**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 10**

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**Batch:RMCA B**

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**Aim**

Area of different shapes using overloaded functions

**Procedure**

import java.util.Scanner;

interface prop

{

void getdata();

void area();

void perimeter();

}

class Circle implements prop

{

double pi = 3.14;

double r;

Scanner sc = new Scanner(System.in);

@Override

public void getdata()

{

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

r = sc.nextDouble();

}

@Override

public void perimeter()

{

System.out.println("Perimeter of the circle: "+(2\*pi\*r));

}

@Override

public void area()

{

System.out.println("Perimeter of the circle: "+(pi\*r\*r));

}

}

class Rectangle implements prop

{

double l,b;

Scanner sc = new Scanner(System.in);

@Override

public void getdata()

{

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

l = sc.nextDouble();

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

b = sc.nextDouble();

}

@Override

public void area()

{

System.out.println("Perimeter of a rectangle: "+(l\*b));

}

@Override

public void perimeter()

{

System.out.println("Perimeter of a rectangle: "+(2\*(l+b)));

}

}

public class Area

{

public static void main(String[] args)

{

int ch;

Scanner sc = new Scanner(System.in);

Circle ob = new Circle();

Rectangle obj = new Rectangle();

do

{

System.out.println("\n1.Circle\n2.Rectangle\n3.exit");

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

ch = sc.nextInt();

switch(ch)

{

case 1 :ob.getdata();

ob.area();

ob.perimeter();

break;

case 2 :obj.getdata();

obj.area();

obj.perimeter();

break;

case 3 :System.out.println("Exited...");

System.exit(0);

}

}while(true);

}

}

**Output Screenshot**

