

## LEMBAR JAWABAN TUGAS

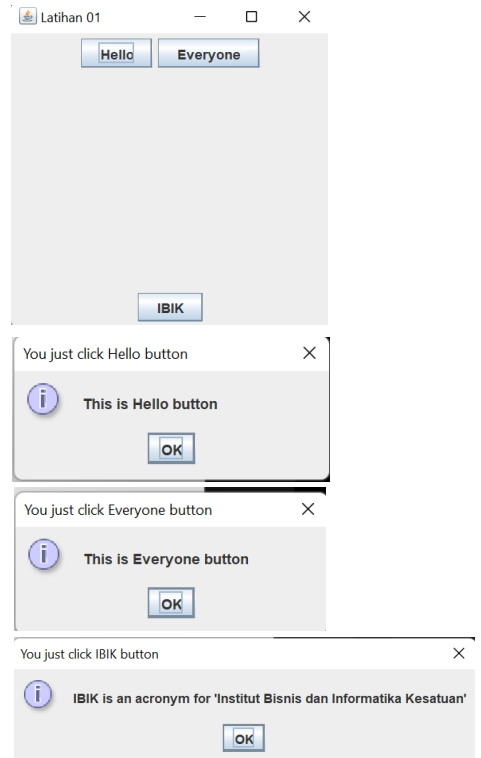
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### Latihan01

```
1 package com.ibik.pbo.praktikum;
2
3 import java.awt.FlowLayout;
4 import java.awt.BorderLayout;
5 import javax.swing.JButton;
6 import javax.swing.JFrame;
7 import javax.swing.JOptionPane;
8 import javax.swing.JPanel;
9 import javax.swing.WindowConstants;
10 import java.awt.event.ActionEvent;
11 import java.awt.event.ActionListener;
12
13 public class Latihan01 {
14     public static void main(String[]
15 args) {
16
17         JButton button1 = new
18 JButton("Hello");
19         ActionListener actionButton1
20 = new ActionListener() {
21             public void
22             actionPerformed(ActionEvent e) {
23                 JOptionPane.showMessageDialog(null,
24 "This is Hello button",
25 "You just
26 click Hello button",
27 JOptionPane.INFORMATION_MESSAGE);
28             }
29         };
30
31         JButton button2 = new
32 JButton("Everyone");
33         ActionListener actionButton2
34 = new ActionListener() {
35             public void
36             actionPerformed(ActionEvent e) {
37                 JOptionPane.showMessageDialog(null,
38 "This is Everyone button", "You just
39 click Everyone button",
40 JOptionPane.INFORMATION_MESSAGE);
41             }
42         };
43
44         JButton button3 = new
45 JButton("IBIK");
46         ActionListener actionButton3
47 = new ActionListener() {
48             public void
49             actionPerformed(ActionEvent e) {
50                 JOptionPane.showMessageDialog(null,
51 "IBIK is an acronym for 'Institut
52 Bisnis dan Informatika Kesatuan'",
53 "You just
54 click IBIK button",
55 JOptionPane.INFORMATION_MESSAGE);
56             }
57         };
58
59         JFrame frame = new JFrame();
60         frame.setLayout(new
61 BorderLayout());
62         frame.setTitle("Latihan 01");
63         frame.setLocationRelativeTo(null);
64         frame.setDefaultCloseOperation(Window
65 Constants.EXIT_ON_CLOSE);
66
67         JPanel northPanel = new
68 JPanel(new
69 FlowLayout(FlowLayout.CENTER));
70
71         button1.addActionListener(actionButt
72 on1);
73         northPanel.add(button1);
74
75         button2.addActionListener(actionButt
76 on2);
77         northPanel.add(button2);
78
79         JPanel southPanel = new
80 JPanel(new
81 FlowLayout(FlowLayout.CENTER));
82
83         button3.addActionListener(actionButt
84 on3);
85         southPanel.add(button3);
86
87         frame.add(northPanel,
88 BorderLayout.NORTH);
89         frame.add(southPanel,
90 BorderLayout.SOUTH);
91         frame.pack();
92         frame.setVisible(true);
93         frame.setSize(300, 300);
94     }
95 }
```



## Latihan02

```
package com.ibik.pbo.praktikum;

import java.awt.BorderLayout;

import javax.swing.ButtonGroup;
import javax.swing.JButton;
import javax.swing.JComboBox;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JRadioButton;
import javax.swing.JTextField;
import javax.swing.WindowConstants;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.util.ArrayList;

public class Latihan02 extends JFrame {
    /**
     *
     */
