

# **PRA TAS**



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**TEKNIK INFORMATIKA-S1  
FAKULTAS TEKNIK DAN INFORMATIKA**

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import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class frmNilMahasiswa extends JFrame implements ActionListener {
    private JLabel lblNIM, lblNama, lblJenisKelamin, lblMataKuliah, lblNilaiKuis,
    lblNilaiTugas, lblNilaiTTS, lblNilaiTAS,
        lblTotalNilai, lblNilaiHuruf;
    private JTextField txtNIM, txtNama, txtNilaiKuis, txtNilaiTugas, txtNilaiTTS,
    txtNilaiTAS, txtTotalNilai, txtNilaiHuruf;
    private JRadioButton rbLakiLaki, rbPerempuan;
    private ButtonGroup bgJenisKelamin;
    private JComboBox<String> cmbMataKuliah;
    private JButton btnHitung, btnTampil;
    private JTextArea txtAreaDetail, txtAreaTampil;

    public frmNilMahasiswa() {
        setTitle("frmNilMahasiswa");
        setSize(600, 400);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setLocationRelativeTo(null);
        setLayout(new BorderLayout());

        JPanel panelInput = new JPanel();
        panelInput.setLayout(new GridLayout(14, 2));

        lblNIM = new JLabel("NIM");
        panelInput.add(lblNIM);

        txtNIM = new JTextField();
        panelInput.add(txtNIM);

        lblNama = new JLabel("Nama Mahasiswa");
        panelInput.add(lblNama);

        txtNama = new JTextField();
        panelInput.add(txtNama);

        lblJenisKelamin = new JLabel("Jenis Kelamin");
        panelInput.add(lblJenisKelamin);

        rbLakiLaki = new JRadioButton("Laki-Laki");
        rbPerempuan = new JRadioButton("Perempuan");
        bgJenisKelamin = new ButtonGroup();
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bgJenisKelamin.add(rbLakiLaki);
bgJenisKelamin.add(rbPerempuan);
JPanel pnlJenisKelamin = new JPanel();
pnlJenisKelamin.add(rbLakiLaki);
pnlJenisKelamin.add(rbPerempuan);
panelInput.add(pnlJenisKelamin);

lblMataKuliah = new JLabel("Mata Kuliah");
panelInput.add(lblMataKuliah);

String[] mataKuliah = {"pemrograman berorientasi objek", "sistem basis
data", "aljabar linier",
    "logika informatika", "algoritma dan struktur data"};
cmbMataKuliah = new JComboBox<>(mataKuliah);
panelInput.add(cmbMataKuliah);

lblNilaiKuis = new JLabel("Nilai Kuis");
panelInput.add(lblNilaiKuis);

txtNilaiKuis = new JTextField();
panelInput.add(txtNilaiKuis);

lblNilaiTugas = new JLabel("Nilai Tugas");
panelInput.add(lblNilaiTugas);

txtNilaiTugas = new JTextField();
panelInput.add(txtNilaiTugas);

lblNilaiTTS = new JLabel("Nilai TTS");
panelInput.add(lblNilaiTTS);

txtNilaiTTS = new JTextField();
panelInput.add(txtNilaiTTS);

lblNilaiTAS = new JLabel("Nilai TAS");
panelInput.add(lblNilaiTAS);

txtNilaiTAS = new JTextField();
panelInput.add(txtNilaiTAS);

lblTotalNilai = new JLabel("Total Nilai");
panelInput.add(lblTotalNilai);

txtTotalNilai = new JTextField();
txtTotalNilai.setEditable(false);
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        panelInput.add(txtTotalNilai);

        lblNilaiHuruf = new JLabel("Nilai Huruf");
        panelInput.add(lblNilaiHuruf);

        txtNilaiHuruf = new JTextField();
        txtNilaiHuruf.setEditable(false);
        panelInput.add(txtNilaiHuruf);

        btnHitung = new JButton("Hitung");
        btnHitung.addActionListener(this);
        panelInput.add(btnHitung);

        btnTampil = new JButton("Tampil");
        btnTampil.addActionListener(this);
        panelInput.add(btnTampil);

        txtAreaDetail = new JTextArea();
        JScrollPane scrollPaneDetail = new JScrollPane(txtAreaDetail);

