

LAPORAN PRAKTIKUM
PEMROGRAMAN BERORIENTASI OBJEK
MODUL IV Graphical User Interface



Oleh:

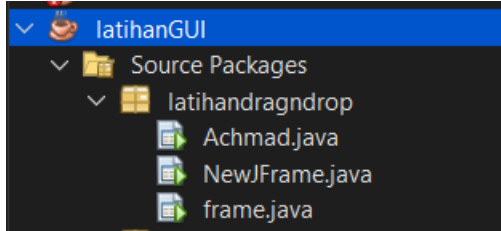
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PROGRAM STUDI S1 SISTEM INFORMASI
FAKULTAS REKAYASA INDUSTRI
UNIVERSITAS TELKOM PURWOKERTO
2024

A. Guided

1. Buat Project baru dengan nama LatihanGUIAchmad



2. Ubah Kode Program PraktikGUI:

```
import javax.swing.*;

/**
 *
 * AchmadShodiq2311103140*
 */
public class PraktikGUI{
    public static void main (String [] args){
        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();
        myFrame.setDefaultCloseOperation (JFrame.EXIT_ON_CLOSE);
        myFrame.setSize(600,600);
        myFrame.setVisible(true);
    }
}
```

3. Tambahkan JPanel pada code GUI

```
JPanel myPanel = new JPanel ();
myPanel.setLayout(new BorderLayout (myPanel, BorderLayout.Y_AXIS));
myFrame.getContentPane().add(myPanel);
```

4. Tambahkan JLabel pada GUI

```
JLabel myLabel = new JLabel ("Label Pertama ku....");
myPanel.add(myLabel);
```

5. Tambahkan JButton pada GUI

```
JButton myButton = new JButton("Tombol 1ST");
JButton myNdButton = new JButton("Tombol 2nd");
myPanel.add(myButton);
myPanel.add(myNdButton);
```

6. Tambahkan JTextField pada GUI

```
JTextArea myTextArea = new JTextArea("My First Text Area...", 5,30);
myPanel.add(myTextArea);
```

7. Tambahkan JCheckBox pada GUI

```
JCheckBox myCheckBox = new JCheckBox("Libur Masih lama");  
JCheckBox myCheckBoxTwo = new JCheckBox("Libur agak telat");  
myPanel.add(myCheckBox);  
myPanel.add(myCheckBoxTwo);
```

