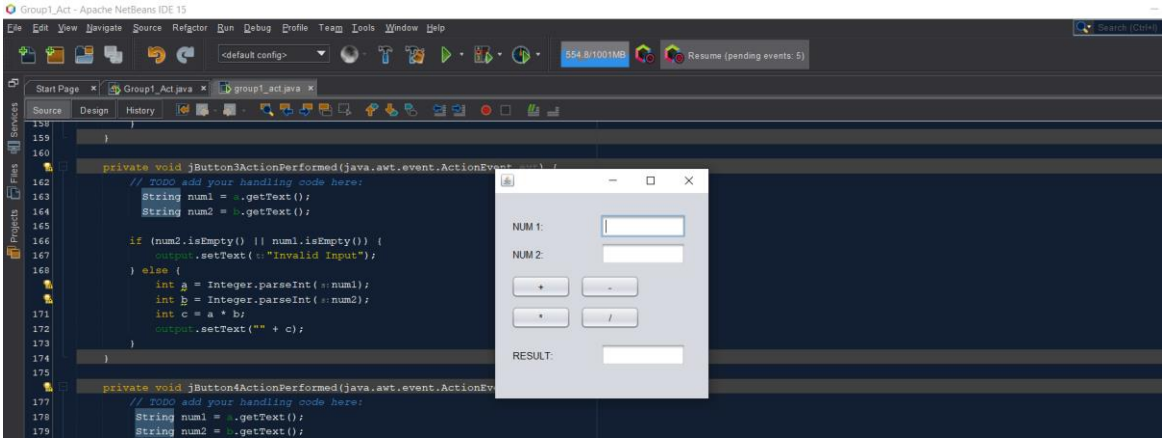
RABINO, MICO T.

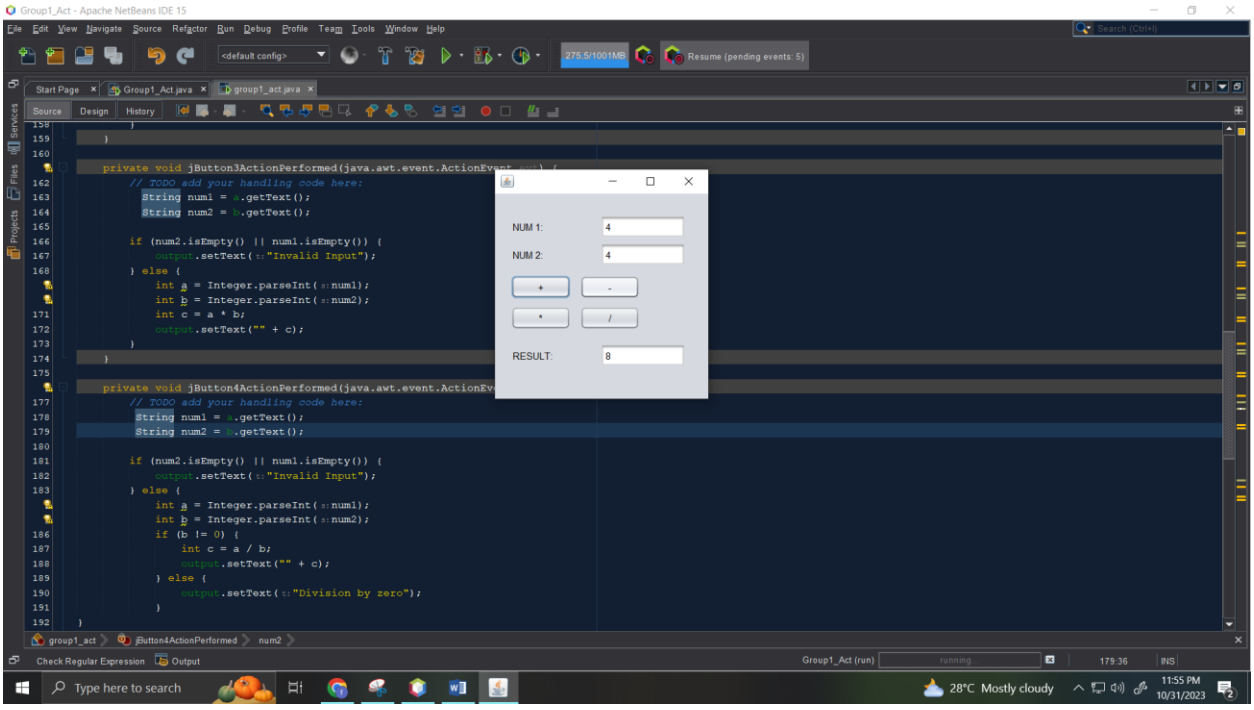
BSIT-S-2A

MACHINE PROBLEM 1 (GROUP 1) SCREENSHOTS AND PDF

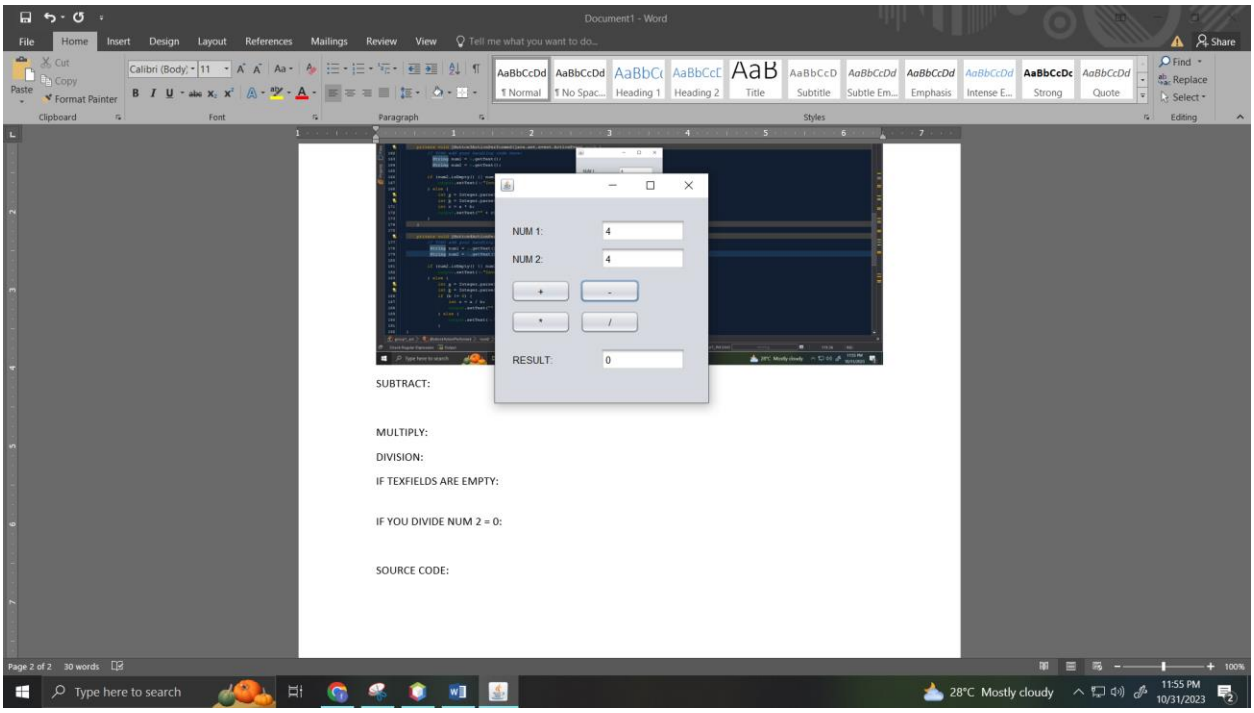
GUI:



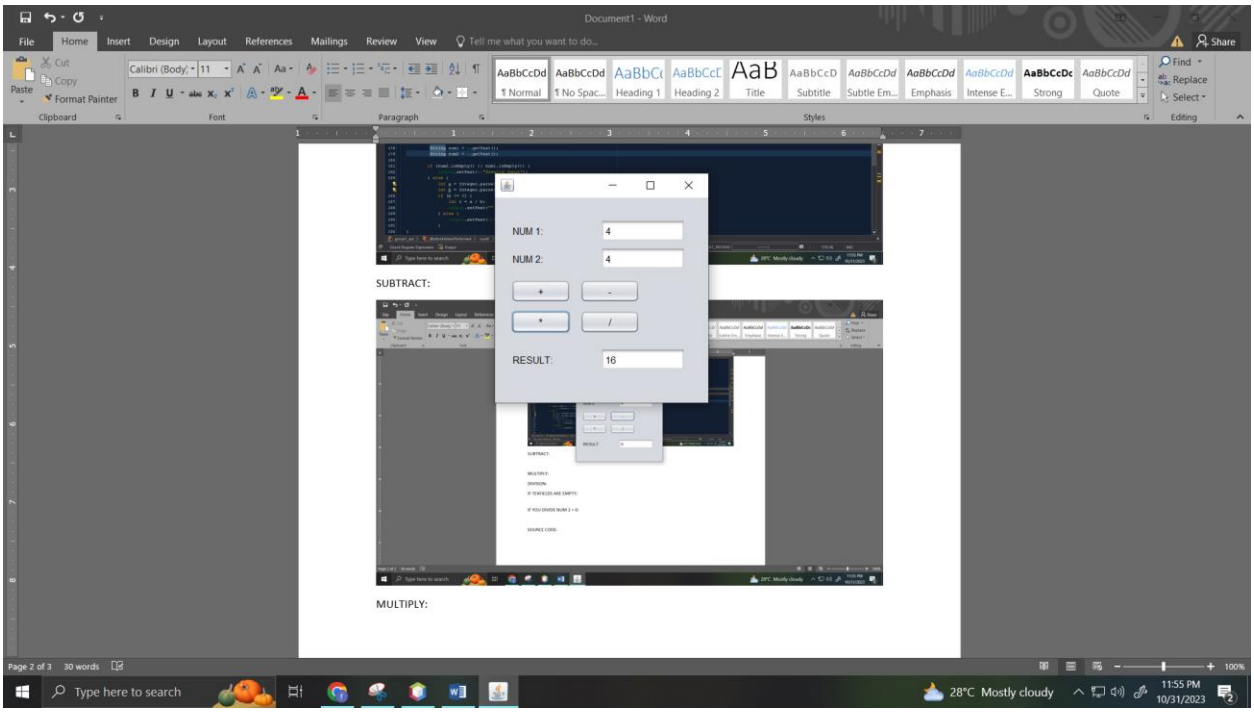
ADD:



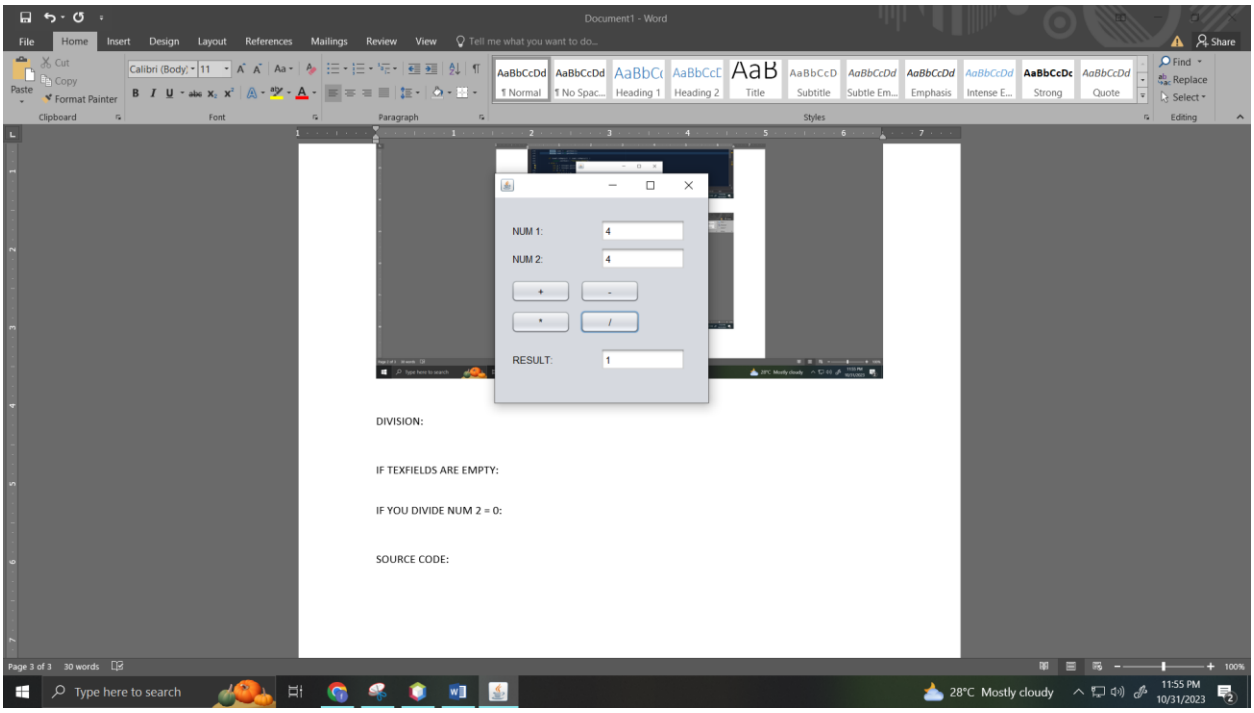
SUBTRACT:



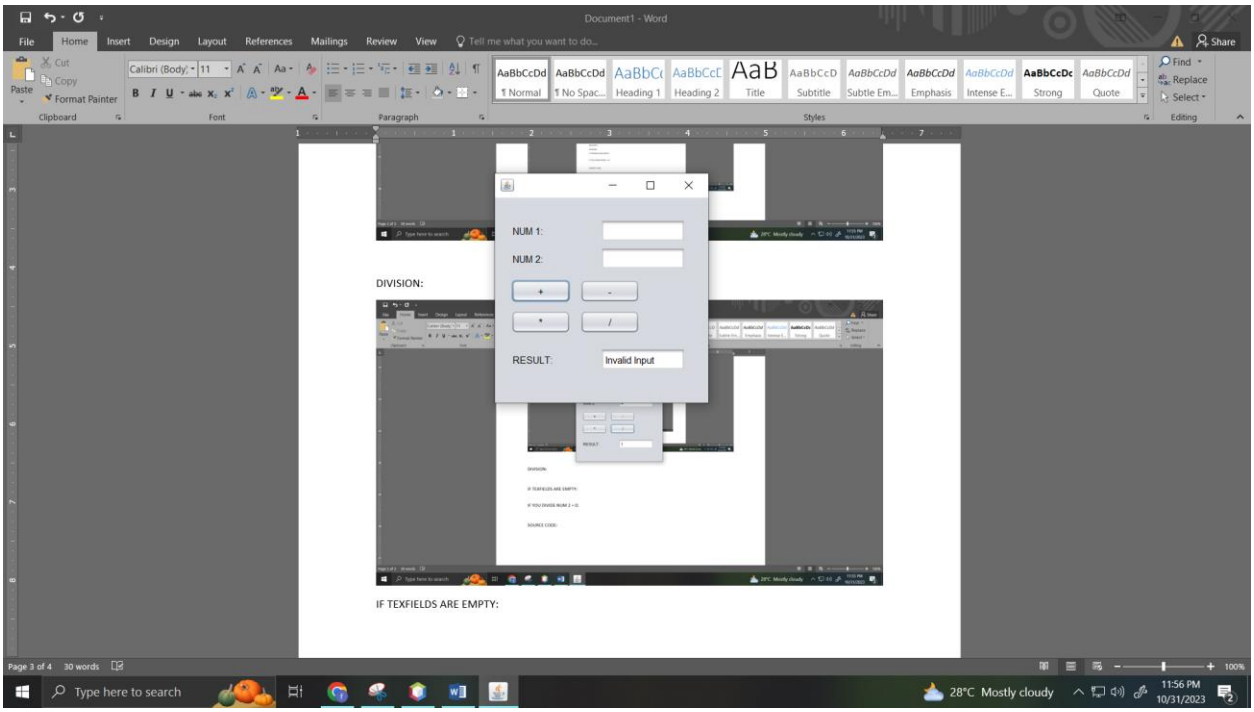
MULTIPLY:



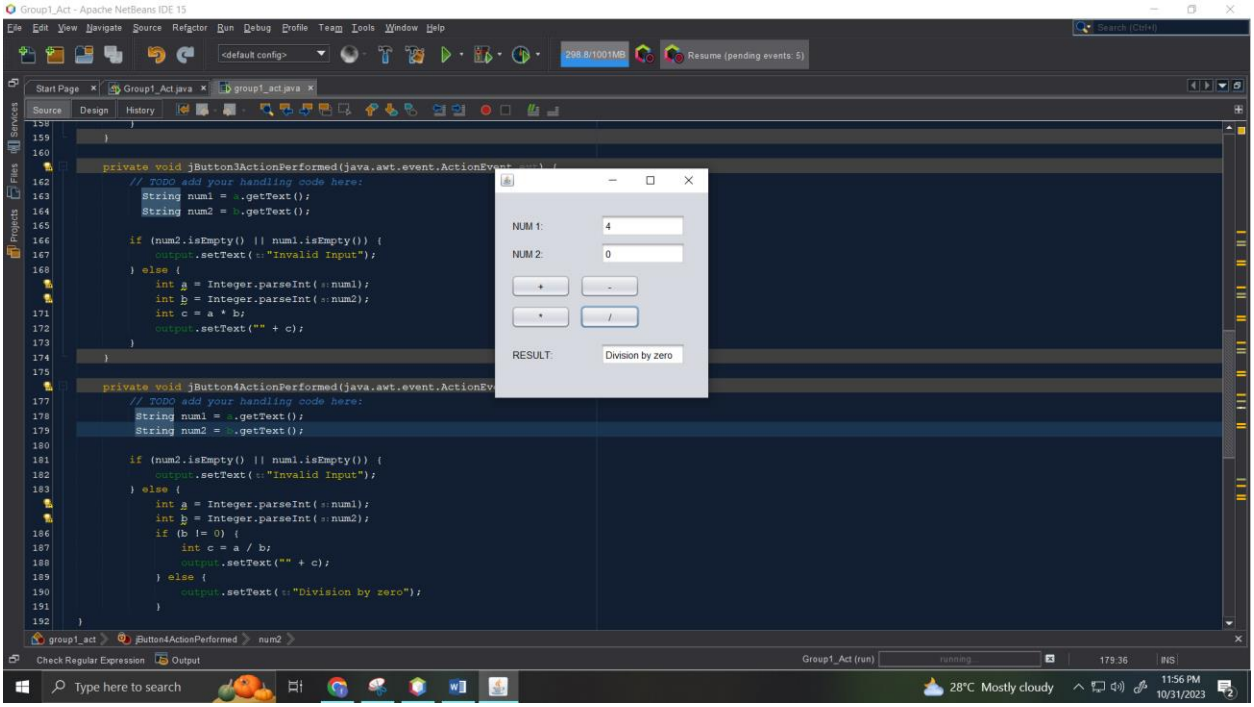
DIVISION:



IF TEXFIELDS ARE EMPTY:



IF YOU DIVIDE NUM 2 = 0:



SOURCE CODE:

```
/*
 * 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 Mico
 */
public class group1_act extends javax.swing.JFrame {


    /**
     * Creates new form group1_act
     */
```

```
public group1_act() {
    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() {

    jLabel1 = new javax.swing.JLabel();
    a = new javax.swing.JTextField();
    jLabel2 = new javax.swing.JLabel();
    b = new javax.swing.JTextField();
    Result = new javax.swing.JLabel();
    output = new javax.swing.JTextField();