    private static final long serialVersionUID = 1L;

    Latihan02() {
        // menampilkan jendela pada layar
        setVisible(true);
        // menentukan posisi jendela pada tengah layar
        pack();
        setLocationRelativeTo(null);
        // menentukan ukuran width dan height ada jendela
        setSize(350, 400);
        // berikan judul pada jendela
        setTitle("Contoh Window Frame");
        // menutup jendela secara penuh
        setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
        GenerateUI(this);
    }

    public static void main(String[] args) {
        new Latihan02();
    }

    private void GenerateUI(Latihan02 frame) {
        JPanel mainPanel = new JPanel();
        mainPanel.setLayout(new BorderLayout());
        frame.setContentPane(mainPanel);

        JPanel panell1 = new JPanel();
        panell1.setLayout(null);
        mainPanel.add(panell1, BorderLayout.NORTH);

        JLabel lblFullName = new JLabel("Fullname");
        lblFullName.setBounds(22, 23, 80, 16);

        panell1.add(lblFullName);
    }
}
```

```
final JTextField textFullName = new JTextField();
textFullName.setBounds(105, 18, 169, 30);
textFullName.setEditable(true);
// textFullName.setText("Muhamad Agus");
// textFullName.setBackground(Color.LIGHT_GRAY);
panell1.add(textFullName);

JLabel lblEmail = new JLabel("Email");
lblEmail.setBounds(22, 69, 61, 16);
panell1.add(lblEmail);

final JTextField textEmail = new JTextField();
textEmail.setBounds(105, 64, 169, 30);
panell1.add(textEmail);
JLabel lblPhone = new JLabel("Phone");
lblPhone.setBounds(22, 109, 61, 16);
panell1.add(lblPhone);

final JTextField txtPhone = new JTextField();
txtPhone.setBounds(105, 104, 169, 30);
panell1.add(txtPhone);

JLabel lblGender = new JLabel("Gender");
lblGender.setBounds(22, 150, 61, 16);
panell1.add(lblGender);

final JRadioButton radioGender1 = new JRadioButton("Female");
radioGender1.setBounds(105, 145, 100, 30);
panell1.add(radioGender1);

final JRadioButton radioGender2 = new JRadioButton("Male");
radioGender2.setBounds(200, 145, 100, 30);
panell1.add(radioGender2);

ButtonGroup bg = new ButtonGroup();
bg.add(radioGender1);
bg.add(radioGender2);

JLabel lblCityzen = new JLabel("Citizenship");
lblCityzen.setBounds(22, 185, 100, 16);
panell1.add(lblCityzen);

String country[] = {
    "Indonesia",
    "Rusia",
    "Australia",
    "U.S.A",
    "England",
    "New Zealand"
};

final JComboBox<String> selectCitizen = new JComboBox<>(country);
selectCitizen.setBounds(105, 180, 169, 30);
panell1.add(selectCitizen);

JButton btnSubmit = new JButton("Submit");
btnSubmit.setBounds(105, 250, 169, 40);
ActionListener actionSubmit = new ActionListener() {
    public void actionPerformed(ActionEvent e) {
```

```
ArrayList<String> data = new ArrayList<String>();

if (!textFullName.getText().isEmpty()) {
    data.add(textFullName.getText());
} else {
    JOptionPane.showMessageDialog(null,
        "Ada Data Yang Belum Di Isi. Isi Semua Data
Gus.",
        "Alert!", JOptionPane.ERROR_MESSAGE);
}

if (!textEmail.getText().isEmpty()) {
    data.add(textEmail.getText());
} else {
    JOptionPane.showMessageDialog(null,
        "Data tidak boleh kosong (Email Kosong).
