

Lab - 04

```
import java.util.Scanner;  
class InputScanner {  
    Scanner s = new Scanner (System.in);  
    double getInput (String prompt)  
    {  
        System.out.println (prompt);  
        return s.nextDouble ();  
    }  
}
```

```
abstract class Shape extends InputScanner {  
    double data side1, side2;  
    abstract void area ();  
    class Rectangle extends Shape {  
        Rectangle () {  
            side1 = getInput ("Enter length of  
                             rectangle: ");  
            side2 = getInput ("Enter breadth of  
                             rectangle: ");  
            void area () {  
                double area = side1 * side2;  
                System.out.println ("Area of the  
                                rectangle = " + area);  
            }  
        }  
    }  
}
```

```
class Triangle extends Shape {  
    Triangle () {
```

```
        side1 = getInput ("Enter the  
                           base of triangle: ");
```

```
        side2 = getInput ("Enter the  
                           height of the triangle: ");
```

```
        void area () {
```

```
            double area = side1 * side2 / 2
```



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```
System.out.println ("Area of triangle: "
+ area);
}
```

```

}
class circle extends shape {
    circle() {
        side1 = getInput("Enter the
        radius of circle: ");
        void area() {
            double area = Math.PI *
            side1 * side1;
            System.out.println ("The area
            of circle = " + area);
        }
    }
}
```

```

class Main {
    public static void main (String args[]) {
        Rectangle rectangle = new Rectangle();
        Triangle triangle = new Triangle();
        Circle circle = new Circle();
        r.area();
        t.area();
        c.area();
    }
}
```

Output:

Enter  
Length of the triangle:

Enter 3

Breadth of the triangle:

4

~~Area of rectangle:~~

~~12~~



enter

Base of triangle: 3

Enter height of triangle: 4

~~Area of triangle~~

Enter radius of circle: 4

Area of ~~circle~~ Rectangle: 19.0

Area of triangle: 6.0

Area of circle: 50.26548245

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