**Name: VYSHNAV SURESH**

**Roll No:56**

**Batch:MCA-B**

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**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 15**

**Aim**

Create an interface having prototypes of functions area() and perimeter(). Create two

classes Circle and Rectangle which implements the above interface. Create a menu driven

program to find area and perimeter of objects.

**Procedure**

import java.io.\*;

import java.util.\*;

interface Shape {

final double pi = 3.14;

void Area(float l, float b);

void Perimeter(float l, float b);

}

class Circle implements Shape {

public void Area(float r, float x) {

double area = pi \* r \* r;

System.out.println("Area Of circle=" + area);

}

public void Perimeter(float r, float x) {

double Peri = 2 \* pi \* r;

System.out.println("Perimeter of the circle=" + Peri);

}

}

class Rectangle implements Shape {

public void Area(float l, float b) {

float area = l \* b;

System.out.println("Area Of Rectangle=" + area);

}

public void Perimeter(float l, float b) {

float Peri = 2 \* (l + b);

System.out.println("Perimeter of the Rectangle=" + Peri);

}

}

public class CO36 {

public static void main(String Args[]) {

int ch;

float r, l, b;

Circle C = new Circle();

Rectangle R = new Rectangle();

Scanner in = new Scanner(System.in);

Scanner s = new Scanner(System.in);

do {

System.out.println("\_\_\_\_\_\_\_\_Menu\_\_\_\_\_\_\_\_\_\_");

System.out.println("1.Area of Circle");

System.out.println("2. Perimeter of Circle");

System.out.println("3. Area of Rectangle");

System.out.println("4. Perimeter of Rectangle");

System.out.println("5.Exit");

System.out.println("enter the choice=");

ch = in.nextInt();

switch (ch) {

case 1:

System.out.println("Enter the radius");

l = s.nextInt();

C.Area(l, l);

break;

case 2:

System.out.println("Enter the radius");

l = s.nextInt();

C.Perimeter(5, 5);

break;

case 3:

System.out.println("Enter the length");

l = s.nextInt();

System.out.println("Enter the breadth");

b = s.nextInt();

R.Area(l, b);

break;

case 4:

System.out.println("Enter the length");

l = s.nextInt();

System.out.println("Enter the breadth");

b = s.nextInt();

R.Perimeter(l, b);

break;

case 5:

System.exit(0);

break;

}

} while (ch != 5);

}

}

**Output Screenshot**

