Module Thirteen - Assignment Submission

The Assignment

> This assignment involves building a simple calculator using Java Swing. The calculator shall allow the user to enter two values and then calculate their sum when the user clicks on the Calculate button. The GUI should look similar to the one below. You can left justify, center, or right justify the calculate button

Design

Again, there's really no design. You just replicate what is shown. I am assuming double representation of the numbers

Implementation

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to
edit this template
 */

/**
 *
 * @author dunca
 */
public class CalculatorGUI extends javax.swing.JFrame {

    /**
     * Creates new form CalculatorGUI
     */
    public CalculatorGUI() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to initialize the
form.
     * WARNING: Do NOT modify this code. The content of this method is
always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        FirstValue = new javax.swing.JLabel();
```

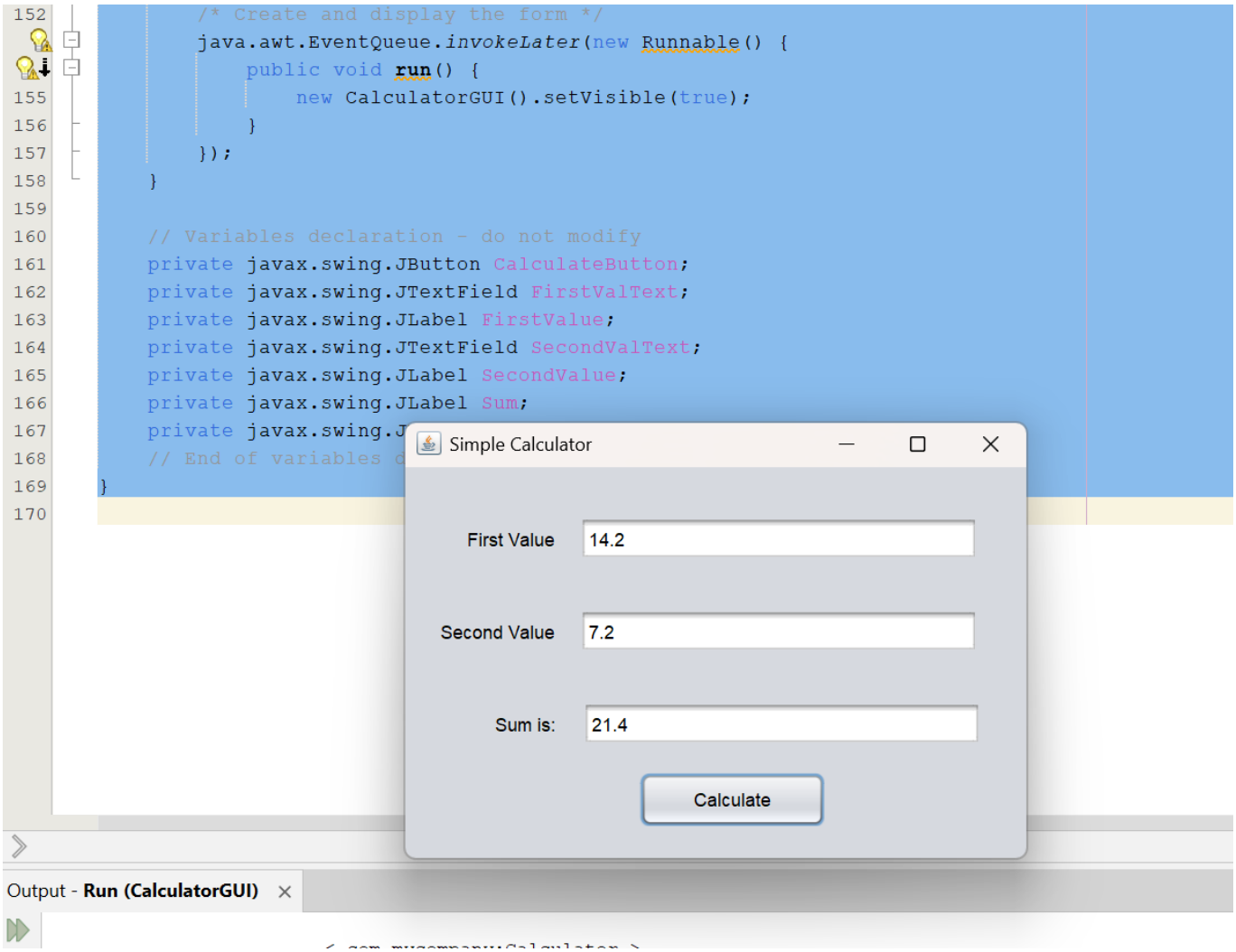
```
        FirstValText = new javax.swing.JTextField();
        SecondValText = new javax.swing.JTextField();
        SecondValue = new javax.swing.JLabel();
        SumText = new javax.swing.JTextField();
        Sum = new javax.swing.JLabel();
        CalculateButton = new javax.swing.JButton();


setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("Simple Calculator");

