PROGRAM

```java
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

class CalculatorApp {

    JFrame frame;
    JTextField num1Field;
    JTextField num2Field;
    JTextField resultField;

    public static void main(String[] args) {
        SwingUtilities.invokeLater(() -> new CalculatorApp().createAndShowGUI());
    }

    CalculatorApp() {
        frame = new JFrame("Simple Calculator");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setSize(300, 250);
        frame.setLocationRelativeTo(null);
    }

    void createAndShowGUI() {
        JPanel panel = new JPanel();
        panel.setLayout(new GridLayout(5, 2, 10, 10));

        JLabel label1 = new JLabel("Enter first number:");
        num1Field = new JTextField(10);
        JLabel label2 = new JLabel("Enter second number:");
        num2Field = new JTextField(10);
        JLabel label3 = new JLabel("Result:");
        resultField = new JTextField(10);
        resultField.setEditable(false);

        JButton addButton = new JButton("+");
        JButton subButton = new JButton("-");
        JButton mulButton = new JButton("*");
        JButton divButton = new JButton("/");

        addButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                performOperation("+");
            }
        });
        subButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                performOperation("-");
            }
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      });
      mulButton.addActionListener(new ActionListener() {
         public void actionPerformed(ActionEvent e) {
            performOperation("*");
         }
      });
      divButton.addActionListener(new ActionListener() {
         public void actionPerformed(ActionEvent e) {
            performOperation("/");
         }
      });

      panel.add(label1);
      panel.add(num1Field);
      panel.add(label2);
      panel.add(num2Field);
      panel.add(label3);
      panel.add(resultField);
      panel.add(addButton);
      panel.add(subButton);
      panel.add(mulButton);
      panel.add(divButton);

      frame.getContentPane().add(panel);
      frame.setVisible(true);
   }

   void performOperation(String operator) {
      try {
         double num1 = Double.parseDouble(num1Field.getText());
         double num2 = Double.parseDouble(num2Field.getText());
         double result = 0;

         switch (operator) {
            case "+":
               result = num1 + num2;
               break;
            case "-":
               result = num1 - num2;
               break;
            case "*":
               result = num1 * num2;
               break;
            case "/":
               if (num2 != 0) {
                  result = num1 / num2;
               } else {
                  JOptionPane.showMessageDialog(frame, "Error: Division by zero", "Error",
JOptionPane.ERROR_MESSAGE);
                  return;
               }
               break;
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        }

        resultField.setText(String.valueOf(result));
    } catch (NumberFormatException ex) {
        JOptionPane.showMessageDialog(frame, "Please enter valid numbers", "Error",
JOptionPane.ERROR_MESSAGE);
    }

  }
}
```