

## Lab-4

```
import java.util.Scanner;
```

```
class Input Scanner
```

```
{
```

```
    protected Scanner scanner;
```

```
    public Input Scanner()
```

```
    {
```

```
        scanner = new Scanner(System.in);
```

```
    }
```

```
}
```

```
abstract class shape extends Input Scanner
```

```
{
```

```
    double a, b;
```

```
    public shape()
```

```
    {
```

```
        super();
```

```
        System.out.println("the area of a: ");
```

```
        a = scanner.nextDouble();
```

```
        System.out.println("the area of b: ");
```

```
        b = scanner.nextDouble();
```

```
    }
```

```
}
```

```
class rectangle extends shape
```

```
{
```

```
    public rectangle()
```

```
    void area()
```

```
    {
```

```
        double area = a * b;
```

```
        System.out.println("the area of rectangle is: " + area);
```

```
    }
```

```
}
```

```
class triangle extends shape
```

```
{
```

```
public Rectangle
```

```
void area()
```

```
{
```

```
double area = 0.5 * a * b;
```

```
System.out.println("the area of triangle is: " + area);
```

```
}
```

```
}
```

```
class circle extends shape
```

```
{
```

```
void area()
```

```
{
```

```
double area = 3.14 * a * a;
```

```
System.out.println("the area of rectangle is: " + area);
```

```
}
```

```
}
```

```
public class mainArea
```

```
{
```

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

```
{
```

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

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

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

```
r.area();
```

```
t.area();
```

```
c.area();
```

```
}
```

```
}
```

acut r

the area of a:

2

the area of b:

3

the area of a:

4

the area of b:

5

the area of a:

6

the area of b:

7

the area of rectangle is: 6.0

the area of triangle is: 10.0

the area of circle is: 113.039

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2/1/24