



**UMS**  
UNIVERSITI MALAYSIA SABAH

KP14603 OBJECT ORIENTED PROGRAMMING

SEMESTER II

SESSION 2019/2020

ASSIGNMENT 2 INDIVIDUAL

CALCULATOR

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# INTRODUCTION

Here by using basic tools of Netbeans for Java ( IDE 8.2) I have made calculator. For understanding the basic function of the GUI and programming I have made the calculator which will perform the basic mathematical functions like addition, multiplication, subtraction, division and some more. The aim of this project is to understand object oriented programming and JFrame. The Calculator application performs basic mathematical operation. When the user operate the application calls the corresponding class and the user can perform various mathematical operations provided in the class.

# JAVA CODE

```
/*  
 * To change this license header, choose License Headers in Project  
Properties.  
 * To change this template file, choose Tools | Templates  
 * and open the template in the editor.  
 */  
  
package Calculation;  
  
/**  
 *  
 * @author User  
 */  
  
public class Calaculator extends javax.swing.JFrame {  
  
    double firstnum;  
    double secondnum;  
    double result;  
    String operations;  
  
    public Calaculator() {  
        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"> //GEN-BEGIN: initComponents

private void initComponents() {

jtxtDisplay = new javax.swing.JTextField();

jBtn1 = new javax.swing.JButton();

jBtn2 = new javax.swing.JButton();

jBtn3 = new javax.swing.JButton();

jBtn4 = new javax.swing.JButton();

jBtn5 = new javax.swing.JButton();

jBtn6 = new javax.swing.JButton();

jBtn7 = new javax.swing.JButton();

jBtn8 = new javax.swing.JButton();

jBtn9 = new javax.swing.JButton();

jBtn10 = new javax.swing.JButton();

jBtn11 = new javax.swing.JButton();

jBtn12 = new javax.swing.JButton();

jBtn13 = new javax.swing.JButton();

jBtn14 = new javax.swing.JButton();

jBtn15 = new javax.swing.JButton();

```
jBtn16 = new javax.swing.JButton();
```

```
jBtn17 = new javax.swing.JButton();
```

```
jBtn18 = new javax.swing.JButton();
```

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE)  
;
```

```
jtxtDisplay.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
```

```
jtxtDisplay.setHorizontalAlignment(javax.swing.JTextField.RIGHT);
```

```
jBtn1.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
```

```
jBtn1.setText("1");
```

```
jBtn1.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn1ActionPerformed(evt);  
    }  
});
```

```
jBtn2.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
```

```
jBtn2.setText("2");
```

```
jBtn2.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn2ActionPerformed(evt);  
    }  
});
```

```
jBtn3.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jBtn3.setText("3");
jBtn3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jBtn3ActionPerformed(evt);
    }
});
```

```
jBtn4.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jBtn4.setText("4");
jBtn4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jBtn4ActionPerformed(evt);
    }
});
```

```
jBtn5.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jBtn5.setText("5");
jBtn5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jBtn5ActionPerformed(evt);
    }
});
```

```
jBtn6.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jBtn6.setText("6");
```

```
jBtn6.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn6ActionPerformed(evt);  
    }  
});
```

```
jBtn7.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N  
jBtn7.setText("7");  
jBtn7.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn7ActionPerformed(evt);  
    }  
});
```

```
jBtn8.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N  
jBtn8.setText("8");  
jBtn8.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn8ActionPerformed(evt);  
    }  
});
```

```
jBtn9.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N  
jBtn9.setText("9");  
jBtn9.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
        jBtn9ActionPerformed(evt);  
    }  
});
```

```
jBtn10.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N  
jBtn10.setText("0");  
jBtn10.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn10ActionPerformed(evt);  
    }  
});
```

```
jBtn11.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N  
jBtn11.setText("+");  
jBtn11.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn11ActionPerformed(evt);  
    }  
});
```

```
jBtn12.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N  
jBtn12.setText("-");  
jBtn12.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn12ActionPerformed(evt);  
    }  
});
```



```
});
```

```
jBtn13.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
```

```
jBtn13.setText("/");
```

```
jBtn13.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn13ActionPerformed(evt);  
    }  
});
```

```
jBtn14.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
```

```
jBtn14.setText("*");
```

```
jBtn14.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn14ActionPerformed(evt);  
    }  
});
```

```
jBtn15.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
```

```
jBtn15.setText("#");
```

```
jBtn15.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jBtn15ActionPerformed(evt);  
    }  
});
```

```
jBtn16.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jBtn16.setText(".");
jBtn16.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jBtn16ActionPerformed(evt);
    }
});
```

```
jBtn17.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jBtn17.setText("C");
jBtn17.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jBtn17ActionPerformed(evt);
    }
});
```

```
jBtn18.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jBtn18.setText("=");
jBtn18.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jBtn18ActionPerformed(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()

        .addContainerGap()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen
t.TRAILING, false)

    .addComponent(jtxtDisplay)

    .addGroup(layout.createSequentialGroup()

        .addComponent(jBtn1,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addGap(18, 18, 18)

        .addComponent(jBtn2,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addGap(18, 18, 18)

        .addComponent(jBtn3,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addGap(18, 18, 18)

        .addComponent(jBtn4,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE))

    .addGroup(layout.createSequentialGroup()

        .addComponent(jBtn5,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)

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

