

Nama : Muh. Nur Afrizal

NIM : 222212738

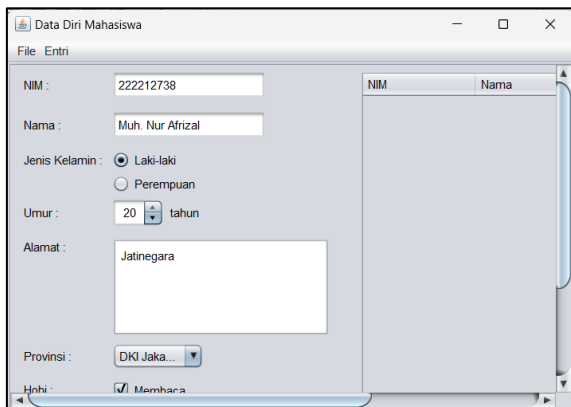
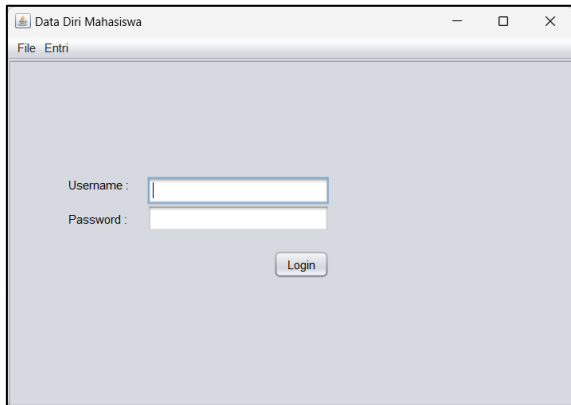
Kelas / No : 2KS1 / 25

## MODUL 9 PEMROGRAMAN BERORIENTASI OBJEK

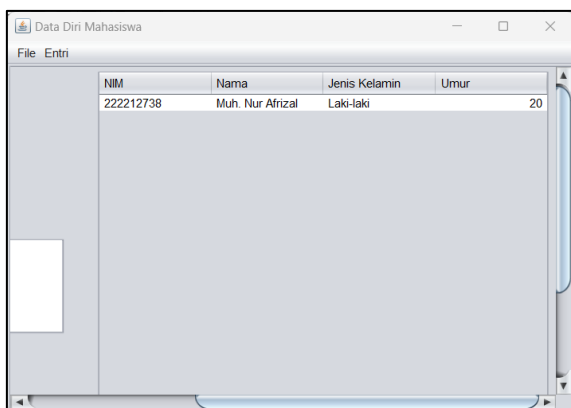
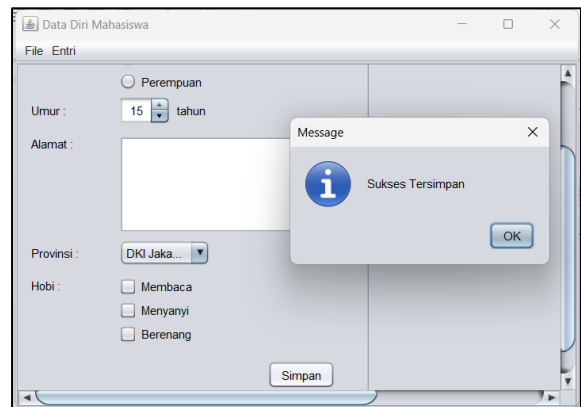
### GRAPHICAL USER INTERFACE BAGIAN 2

---

#### A. Output



NIM	Nama
222212738	Muh. Nur Afrizal



NIM	Nama	Jenis Kelamin	Umur
222212738	Muh. Nur Afrizal	Laki-laki	20

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

## B. Source Code

Semua source code tersedia di: <https://github.com/afrzl/Pemrograman-Berorientasi-Objek/blob/d6313155ff07be17bfc11633124c2d400de65810/Week%209/Praktikum/Latihan%20GUI>

