

LAB PROGRAM 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 one of the classes contain only the method printArea() that prints the area of the given shape.

```
1. abstract class shape
{
    int a=3, b=4;
    abstract public void print-area();
}

class Rectangle extends shape
{
    public int area-rect;
    public void print-area()
    {
```

```
    area-rect = a*b;  
    SOP (" the area of rectangle is: " + area-rect);  
}
```

```
}  
class triangle extends shape  
{
```

```
    int area-tri;  
    public void print-area()  
    {
```

```
        area-tri = (int) (0.5*a*b);  
        SOP (" the area of triangle is: " + area-tri);  
    }
```

```
class circle extends shape.  
{
```

```
    int area-circle;  
    public print void print-area()  
    {  
        area-circle = (int) (3.14*a*a);
```

```
SOP("The area of circle is:" + area-circle);  
    }  
}
```

```
public class JavaApp.  
{
```

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

```
        rectangle r = new rectangle();
```

```
        r.print-area();
```

```
        triangle t = new triangle();
```

```
        t.print-area();
```

```
        circle c = new circle();
```

```
        c.print-area();
```

The area of rectangle is:12

The area of triangle is:6

The area of circle is:28