Functionality to Calculate the Area for Different Geometric Dimensions for Mathematics Project.
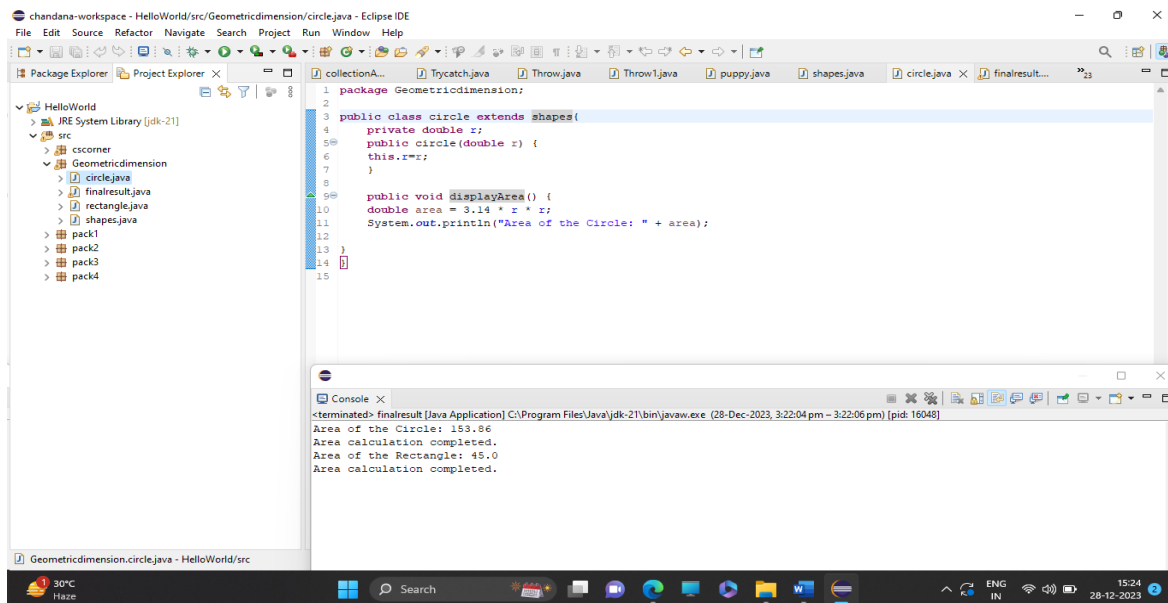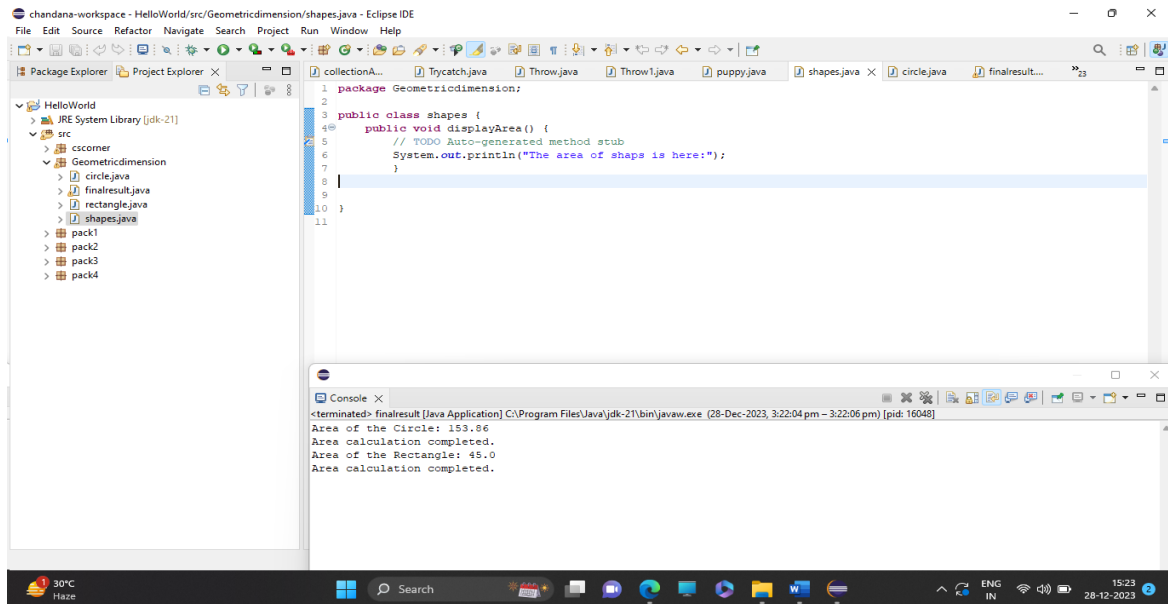
Screenshot 1: `chandana-workspace - HelloWorld/src/Geometricdimension/rectangle.java - Eclipse IDE`

```java
package Geometricdimension;

public class rectangle extends shapes {
private double l;
private double b;
public rectangle(double l, double b) {
    this.l = l;
    this.b = b;
    }
public void displayArea() {
double area = l * b;
System.out.println("Area of the Rectangle: " + area);
}
}
```

Console:
```
<terminated> finalresult [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (28-Dec-2023, 3:22:04 pm – 3:22:06 pm) [pid: 16048]
Area of the Circle: 153.86
Area calculation completed.
Area of the Rectangle: 45.0
Area calculation completed.
```

Screenshot 2: `chandana-workspace - HelloWorld/src/Geometricdimension/finalresult.java - Eclipse IDE`

```java
package Geometricdimension;
import java.util.*;
public class finalresult {
    public static <Shape> void main(String[] args) {
        ArrayList<Shape> shapes = new ArrayList<>();
        shapes.add((Shape) new circle(7.0));
        shapes.add((Shape) new rectangle(9.0, 5.0));
        for (Shape shape : shapes) {
        try {
        ((shapes) shape).displayArea();
        } catch (Exception e) {
        System.err.println("An error occurred: " +
        e.getMessage());
        } finally {
        System.out.println("Area calculation completed.");
        }
        }
    }
}
```

Console:
```
<terminated> finalresult [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (28-Dec-2023, 3:22:04 pm – 3:22:06 pm) [pid: 16048]
Area of the Circle: 153.86
Area calculation completed.
Area of the Rectangle: 45.0
Area calculation completed.
```

GitHub link:

https://github.com/chandana161/lesson2_java-geometric-.git

Submitted by

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