

```
public class Line
{
    private Point from;
    private Point to;
    private Color color;

    public Line(Point from, Point to, Color color)
    {
        this.from = from;
        this.to = to;
        this.color = color;
    }

    public Line(int fromX, int fromY, int toX, int toY, Color color)
    {
        this.from = new Point(fromX, fromY);
        this.to = new Point(toX, toY);
        this.color = color;
    }

    public Point getFrom()
    {
        return from;
    }

    public Point getTo()
    {
        return to;
    }

    public Color getColor()
    {
        return color;
    }

    public void draw (Graphics g)
    {
        g.setColor(color);
        g.drawLine(from.x, from.y, to.x, to.y);
    }

    public void setColor(Color color)
    {
        this.color = color;
    }

    public String toString()
    {
        return "("+from.x+","+from.y+") -> ("+to.x+","+to.y+")";
    }
}
```

```
public class Lines
{
    private ArrayList<Line> allLines = new ArrayList<>();

    public void add(Line e)
    {
        allLines.add(e);
    }

    public Line get(int index)
    {
        return allLines.get(index);
    }

    public void draw (Graphics g)
    {
        for (int i=0; i<allLines.size(); i++)
        {
            allLines.get(i).draw(g);
        }
    }

    public Object[] toArray()
    {
        return allLines.toArray();
    }
}
```

```
public class DrawPanel extends javax.swing.JPanel
{
    // NEVER use a *new* here !!!!!!!
    private Lines lines = null;

    public void setLines(Lines lines)
    {
        this.lines = lines;
    }

    public void paintComponent(Graphics g)
    {
        int w = getWidth();
        int h = getHeight();

        g.setColor(Color.WHITE);
        g.fillRect(0, 0, w, h);

        if (lines != null)
            lines.draw(g);
    }

    public DrawPanel()
    {
        initComponents();
    }
}
// Skipped: ... initComponents { ... }
// Variables declaration - do not modify//GEN-BEGIN:variables
// End of variables declaration//GEN-END:variables
```

```

public class MainFrame extends javax.swing.JFrame
{
    // Model
    private Lines lines = new Lines();

    public MainFrame()
    {
        initComponents();
        drawPanel.setLines(lines);
        updateView();
    }

    public void updateView()
    {
        linesList.setListData(lines.toArray());
        repaint();
    }
// Skipped: ... initComponents { ... }
    private void addButtonActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_addButtonActionPerformed
        int fromX = Integer.valueOf(fromXTextField.getText());
        int fromY = Integer.valueOf(fromYTextField.getText());
        int toX = Integer.valueOf(toXTextField.getText());
        int toY = Integer.valueOf(toYTextField.getText());

        Line line = new Line(fromX, fromY, toX, toY, Color.BLUE);

        lines.add(line);
        updateView();
    } //GEN-LAST:event_addButtonActionPerformed

    private void clearButtonActionPerformed(java.awt.event.ActionEvent evt) //GEN-FIRST:event_clearButtonActionPerformed
    { //GEN-HEADEREND:event_clearButtonActionPerformed
        lines = new Lines();
        drawPanel.setLines(lines);
        updateView();
    } //GEN-LAST:event_clearButtonActionPerformed

    private void colorButtonActionPerformed(java.awt.event.ActionEvent evt) //GEN-FIRST:event_colorButtonActionPerformed
    { //GEN-HEADEREND:event_colorButtonActionPerformed
        int pos = linesList.getSelectedIndex();
        if (pos >= 0)
        {
            Line line = lines.get(pos);

            Color color = JColorChooser.showDialog(this, "Choisir une couleur", line.getColor());
            line.setColor(color);

            // line.setColor(new Color((int) (Math.random()*256), (int) (Math.random()*256), (int) (Math.random()*256), (int) (Math.random()*256)));
        }

        repaint();
    } //GEN-LAST:event_colorButtonActionPerformed
// Skipped: ... Look & Feel
    // Variables declaration - do not modify //GEN-BEGIN:variables
    private javax.swing.JButton addButton;
    private javax.swing.JButton clearButton;
    private javax.swing.JButton colorButton;
    private DrawPanel drawPanel;
    private javax.swing.JTextField fromXTextField;
    private javax.swing.JTextField fromYTextField;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JLabel jLabel6;
    private javax.swing.JPanel jPanel1;
    private javax.swing.JScrollPane jScrollPane1;
    private javax.swing.JList linesList;
    private javax.swing.JTextField toXTextField;
    private javax.swing.JTextField toYTextField;
    // End of variables declaration //GEN-END:variables
}

```