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

```
// 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:

$$pi * radius^2$$