

```
1 import java.awt.Dimension;
2 import java.awt.Graphics;
3 import javax.swing.JPanel;
4 import javax.swing.JFrame;
5
6 public class LineArt extends JPanel {
7
8     // Unique version ID for this class to ensure saved objects can be loaded safely
9     private static final long serialVersionUID = 1L;
10
11     // Initial width of height of the starting rectangle
12     private static int width = 980;
13     private static int height = 630;
14
15     // main method to launch the program as a standalone application - no need to
16     // modify
17     public static void main(String[] args) {
18         LineArt panel = new LineArt();
19         panel.setPreferredSize(new Dimension(width + 20, height + 20)); // content size window
20
21         JFrame frame = new JFrame("Line Art"); // Title of frame
22         frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
23         frame.add(panel);
24         frame.pack();
25         frame.setVisible(true);
26     }
27
28     /**
29      * Draw the four corners of line art. Line art displays straight lines inside a rectangle
30      * a perpendicular side. The lines must be drawn in such a way that both the starting
31      * one side and the ending points on the other side are equi-distant along the sides. The
32      * is 980 pixels wide by 630 pixels high.
33      *
34      * @param g the Graphics object used for drawing shapes, text, and images
35      */
36     public void drawLineArt(Graphics g) {
37
38         // Draw the initial rectangle
39         g.drawRect(10, 10, width, height);
40         //g.drawLine(989, 639, 10, 639-7);
41         int x = 1003;
42         int y = 648;
43         for (int i=0; i<70; i++) {
44             x = x-14;
45             y = y-9;
46             g.drawLine(x, 639, 10, y);
47         }
48         x=-4;
49         y=648;
50         for (int i=0; i<70; i++) {
51             x = x+14;
52             y = y-9;
53             g.drawLine(x, 639, 989, y);
54         }
55         x=-4;
56         y=648;
57         for (int i=0; i<70; i++) {
58             x = x+14;
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59         y = y-9;
60         g.drawLine(10, y, x, 10);
61     }
62     x=1003;
63     y=648;
64     for (int i=0; i<70; i++) {
65         x = x-14;
66         y = y-9;
67         g.drawLine(989, y, x, 10);
68     }
69
70     int smallWidth = width / 2;
71     int smallHeight = height / 2;
72     int offsetX = 10 + width / 4;
73     int offsetY = 10 + height / 4;
74     g.drawRect(offsetX, offsetY, smallWidth, smallHeight);
75
76     x = 759;
77     y = 492;
78     for (int i=0; i<35; i++) {
79         x = x-14;
80         y = y-9;
81         g.drawLine(x, 483, 255, y);
82     }
83     x=241;
84     y=492;
85     for (int i=0; i<35; i++) {
86         x = x+14;
87         y = y-9;
88         g.drawLine(255, y, x, 166);
89     }
90     x=241;
91     y=175;
92     for (int i=0; i<35; i++) {
93         x = x+14;
94         y = y+9;
95         g.drawLine(x,166,745,y);
96     }
97     x=241;
98     y=492;
99     for (int i=0; i<35; i++) {
100         x = x+14;
101         y = y-9;
102         g.drawLine(x,483,745,y);
103     }
104
105 }
106
107 /**
108  * Overrides JPanel's paintComponent method to perform custom drawing.
109  *
110  * @param g the Graphics object used for drawing shapes, text, and images
111  */
112 @Override
113 protected void paintComponent(Graphics g) {
114     super.paintComponent(g); // Clears the panel before drawing
115     drawLineArt(g);
116 }
```

LineArt.java

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117  
118 }  
119
```