Joel Edwards
Course: Java Programming 1
Homework 6
April 13, 2011

Source:

CalculatorGUI.java:

```
import java.awt.Button;
import java.awt.Label;
import java.awt.TextField;

public class CalculatorGUI
    extends Applet
{
    public static final long serialVersionUID = 1L;

    protected TextField fieldA = new TextField(20);
    protected TextField fieldB = new TextField(20);

    protected Label resultLabel = new Label("0.
");

    protected Button addButton = new Button("+");
    protected Button subButton = new Button("-");
    protected Button mulButton = new Button("X");
    protected Button divButton = new Button("/");

    protected CalculatorLogic logic = new CalculatorLogic(fieldA,
fieldB, resultLabel);

    public void init() {
        // Add widgets to Applet
        add(fieldA);
        add(fieldB);
        add(resultLabel);
        add(addButton);
        add(subButton);
        add(mulButton);
        add(divButton);

        // Attached ActionListeners to our buttons
        addButton.addActionListener(logic);
        subButton.addActionListener(logic);
        mulButton.addActionListener(logic);
        divButton.addActionListener(logic);
    }
}
```

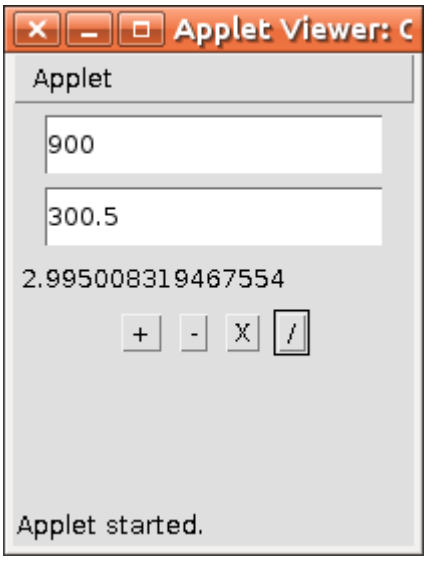
CalculatorLogic.java:

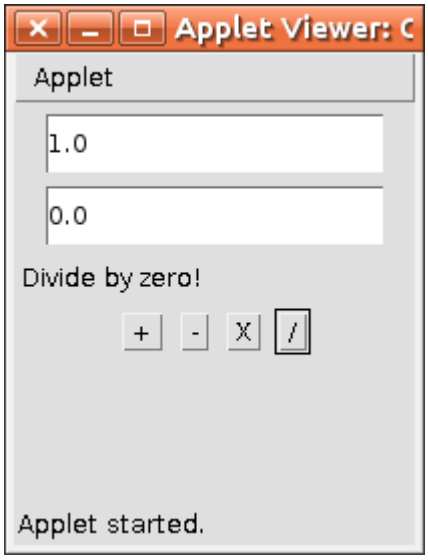
```
import java.awt.Label;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.TextComponent;

public class CalculatorLogic
    implements ActionListener
{
    private TextComponent inputA = null;
    private TextComponent inputB = null;
    private Label         output = null;

    public CalculatorLogic(TextComponent inputA, TextComponent
inputB, Label output) {
        this.inputA = inputA;
        this.inputB = inputB;
        this.output = output;
    }

    public void actionPerformed(ActionEvent evt) {
        double valueA = 0.0;
        double valueB = 0.0;
        try {
            valueA = Double.parseDouble(inputA.getText());
            valueB = Double.parseDouble(inputB.getText());
            Button source = (Button)evt.getSource();
            String op = source.getLabel();
            if ("+".compareTo(op) == 0) {
                output.setText("" + (valueA + valueB));
            } else if ("-".compareTo(op) == 0) {
                output.setText("" + (valueA - valueB));
            } else if ("X".compareTo(op) == 0) {
                output.setText("" + (valueA * valueB));
            } else if ("/".compareTo(op) == 0) {
                if (valueB == 0.0) {
                    output.setText("Divide by zero!");
                } else {
                    output.setText("" + (valueA / valueB));
                }
            } else {
                output.setText("Unsupported Operation!");
            }
        } catch (NumberFormatException e) {
            output.setText("Invalid Input!");
        }
    }
}
```

Calculator.html:

```
<html>
    <head>
        <title>A Simple Calculator</title>
        <meta http-equiv="pragma" content="no-cache" />
    </head>
    <body>
        <applet code="CalculatorGUI.class" width="200" height="200">
        </applet>
    </body>
</html>
```

Test Output:





Webpage:
http://scaglietti.dyndns.org/Calculator/