### 1. MainFrame.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 latihan.gui;

/**
 *
 * @author muham
 */
public class MainFrame extends javax.swing.JFrame {

    /**
     * Creates new form MainFrame
     */
    public MainFrame() {
        initComponents();
        contentScrollPane.setViewportViewView(new
        LoginPanel(contentScrollPane));
    }

    /**
     * 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() {

        contentScrollPane = new javax.swing.JScrollPane();
        jMenuBar1 = new javax.swing.JMenuBar();
        jMenu1 = new javax.swing.JMenu();
        homeMenuItem = new javax.swing.JMenuItem();
        jMenu2 = new javax.swing.JMenu();
        mahasiswaMenuItem = new javax.swing.JMenuItem();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_O
        N_CLOSE);
    }
}
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
setTitle("Data Diri Mahasiswa");

jMenu1.setText("File");

homeMenuItem.setText("Home");
homeMenuItem.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        homeMenuItemActionPerformed(evt);
    }
});
jMenu1.add(homeMenuItem);

jMenuBar1.add(jMenu1);

jMenu2.setText("Entri");

mahasiswaMenuItem.setText("Mahasiswa");
mahasiswaMenuItem.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        mahasiswaMenuItemActionPerformed(evt);
    }
});
jMenu2.add(mahasiswaMenuItem);

jMenuBar1.add(jMenu2);

setJMenuBar(jMenuBar1);

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Align
nment.LEADING)
        .addComponent(contentScrollPane,
javax.swing.GroupLayout.DEFAULT_SIZE, 569, Short.MAX_VALUE)
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Align
nment.LEADING)
        .addComponent(contentScrollPane,
javax.swing.GroupLayout.DEFAULT_SIZE, 350, Short.MAX_VALUE)
);

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

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
private void
homeMenuItemActionPerformed(java.awt.event.ActionEvent evt)
{
    // TODO add your handling code here:
    contentScrollPane.setViewportViewView(new HomePanel());
}

private void
mahasiswaMenuItemActionPerformed(java.awt.event.ActionEvent evt)
{
    // TODO add your handling code here:
    contentScrollPane.setViewportViewView(new EntryPanel());
}

/**
 * @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.getCl
assName());
                break;
            }
        }
    } catch (ClassNotFoundException ex) {
        java.util.logging.Logger.getLogger(MainFrame.class.getN
ame()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(MainFrame.class.getN
ame()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(MainFrame.class.getN
ame()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(MainFrame.class.getN
ame()).log(java.util.logging.Level.SEVERE, null, ex);
    }
    //</editor-fold>

    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
        public void run() {
            new MainFrame().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JScrollPane contentScrollPane;
private javax.swing.JMenuItem homeMenuItem;
private javax.swing.JMenu jMenu1;
private javax.swing.JMenu jMenu2;
private javax.swing.JMenuBar jMenuBar1;
private javax.swing.JMenuItem mahasiswaMenuItem;
// End of variables declaration
}
```

## 2. TestFrame.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 latihan.gui;

/**
 *
 * @author muham
 */
public class TestFrame extends javax.swing.JFrame {

    /**
     * Creates new form TestFrame
     */
    public TestFrame() {
        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();
        jButton1 = new javax.swing.JButton();
        jButton2 = new javax.swing.JButton();
    }
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
        jButton3 = new javax.swing.JButton();
        jButton4 = new javax.swing.JButton();
        jButton5 = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jPanel1.setLayout(new
java.awt.FlowLayout(java.awt.FlowLayout.LEFT));

        jButton1.setText("jButton1");
        jPanel1.add(jButton1);

        jButton2.setText("jButton2");
        jPanel1.add(jButton2);

        jButton3.setText("jButton3");
        jPanel1.add(jButton3);

        jButton4.setText("jButton4");
        jPanel1.add(jButton4);

        jButton5.setText("jButton5");
        jPanel1.add(jButton5);

        getContentPane().add(jPanel1,
java.awt.BorderLayout.CENTER);

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

    /**
     * @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.getCl
assName());
                    break;
                }
            }
        }
    }
}
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(TestFrame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(TestFrame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(TestFrame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(TestFrame.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 TestFrame().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JButton jButton4;
private javax.swing.JButton jButton5;
private javax.swing.JPanel jPanel1;
// End of variables declaration
}
```

