

LAPORAN PRAKTIKUM
PEMROGRAMAN BERORIENTASI OBJEK
MODUL 4
LATIHAN GUI



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PROGRAM STUDI S1 SISTEM INFORMASI
FAKULTAS REKAYASA INDUSTRI
UNIVERSITAS TELKOM PURWOKERTO
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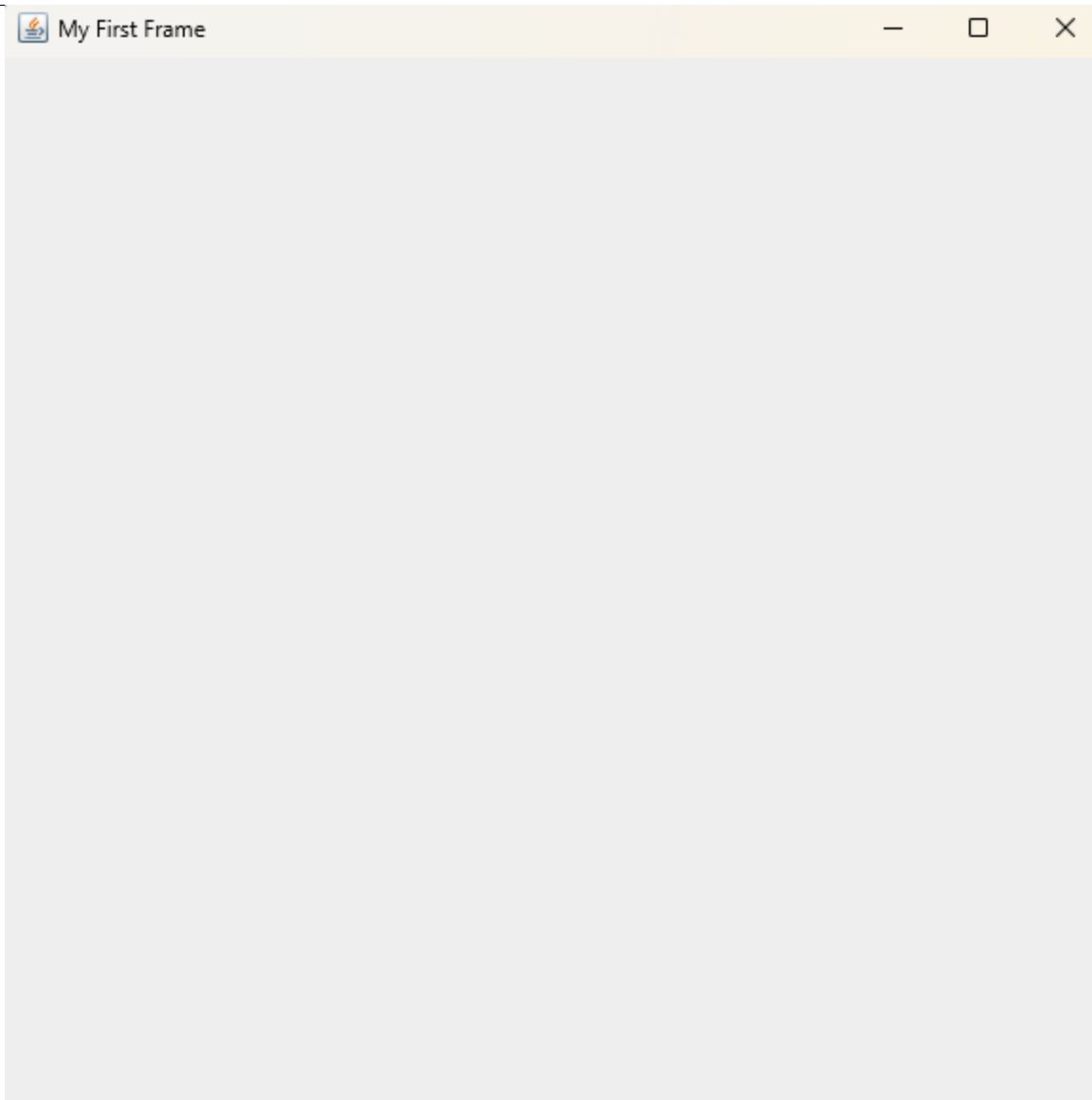
A. Guided

1. Buat project baru dengan LatihanP9**Nama**. Nama diganti dengan nama kalian, contoh :
LatihanP9SenaWijayanto
2. Ubah kode program **PraktikGUI** :

```
import javax.swing.*;

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

    }
}
```



Kode program ini akan menampilkan frame dasar pada program dengan nama “My First Frame” sebagai nama frame di bagian atas kiri dan ukuran frame 600x600 pixel.

3. Tambahkan JPanel pada GUI

```
import javax.swing.*;

public class PraktikGUI {
    public static void main(String [] args){
        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();
        myPanel.setLayout(new BoxLayout(myPanel, BoxLayout.Y_AXIS));
        myFrame.getContentPane().add(myPanel);

        myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        myFrame.setSize(600,600);
        myFrame.setVisible(true);
    }
}
```



Kode program ini akan menambahkan panel pada frame yang sudah dibuat dengan nama panel “myPanel” dan layout elemen akan disusun secara vertikal atau sesuai sumbu Y.

