Functionality to Calculate the Area for Different Geometric Dimensions for Mathematics Project.

1.create class shape:

Code:

```
package Geometricdimension;

public class shapes {
public void displayArea() {
// TODO Auto-generated method stub
System.out.println("The area of shaps is here:");

}

}
```

2.create child class circle:

```
package Geometricdimension;

public class circle extends shapes{
private double r;
public circle(double r) {
this.r=r;
}

public void displayArea() {
double area = 3.14 * r * r;
System.out.println("Area of the Circle: " + area);

}
}
```

3.create another child class rectangle:

```
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);
}}
```

4.creat a class to see result:

```
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.");
}
}
}

}
```

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

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