### 3. EntryPanel.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
 * default.txt to change this license
 * Click
 * nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JPanel.java to
 * edit this template
 */
package latihan.gui;

import java.util.ArrayList;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;

/**
 *
 * @author muham
 */
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
public class EntryPanel extends javax.swing.JPanel {

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

        jkButtonGroup = new javax.swing.ButtonGroup();
        jPanel1 = new javax.swing.JPanel();
        jLabel5 = new javax.swing.JLabel();
        jLabel6 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        alamatTextArea = new javax.swing.JTextArea();
        jLabel7 = new javax.swing.JLabel();
        provinsiComboBox = new javax.swing.JComboBox<>();
        jLabel8 = new javax.swing.JLabel();
        membacaCheckBox = new javax.swing.JCheckBox();
        menyanyiCheckBox = new javax.swing.JCheckBox();
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        nimTextField = new javax.swing.JTextField();
        namaTextField = new javax.swing.JTextField();
        lakiRadioButton = new javax.swing.JRadioButton();
        perempuanRadioButton = new javax.swing.JRadioButton();
        jLabel4 = new javax.swing.JLabel();
        berenangCheckBox = new javax.swing.JCheckBox();
        umurSpinner = new javax.swing.JSpinner();
        simpanButton = new javax.swing.JButton();
        jPanel2 = new javax.swing.JPanel();
        jScrollPane2 = new javax.swing.JScrollPane();
        mahasiswaTable = new javax.swing.JTable();

        setLayout(new java.awt.BorderLayout());

        jLabel5.setText("tahun");

        jLabel6.setText("Alamat :");
```



Kelas / No : 2KS1 / 25

```
alamatTextArea.setColumns(20);
alamatTextArea.setRows(5);
jScrollPane1.setViewportViewView(alamatTextArea);

jLabel7.setText("Provinsi :");

provinsiComboBox.setModel(new
javax.swing.DefaultComboBoxModel<>(new String[] { "Aceh", "DKI
Jakarta", "Jawa Timur", "Bali", "Maluku", "Papua" }));

jLabel8.setText("Hobi :");

membacaCheckBox.setText("Membaca");

menyanyiCheckBox.setText("Menyanyi");

jLabel11.setText("NIM :");

jLabel2.setText("Jenis Kelamin :");

jLabel3.setText("Nama :");

jkButtonGroup.add(lakiRadioButton);
lakiRadioButton.setText("Laki-laki");

jkButtonGroup.add(perempuanRadioButton);
perempuanRadioButton.setText("Perempuan");

jLabel4.setText("Umur :");

berenangCheckBox.setText("Berenang");

umurSpinner.setModel(new javax.swing.SpinnerNumberModel(15,
10, 60, 1));

