

TUGAS PEMBUATAN PROGRAM KALKULATOR SEDERHANA DENGAN GUI

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Kelas : Pemrograman Berbasis Objek (PBO) C

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Link YouTube : <https://youtu.be/AbSGVaqo9J4>

- 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
 */
package GUI;

/**
 *
 * @author HP
 */
public class FormKalkulator extends javax.swing.JFrame {

    double bill1;
    double bill2;
    double hasil;
    String operasi;

    public FormKalkulator() {
        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() {

        textDisplay = new javax.swing.JTextField();
        btn1 = new javax.swing.JButton();
        btn2 = new javax.swing.JButton();
        btn3 = new javax.swing.JButton();
        btn4 = new javax.swing.JButton();
        btn5 = new javax.swing.JButton();
        btn6 = new javax.swing.JButton();
        btn7 = new javax.swing.JButton();
```

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btn8 = new javax.swing.JButton();
btn9 = new javax.swing.JButton();
btn10 = new javax.swing.JButton();
btn11 = new javax.swing.JButton();
btn12 = new javax.swing.JButton();
btn13 = new javax.swing.JButton();
btn14 = new javax.swing.JButton();
btn15 = new javax.swing.JButton();
btn16 = new javax.swing.JButton();
btn17 = new javax.swing.JButton();
btnResult = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

textDisplay.setBackground(new java.awt.Color(204, 204, 204));
textDisplay.setFont(new java.awt.Font("Felix Titling", 1, 24)); //
NOI18N
textDisplay.setForeground(new java.awt.Color(153, 0, 0));
textDisplay.setHorizontalAlignment(javax.swing.JTextField.RIGHT);

btn1.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn1.setText("1");
btn1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn1ActionPerformed(evt);
    }
});

btn2.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn2.setText("2");
btn2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn2ActionPerformed(evt);
    }
});

btn3.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn3.setText("3");
btn3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn3ActionPerformed(evt);
    }
});

btn4.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn4.setText("4");
btn4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn4ActionPerformed(evt);
    }
});

btn5.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn5.setText("5");
btn5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn5ActionPerformed(evt);
    }
});

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btn6.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn6.setText("6");
btn6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn6ActionPerformed(evt);
    }
});

btn7.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn7.setText("7");
btn7.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn7ActionPerformed(evt);
    }
});

btn8.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn8.setText("8");
btn8.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn8ActionPerformed(evt);
    }
});

btn9.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn9.setText("9");
btn9.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn9ActionPerformed(evt);
    }
});

btn10.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn10.setText("0");
btn10.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn10ActionPerformed(evt);
    }
});

btn11.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn11.setText("+");
btn11.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn11ActionPerformed(evt);
    }
});

btn12.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn12.setText("-");
btn12.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn12ActionPerformed(evt);
    }
});

btn13.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
btn13.setText("/");
btn13.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btn13ActionPerformed(evt);
    }
});

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}  
});  
  
btnl4.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N  
btnl4.setText("*");  
btnl4.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        btnl4ActionPerformed(evt);  
    }  
});  
  
btnl5.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N  
btnl5.setText("/+/-");  
btnl5.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        btnl5ActionPerformed(evt);  
    }  
});  
  
btnl6.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N  
btnl6.setText(".");  
btnl6.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        btnl6ActionPerformed(evt);  
    }  
});  
  
btnl7.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N  
btnl7.setText("C");  
btnl7.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        btnl7ActionPerformed(evt);  
    }  
});  
  
btnResult.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N  
btnResult.setText("=");  
btnResult.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        btnResultActionPerformed(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()  
            .addComponent(btnl7,  
                javax.swing.GroupLayout.PREFERRED_SIZE, 136,  
                javax.swing.GroupLayout.PREFERRED_SIZE)  
            .addPreferredGap(LayoutStyle.ComponentPlacement.RELATED)  
            .addComponent(btnResult,  
                javax.swing.GroupLayout.PREFERRED_SIZE, 109,  
                javax.swing.GroupLayout.PREFERRED_SIZE)
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        .addComponent(btnResult,
javax.swing.GroupLayout.PREFERRED_SIZE, 136,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAI
LING, false)
        .addComponent(textDisplay)

.addGroup(javax.swing.GroupLayout.Alignment.LEADING,
layout.createSequentialGroup()
        .addComponent(btn1,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn2,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn3,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn4,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(layout.createSequentialGroup()
        .addComponent(btn5,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn6,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn7,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn8,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(layout.createSequentialGroup()
        .addComponent(btn9,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn10,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn11,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn12,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(layout.createSequentialGroup()
        .addComponent(btn13,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)

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        .addGap(18, 18, 18)
