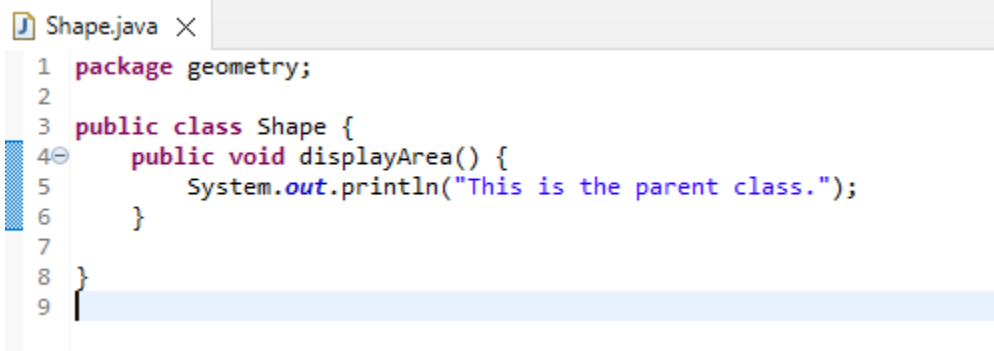


## Screen short

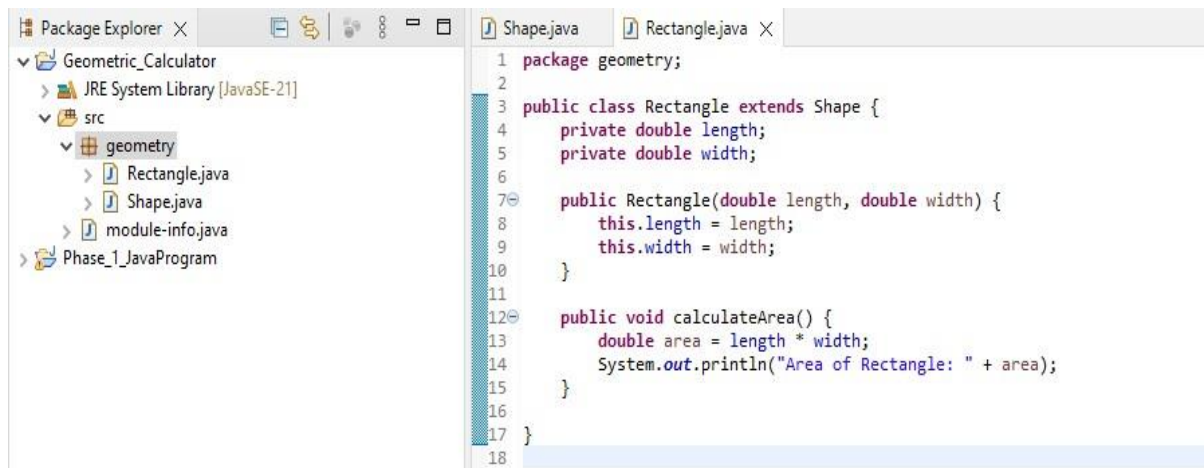
**Shape.java:** It is Parent class.



The screenshot shows the Shape.java file in an IDE. The code is as follows:

```
1 package geometry;
2
3 public class Shape {
4     public void displayArea() {
5         System.out.println("This is the parent class.");
6     }
7
8 }
9
```

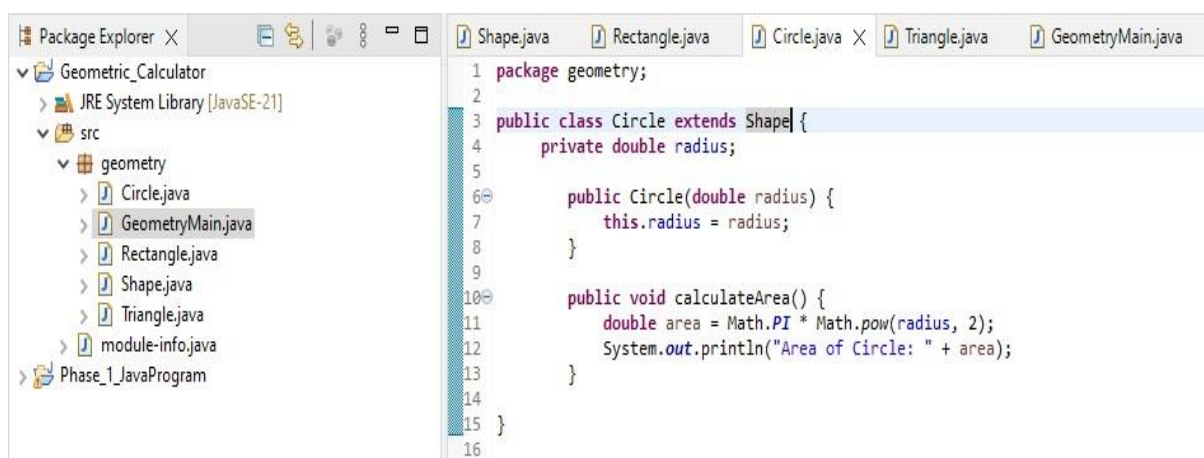
**Rectangle.java:** It is a child which is extended by its parent class Shape