4. Tambahkan JLabel pada GUI

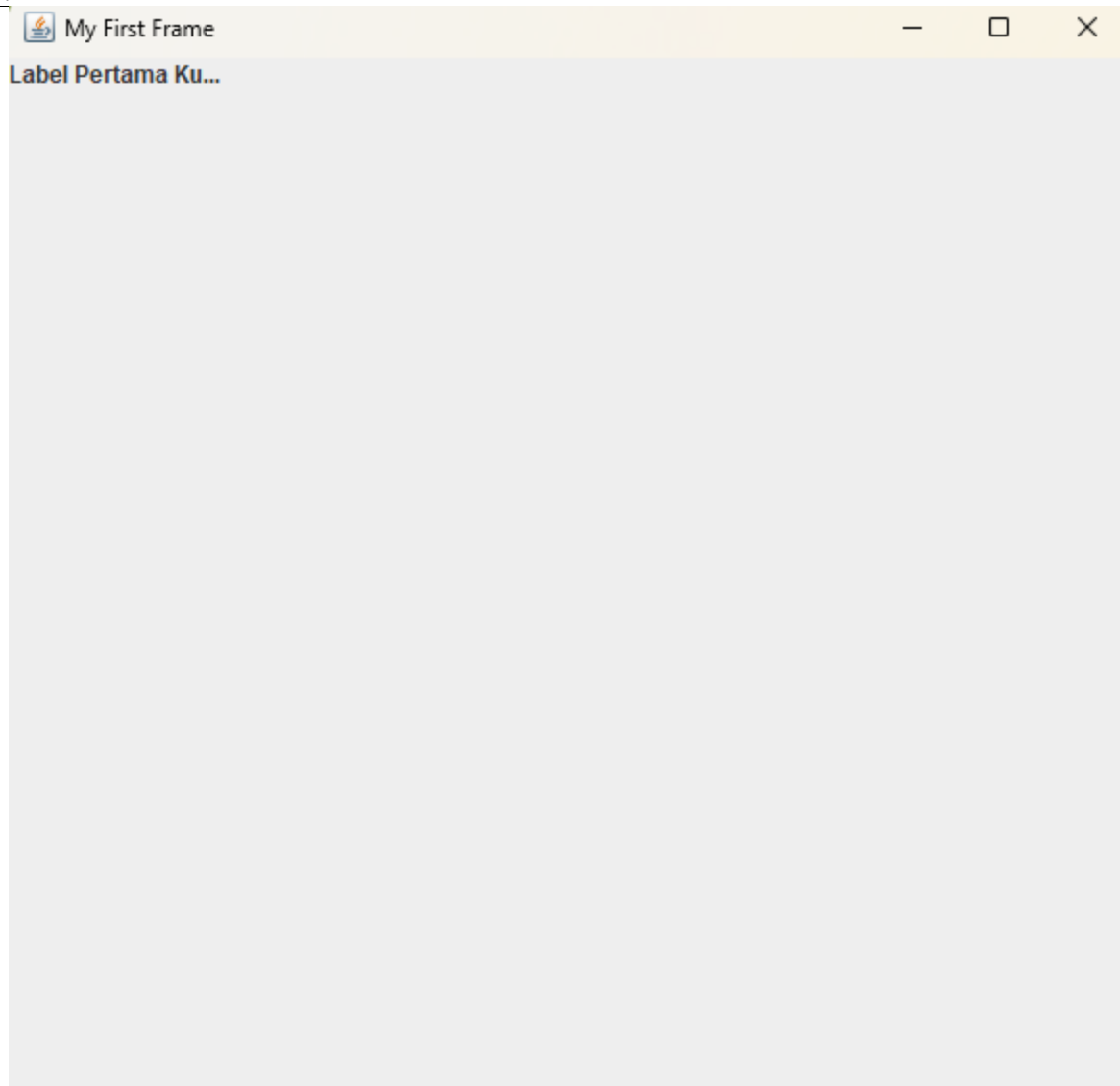
```
import javax.swing.*;

public class PraktikGUI {
    public static void main(String [] args){
        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();
        myPanel.setLayout(new BoxLayout(myPanel, BoxLayout.Y_AXIS));
        JLabel myLabel = new JLabel("Label Pertama Ku...");
        myPanel.add(myLabel);
    }
}
```

```
myFrame.getContentPane().add(myPanel);  
myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);  
myFrame.setSize(600,600); myFrame.setVisible(true);
```

```
}
```

```
}
```



Kode program di atas akan menambahkan label teks pada panel yang sudah dibuat sebelumnya. Label yang ditambahkan berisi “Label Pertama Ku...”. Label sendiri merupakan teks yang statis atau tidak bisa diubah saat di dalam program, teks bisa diubah pada saat pemrograman atau di kode program.

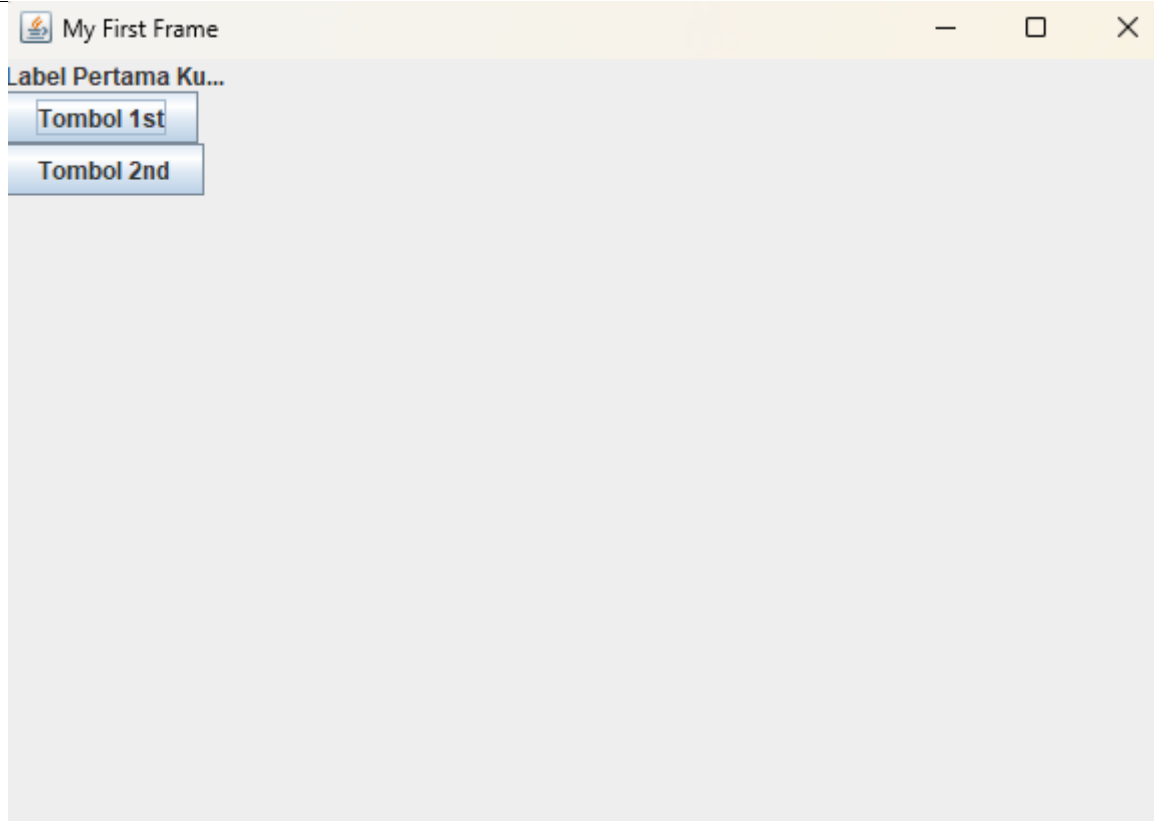
5. Tambahkan JButton pada GUI

```
import javax.swing.*;  
  
public class PraktikGUI {  
    public static void main(String [] args){
```

```

        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();
        myPanel.setLayout(new BoxLayout(myPanel, BoxLayout.Y_AXIS));
        JButton myButton = new JButton("Tombol 1st");
        JButton myNdButton = new JButton("Tombol 2nd");
        JLabel myLabel = new JLabel("Label Pertama Ku...");
        myPanel.add(myLabel);
        myPanel.add(myButton);
        myPanel.add(myNdButton);
        myFrame.getContentPane().add(myPanel);
        myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        myFrame.setSize(600,600);
        myFrame.setVisible(true);
    }
}