8. Tambahkan JRadioButton dan ButtonGroup pada GUI

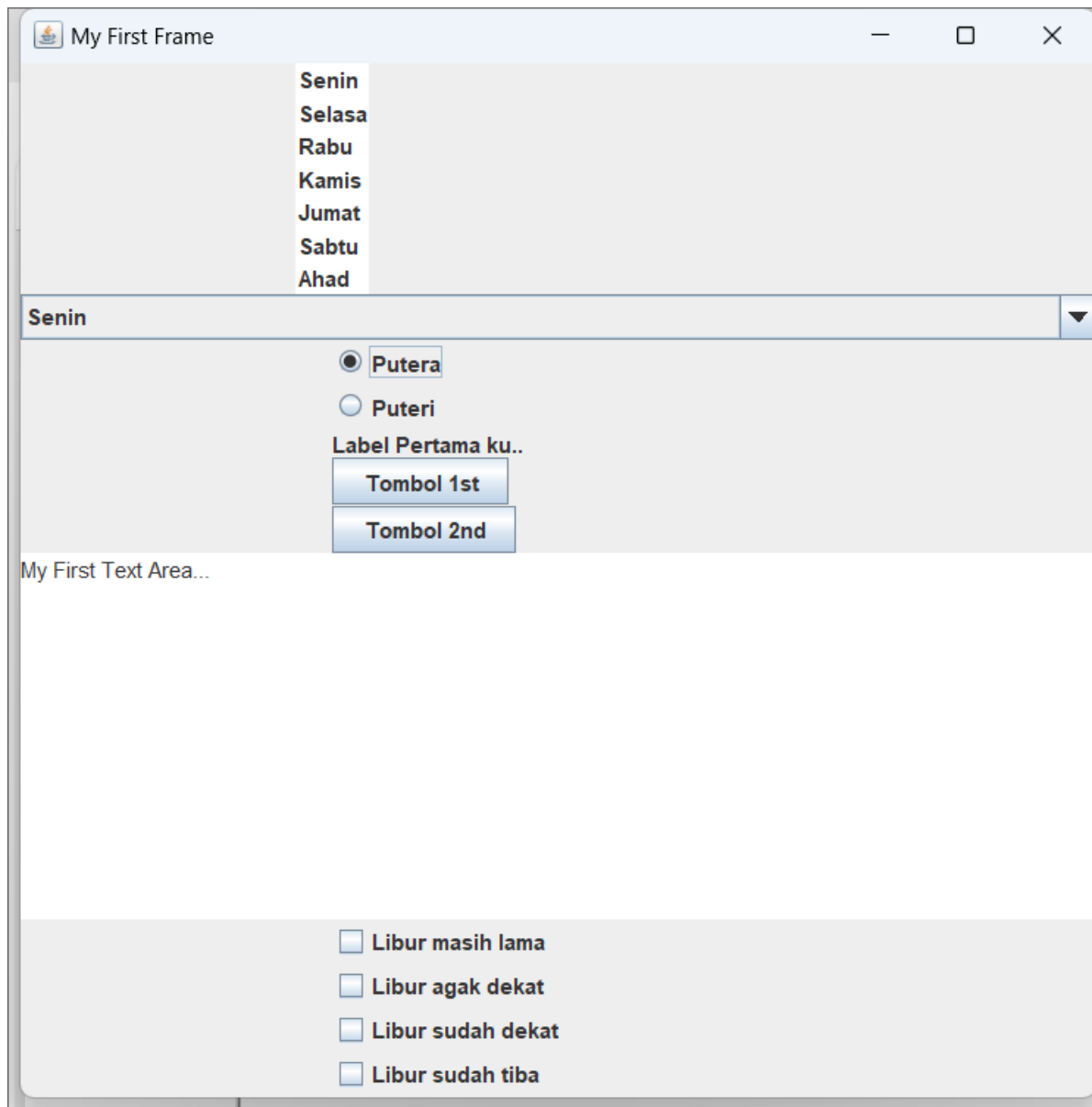
```
JRadioButton myRdoOne = new JRadioButton("Putera", true);  
JRadioButton myRdoTwo = new JRadioButton("Puteri", false);  
myPanel.add(myRdoOne);  
myPanel.add(myRdoTwo)
```

9. Tambahkan JList pada GUI

```
String hari [] = {"Senin", "Selasa", "Rabu", "Kamis", "Jumat", "Sabtu", "Ahad"};  
JList daftarHari = new JList(hari);  
myPanel.add(daftarHari);
```

10. Tambahkan JComboBox pada GUI

```
JComboBox cbbHari = new JComboBox(hari);  
myPanel.add(cbbHari);
```



Source Code sementara untuk hasil diatas

```
import javax.swing.*;

/**
 *
 * Achmad Shodiq 2311103140*
 */
public class latihangui {
    public static void main (String [] args){
        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();
        JOptionPane.showMessageDialog(null, "Peringatan sebentar lagi libur !",
            "Warning", JOptionPane.WARNING_MESSAGE);
    }
}
```

```

JLabel myLabel = new JLabel ("Label Pertama ku..");
JButton myButton = new JButton ("Tombol 1st");
JButton myNdButton = new JButton ("Tombol 2nd");
JTextArea myTextArea = new JTextArea("My First Text Area...",5,30);
JCheckBox myCbxOne = new JCheckBox ("Libur masih lama");
JCheckBox myCbxTwo = new JCheckBox ("Libur agak dekat");
JCheckBox myCbxThree = new JCheckBox ("Libur sudah dekat");
JCheckBox myCbxFour= new JCheckBox ("Libur sudah tiba");
JRadioButton myRdoOne = new JRadioButton("Putera", true);
JRadioButton myRdoTwo = new JRadioButton("Puteri", false);
String hari [] = {"Senin", "Selasa", "Rabu", "Kamis", "Jumat", "Sabtu", "Ahad"};
JList daftarHari = new JList(hari);
myPanel.add(daftarHari);
JComboBox cbbHari = new JComboBox(hari);
myPanel.add(cbbHari);
myPanel.add(myRdoOne);
myPanel.add(myRdoTwo);
myPanel.add(myLabel);
myPanel.add(myButton);
myPanel.add(myNdButton);
myPanel.add(myTextArea);
myPanel.add(myCbxOne);
myPanel.add(myCbxTwo);
myPanel.add(myCbxThree);
myPanel.add(myCbxFour);
myFrame.getContentPane().add(myPanel);
myFrame.setDefaultCloseOperation (JFrame.EXIT_ON_CLOSE);
myFrame.setSize(600,600);
myFrame.setVisible(true);
}
}