    jButton1 = new javax.swing.JButton();
    jButton2 = new javax.swing.JButton();
    jButton3 = new javax.swing.JButton();
    jButton4 = new javax.swing.JButton();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    jLabel1.setText("NUM 1:");

    jLabel2.setText("NUM 2:");
```

```
Result.setText("RESULT:");

jButton1.setText("+");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jButton2.setText("-");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

jButton3.setText("*");
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(evt);
    }
});

jButton4.setText("/");
jButton4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton4ActionPerformed(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()
                .addGap(20, 20, 20)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 73,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 73,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 71,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 71,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(Result, javax.swing.GroupLayout.PREFERRED_SIZE, 71,
javax.swing.GroupLayout.PREFERRED_SIZE)))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(37, 37, 37)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(output, javax.swing.GroupLayout.PREFERRED_SIZE, 104,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(b, javax.swing.GroupLayout.PREFERRED_SIZE, 104,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(a, javax.swing.GroupLayout.PREFERRED_SIZE, 104,
javax.swing.GroupLayout.PREFERRED_SIZE)))
                    .addGroup(layout.createSequentialGroup()
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
```

```
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 73, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED_SIZE, 73, javax.swing.GroupLayout.PREFERRED_SIZE))))
            .addContainerGap(29, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(27, 27, 27)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(a, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
