Lab Program 4

```java
import java.util.*;

class InputScanner {
    Scanner sc;
    InputScanner() {
        sc = new Scanner(System.in);
    }
}

abstract class Shape extends InputScanner {
    double a;
    double b;
    abstract void getInput();
    abstract void displayArea();
}

class Rectangle extends Shape {
    void getInput() {
        System.out.println("Enter the length
                            and breadth!");
        a = sc.nextDouble();
        b = sc.nextDouble();
    }
    void displayArea() {
        System.out.println("Area of
                rectangle is : " + (a * b));
    }
}

class Triangle extends Shape {
    void getInput() {
        System.out.println("Enter the length
                            and height");
```

```java
        a = sc.nextDouble();
        b = sc.nextDouble();
    }
    void displayArea(){
        System.out.println("Area of
                    rectangle is :"+(a*b*0.5));
    }
}

class Circle extends Shape {
    void getInput(){
        System.out.println("Enter the
                        radius:");
        a = sc.nextDouble();
    }
    void displayArea(){
        System.out.println("Area of
                    rectangle is :"+(a*a*3.14));
    }
}

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

Output
Enter the length and breadth:
80
40

Area of rectangle is : 3200.0
Enter the length and height:
40

20
Area of rectangle is : 400.0
Enter the radius:

15
Area of rectangle is : 706.5.

Sakshi. B.R
1BM22CS233