

Practical 4

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

```
abstract class Shape {  
    double dimension1, dimension2;  
  
    void inputData() {  
        Scanner sc = new Scanner(System.in);  
        System.out.print("Enter first dimension: ");  
        dimension1 = sc.nextDouble();  
        System.out.print("Enter second dimension: ");  
        dimension2 = sc.nextDouble();  
    }  
  
    abstract void computeArea();  
}
```

```
class Triangle extends Shape {  
  
    void computeArea() {  
        double area = 0.5 * dimension1 * dimension2;  
        System.out.println("Area of Triangle: " + area);  
    }  
}
```

```
class Rectangle extends Shape {  
  
    void computeArea() {  
        double area = dimension1 * dimension2;  
        System.out.println("Area of Rectangle: " + area);  
    }  
}
```

```
}
```

```
public class ShapeDemo {  
    public static void main(String[] args) {  
        Scanner sc = new Scanner(System.in);  
        System.out.print("Enter 1 for Triangle or 2 for Rectangle: ");  
        int choice = sc.nextInt();  
  
        if (choice == 1) {  
            Triangle triangle = new Triangle();  
            triangle.inputData();  
            triangle.computeArea();  
        } else if (choice == 2) {  
            Rectangle rectangle = new Rectangle();  
            rectangle.inputData();  
            rectangle.computeArea();  
        } else {  
            System.out.println("Invalid choice");  
        }  
    }  
}
```