

# **Laporan Praktikum Modul 4**

## **Bahasa Pemograman 1**

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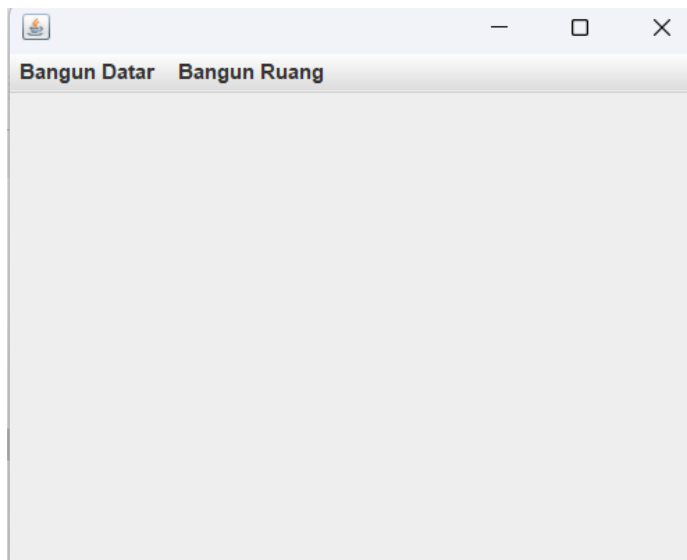
**Kelas : TINFC – 2023 – 04**

**Teknik Informatika**

**Fakultas Ilmu Komputer**

**Universitas Kuningan**

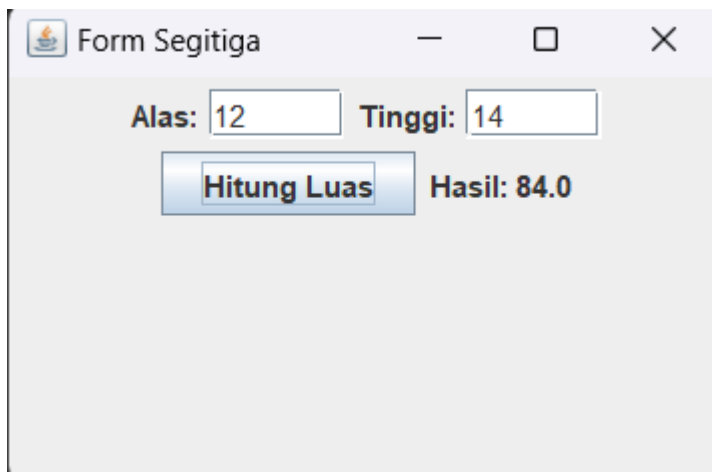
Form utama



The screenshot shows a standard Windows application window. The title bar contains the text 'Bangun Datar' and 'Bangun Ruang'. The window is currently empty, showing a light gray background.

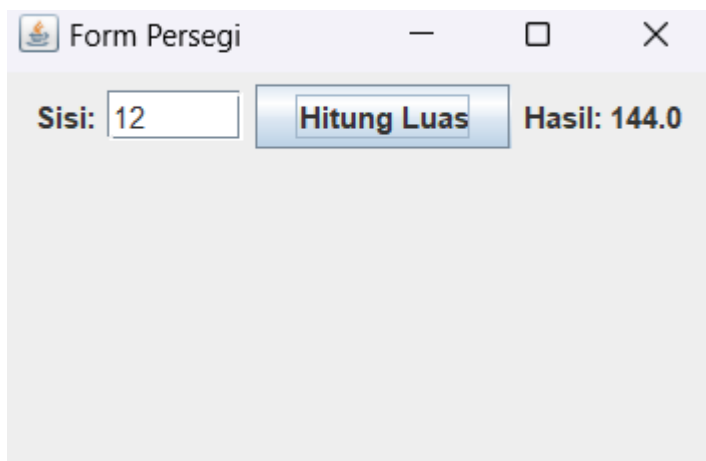
Form Bangun Datar

Segitiga



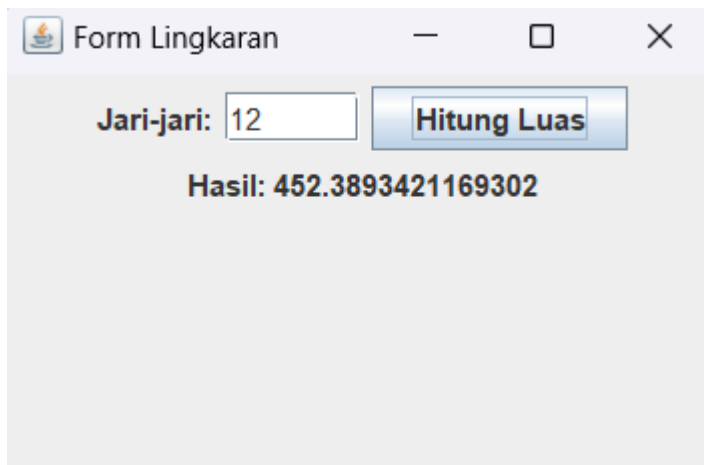
The screenshot shows a window titled 'Form Segitiga'. It contains two input fields: 'Alas: 12' and 'Tinggi: 14'. Below these is a button labeled 'Hitung Luas'. To the right of the button, the text 'Hasil: 84.0' is displayed.

Persegi



The screenshot shows a window titled 'Form Persegi'. It contains one input field: 'Sisi: 12'. To the right of this field is a button labeled 'Hitung Luas'. Further to the right, the text 'Hasil: 144.0' is displayed.

Lingkaran



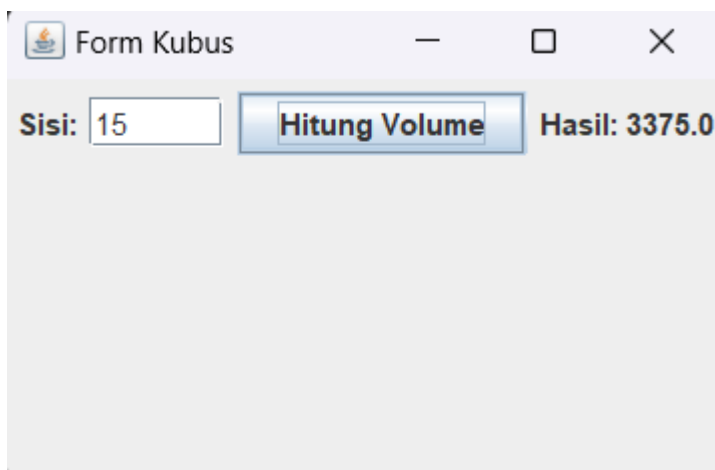
Form Lingkaran

Jari-jari:

Hasil: 452.3893421169302

Bangun Ruang

Kubus

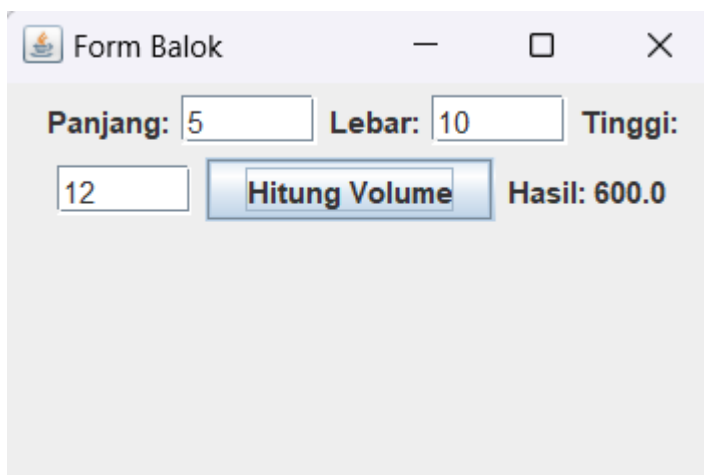


Form Kubus

Sisi:

