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import java.awt.Dimension;
import java.awt.Graphics;
import javax.swing.JPanel;
import javax.swing.JFrame;
public class LineArtLab06 extends JPanel {
    // Unique version ID for this class to ensure saved objects can be loaded safely
    private static final long serialVersionUID = 1L;
    // Initial width of height of the starting rectangle
    private static int width = 980;
    private static int height = 630;
    private static int small_width = 560;
    private static int small_height = 360;

    // main method to launch the program as a standalone application - no need to
    // modify
    public static void main(String[] args) {
        LineArtLab06 panel = new LineArtLab06();
        panel.setPreferredSize(new Dimension(width + 20, height + 20)); //content
size window dimensions
        JFrame frame = new JFrame("Line Art"); // Title of frame
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.add(panel);
        frame.pack();
        frame.setVisible(true);
    }
    /**
     * Draw the four corners of line art. Line art displays straight lines
     inside a rectangle from one side to
     * a perpendicular side. The lines must be drawn in such a way that both the
     starting points of the lines on
     * one side and the ending points on the other side are equi-distant along
     the sides. The size of the rectangle
     * is 980 pixels wide by 630 pixels high.
     *
     * @param g the Graphics object used for drawing shapes, text, and images
     */
    public void drawLineArt(Graphics g) {
        // Draw the initial rectangle
        g.drawRect(10, 10, width, height);
    }
}

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// Draw bottom-left corner
for (int i = 0; i<=height; i+=10)
{
    g.drawLine(10+width, 10+i, (10+width)-i, 10+height);
}

// Draw bottom-right corner
for (int i = 0; i<=height; i+=10)
{
    g.drawLine(10, 10+i, 10+i, 10+height);
}

// Draw top-right corner
for (int i = 0; i<=height; i+=10)
{
    g.drawLine(10, (10+height)-i, 10+i, 10);
}

// Draw top-left corner
for (int i = 0; i<=height; i+=10)
{
    g.drawLine(10+width, (10+height)-i, (10+width)-i, 10);
}

// Draw a new rectangle
int left_end = (1000-small_width)/2;
int top = ((650-small_height)/2);

g.drawRect(left_end, top, small_width, small_height);

// Draw bottom-left corner
for (int i = 0; i<=small_height; i+=10)
{
    g.drawLine(left_end+small_width, top+i, (left_end+small_width)-i,
top+small_height);
}

// Draw bottom-right corner
for (int i = 0; i<=small_height; i+=10)

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        {
            g.drawLine(left_end, top+i, left_end+i, top+small_height);
        }

        // Draw top-right corner
        for (int i = 0; i<=small_height; i+=10)
        {
            g.drawLine(left_end, (top+small_height)-i, left_end+i, top);
        }

        // Draw top-left corner
        for (int i = 0; i<=small_height; i+=10)
        {
            g.drawLine(left_end+small_width, (top+small_height)-i,
(left_end+small_width)-i, top);
        }

    }

    /**
     * Overrides JPanel's paintComponent method to perform custom drawing.
     *
     * @param g the Graphics object used for drawing shapes, text, and
images
     */
    @Override
    protected void paintComponent(Graphics g) {
        super.paintComponent(g); // Clears the panel before drawing
        drawLineArt(g);
    }
}

```

