

PROGRAM 03

```
abstract class Shape {
    public abstract double calculateArea();
}

class Circle extends Shape {
    private double radius;

    public Circle(double radius) {
        this.radius = radius;
    }
    @Override
    public double calculateArea() {
        return 3.14 * radius * radius;
    }
}

class Rectangle extends Shape {
    private double length, width;

    public Rectangle(double length, double width) {
        this.length = length;
        this.width = width;
    }
    @Override
    public double calculateArea() {
        return length * width;
    }
}

class Square extends Shape {
    private double side;

    public Square(double side) {
        this.side = side;
    }
    @Override
    public double calculateArea() {
        return side * side;
    }
}

public class Inheritance {
```

```
public static void main(String[] args) {  
  
    Shape circle = new Circle(2);  
    Shape rectangle = new Rectangle(4, 6);  
    Shape square = new Square(4);  
  
    System.out.println("Circle Area: " + circle.calculateArea());  
    System.out.println("Rectangle Area: " + rectangle.calculateArea());  
    System.out.println("Square Area: " + square.calculateArea());  
  
}
```

