

Lab-4

Develop a java program to create an abstract class named shape that contains two integers and an empty method named printArea(). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class shape. Each of the class contains only the method printArea() that prints the area of the given shape.

```
import java.util.*;
```

```
abstract class shape  
{
```

```
    int dim1 = 1, dim2 = 2;  
    abstract void printArea();  
}
```

```
class Rectangle extends shape  
{
```

```
    void printArea()  
    {
```

```
        double area = dim1 * dim2;  
        System.out.println("Rectangle's area is : "  
                             + area);  
    }
```

```
class Triangle extends shape  
{
```

```
    void printArea()  
    {
```

```
        double area = dim1 * dim2 * 0.5;  
        System.out.println("Triangle's area is : "  
                             + area);  
    }
```



```
class Circle extends Shape
```

```
{
```

```
    void printarea()
```

```
    {
```

```
        double area = 3.1415 * dim1 * dim1;
```

```
        System.out.println("Circle's area is : " +
```

```
area);
```

```
    }
```

```
}
```

```
class Series
```

```
{
```

```
    public static void main (String args[])
```

```
    {
```

```
        Rectangle r = new Rectangle();
```

```
        r.printarea();
```

```
        Triangle t = new Triangle();
```

```
        t.printarea();
```

```
        Circle c = new Circle();
```

```
        c.printarea();
```

```
    }
```

```
}
```