The screenshot shows the Rectangle.java file in an IDE. The code is as follows:

```
1 package geometry;
2
3 public class Rectangle extends Shape {
4     private double length;
5     private double width;
6
7     public Rectangle(double length, double width) {
8         this.length = length;
9         this.width = width;
10    }
11
12    public void calculateArea() {
13        double area = length * width;
14        System.out.println("Area of Rectangle: " + area);
15    }
16
17 }
18
```

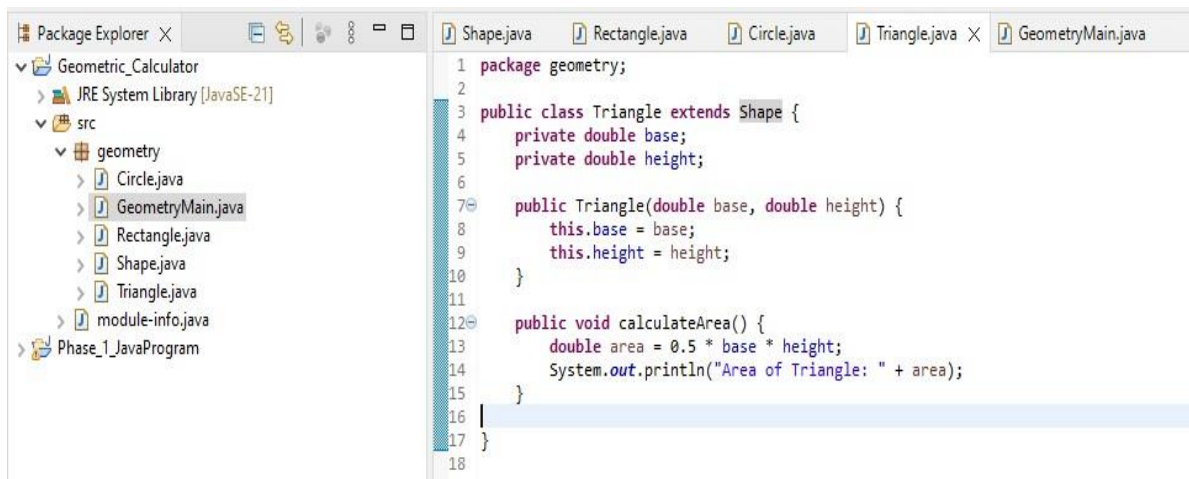
**Circle.java:** It is a child which is extended by its parent class Shape



The screenshot shows the Circle.java file in an IDE. The code is as follows:

