Assignment Day4:

Question 1:

Create a Java Bean class Student with the following fields :

roll: Integer

name: String

age: Integer

marks: Integer

Make ensure that encapsulation is maintained.

Make validation checks before setting the age and marks of the Student (i.e. are they in the valid range,18<age<60, 0<marks<500).

Inside a Separate class main method, Create 2 objects of the Student class one by using the zero-argument constructor and the second by using the parameterized constructor.

Print the details of both the Student objects.

Question 2:

Create a Java class Demo with 4 parameterized constructors as follows:

1. Demo()
2. Demo(String s)
3. Demo(int i)

4. Demo(float f)

Put a statement in all the constructors which will denote it is the part of the respected constructor.

Create a Single java object of the Demo class in such a way that it will call all the 4 constructors.

Question 3:

Create a Student class with the following fields:

roll: Integer

name: String

address: String

collageName: String

Include appropriate getter methods

Create a static method inside this class as follows:

```
public static Student getStudent(boolean isFromNIT)
```

Assume most of the students are from “NIT” college. So the user has to call the above method by passing true or false input whether the student is from NIT or not.

1. If the student belongs to NIT, then create a student object with a 3-argument constructor to initialize the values for (roll, name, address) and set the collageName as “NIT” and return that Student object.
2. If the student belongs to another college, create the student object with a 4-argument constructor to initialize all the values and return that Student object.

Call the above method from the main method of the Demo class 2 times and print both the Student details.

Question 4:

Write a non-static method inside a java class that accepts a whole number and prints the same number if the input is Odd. If the input is even, it should print the next multiple of ten. If the input is negative, print the string: “Error”.
Input: 44, output: 50
Input: 45, output: 45
Input: -5, output: Error