

Object Oriented Programming (PCC-CS593)
2025

ROLL	
NAME	

ASSIGNMENT: II

Sl. No	Program Listing	Date
1	Create a class Room which will store the length, width and height of the room in three private variables, constructor to initialize the variables, mutator and accessor methods, method to calculate the surface area, method to calculate the volume of the room. Create another Driver class which will use the earlier class, create instances of rooms, set the values of the variables and would calculate the surface area and volume of the room object.	
2	Create a class Shape which have three calcArea methods (method overloading) to compute the area of a square, rectangle, and triangle. Create another Driver class to read user input and calculate the area. [N.B. Do not declare any instance variables or constructor]	
3	Create a class Student with the variables to represent the name of the student and marks of the five subjects store into an array, constructor to initialize the variables. Write method to compute total average marks, method to calculate letter grade, mutator and accessor methods, toString method to return object as a string. Create Driver class to demonstrate the functioning of the above.	
4	Create a class Account with the variables to represent the account holder's name, account number, account type (S for savings and C for Current), balance amount, use constructor to initialize the variables. Write method to deposit money, withdrawal of money, mutator and accessor methods, toString method to return object as a string. Use static variable to keep track the number of transactions. Create Driver class to demonstrate the functioning of the above.	
5	Create a class Date with the variables to represent the day, month and year, use constructor to initialize the variables (use default date 01/01/1800), mutator and accessor methods, method to return the difference between two Date in days, method to add or subtract n number of days, toString method to return object as a string, equals method to check two Date objects are equal or not. Also validate the date in constructor and mutator methods. [Hint: Use private helper methods].	
6	Create a class Fraction with the variables to represent the numerator and denominator, use constructor to initialize the variables, mutator and accessor methods, method getValue that returns the value of the fraction, toString and equals methods, write methods to perform addition, subtraction, division, multiplication of two Fraction objects by passing one object reference of Fraction class and return a new object reference of Fraction class.	