LAB PROGRAM – 4

INPUT :

File   Edit   Selection   Find   View   Goto   Tools   Project   Preferences   Help

cse.html   csblog1.html   dept.css   blog.css   Shapemain.java

```java
import java.util.Scanner;

abstract class Shape
{
    int a;
    int b;
    abstract void printArea();
}
class Rectangle extends Shape
{
    void printArea()
    {
        Scanner ss = new Scanner(System.in);
        System.out.println("-----RECTANGLE DETAILS-----");
        System.out.println("Enter the Length :");
        a = ss.nextInt();
        System.out.println("Enter the Breadth :");
        b = ss.nextInt();
        System.out.println("\n<------------------------------>\n");
        System.out.println("AREA OF RECTANGLE : "+(double)(a*b)+" sq. units");
        System.out.println("\n<------------------------------>\n");
    }
}

class Triangle extends Shape
{
    void printArea()
    {
        Scanner ss = new Scanner(System.in);
        System.out.println("-----TRIANGLE DETAILS-----");
        System.out.println("Enter the Breadth :");
        a = ss.nextInt();
        System.out.println("Enter the Height :");
        b = ss.nextInt();
        System.out.println("\n<------------------------------>\n");
        System.out.println("AREA OF TRIANGLE : "+(double)(0.5*a*b)+" sq. units");
        System.out.println("\n<------------------------------>\n");
    }
}
class Circle extends Shape
{
    void printArea()
    {
        Scanner ss = new Scanner(System.in);
        System.out.println("-----CIRCLE DETAILS-----");
        System.out.println("Enter the Radius :");
        a = ss.nextInt();
        System.out.println("\n<------------------------------>\n");
        System.out.printf("AREA OF CIRCLE : %.3f sq. units\n",(double)(3.1415*a*a));
        System.out.println("\n<------------------------------>\n");
    }
}

class Shapemain
{
    public static void main(String[] args)
    {
        Rectangle r = new Rectangle();
        r.printArea();
        Triangle t = new Triangle();
        t.printArea();
        Circle c = new Circle();
        c.printArea();
    }
}
```

OUTPUT :

```
Command Prompt                                                    —   □   ✕

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>
```