

LAB PROGRAM – 4

INPUT :

```
C:\Users\91944\OneDrive\Desktop\OO\LAB\Lab_8\Shapemain.java - Sublime Text (UNREGISTERED)
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cse.html x csblog1.html x dept.css x blog.css x Shapemain.java x

1 import java.util.Scanner;
2
3 abstract class Shape
4 {
5     int a;
6     int b;
7     abstract void printArea();
8 }
9
10 class Rectangle extends Shape
11 {
12     void printArea()
13     {
14         Scanner ss = new Scanner(System.in);
15         System.out.println("-----RECTANGLE DETAILS-----");
16         System.out.println("Enter the Length :");
17         a = ss.nextInt();
18         System.out.println("Enter the Breadth :");
19         b = ss.nextInt();
20         System.out.println("\n<----->\n");
21         System.out.println("AREA OF RECTANGLE : "+(double)(a*b)+" sq. units");
22         System.out.println("\n<----->\n");
23     }
24 }
25
26 class Triangle extends Shape
27 {
28     void printArea()
29     {
30         Scanner ss = new Scanner(System.in);
31         System.out.println("-----TRIANGLE DETAILS-----");
32         System.out.println("Enter the Breadth :");
33         a = ss.nextInt();
34         System.out.println("Enter the Height :");
35         b = ss.nextInt();
36         System.out.println("\n<----->\n");
37         System.out.println("AREA OF TRIANGLE : "+(double)(0.5*a*b)+" sq. units");
38         System.out.println("\n<----->\n");
39     }
40 }
41
42 class Circle extends Shape
43 {
44     void printArea()
45     {
46         Scanner ss = new Scanner(System.in);
47         System.out.println("-----CIRCLE DETAILS-----");
48         System.out.println("Enter the Radius :");
49         a = ss.nextInt();
50         System.out.println("\n<----->\n");
51         System.out.printf("AREA OF CIRCLE : %.3f sq. units\n",(double)(3.1415*a*a));
52         System.out.println("\n<----->\n");
53     }
54 }
55
56 class Shapemain
57 {
58     public static void main(String[] args)
59     {
60         Rectangle r = new Rectangle();
61         r.printArea();
62         Triangle t = new Triangle();
63         t.printArea();
64         Circle c = new Circle();
65         c.printArea();
66     }
67 }
```

OUTPUT :

```
C:\Users\91944\OneDrive\Desktop\OOJLAB\Lab_8>java Shapemain
-----RECTANGLE DETAILS-----
Enter the Length :
4
Enter the Breadth :
5
<----->
AREA OF RECTANGLE : 20.0 sq. units
<----->
-----TRIANGLE DETAILS-----
Enter the Breadth :
4
Enter the Height :
5
<----->
AREA OF TRIANGLE : 10.0 sq. units
<----->
-----CIRCLE DETAILS-----
Enter the Radius :
5
<----->
AREA OF CIRCLE : 78.538 sq. units
<----->

C:\Users\91944\OneDrive\Desktop\OOJLAB\Lab_8>
```