

Tugas Pemograman 3



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BAB 1 Daftar Isi

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BAB 2 Kata Pengantar

Puji syukur kami panjatkan kehadiran Allah SWT yang telah memberikan rahmat serta karunia-Nya kepada kami sehingga kami berhasil menyelesaikan Makalah ini yang alhamdulillah tepat pada waktunya yang berjudul “Tugas Pemograman 3”

Makalah ini berisikan tentang informasi tentang Pemograman yang akan penyusun buat atau yang lebih khususnya membahas Pemograman Java,dan lain-lain. Diharapkan Makalah ini dapat memberikan informasi kepada kita semua tentang Pemograman.

Kami menyadari bahwa makalah ini masih jauh dari sempurna, oleh karena itu kritik dan saran dari semua pihak yang bersifat membangun selalu kami harapkan demi kesempurnaan makalah ini.

Akhir kata, kami sampaikan terima kasih kepada semua pihak yang telah berperan serta dalam penyusunan makalah ini dari awal sampai akhir. Semoga Allah SWT senantiasa meridhai segala usaha kita. Amin.

Cibinong

29 September 2013

Fajar Muhammad F

Penyusun

BAB 3 Pendahuluan

Java adalah bahasa pemrograman yang dapat dijalankan di berbagai komputer termasuk telepon genggam. Bahasa ini awalnya dibuat oleh James Gosling saat masih bergabung di Sun Microsystems saat ini merupakan bagian dari Oracle dan dirilis tahun 1995. Bahasa ini banyak mengadopsi sintaksis yang terdapat pada C dan C++ namun dengan sintaksis model objek yang lebih sederhana serta dukungan rutin-rutin aras bawah yang minimal. Aplikasi-aplikasi berbasis java umumnya dikompilasi ke dalam p-code (*bytecode*) dan dapat dijalankan pada berbagai Mesin Virtual Java (JVM). Java merupakan bahasa pemrograman yang bersifat umum/non-spesifik (*general purpose*), dan secara khusus didisain untuk memanfaatkan dependensi implementasi seminimal mungkin. Karena fungsionalitasnya yang memungkinkan aplikasi java mampu berjalan di beberapa platform sistem operasi yang berbeda, java dikenal pula dengan slogannya, "*Tulis sekali, jalankan di mana pun*". Saat ini java merupakan bahasa pemrograman yang paling populer digunakan, dan secara luas dimanfaatkan dalam pengembangan berbagai jenis perangkat lunak aplikasi ataupun aplikasi berbasis web.

BAB 4 Teori

- Java Layout
 - Flow Layout, menampilkan elemen yang satu baris
 - Grid Layout, menampilkan elemen yang terdiri atas baris dan kolom
 - Border Layout, menampilkan elemen berdasarkan 5 arah utara, selatan, tengah, barat, kiri
- JFrame , bingkai awal GUI
- JPanel , tempat menaruh elemen elemen GUI
- Java GUI Elemen, JButton , JLabel dan JTextField
- JDesktopPane , Desktop untuk memasukan Internal Frame dan dibungkus di JFrame
- JInternalFrame , untuk membuat Internal Frame berisi Elemen GUI
- fungsi addActionListener , untuk menambahkan event disebuah kelas
- fungsi setActionCommand , untuk menentukan nama aksi command yang dipilih