Hasil: 3375.0

Balok

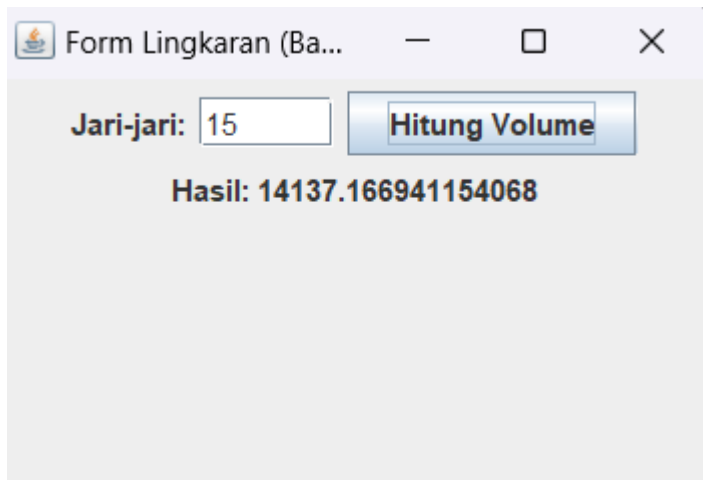


Form Balok

Panjang:  Lebar:  Tinggi:

Hasil: 600.0

Lingkaran



```
/*
```

```
 * 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 tugas_hybrid;
```

```
import javax.swing.JButton;
```

```
import javax.swing.JFrame;
```

```
import javax.swing.JLabel;
```

```
import javax.swing.JOptionPane;
```

```
import javax.swing.JTextField;
```

```
import java.awt.event.ActionListener;
```

```
import java.awt.event.ActionEvent;
```

```
/**
```

```
 *
```

```
 * @author bayu
```

```
*/
```

```
public class menu extends javax.swing.JFrame {
```

```
    /**
```

```
     * Creates new form menu
```

```

*/
public menu() {
    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() {

    jMenuBar1 = new javax.swing.JMenuBar();
    jMenu1 = new javax.swing.JMenu();
    jMenuItem1 = new javax.swing.JMenuItem();
    jMenuItem2 = new javax.swing.JMenuItem();
    jMenuItem3 = new javax.swing.JMenuItem();
    jMenu2 = new javax.swing.JMenu();
    jMenuItem4 = new javax.swing.JMenuItem();
    jMenuItem5 = new javax.swing.JMenuItem();
    jMenuItem6 = new javax.swing.JMenuItem();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    jMenu1.setText("Bangun Datar");

    jMenuItem1.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_S,
    java.awt.event.InputEvent.ALT_DOWN_MASK));
    jMenuItem1.setText("Segitiga");

```

```

jMenuItem1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem1ActionPerformed(evt);
    }
});
jMenu1.add(jMenuItem1);

jMenuItem2.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_P,
java.awt.event.InputEvent.ALT_DOWN_MASK));
jMenuItem2.setText("Persegi");
jMenuItem2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem2ActionPerformed(evt);
    }
});
jMenu1.add(jMenuItem2);

jMenuItem3.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_L,
java.awt.event.InputEvent.ALT_DOWN_MASK));
jMenuItem3.setText("Lingkaran");
jMenuItem3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jMenuItem3ActionPerformed(evt);
    }
});
jMenu1.add(jMenuItem3);

jMenuBar1.add(jMenu1);

jMenu2.setText("Bangun Ruang");

```

```
jMenuItem4.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_K,  
java.awt.event.InputEvent.ALT_DOWN_MASK));
```

```
jMenuItem4.setText("Kubus");
```

```
jMenuItem4.addActionListener(new java.awt.event.ActionListener() {
```

```
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
        jMenuItem4ActionPerformed(evt);
```

```
    }
```

```
});
```

```
jMenu2.add(jMenuItem4);
```

```
jMenuItem5.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_B,  
java.awt.event.InputEvent.ALT_DOWN_MASK));
```

```
jMenuItem5.setText("Balok");
```

```
jMenuItem5.addActionListener(new java.awt.event.ActionListener() {
```

```
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
        jMenuItem5ActionPerformed(evt);
```

```
    }
```

```
});
```

```
jMenu2.add(jMenuItem5);
```

```
jMenuItem6.setAccelerator(javax.swing.KeyStroke.getKeyStroke(java.awt.event.KeyEvent.VK_T,  
java.awt.event.InputEvent.ALT_DOWN_MASK));
```

```
jMenuItem6.setText("Lingkaran");
```

```
jMenuItem6.addActionListener(new java.awt.event.ActionListener() {
```

```
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```

```
        jMenuItem6ActionPerformed(evt);
```

```
    }
```

```
});
```

```
jMenu2.add(jMenuItem6);
```

```
jMenuBar1.add(jMenu2);
```

```

setJMenuBar(jMenuBar1);

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 400, Short.MAX_VALUE)
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 277, Short.MAX_VALUE)
);

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

private void jMenuItem1ActionPerformed(java.awt.event.ActionEvent evt) {
    new FormSegitiga().setVisible(true);
}

private void jMenuItem2ActionPerformed(java.awt.event.ActionEvent evt) {
    new FormPersegi().setVisible(true);
}

private void jMenuItem3ActionPerformed(java.awt.event.ActionEvent evt) {
    new FormLingkaran().setVisible(true);
}

private void jMenuItem4ActionPerformed(java.awt.event.ActionEvent evt) {
    new FormKubus().setVisible(true);
}

```



```
private void jMenuItem5ActionPerformed(java.awt.event.ActionEvent evt) {  
    new FormBalok().setVisible(true);  
}
```

```
private void jMenuItem6ActionPerformed(java.awt.event.ActionEvent evt) {  
    new FormLingkaranRuang().setVisible(true);  
}
```

```
/**  
 * @param args the command line arguments  
 */  
public static void main(String args[]) {  
    java.awt.EventQueue.invokeLater(new Runnable() {  
        @Override  
        public void run() {  
            new menu().setVisible(true);  
        }  
    });  
}
```

```
// Variables declaration - do not modify  
private javax.swing.JMenu jMenuItem1;  
private javax.swing.JMenu jMenuItem2;  
private javax.swing.JMenuBar jMenuItemBar1;  
private javax.swing.JMenuItem jMenuItem1;  
private javax.swing.JMenuItem jMenuItem2;  
private javax.swing.JMenuItem jMenuItem3;  
private javax.swing.JMenuItem jMenuItem4;  
private javax.swing.JMenuItem jMenuItem5;  
private javax.swing.JMenuItem jMenuItem6;
```

```
// End of variables declaration
```

```
public class FormSegitiga extends JFrame {  
    public FormSegitiga() {  
        setTitle("Form Segitiga");  
        setSize(300, 200);  
        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);  
        setLocationRelativeTo(null);  
  
        JLabel labelBase = new JLabel("Alas:");  
        JLabel labelHeight = new JLabel("Tinggi:");  
        JTextField textBase = new JTextField(5);  
        JTextField textHeight = new JTextField(5);  
        JButton buttonCalculate = new JButton("Hitung Luas");  
        JLabel labelResult = new JLabel("Hasil:");  
  
        buttonCalculate.addActionListener((ActionEvent e) -> {  
            try {  
                double base1 = Double.parseDouble(textBase.getText());  
                double height1 = Double.parseDouble(textHeight.getText());  
                double area = 0.5 * base1 * height1;  
                labelResult.setText("Hasil: " + area);  
            } catch (NumberFormatException ex) {  
                JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");  
            }  
        });  
  
        setLayout(new java.awt.FlowLayout());  
        add(labelBase);  
        add(textBase);  
        add(labelHeight);
```

```

        add(textHeight);

        add(buttonCalculate);

        add(labelResult);
    }
}

```

```

public class FormPersegi extends JFrame {

    public FormPersegi() {

        setTitle("Form Persegi");

        setSize(300, 200);

        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);

        setLocationRelativeTo(null);

        JLabel labelSide = new JLabel("Sisi:");

        JTextField textSide = new JTextField(5);

        JButton buttonCalculate = new JButton("Hitung Luas");

        JLabel labelResult = new JLabel("Hasil:");

        buttonCalculate.addActionListener(new ActionListener() {

            @Override

            public void actionPerformed (ActionEvent e) {

                try {

                    double side = Double.parseDouble(textSide.getText());

                    double area = side * side;

                    labelResult.setText("Hasil: " + area);

