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**Batch: R Mca-B**

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**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 10**

**Aim:**

Area of different shapes using overloaded functions

**Program:**

import java.util.Scanner;

class Shape

{

double l,bre,h,r,base;

double area1,area2,area3;

int flag=1;

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

{

this.l=l;

this.bre=bre;

this.h=h;

this.base=base;

this.r=r;

}

void find\_area(double l,double bre)

{

area1=(l\*bre);

}

void find\_area(double r)

{

area2= (3.14\*r\*r);

}

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

{

area3=(0.5\*base\*h);

}

void display()

{

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

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

System.out.println("\n AREA : "+area2);

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

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

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

System.out.println("\n AREA : "+area1);

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

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

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

System.out.println("\n AREA : "+area3);

}

}

public class Overloading

{

public static void main(String arg[])

{

Scanner sc=new Scanner(System.in);

double l,bre,r,base,h;

int flag=1;

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

l=sc.nextDouble();

bre=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();

base=sc.nextDouble();

Shape ob1=new Shape(l,bre,h,base,r);

ob1.find\_area(r);

ob1.find\_area(l,bre);

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

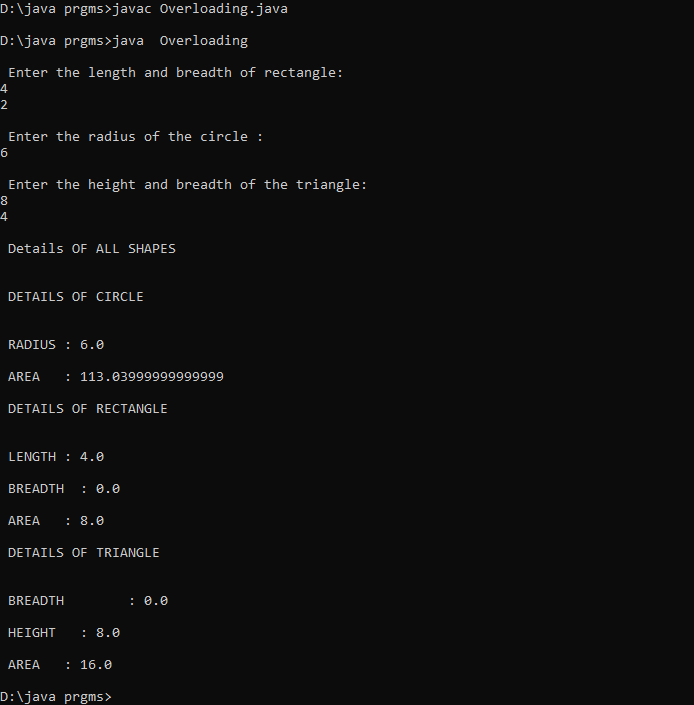
System.out.println("\n Details OF ALL SHAPES \n");

ob1.display();

}

}

**OUTPUT:**

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