

Solution Review: Implement and Override Method

This review provides a detailed analysis to solve the 'Implement and Override the Method in the Derived Class' challenge.

WE'LL COVER THE FOLLOWING ^

- Solution
- Explanation

Solution

```
// Base Class
class Shape {

    // Private Data Members
    private double area;

    public Shape() { // Default Constructor
        area = 0;
    }

    // Getter Function
    public double getArea() {
        return area;
    }
}

// Derived Class
class Circle extends Shape {

    private double radius;

    public Circle(double radius) { // Constructor
        this.radius = radius;
    }

    // Overridden Method the getArea() which returns the area of Rectangle

    public double getArea() {
        return (radius*radius) * 3.14;
    }
}
```



```
class Demo {  
  
    public static void main(String args[]) {  
        Shape circle = new Circle(2);  
        System.out.println(circle.getArea());  
    }  
  
}
```



Explanation

The solution is very simple.

- **Line 29 - 31:** The `getArea()` method is overridden in the `Circle` class to calculate the area of the circle.
- The area is calculated using the conventional formula:

$$pi * radius^2$$