

Programming Paradigms Lab Assignment (CS453)

Assignment Sheet 6 : Java concepts

Time : Two weeks

Develop the below programs with Java basic concepts mentioned below wherever applicable.

- Basic Input and Output
- Class and Object
- Inheritance
- Polymorphism

Problems

1. Write a program to take Name and Roll-Number as input for N students and print those on console.
2. Write a program to design a Student class having Name, Age, Department and Year as data members. It also should contain member functions like ReadData(), PrintData().
3. Write a program to design classes for Student and Professor. Each of these Classes should contain information below. Make sure proper class hierarchy is designed following the principle of inheritance.

Student: Name, Age, Gender, Dept, Year

Professor: Name, Age, Gender, Dept, Course Load, Salary

Provide a mechanism to display the profile/detail of various kind of Object of these class.

Once problem 1, 2 and 4 are completed, then attempt problem 4.

4. A plot is broken into different geometric shapes like Triangle, Rectangle and Circle of different size of arbitrary number. Write a program that provides a mechanism to sum up total area covered by these shapes.