                } catch (NumberFormatException ex) {

                    JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");

                }

            }

        });
    }
}

```

```

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

        add(labelSide);

        add(textSide);

        add(buttonCalculate);

        add(labelResult);
    }
}

```

```

public class FormLingkaran extends JFrame {

    public FormLingkaran() {

        setTitle("Form Lingkaran");

        setSize(300, 200);

        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);

        setLocationRelativeTo(null);

        JLabel labelRadius = new JLabel("Jari-jari:");

        JTextField textRadius = new JTextField(5);

        JButton buttonCalculate = new JButton("Hitung Luas");

        JLabel labelResult = new JLabel("Hasil:");

        buttonCalculate.addActionListener(new ActionListener() {

            @Override

            public void actionPerformed(ActionEvent e) {

                try {

                    double radius = Double.parseDouble(textRadius.getText());

                    double area = Math.PI * radius * radius;

                    labelResult.setText("Hasil: " + area);

                } catch (NumberFormatException ex) {

                    JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");

                }

            }

        })
    }
}

```

```

});

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

add(labelRadius);

add(textRadius);

add(buttonCalculate);

add(labelResult);

}

}

public class FormKubus extends JFrame {

    public FormKubus() {

        setTitle("Form Kubus");

        setSize(300, 200);

        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);

        setLocationRelativeTo(null);

        JLabel labelSide = new JLabel("Sisi:");

        JTextField textSide = new JTextField(5);

        JButton buttonCalculate = new JButton("Hitung Volume");

        JLabel labelResult = new JLabel("Hasil:");

        buttonCalculate.addActionListener(new ActionListener() {

            @Override

            public void actionPerformed(ActionEvent e) {

                try {

                    double side = Double.parseDouble(textSide.getText());

                    double volume = Math.pow(side, 3);

                    labelResult.setText("Hasil: " + volume);

                } catch (NumberFormatException ex) {

                    JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");

```

```

        }
    }
});

setLayout(new java.awt.FlowLayout());
add(labelSide);
add(textSide);
add(buttonCalculate);
add(labelResult);
}
}

public class FormBalok extends JFrame {
    public FormBalok() {
        setTitle("Form Balok");
        setSize(300, 200);
        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        setLocationRelativeTo(null);

        JLabel labelLength = new JLabel("Panjang:");
        JLabel labelWidth = new JLabel("Lebar:");
        JLabel labelHeight = new JLabel("Tinggi:");
        JTextField textLength = new JTextField(5);
        JTextField textWidth = new JTextField(5);
        JTextField textHeight = new JTextField(5);
        JButton buttonCalculate = new JButton("Hitung Volume");
        JLabel labelResult = new JLabel("Hasil:");

        buttonCalculate.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {

```

```

        try {
            double length = Double.parseDouble(textLength.getText());
            double width = Double.parseDouble(textWidth.getText());
            double height = Double.parseDouble(textHeight.getText());
            double volume = length * width * height;
            labelResult.setText("Hasil: " + volume);
        } catch (NumberFormatException ex) {
            JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");
        }
    }
});

setLayout(new java.awt.FlowLayout());
add(labelLength);
add(textLength);
add(labelWidth);
add(textWidth);
add(labelHeight);
add(textHeight);
add(buttonCalculate);
add(labelResult);
}
}

public class FormLingkaranRuang extends JFrame {
    public FormLingkaranRuang() {
        setTitle("Form Lingkaran (Bangun Ruang)");
        setSize(300, 200);
        setDefaultCloseOperation(JFrame.DISPOSE_ON_CLOSE);
        setLocationRelativeTo(null);
    }
}

```

```

JLabel labelRadius = new JLabel("Jari-jari:");

JTextField textRadius = new JTextField(5);

JButton buttonCalculate = new JButton("Hitung Volume");

JLabel labelResult = new JLabel("Hasil:");


buttonCalculate.addActionListener(new ActionListener() {

    @Override

    public void actionPerformed(ActionEvent e) {

        try {

            double radius = Double.parseDouble(textRadius.getText());

            double volume = (4.0 / 3.0) * Math.PI * Math.pow(radius, 3);

            labelResult.setText("Hasil: " + volume);

        } catch (NumberFormatException ex) {

            JOptionPane.showMessageDialog(null, "Masukkan angka yang valid");

        }

    }

});


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

add(labelRadius);

add(textRadius);

add(buttonCalculate);

add(labelResult);

}

}

}

```



## PRAKTIKUM

### 1. package BP1\_M4\_Bayu;

```
/*
 * 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
 */
```

```
import javax.swing.JOptionPane;
```

```
/**
 *
 * @author bayui
 */
public class BP1_M4_P1_Bayu extends javax.swing.JFrame {

    /**
     * Creates new form BP1_M4_P1_Bayu
     */
    public BP1_M4_P1_Bayu() {
        initComponents();

        private void login(){
            String user, pass;
            user = jTextField1.getText();
            pass = jTextField2.getText();

            if(user.equals("Admin")&&pass.equals("#Admin123")){
                JOptionPane.showMessageDialog(null, "Login Sukses" +user, "Login ",
                JOptionPane.INFORMATION_MESSAGE);
            }
            else{
                JOptionPane.showMessageDialog(null,"Lohin Gagal","Login",
                JOptionPane.ERROR_MESSAGE);
            }
        }

    /**
     * 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")
```

```

private void initComponents() {

    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    button1 = new java.awt.Button();
    button2 = new java.awt.Button();
    jTextField1 = new javax.swing.JTextField();
    jTextField2 = new javax.swing.JTextField();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    jLabel1.setFont(new java.awt.Font("Segoe UI", 1, 14));
    jLabel1.setText("FORM LOGIN");

    jLabel2.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/BP1_M4_Bayu/bayi.jpg")));
    jLabel2.setText("jLabel2");

    jLabel3.setText("Username");

    jLabel4.setText("Password");

    button1.setLabel("LOGIN");
    button1.addMouseListener(new java.awt.event.MouseAdapter() {
        public void mouseClicked(java.awt.event.MouseEvent evt) {
            button1MouseClicked(evt);
        }
    });
    button1.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            button1ActionPerformed(evt);
        }
    });

    button2.setLabel("REGISTER");

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

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

```

```

        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup())
        .addGap(20, 20, 20)
        .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 195,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(50, 50, 50)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addComponent(jLabel3)
        .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 53,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jTextField1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 112, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jTextField2, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 112, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(105, 105, 105))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup())
        .addContainerGap(441, Short.MAX_VALUE)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup())
        .addComponent(button1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(27, 27, 27)
        .addComponent(button2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(82, 82, 82))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup())
        .addComponent(jLabel1)
        .addGap(294, 294, 294))))
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(130, 130, 130)

```

```

        .addComponent(jLabel2))
        .addGroup(layout.createSequentialGroup()
            .addGap(175, 175, 175)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel3)
                .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
                    javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(139, 139, 139)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel4)
                .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
                    javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))))
            .addGap(19, 19, 19)

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addComponent(button2, javax.swing.GroupLayout.PREFERRED_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(button1, javax.swing.GroupLayout.PREFERRED_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
            layout.createSequentialGroup()
                .addGap(27, 27, 27)
                .addComponent(jLabel1)))
        .addContainerGap(84, Short.MAX_VALUE))
    );

    pack();
}

private void button1ActionPerformed(java.awt.event.ActionEvent evt) {
    login();
}

private void button1MouseClicked(java.awt.event.MouseEvent evt) {
    // TODO add your handling code here:

}

private void jTextField1ActionPerformed(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(BP1_M4_P1_Bayu.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(BP1_M4_P1_Bayu.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(BP1_M4_P1_Bayu.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(BP1_M4_P1_Bayu.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 BP1_M4_P1_Bayu().setVisible(true);
    }
});
}

// Variables declaration - do not modify
private java.awt.Button button1;
private java.awt.Button button2;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;

```

