

1. Buatlah program seperti dibawah ini, dengan kondisi tertentu: Pada gambar diatas terdapat 1 buah Frame, 3 buah Button, dan 1 buah Kotak Dialog. Jika salah satu button pada window frame di klik, maka akan menampilkan kotak dialog yang berisikan pesan informasi dari masing-masing button (sesuai panah pada gambar diatas). Simpanlah dengan nama kelas Latihan01.

a. Source Code

```
1 package com.ibik.pbo.praktikum;
2
3 import java.awt.EventQueue;
4
5 public class Latihan01 extends JFrame {
6
7     private JPanel contentPane;
8
9     /**
10      * Launch the application.
11      */
12     public static void main(String[] args) {
13         EventQueue.invokeLater(new Runnable() {
14             public void run() {
15                 try {
16                     Latihan01 frame = new Latihan01();
17                     frame.setVisible(true);
18                 } catch (Exception e) {
19                     e.printStackTrace();
20                 }
21             }
22         });
23     }
24
25     /**
26      * Create the frame.
27      */
28     public Latihan01() {
29         setTitle("Latihan 01");
30         setResizable(false);
31         setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
32         setBounds(100, 100, 450, 114);
33         setLocationRelativeTo(null);
34         contentPane = new JPanel();
35         contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
36
37         setContentPane(contentPane);
38         contentPane.setLayout(null);
39
40         final JButton button_Hello = new JButton("Hello");
41         button_Hello.addMouseListener(new MouseAdapter() {
42             @Override
43             public void mouseClicked(MouseEvent e) {
44                 JOptionPane jop = new JOptionPane();
45             }
46         });
47     }
48 }
```

```

        jop.showMessageDialog(null, "Hello" + "You Just Clicked " + button_Hello.getText(), jop.INFORMATION_MESSAGE);
    }
});
button_Hello.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
    }
});
button_Hello.setBounds(138, 10, 63, 23);
contentPane.add(button_Hello);

final JButton button_IBIK = new JButton("IBIK");
button_IBIK.addMouseListener(new MouseAdapter() {
    @Override
    public void mouseClicked(MouseEvent e) {
        JOptionPane jop = new JOptionPane();

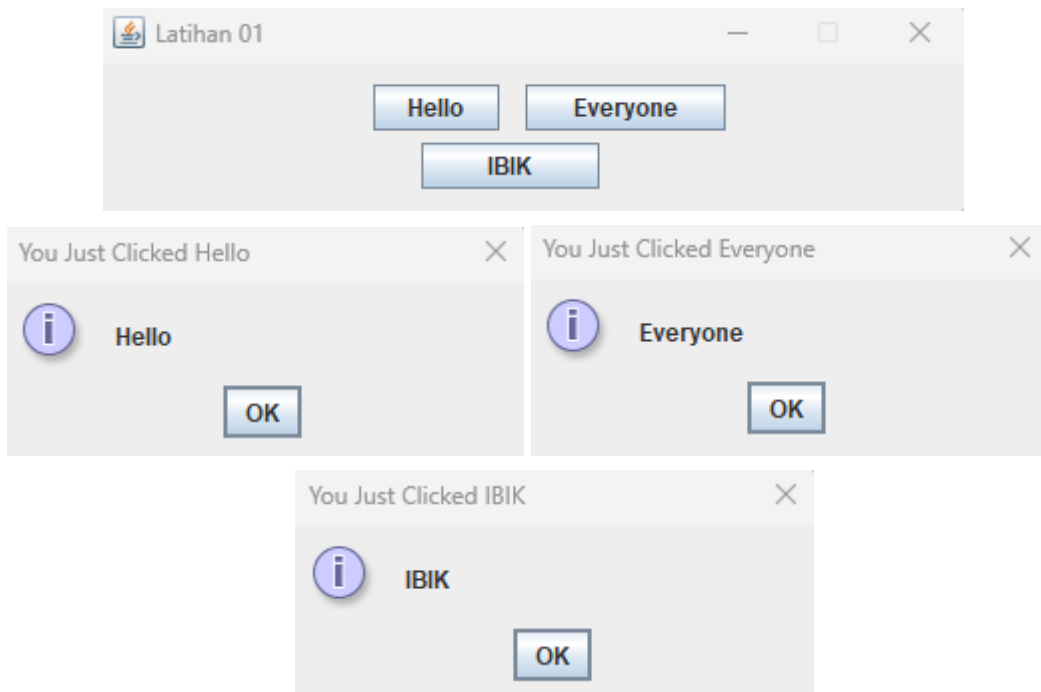
        jop.showMessageDialog(null, "IBIK" + "You Just Clicked " + button_IBIK.getText(), jop.INFORMATION_MESSAGE);
    }
});
button_IBIK.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
    }
});
button_IBIK.setBounds(162, 39, 89, 23);
contentPane.add(button_IBIK);

final JButton button_Everyone = new JButton("Everyone");
button_Everyone.addMouseListener(new MouseAdapter() {
    @Override
    public void mouseClicked(MouseEvent e) {
        JOptionPane jop = new JOptionPane();

        jop.showMessageDialog(null, "Everyone" + "You Just Clicked " + button_Everyone.getText(), jop.INFORMATION_MESSAGE);
    }
});
button_Everyone.setBounds(214, 10, 100, 23);
contentPane.add(button_Everyone);
}
}

