

```
public class Rectangle extends GeometricObject {
    private double width;
    private double height;

    public Rectangle() {
    }

    public Rectangle(double width, double height) {
        if (width > 0 && height > 0) {
            this.width = width;
            this.height = height;
        }
        else{
            System.out.println("Error you must input number above zero");
            System.exit(1);
        }
    }

    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(GeometricObject o) {
        if (getArea() > o.getArea())
            return 1;
        else if (getArea() < o.getArea())
```

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        return -1;
    else
        return 0;
}

@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();
}
}
```