        JPanel panelTampil = new JPanel(new BorderLayout());
        txtAreaTampil = new JTextArea();
        txtAreaTampil.setEditable(false);
        JScrollPane scrollPaneTampil = new JScrollPane(txtAreaTampil);
        panelTampil.add(scrollPaneTampil, BorderLayout.CENTER);

        JSplitPane splitPane = new JSplitPane(JSplitPane.HORIZONTAL_SPLIT,
scrollPaneDetail, panelTampil);
        splitPane.setDividerLocation(300);
        splitPane.setOneTouchExpandable(true);

        add(panelInput, BorderLayout.WEST);
        add(splitPane, BorderLayout.CENTER);

        setVisible(true);
    }

    @Override
    public void actionPerformed(ActionEvent e) {
        if (e.getSource() == btnHitung) {
            hitungTotalNilai();
        } else if (e.getSource() == btnTampil) {
            tampilkanDataDetail();
        }
    }
}

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private void hitungTotalNilai() {
    double nilaiKuis = Double.parseDouble(txtNilaiKuis.getText());
    double nilaiTugas = Double.parseDouble(txtNilaiTugas.getText());
    double nilaiTTS = Double.parseDouble(txtNilaiTTS.getText());
    double nilaiTAS = Double.parseDouble(txtNilaiTAS.getText());

    double totalNilai = 0.15 * nilaiKuis + 0.2 * nilaiTugas + 0.3 * nilaiTTS
+ 0.35 * nilaiTAS;
    txtTotalNilai.setText(String.valueOf(totalNilai));

    String nilaiHuruf;
    if (totalNilai >= 85) {
        nilaiHuruf = "A";
    } else if (totalNilai >= 70) {
        nilaiHuruf = "B";
    } else if (totalNilai >= 60) {
        nilaiHuruf = "C";
    } else if (totalNilai >= 50) {
        nilaiHuruf = "D";
    } else {
        nilaiHuruf = "E";
    }
    txtNilaiHuruf.setText(nilaiHuruf);
}

private void tampilkanDataDetail() {
    String data = "NIM: " + txtNIM.getText() + "\n" +
        "Nama Mahasiswa: " + txtNama.getText() + "\n" +
        "Jenis Kelamin: " + (rbLakiLaki.isSelected() ? "Laki-Laki" :
"Perempuan") + "\n" +
        "Mata Kuliah: " + cmbMataKuliah.getSelectedItem() + "\n" +
        "Nilai Kuis: " + txtNilaiKuis.getText() + "\n" +
        "Nilai Tugas: " + txtNilaiTugas.getText() + "\n" +
        "Nilai TTS: " + txtNilaiTTS.getText() + "\n" +
        "Nilai TAS: " + txtNilaiTAS.getText() + "\n" +
        "Total Nilai: " + txtTotalNilai.getText() + "\n" +
        "Nilai Huruf: " + txtNilaiHuruf.getText() + "\n";

    txtAreaDetail.setText(data);

    String tampilData = "NIM: " + txtNIM.getText() + "\n" +
        "Nama Mahasiswa: " + txtNama.getText() + "\n" +
        "Total Nilai: " + txtTotalNilai.getText() + "\n" +
        "Nilai Huruf: " + txtNilaiHuruf.getText() + "\n";
}

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        txtAreaTampil.setText(tampilData);
    }

    public static void main(String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            @Override
            public void run() {
                new frmNilMahasiswa();
            }
        });
    }
}

```

NIM	223220066	NIM: 223220066
Nama Mahasiswa	arbai	Nama Mahasiswa: arbai
Jenis Kelamin	<input checked="" type="radio"/> Laki-Laki <input type="radio"/> Perempuan	Jenis Kelamin: Laki-Laki
Mata Kuliah	pemrograman berorientasi objek ▼	Mata Kuliah: pemrograman berorientasi objek
Nilai Kuis	100	Nilai Kuis: 100
Nilai Tugas	100	Nilai Tugas: 100
Nilai TTS	90	Nilai TTS: 90
Nilai TAS	95	Nilai TAS: 95
Total Nilai	95.25	Total Nilai: 95.25
Nilai Huruf	A	Nilai Huruf: A
<div> <div>Hitung</div> <div>Tampil</div> </div>		