```
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
}
```



2.

## PRETTEST

1. Apa itu swing control  
Swing control adalah teknik atau strategi yang digunakan untuk mengendalikan gerakan atau pergerakan suatu objek secara tepat.
2. Apa fungsi dari swing control  
Mengurangi Getaran Berlebih  
Mengontrol Kecepatan dan Arah  
Menghemat Energi
3. Tuliskan contoh program sederhana untuk swing control

```
public class SwingControl {

    private double angle; // Sudut awal
    private double kp = 0.1; // Konstanta proporsional
    private double ki = 0.01; // Konstanta integral
    private double kd = 0.05; // Konstanta derivatif
    private double integral = 0;
    private double previousError = 0;

    public SwingControl() {
        this.angle = 0; // Sudut awal 0 derajat
    }

    // Metode untuk menghitung sinyal kontrol PID
    private double calculateControlSignal(double targetAngle) {
        double error = targetAngle - angle;
        integral += error;
        double derivative = error - previousError;
```

```

// Rumus PID untuk sinyal kontrol
double controlSignal = (kp * error) + (ki * integral) + (kd * derivative);

previousError = error;
return controlSignal;
}

// Metode untuk menggerakkan sudut menuju target
public void moveToTargetAngle(double targetAngle) {
    while (Math.abs(targetAngle - angle) > 0.01) {
        // Hitung sinyal kontrol dari PID
        double controlSignal = calculateControlSignal(targetAngle);

        // Tambahkan sinyal kontrol ke sudut saat ini
        angle += controlSignal;

        // Cetak status sudut
        System.out.printf("Current Angle: %.2f degrees%n", angle);

        // Simulasi jeda waktu (100 ms) agar tampilan berubah bertahap
        try {
            Thread.sleep(100);
        } catch (InterruptedException e) {
            e.printStackTrace();
        }
    }
    System.out.println("Reached target angle: " + targetAngle);
}

public static void main(String[] args) {
    SwingControl swingControl = new SwingControl();

    double targetAngle = 30.0; // Sudut target yang ingin dicapai
    System.out.println("Moving towards target angle: " + targetAngle + " degrees");

    swingControl.moveToTargetAngle(targetAngle);
}
}

```

## POSTTEST

1. package BP1\_M4\_Bayu;

import javax.swing.JOptionPane;

public class BP1\_M4\_P1\_Bayu extends javax.swing.JFrame {

```

public BP1_M4_P1_Bayu() {
    initComponents();
}

private void login(){
    String user = jTextField1.getText();
    String pass = jTextField2.getText();

    if (user.isEmpty()) {
        JOptionPane.showMessageDialog(null, "Username harus diisi", "Login",
JOptionPane.WARNING_MESSAGE);
    } else if (pass.isEmpty()) {
        JOptionPane.showMessageDialog(null, "Password harus diisi", "Login",
JOptionPane.WARNING_MESSAGE);
    } else if (user.equals("Admin") && pass.equals("#Admin123")) {
        JOptionPane.showMessageDialog(null, "Login Sukses " + user, "Login",
JOptionPane.INFORMATION_MESSAGE);
    } else if (!user.equals("Admin")) {
        JOptionPane.showMessageDialog(null, "Username salah", "Login",
JOptionPane.ERROR_MESSAGE);
    } else {
        JOptionPane.showMessageDialog(null, "Password salah", "Login",
JOptionPane.ERROR_MESSAGE);
    }
}

@SuppressWarnings("unchecked")
private void initComponents() {

    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    button1 = new java.awt.Button();
    button2 = new java.awt.Button();
    jTextField1 = new javax.swing.JTextField();
    jTextField2 = new javax.swing.JTextField();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    jLabel1.setFont(new java.awt.Font("Segoe UI", 1, 14));
    jLabel1.setText("FORM LOGIN");

    jLabel2.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/BP1_M4_Bayu/bayi.jpg")));
    jLabel2.setText("jLabel2");

```



```

jLabel3.setText("Username");
jLabel4.setText("Password");

button1.setLabel("LOGIN");
button1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        login();
    }
});

button2.setLabel("REGISTER");

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
        .addGap(20, 20, 20)
        .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 195,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(50, 50, 50)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addComponent(jLabel3)
        .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 53,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(50, 50, 50)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 112,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE, 112,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(105, 105, 105))
        .addGroup(layout.createSequentialGroup()
        .addGap(441, 441, 441)
        .addComponent(button1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(27, 27, 27)
        .addComponent(button2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(82, 82, 82))
        .addGroup(layout.createSequentialGroup()
        .addGap(294, 294, 294)
        .addComponent(jLabel1))
    );

```

```

        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(27, 27, 27)
                    .addComponent(jLabel1)
                    .addGap(80, 80, 80)

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel2)
                    .addGroup(layout.createSequentialGroup()

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(139, 139, 139)

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel4)
                    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))))
                    .addGap(19, 19, 19)

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addComponent(button2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(button1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addContainerGap(84, Short.MAX_VALUE))
            );

        pack();
    }

    public static void main(String args[]) {
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new BP1_M4_P1_Bayu().setVisible(true);
            }
        });
    }

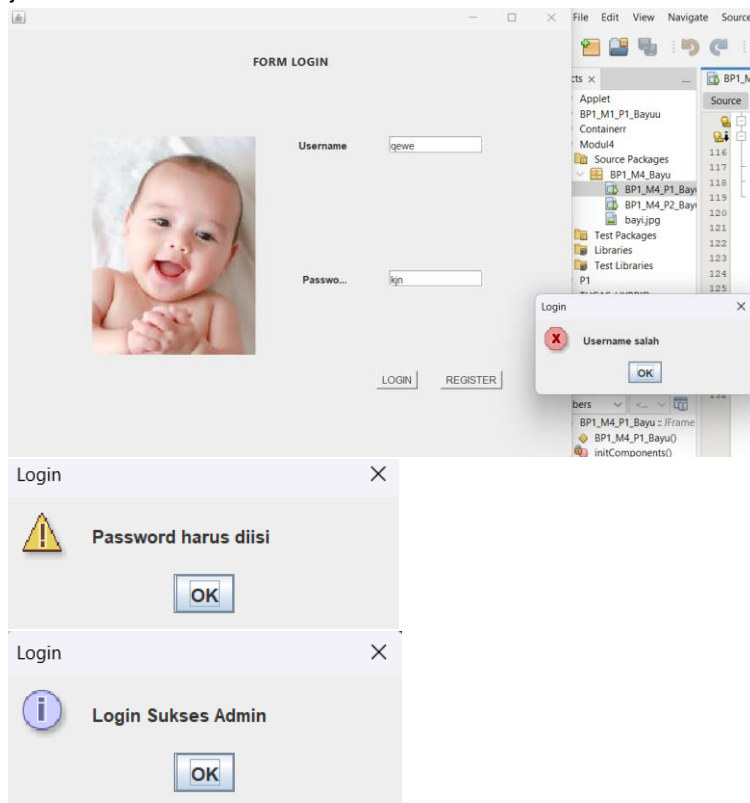
    // Variables declaration - do not modify
    private java.awt.Button button1;
    private java.awt.Button button2;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;

```

```

private javax.swing.JLabel jLabel4;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
}

```



2. package BP1\_M4\_Bayu;

```
import javax.swing.JOptionPane;
```

```
public class BP1_M4_P1_Bayu extends javax.swing.JFrame {
```

```

    public BP1_M4_P1_Bayu() {
        initComponents();
    }

```

```

    private void login(){
        String user, pass, level;
        user = jTextField1.getText();
        pass = jTextField2.getText();
        level = JComboBox1.getSelectedItemAt().toString(); // Mengambil nilai dari JComboBox

```

```

        // Cek jika username kosong
        if (user.isEmpty()) {
            JOptionPane.showMessageDialog(null, "Username harus diisi", "Login",
JOptionPane.WARNING_MESSAGE);
        }

```