BAB 5 Hasil Praktikum

1)Buat DataMahasiswa.java

```
package Latihan;
```

```
//memanggil library di Java
```

```
import javax.swing.*;
```

```
//memanggil library di Layout
```

```
import java.awt.*;
```

```
import java.awt.event.*;
```

```
import Latihan.FileChooserDemo;
```

```
import Latihan.Aksi;
```

```
public class DataMahasiswa{
```

```
    public static void main(String[] arg){
```

```
        //elemen Atas
```

```
        JLabel Judul = new JLabel("Form Data Mahasiswa");
```

```
        Judul.setForeground(new Color(0,0,139));
```

```
        Judul.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
```

```
        //elemen tengah
```

```
        JLabel username = new JLabel("NAMA");
```

```
        JTextField inputUser = new JTextField(15);
```

```
        username.setForeground(new Color(0,0,139));
```

```
        username.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
```

```

inputUser.setFont(new Font("Comic Sans MS", Font.BOLD, 12));

JLabel nim = new JLabel("NIM");
JTextField inputNim = new JTextField(15);
nim.setForeground(new Color(0,0,139));
nim.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
inputNim.setFont(new Font("Comic Sans MS", Font.BOLD, 12));

JLabel jenkel = new JLabel("JENIS KELAMIN");
JRadioButton laki = new JRadioButton("Laki-Laki");
JRadioButton perempuan = new JRadioButton("Perempuan");
ButtonGroup inputBGroup = new ButtonGroup();
jenkel.setForeground(new Color(0,0,139));
jenkel.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
laki.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
laki.setForeground(new Color(0,0,139));
perempuan.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
perempuan.setForeground(new Color(0,0,139));

inputBGroup.add(laki);
inputBGroup.add(perempuan);

JPanel inputJenkel = new JPanel();
inputJenkel.setLayout(new GridLayout(2,1));
inputJenkel.add(laki);
inputJenkel.add(perempuan);

```

```

JLabel asal_sekolah = new JLabel("ASAL SEKOLAH");
asal_sekolah.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
asal_sekolah.setForeground(new Color(0,0,139));
String[] AsalSekolahStrings = { "SMA - IPA", "SMA - IPS", "SMA - BAHASA",
"SMK" };

JComboBox inputAsalSekolah = new JComboBox(AsalSekolahStrings);
inputAsalSekolah.setSelectedIndex(0);
inputAsalSekolah.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
inputAsalSekolah.setForeground(new Color(0,0,139));

JLabel nama_sekolah = new JLabel("NAMA SEKOLAH");
JTextField inputNamaSekolah = new JTextField(15);
nama_sekolah.setForeground(new Color(0,0,139));
nama_sekolah.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
inputNamaSekolah.setFont(new Font("Comic Sans MS", Font.BOLD, 12));

JLabel alamat_sekolah = new JLabel("ALAMAT SEKOLAH");
JTextField inputAlamatSekolah = new JTextField(15);
alamat_sekolah.setForeground(new Color(0,0,139));
alamat_sekolah.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
inputAlamatSekolah.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
inputAlamatSekolah.setForeground(new Color(0,0,139));

JLabel fotoku = new JLabel("FOTO");
fotoku.setForeground(new Color(0,0,139));
fotoku.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
JButton inputFoto = new JButton("Open a File...");

```



```
inputFoto.setFont(new Font("Comic Sans MS", Font.BOLD, 12));  
inputFoto.addActionListener(new FileChooserDemo());  
inputFoto.setActionCommand("1");
```

```
//elemen bawah
```

```
JButton Oke = new JButton("SIMPAN");  
Oke.setFont(new Font("Comic Sans MS", Font.BOLD, 12));  
Oke.addActionListener(new Aksi());  
Oke.setActionCommand("1");
```

```
JButton Batal = new JButton("BATALL");  
Batal.setFont(new Font("Comic Sans MS", Font.BOLD, 12));  
Batal.addActionListener(new Aksi());  
Batal.setActionCommand("2");
```

```
//footer
```

```
JLabel Bawah = new JLabel("Dibuat untuk tugas quiz 1");  
Bawah.setForeground(new Color(0,0,139));  
Bawah.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
```

```
//membuat panel
```

```
JPanel bungkus = new JPanel();  
bungkus.setBackground(new Color(0,191,255));  
bungkus.setLayout(new BorderLayout());
```

```
JPanel flowku = new JPanel();  
flowku.setLayout(new FlowLayout());
```

```
JPanel gridku = new JPanel();  
gridku.setLayout(new GridLayout(7,2));  
gridku.add(username);  
gridku.add(inputUser);  
gridku.add(nim);  
gridku.add(inputNim);  
gridku.add(jenkel);  
gridku.add(inputJenkel);  
gridku.add(asal_sekolah);  
gridku.add(inputAsalSekolah);  
gridku.add(nama_sekolah);  
gridku.add(inputNamaSekolah);  
gridku.add(alamat_sekolah);  
gridku.add(inputAlamatSekolah);  
gridku.add(fotoku);  
gridku.add(inputFoto);
```

```
JPanel flowku2 = new JPanel();  
flowku2.setLayout(new FlowLayout(FlowLayout.TRAILING));  
flowku2.add(Oke);  
flowku2.add(Batal);
```

```
JPanel flowku3 = new JPanel();  
flowku3.setLayout(new FlowLayout(FlowLayout.LEADING));  
flowku3.add(Bawah);
```

```

JPanel gridku2 = new JPanel();

gridku2.setLayout(new GridLayout(2,1));

gridku2.add(flowku2);

gridku2.add(flowku3);


bungkus.add(flowku,BorderLayout.PAGE_START);

bungkus.add(gridku,BorderLayout.CENTER);

bungkus.add(gridku2,BorderLayout.PAGE_END);


//membuat frame

JFrame bingkai = new JFrame("Form Mahasiswa");


//Menutup Proses setelah diklik Close

bingkai.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);


JDesktopPane desktop = new JDesktopPane();

desktop.setSize(800,600);

//Mengganti warna Background

desktop.setBackground(Color.blue);


JInternalFrame inframe = new JInternalFrame();


inframe.setTitle("internal frame Data Mahasiswa");

inframe.setSize(400,400);

inframe.setClosable(true);

inframe.setResizable(true);

inframe.setMaximizable(true);