simpanButton.setText("Simpan");
simpanButton.addActionListener(new
java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent
evt) {
        simpanButtonActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel1Layout = new
javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.L
ut.Alignment.LEADING)
        .addGap(0, 342, Short.MAX_VALUE)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing
.GroupLayout.Alignment.LEADING)
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
.addGroup(jPanel1Layout.createSequentialGroup()  
    .addGap(13, 13, 13)  
    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)  
        .addComponent(simpanButton)  
        .addGroup(jPanel1Layout.createSequentialGroup()  
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)  
                .addComponent(jLabel1, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
                .addComponent(jLabel2, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
                .addComponent(jLabel3, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.DEFAULT_SIZE, 83, Short.MAX_VALUE)  
                .addComponent(jLabel4, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
                .addComponent(jLabel6, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
                .addComponent(jLabel7, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
                .addComponent(jLabel8, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))  
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
                .addComponent(berenangCheckBox, javax.swing.GroupLayout.PREFERRED_SIZE, 85, javax.swing.GroupLayout.PREFERRED_SIZE)  
                .addComponent(menyanyiCheckBox, javax.swing.GroupLayout.PREFERRED_SIZE, 85, javax.swing.GroupLayout.PREFERRED_SIZE)  
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)  
                    .addComponent(perempuanRadioButton, javax.swing.GroupLayout.PREFERRED_SIZE, 98, javax.swing.GroupLayout.PREFERRED_SIZE)  
                    .addComponent(lakiRadioButton, javax.swing.GroupLayout.PREFERRED_SIZE, 98, javax.swing.GroupLayout.PREFERRED_SIZE)  
                    .addComponent(namaTextField, javax.swing.GroupLayout.DEFAULT_SIZE, 154, Short.MAX_VALUE)  
                    .addComponent(nimTextField))
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
                .addGroup(jPanel1Layout.createSequentialGroup()  
ntialGroup()  
                .addComponent(umurSpinner,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
                .addPreferredGap(javax.swing.La  
youtStyle.ComponentPlacement.RELATED)  
                .addComponent(jLabel5,  
javax.swing.GroupLayout.PREFERRED_SIZE, 39,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
                .addComponent(jScrollPane1,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
                .addComponent(provinsiComboBox,  
javax.swing.GroupLayout.PREFERRED_SIZE, 92,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
                .addComponent(membacaCheckBox,  
javax.swing.GroupLayout.PREFERRED_SIZE, 85,  
javax.swing.GroupLayout.PREFERRED_SIZE))))  
                .addContainerGap(javax.swing.GroupLayout.DEFAULT  
T_SIZE, Short.MAX_VALUE)))  
        );  
        jPanel1Layout.setVerticalGroup(  
                jPanel1Layout.createParallelGroup(javax.swing.GroupLayo  
ut.Alignment.LEADING)  
                .addGap(0, 439, Short.MAX_VALUE)  
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing  
.GroupLayout.Alignment.LEADING)  
                .addGroup(jPanel1Layout.createSequentialGroup()  
                .addContainerGap()  
                .addGroup(jPanel1Layout.createParallelGroup(jav  
ax.swing.GroupLayout.Alignment.BASELINE)  
                .addComponent(jLabel1)  
                .addComponent(nimTextField,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
                .addPreferredGap(javax.swing.LayoutStyle.Compon  
entPlacement.UNRELATED)  
                .addGroup(jPanel1Layout.createParallelGroup(jav  
ax.swing.GroupLayout.Alignment.BASELINE)  
                .addComponent(jLabel3)  
                .addComponent(namaTextField,  
javax.swing.GroupLayout.PREFERRED_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
                .addPreferredGap(javax.swing.LayoutStyle.Compon  
entPlacement.UNRELATED)  
                .addGroup(jPanel1Layout.createParallelGroup(jav  
ax.swing.GroupLayout.Alignment.BASELINE)  
                .addComponent(jLabel2)
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
        .addComponent(lakiRadioButton))
        .addPreferredGap(javax.swing.LayoutStyle.Compon
entPlacement.RELATED)
        .addComponent(perempuanRadioButton)
        .addPreferredGap(javax.swing.LayoutStyle.Compon
entPlacement.RELATED)
        .addGroup(jPanel1Layout.createParallelGroup(jav
ax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(jLabel4)
        .addComponent(umurSpinner,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel5))
        .addPreferredGap(javax.swing.LayoutStyle.Compon
entPlacement.UNRELATED)
        .addGroup(jPanel1Layout.createParallelGroup(jav
ax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jLabel6)
        .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(7, 7, 7)
        .addGroup(jPanel1Layout.createParallelGroup(jav
ax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(jLabel7)
        .addComponent(provinsiComboBox,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.Compon
entPlacement.UNRELATED)
        .addGroup(jPanel1Layout.createParallelGroup(jav
ax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jLabel8)
        .addComponent(membacaCheckBox))
        .addPreferredGap(javax.swing.LayoutStyle.Compon
entPlacement.RELATED)
        .addComponent(menyanyiCheckBox)
        .addPreferredGap(javax.swing.LayoutStyle.Compon
entPlacement.RELATED)
        .addComponent(berenangCheckBox)
        .addGap(18, 18, 18)
        .addComponent(simpanButton)
        .addContainerGap(37, Short.MAX_VALUE)))
    );