```
.addComponent(jBtn6,  
javax.swing.GroupLayout.PREFERRED_SIZE, 50,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addGap(18, 18, 18)  
  
.addComponent(jBtn7,  
javax.swing.GroupLayout.PREFERRED_SIZE, 50,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addGap(18, 18, 18)  
  
.addComponent(jBtn8,  
javax.swing.GroupLayout.PREFERRED_SIZE, 50,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
  
.addGroup(layout.createSequentialGroup())  
  
.addComponent(jBtn9,  
javax.swing.GroupLayout.PREFERRED_SIZE, 50,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addGap(18, 18, 18)  
  
.addComponent(jBtn10,  
javax.swing.GroupLayout.PREFERRED_SIZE, 50,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addGap(18, 18, 18)  
  
.addComponent(jBtn11,  
javax.swing.GroupLayout.PREFERRED_SIZE, 50,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
  
.addGap(18, 18, 18)  
  
.addComponent(jBtn12,  
javax.swing.GroupLayout.PREFERRED_SIZE, 50,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
  
.addGroup(layout.createSequentialGroup())  
  
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen  
t.TRAILING, false)
```

```

        .addComponent(jBtn17,
javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

        .addGroup(layout.createSequentialGroup())

        .addComponent(jBtn13,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addGap(18, 18, 18)

        .addComponent(jBtn14,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)))

        .addGap(18, 18, 18)

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

        .addGroup(layout.createSequentialGroup())

        .addComponent(jBtn15,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addGap(18, 18, 18)

        .addComponent(jBtn16,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addGap(0, 0, Short.MAX_VALUE))

        .addComponent(jBtn18,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))))

.addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))

);

```

```

        layout.setVerticalGroup(

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

        .addGroup(layout.createSequentialGroup()

            .addContainerGap()

            .addComponent(jtxtDisplay,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELA
TED)

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen
t.BASELINE)

            .addComponent(jBtn1,
javax.swing.GroupLayout.PREFERRED_SIZE, 45,
javax.swing.GroupLayout.PREFERRED_SIZE)

            .addComponent(jBtn2,
javax.swing.GroupLayout.PREFERRED_SIZE, 45,
javax.swing.GroupLayout.PREFERRED_SIZE)

            .addComponent(jBtn3,
javax.swing.GroupLayout.PREFERRED_SIZE, 45,
javax.swing.GroupLayout.PREFERRED_SIZE)

            .addComponent(jBtn4,
javax.swing.GroupLayout.PREFERRED_SIZE, 45,
javax.swing.GroupLayout.PREFERRED_SIZE))