```

```

//Posisi Tengah Internal Frame

Dimension desktopSize = desktop.getSize();

Dimension jInternalFrameSize = inframe.getSize();

inframe.setLocation((desktopSize.width - jInternalFrameSize.width)/2,
(desktopSize.height - jInternalFrameSize.height)/2);


inframe.add(bungkus);


desktop.add(inframe);

inframe.setVisible(true);


//memasukan yang dibungkus di panel kedalam frame
bingkai.setContentPane(desktop);

//mengeset ukuran bingkai
bingkai.setSize(800,600);

//meletakkan bingkai dengan posisi ditengah
bingkai.setLocationRelativeTo(null);

//menampilkan
bingkai.setVisible(true);

//bingkai.pack();

}

}

```

2)Buat FileChooserDemo.java

/*

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**/*

package Latihan;

import java.io.;*

import java.awt.;*

import java.awt.event.;*

import javax.swing.;*

import javax.swing.SwingUtilities;

import javax.swing.filechooser.;*

*/**

** FileChooserDemo.java uses these files:*

** images/Open16.gif*

** images/Save16.gif*

**/*

public class FileChooserDemo extends JPanel

implements ActionListener {

static private final String newline = "\n";

JButton openButton, saveButton;

JTextArea log;

JFileChooser fc;

```

public FileChooserDemo() {
    super(new BorderLayout());

    //Create the log first, because the action listeners
    //need to refer to it.
    log = new JTextArea(5,20);
    log.setMargin(new Insets(5,5,5,5));
    log.setEditable(false);
    JScrollPane logScrollPane = new JScrollPane(log);

    //Create a file chooser
    fc = new JFileChooser();

    //Uncomment one of the following lines to try a different
    //file selection mode. The first allows just directories
    //to be selected (and, at least in the Java look and feel,
    //shown). The second allows both files and directories
    //to be selected. If you leave these lines commented out,
    //then the default mode (FILES_ONLY) will be used.
    //
    //fc.setFileSelectionMode(JFileChooser.DIRECTORIES_ONLY);
    //fc.setFileSelectionMode(JFileChooser.FILES_AND_DIRECTORIES);

    //Create the open button. We use the image from the JLF
    //Graphics Repository (but we extracted it from the jar).
    openButton = new JButton("Open a File...");
    openButton.addActionListener(this);