```

b. Output



2. Buatlah sebuah logic, jika mengklik tombol SUBMIT akan mengeksekusi logic dibawah ini:
- Jika salah satu isian pada komponen form tersebut tidak diisi maka menampilkan Kotak Dialog pesan kesalahan “Data tidak boleh kosong. Silakan periksa kembali isian anda.”
 - Jika seluruh isian komponen form terpenuhi maka menampilkan seluruh data atau informasi tersebut dalam bentuk Kotak Dialog. Simpanlah dengan nama kelas Latihan02.

a. Source Code

```
1 package com.ibik.pbo.praktikum;
2
3 import java.awt.EventQueue;
19
20 public class Latihan02 extends JFrame {
21
22     private JPanel contentPane;
23     private JTextField field_Email;
24     private JTextField field_Fullname;
25     private JTextField field_Phone;
26     private JLabel label_Gender;
27
28     /**
29      * Launch the application.
30      */
31     public static void main(String[] args) {
32         EventQueue.invokeLater(new Runnable() {
33             public void run() {
34                 try {
35                     Latihan02 frame = new Latihan02();
36                     frame.setVisible(true);
37                 } catch (Exception e) {
38                     e.printStackTrace();
39                 }
40             }
41         });
42     }
43
44     /**
45      * Create the frame.
46      */
47     public Latihan02() {
48         setTitle("Latihan 02");
49         setResizable(false);
50         setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
51         setBounds(100, 100, 256, 241);
52         setLocationRelativeTo(null);
53         contentPane = new JPanel();
54         contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
55
56         setContentPane(contentPane);
57         contentPane.setLayout(null);
58
59         final JLabel label_Fullname = new JLabel("Fullname");
60         label_Fullname.setBounds(26, 11, 46, 14);
```