Silakan periksa kembali isian anda.",
        "Alert!", JOptionPane.ERROR_MESSAGE);
}

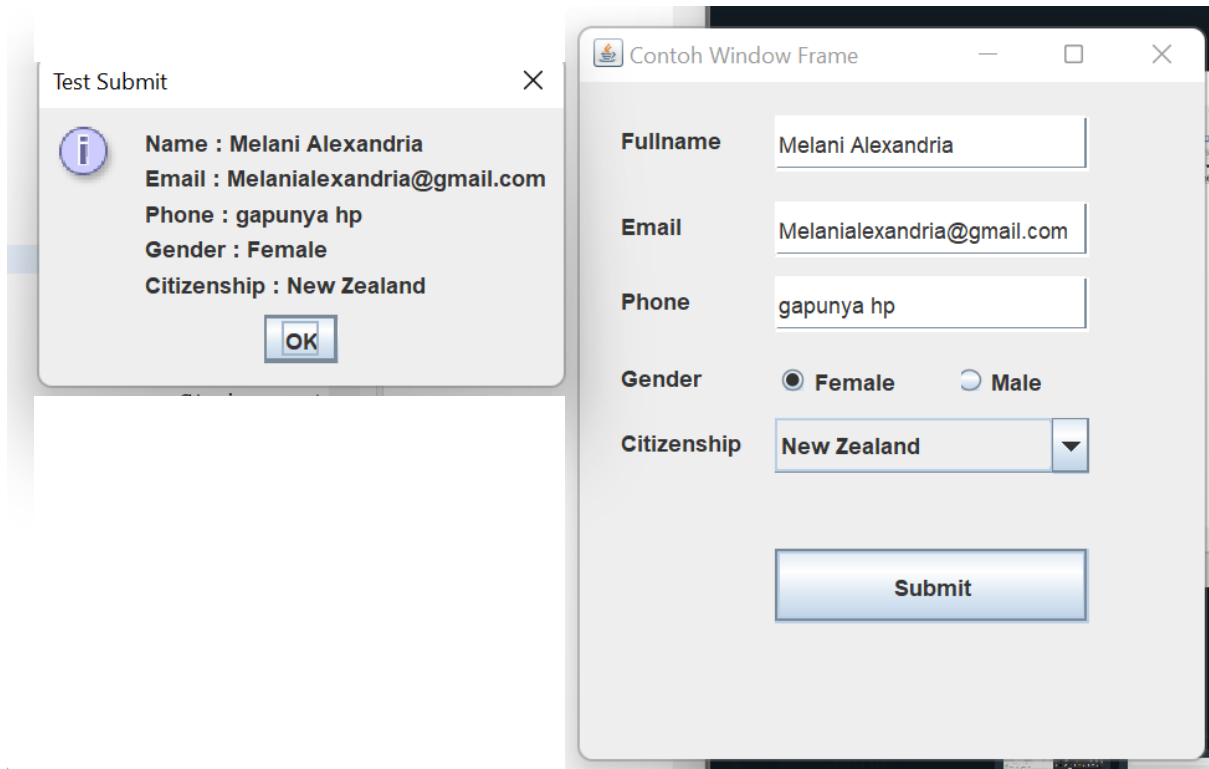
if (!txtPhone.getText().isEmpty()) {
    data.add(txtPhone.getText());
} else {
    JOptionPane.showMessageDialog(null,
        "Data tidak boleh kosong (No. Telepon Kosong).