```

```

//Create the save button. We use the image from the JLF
//Graphics Repository (but we extracted it from the jar).
saveButton = new JButton("Save a File...");
saveButton.addActionListener(this);

//For layout purposes, put the buttons in a separate panel
JPanel buttonPanel = new JPanel(); //use FlowLayout
buttonPanel.add(openButton);
buttonPanel.add(saveButton);

//Add the buttons and the log to this panel.
add(buttonPanel, BorderLayout.PAGE_START);
add(logScrollPane, BorderLayout.CENTER);
}

public void actionPerformed(ActionEvent e) {
    if(e.getActionCommand() == "I"){
        int returnVal = fc.showOpenDialog(FileChooserDemo.this);

        if (returnVal == JFileChooser.APPROVE_OPTION) {
            File file = fc.getSelectedFile();

            //This is where a real application would open the file.
            log.append("Opening: " + file.getName() + "." + newline);
        } else {
            log.append("Open command cancelled by user." + newline);
        }
    }
}

```



```

log.setCaretPosition(log.getDocument().getLength());

    }

//Handle open button action.

if (e.getSource() == openButton) {

    int returnVal = fc.showOpenDialog(FileChooserDemo.this);

    if (returnVal == JFileChooser.APPROVE_OPTION) {

        File file = fc.getSelectedFile();

        //This is where a real application would open the file.

        log.append("Opening: " + file.getName() + "." + newline);

    } else {

        log.append("Open command cancelled by user." + newline);

    }

    log.setCaretPosition(log.getDocument().getLength());

//Handle save button action.

} else if (e.getSource() == saveButton) {

    int returnVal = fc.showSaveDialog(FileChooserDemo.this);

    if (returnVal == JFileChooser.APPROVE_OPTION) {

        File file = fc.getSelectedFile();

        //This is where a real application would save the file.

        log.append("Saving: " + file.getName() + "." + newline);

    } else {

        log.append("Save command cancelled by user." + newline);

    }

}

```

```

        log.setCaretPosition(log.getDocument().getLength());
    }
}

/**
 * Create the GUI and show it. For thread safety,
 * this method should be invoked from the
 * event dispatch thread.
 */
private static void createAndShowGUI() {
    //Create and set up the window.
    JFrame frame = new JFrame("FileChooserDemo");
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

    //Add content to the window.
    frame.add(new FileChooserDemo());

    //Display the window.
    frame.pack();
    frame.setVisible(true);
}

public static void main(String[] args) {
    //Schedule a job for the event dispatch thread:
    //creating and showing this application's GUI.
    SwingUtilities.invokeLater(new Runnable() {

```

```

    public void run() {

        //Turn off metal's use of bold fonts

        UIManager.put("swing.boldMetal", Boolean.FALSE);

        createAndShowGUI();

    }

});

}

}

