

Basic Constructor Use

In Java, a constructor is a block of codes similar to the method. It is called when an instance of the class is created. At the time of calling constructor, memory for the object is allocated in the memory.

It is a special type of method which is used to initialize the object.

Every time an object is created using the new() keyword, at least one constructor is called.

It calls a default constructor if there is no constructor available in the class. In such case, Java compiler provides a default constructor by default.

Extra Reading Material:

<https://docs.oracle.com/javase/tutorial/java/javaOO/constructors.html>

Task:

Create a Student class and a Main class according to the following regulations:

1. The **Student class** will have **name, std_id, batch, department, age** as private variables. Set the values of these variables using **constructors**. Initialize the Student objects in the **Main class** which will have the main method.

Instead of using Constructors, you can also use **getter and setters** to ensure this. The code for that is given –

Student Class ->

```
public class Student{
    private String name;
    private String stdId;
    private int batch;
    private String department;
    private int age;
    //Get and Set Methods
    public void setName(String n){
        name = n;
    }
    public String getName(){
        return name;
    }
    public void setStdId(String std_id){
        stdId = std_id;
    }
    public void setDepartment(String
d){
        department = d;
    }
    public void setBatch(int b){
        batch = b;
    }
}
```

```
public void setAge(int a){
    age = a;
}
public void studentInfo(){
    System.out.println(name+" is
a student of "+department+"
department and his student
id is - "+stdId+".");
    System.out.println("He
joined the university in
"+batch+" and is currently
"+age+" years old.");
}
}
```

Main Class ->

```
import java.util.Scanner;

class Main {

    public static void main(String[] args) {

        Student s = new Student();

        Scanner sc = new Scanner(System.in);

        System.out.println("Input the student's name");

        s.setName(sc.nextLine());

        System.out.println("Input the student's ID");

        s.setStdId(sc.nextLine());

        System.out.println("Input the student's batch");

        s.setBatch(sc.nextInt());

        System.out.println("Input the student's department");

        s.setDepartment(sc.next());

        System.out.println("Input the student's age");

        s.setAge(sc.nextInt());

        System.out.println("Is "+s.getName()+" studying or
        playing? If he is studying, enter 0. Otherwise enter 1");

        int temp = sc.nextInt();

        s.studentInfo();

    }

}
```

The Student class did not have all the getter methods. Complete them!