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import java.awt.Dimension;
import java.awt.GridLayout;
import java.awt.Rectangle;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JList;
import javax.swing.JPanel;
import javax.swing.JScrollPane;
import javax.swing.JTextArea;
import javax.swing.JTextField;

public class frCalc extends JFrame {
    private JTextField td = new JTextField();
    private JPanel jPanel1 = new JPanel();
    private GridLayout gridLayout1 = new GridLayout();
    private JButton bp = new JButton();
    private JButton bi = new JButton();
    private JButton bd = new JButton();
    private JButton bm = new JButton();
    private JButton be = new JButton();

    double rez = 0.;
    String cmd = "=";
    private JScrollPane jScrollPane1 = new JScrollPane();
    private JTextArea ta = new JTextArea();

    public frCalc() {
        try {
            jbInit();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }

    private void jbInit() throws Exception {

```

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        this.getContentPane().setLayout( null );
        this.setSize(new Dimension(288, 249));
        this.setTitle( "Calculator" );
        td.setBounds(new Rectangle(5, 5, 215, 25));
        jPanel1.setBounds(new Rectangle(230, 5, 50, 140));
        jPanel1.setLayout(gridLayout1);
        gridLayout1.setColumns(1);
        gridLayout1.setRows(5);
        bp.setText("+");
        bp.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                bp_actionPerformed(e);
            }
        });
        bi.setText("*");
        bi.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                bi_actionPerformed(e);
            }
        });
        bd.setText("/");
        bd.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                bd_actionPerformed(e);
            }
        });
        bm.setText("-");
        bm.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                bm_actionPerformed(e);
            }
        });
        be.setText("=");
        be.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                be_actionPerformed(e);
            }
        });
    }

    jScrollPane1.setBounds(new Rectangle(5, 35, 215, 180));

```

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    jPanel1.add(bp, null);
    jPanel1.add(bm, null);
    jPanel1.add(bi, null);
    jPanel1.add(bd, null);
    jPanel1.add(be, null);
    jScrollPane1.setViewportView(ta, null);
    this.getContentPane().add(jScrollPane1, null);
    this.getContentPane().add(jPanel1, null);
    this.getContentPane().add(td, null);
}

public static void main(String a[]) {
    frCalc f = new frCalc();

    f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    f.setVisible(true);
}

private void bp_actionPerformed(ActionEvent e) {
    calc();
    afterOp("+");
}

private void bm_actionPerformed(ActionEvent e) {
    calc();
    afterOp("-");
}

private void bi_actionPerformed(ActionEvent e) {
    calc();
    afterOp("*");
}

private void bd_actionPerformed(ActionEvent e) {
    calc();
    afterOp("/");
}

public void afterOp(String x){
    ta.append(td.getText() + x + "\n");
    td.setText("");
}

```

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        td.requestFocusInWindow();
        cmd = x;
    }

    public void calc() {
        double x = 0;
        try {
            x = Double.parseDouble(td.getText());
        }
        catch (Exception e)
        {
            //System.out.println(e);
            //e.printStackTrace();
        }

        if(cmd.equals("-")) rez -=x;
        else if(cmd.equals("+")) rez +=x;
        else if(cmd.equals("/")) rez /=x;
        else if(cmd.equals("*")) rez *=x;
        else if(cmd.equals("=")) rez = x;
    }

    private void beActionPerformed(ActionEvent e) {
        calc();
        afterOp("=");
        //afisare rezultate
        ta.append(rez+"\n");
        //reinitializare
        rez=0;
        cmd="";
    }
}

```