```



Kode program diatas akan menambahkan dua tombol baru pada panel. Tombol tersebut diberi nama “Tombol 1st” dan “Tombol 2nd”.

6. Tambahkan JTextField pada GUI

```

import javax.swing.*;

public class PraktikGUI {
    public static void main(String [] args){
        JFrame myFrame = new JFrame ("My First Frame");
    }
}

```

```

JPanel myPanel = new JPanel();
myPanel.setLayout(new BoxLayout(myPanel, BoxLayout.Y_AXIS));
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);

myPanel.add(myLabel);
myPanel.add(myButton);
myPanel.add(myNdButton);
myPanel.add(myTextArea);
myFrame.getContentPane().add(myPanel);
myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
myFrame.setSize(600, 600);      myFrame.setVisible(true);
}
}

```



Kode program di atas akan menambahkan teks field, atau teks yang bersifat dinamis. Berbeda dengan label, teks ini bisa diubah saat program dijalankan atau di dalam program itu sendiri. Pada teks field, juga terdapat ukuran atau size yang diisikan saat proses pemrograman, seperti teks field diatas diisikan ukuran 5 sebagai panjang dan 30 sebagai lebar.

7. Tambahkan JCheckBox pada GUI

```
import javax.swing.*;

public class PraktikGUI
{
    public static void main(String [] args){
        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();
        myPanel.setLayout(new BoxLayout(myPanel, BoxLayout.Y_AXIS));
        JLabel myLabel = new JLabel("Label Pertama Ku...");
        JButton myButton = new JButton("Tombol 1st");

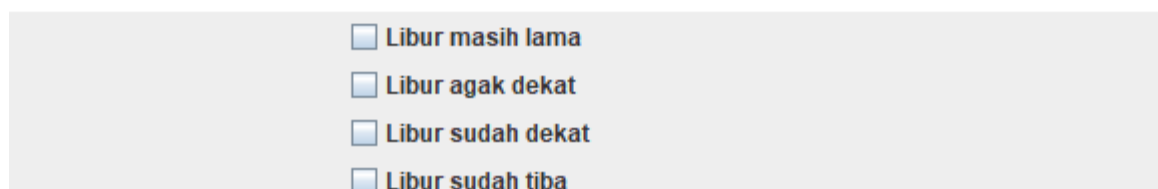
        JButton myNdButton = new JButton("Tombol 2nd");
        JTextArea myTextArea = new JTextArea("My First Text Area...", 5,
30);

        JCheckBox myCbxCOne = new JCheckBox("Libur masih lama");
        JCheckBox myCbxCTwo = new JCheckBox("Libur agak dekat");
        JCheckBox myCbxCThree = new JCheckBox("Libur sudah dekat");
        JCheckBox myCbxCFour = new JCheckBox("Libur sudah tiba");

        myPanel.add(myLabel);
        myPanel.add(myButton);
        myPanel.add(myNdButton);
        myPanel.add(myTextArea);
        myPanel.add(myCbxCOne);
        myPanel.add(myCbxCTwo);
        myPanel.add(myCbxCThree);
        myPanel.add(myCbxCFour);

        myFrame.getContentPane().add(myPanel);
        myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        myFrame.setSize(600,600);
        myFrame.setVisible(true);
    }
}
```

Kode program di atas akan menambahkan checklist box sebanyak empat buah. Ke empat check box tersebut diberi label “Libur masih lama”, “Libur agak dekat”, “Libur sudah dekat” dan “Libur sudah tiba”. Check box akan ditambahkan pada bagian paling bawah program.

