OBJECT ORIENTED PROGRAMMING LAB

Experiment No.: 17

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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

Graphics.java

```
package graphics;
import java.util.Scanner;
interface fig{
   public double recArea();
   public double cirArea();
   public double squArea();
   public  double triArea();
}

public class Graphics implements fig {
Scanner s = new Scanner(System.in);
int r,l,b,a;
double pi = 3.14,area;
public  double recArea(){
System.out.println("Enter length of rectangle:");
```

```
 l=s.nextInt();
 System.out.println("Enter breadth of rectangle:");
 b=s.nextInt();
 area=l*b;
   return area;
        }
   public double cirArea(){
   System.out.println("Enter radius of circle:");
    r = s.nextInt();
    area = pi * r * r;
    return area;
    }
   public double squArea(){
   System.out.println("Enter the side of the square:");
    a = s.nextInt();
    area = a * a;
    return area;
   }
   public double triArea(){
   System.out.println("Enter the width of the Triangle:");
   double base = s.nextDouble();
   System.out.println("Enter the height of the Triangle:");
   double height = s.nextDouble();
   double area = (base* height)/2;
   return area;
        }
}
```

AreaGraphics.java

```
import graphics.*;
public class AreaGraphics {
public static void main(String []args){
```

```
Graphics Ob = new Graphics();
System.out.println(Ob.recArea());
        System.out.println(Ob.cirArea());
        System.out.println(Ob.squArea());
        System.out.println(Ob.triArea());
    }
```

Output Screenshot

```
C:\Users\Student\Documents>javac AreaGraphics.java

C:\Users\Student\Documents>java AreaGraphics
Enter length of rectangle:
4
Enter breadth of rectangle:
5
20.0
Enter radius of circle:
2
12.56
Enter the side of the square:
5
25.0
Enter the width of the Triangle:
2
Enter the height of the Triangle:
5
5.0

C:\Users\Student\Documents>
```