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELA
TED)

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen
t.BASELINE)

```

```
.addComponent(jBtn5,  
javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addComponent(jBtn6,  
javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addComponent(jBtn7,  
javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addComponent(jBtn8,  
javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELA  
TED)
```

```
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignmen  
t.BASELINE)
```

```
.addComponent(jBtn9,  
javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addComponent(jBtn10,  
javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addComponent(jBtn11,  
javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addComponent(jBtn12,  
javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELA  
TED)
```

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

```
    .addComponent(jBtn13,  
    javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
    javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
    .addComponent(jBtn14,  
    javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
    javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
    .addComponent(jBtn15,  
    javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
    javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
    .addComponent(jBtn16,  
    javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
    javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
```

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

```
    .addComponent(jBtn18,  
    javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
    javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
    .addComponent(jBtn17,  
    javax.swing.GroupLayout.PREFERRED_SIZE, 45,  
    javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
    .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,  
    Short.MAX_VALUE))
```

```
);
```

```
pack();
```



```
///  
//</editor-fold>{//GEN-END:initComponents
```

```
private void jBtn2ActionPerformed(java.awt.event.ActionEvent evt)  
{//GEN-FIRST:event_jBtn2ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn1.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn2ActionPerformed
```

```
private void jBtn1ActionPerformed(java.awt.event.ActionEvent evt)  
{//GEN-FIRST:event_jBtn1ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn2.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn1ActionPerformed
```

```
private void jBtn3ActionPerformed(java.awt.event.ActionEvent evt)  
{//GEN-FIRST:event_jBtn3ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn3.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn3ActionPerformed
```

```
private void jBtn4ActionPerformed(java.awt.event.ActionEvent evt)  
{//GEN-FIRST:event_jBtn4ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn4.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn4ActionPerformed
```

```
private void jBtn5ActionPerformed(java.awt.event.ActionEvent evt)  
{//GEN-FIRST:event_jBtn5ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn5.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn5ActionPerformed
```

```
private void jBtn6ActionPerformed(java.awt.event.ActionEvent evt)  
{//GEN-FIRST:event_jBtn6ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn6.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn6ActionPerformed
```

```
private void jBtn7ActionPerformed(java.awt.event.ActionEvent evt)  
{//GEN-FIRST:event_jBtn7ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn7.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn7ActionPerformed
```

```
private void jBtn8ActionPerformed(java.awt.event.ActionEvent evt)  
{//GEN-FIRST:event_jBtn8ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn8.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn8ActionPerformed
```

```
private void jBtn9ActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_jBtn9ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn9.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn9ActionPerformed
```

```
private void jBtn10ActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_jBtn10ActionPerformed
```

```
String Enternumber = jtxtDisplay.getText() + jBtn10.getText();
```

```
jtxtDisplay.setText(Enternumber);
```

```
}//GEN-LAST:event_jBtn10ActionPerformed
```

```
private void jBtn11ActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_jBtn11ActionPerformed
```

```
firstnum = Double.parseDouble(jtxtDisplay.getText());
```

```
jtxtDisplay.setText("");
```

```
operations="+";
```

```
}//GEN-LAST:event_jBtn11ActionPerformed
```

```
private void jBtn12ActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_jBtn12ActionPerformed
```