8. Tambahkan JRadioButton dan ButtonGroup pada GUI

```
import javax.swing.*;

public class PraktikGUI
{
    public static void main(String [] args){
        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();

        myPanel.setLayout(new BoxLayout(myPanel, BoxLayout.Y_AXIS));
        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);
ButtonGroup grpRdo = new ButtonGroup();
grpRdo.add(myRdoOne);

grpRdo.add(myRdoTwo);

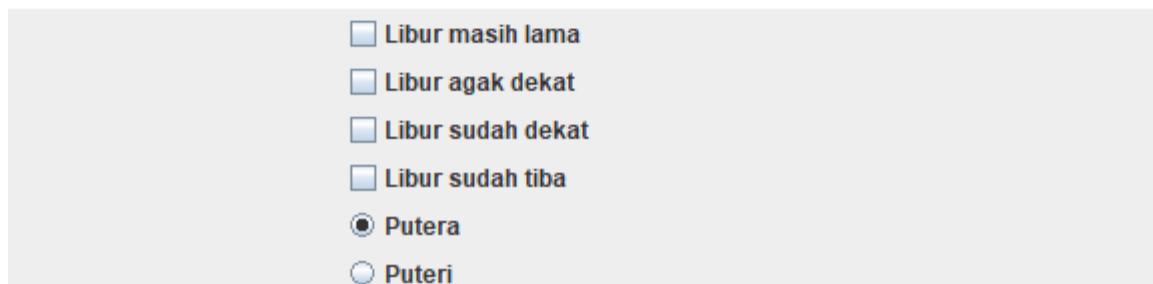
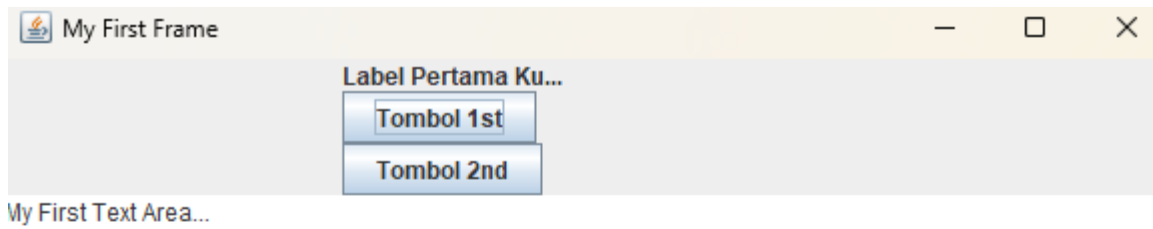
myPanel.add(myLabel);
myPanel.add(myButton);

myPanel.add(myNdButton);
myPanel.add(myTextArea);
myPanel.add(myCbxOne);
myPanel.add(myCbxTwo);
myPanel.add(myCbxThree);
myPanel.add(myCbxFour);

myPanel.add(myRdoOne);
myPanel.add(myRdoTwo);

myFrame.getContentPane().add(myPanel);
myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
myFrame.setSize(600, 600);
myFrame.setVisible(true);
}
}

```



Kode program di atas akan menambahkan dua radio button atau tombol pilihan dimana tombol tersebut bisa bersifat true atau false. Dua tombol tersebut diberi label “Putera” dan “Puteri”. Kemudian ke dua tombol tersebut dijadikan menjadi satu grup.

9. Tambahkan JList pada GUI

```
import javax.swing.*;
```

```

public class PraktikumGUI {
    public static void main(String [] args){
        String hari [] = {"Senin", "Selasa", "Rabu", "Kamis", "Jumat",
        "Sabtu", "Ahad"};

        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();
        myPanel.setLayout(new BoxLayout(myPanel, BoxLayout.Y_AXIS));
        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 myCbxEOne = new JCheckBox("Libur masih lama");
        JCheckBox myCbxETwo = new JCheckBox("Libur agak dekat");

        JCheckBox myCbxEThree = new JCheckBox("Libur sudah dekat");
        JCheckBox myCbxEFour = new JCheckBox("Libur sudah tiba");

        JRadioButton myRdoOne = new JRadioButton("Putera", true);
        JRadioButton myRdoTwo = new JRadioButton("Puteri", false);
        ButtonGroup grpRdo = new ButtonGroup();

        JList daftarHari = new JList(hari);
        daftarHari.setSelectedIndex(0);

        grpRdo.add(myRdoOne);          grpRdo.add(myRdoTwo);
        myPanel.add(myLabel);
        myPanel.add(myButton);
        myPanel.add(myNdButton);

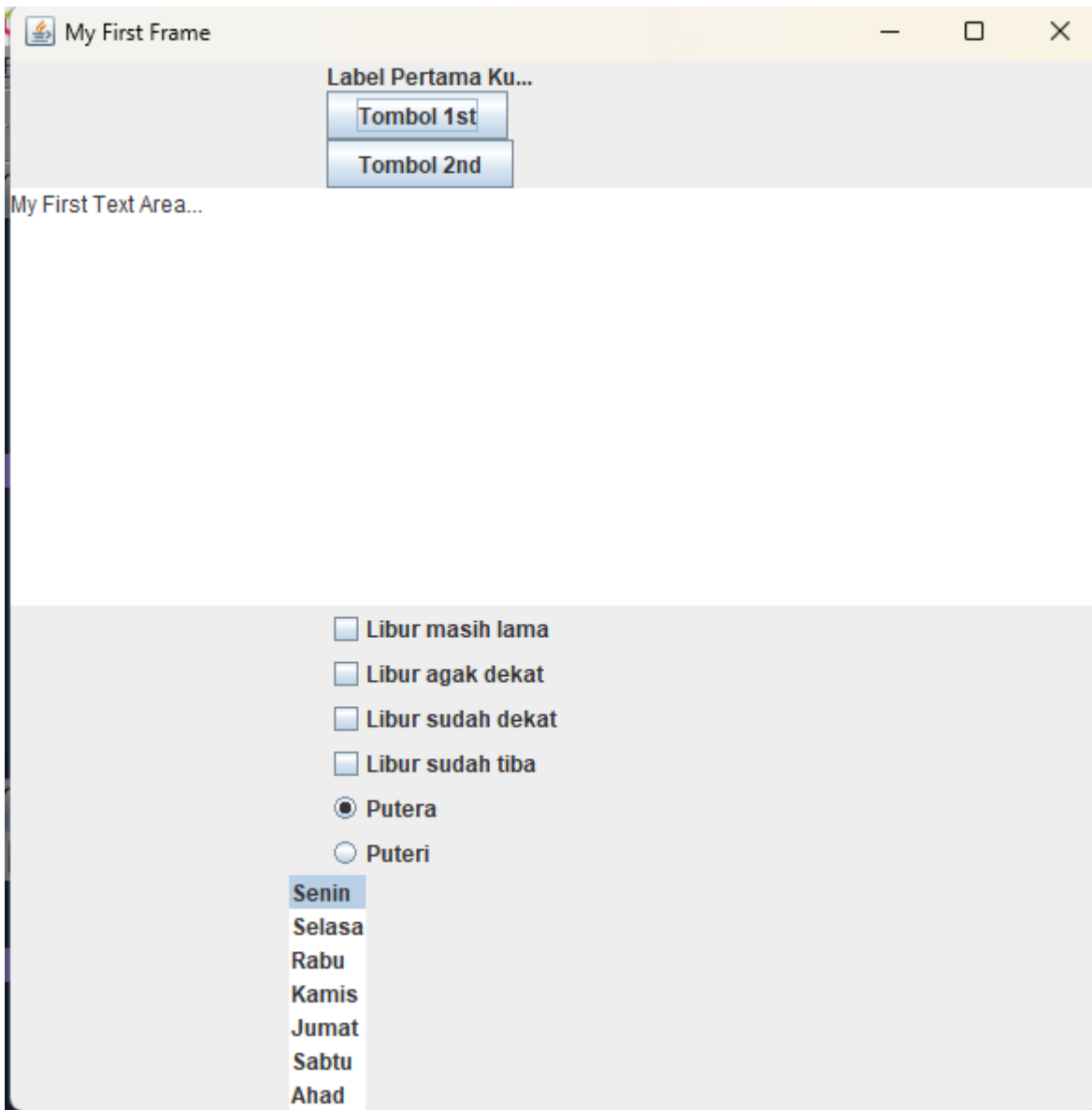
        myPanel.add(myTextArea);
        myPanel.add(myCbxEOne);
        myPanel.add(myCbxETwo);

        myPanel.add(myCbxEThree);
        myPanel.add(myCbxEFour);
        myPanel.add(myRdoOne);

        myPanel.add(daftarHari);

        myPanel.add(myRdoTwo);
        myFrame.getContentPane().add(myPanel);
        myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        myFrame.setSize(600,600);      myFrame.setVisible(true);
    }
}