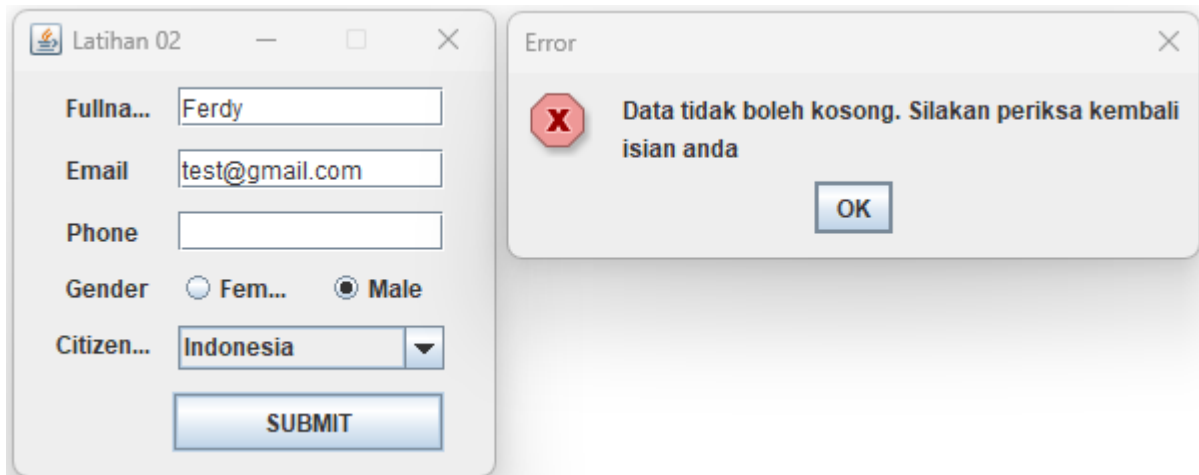
```

61     contentPane.add(label_Fullname);
62
63     field_Email = new JTextField();
64     field_Email.setBounds(82, 39, 133, 20);
65     contentPane.add(field_Email);
66     field_Email.setColumns(10);
67
68     final JLabel label_Email = new JLabel("Email");
69     label_Email.setBounds(26, 42, 46, 14);
70     contentPane.add(label_Email);
71
72     field_Fullname = new JTextField();
73     field_Fullname.setColumns(10);
74     field_Fullname.setBounds(82, 8, 133, 20);
75     contentPane.add(field_Fullname);
76
77     final JLabel label_Phone = new JLabel("Phone");
78     label_Phone.setBounds(26, 73, 46, 14);
79     contentPane.add(label_Phone);
80
81     field_Phone = new JTextField();
82     field_Phone.setColumns(10);
83     field_Phone.setBounds(82, 70, 133, 20);
84     contentPane.add(field_Phone);
85
86     label_Gender = new JLabel("Gender");
87     label_Gender.setBounds(26, 101, 46, 14);
88     contentPane.add(label_Gender);
89
90     final JRadioButton rb_Female = new JRadioButton("Female");
91     rb_Female.setBounds(82, 97, 59, 23);
92     contentPane.add(rb_Female);
93
94     final JRadioButton rb_Male = new JRadioButton("Male");
95     rb_Male.setBounds(156, 97, 59, 23);
96     contentPane.add(rb_Male);
97
98     final JLabel label_Citizenship = new JLabel("Citizenship");
99     label_Citizenship.setBounds(21, 129, 51, 14);
100    contentPane.add(label_Citizenship);
101
102    final JComboBox cb_Citizenship = new JComboBox();
103    cb_Citizenship.setModel(new DefaultComboBoxModel(new String[] {"Indonesia", "Malaysia", "Singapore", "Laos", "Cambodia"}));
104    cb_Citizenship.setToolTipText("");
105    cb_Citizenship.setBounds(82, 127, 133, 22);
106
107    contentPane.add(cb_Citizenship);
108
109    JButton button_Submit = new JButton("SUBMIT");
110    button_Submit.addMouseListener(new MouseAdapter() {
111        @Override
112        public void mouseClicked(MouseEvent e) {
113            if (field_Fullname.getText().equals("") || field_Email.getText().equals("") || field_Phone.getText().equals("") ||
114                JOptionPane.showMessageDialog(null, "Data tidak boleh kosong. Silakan periksa kembali\r\n"
115                    + "isian anda", "Error", JOptionPane.ERROR_MESSAGE);
116            }else {
117                String gender;
118                if (rb_Female.isSelected() == true) {
119                    gender = "Female";
120                }else {
121                    gender = "Male";
122                }
123                JOptionPane.showMessageDialog(null, label_Fullname.getText() + " : " + field_Fullname.getText() + "\n" + label
124            }
125        }
126    });
127    button_Submit.addActionListener(new ActionListener() {
128        public void actionPerformed(ActionEvent e) {
129        }
130    });
131    button_Submit.setBounds(79, 160, 136, 30);
132    contentPane.add(button_Submit);
133 }