    add(jPanel1, java.awt.BorderLayout.LINE_START);

    mahasiswaTable.setModel(new
javax.swing.table.DefaultTableModel(
    new Object [][] {
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
    },
    new String [] {
        "NIM", "Nama", "Jenis Kelamin", "Umur"
    }
) {
    Class[] types = new Class [] {
        java.lang.String.class, java.lang.String.class,
        java.lang.String.class, java.lang.Integer.class
    };
    boolean[] canEdit = new boolean [] {
        false, false, false, false
    };

    public Class getColumnClass(int columnIndex) {
        return types [columnIndex];
    }

    public boolean isCellEditable(int rowIndex, int
columnIndex) {
        return canEdit [columnIndex];
    }
});
jScrollPane2.setViewportViewView(mahasiswaTable);

javax.swing.GroupLayout jPanel2Layout = new
javax.swing.GroupLayout(jPanel2);
jPanel2.setLayout(jPanel2Layout);
jPanel2Layout.setHorizontalGroup(
    jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
        .addGap(0, 467, Short.MAX_VALUE)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing
.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel2Layout.createSequentialGroup()
                .addContainerGap(9, Short.MAX_VALUE)
                .addComponent(jScrollPane2,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap()))
        );
jPanel2Layout.setVerticalGroup(
    jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
        .addGap(0, 439, Short.MAX_VALUE)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing
.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel2Layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jScrollPane2,
javax.swing.GroupLayout.PREFERRED_SIZE,
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
        .addContainerGap(javax.swing.GroupLayout.DEFAULT  
T_SIZE, Short.MAX_VALUE)))  
    );  
  
    add(jPanel2, java.awt.BorderLayout.CENTER);  
} // </editor-fold>  
  
private void  
simpanButtonActionPerformed(java.awt.event.ActionEvent evt)  
{  
    // TODO add your handling code here:  
    Mahasiswa mhs = new Mahasiswa();  
    mhs.setNim(nimTextField.getText());  
    mhs.setNama(namaTextField.getText());  
    if(lakiRadioButton.isSelected()) {  
        mhs.setJenisKelamin("Laki-laki");  
    }  
    if(perempuanRadioButton.isSelected()) {  
        mhs.setJenisKelamin("Perempuan");  
    }  
    int umur = (Integer) umurSpinner.getValue();  
    mhs.setUmur(umur);  
    mhs.setAlamat(alamatTextArea.getText());  
  
    mhs.setProvinsi(provinsiComboBox.getSelectedItem().toString  
());  
  
    ArrayList<String> hobiList = new ArrayList<>();  
    if(membacaCheckBox.isSelected()) {  
        hobiList.add("membaca");  
    }  
    if(menyanyiCheckBox.isSelected()) {  
        hobiList.add("menyanyi");  
    }  
    if(berenangCheckBox.isSelected()) {  
        hobiList.add("berenang");  
    }  
    mhs.setHobi(hobiList);  
    Database.getInstance().insertMahasiswa(mhs);  
  
    clearForm();  
    JOptionPane.showMessageDialog(this, "Sukses Tersimpan");  
    loadTableData();  
}  
  
private void loadTableData() {  
    DefaultTableModel dtm = (DefaultTableModel)  
mahasiswaTable.getModel();  
  
    //refresh table  
    while(dtm.getRowCount() > 0) {  
        dtm.removeRow(0);  
    }  
}
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
    }

    //isi tabel
    for(Mahasiswa mhs :
Database.getInstance().getListMahasiswa()) {
        dtm.addRow(new Object[]{mhs.getNim(), mhs.getNama(),
mhs.getJenisKelamin(), mhs.getUmur()});
    }
}

private void clearForm() {
    nimTextField.setText("");
    namaTextField.setText("");
    jkButtonGroup.clearSelection();
    umurSpinner.setValue(15);
    alamatTextArea.setText("");
    provinsiComboBox.setSelectedItem(-1);
    membacaCheckBox.setSelected(false);
    menyanyiCheckBox.setSelected(false);
    berenangCheckBox.setSelected(false);
}

