

Faculty of Engineering & Technology Subject Name: Java Workshop

Subject Code: 203105259

B.Tech.: <u>IT</u> Year: <u>2021-22</u> Semester: 4

Practical 2:

<u>AIM:</u> Describe abstract class called Shape which has three subclasses say Triangle, Rectangle and Circle. Define one method area() in the abstract class and override this area() in these three subclasses to calculate area for specific class object.

Code:

```
import java.util.*;
abstract class Shape1
  double dim1,dim2,radius;
  abstract double area();
class Triangle1 extends Shape1
    Triangle1(double d1, double d2)
       dim1=d1;
       dim2=d2;
    double area()
       System.out.println("Area of Triangle is ");
       return (dim1*dim2)/2;
class Rectangle1 extends Shape1
  Rectangle1(double d1, double d2)
    dim1=d1;
    dim2=d2;
  double area()
    System.out.println("Area of Rectangle is ");
    return dim1*dim2;
class Circle1 extends Shape1
```

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```
Circle1(double d1)
    radius=d1;
  double area()
    System.out.println("Area of Circle is ");
    return 3.14*radius*radius;
  }
class AbstractClassShape
  public static void main(String arg[])
    double a1,b1,a2,b2,r1;
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter Rectangle side");
    a1=sc.nextDouble();
    b1=sc.nextDouble();
    System.out.println("Enter Radius");
    r1=sc.nextDouble();
    System.out.println("Enter Triangle base and height");
    a2=sc.nextDouble();
    b2=sc.nextDouble();
    Triangle1 t=new Triangle1(a1,b1);
    Rectangle1 r=new Rectangle1(a2,b2);
    Circle1 c=new Circle1(r1);
    System.out.println(t.area());
    System.out.println(r.area());
    System.out.println(c.area());
}
```

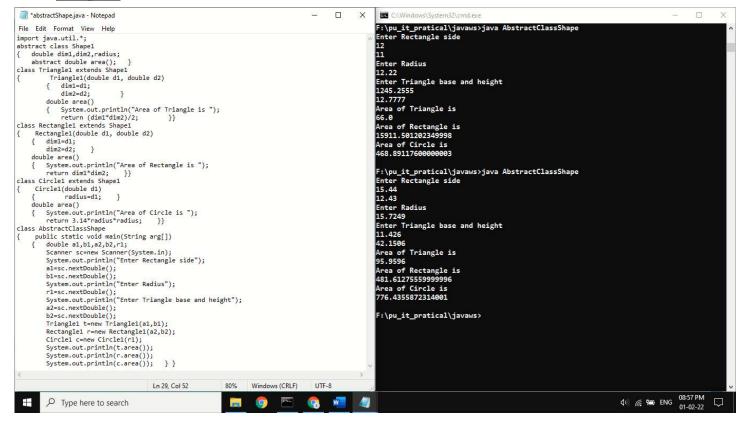


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Output:



Enrollment No : 200303108003 Page | 21