```
firstnum = Double.parseDouble(jtxtDisplay.getText());
```

```

        jtxtDisplay.setText("");
        operations="-";
    }//GEN-LAST:event_jBtn12ActionPerformed

    private void jBtn13ActionPerformed(java.awt.event.ActionEvent evt)
    { //GEN-FIRST:event_jBtn13ActionPerformed

        firstnum = Double.parseDouble(jtxtDisplay.getText());
        jtxtDisplay.setText("");
        operations="/";
    }//GEN-LAST:event_jBtn13ActionPerformed

    private void jBtn14ActionPerformed(java.awt.event.ActionEvent evt)
    { //GEN-FIRST:event_jBtn14ActionPerformed

        firstnum = Double.parseDouble(jtxtDisplay.getText());
        jtxtDisplay.setText("");
        operations="*";
    }//GEN-LAST:event_jBtn14ActionPerformed

    private void jBtn15ActionPerformed(java.awt.event.ActionEvent evt)
    { //GEN-FIRST:event_jBtn15ActionPerformed

        double ops =
        Double.parseDouble(String.valueOf(jtxtDisplay.getText()));
        ops =ops * (-1);
        jtxtDisplay.setText(String.valueOf(ops));
    }//GEN-LAST:event_jBtn15ActionPerformed

```

```
private void jBtn16ActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_jBtn16ActionPerformed
```

```
    String Enternumber = jtxtDisplay.getText() + jBtn16.getText();
```

```
    jtxtDisplay.setText(Enternumber);
```

```
//GEN-LAST:event_jBtn16ActionPerformed
```

```
private void jBtn18ActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_jBtn18ActionPerformed
```

```
    String answer;
```

```
    secondnum = Double.parseDouble(jtxtDisplay.getText());
```

```
    if (operations == "+")
```

```
{
```

```
        result = firstnum + secondnum;
```

```
        answer = String.format("%.0f",result);
```

```
        jtxtDisplay.setText(answer);
```

```
}
```

```
    else if (operations == "-")
```

```
{
```

```
        result = firstnum * secondnum;
```

```
        answer = String.format("%.0f",result);
```

```
        jtxtDisplay.setText(answer);
```

```
}
```

```
    else if (operations == "*")
```

```
{
```

```

        result = firstnum * secondnum;
        answer = String.format("%.0f",result);
        jtxtDisplay.setText(answer);
    }
    else if (operations == "/")
    {
        result = firstnum / secondnum;
        answer = String.format("%.0f",result);
        jtxtDisplay.setText(answer);
    }
    else if (operations == "%")
    {
        result = firstnum % secondnum;
        answer = String.format("%.0f",result);
        jtxtDisplay.setText(answer);
    }
}
//GEN-LAST:event_jBtn18ActionPerformed

```

```

private void jBtn17ActionPerformed(java.awt.event.ActionEvent evt)
{
//GEN-FIRST:event_jBtn17ActionPerformed

```

```

        jtxtDisplay.setText("");
    }
}
//GEN-LAST:event_jBtn17ActionPerformed

```

```

/**
 * @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.ht
ml

        */

    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(Calaculator.class.getName()).log(java.ut
il.logging.Level.SEVERE, null, ex);

    } catch (InstantiationException ex) {

        java.util.logging.Logger.getLogger(Calaculator.class.getName()).log(java.ut
il.logging.Level.SEVERE, null, ex);

    } catch (IllegalAccessException ex) {

        java.util.logging.Logger.getLogger(Calaculator.class.getName()).log(java.ut
il.logging.Level.SEVERE, null, ex);

```

```

    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(Calaculator.class.getName()).log(java.ut
il.logging.Level.SEVERE, null, ex);