```

        // Cek jika password kosong
        else if (pass.isEmpty()) {
            JOptionPane.showMessageDialog(null, "Password harus diisi", "Login",
JOptionPane.WARNING_MESSAGE);
        }
        // Cek jika username, password, dan level sesuai
        else if (user.equals("Admin") && pass.equals("#Admin123") && level.equals("admin")) {
            JOptionPane.showMessageDialog(null, "Login Sukses sebagai Admin", "Login",
JOptionPane.INFORMATION_MESSAGE);
        } else if (user.equals("User") && pass.equals("#User123") && level.equals("user")) {
            JOptionPane.showMessageDialog(null, "Login Sukses sebagai User", "Login",
JOptionPane.INFORMATION_MESSAGE);
        }
        // Cek jika username salah
        else if (!user.equals("Admin") && !user.equals("User")) {
            JOptionPane.showMessageDialog(null, "Username salah", "Login",
JOptionPane.ERROR_MESSAGE);
        }
        // Cek jika password salah
        else {
            JOptionPane.showMessageDialog(null, "Password atau Level salah", "Login",
JOptionPane.ERROR_MESSAGE);
        }
    }
}

```

```

@SuppressWarnings("unchecked")
private void initComponents() {
    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(); // Label baru untuk Level
    button1 = new java.awt.Button();
    button2 = new java.awt.Button();
    jTextField1 = new javax.swing.JTextField();
    jTextField2 = new javax.swing.JTextField();
    JComboBox1 = new javax.swing.JComboBox<>(); // JComboBox untuk Level

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    jLabel1.setFont(new java.awt.Font("Segoe UI", 1, 14));
    jLabel1.setText("FORM LOGIN");

    jLabel2.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/BP1_M4_Bayu/bayi.jpg")));
    jLabel2.setText("jLabel2");

    jLabel3.setText("Username");

```

```
jLabel4.setText("Password");

jLabel5.setText("Level"); // Label untuk Level

jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
"admin", "user" })); // Tambahkan pilihan level

button1.setLabel("LOGIN");
button1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        button1ActionPerformed(evt);
    }
});

button2.setLabel("REGISTER");

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
            layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 195,
                    javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(50, 50, 50)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addComponent(jLabel3)
                    .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 53,
                        javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel5)) // Tambahkan label Level
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
                    javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jTextField1, javax.swing.GroupLayout.Alignment.TRAILING,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 112, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jTextField2, javax.swing.GroupLayout.Alignment.TRAILING,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 112, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jComboBox1, javax.swing.GroupLayout.Alignment.TRAILING,
                        javax.swing.GroupLayout.PREFERRED_SIZE, 112, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(105, 105, 105)
                .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
                    layout.createSequentialGroup()
                        .addComponent(container, javax.swing.GroupLayout.PREFERRED_SIZE, 441,
                            javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addContainerGap())
                )
        )
    );
```

```

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
    .addComponent(button1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(27, 27, 27)
    .addComponent(button2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
    .addGap(82, 82, 82))
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
    .addComponent(jLabel1)
    .addGap(294, 294, 294))))
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
    .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
    .addGap(130, 130, 130)
    .addComponent(jLabel2))
    .addGroup(layout.createSequentialGroup()
    .addGap(175, 175, 175)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(jLabel3)
    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGap(139, 139, 139)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(jLabel4)
    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
    .addGap(30, 30, 30)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(jLabel5)
    .addComponent(jComboBox1,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)))) // Tambahkan JComboBox untuk Level
    .addGap(19, 19, 19)

```

```

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addComponent(button2, javax.swing.GroupLayout.PREFERRED_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(button1, javax.swing.GroupLayout.PREFERRED_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
            layout.createSequentialGroup()
                .addGap(27, 27, 27)
                .addComponent(jLabel1)))
        .addContainerGap(84, Short.MAX_VALUE))
    );

    pack();
}

private void button1ActionPerformed(java.awt.event.ActionEvent evt) {
    login();
}

public static void main(String args[]) {
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new BP1_M4_P1_Bayu().setVisible(true);
        }
    });
}

private java.awt.Button button1;
private java.awt.Button button2;
private javax.swing.JComboBox<String> jComboBox1; // JComboBox untuk Level
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; // Label untuk Level
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
}

```

FORM LOGIN

Username:

Passwo...:

Level: admin admin user

3. lengkapi kondisi Register, sehingga memiliki kondisi

FORM LOGIN

Register

Register Berhasil

OK

Level: admin

LOGIN REGISTER KELUAR

FORM LOGIN

Register Error

Register Gagal, data harus lengkap

OK

Username:

Password:

Level: admin

LOGIN REGISTER KELUAR



```

package BP1_M4_Bayu;

import javax.swing.JOptionPane;

public class BP1_M4_P1_Bayu extends javax.swing.JFrame {

    public BP1_M4_P1_Bayu() {
        initComponents();
    }

    private void login() {
        String user = jTextField1.getText();
        String pass = jTextField2.getText();
        String level = jComboBox1.getSelectedItem().toString();
        if (user.isEmpty()) {
            JOptionPane.showMessageDialog(this, "Username harus diisi", "Login Error",
JOptionPane.WARNING_MESSAGE);
        } else if (pass.isEmpty()) {
            JOptionPane.showMessageDialog(this, "Password harus diisi", "Login Error",
JOptionPane.WARNING_MESSAGE);
        } else if (user.equals("Admin") && pass.equals("#Admin123") && level.equals("admin"))
        {
            JOptionPane.showMessageDialog(this, "Login berhasil sebagai Admin", "Login",
JOptionPane.INFORMATION_MESSAGE);
        } else if (user.equals("User") && pass.equals("#User123") && level.equals("user")) {
            JOptionPane.showMessageDialog(this, "Login berhasil sebagai User", "Login",
JOptionPane.INFORMATION_MESSAGE);
        } else {
            JOptionPane.showMessageDialog(this, "Username, Password, atau Level salah",
"Login Error", JOptionPane.ERROR_MESSAGE);
        }
    }

    private void register() {
        String user = jTextField1.getText();
        String pass = jTextField2.getText();
        String level = (String) jComboBox1.getSelectedItem();

        if (user.isEmpty() || pass.isEmpty() || level.isEmpty()) {
            JOptionPane.showMessageDialog(this, "Register Gagal, data harus lengkap", "Register
Error", JOptionPane.ERROR_MESSAGE);
        } else {
            JOptionPane.showMessageDialog(this, "Register Berhasil", "Register",
JOptionPane.INFORMATION_MESSAGE);
        }
    }

    private void clearForm() {

```

```

        jTextField1.setText("");
        jTextField2.setText("");
        jComboBox1.setSelectedIndex(0);
    }

    private void exitForm() {
        int response = JOptionPane.showConfirmDialog(this, "Yakin ingin keluar?", "Konfirmasi",
JOptionPane.YES_NO_OPTION);
        if (response == JOptionPane.YES_OPTION) {
            System.exit(0);
        }
    }

    @SuppressWarnings("unchecked")
    private void initComponents() {
        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();
        buttonLogin = new java.awt.Button();
        buttonRegister = new java.awt.Button();
        buttonExit = new java.awt.Button();
        jTextField1 = new javax.swing.JTextField();
        jTextField2 = new javax.swing.JTextField();
        jComboBox1 = new javax.swing.JComboBox<>();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setTitle("Form Login");

        jLabel1.setFont(new java.awt.Font("Segoe UI", 1, 18));
        jLabel1.setText("FORM LOGIN");

        try {
            jLabel2.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/BP1_M4_Bayu/bayi.jpg")));
        } catch (Exception e) {
            jLabel2.setText("Image not found");
        }

        jLabel3.setText("Username:");
        jLabel4.setText("Password:");
        jLabel5.setText("Level:");
        jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new
String[]{"admin", "user"}));
        buttonLogin.setLabel("LOGIN");
        buttonLogin.addActionListener(evt -> login());
        buttonRegister.setLabel("REGISTER");
    }

```

```

buttonRegister.addActionListener(evt -> register());
buttonExit.setLabel("KELUAR");
buttonExit.addActionListener(evt -> exitForm());

