

**LAPORAN PRAKTIKUM
AGORITMA PEMROGRAMAN**

“PROGRAM OPERASI LOGIKA”

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TUGAS MINGGUAN ALGORITMA DAN PEMROGRAMAN

1. PROGRAM JAVA

```
1 package guipekan8_2511533016;
2
3 import java.awt.EventQueue;
4
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17
18
19
20
21 public class TugasOperasiLogika_2511533016 extends JFrame {
22
23     private static final long serialVersionUID = 1L;
24     private JPanel contentPane;
25     private JTextField txtBill1;
26     private JTextField txtBill2;
27     private JTextField txtHasil;
28     // private pesanPeringatan;
29
30
31
32     private void pesanPeringatan(String pesan) {
33         JOptionPane.showMessageDialog(this, pesan, "Peringatan", JOptionPane.WARNING_MESSAGE);
34     }
35     private void pesanError(String pesan) {
36         JOptionPane.showMessageDialog(this, pesan, "Kesalahan", JOptionPane.ERROR_MESSAGE);
37     }
38
39     /**
40      * Launch the application.
41      */
42     public static void main(String[] args) {
43         EventQueue.invokeLater(new Runnable() {
44             public void run() {
45                 try {
46                     TugasOperasiLogika_2511533016 frame = new TugasOperasiLogika_2511533016();
47                     frame.setVisible(true);
48                 } catch (Exception e) {
49                     e.printStackTrace();
50                 }
51             }
52         });
53     }
54
55     /**
56      * Create the frame.
57      */
58     public TugasOperasiLogika_2511533016() {
59         setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
60         setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
61         setBounds(100, 100, 450, 300);
62         contentPane = new JPanel();
63         contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
64         setContentPane(contentPane);
65         contentPane.setLayout(null);
66
67         JLabel lblNewLabel = new JLabel("OPERATOR LOGIKA");
68         lblNewLabel.setBounds(115, 10, 142, 20);
69         contentPane.add(lblNewLabel);
70
71         txtBill1 = new JTextField();
72         txtBill1.setBounds(87, 71, 79, 17);
73         contentPane.add(txtBill1);
74         txtBill1.setColumns(10);
75
76         JComboBox comboBox = new JComboBox();
77         comboBox.setModel(new DefaultComboBoxModel(new String[]{"0", "1", "2"}));
78         comboBox.setBounds(87, 146, 79, 20);
79         contentPane.add(comboBox);
80
81         txtBill2 = new JTextField();
82         txtBill2.setBounds(87, 99, 79, 18);
83         contentPane.add(txtBill2);
84         txtBill2.setColumns(10);
85
86         JLabel lblNewLabel_1 = new JLabel("Operasi 1");
87         lblNewLabel_1.setBounds(7, 71, 70, 15);
88         contentPane.add(lblNewLabel_1);
89
90         JLabel lblNewLabel_2 = new JLabel("Operasi 2");
91         lblNewLabel_2.setBounds(10, 102, 67, 12);
92         contentPane.add(lblNewLabel_2);
93
94         JLabel lblNewLabel_3 = new JLabel("Operator");
95         lblNewLabel_3.setBounds(7, 150, 72, 12);
96         contentPane.add(lblNewLabel_3);
97
98         JLabel lblNewLabel_4 = new JLabel("Hasil");
99         lblNewLabel_4.setBounds(7, 198, 44, 12);
100        contentPane.add(lblNewLabel_4);
101        txtHasil = new JTextField();
```

```

101     txtHasil = new JTextField();
102     txtHasil.setBounds(87, 195, 79, 18);
103     contentPane.add(txtHasil);
104     txtHasil.setColumns(10);
105
106     JButton btnNewButton = new JButton("Proses");
107     btnNewButton.addActionListener(new ActionListener() {
108     public void actionPerformed(ActionEvent e) {
109         boolean hasil = false;
110         try {
111             String text1 = txtBil1.getText().trim();
112             String text2 = txtBil2.getText().trim();
113             if(txtBil1.getText().trim().isEmpty()) {
114                 pesanPeringatan("nilai 1 harus di isi");
115             } else
116             if(txtBil2.getText().trim().isEmpty()) {
117                 pesanPeringatan ("nilai 2 harus di isi");
118             }
119             if(!(text1.equalsIgnoreCase("true") || text1.equalsIgnoreCase("false"))) {
120                 pesanError("nilai 1 harus di isi true atau false");
121             } else
122             if (!(text2.equalsIgnoreCase("true") || text2.equalsIgnoreCase("false"))) {
123                 pesanError("nilai 2 harus di isi true atau false");
124             }
125             boolean a1 = Boolean.parseBoolean(text1);
126             boolean a2= Boolean.parseBoolean(text2);
127             int z = comboBox.getSelectedIndex();
128             if (z==0) {hasil = a1 && a2;}
129             if (z==1) {hasil = a1 || a2;}
130             if (z==2) {hasil = !a1;}
131         }
132         catch (Exception ex) {
133             pesanError("nilai 1 dan 2 harus berupa true atau false");
134         }
135         txtHasil.setText(String.valueOf(hasil));
136     }
137     });
138     btnNewButton.setBounds (287, 139, 89, 23);
139     contentPane.add(btnNewButton);
140
141
142 }

```

OPERATOR LOGIKA

Operasi 1

Operasi 2

Operator

Hasil

OPERATOR LOGIKA

Operasi 1

Operasi 2

Operator

Hasil

OPERATOR LOGIKA

Operasi 1

Operasi 2

Operator

Hasil

2. PSEUDOCODE

Judul=

PROGRAM OPERASI LOGIKA

Deklarasi=

HASIL, A1, A2 = BOOLEAN
Z = INTEGER

ALGORITMA:

Input A1 \leftarrow true/false
Input A2 \leftarrow true/false
Input Z (0 = AND, 1 = OR, 2 = NOT)

JIKA Z \leftarrow 0
HASIL \leftarrow A1 && A2

JIKA Z \leftarrow 1
HASIL \leftarrow A1 || A2

JIKA Z \leftarrow 2
HASIL \leftarrow !A1

END PROGRAM

3. FLOWCHART

