

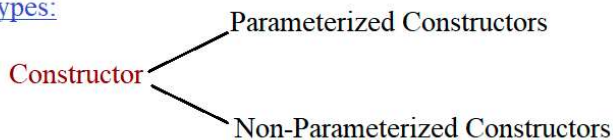
Understanding Java Constructor:

- 1) Constructor is used to initialize a Class Object
- 2) Constructor is used to provide values for the Instance Variables.

Rules:

- 1) Constructor name should be same as ClassName
- 2) Constructor should NOT be having any return type.

Types:



Q) How to call a Constructor (or) When a Constructor will be executed?

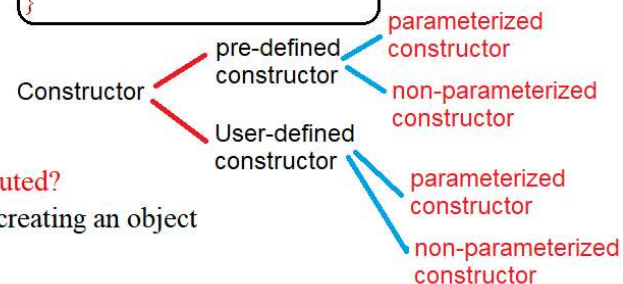
A) A Constructor will be called simultaneously whenever we are creating an object

Method Syntax

```
<AccessModifier><ReturnType>MethodName()  
{  
}  
}
```

Constructor Syntax

```
<AccessModifier>ClassName()  
{  
}  
}
```



Understanding Java Constructor

- “Constructor is a special type of method that is used to initialize the object”.
- Constructor is invoked at the time of object creation.
- It constructs the values i.e. provides data for the object that is why it is known as constructor.

Rules for creating constructor

- There are basically two rules defined for the constructor.
 - Constructor name must be same as its class name
 - Constructor must have **no return type**

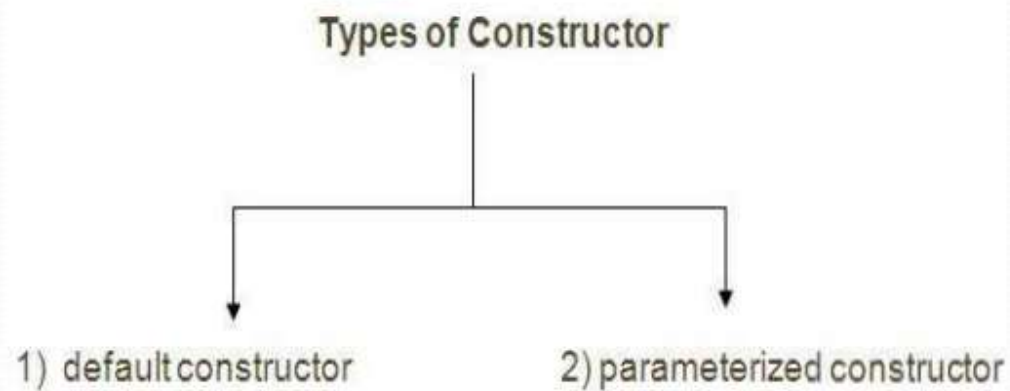
Types of Constructors:

Default Constructor:

- A constructor that have no parameter is known as default constructor.

Parameterized Constructor:

- A constructor that have parameters is known as parameterized constructor.



```

1 package com.pack1 ;
2
3 public class ClassA
4 {
5     void meth1()
6     {
7         System.out.println("meth1() called");
8     }
9     ClassA()
10    {
11        System.out.println("Non-parameterized Constr
12    }
13    ClassA(int x)
14    {
15        System.out.println("Parameterized Constructo
16    }
17    public static void main(String[] args)
18    {
19        ClassA aobj=new ClassA();
20        aobj.meth1();
21    }
22 }

```

Non-parameterized Constructor called
meth1() called I

```

1 package com.pack1 ;
2
3 public class ClassA
4 {
5     void meth1()
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7         System.out.println("meth1() called");
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16    }
17    public static void main(String[] args)
18    {
19        ClassA aobj=new ClassA();
20
21    }
22 }

```

Non-parameterized Constructor called

```
3 public class ClassA
4 {
5     void meth1()
6     {
7         System.out.println("meth1() called");
8     }
9     ClassA()
10    {
11        System.out.println("Non-parameterized Constructor called");
12        System.out.println("Hi");
13        new ClassA(100);
14    }
15    ClassA(int x)
16    {
17        System.out.println("Parameterized Constructor called");
18        System.out.println("x : "+x);
19        System.out.println("Hello");
20    }
21    public static void main(String[] args)
22    {
23        ClassA aobj=new ClassA();
24    }
25 }
```

Non-parameterized Constructor called
Hi
Parameterized Constructor called
x : 100
Hello

```
3 public class ClassA
4 {
5     void meth1()
6     {
7         System.out.println("meth1() called");
8     }
9     ClassA()
10    {
11        System.out.println("Non-parameterized Constructor called");
12        System.out.println("Hi");
13        new ClassA(100).meth1();
14    }
15    ClassA(int x)
16    {
17        System.out.println("Parameterized Constructor called");
18        System.out.println("x : "+x);
19        System.out.println("Hello");
20    }
21    public static void main(String[] args)
22    {
23        new ClassA().meth1();
24    }
25 }
```

Non-parameterized Constructor called
Hi
Parameterized Constructor called
x : 100
Hello
meth1() called
meth1() called


```

3 public class ClassA
4 {
5     public ClassA()
6     {
7         System.out.println("Sunday");
8         ClassA obj=new ClassA(10);
9         System.out.println("Tuesday");
10        String s=obj.display("Challenge Accepted");
11        System.out.println(s);
12    }
13    public ClassA(int temp)
14    {
15        System.out.println("Saturday");
16        ClassA aobj=new ClassA(10, 20);
17        int a=aobj.meth1()+temp;
18        System.out.println("==>"+(a+aobj.meth2()));
19        System.out.println("Monday");
20    }
21    String display(String s)
22    {
23        System.out.println("In the next statement I am returning String value");
24        return s;
25    }
26    int meth1()
27    {
28        return 100;
29    }
30    int meth2()
31    {
32        return 99;
33    }
34    public ClassA(int data, int temp)
35    {
36        System.out.println("Thursday");
37        System.out.println("====>"+(data+new ClassA("HI").meth2()-temp));
38    }
39    ClassA(String s)
40    {
41        System.out.println(s);
42    }
43    public static void main(String[] args)
44    {
45        ClassA obj = new ClassA();
46        System.out.println("Output verified");
47    }

```

```
1 package com.pack1 ;
2
3 public class ClassA
4 {
5     public ClassA()
6     {
7         System.out.println("Sunday");
8         ClassA obj=new ClassA(10);
9         System.out.println("Tuesday");
10        String s=obj.display("Challenge Accepted");
11        System.out.println(s);
12    }
13    public ClassA(int temp)
14    {
15        System.out.println("Saturday");
16        ClassA aobj=new ClassA(10, 20);
17        int a=aobj.meth1()+temp;
18        System.out.println("==>"+(a+aobj.meth2()));
19        System.out.println("Monday");
20    }
21    String display(String s)
22    {
23        System.out.println("In the next statement
```

```
^ Sunday
Saturday
Thursday
HI
==>89
==>209
Monday
Tuesday
In the next statement I am returning String value
Challenge Accepted
Output verified
```