// Variables declaration - do not modify
private javax.swing.JTextArea alamatTextArea;
private javax.swing.JCheckBox berenangCheckBox;
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.JLabel jLabel6;
private javax.swing.JLabel jLabel7;
private javax.swing.JLabel jLabel8;
private javax.swing.JPanel jPanel1;
private javax.swing.JPanel jPanel2;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JScrollPane jScrollPane2;
private javax.swing.ButtonGroup jkButtonGroup;
private javax.swing.JRadioButton lakiRadioButton;
private javax.swing.JTable mahasiswaTable;
private javax.swing.JCheckBox membacaCheckBox;
private javax.swing.JCheckBox menyanyiCheckBox;
private javax.swing.JTextField namaTextField;
private javax.swing.JTextField nimTextField;
private javax.swing.JRadioButton perempuanRadioButton;
private javax.swing.JComboBox<String> provinsiComboBox;
private javax.swing.JButton simpanButton;
private javax.swing.JSpinner umurSpinner;
// End of variables declaration
}
```

#### 4. HomePanel.java

```
/*
```



Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
* Click
nbfs://nbhost/SystemFileSystem/Templates/GuiForms/JPanel.java to
edit this template
*/
package latihan.gui;

/**
 *
 * @author muham
 */
public class HomePanel extends javax.swing.JPanel {

    /**
     * Creates new form homePanel
     */
    public HomePanel() {
        initComponents();
    }

    /**
     * This method is called from within the constructor to
    initialize the form.
     * WARNING: Do NOT modify this code. The content of this method
    is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated
    Code">
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();

        jLabel1.setFont(new java.awt.Font("Segoe UI", 1, 48)); //
        jLabel1.setText("SELAMAT DATANG");
        add(jLabel1);
    } // </editor-fold>

    // Variables declaration - do not modify
    private javax.swing.JLabel jLabel1;
    // End of variables declaration
}
```

## 5. LoginPanel.java

```
/*
* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
* Click
nbfs://nbhost/SystemFileSystem/Templates/GuiForms/JPanel.java to
edit this template
```



Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
*/
package latihan.gui;

import javax.swing.JScrollPane;

/**
 *
 * @author muham
 */
public class LoginPanel extends javax.swing.JPanel {

    private JScrollPane contentScrollPane;

    /**
     * Creates new form LoginPanel
     * @param contentScrollPane
     */
    public LoginPanel(JScrollPane contentScrollPane) {
        this.contentScrollPane = contentScrollPane;
        initComponents();
    }

    /**
     * This method is called from within the constructor to
    initialize the form.
     * WARNING: Do NOT modify this code. The content of this method
    is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated
    Code">
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        userTextField = new javax.swing.JTextField();
        passwordTextField = new javax.swing.JTextField();
        loginButton = new javax.swing.JButton();

        jLabel1.setText("Username :");

        jLabel2.setText("Password :");

        loginButton.setText("Login");
        loginButton.addActionListener(new
    java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent
    evt) {
            loginButtonActionPerformed(evt);
        }
    });
    }
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(this);
        this.setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Align
nment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(58, 58, 58)
                    .addGroup(layout.createParallelGroup(javax.swing.Gr
oupLayout.Alignment.TRAILING)
                        .addComponent(loginButton)
                        .addGroup(layout.createSequentialGroup()
                            .addGroup(layout.createParallelGroup(javax.
swing.GroupLayout.Alignment.LEADING)
                                .addComponent(jLabel2)
                                .addComponent(jLabel1))
                            .addGap(18, 18, 18)
                            .addGroup(layout.createParallelGroup(javax.
swing.GroupLayout.Alignment.LEADING, false)
                                .addComponent(userTextField,
javax.swing.GroupLayout.DEFAULT_SIZE, 183, Short.MAX_VALUE)
                                .addComponent(passwordTextField))))
                    .addGap(83, Short.MAX_VALUE))
                );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Align
nment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(115, 115, 115)
                    .addGroup(layout.createParallelGroup(javax.swing.Gr
oupLayout.Alignment.LEADING)
                        .addComponent(userTextField,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGroup(layout.createSequentialGroup()
                            .addComponent(jLabel1)
                            .addGap(PreferredGap(javax.swing.LayoutStyle.Co
mponentPlacement.UNRELATED)
                                .addGroup(layout.createParallelGroup(javax.
swing.GroupLayout.Alignment.BASELINE)
                                    .addComponent(jLabel2)
                                    .addComponent(passwordTextField,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))))
                            .addGap(18, 18, 18)
                            .addComponent(loginButton)
                            .addGap(94, Short.MAX_VALUE))
                    );
    }
} // </editor-fold>
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
private void
loginButtonActionPerformed(java.awt.event.ActionEvent evt)
{
    // TODO add your handling code here:
    contentScrollPane.setViewportViewView(new HomePanel());
}