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(30, 30, 30)
            .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 195,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(50, 50, 50)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
G)
                .addComponent(jLabel3)
                .addComponent(jLabel4)
                .addComponent(jLabel5))
            .addGap(18, 18, 18)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
G, false)
                .addComponent(jTextField1)
                .addComponent(jTextField2)
                .addComponent(jComboBox1, 0, 150, Short.MAX_VALUE))
            .addGap(55, 55, 55)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jLabel1)
                .addGap(190, 190, 190)
                .addComponent(buttonLogin, javax.swing.GroupLayout.PREFERRED_SIZE, 80,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(18, 18, 18)
                .addComponent(buttonRegister, javax.swing.GroupLayout.PREFERRED_SIZE, 80,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(18, 18, 18)
                .addComponent(buttonExit, javax.swing.GroupLayout.PREFERRED_SIZE, 80,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(140, 140, 140))
        );

layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(30, 30, 30)
            .addComponent(jLabel1)

```

```

        .addGap(30, 30, 30)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
            .addComponent(jLabel2, javax.swing.GroupLayout.DEFAULT_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
                        javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel4)
                    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
                        javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel5)
                    .addComponent(jComboBox1, javax.swing.GroupLayout.PREFERRED_SIZE,
                        javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGap(30, 30, 30)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(buttonLogin, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
                javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(buttonRegister, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
                javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(buttonExit, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
                javax.swing.GroupLayout.PREFERRED_SIZE)
            .addContainerGap(40, Short.MAX_VALUE))
    );
    pack();
    setLocationRelativeTo(null);
}

public static void main(String args[]) {
    java.awt.EventQueue.invokeLater(() -> new BP1_M4_P1_Bayu().setVisible(true));
}
private java.awt.Button buttonLogin;
private java.awt.Button buttonRegister;
private java.awt.Button buttonExit;
private javax.swing.JComboBox<String> jComboBox1;
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.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
}

```

## TUGAS

1. lengkapi/koneksikan pada form login jika di klik maka akan tampil form register



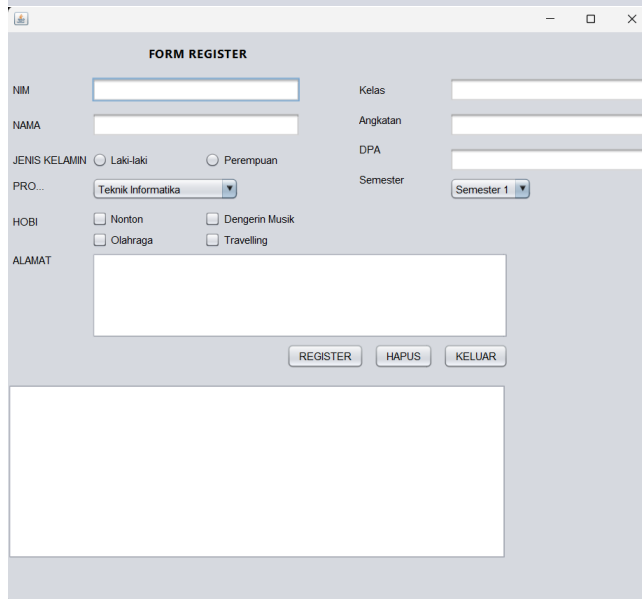
**FORM LOGIN**

User Name: admin

Password: #Admin123

Level: Admin

LOGIN REGISTER



**FORM REGISTER**

NIM:

NAMA:

Kelas:

Angkatan:

DPA:

Semester: Semester 1

JENIS KELAMIN: ☐ Laki-laki ☐ Perempuan

PRO...: Teknik Informatika

HOBİ: ☐ Nonton ☐ Dengerin Musik ☐ Olahraga ☐ Travelling

ALAMAT:

REGISTER HAPUS KELUAR

2. tambahkan data yang harus di isi pada form register (kelas, angkatan, DPA, semester)

**FORM REGISTER**

NIM:

NAMA:

Kelas:

Angkatan:

DPA:

Semester:

JENIS KELAMIN: ☐ Laki-laki ☐ Perempuan

PRO...:

HOBI: ☐ Nonton ☐ Dengerin Musik  
☐ Olahraga ☐ Travelling

ALAMAT:

3. Buat form data nilai mahasiswa

Sistem Operasi	Pemrograman Web	Bahasa Pemrograman 1
A	A	A

4. Jika registrasi gagal, maka tampilan akan kembali ke form login

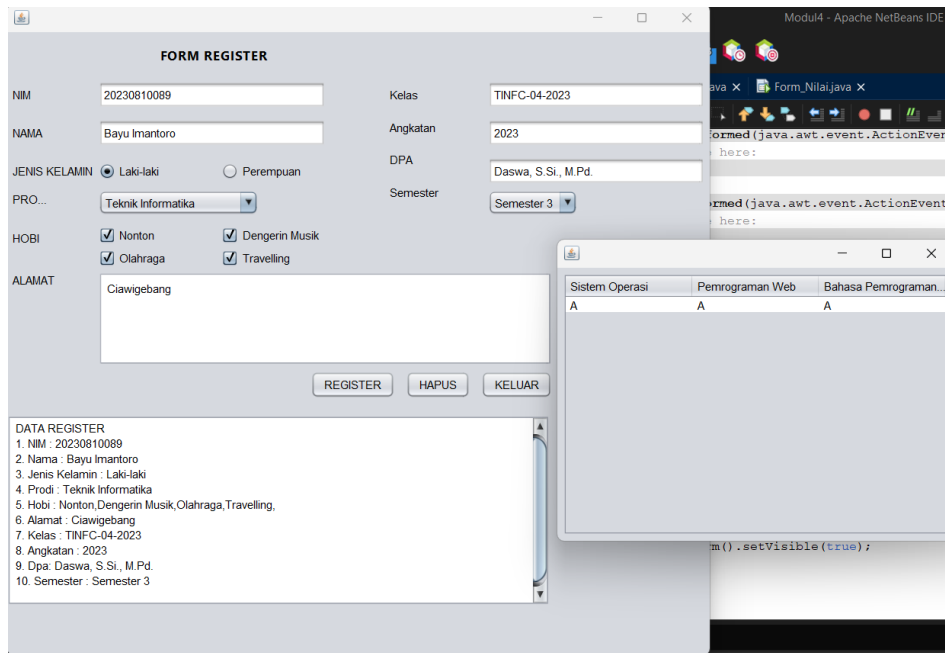
**FORM LOGIN**

User Name:

Password:

Level:

5. Jika register berhasil, maka akan tampil form data nilai mahasiswa



- - Form login
- ```
/*
 * 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 BP1_M4_Bayu;
```

```
import javax.swing.JOptionPane;
```

```
/**
```

```
 *
```

```
 * @author LOQ
```

```
 */
```

```
public class BP1_M4_P1_Bayu_Form extends javax.swing.JFrame {
```

```
    /**
```

```
     * Creates new form BP1_M4_P1_Bayu_Form
```

```
     */
```

```
    public BP1_M4_P1_Bayu_Form() {
        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();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    jTextField1 = new javax.swing.JTextField();
    jTextField2 = new javax.swing.JTextField();
    jButton1 = new javax.swing.JButton();
    jButton2 = new javax.swing.JButton();
    jLabel5 = new javax.swing.JLabel();
    JComboBox1 = new javax.swing.JComboBox<>();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    jLabel1.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
    jLabel1.setText("FORM LOGIN");

    jLabel2.setIcon(new
javax.swing.ImageIcon(getClass().getResource("/BP1_M4_Bayu/bayi.jpg"))); //
NOI18N
    jLabel2.setText("jLabel2");
    jLabel2.setMaximumSize(new java.awt.Dimension(150, 150));
    jLabel2.setMinimumSize(new java.awt.Dimension(150, 150));
    jLabel2.setPreferredSize(new java.awt.Dimension(150, 150));

    jLabel3.setText("User Name");

    jLabel4.setText("Password");

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

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

    jButton2.setText("REGISTER");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton2ActionPerformed(evt);
        }
    });
}
```



[illegible]

