

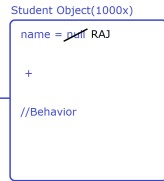
Constructor :

* It plays a major role during Object creation because whenever we create an object by using new keyword at-least one constructor must be invoked.

* It is used to construct the Object that why it is called Constructor.

What is the advantage of writing constructor in the class ?

```
public class Student
{
    private String name;
    pu Student() //Default Constructor added by compiler
    {
    }
    public void setName(String name)
    {
        this.name = name;
    }
}
class StudentDemo
{
    public static void main(String [] args)
    {
        Student raj = new Student();
        raj.setName("RAJ");
    }
}
```

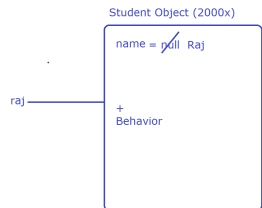


In the above program we have default constructor, Here variable initialization (name = null) is done at the time of Object creation by using new keyword, On the other hand variable re-initialization is done (name = RAJ) at the time of calling the setName(String name) method, SO THE FINAL CONCLUSION IS, VARIABLE INITIALIZATION AND VARIABLE RE-INITIALIZATION BOTH ARE DONE IN TWO DIFFERENT LINES I.E

- 1) At the time of Object creation [name = null]
- 2) At the time of calling the method [name = RAJ]

Now, If a user will write constructor then :

```
public class Student
{
    private String name;
    public Student() //Userdefined constructor
    {
        name = "RAJ";
    }
}
public class StudentDemo
{
    public static void main(String [] args)
    {
        Student raj = new Student();
    }
}
```



In this diagram, Variable Initialization and Variable re-initialization, both are done in the same line so by using user defined constructor we can achieve the same.

SO, THE FINAL CONCLUSION IS, TO INITIALIZE THE NON STATIC FIELD, METHOD IS **NOT A GOOD CHOICE, WE SHOULD ALWAYS PREFER CONSTRUCTOR ONLY.**

How many ways we can initialize the Object Properties :

- 1) By using reference variable (Object Reference)
- 2) By using method
- 3) By using parameter variable
- 4) At the time of variable declaration