Silakan periksa kembali isian anda.",
        "Alert!", JOptionPane.ERROR_MESSAGE);
}

if (radioGender1.isSelected()) {
    data.add(radioGender1.getText());
} else if (radioGender2.isSelected()) {
    data.add(radioGender2.getText());
}

data.add(selectCitizen.getSelectedItem().toString());

String output = "";
output += "Name : " + data.get(0) + "\n";
output += "Email : " + data.get(1) + "\n";
output += "Phone : " + data.get(2) + "\n";
output += "Gender : " + data.get(3) + "\n";
output += "Citizenship : " + data.get(4) + "\n";
JOptionPane.showMessageDialog(null, output, "Test Submit",
JOptionPane.INFORMATION_MESSAGE);
}

};
btnSubmit.addActionListener(actionSubmit);
panell.add(btnSubmit);
frame.add(panell);
}
}
```



### Latihan03

```
package com.ibik.pbo.praktikum;

import java.awt.BorderLayout;
import java.awt.Color;

import javax.swing.JButton;
import javax.swing.JCheckBox;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JTextField;
import javax.swing.SwingConstants;
import javax.swing.WindowConstants;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class Latihan03 extends JFrame {
    /**
     *
     */
    private static final long serialVersionUID = 1L;

    Latihan03() {
        // menampilkan jendela pada layar
        setVisible(true);
        // menentukan posisi jendela pada tengah layar
        pack();
    }
}
```

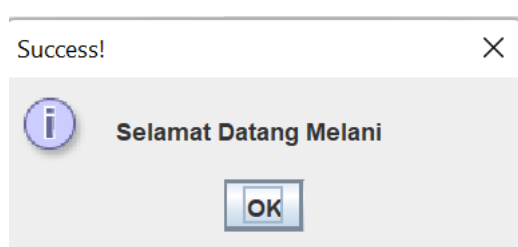
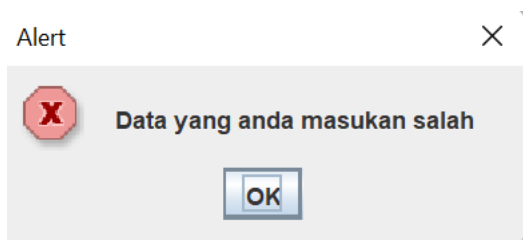
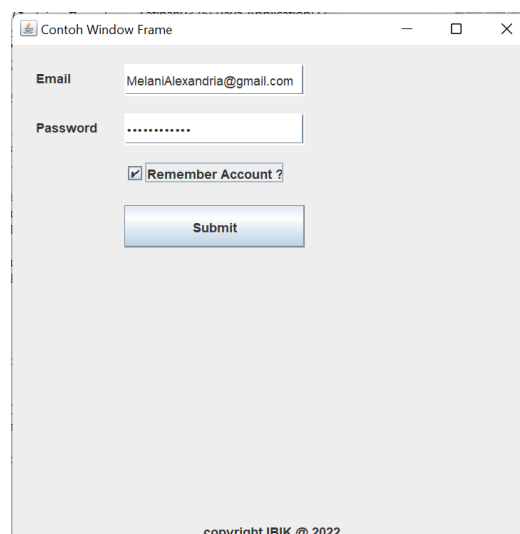
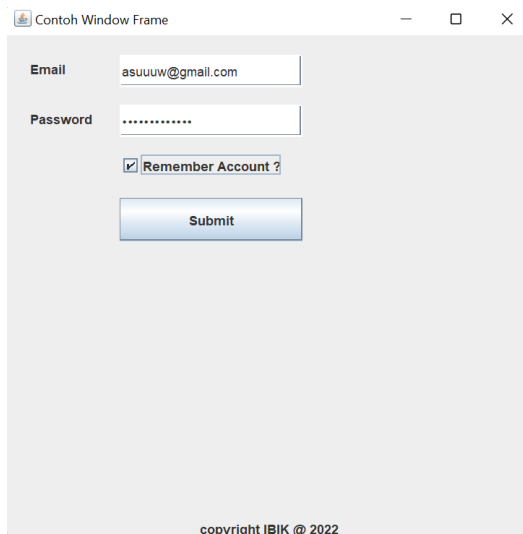
```
setLocationRelativeTo(null);  
// menentukan ukuran width dan height ada jendela  
setSize(500, 500);  
// berikan judul pada jendela  
setTitle("Contoh Window Frame");  
// menutup jendela secara penuh  
setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);  
GenerateUI(this);  
}  
  
public static void main(String[] args) {  
    new Latihan03();  
}  
  
private void GenerateUI(Latihan03 frame) {  
    JPanel mainPanel = new JPanel();  
    mainPanel.setLayout(new BorderLayout());  
    frame.setContentPane(mainPanel);  
  
    JPanel panel1 = new JPanel();  
    panel1.setLayout(null);  
    mainPanel.add(panel1, BorderLayout.NORTH);  
  
    JLabel lblEmail = new JLabel("Email");  
    lblEmail.setBounds(22, 23, 80, 16);  
