Session-1 Lab

1.Create an abstract class Shape with an abstract method calculateArea(). Implement two subclasses, Circle and Rectangle, which inherit from Shape and provide their own implementations of calculateArea(). Write a program to calculate and print the areas of a circle and a rectangle.

2. Write a Java program that demonstrates method overriding by creating a superclass called Animal and two subclasses called Dog and Cat.

● The Animal class should have a method called makeSound(), which simply prints "The animal makes a sound."

● The Dog and Cat classes should override this method to print "TheCat/The dog meows/barks" respectively.

● The program should allow the user to create and display objects of each class.

[Hint:Use multilevel inheritance]