```

Dari Hasil run diatas itu adalah output sementara ini menampilkan seperti diatas.

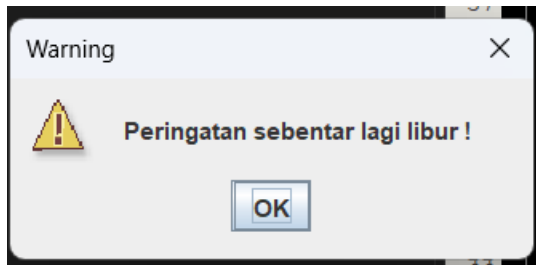
11. Coba hapus Code layout

```
myPanel.setLayout(new BoxLayout (myPanel, BoxLayout.Y_AXIS));
```

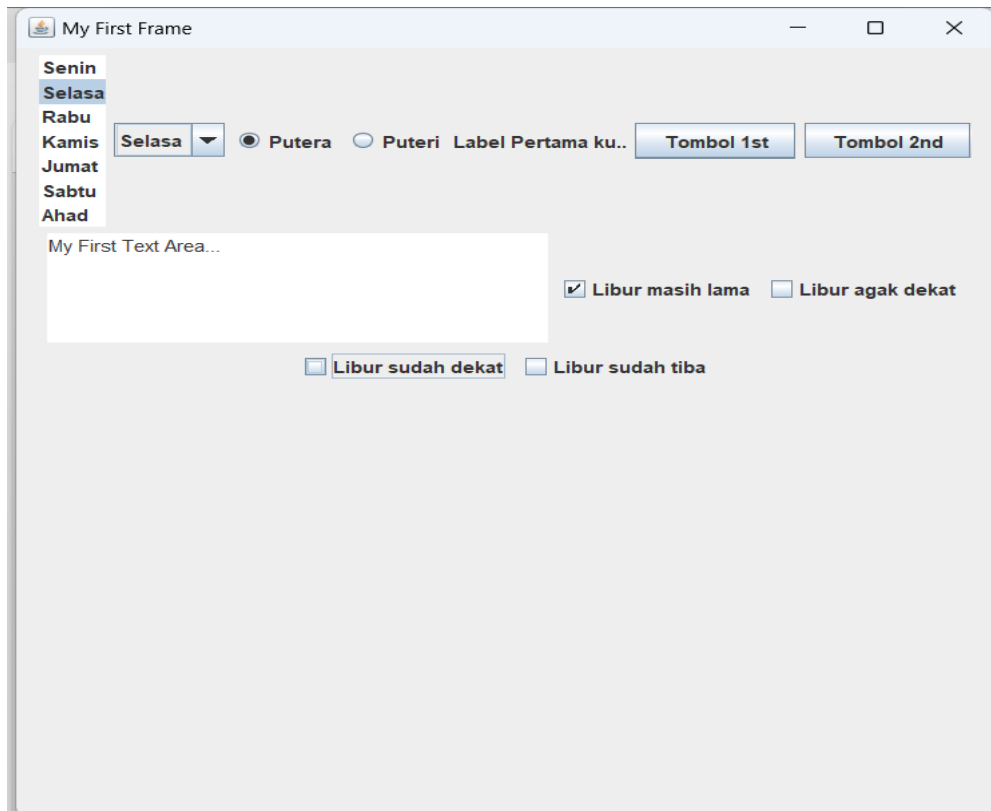
12. Ganti dengan JOptionPane pada GUI

```
JOptionPane.showMessageDialog(null, "Peringatan sebentar lagi libur !",
"Warning", JOptionPane.WARNING_MESSAGE);
```

Maka akan menampilkan Output ketika di run sebagai berikut:



Setelah itu muncul frame pertama tadi yaitu sebagai berikut:



Dan diatas adalah contoh output yang ditampilkan ,yang dimana ada tambahan frame yaitu peringatan bahwa libur sebentar lagi! Warning!!!.