    panel1.add(lblEmail);  
  
    final JTextField textEmail = new JTextField();  
    textEmail.setBounds(105, 18, 169, 30);  
    panel1.add(textEmail);  
  
    JLabel lblPassword = new JLabel("Password");  
    lblPassword.setBounds(22, 69, 61, 16);  
    panel1.add(lblPassword);  
  
    final JPasswordField textPassword = new JPasswordField();  
    textPassword.setBounds(105, 64, 169, 30);  
    panel1.add(textPassword);  
  
    JCheckBox chkRemember = new JCheckBox("Remember Account ?");  
    chkRemember.setBounds(105, 100, 169, 40);  
    panel1.add(chkRemember);  
  
    JButton btnSubmit = new JButton("Submit");  
    btnSubmit.setBounds(105, 150, 169, 40);  
    ActionListener actionSubmit = new ActionListener() {  
        public void actionPerformed(ActionEvent e) {  
            String myEmail = "212310004@student.ibik.ac.id";  
            String myName = "Muhamad Agus";  
            String myPass = "212310004";  
  
            String inputPass = new String(textPassword.getPassword());  
  
            if (textEmail.getText().isEmpty() || inputPass.isEmpty()) {  
                JOptionPane.showMessageDialog(null, "Silakan mengisi  
data dengan benar", "Alert",  
JOptionPane.ERROR_MESSAGE);  
            } else {
```

```
        if (!textEmail.getText().equals(myEmail) &&
!inputPass.equals(myPass)) {
            JOptionPane.showMessageDialog(null, "Data yang anda
masukan salah", "Alert",
                JOptionPane.ERROR_MESSAGE);
        } else {
            JOptionPane.showMessageDialog(null, "Selamat Datang
" + myName, "Success!",
                JOptionPane.INFORMATION_MESSAGE);
        }
    }
}

btnSubmit.addActionListener(actionSubmit);
panell1.add(btnSubmit);

JLabel lblCopyright = new JLabel("copyright IBIK @ 2022",
SwingConstants.CENTER);
lblCopyright.setBackground(Color.BLUE);
lblCopyright.setSize(300, 50);
mainPanel.add(lblCopyright, BorderLayout.SOUTH);

frame.add(panell1);
}
}
```



## Latihan04

```
package com.ibik.pbo.praktikum;

import java.awt.Font;
import java.awt.BorderLayout;
import java.awt.FlowLayout;
import java.awt.Dimension;

import javax.swing.BorderFactory;
import javax.swing.ButtonGroup;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JMenu;
import javax.swing.JMenuBar;