        FirstValue.setText("First Value");

        SecondValText.addActionListener(new java.awt.event.ActionListener()
{
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                SecondValTextActionPerformed(evt);
            }
        });

        SecondValue.setText("Second Value");

        SumText.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                SumTextActionPerformed(evt);
            }
        });

        Sum.setText("Sum is:");

        CalculateButton.setText("Calculate");
        CalculateButton.addActionListener(new
java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                CalculateButtonActionPerformed(evt);
            }
        });

        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEAD
ING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(23, 23, 23)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEAD
ING)
                            .addComponent(SecondValue,
```

```
javax.swing.GroupLayout.Alignment.TRAILING)
                            .addComponent(Sum,
javax.swing.GroupLayout.Alignment.TRAILING)
                            .addComponent(FirstValue,
javax.swing.GroupLayout.Alignment.TRAILING))
                        .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEAD
ING)
                            .addComponent(SumText,
javax.swing.GroupLayout.PREFERRED_SIZE, 258,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                                .addComponent(CalculateButton,
javax.swing.GroupLayout.PREFERRED_SIZE, 120,
javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addGap(101, 101, 101))))
                    .addGroup(javax.swing.GroupLayout.Alignment.CENTER,
layout.createSequentialGroup()
                        .addGap(112, 112, 112)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEAD
ING)
                            .addComponent(SecondValText,
javax.swing.GroupLayout.Alignment.CENTER,
javax.swing.GroupLayout.PREFERRED_SIZE, 258,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(FirstValText,
javax.swing.GroupLayout.Alignment.CENTER,
javax.swing.GroupLayout.PREFERRED_SIZE, 258,
javax.swing.GroupLayout.PREFERRED_SIZE))))
                .addContainerGap(30, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(32, 32, 32)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)
                    .addComponent(FirstValue)
                    .addComponent(FirstValText,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(32, 32, 32)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)
                    .addComponent(SecondValue)
                    .addComponent(SecondValText,
```

```
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(32, 32, 32)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)
                    .addComponent(Sum)
                    .addComponent(SumText,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addComponent(CalculateButton,
javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap(21, Short.MAX_VALUE))
        );

        pack();
    }// </editor-fold>

    private void CalculateButtonActionPerformed(java.awt.event.ActionEvent
evt) {
        double sum = Double.parseDouble(FirstValText.getText()) +
Double.parseDouble(SecondValText.getText());
        SumText.setText(String.valueOf(sum));
    }

    private void SecondValTextActionPerformed(java.awt.event.ActionEvent
evt) {
        // TODO add your handling code here:
    }

    private void SumTextActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    /**
     * @param args the command line arguments
     */
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel
setting code (optional) ">
        /* If Nimbus (introduced in Java SE 6) is not available, stay with
the default look and feel.
         * For details see
http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
         */
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
```

```
javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(CalculatorGUI.class.getName()).log(java.
util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(CalculatorGUI.class.getName()).log(java.
util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(CalculatorGUI.class.getName()).log(java.
util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(CalculatorGUI.class.getName()).log(java.
util.logging.Level.SEVERE, null, ex);
        }
        //</editor-fold>

        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new CalculatorGUI().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JButton CalculateButton;
    private javax.swing.JTextField FirstValText;
    private javax.swing.JLabel FirstValue;
    private javax.swing.JTextField SecondValText;
    private javax.swing.JLabel SecondValue;
    private javax.swing.JLabel Sum;
    private javax.swing.JTextField SumText;
    // End of variables declaration
}
```

Output


/* Create and display the form */
java.awt.EventQueue.invokeLater(new Runnable() {
public void run() {
new CalculatorGUI().setVisible(true);
}
});
}
// Variables declaration - do not modify
private javax.swing.JButton CalculateButton;
private javax.swing.JTextField FirstValText;
private javax.swing.JLabel FirstValue;
private javax.swing.JTextField SecondValText;
private javax.swing.JLabel SecondValue;
private javax.swing.JLabel Sum;
private javax.swing.J
// End of variables d
}
Simple Calculator
First Value
14.2
Second Value
7.2
Sum is:
21.4
Calculate
Output - Run (CalculatorGUI)