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**Roll No:49**

**Batch:mca b**

**Date:6-04-2022**

**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 10**

**Aim**

To demonstrate the use of method overloading by finding the area of different shapes

**Procedure**

import java.util.Scanner;

class Shape

{

double l,b,h,r,w;

double area;

int flag;

Shape(double l,double b,double h,double w,double r)

{

this.l=l;

this.b=b;

this.h=h;

this.w=w;

this.r=r;

}

void find\_area(double l,double b)

{

area=(l\*b);

}

void find\_area(double r)

{

area= (3.14\*r\*r);

}

void find\_area(int flag,double w, double h)

{

if(flag==1)

area=(0.5\*w\*h);

else

area=0;

}

void display()

{

System.out.println("\n DETAILS OF CIRCLE\n");

System.out.println("\n RADIUS : "+r);

System.out.println("\n AREA   : "+area);

System.out.println("\n--------------------\n");

System.out.println("\n DETAILS OF RECTANGLE\n");

System.out.println("\n LENGTH : "+l);

System.out.println("\n BREADTH  : "+b);

System.out.println("\n AREA : "+area);

System.out.println("\n----------------------\n");

System.out.println("\n DETAILS OF TRIANGLE\n");

System.out.println("\n BREADTH : "+w);

System.out.println("\n HEIGHT   : "+h);

System.out.println("\n AREA : "+area);

}

}

public class OverloadingSample

{

public static void main(String arg[])

{

Scanner sc=new Scanner(System.in);

double l,b,r,w,h;

int flag=1;

System.out.println("\n Enter the length and breadth of rectangle: ");

l=sc.nextDouble();

b=sc.nextDouble();

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

r=sc.nextDouble();

System.out.println("\n Enter the height and breadth of the triangle: ");

h=sc.nextDouble();

w=sc.nextDouble();

Shape ob1=new Shape(l,b,h,w,r);

ob1.find\_area(r);

ob1.find\_area(l,b);

ob1.find\_area(flag,w,h);

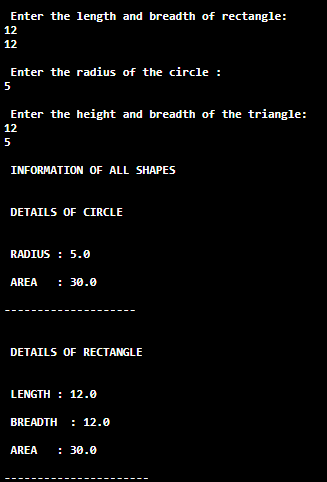
System.out.println("\n INFORMATION OF ALL SHAPES \n");

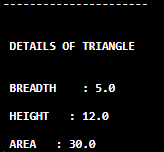
ob1.display();

}

}

**Output Screenshot**

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