// Variables declaration - do not modify
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JButton loginButton;
private javax.swing.JTextField passwordTextField;
private javax.swing.JTextField userTextField;
// End of variables declaration
}
```

#### 6. Database.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-
default.txt to change this license
 * Click
nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit
this template
 */
package latihan.gui;

import java.util.ArrayList;
import java.util.List;

/**
 *
 * @author muham
 */
public class Database {
    public static Database instance;
    private ArrayList<Mahasiswa> data = new ArrayList<>();
    private Database() {

    }

    public static synchronized Database getInstance() {
        if(instance == null) {
            instance = new Database();
        }
        return instance;
    }

    public void insertMahasiswa(Mahasiswa mahasiswa) {
        data.add(mahasiswa);
    }

    public List<Mahasiswa> getListMahasiswa() {
        return data;
    }
}
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
}  
}
```

## 7. Mahasiswa.java

```
/*  
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-  
default.txt to change this license  
 * Click  
nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit  
this template  
 */  
package latihan.gui;  
  
import java.util.ArrayList;  
  
/**  
 *  
 * @author muham  
 */  
public class Mahasiswa {  
    private String nim, nama, jenisKelamin;  
    private int umur;  
    private String alamat, provinsi;  
    private ArrayList<String> hobi;  
  
    /**  
     * @return the nim  
     */  
    public String getNim() {  
        return nim;  
    }  
  
    /**  
     * @param nim the nim to set  
     */  
    public void setNim(String nim) {  
        this.nim = nim;  
    }  
  
    /**  
     * @return the nama  
     */  
    public String getNama() {  
        return nama;  
    }  
  
    /**  
     * @param nama the nama to set  
     */  
    public void setNama(String nama) {  
        this.nama = nama;  
    }  
}
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
}

/**
 * @return the jenisKelamin
 */
public String getJenisKelamin() {
    return jenisKelamin;
}

/**
 * @param jenisKelamin the jenisKelamin to set
 */
public void setJenisKelamin(String jenisKelamin) {
    this.jenisKelamin = jenisKelamin;
}

/**
 * @return the umur
 */
public int getUmur() {
    return umur;
}

/**
 * @param umur the umur to set
 */
public void setUmur(int umur) {
    this.umur = umur;
}

/**
 * @return the alamat
 */
public String getAlamat() {
    return alamat;
}

/**
 * @param alamat the alamat to set
 */
public void setAlamat(String alamat) {
    this.alamat = alamat;
}

/**
 * @return the provinsi
 */
public String getProvinsi() {
    return provinsi;
}

/**
 * @param provinsi the provinsi to set
```

Nama : Muh. Nur Afrizal

NIM : 222212738

Kelas / No : 2KS1 / 25

```
    */
    public void setProvinsi(String provinsi) {
        this.provinsi = provinsi;
    }

    /**
     * @return the hobi
     */
    public ArrayList<String> getHobi() {
        return hobi;
    }

    /**
     * @param hobi the hobi to set
     */
    public void setHobi(ArrayList<String> hobi) {
        this.hobi = hobi;
    }
}
```