
Java Programming Laboratory

LAB - V

Date:- 13/02/2024

- A. Illustrate the usage of abstract class with following Java classes:
- An abstract class 'student' with two data members roll no, reg no, a method getinput() and an abstract method course()
 - A subclass 'kiitian' with course() method implementation

Write the driver class to print the all details of a kiitian object.

Input: Rollno - 2205180
Registration no - 1234567890

Output: Rollno - 2205180
Registration no - 1234567890
Course - B.Tech. (Computer Science & Engg)

- B. Write Define an interface Motor with a data member—"capacity" and two methods such as run() and consume(). Define a Java class 'Washing machine' which implements this interface and write the code to check the value of the interface data member through an object of the class.

Input: mentioned in the program

Output: Capacity of the motor is -----

- C. Define an interface with three methods – earnings(), deductions() and bonus() and define a Java class 'Manager' which uses this interface without implementing bonus() method. Also define another Java class 'Substaff' which extends from 'Manager' class and implements bonus() method. Write the complete program to find out earnings, deduction and bonus of a sbstaff with basic salary amount entered by the user as per the following guidelines –

earnings = basic + DA (80% of basic) + HRA (15% of basic)

deduction PF = 12% of basic

bonus = 50% of basic

Input: Basic salary - 50000

Output: Earnings - 97500

Deduction -6000

Bonus - 25000

- D. Define an interface Employee with a method getDetails() to get employee details as Empid and Ename. Also define a derived interface Manager with a method getDeptDetails() to get department details such as Deptid and Deptname. Then define a class Head which implements Manager interface and also prints all details of the employee. Write the complete program to display all details of one head of the department.

Input: Enter employee id - 123

Enter employee name - Sidharth Ambani

Enter department id - 06

Enter department name -Marketing

Output: Employee id - 123

Employee name - Sidharth Ambani

Department id - 06

Department name -Marketing