```

        .addComponent(jComboBox1,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(0, 175, Short.MAX_VALUE))
        .addComponent(jTextField1)))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
        .addGap(51, 51, 51)
        .addComponent(jButton1)
        .addGap(18, 18, 18)
        .addComponent(jButton2)
        .addGap(0, 0, Short.MAX_VALUE)))
        .addGap(14, 14, 14))
        .addGroup(layout.createSequentialGroup()
        .addGap(43, 43, 43)
        .addComponent(jLabel1)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
        .addGap(14, 14, 14)
        .addComponent(jLabel1)
        .addGap(18, 18, 18)

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
        .addComponent(jLabel3)
        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
        .addComponent(jLabel4)
        .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
        )
        .addComponent(jLabel5)
        .addComponent(jComboBox1,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

```

```

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)
    .addComponent(jButton1)
    .addComponent(jButton2))
.addGap(33, 33, 33))
.addGroup(layout.createSequentialGroup()
.addGap(26, 26, 26)
.addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 171,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
);

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

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

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

private void jComboBox1ActionPerformed(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:
    BP1_M4_P2_Bayu_Register reg = new BP1_M4_P2_Bayu_Register();
    reg.setVisible(true);
    this.setVisible(false);
}

/**
 * @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(BP1_M4_P1_Albar.class.getName()).log(java.util.lo
gging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(BP1_M4_P1_Albar.class.getName()).log(java.util.lo
gging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(BP1_M4_P1_Albar.class.getName()).log(java.util.lo
gging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(BP1_M4_P1_Albar.class.getName()).log(java.util.lo
gging.Level.SEVERE, null, ex);
        }
    }
    //</editor-fold>
    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new BP1_M4_P1_Bayu_Form().setVisible(true);
        }
    });
}

private void login(){
    String user, pass;
    user = jTextField1.getText();
    pass = jTextField2.getText();

    if (user.isEmpty()) {
        JOptionPane.showMessageDialog(null, "Username harus diisi!", "Error",
JOptionPane.ERROR_MESSAGE);
    } else if (!user.equals("Admin")) {
        JOptionPane.showMessageDialog(null, "Username salah!", "Error",
JOptionPane.ERROR_MESSAGE);
    } else if (pass.isEmpty()) {

```

```

        JOptionPane.showMessageDialog(null, "Password harus diisi!", "Error",
JOptionPane.ERROR_MESSAGE);
    } else if (user.equals("Admin") && pass.equals("#Admin123")) {
        JOptionPane.showMessageDialog(null, "Login Sukses " + user, "Login",
JOptionPane.INFORMATION_MESSAGE);
    } else {
        JOptionPane.showMessageDialog(null, "Login Gagal!", "Login",
JOptionPane.ERROR_MESSAGE);
    }
}

```

```

// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JComboBox<String> jComboBox1;
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.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
// End of variables declaration
}

```

- Form register

```

/*
 * 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 BP1_M4_Bayu;

```

```

import javax.swing.JOptionPane;

```

```

/**

```

```

 *

```

```

 * @author LOQ

```

```

 */

```

```

public class BP1_M4_P2_Bayu_Register extends javax.swing.JFrame {

```

```

    /**

```

```

     * Creates new form BP1_M4_P2_Bayu_Register

```

```

    */

```

```

    public BP1_M4_P2_Bayu_Register() {

```

```

        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();  
    jLabel3 = new javax.swing.JLabel();  
    jLabel4 = new javax.swing.JLabel();  
    jLabel5 = new javax.swing.JLabel();  
    jLabel6 = new javax.swing.JLabel();  
    jTextField1 = new javax.swing.JTextField();  
    radioButton1 = new javax.swing.JRadioButton();  
    radioButton2 = new javax.swing.JRadioButton();  
    comboBox1 = new javax.swing.JComboBox<>();  
    checkBox1 = new javax.swing.JCheckBox();  
    checkBox2 = new javax.swing.JCheckBox();  
    checkBox3 = new javax.swing.JCheckBox();  
    checkBox4 = new javax.swing.JCheckBox();  
    jScrollPane1 = new javax.swing.JScrollPane();  
    textArea1 = new javax.swing.JTextArea();  
    jScrollPane2 = new javax.swing.JScrollPane();  
    textArea2 = new javax.swing.JTextArea();  
    jButton1 = new javax.swing.JButton();  
    jLabel7 = new javax.swing.JLabel();  
    jTextField2 = new javax.swing.JTextField();  
    jButton2 = new javax.swing.JButton();  
    jLabel8 = new javax.swing.JLabel();  
    jLabel9 = new javax.swing.JLabel();  
    jLabel10 = new javax.swing.JLabel();  
    jLabel11 = new javax.swing.JLabel();  
    jTextField3 = new javax.swing.JTextField();  
    jTextField4 = new javax.swing.JTextField();  
    jTextField5 = new javax.swing.JTextField();  
    comboBox2 = new javax.swing.JComboBox<>();  
    jButton3 = new javax.swing.JButton();
```

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

```
    jLabel1.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N  
    jLabel1.setText("FORM REGISTER");
```

```
    jLabel2.setText("NIM");
```

```
    jLabel3.setText("NAMA");
```

```

jLabel4.setText("JENIS KELAMIN");

jLabel5.setText("PRODI");

jLabel6.setText("HOBI");

jRadioButton1.setText("Perempuan");

jRadioButton2.setText("Laki-laki");

jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[]
{ "Teknik Informatika", "Sistem Informasi", "Desain Komunikasi Visual", "Teknik Sipil"
}));

jCheckBox1.setText("Nonton");

jCheckBox2.setText("Dengerin Musik");

jCheckBox3.setText("Olahraga");

jCheckBox4.setText("Travelling");

jTextArea1.setColumns(20);
jTextArea1.setRows(5);
jScrollPane1.setViewportView(jTextArea1);

jTextArea2.setColumns(20);
jTextArea2.setRows(5);
jScrollPane2.setViewportView(jTextArea2);

jButton1.setText("REGISTER");
jButton1.addMouseListener(new java.awt.event.MouseAdapter() {
    public void mouseClicked(java.awt.event.MouseEvent evt) {
        jButton1MouseClicked(evt);
    }
});
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jLabel7.setText("ALAMAT");

jButton2.setText("HAPUS");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {

```

```

        jButton2ActionPerformed(evt);
    }
});

jLabel8.setText("Kelas");

jLabel9.setText("Angkatan");

jLabel10.setText("DPA");

jLabel11.setText("Semester");

jComboBox2.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
    "Semester 1", "Semester 2", "Semester 3", "Semester 4", "Semester 5", "Semester 6",
    "Semester 7" }));

jButton3.setText("KELUAR");
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(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()
            .add(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .add(jLabel1)
                .add(jLabel2)
                .add(jLabel3)
                .add(jLabel4)
                .add(jLabel5)
                .add(jLabel6)
                .add(jLabel7)
                .add(jLabel8)
                .add(jLabel9)
                .add(jLabel10)
                .add(jLabel11)
                .add(jComboBox2)
                .add(jButton3)
            )
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addGroup(layout.createSequentialGroup()
            .add(jButton1)
            .addContainerGap(10, Short.MAX_VALUE))
);

```



```

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

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
        .addComponent(jComboBox1,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jTextField2)
        .addComponent(jTextField1)
        .addGroup(layout.createSequentialGroup())

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
        .addComponent(jCheckBox1,
javax.swing.GroupLayout.PREFERRED_SIZE, 85,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jCheckBox3,
javax.swing.GroupLayout.PREFERRED_SIZE, 85,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jRadioButton2,
javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(31, 31, 31)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
        .addComponent(jRadioButton1,
javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jCheckBox4,
javax.swing.GroupLayout.PREFERRED_SIZE, 85,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jCheckBox2,
javax.swing.GroupLayout.DEFAULT_SIZE, 109, Short.MAX_VALUE)))
        .addGap(68, 68, 68)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup())

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

```

```

        .addComponent(jLabel11,
javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 56,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel10,
javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 56,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(47, 47, 47))
        .addGroup(layout.createSequentialGroup())

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
        .addComponent(jLabel8,
javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel9))
        .addGap(53, 53, 53)))