```



Kode program di atas akan menambahkan list, list dapat diisi oleh variabel array yang menyimpan banyak data. Pada contoh ini list diisi oleh variabel array nama-nama hari, yang menyimpan nama-nama hari dari hari senin sampai ahad. Kemudian list ini diberi nama “daftarHari”.

10. Tambahkan JComboBox pada GUI

```
import javax.swing.*;
```

```

public class PraktikGUI {
    public static void main(String [] args){
        String hari [] = {"Senin", "Selasa", "Rabu", "Kamis", "Jumat",
"Sabtu", "Ahad"};
        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();
        myPanel.setLayout(new BorderLayout(myPanel, BorderLayout.Y_AXIS));
        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);
        ButtonGroup grpRdo = new ButtonGroup();
        grpRdo.add(myRdoOne);          grpRdo.add(myRdoTwo);
        JList daftarHari = new JList(hari);
        daftarHari.setSelectedIndex(0);
        JComboBox cbbHari = new JComboBox(hari);
        myPanel.add(myLabel);
        myPanel.add(myButton);

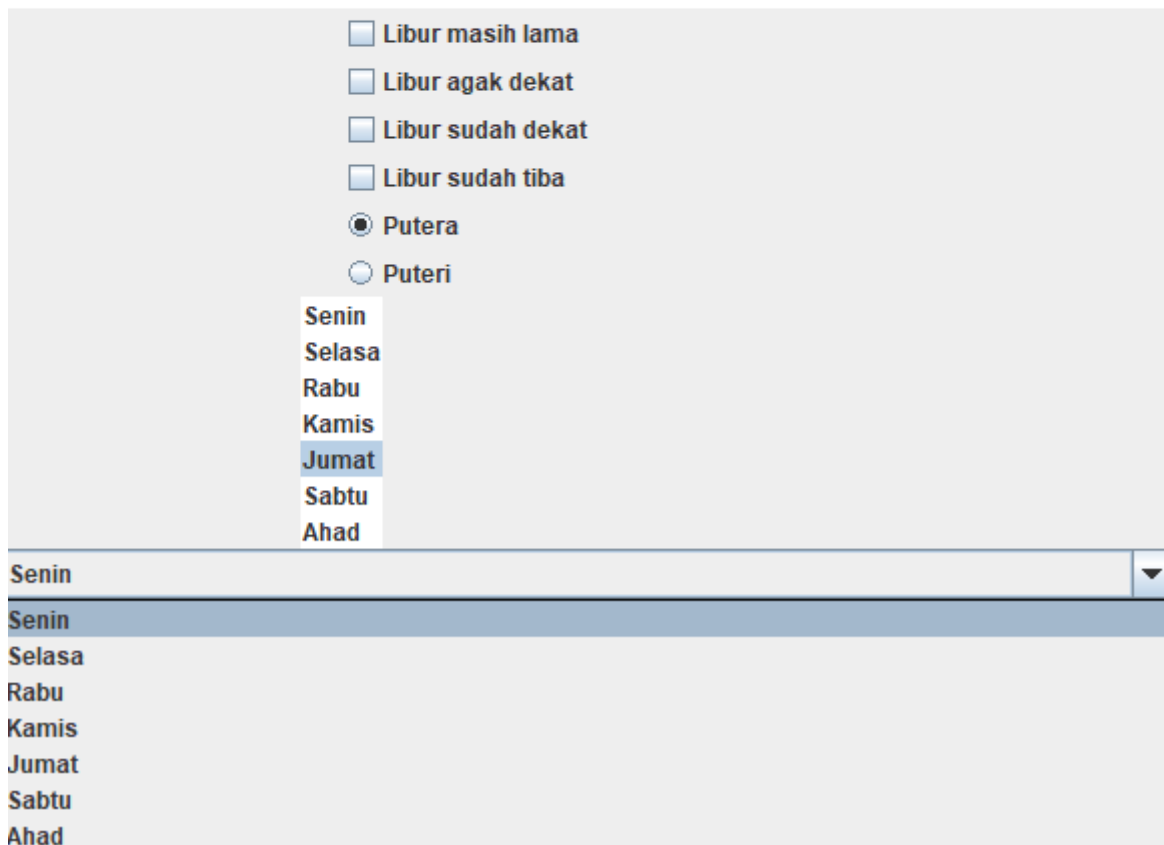
        myPanel.add(myNdButton);
        myPanel.add(myTextArea);
        myPanel.add(myCbxOne);

        myPanel.add(myCbxTwo);
        myPanel.add(myCbxThree);
        myPanel.add(myCbxFour);
        myPanel.add(myRdoOne);
        myPanel.add(myRdoTwo);

        myPanel.add(cbbHari);
        myPanel.add(daftarHari);

        myFrame.getContentPane().add(myPanel);
        myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        myFrame.setSize(600,600);
        myFrame.setVisible(true);
    }
}

```



Kode program di atas akan menambahkan combo box. Combo box merupakan sebuah box dimana saat box tersebut diklik, maka akan menampilkan list model-model yang ada di dalamnya dan bisa dipilih. Model-model yang ada di dalam combo box tersebut ialah nama-nama hari dari hari senin sampai hari ahad.