        .addComponent(btn14,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn15,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(btn16,
javax.swing.GroupLayout.PREFERRED_SIZE, 59,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
    );
    layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup())
            .addGap(27, 27, 27)
            .addComponent(textDisplay,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(26, 26, 26)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(btn1,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn2,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn3,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn4,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(btn5,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn6,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn7,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn8,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)

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

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        .addComponent(btn9,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn10,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn11,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn12,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(btn13,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn14,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn15,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btn16,
javax.swing.GroupLayout.PREFERRED_SIZE, 51,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(btn17,
javax.swing.GroupLayout.PREFERRED_SIZE, 47,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(btnResult,
javax.swing.GroupLayout.PREFERRED_SIZE, 47,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
    );

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

private void btn14ActionPerformed(java.awt.event.ActionEvent evt) {
    bill = Double.parseDouble(textDisplay.getText());
    textDisplay.setText("");
    operasi = "*";
}

private void btn3ActionPerformed(java.awt.event.ActionEvent evt) {
    String Enternumber = textDisplay.getText() + btn3.getText();
    textDisplay.setText(Enternumber);
}

private void btn1ActionPerformed(java.awt.event.ActionEvent evt) {
    String Enternumber = textDisplay.getText() + btn1.getText();
    textDisplay.setText(Enternumber);
}

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```
private void btn2ActionPerformed(java.awt.event.ActionEvent evt) {  
    String Enternumber = textDisplay.getText () + btn2.getText ();  
    textDisplay.setText (Enternumber);  
}  
  
private void btn4ActionPerformed(java.awt.event.ActionEvent evt) {  
    String Enternumber = textDisplay.getText () + btn4.getText ();  
    textDisplay.setText (Enternumber);  
}  
  
private void btn5ActionPerformed(java.awt.event.ActionEvent evt) {  
    String Enternumber = textDisplay.getText () + btn5.getText ();  
    textDisplay.setText (Enternumber);  
}  
  
private void btn6ActionPerformed(java.awt.event.ActionEvent evt) {  
    String Enternumber = textDisplay.getText () + btn6.getText ();  
    textDisplay.setText (Enternumber);  
}  
  
private void btn7ActionPerformed(java.awt.event.ActionEvent evt) {  
    String Enternumber = textDisplay.getText () + btn7.getText ();  
    textDisplay.setText (Enternumber);  
}  
  
private void btn8ActionPerformed(java.awt.event.ActionEvent evt) {  
    String Enternumber = textDisplay.getText () + btn8.getText ();  
    textDisplay.setText (Enternumber);  
}  
  
private void btn9ActionPerformed(java.awt.event.ActionEvent evt) {  
    String Enternumber = textDisplay.getText () + btn9.getText ();  
    textDisplay.setText (Enternumber);  
}  
  
private void btn10ActionPerformed(java.awt.event.ActionEvent evt) {  
    String Enternumber = textDisplay.getText () + btn10.getText ();  
    textDisplay.setText (Enternumber);  
}  
  
private void btn11ActionPerformed(java.awt.event.ActionEvent evt) {  
    bill = Double.parseDouble (textDisplay.getText ());  
    textDisplay.setText ("");  
    operasi = "+";  
}  
  
private void btn12ActionPerformed(java.awt.event.ActionEvent evt) {  
    bill = Double.parseDouble (textDisplay.getText ());  
    textDisplay.setText ("");  
    operasi = "-";  
}  
  
private void btn13ActionPerformed(java.awt.event.ActionEvent evt) {  
    bill = Double.parseDouble (textDisplay.getText ());  
    textDisplay.setText ("");  
    operasi = "/";  
}  
  
private void btn15ActionPerformed(java.awt.event.ActionEvent evt) {
```



```

        double key =
Double.parseDouble(String.valueOf(textDisplay.getText()));
        key = key * (-1);
        textDisplay.setText(String.valueOf(key));

    }

    private void btn16ActionPerformed(java.awt.event.ActionEvent evt) {
        String Enternumber = textDisplay.getText() + btn16.getText();
        textDisplay.setText(Enternumber);
    }

    private void btnResultActionPerformed(java.awt.event.ActionEvent evt) {

        String jwb;
        bil2 = Double.parseDouble(textDisplay.getText());
        if (operasi == "+")
        {
            hasil = bil1 + bil2;
            jwb = String.format("%s", hasil);
            textDisplay.setText(jwb);

        }
        else if (operasi == "-")
        {
            hasil = bil1 - bil2;
            jwb = String.format("%s", hasil);
            textDisplay.setText(jwb);

        }
        else if (operasi == "*")
        {
            hasil = bil1 * bil2;
            jwb = String.format("%s", hasil);
            textDisplay.setText(jwb);

        }
        else if (operasi == "/")
        {
            hasil = bil1 / bil2;
            jwb = String.format("%s", hasil);
            textDisplay.setText(jwb);

        }
    }

    private void btn17ActionPerformed(java.awt.event.ActionEvent evt) {

        textDisplay.setText("");

    }

    /**
     * @param args the command line arguments
     */

    public static void main(String args[]) {

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

```

```

    });
}

// Variables declaration - do not modify
private javax.swing.JButton btn1;
private javax.swing.JButton btn10;
private javax.swing.JButton btn11;
private javax.swing.JButton btn12;
private javax.swing.JButton btn13;
private javax.swing.JButton btn14;
private javax.swing.JButton btn15;
private javax.swing.JButton btn16;
private javax.swing.JButton btn17;
private javax.swing.JButton btn2;
private javax.swing.JButton btn3;
private javax.swing.JButton btn4;
private javax.swing.JButton btn5;
private javax.swing.JButton btn6;
private javax.swing.JButton btn7;
private javax.swing.JButton btn8;
private javax.swing.JButton btn9;
private javax.swing.JButton btnResult;
private javax.swing.JTextField textDisplay;
// End of variables declaration
}

```

- Desain GUI formKalkulator