                    .addComponent(b, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jButton1)
                    .addComponent(jButton2))
                .addGap(10, 10, 10)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jButton3)
                    .addComponent(jButton4))
```

```
                .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(Result)
                    .addComponent(output, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addContainerGap(40, Short.MAX_VALUE))
        );


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

    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
          String num1 = a.getText();
       String num2 = b.getText();

        if (num2.isEmpty() || num1.isEmpty()) {
            output.setText("Invalid Input");
        } else {
            int a = Integer.parseInt(num1);
            int b = Integer.parseInt(num2);
            int c = a - b;
            output.setText("" + c);
        }
    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String num1 = a.getText();
       String num2 = b.getText();
```

```
    if (num2.isEmpty() || num1.isEmpty()) {
        output.setText("Invalid Input");
    } else {
        int a = Integer.parseInt(num1);
        int b = Integer.parseInt(num2);
        int c = a + b;
        output.setText("" + c);
    }
}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
      String num1 = a.getText();
      String num2 = b.getText();

    if (num2.isEmpty() || num1.isEmpty()) {
        output.setText("Invalid Input");
    } else {
        int a = Integer.parseInt(num1);
        int b = Integer.parseInt(num2);
        int c = a * b;
        output.setText("" + c);
    }
}

private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
     String num1 = a.getText();
     String num2 = b.getText();
```

```
        if (num2.isEmpty() || num1.isEmpty()) {
            output.setText("Invalid Input");
        } else {
            int a = Integer.parseInt(num1);
            int b = Integer.parseInt(num2);
            if (b != 0) {
                int c = a / b;
                output.setText("" + c);
            } else {
                output.setText("Division by zero");
            }
}


    }


    /**
     * @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(group1_act.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(group1_act.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(group1_act.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(group1_act.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 group1_act().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JLabel Result;
private javax.swing.JTextField a;
```

```
    private javax.swing.JTextField b;
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JButton jButton3;
    private javax.swing.JButton jButton4;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JTextField output;
    // End of variables declaration
}
```