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**Batch: R-MCA B**

**Date:31-05-2022**

**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 17**

**Aim**

Create a Graphics package that has classes and interfaces for figures Rectangle, Triangle, Square and Circle. Test the package by finding the area of these figures.

**Procedure**

import graphics.\*;

import java.util.\*;

public class CO41

{

public static void main(String args[])

{

Scanner sc = new Scanner(System.in);

System.out.println("enter the length of Rectangle");

double l=sc.nextDouble();

System.out.println("enter the breadth of Rectangle");

double b=sc.nextDouble();

Rectangle\_graphics rec= new Rectangle\_graphics();

System.out.println("Area of Rectangle is:" +rec.Rectangle(l,b));

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

System.out.println("enter the side1 of triangle");

double s1=sc.nextDouble();

System.out.println("enter the side2 to be triangle");

double s2=sc.nextDouble();

Triangle\_graphics tri= new Triangle\_graphics();

System.out.println("Area of triangle is:" +tri.Triangle(s1,s2));

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

System.out.println("enter the side of square");

double s=sc.nextDouble();

Square\_graphics sq= new Square\_graphics();

System.out.println("Area of square is:" +sq.Square(s));

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

System.out.println("enter the Radius of Circle");

double r=sc.nextDouble();

Circle\_graphics c= new Circle\_graphics();

System.out.println("Area of Circle is:" +c.Circle(r));

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

}

}

**Triangle**

package graphics;

interface triangle

{

public double Triangle(double s1,double s2);

}

public class Triangle\_graphics implements triangle

{

public double Triangle(double s1,double s2)

{

double side1=s1;

double side2=s2;

double area=(side1\*side2)\*0.5;

return area;

}

}

**Circle**

package graphics;

interface circle

{

final double pi=3.14;

public double Circle(double c);

}

public class Circle\_graphics implements circle

{

public double Circle(double r)

{

double radius=r;

double area=pi\*r\*r;

return area;

}

}

**Rectangle**

package graphics;

interface rectangle

{

public double Rectangle(double l,double b);

}

public class Rectangle\_graphics implements rectangle

{

public double Rectangle(double l,double b)

{

double length=l;

double breadth=b;

double area=l\*b;

return area;

}

}

**Square**

package graphics;

interface square

{

public double Square(double s);

}

public class Square\_graphics implements square

{

public double Square(double s)

{

double side = s;

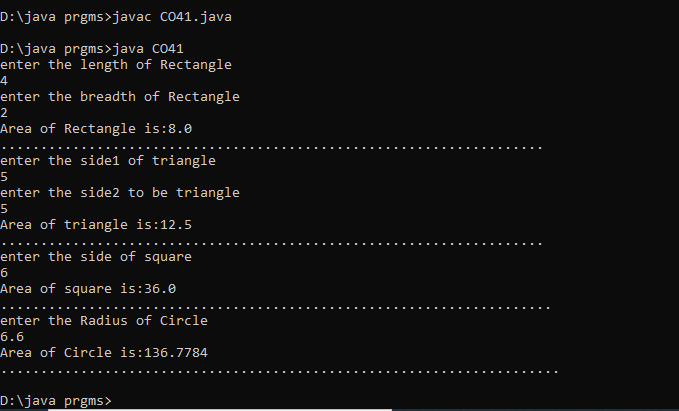
double area = side\*side;

return area;

}

}

**Output Screenshot**

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