

**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.util.Scanner;

interface Circlerect{

void area();

void perimeter();

}

class Circle implements Circlerect{

int r;

double pi = 3.14, area,perimeter;

public void area(){

Scanner s = new Scanner(System.in);

System.out.println("Enter radius of circle:");

r = s.nextInt();

area = pi \* r \* r;

System.out.println("Area of circle:"+area);

}

public void perimeter(){

perimeter = 2 \* pi \* r;

System.out.println("Perimeter of circle:"+perimeter);

}

}

class Rectangle implements Circlerect{

int l,b,area,perimeter;

public void area(){

Scanner s = new Scanner(System.in);

System.out.println("Enter length of rectangle:");

l=s.nextInt();

System.out.println("Enter breadth of rectangle:");

b=s.nextInt();

area=l\*b;

System.out.println("Area of rectangle:"+area);

}

public void perimeter(){

perimeter=2 \* (l + b);

System.out.println("Perimeter of rectangle:"+perimeter);

}

}

public class Interfacecirclerect{

public static void main(String args []){

int n;

while(true){

Circlerect c=new Circle();

Circlerect r=new Rectangle();

System.out.println("\n\nchoose the operations you can do:");

System.out.println("1.circle\n\n 2.Rectangle\n\n3.exit");

System.out.println("Enter your operations:");

Scanner s = new Scanner(System.in);

n=s.nextInt();

switch(n)

{

case 1:System.out.println("circle");

c.area();

c.perimeter();

break;

case 2:System.out.println("Rectangle");

r.area();

r.perimeter();

break;

case 3:System.exit(0);

break;

}

}

}

}

output

