Lab 04 – Constructors and Static Members

1. Write a program with class **Student** and illustrate the **default** and **parameterized** constructors.

    a. ID, name are instance variables

    b. Display the values inside the constructors only using System.out.println()

2. Write a program to illustrate the usage of static variables and methods.

3. Define a **Complex** class with a default constructor and parameterized constructor. Provide a display() method to display the results in the main class.

4. Repeat Q3 steps with **Time** Class object defined in Lab 03.

5. Define a **BankAccount** class. Include the following members:

    a. Instance Variables

        i. Name of the depositor

        ii. Account Number and Account Type

        iii. Balance amount in the account

        iv. Rate of Interest (Static)

    b. Provide a Default and Parameterized Constructor to this class

    c. Methods

        i. To withdraw & deposit amount

        ii. To display all details of an account holder

        iii. Display ROI (Static)

6. Create a class called **Counter** that contains a static data member to count the number of counter objects being created. Also define a static member function called showCount() which displays the number of objects created at any given point of time.

7. Define a class called **Customer** with the following instructions:

   a. Private customer ID, name, credit limit

   b. Default and Parameterized Constructors

   c. Display method to display customer details

   d. Main method to declare an array of 5 customers