```

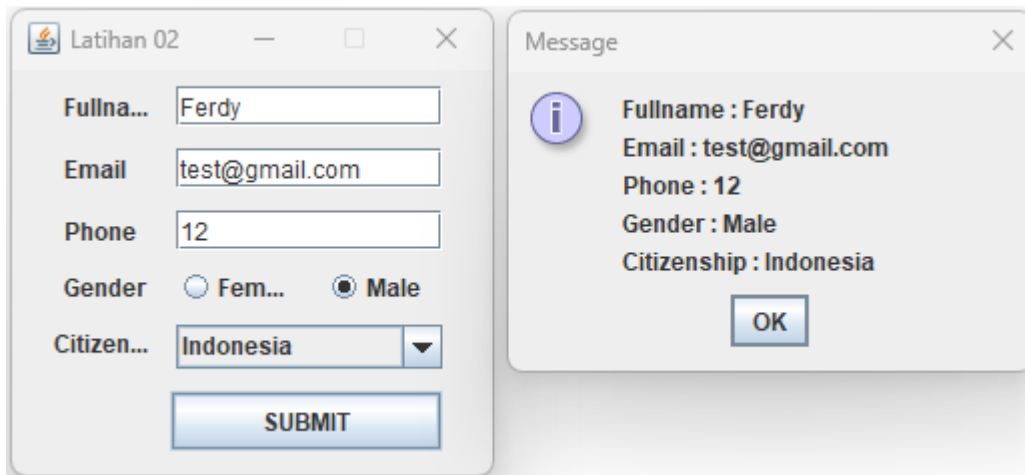
b. Output

- Jika ada salah satu field yang kosong



The image shows a form window titled "Latihan 02" with the following fields: Fullname (filled with "Ferdy"), Email (filled with "test@gmail.com"), Phone (empty), Gender (radio buttons for "Fem..." and "Male", with "Male" selected), and Citizen (dropdown menu showing "Indonesia"). A "SUBMIT" button is at the bottom. An "Error" dialog box is open, displaying a red 'X' icon and the message: "Data tidak boleh kosong. Silakan periksa kembali isian anda". An "OK" button is at the bottom of the error dialog.

- Jika seluruh isian diisi



The image shows the same form window as above, but now the "Phone" field is filled with "12". A "Message" dialog box is open, displaying an information icon and the following details: "Fullname : Ferdy", "Email : test@gmail.com", "Phone : 12", "Gender : Male", and "Citizenship : Indonesia". An "OK" button is at the bottom of the message dialog.

3. Buatlah sebuah form isian yang terdiri dari Email, Password dan Remember Password (dalam bentuk checkbox).

```
1 package com.ibik.pbo.praktikum;
2
3 import java.awt.EventQueue;
4
5 import javax.swing.JFrame;
6 import javax.swing.JPanel;
7 import javax.swing.border.EmptyBorder;
8 import javax.swing.JLabel;
9 import javax.swing.JOptionPane;
10 import javax.swing.JTextField;
11 import javax.swing.JCheckBox;
12 import java.awt.Font;
13 import javax.swing.JButton;
14 import java.awt.event.MouseAdapter;
15 import java.awt.event.MouseEvent;
16
17 public class Latihan03 extends JFrame {
18
19     private JPanel contentPane;
20     private JTextField field_Email;
21     private JTextField field_Password;
22     private JButton button_Login;
23
24     /**
25      * Launch the application.
26      */
27     public static void main(String[] args) {
28         EventQueue.invokeLater(new Runnable() {
29             public void run() {
30                 try {
31                     Latihan03 frame = new Latihan03();
32                     frame.setVisible(true);
33                 } catch (Exception e) {
34                     e.printStackTrace();
35                 }
36             }
37         });
38     }
39
40     /**
41      * Create the frame.
42      */
43     public Latihan03() {
44         setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
45         setBounds(100, 100, 258, 182);
46         setLocationRelativeTo(null);
47         contentPane = new JPanel();
48         contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
49
50         setContentPane(contentPane);
51         contentPane.setLayout(null);
52
53         JLabel label_Email = new JLabel("Email");
54         label_Email.setBounds(10, 14, 46, 14);
55         contentPane.add(label_Email);
56
57         field_Email = new JTextField();
58         field_Email.setColumns(10);
59         field_Email.setBounds(99, 11, 133, 20);
60         contentPane.add(field_Email);
61
62         JLabel label_Password = new JLabel("Password");
63         label_Password.setBounds(10, 42, 79, 14);
64         contentPane.add(label_Password);
65
66         field_Password = new JTextField();
67         field_Password.setColumns(10);
68         field_Password.setBounds(99, 39, 133, 20);
69         contentPane.add(field_Password);
70
71         JCheckBox cb_RemPassword = new JCheckBox("Remember Password");
72         cb_RemPassword.setFont(new Font("Tahoma", Font.PLAIN, 11));
73         cb_RemPassword.setBounds(99, 66, 125, 23);
74         contentPane.add(cb_RemPassword);
75
76         button_Login = new JButton("LOGIN");
77         button_Login.addMouseListener(new MouseAdapter() {
78             @Override
79             public void mouseClicked(MouseEvent e) {
80                 if (field_Email.getText().equals("") || field_Password.getText().equals("")) {
81                     JOptionPane.showMessageDialog(null, "Silakan mengisi data dengan benar", "Error", JOptionPane.ERROR_MESSAGE);
82                 } else if (field_Email.getText().equals("test@gmail.com") && field_Password.getText().equals("123")) {
83                     JOptionPane.showMessageDialog(null, "Selamat Datang Ferdy");
84                 } else {
85                     JOptionPane.showMessageDialog(null, "Data yang anda masukkan salah", "Error", JOptionPane.ERROR_MESSAGE);
86                 }
87             }
88         });
89     }
90 }
```