11. Coba hapus code layout

```
import javax.swing.*;
```

```

public class PraktikGUI {
    public static void main(String [] args){
        String hari [] = {"Senin", "Selasa", "Rabu", "Kamis", "Jumat",
"Sabtu", "Ahad"};
        JFrame myFrame = new JFrame ("My First Frame");
        JPanel myPanel = new JPanel();

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

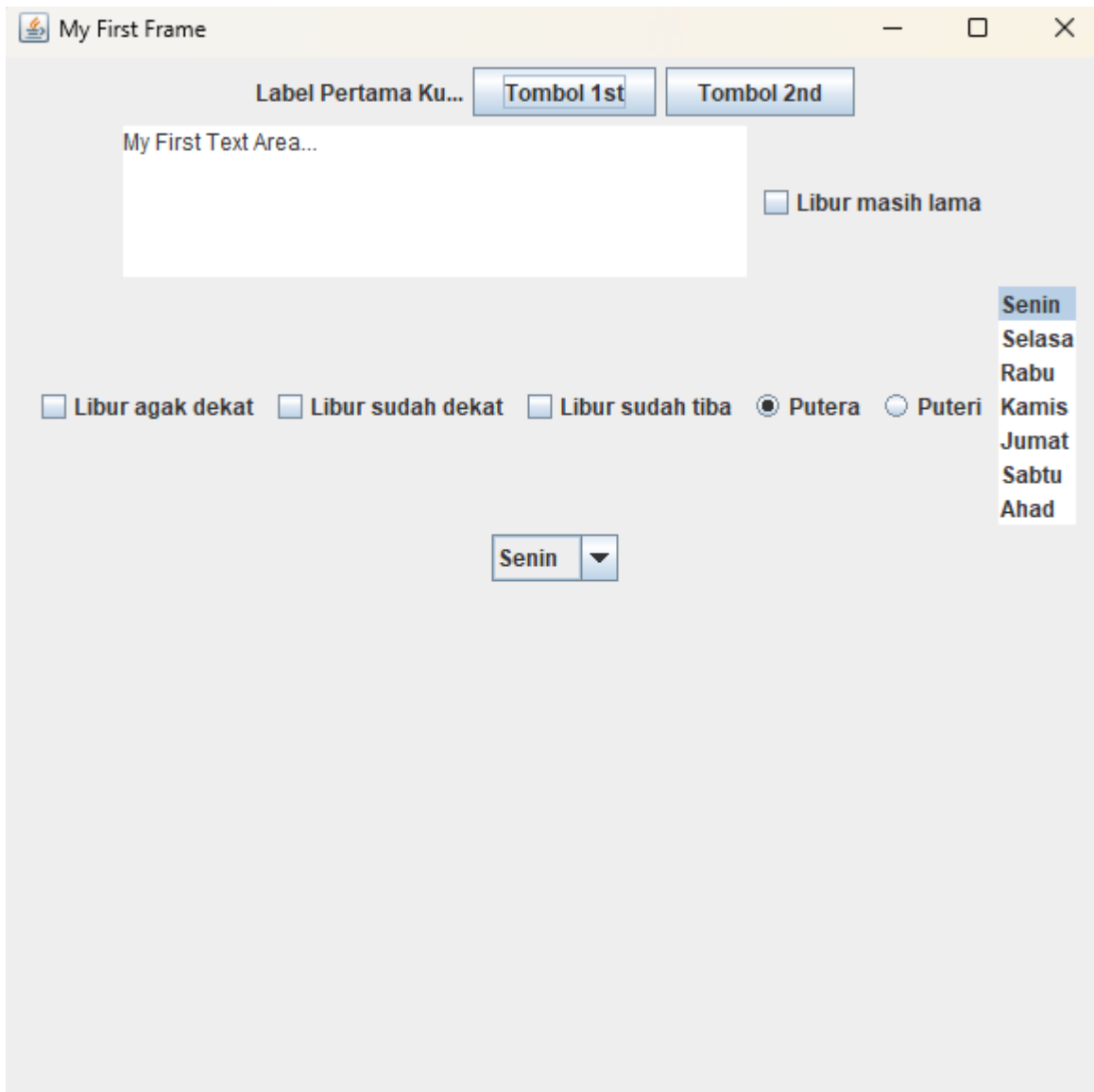
        JCheckBox myCbxOne = new JCheckBox("Libur masih lama");
        JCheckBox myCbxTwo = new JCheckBox("Libur agak dekat");
        JCheckBox myCbxThree = new JCheckBox("Libur sudah dekat");
        JCheckBox myCbxFour = new JCheckBox("Libur sudah tiba");
        JRadioButton myRdoOne = new JRadioButton("Putera", true);
        JRadioButton myRdoTwo = new JRadioButton("Puteri", false);
        ButtonGroup grpRdo = new ButtonGroup();
        grpRdo.add(myRdoOne);          grpRdo.add(myRdoTwo);

        JList daftarHari = new JList(hari);
        daftarHari.setSelectedIndex(0);
        JComboBox cbbHari = new JComboBox(hari);

        myPanel.add(myLabel);
        myPanel.add(myButton);
        myPanel.add(myNdButton);
        myPanel.add(myTextArea);          myPanel.add(myCbxOne);
myPanel.add(myCbxTwo);          myPanel.add(myCbxThree);
myPanel.add(myCbxFour);          myPanel.add(myRdoOne);
myPanel.add(myRdoTwo);          myPanel.add(daftarHari);
myPanel.add(cbbHari);
myFrame.getContentPane().add(myPanel);
myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        myFrame.setSize(600, 600);
        myFrame.setVisible(true);
    }
}

```

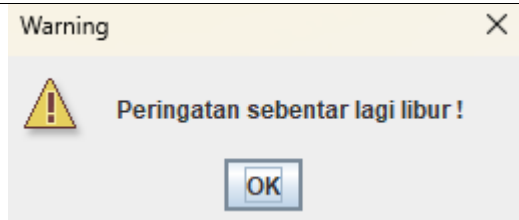
Penghapusan kode program di atas akan menghapus layout elemen yang disusun secara vertikal atau mengikuti sumbu Y. Sehingga dengan penghapusan tersebut, maka layout pada panel akan disusun secara horizontal atau menyamping.