    }

//</editor-fold>

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

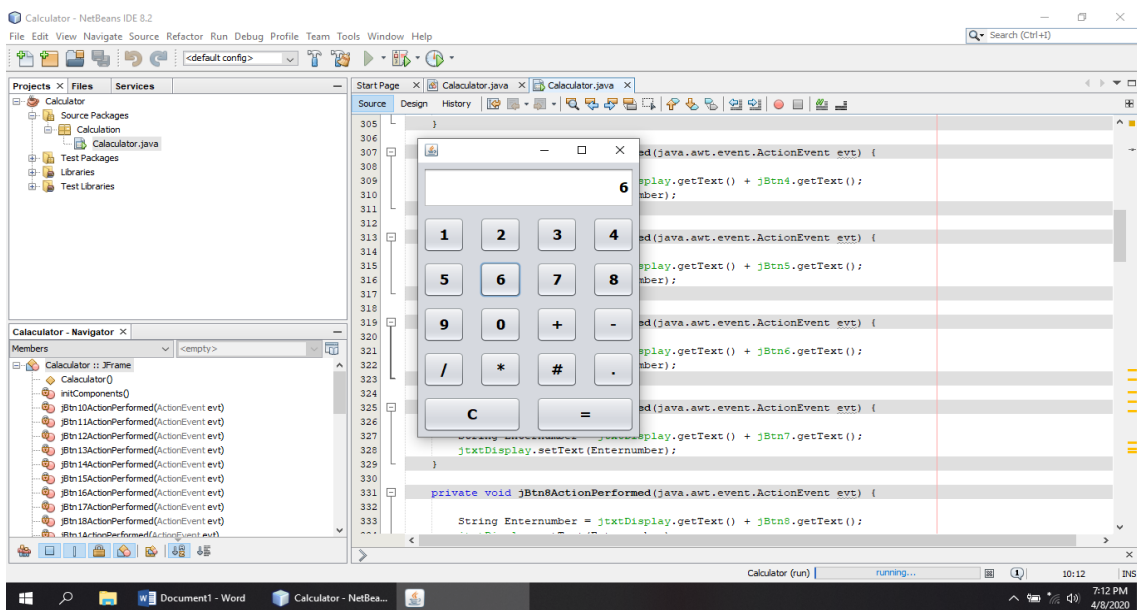
// Variables declaration - do not modify//GEN-BEGIN:variables
private javax.swing.JButton jBtn1;
private javax.swing.JButton jBtn10;
private javax.swing.JButton jBtn11;
private javax.swing.JButton jBtn12;
private javax.swing.JButton jBtn13;
private javax.swing.JButton jBtn14;
private javax.swing.JButton jBtn15;
private javax.swing.JButton jBtn16;
private javax.swing.JButton jBtn17;
private javax.swing.JButton jBtn18;
private javax.swing.JButton jBtn2;

```

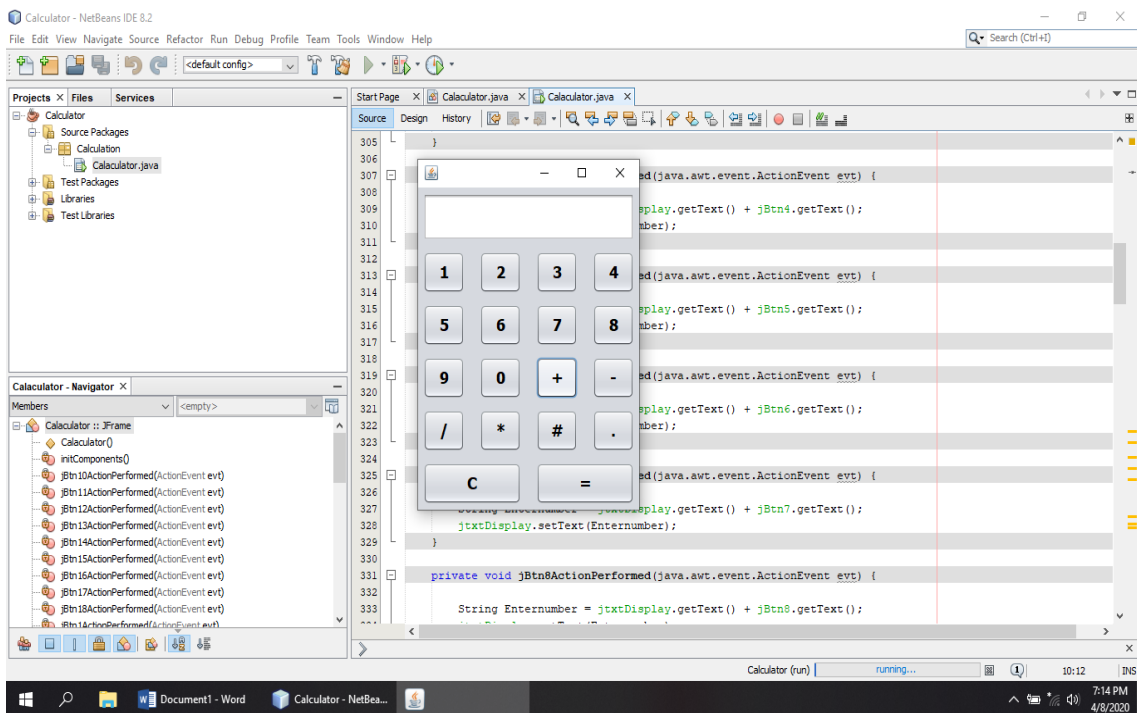


