

Rectangle.java

```
1 import java.awt.Color;
4
5 public class Rectangle extends Shape{
6
7     private int width;
8     private int height;
9
10
11
12     public Rectangle() {
13         super();
14     }
15
16     public Rectangle(int width, int height) {
17         super();
18         this.width = width;
19         this.height = height;
20     }
21
22
23
24     public void setWidth(int width) {
25         this.width = width;
26     }
27     public void setHeight(int width) {
28         this.width = width;
29     }
30
31     public int getWidth() {return this.width;}
32     public int getHeight() {return this.height;}
33
34
35     @Override
36     public double getArea()
37     {    return height * width;    }
38
39     @Override
40     public double getPerimeter()
41     {    return (2*(height + width)); }
42
43     @Override
```

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```
44     public int[] getBoundingBox()
45     {
46         int x1 = getX();
47         int y1 = getY();
48         int x2 = x1 + (width);
49         int y2 = y1 + (height);
50         int[] box = {x1,x2,y1,y2};
51
52         return box;
53     }
54
55
56     @Override
57     public void draw(Graphics g)
58     {
59         g.setColor(getColor());
60         g.fillRect(getX(), getY(), getWidth(), getHeight());
61     }
62
63 }
64
```