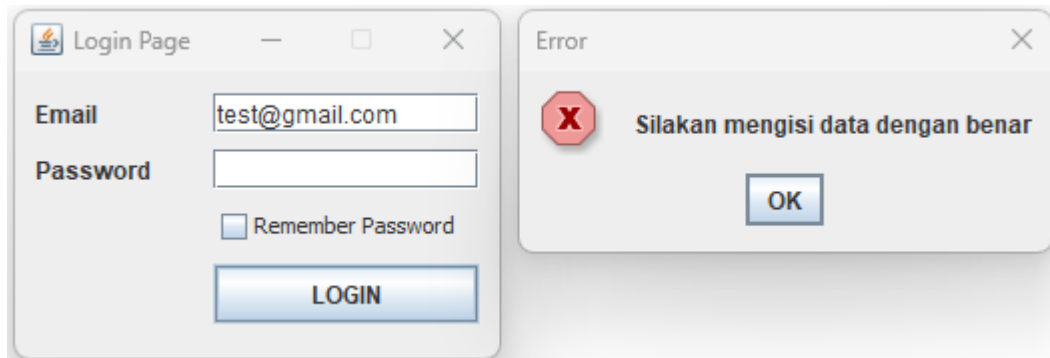
```

91     button_Login.setBounds(99, 96, 133, 30);
92     contentPane.add(button_Login);
93 }
94 }

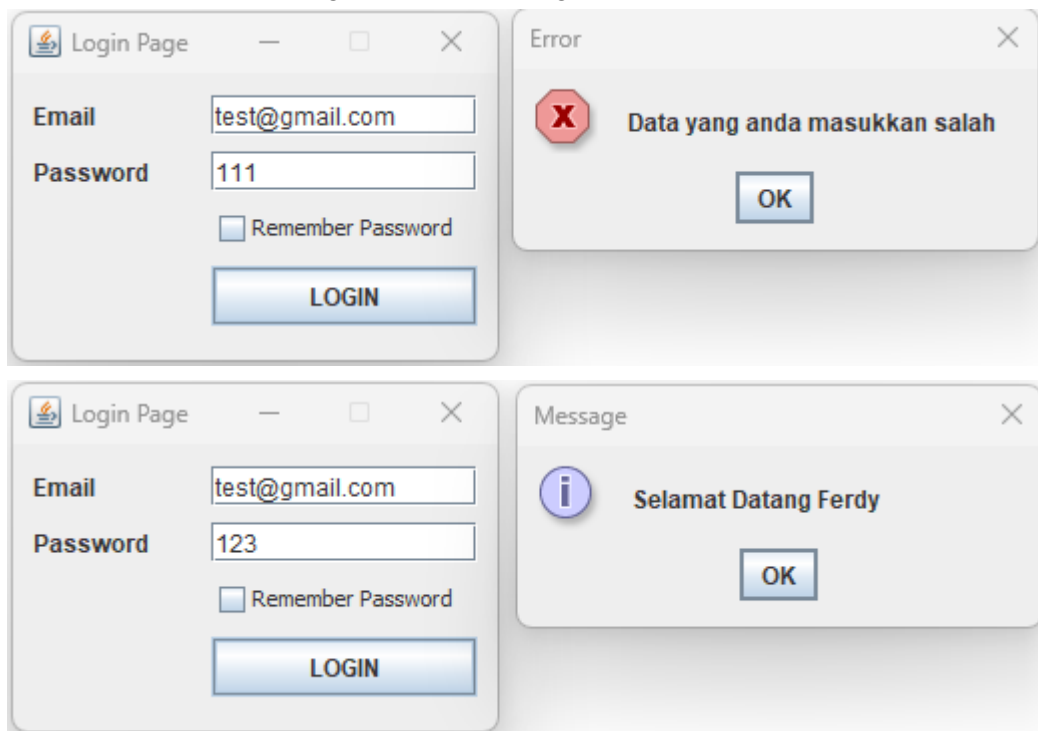
```

B. Output

- Jika salah satu isian tidak terpenuhi maka akan menampilkan kotak dialog pesan kesalahan “Silakan mengisi data dengan benar”



- Inputan Email harus bernilai email anda, dan inputan Password harus bernilai NPM anda. Jika salah satu tidak terpenuhi maka akan menampilkan kotak dialog pesan kesalahan “Data yang anda masukan salah” namun Jika semua kondisi benar maka menampilkan kotak dialog “Selamat Datang [Nama Anda]”.