B. Unguided

Buatlah suatu tampilan antar muka yang unik dan bagus untuk sebuah program. Cukup tampilannya saja. Cari Ide program yang sederhana dan unik.

Source Code:

```
package latihandragndrop;
```

```

/**
 *
 * @author User
 */
public class Achmad extends javax.swing.JFrame {

    /**
     * Creates new form Achmad
     */
    public Achmad() {
        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() {

        jPanel1 = new javax.swing.JPanel();
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        jLabel4 = new javax.swing.JLabel();
        jLabel5 = new javax.swing.JLabel();
        jButton1 = new javax.swing.JButton();
        jTextField1 = new javax.swing.JTextField();
        jTextField2 = new javax.swing.JTextField();
        jTextField3 = new javax.swing.JTextField();
        jTextField4 = new javax.swing.JTextField();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jLabel1.setText("Form Peminjaman Buku TUP");

        jLabel2.setText("Nama Mahasiswa");

        jLabel3.setText("Judul/ Seri Buku");

        jLabel4.setText("Tanggal Peminjaman");

        jLabel5.setText("Tanggal Pengembalian");
    }

```

```

jRadioButton1.setText("Denda Dikenakan jika buku rusak/hilang");
jRadioButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jRadioButton1ActionPerformed(evt);
    }
});

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

jTextField1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField1ActionPerformed(evt);
    }
});

jTextField2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField2ActionPerformed(evt);
    }
});

jTextField3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField3ActionPerformed(evt);
    }
});

jTextField4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField4ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addContainerGap()
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jTextField1)
                .addComponent(jTextField2)
                .addComponent(jTextField3)
                .addComponent(jTextField4)
            )
            .addContainerGap()
        )
);

```



```

        .addGap(23, 23, 23)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
            .addComponent(jRadioButton1)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addComponent(jLabel5)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(jTextField4, javax.swing.GroupLayout.DEFAULT_SIZE, 214, Short.MAX_VALUE))
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 105, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 96, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 120, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(jTextField1, javax.swing.GroupLayout.DEFAULT_SIZE, 216, Short.MAX_VALUE)
                    .addComponent(jTextField2)
                    .addComponent(jTextField3))))))
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(137, 137, 137)
            .addComponent(jButton1))
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(123, 123, 123)
            .addComponent(jLabel1)))
        .addContainerGap(23, Short.MAX_VALUE))
    );
    jPanel1Layout.setVerticalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(15, 15, 15)
            .addComponent(jLabel1)
            .addGap(18, 18, 18)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel2)

```

```

        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(16, 16, 16)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.BASELINE)
        .addComponent(jLabel3)
        .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, 18)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.BASELINE)
        .addComponent(jLabel4)
        .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(21, 21, 21)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.BASELINE)
        .addComponent(jLabel5)
        .addComponent(jTextField4, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(32, 32, 32)
        .addComponent(jRadioButton1)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(jButton1)
        .addContainerGap(81, Short.MAX_VALUE))
    );

    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.LEADING)
                .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addContainerGap())
            .addContainerGap())
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addContainerGap())
            .addContainerGap())
    );

    pack();

```

```

} // </editor-fold>

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void jTextField2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void jTextField3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void jTextField4ActionPerformed(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(Achmad.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
```

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

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

```
java.util.logging.Logger.getLogger(Achmad.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 Achmad().setVisible(true);
    }
});
}
```

```
// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JPanel jPanel1;
private javax.swing.JRadioButton jRadioButton1;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
private javax.swing.JTextField jTextField3;
private javax.swing.JTextField jTextField4;
// End of variables declaration
}
```