import javax.swing.JMenuItem;
import javax.swing.JPanel;
import javax.swing.JRadioButton;
import javax.swing.JScrollPane;
import javax.swing.JTable;
import javax.swing.JTextField;
import javax.swing.WindowConstants;
import javax.swing.border.Border;

public class Latihan04 extends JFrame {
    /**
     *
     */
    private static final long serialVersionUID = 1L;

    Latihan04() {
        setVisible(true);
        pack();
        setLocationRelativeTo(null);
        setSize(1000, 480);
        setTitle("Form");
        setDefaultCloseOperation(WindowConstants.EXIT_ON_CLOSE);
        GenerateUI(this);
    }

    public static void main(String[] args) {
        new Latihan04();
    }

    private void GenerateUI(Latihan04 frame) {
        // Menu
        JMenuBar menuBar = new JMenuBar();
        JMenu fileMenu = new JMenu("File");
        JMenu editMenu = new JMenu("Edit");
        JMenu helpMenu = new JMenu("Help");

        menuBar.add(fileMenu);
        menuBar.add(editMenu);
        menuBar.add(helpMenu);

        JMenuItem item1 = new JMenuItem("New");
        JMenuItem item2 = new JMenuItem("Save");
        JMenuItem item3 = new JMenuItem("Exit");
```



```
fileMenu.add(item1);
fileMenu.add(item2);
fileMenu.add(item3);

frame.setJMenuBar(menuBar);

// Main Panel
JPanel mainPanel = new JPanel();
mainPanel.setLayout(new BorderLayout());
frame.setContentPane(mainPanel);

// Header Title
JPanel headerPanel = new JPanel();
headerPanel.setLayout(new FlowLayout(FlowLayout.CENTER));
mainPanel.add(headerPanel, BorderLayout.NORTH);
JLabel headerTitle = new JLabel("FORM PENILAIAN MATAKULIAH PBO");
headerTitle.setFont(new Font("Arial", Font.PLAIN, 30));
headerPanel.add(headerTitle);

// Start of Form
Border leftPanelBorder = BorderFactory.createTitledBorder("Input
Data Mahasiswa");
JPanel leftPanel = new JPanel();
leftPanel.setLayout(null);
leftPanel.setPreferredSize(new Dimension(480, 480));
mainPanel.add(leftPanel, BorderLayout.WEST);
// Start of Panel Content

// // Input NPM
JLabel npmLabel = new JLabel("NPM");
npmLabel.setBounds(22, 40, 80, 30);
leftPanel.add(npmLabel);

JTextField inputNPM = new JTextField();
inputNPM.setBounds(22, 80, 400, 30);
leftPanel.add(inputNPM);

// // Input Nama
JLabel namaLabel = new JLabel("Nama");