5. Buatlah program berdasarkan gambar dibawah ini
Simpanlah dengan nama kelas Latihan04.

a. Source Code

```
1 package com.ibik.pbo.praktikum;
2
3 import java.awt.EventQueue;
4
5 import javax.swing.JFrame;
6 import javax.swing.JPanel;
7 import javax.swing.JScrollPane;
8 import javax.swing.border.EmptyBorder;
9 import javax.swing.JMenuBar;
10 import javax.swing.JMenuItem;
11 import javax.swing.JMenu;
12 import javax.swing.JTable;
13 import javax.swing.table.DefaultTableModel;
14 import javax.swing.JLabel;
15 import java.awt.Font;
16 import javax.swing.SwingConstants;
17 import javax.swing.JTextField;
18 import javax.swing.JRadioButton;
19 import javax.swing.JButton;
20 import java.awt.event.ActionListener;
21 import java.awt.event.ActionEvent;
22 import javax.swing.border.EtchedBorder;
23 import javax.swing.border.TitledBorder;
24 import java.awt.Color;
25
26 public class Latihan04 extends JFrame {
27     private JTable table;
28     private JTable table_1;
29     private JTable table_2;
30     private JTextField textField;
31     private JTextField textField_1;
32
33 /**
34  * Launch the application.
35  */
36 public static void main(String[] args) {
37     EventQueue.invokeLater(new Runnable() {
38         public void run() {
39             try {
40                 Latihan04 frame = new Latihan04();
41                 frame.setVisible(true);
42             } catch (Exception e) {
43                 e.printStackTrace();
44             }
45         }
46     });
47 }
```



```

46     });
47 }
48
49 /**
50  * Create the frame.
51  */
52 public Latihan04() {
53     setTitle("Latihan 04");
54     setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
55     setBounds(100, 100, 899, 614);
56
57     JMenuBar menuBar = new JMenuBar();
58     setJMenuBar(menuBar);
59
60     JMenu menu_File = new JMenu("File");
61     menuBar.add(menu_File);
62
63     JMenuItem new_MenuItem = new JMenuItem("New");
64     menu_File.add(new_MenuItem);
65
66     JMenuItem save_MenuItem = new JMenuItem("Save");
67     menu_File.add(save_MenuItem);
68
69     JMenuItem exit_MenuItem = new JMenuItem("Exit");
70     menu_File.add(exit_MenuItem);
71
72     JMenu menu_Edit = new JMenu("Edit");
73     menuBar.add(menu_Edit);
74
75     JMenu menu_Help = new JMenu("Help");
76     menuBar.add(menu_Help);
77     getContentPane().setLayout(null);
78
79     JScrollPane scrollPane = new JScrollPane();
80     scrollPane.setBounds(348, 88, 535, 454);
81     getContentPane().add(scrollPane);
82
83     table_2 = new JTable();
84     table_2.setShowVerticalLines(false);
85     table_2.setShowHorizontalLines(false);
86     table_2.setShowGrid(false);
87     table_2.setModel(new DefaultTableModel(
88         new Object[][] {
89             {"212310018", "FATHURAHMAN AL FARIDZI", "B"},
90             {"212310019", "MUHAMMAD RAFI ZUHAIR ARTA", "C"},
91             {"212310020", "MUHAMAD SUBHAN RIZKI AFIA", "A"},
92         },
93         new String[] {
94             "NPM", "Nama", "Nilai"
95         }
96     ));
97     table_2.getColumnModel().getColumn(0).setMaxWidth(150);
98     scrollPane.setViewportView(table_2);
99
100     JLabel lblNewLabel = new JLabel("FORM PENILAIAN MATA KULIAH PBO ");
101     lblNewLabel.setHorizontalAlignment(SwingConstants.CENTER);
102     lblNewLabel.setFont(new Font("Tahoma", Font.PLAIN, 30));
103     lblNewLabel.setBounds(164, 11, 533, 58);
104     getContentPane().add(lblNewLabel);
105
106     JLabel lblNewLabel_1_1 = new JLabel("NPM");
107     lblNewLabel_1_1.setFont(new Font("Tahoma", Font.PLAIN, 15));
108     lblNewLabel_1_1.setBounds(30, 140, 117, 14);
109     getContentPane().add(lblNewLabel_1_1);
110
111     JTextField textField = new JTextField();
112     textField.setBounds(40, 166, 265, 39);
113     getContentPane().add(textField);
114     textField.setColumns(10);
115
116     JTextField_1 = new JTextField();
117     textField_1.setColumns(10);
118     textField_1.setBounds(40, 267, 265, 39);
119     getContentPane().add(textField_1);
120
121     JLabel lblNewLabel_1_1_1 = new JLabel("Nama");
122     lblNewLabel_1_1_1.setFont(new Font("Tahoma", Font.PLAIN, 15));
123     lblNewLabel_1_1_1.setBounds(30, 241, 117, 14);
124     getContentPane().add(lblNewLabel_1_1_1);
125
126     JLabel lblNewLabel_1_1_1_1 = new JLabel("Nilai");
127     lblNewLabel_1_1_1_1.setFont(new Font("Tahoma", Font.PLAIN, 15));
128     lblNewLabel_1_1_1_1.setBounds(30, 343, 117, 14);
129     getContentPane().add(lblNewLabel_1_1_1_1);
130
131     JRadioButton rdbtnNewRadioButton = new JRadioButton("A");
132     rdbtnNewRadioButton.setBounds(38, 377, 33, 23);
133     getContentPane().add(rdbtnNewRadioButton);
134
135     JRadioButton rdbtnB = new JRadioButton("B");

