

```
public class Rectangle extends GeometricObject implements Comparable<Rectangle> {
    private double width;
    private double height;

    public Rectangle() {
    }

    public Rectangle(double width, double height) {
        this.width = width;
        this.height = height;
    }

    public Rectangle(String color, boolean filled, double width, double height) {
        super(color, filled);
        this.width = width;
        this.height = height;
    }

    public double getWidth() {
        return this.width;
    }

    public void setWidth(double width) {
        this.width = width;
    }

    public double getHeight() {
        return this.height;
    }

    public void setHeight(double height) {
        this.height = height;
    }

    @Override
    public int compareTo(Rectangle o) {
        if (getArea() > o.getArea())
            return 1;
        else if (getArea() < o.getArea())
            return -1;
        else
            return 0;
    }

    @Override
```

```
public boolean equals(Object obj) {
    if (!(obj instanceof Rectangle)) {
        return false;
    }
    return getArea() == ((Rectangle) obj).getArea();
}

@Override
public double getArea() {

    return height * width;
}

@Override
public double getPerimeter() {
    return (height * 2) + (width * 2);
}

@Override
public String toString() {
    return super.toString() + "\n" +
        "Area : " + getArea() + "\n" + "Perimeter : " + getPerimeter();
}
}
```