Drag desain:

Form Peminjaman Buku TUP

Nama Mahasiswa

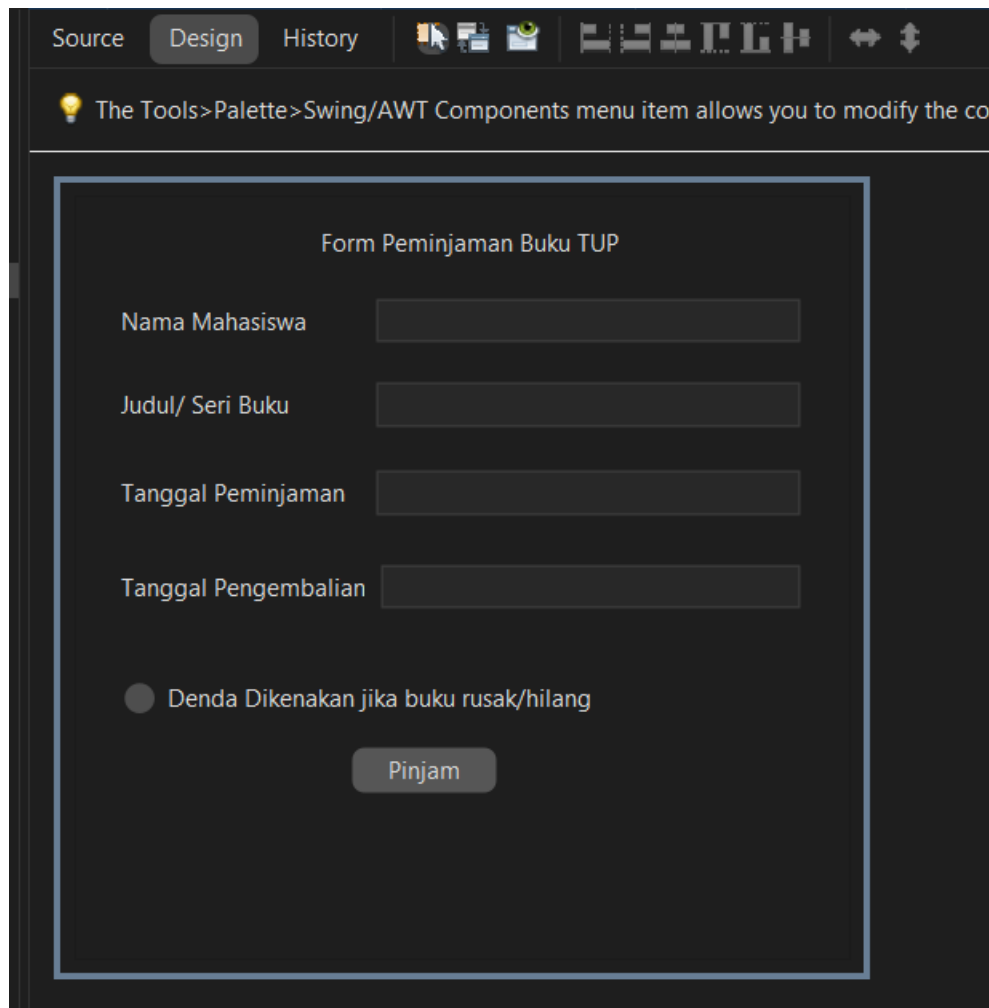
Judul/ Seri Buku

Tanggal Peminjaman

Tanggal Pengembalian

☐ Denda Dikenakan jika buku rusak/hilang

Pinjam



Output:

Form Peminjaman Buku TUP

Nama Mahasiswa Achmad

Judul/ Seri Buku Dicoding/22331

Tanggal Peminjaman 21/11/2024

Tanggal Pengembalian 27/11/2024

☐ Denda Dikenakan jika buku rusak/hilang

Pinjam

Berikut merupakan tampilan program peminjaman peminjaman buku perpustakaan TUP, terdapat nama mahasiswa, judul buku dan seri buku yang dipinjam, tanggal peminjaman dan tanggal pengembalian buku kapan yang tercatat, dan terdapat radio button, terdapat checkbox serta button.