```
private javax.swing.JButton jBtn3;  
private javax.swing.JButton jBtn4;  
private javax.swing.JButton jBtn5;  
private javax.swing.JButton jBtn6;  
private javax.swing.JButton jBtn7;  
private javax.swing.JButton jBtn8;  
private javax.swing.JButton jBtn9;  
private javax.swing.JTextField jtxtDisplay;  
// End of variables declaration//GEN-END:variables  
}
```

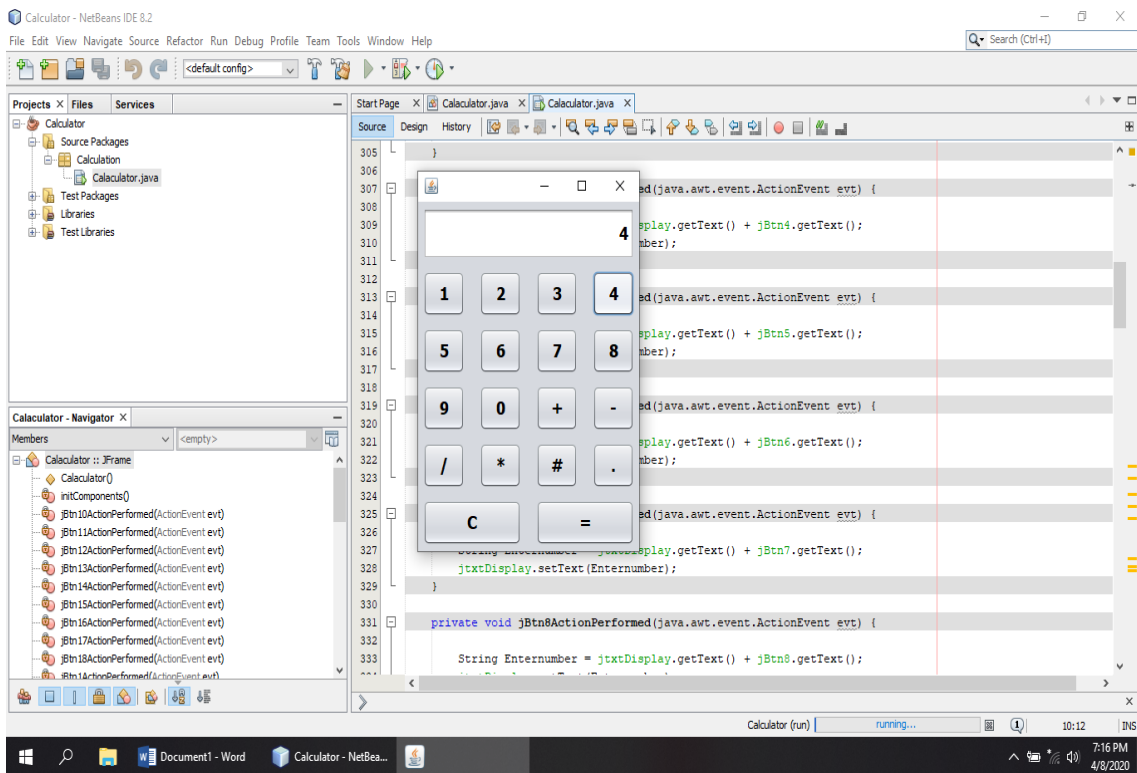
## STEP 1. ENTER NUMBER



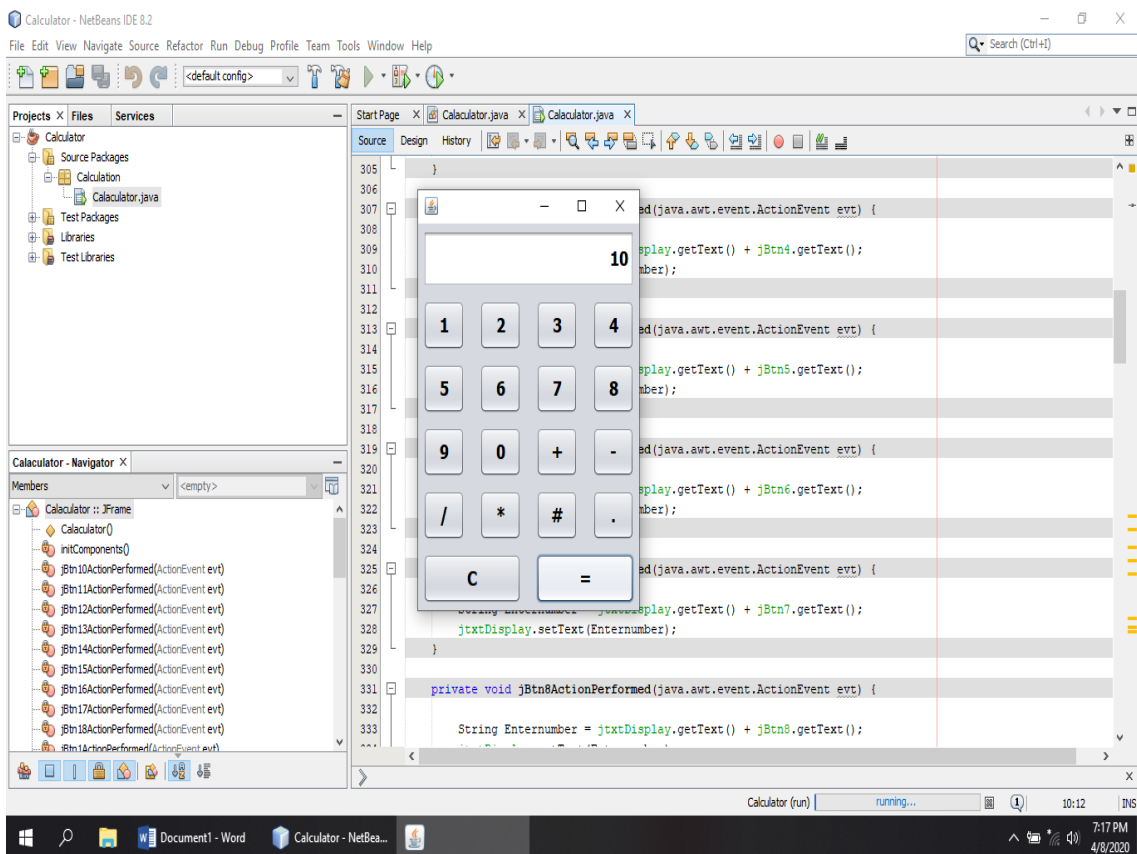
## STEP 2. CLICK ADDITION BUTTON



### STEP 3. ENTER THE NUMBER THAT WANTED TO ADD.



### STEP 4. ENTER EQUALS TO GET CORRECT ANSWER.



# CONCLUSION

In conclusion, this is a very simple calculator project since this is my 1<sup>st</sup> time making GUI. However, making this project is a good way to expand my knowledge in java. Last but not least, I will keep improve this calculator system if there have any issues from other user.