namaLabel.setBounds(22, 120, 80, 30);
leftPanel.add(namaLabel);

JTextField inputNama = new JTextField();
inputNama.setBounds(22, 160, 400, 30);
leftPanel.add(inputNama);

// // Input Nilai
JLabel gradeLabel = new JLabel("Nilai");
gradeLabel.setBounds(22, 200, 80, 30);
leftPanel.add(gradeLabel);

JRadioButton gradeA = new JRadioButton("A");
gradeA.setBounds(25, 240, 50, 30);
leftPanel.add(gradeA);

JRadioButton gradeB = new JRadioButton("B");
gradeB.setBounds(100, 240, 50, 30);
leftPanel.add(gradeB);
```

```
JRadioButton gradeC = new JRadioButton("C");
gradeC.setBounds(175, 240, 50, 30);
leftPanel.add(gradeC);

JRadioButton gradeD = new JRadioButton("D");
gradeD.setBounds(250, 240, 50, 30);
leftPanel.add(gradeD);

JRadioButton gradeE = new JRadioButton("E");
gradeE.setBounds(325, 240, 50, 30);
leftPanel.add(gradeE);

JRadioButton gradeF = new JRadioButton("F");
gradeF.setBounds(400, 240, 50, 30);
leftPanel.add(gradeF);

ButtonGroup bg = new ButtonGroup();
bg.add(gradeA);
bg.add(gradeB);
bg.add(gradeC);
bg.add(gradeD);
bg.add(gradeE);
bg.add(gradeF);

// // Button CRUD Data
JButton btnSave = new JButton("Save");
btnSave.setBounds(25, 280, 100, 30);
leftPanel.add(btnSave);

JButton btnDelete = new JButton("Delete");
btnDelete.setBounds(175, 280, 100, 30);
leftPanel.add(btnDelete);

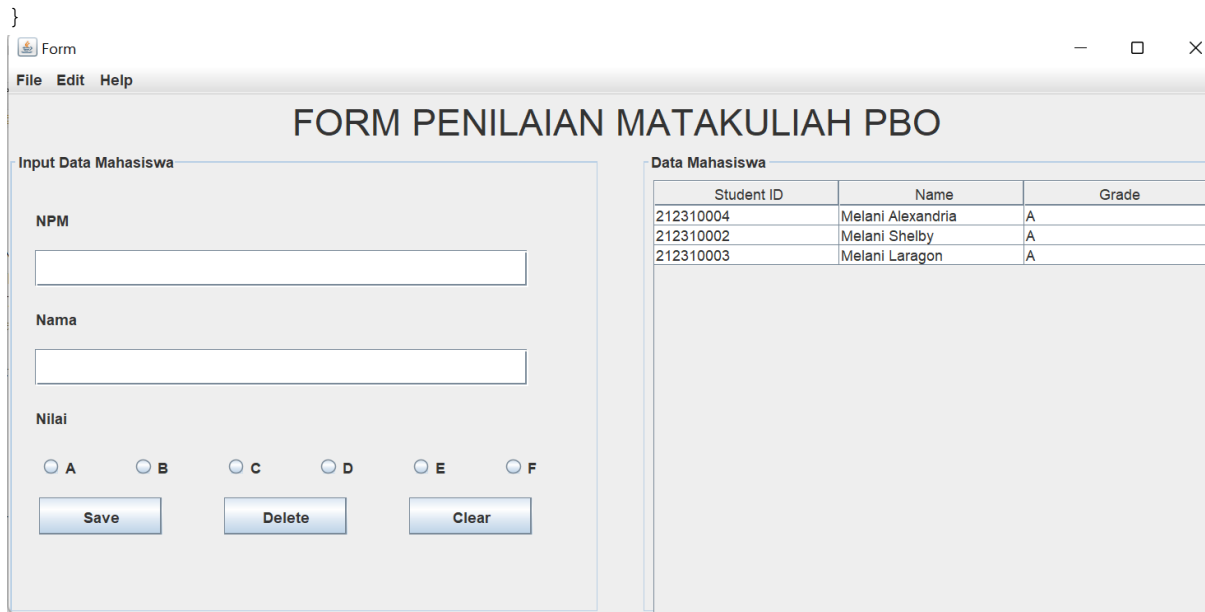
JButton btnClear = new JButton("Clear");
btnClear.setBounds(325, 280, 100, 30);
leftPanel.add(btnClear);
// End of Panel Content
leftPanel.setBorder(leftPanelBorder);
// End of Form

// Table
Border rPanelBorder = BorderFactory.createTitledBorder("Data
Mahasiswa");
JPanel rightPanel = new JPanel();
rightPanel.setLayout(new FlowLayout(FlowLayout.CENTER));
mainPanel.add(rightPanel, BorderLayout.EAST);

String data[][] = {
    { "212310004", "Melani Alexandria", "A" },
    { "212310002", "Melani Shelby", "A" },
    { "212310003", "Melani Laragon", "A" }
};

String column[] = {
    "Student ID",
    "Name",
    "Grade"
};
```

```
JTable jt = new JTable(data, column);  
jt.setBounds(22, 40, 480, 450);  
JScrollPane sp = new JScrollPane(jt);  
  
rightPanel.add(sp);  
  
rightPanel.setBorder(rPanelBorder);  
  
}  
}
```



Student ID	Name	Grade
212310004	Melani Alexandria	A
212310002	Melani Shelby	A
212310003	Melani Laragon	A