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// structure/BigBlob.java -- Everything in one file.
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//      A common style of programming is to put all processing
//      in the GUI.  This works Ok as long as the "model", the
//      logic, is so small that it isn't worth putting into
//      a separate class.
//
//      However, mixing model with presentation usually makes the program hard
//      to read, and the inevitable growth of the program leads to a mess.
//
//      This fails the simple Interface Independence test.
//      Could the model easily work with a command line or web interface? No.
//
//      It also fails the Model Independence test.
//      Could we easily change the model, eg, to BigDecimal? No.

import java.awt.*;
import javax.swing.*;
import java.awt.event.*;
import java.math.BigInteger;

public class BigBlob {
    public static void main(String[] args) {
        JFrame window = new BigBlobGUI();
        window.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        window.setTitle("Simple Calc");
        window.setVisible(true);
    }
}

class BigBlobGUI extends JFrame {
    //... Constants
    private static final String INITIAL_VALUE = "1";

    //... Components
    private JTextField m_totalTf      = new JTextField(10);
    private JTextField m_userInputTf  = new JTextField(10);
    private JButton    m_multiplyBtn  = new JButton("Multiply");
    private JButton    m_clearBtn     = new JButton("Clear");

    private BigInteger m_total; // The total current value state.

    /** Constructor */
    BigBlobGUI() {
        //... Initialize components and model
        m_total = new BigInteger(INITIAL_VALUE);
        m_totalTf.setText(INITIAL_VALUE);
        m_totalTf.setEditable(false);

        //... Layout the components.
        JPanel content = new JPanel();
        content.setLayout(new FlowLayout());
        content.add(new JLabel("Input"));
        content.add(m_userInputTf);
        content.add(m_multiplyBtn);
        content.add(new JLabel("Total"));
        content.add(m_totalTf);
        content.add(m_clearBtn);

        //... finalize layout
        this.setContentPane(content);
    }
}
```

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    this.pack();

    ///... Listener to do multiplication
    m_multiplyBtn.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
            try {
                m_total = m_total.multiply(new BigInteger(m_userInputTf.getText()));
                m_totalTf.setText(m_total.toString());
            } catch (NumberFormatException nex) {
                JOptionPane.showMessageDialog(BigBlobGUI.this, "Bad Number" );
            }
        }
    });

    ///... Listener to clear.
    m_clearBtn.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
            m_total = new BigInteger(INITIAL_VALUE);
            m_totalTf.setText(INITIAL_VALUE);
        }
    });
}
}
```