```

```

135     JRadioButton rdbtnB = new JRadioButton("B");
136     rdbtnB.setBounds(84, 377, 33, 23);
137     getContentPane().add(rdbtnB);
138
139     JRadioButton rdbtnC = new JRadioButton("C");
140     rdbtnC.setBounds(130, 377, 33, 23);
141     getContentPane().add(rdbtnC);
142
143     JRadioButton rdbtnD = new JRadioButton("D");
144     rdbtnD.setBounds(175, 377, 33, 23);
145     getContentPane().add(rdbtnD);
146
147     JRadioButton rdbtnE = new JRadioButton("E");
148     rdbtnE.setBounds(224, 377, 33, 23);
149     getContentPane().add(rdbtnE);
150
151     JRadioButton rdbtnF = new JRadioButton("F");
152     rdbtnF.setBounds(269, 377, 33, 23);
153     getContentPane().add(rdbtnF);
154
155     JButton btnNewButton = new JButton("Save");
156     btnNewButton.addActionListener(new ActionListener() {
157     public void actionPerformed(ActionEvent e) {
158     }
159     });
160     btnNewButton.setBounds(34, 427, 89, 39);
161     getContentPane().add(btnNewButton);
162
163     JButton btnDelete = new JButton("Delete");
164     btnDelete.setBounds(133, 427, 89, 39);
165     getContentPane().add(btnDelete);
166
167     JButton btnClear = new JButton("Clear");
168     btnClear.setBounds(232, 427, 89, 39);
169     getContentPane().add(btnClear);
170
171     JPanel panel = new JPanel();
172     panel.setBorder(new TitledBorder(new EtchedBorder(EtchedBorder.LOWERED, new Color(255, 255, 255), new Color(160, 160, 160)
173     panel.setBounds(10, 81, 328, 461);
174     getContentPane().add(panel);
175
176     JMenu fileMenu = new JMenu("File");
177     JMenu editMenu = new JMenu("Edit");
178     JMenu helpMenu = new JMenu("Help");
179 }

```

b. Output

Latihan 04
File Edit Help

FORM PENILAIAN MATA KULIAH PBO

Form Mahasiswa

NPM

Nama

Nilai
☐ A ☐ B ☐ C ☐ D ☐ E ☐ F

NPM	Nama	Nilai
212310018	FATHURAHMAN AL FARIDZI	B
212310019	MUHAMMAD RAFI ZUHAIR ARTA	C
212310020	MUHAMAD SUBHAN RIZKI AFIA	A

