* **Constructor in java** is a *special type of method* that is used to initialize the object.
* Java constructor is *invoked at the time of object creation*.
* It can be used to provides values for the object that is why it is known as constructor, in simple words it can be used to assign values to the instance variables.

### Rules for creating java constructor

There are basically two rules defined for the constructor.

1. Constructor name must be same as its class name
2. Constructor must have no explicit return type

### Types of java constructors

There are two types of constructors:

1. Default constructor (no-arg constructor):-
2. Parameterized constructor

**Default Constructor:-**

* A constructor that have no parameter is known as default constructor.
* Default constructor provides the default values to the object like 0, null etc. depending on the type.

**class** Student3{

**int** id;

String name;

**void** display(){System.out.println(id+" "+name);}

**public static void** main(String args[]){

Student3 s1=**new** Student3();

Student3 s2=**new** Student3();

s1.display();

s2.display();

}

}

**Parameterized constructors:-**

A constructor that have parameters is known as parameterized constructor.

Parameterized constructor is used to provide different values to the distinct objects.

**class** Student4{

**int** id;

String name;

Student4(**int** i,String n){

id = i;

name = n;

}

**void** display(){System.out.println(id+" "+name);}

**public static void** main(String args[]){

Student4 s1 = new Student4(111,"Karan");

Student4 s2 = new Student4(222,"Aryan");

s1.display();

s2.display();

}

}

|  |  |
| --- | --- |
| **Java Constructor** | **Java Method** |
| Constructor is used to initialize the state of an object. | Method is used to expose behaviour of an object. |
| Constructor must not have return type. | Method must have return type. |
| Constructor is invoked implicitly. | Method is invoked explicitly. |
| The java compiler provides a default constructor if you don't have any constructor. | Method is not provided by compiler in any case. |
| Constructor name must be same as the class name. | Method name may or may not be same as class name. |

**Note:-**

* If no constructor si there in a class, compiler itself creates default constructor, but its not visible.
* Constructors can be overloaded.
* You can perform any operation in the constructor as you perform in the method,like object creation, starting a thread, calling method etc.