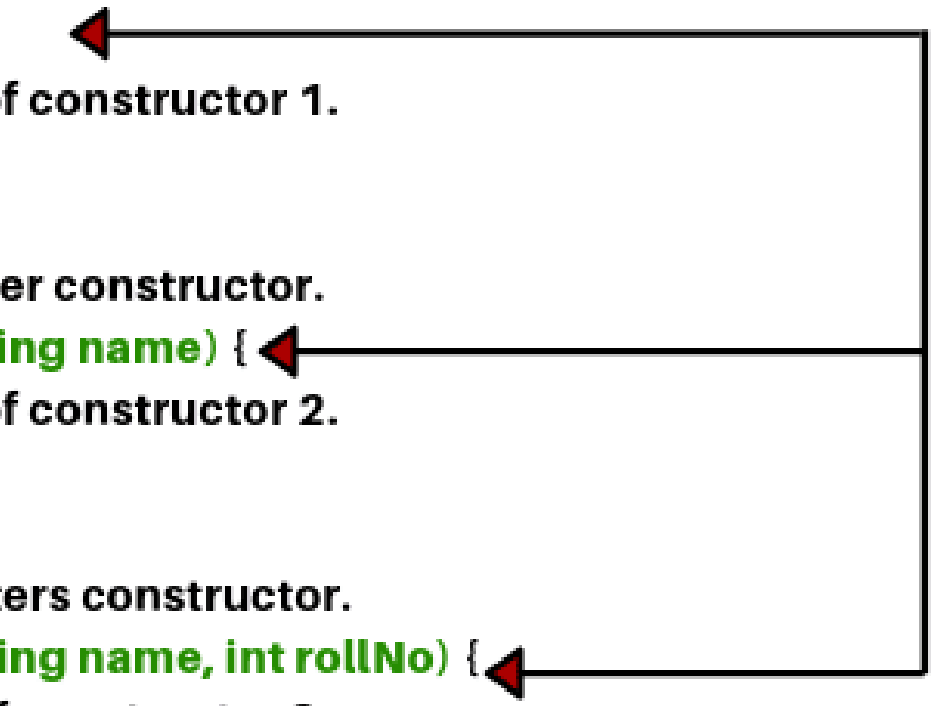
Example:
```
public Rectangle(int l, int b) {
  this.l =l;
  this.b =b;
}
```

```
public class School
{

// Zero parameter constructor.
    School() {
        // Body of constructor 1.
 }

// One parameter constructor.
    School(String name) {
        // Body of constructor 2.
 }

// Two parameters constructor.
    School(String name, int rollNo) {
        // Body of constructor 3.
  }
    .........
}
```



Three constructors overloaded having a different parameter list

Fig: Overloaded constructors based on parameter list.