Exercise 02:

```java
// Shape interface
interface Shape {
    double calculateArea();
    double calculatePerimeter();
}

// Circle class
class Circle implements Shape {
    private double ra;
    public Circle(double ra) {
        this.ra = ra;
    }
    // Getter and setter for radius
    public double getRadius() {
        return ra;
    }
    public void setRadius(double ra) {
        this.ra = ra;
    }
    public double calculateArea() {
        return Math.PI * ra * ra;
    }

    public double calculatePerimeter() {
        return 2 * Math.PI * ra;
    }}
```

```java
// Rectangle class
class Rectangle implements Shape {

    private double length;

    private double width;

    public Rectangle(double length, double width) {

        this.length = length;

        this.width = width;

    }


    // Getter and Setter for length
    public double getLength() {

        return length;

    }
    public void setLength(double length) {

        this.length = length;

    }


    // Getter and Setter for width
    public double getWidth() {

        return width;

    }
    public void setWidth(double width) {

        this.width = width;

    }
    public double calculateArea() {

        return length * width;}
    public double calculatePerimeter() {

        return 2 * (length + width);

    }}
```

```java
// Triangle class


class Triangle implements Shape {
    private double side1;
    private double side2;
    private double side3;

    public Triangle(double side1, double side2, double side3) {
        this.side1 = side1;
        this.side2 = side2;
        this.side3 = side3;
    }

    // Getter and Setter for side1
    public double getSide1() {
        return side1;
    }
    public void setSide1(double side1) {
        this.side1 = side1;
    }

    // Getter and Setter for side2
    public double getSide2() {
        return side2;
    }
    public void setSide2(double side2) {
        this.side2 = side2;
    }
```

```java
    // Getter and Setter for side3

    public double getSide3() {

        return side3;

    }

    public void setSide3(double side3) {

        this.side3 = side3;

    }


    public double calculateArea() {

        double semiPerimeter = (side1 + side2 + side3) / 2;

            return Math.sqrt(semiPerimeter * (semiPerimeter - side1) * (semiPerimeter - side2) *
            (semiPerimeter - side3));

    }

    public double calculatePerimeter() {

        return side1 + side2 + side3;

    }

}
```

```java
public class Main {

    public static void main(String[] args) {

        Circle circle = new Circle(3.0);

        System.out.println("Circle Area: " + circle.calculateArea());

        System.out.println("Circle Perimeter: " + circle.calculatePerimeter());


        Rectangle rectangle = new Rectangle(2.0, 5.0);

        System.out.println("Rectangle Area: " + rectangle.calculateArea());

        System.out.println("Rectangle Perimeter: " + rectangle.calculatePerimeter());


        Triangle triangle1 = new Triangle(2.0, 5.0, 6.0);

        System.out.println("Triangle 1 Area: " + triangle1.calculateArea());

        System.out.println("Triangle 1 Perimeter: " + triangle1.calculatePerimeter());


        /*  Triangle triangle = new Triangle(2.0); // same side side = 2

        System.out.println("Triangle Area: " + triangle.calculateArea());

        System.out.println("Triangle Perimeter: " + triangle.calculatePerimeter());*/
    }
}
```