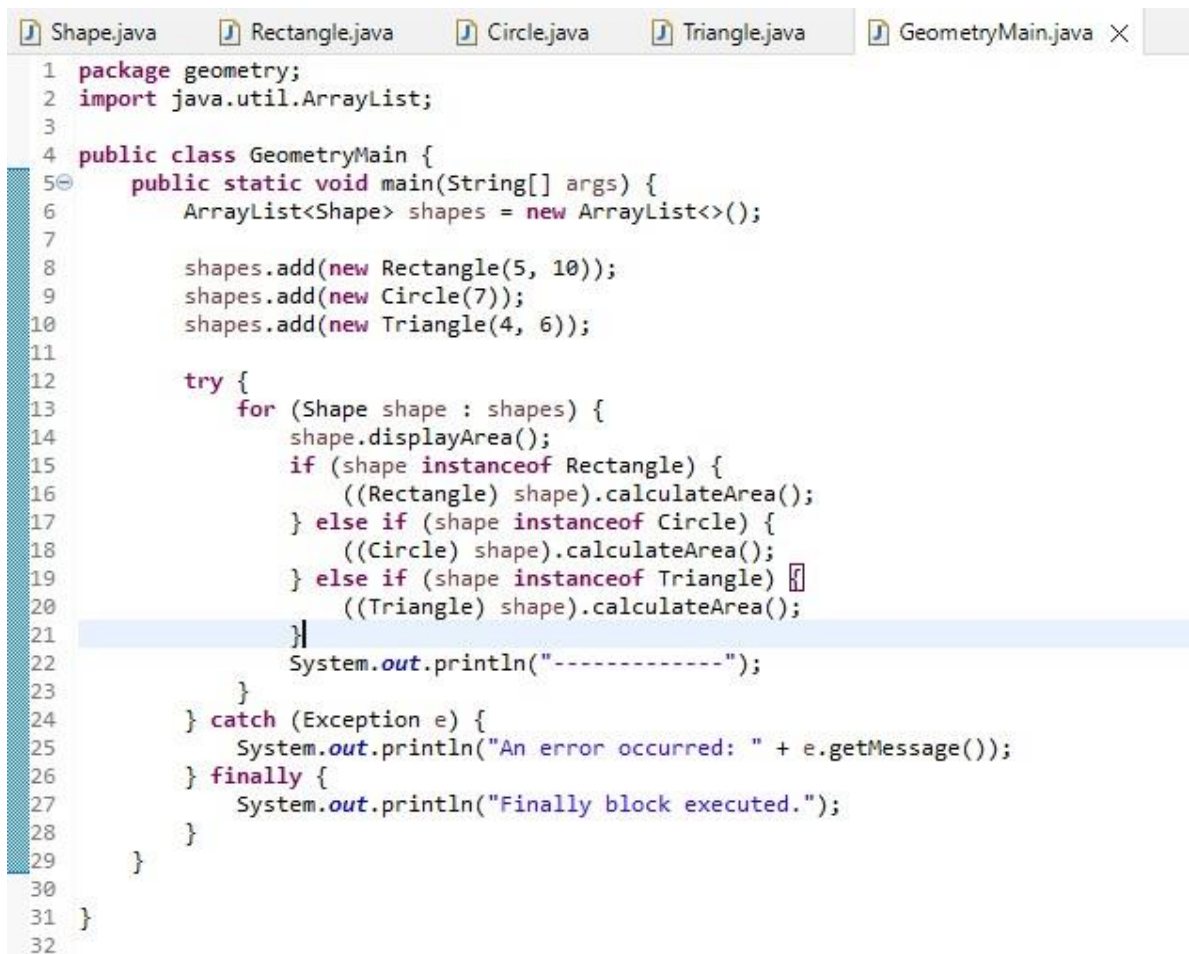
```
1 package geometry;
2
3 public class Circle extends Shape {
4     private double radius;
5
6     public Circle(double radius) {
7         this.radius = radius;
8     }
9
10    public void calculateArea() {
11        double area = Math.PI * Math.pow(radius, 2);
12        System.out.println("Area of Circle: " + area);
13    }
14
15 }
16
```

**Triangle.java:** It is a child which is extended by its parent class Shape

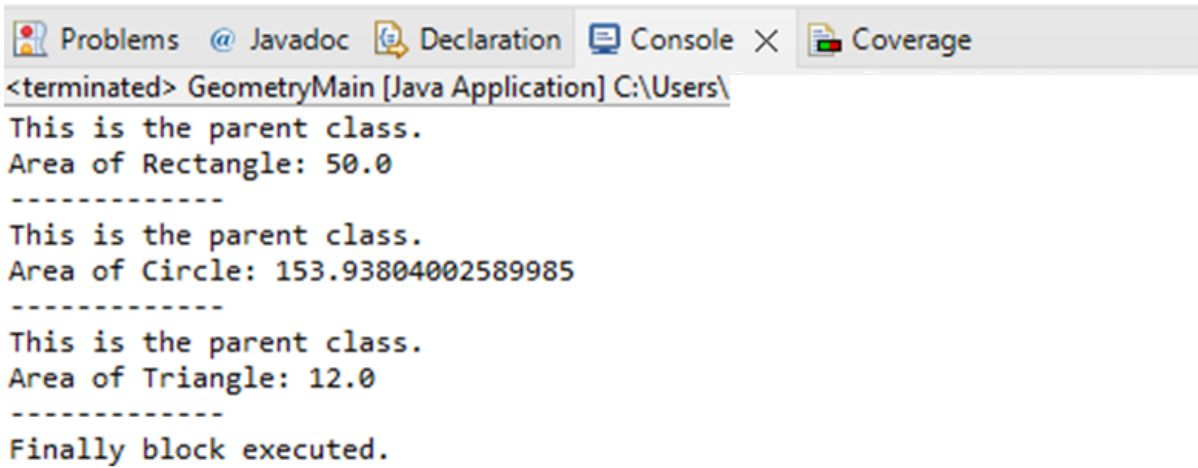


### GeometryMain.java:

Make sure to run **GeometryMain.java** as the main class. This program demonstrates the basic structure you can use for your project and meets the specified requirements. You can customize and expand it according to your specific needs.



## OUTPUT:



The screenshot shows an IDE's console window with tabs for Problems, Javadoc, Declaration, Console, and Coverage. The Console tab is active, displaying the output of a Java application. The output consists of three identical blocks of text, each separated by a dashed line. Each block starts with "This is the parent class.", followed by a calculation of area for a Rectangle, Circle, and Triangle. The final line of the output is "Finally block executed.".

```
<terminated> GeometryMain [Java Application] C:\Users\  
This is the parent class.  
Area of Rectangle: 50.0  
-----  
This is the parent class.  
Area of Circle: 153.93804002589985  
-----  
This is the parent class.  
Area of Triangle: 12.0  
-----  
Finally block executed.
```

