

PTES
Pune Cambridge Institute of Management & Computer Application, Pune
Department of MCA

Academic year: 2023-24

Subject: IT11L– Java Programming Lab

Session: I

Year: I Semester: -I

Lab Assignment 4

Date: 25/10/2023

Date of Submission: 02/11/2023

1. Write a program to implement method overriding.
2. Create a class monkey with jump () and bite () methods Create a class human which inherits this monkey class and implements basic animal interface with eat () and sleep methods
3. We have to calculate the percentage of marks obtained in three subjects (each out of 100) by student A and in four subjects (each out of 100) by student B. Create an abstract class 'Marks' with an abstract method 'getPercentage'. It is inherited by two other classes 'A' and 'B' each having a method with the same name which returns the percentage of the students. The constructor of student A takes the marks in three subjects as its parameters and the marks in four subjects as its parameters for student B. Create an object for each of the two classes and print the percentage of marks for both the students.
4. We have to calculate the area of a rectangle, a square and a circle. Create an abstract class 'Shape' with three abstract methods namely 'RectangleArea' taking two parameters, 'SquareArea' and 'CircleArea' taking one parameter each. The parameters of 'RectangleArea' are its length and breadth, that of 'SquareArea' is its side and that of 'CircleArea' is its radius. Now create another class 'Area' containing all the three methods 'RectangleArea', 'SquareArea' and 'CircleArea' for printing the area of rectangle, square and circle respectively. Create an object of class 'Area' and call all the three methods.
5. Write a program to implement interface “Half” to calculate half value of a number passed as an argument to function calculateHalf().