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
        .addComponent(jTextField4)
        .addComponent(jTextField5)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
        .addGap(0, 0, Short.MAX_VALUE)
        .addComponent(jTextField3,
javax.swing.GroupLayout.PREFERRED_SIZE, 227,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(layout.createSequentialGroup()
        .addComponent(jComboBox2,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(0, 0, Short.MAX_VALUE))))
        .addGroup(layout.createSequentialGroup())

        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
        .addComponent(jButton1)

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(jButton2)

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(jButton3))

```

```

        .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE, 476,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(0, 0, Short.MAX_VALUE)))
        .addGroup(layout.createSequentialGroup())

    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
        .addGroup(layout.createSequentialGroup())
            .addGap(161, 161, 161)
            .addComponent(jLabel1)
            .addComponent(jScrollPane2,
javax.swing.GroupLayout.PREFERRED_SIZE, 570,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(0, 160, Short.MAX_VALUE)))
        .addContainerGap())
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup())
            .addGap(14, 14, 14)
            .addComponent(jLabel1)
            .addGap(18, 18, 18)

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

        .addGroup(layout.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)
            .addComponent(jTextField3,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel8))

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

    .addGroup(layout.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)

```

```

        .addComponent(jTextField4,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)
        .addComponent(jLabel4)
        .addComponent(jRadioButton1)
        .addComponent(jRadioButton2)
        .addComponent(jTextField5,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING
)
        .addGroup(layout.createSequentialGroup())
            .addComponent(jLabel5)
            .addGap(25, 25, 25)
            .addComponent(jLabel6)
            .addGap(22, 22, 22))
        .addGroup(layout.createSequentialGroup())
            .addComponent(jComboBox1,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)
        .addComponent(jCheckBox1)
        .addComponent(jCheckBox2))

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)
        .addComponent(jCheckBox3)
        .addComponent(jCheckBox4))))
    .addGroup(layout.createSequentialGroup())
        .addGap(6, 6, 6)

```

```

        .addComponent(jComboBox2,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

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

        .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel7))

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

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

        .addComponent(jButton1)
        .addComponent(jButton2)
        .addComponent(jButton3))
        .addGap(18, 18, 18)
        .addComponent(jScrollPane2,
javax.swing.GroupLayout.PREFERRED_SIZE, 200,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(52, 52, 52))
        .addGroup(layout.createSequentialGroup()
        .addGap(40, 40, 40)
        .addComponent(jLabel9)
        .addGap(18, 18, 18)
        .addComponent(jLabel10)
        .addGap(18, 18, 18)
        .addComponent(jLabel11)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))))
    );

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

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

private void jButton1MouseClicked(java.awt.event.MouseEvent evt) {
    // TODO add your handling code here:

```

```

    }

    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        jTextArea1.setText("");
        jTextArea2.setText("");
        jRadioButton1.setSelected(false);
        jRadioButton2.setSelected(false);
        jComboBox1.setSelectedIndex(0);
        jCheckBox1.setSelected(false);
        jCheckBox2.setSelected(false);
        jCheckBox3.setSelected(false);
        jCheckBox4.setSelected(false);
        jTextArea1.setText("");
        jTextArea2.setText("");
    }

    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        BP1_M4_P1_Bayu_Form log = new BP1_M4_P1_Bayu_Form();
        log.setVisible(true);
        this.dispose();
    }

    /**
     * @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(BP1_M4_P2_Albar_Register.class.getName()).log(j
ava.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {

```

```

java.util.logging.Logger.getLogger(BP1_M4_P2_Albar_Register.class.getName()).log(j
ava.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {

```

```

java.util.logging.Logger.getLogger(BP1_M4_P2_Albar_Register.class.getName()).log(j
ava.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

```

```

java.util.logging.Logger.getLogger(BP1_M4_P2_Albar_Register.class.getName()).log(j
ava.util.logging.Level.SEVERE, null, ex);
    }
    //</editor-fold>

```

```

    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new BP1_M4_P2_Bayu_Register().setVisible(true);
        }
    });
}

```

```

public void simpan() {
    String nim, nama, jk, prodi, alamat, kelas, angkatan, dpa, semester;
    nim = jTextField1.getText();
    nama = jTextField2.getText();
    kelas = jTextField3.getText();
    angkatan = jTextField4.getText();
    dpa = jTextField5.getText();

```

```

    jk = "";
    if (jRadioButton1.isSelected()) {
        jk = jRadioButton1.getText();
    } else if (jRadioButton2.isSelected()) {
        jk = jRadioButton2.getText();
    }

```

```

    prodi = (String) jComboBox1.getSelectedItem();

```

```

    StringBuffer hobi = new StringBuffer();
    if (jCheckBox1.isSelected()) {
        hobi.append(jCheckBox1.getText() + ",");
    }

```

```

        if (jCheckBox2.isSelected()) {
            hobi.append(jCheckBox2.getText() + ",");
        }
        if (jCheckBox3.isSelected()) {
            hobi.append(jCheckBox3.getText() + ",");
        }
        if (jCheckBox4.isSelected()) {
            hobi.append(jCheckBox4.getText() + ",");
        }

        semester = (String) jComboBox2.getSelectedItem();

        alamat=jTextArea1.getText();
        jTextArea2.setText("DATA REGISTER \n"
            + "1. NIM : "+nim+"\n"
            + "2. Nama : "+nama+"\n"
            + "3. Jenis Kelamin : "+jk+"\n"
            + "4. Prodi : "+prodi+"\n"
            + "5. Hobi : "+hobi+"\n"
            + "6. Alamat : "+alamat+"\n"
            + "7. Kelas : "+kelas+"\n"
            + "8. Angkatan : "+angkatan+"\n"
            + "9. Dpa: "+dpa+"\n"
            + "10. Semester : "+semester+"\n");
        JOptionPane.showMessageDialog(this, "Registrasi Berhasil", "Sukses",
JOptionPane.INFORMATION_MESSAGE);
        Form_Nilai nilai = new Form_Nilai();
        nilai.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.JCheckBox jCheckBox1;
private javax.swing.JCheckBox jCheckBox2;
private javax.swing.JCheckBox jCheckBox3;
private javax.swing.JCheckBox jCheckBox4;
private javax.swing.JComboBox<String> jComboBox1;
private javax.swing.JComboBox<String> jComboBox2;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel10;
private javax.swing.JLabel jLabel11;
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.JRadioButton jRadioButton1;
private javax.swing.JRadioButton jRadioButton2;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JScrollPane jScrollPane2;
private javax.swing.JTextArea jTextArea1;
private javax.swing.JTextArea jTextArea2;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
private javax.swing.JTextField jTextField3;
private javax.swing.JTextField jTextField4;
private javax.swing.JTextField jTextField5;
// End of variables declaration
}

```

- Form login

```

/*
 * 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 BP1_M4_Bayu;

/**
 *
 * @author LOQ
 */
public class Form_Nilai extends javax.swing.JFrame {

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

```

```

jScrollPane1 = new javax.swing.JScrollPane();
jTable1 = new javax.swing.JTable();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jTable1.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {
        {"A", "A", "A"}
    },
    new String [] {
        "Sistem Operasi", "Pemrograman Web", "Bahasa Pemrograman 1"
    }
));
jTable1.addMouseListener(new java.awt.event.MouseAdapter() {
    public void mouseClicked(java.awt.event.MouseEvent evt) {
        jTable1MouseClicked(evt);
    }
});
jScrollPane1.setViewportView(jTable1);

javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(405, 405, Short.MAX_VALUE)
        )
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(275, 275, Short.MAX_VALUE)
        )
);

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

private void jTable1MouseClicked(java.awt.event.MouseEvent 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(Form_Nilai.class.getName()).log(java.util.logging.L
evel.SEVERE, null, ex);
        } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(Form_Nilai.class.getName()).log(java.util.logging.L
evel.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(Form_Nilai.class.getName()).log(java.util.logging.L
evel.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(Form_Nilai.class.getName()).log(java.util.logging.L
evel.SEVERE, null, ex);
        }
    }
    //</editor-fold>

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

```

```
// Variables declaration - do not modify
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JTable jTable1;
// End of variables declaration
}
```