12. Tambahkan JOptionPane pada GUI

```
import javax.swing.*;
public class PraktikGUI
{
    public static void main(String [] args){
        JFrame myFrame = new JFrame ("My First Frame");
        JOptionPane.showMessageDialog(null, "Peringatan sebentar lagi
        libur !",
        "Warning", JOptionPane.WARNING_MESSAGE);
        myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        myFrame.setSize(600,600);

        myFrame.setVisible(true);
    }
}
```

```
}  
}
```



Kode program di atas akan menampilkan sebuah frame UI warning message dengan label “Peringatan sebentar lagi libur!”. Ukuran frame dibuat dengan 600x600 pixel. Pada program tersebut juga terdapat satu tombol dengan label “OK” dan jika tombol tersebut diklik maka program akan mengakhiri dan menutup program tersebut.

// File kode program PraktikGUI.java

```
package latihanp9izmasiabrian;
```

```
/**
```

```
 *
```

```
 * @author Izma Syabrian
```

```
 * 2311103148
```

```
 */
```

```
import javax.swing.*;
```

```
public class PraktikGUI {
```

```
    public static void main(String[] args) {
```

```
        String hari [] = {"Senin", "Selasa", "Rabu", "Kamis", "Jumat", "Sabtu", "Ahad"};
```

```
        JFrame myFrame = new JFrame ("My First Frame");
```

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

```
JPanel myPanel = new JPanel();

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

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);

ButtonGroup grpRdo = new ButtonGroup();

JList daftarHari = new JList(hari);

JComboBox cbbHari = new JComboBox(hari);

daftarHari.setSelectedIndex(0);

grpRdo.add(myRdoOne);

grpRdo.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);
```

```

        myPanel.add(myRdoOne);

        myPanel.add(myRdoTwo);

        myPanel.add(daftarHari);

        myPanel.add(cbbHari);


        myFrame.getContentPane().add(myPanel);

        myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        myFrame.setSize(600,600);

        myFrame.setVisible(true);

    }
}

```

B. Unguided

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

//UnguidedGUI.java

```

/*
 * 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 latihanp9izmasyabrian;


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

```

```

/**
 * Creates new form UnguidedGUI
 */
public UnguidedGUI() {
    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();
    nim1 = new javax.swing.JTextField();
    nama1 = new javax.swing.JTextField();
    prodi1 = new javax.swing.JComboBox<>();
    angkatan1 = new javax.swing.JComboBox<>();
    jLabel6 = new javax.swing.JLabel();
    tampilkan = new javax.swing.JToggleButton();
    nim2 = new javax.swing.JTextField();
    nama2 = new javax.swing.JTextField();

```

```

jLabel7 = new javax.swing.JLabel();
jLabel8 = new javax.swing.JLabel();
jLabel9 = new javax.swing.JLabel();
jLabel10 = new javax.swing.JLabel();
prodi2 = new javax.swing.JTextField();
angkatan2 = new javax.swing.JTextField();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jLabel1.setFont(new java.awt.Font("Montserrat", 1, 18)); // NOI18N
jLabel1.setText("Form Data Diri ");
jLabel1.setFocusTraversalPolicyProvider(true);

jLabel2.setFont(new java.awt.Font("Montserrat SemiBold", 0, 14)); // NOI18N
jLabel2.setText("Nama");

jLabel3.setFont(new java.awt.Font("Montserrat SemiBold", 0, 14)); // NOI18N
jLabel3.setText("NIM");

jLabel4.setFont(new java.awt.Font("Montserrat SemiBold", 0, 14)); // NOI18N
jLabel4.setText("Program Studi");

jLabel5.setFont(new java.awt.Font("Montserrat SemiBold", 0, 14)); // NOI18N
jLabel5.setText("Angkatan");

nim1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        nim1ActionPerformed(evt);
    }
});

```

```
nama1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        nama1ActionPerformed(evt);
    }
});
```

```
prodi1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Sistem
Informasi", "Teknik Industri", "Teknik Logistik", "Manajemen Rekayasa", " " }));
prodi1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        prodi1ActionPerformed(evt);
    }
});
```

```
angkatan1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
"2019", "2020", "2021", "2022", "2023", "2024" }));
```

```
jLabel6.setFont(new java.awt.Font("Montserrat", 1, 18)); // NOI18N
jLabel6.setText("Fakultas FRI");
jLabel6.setFocusTraversalPolicyProvider(true);
```

```
tampilkan.setText("Tampilkan");
tampilkan.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        tampilkanActionPerformed(evt);
    }
});
```

```
nim2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
        nim2ActionPerformed(evt);
    }
});
```

```
nama2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        nama2ActionPerformed(evt);
    }
});
```

```
jLabel7.setFont(new java.awt.Font("Montserrat SemiBold", 0, 14)); // NOI18N
jLabel7.setText("Nama");
```

```
jLabel8.setFont(new java.awt.Font("Montserrat SemiBold", 0, 14)); // NOI18N
jLabel8.setText("NIM");
```

```
jLabel9.setFont(new java.awt.Font("Montserrat SemiBold", 0, 14)); // NOI18N
jLabel9.setText("Program Studi");
```

```
jLabel10.setFont(new java.awt.Font("Montserrat SemiBold", 0, 14)); // NOI18N
jLabel10.setText("Angkatan");
```

```
prodi2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        prodi2ActionPerformed(evt);
    }
});
```

```
angkatan2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```



```
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
```

```
    .addComponent(nim1)
```

```
    .addComponent(nama1)
```

```
    .addComponent(prodi1, 0, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
```

```
    .addComponent(angkatan1, 0, 224, Short.MAX_VALUE)))
```

```
.addGroup(jPanel1Layout.createSequentialGroup()
```

```
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
```

```
    .addComponent(jLabel9)
```

```
    .addComponent(jLabel8, javax.swing.GroupLayout.Alignment.LEADING)
```

```
    .addComponent(jLabel7, javax.swing.GroupLayout.Alignment.LEADING)
```

```
    .addComponent(jLabel10, javax.swing.GroupLayout.Alignment.LEADING))
```

```
    .addGap(23, 23, 23)
```

```
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
```

```
    .addComponent(nim2, javax.swing.GroupLayout.DEFAULT_SIZE, 224, Short.MAX_VALUE)
```

```
    .addComponent(nama2)
```

```
    .addComponent(prodi2, javax.swing.GroupLayout.DEFAULT_SIZE, 224, Short.MAX_VALUE)
```

```
    .addComponent(angkatan2, javax.swing.GroupLayout.DEFAULT_SIZE, 224, Short.MAX_VALUE))))))
```

```
    .addContainerGap(27, Short.MAX_VALUE))
```

```
.addGroup(jPanel1Layout.createSequentialGroup()
```

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

```
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```

        .addComponent(jLabel6)

        .addComponent(tampilkan, javax.swing.GroupLayout.PREFERRED_SIZE,
120, javax.swing.GroupLayout.PREFERRED_SIZE))

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

    );

    jPanel1Layout.setVerticalGroup(

jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

        .addGroup(jPanel1Layout.createSequentialGroup()

            .addGap(22, 22, 22)

            .addComponent(jLabel1)

            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

            .addComponent(jLabel6)

            .addGap(13, 13, 13)

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)

            .addComponent(jLabel2)

            .addComponent(nama1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)

            .addComponent(jLabel3)

            .addComponent(nim1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)

            .addComponent(jLabel4)

```

```

        .addComponent(prodi1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)

        .addComponent(jLabel5)

        .addComponent(angkatan1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

        .addGap(18, 18, 18)

        .addComponent(tampilkan)

        .addGap(18, 18, 18)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)

        .addComponent(jLabel7)

        .addComponent(nama2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)

        .addComponent(jLabel8)

        .addComponent(nim2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASE
LINE)

        .addComponent(jLabel9)

        .addComponent(prodi2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

```

```

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

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

        .addComponent(jLabel10)

        .addComponent(angkatan2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

        .addContainerGap(51, Short.MAX_VALUE))

);

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
);

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

private void nim1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void nama1ActionPerformed(java.awt.event.ActionEvent evt) {

```

```
}
```

```
private void prodi1ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
}
```

```
private void nim2ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
}
```

```
private void nama2ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
}
```

```
private void prodi2ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
}
```

```
private void angkatan2ActionPerformed(java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
}
```

```
private void tampilkanActionPerformed(java.awt.event.ActionEvent evt) {  
    nama2.setText(nama1.getText());  
    nim2.setText(nim1.getText());  
    prodi2.setText((String)prodi1.getSelectedItem());  
    angkatan2.setText((String)angkatan1.getSelectedItem());  
}
```

```

/**
 * @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(UnguidedGUI.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

    } catch (InstantiationException ex) {

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

    } catch (IllegalAccessException ex) {

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

    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

```

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

```
    }
```

```
});
```

```
}
```

```
// Variables declaration - do not modify
```

```
private javax.swing.JComboBox<String> angkatan1;
```

```
private javax.swing.JTextField angkatan2;
```

```
private javax.swing.JLabel jLabel1;
```

```
private javax.swing.JLabel jLabel10;
```

```
private javax.swing.JLabel jLabel2;
```

```
private javax.swing.JLabel jLabel3;
```

```
private javax.swing.JLabel jLabel4;
```

```
private javax.swing.JLabel jLabel5;
```

```
private javax.swing.JLabel jLabel6;
```

```
private javax.swing.JLabel jLabel7;
```

```
private javax.swing.JLabel jLabel8;
```

```
private javax.swing.JLabel jLabel9;
```

```
private javax.swing.JPanel jPanel1;
```

```
private javax.swing.JTextField nama1;
```

```
private javax.swing.JTextField nama2;
```

```
private javax.swing.JTextField nim1;
```



```

private javax.swing.JTextField nim2;
private javax.swing.JComboBox<String> prodi1;
private javax.swing.JTextField prodi2;
private javax.swing.JToggleButton tampilkan;
// End of variables declaration
}

```

Kode program di atas merupakan program sederhana yakni program formulir data diri mahasiswa Fakultas Rekayasa Industri. Program ini akan menampilkan UI seperti pada gambar di bawah ini.



The image shows a Java Swing window titled "Form Data Diri Fakultas FRI". The window has a light gray background and a standard Windows-style title bar with minimize, maximize, and close buttons. Inside the window, there are two identical sets of input fields. The first set includes labels for "Nama", "NIM", "Program Studi", and "Angkatan". The "Program Studi" field is a dropdown menu currently showing "Sistem Informasi", and the "Angkatan" field is a dropdown menu currently showing "2019". Below these fields is a button labeled "Tampilkan". The second set of fields is identical but without the dropdown menus, showing empty text boxes for "Nama", "NIM", "Program Studi", and "Angkatan".

Di dalam program terdapat kolom-kolom yang dapat diisi sesuai dengan keterangan label disampingnya. Kolom yang dapat diisi ialah kolom nama dan kolom NIM. Kemudian terdapat dua combo bos pada program studi dan angkatan. Combo box bisa dipilih sesuai dengan keterangan yang ada di dalamnya.

Kemudian terdapat tombol tampilkan, dimana tombol ini diprogram saat pengguna memasukkan data diri pada kolom nama, NIM dan memilih prodi serta angkatan yang sesuai, maka informasi tersebut akan ditampilkan kembali di kolom-kolom di bawah tombol tampilkan.



Form Data Diri
Fakultas FRI

Nama

NIM

Program Studi

Angkatan

Nama

NIM

Program Studi

Angkatan

Program ini akan berjalan dimana mahasiswa mengisi nama dan NIM pada kolom yang tersedia. Kemudian memilih pilihan program studi dan angkatan pada combo box yang disediakan. Setelah itu mahasiswa bisa meng-klik tombol “Tampilkan”, maka program akan menampilkan informasi yang sudah diisi sebelumnya di kolom-kolom bagian bawah, seperti pada gambar di bawah ini.



Form Data Diri Fakultas FRI

Nama

NIM

Program Studi

Angkatan

Tampilkan

Nama

NIM

Program Studi

Angkatan