```

3)Buat Aksi.java

```

package Latihan;

import java.io.*;
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import javax.swing.SwingUtilities;
import javax.swing.filechooser.*;

import Latihan.DataMahasiswa;

class Aksi extends DataMahasiswa implements ActionListener{

    public void actionPerformed(ActionEvent e) {

        if(e.getActionCommand() == "1"){

            System.out.println("Data Tersimpan");

        }

        else if(e.getActionCommand() == "2"){

            System.out.println("Data Dibatalkan");

        }

    }

}

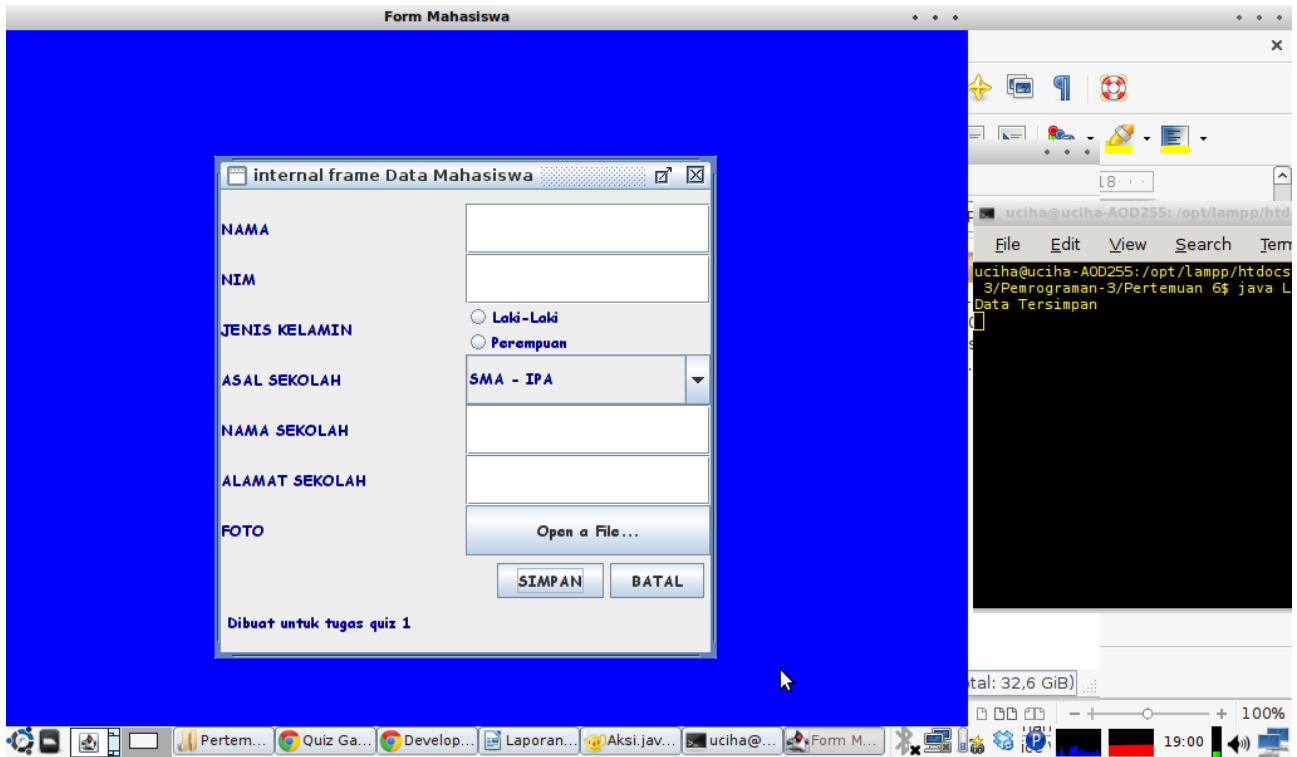
```

}

}

}

4)creenshoot setelah dicompile



5)Buat FormPassword.java

```
package Latihan;
```

```
//memanggil library di Java
```

```
import javax.swing.*;
```

```
//memanggil library di Layout
```

```
import java.awt.*;
```

```
import Latihan.Aksi;
```

```
public class FormPassword{
```

```
    public static void main(String[] arg){
```

```
        //elemen Atas
```

```
        JLabel Judul = new JLabel("Form Password");
```

```
        Judul.setForeground(new Color(0,0,139));
```

```
        Judul.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
```

```
        //elemen tengah
```

```
        JLabel username = new JLabel("USERNAME");
```

```
        JPasswordField inputUser = new JPasswordField(15);
```

```
        username.setForeground(new Color(0,0,139));
```

```
        username.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
```

```
        inputUser.setFont(new Font("Comic Sans MS", Font.BOLD, 12));
```

```
        JLabel password = new JLabel("PASSWORD");
```

```
        JPasswordField inputPass = new JPasswordField(15);
```

```

password.setForeground(new Color(0,0,139));

password.setFont(new Font("Comic Sans MS", Font.BOLD, 12));

inputPass.setFont(new Font("Comic Sans MS", Font.BOLD, 12));


//elemen bawah

JButton Oke = new JButton("OK");

Oke.setFont(new Font("Comic Sans MS", Font.BOLD, 12));

Oke.addActionListener(new Aksi());

Oke.setActionCommand("1");


JButton Batal = new JButton("BATAL");

Batal.setFont(new Font("Comic Sans MS", Font.BOLD, 12));

Batal.addActionListener(new Aksi());

Batal.setActionCommand("2");


//footer

JLabel Bawah = new JLabel("Dibuat untuk tugas sesi 2");

Bawah.setForeground(new Color(0,0,139));

Bawah.setFont(new Font("Comic Sans MS", Font.BOLD, 12));


//membuat panel

JPanel bungkus = new JPanel();

bungkus.setBackground(new Color(0,191,255));

bungkus.setLayout(new BorderLayout());


JPanel flowku = new JPanel();

flowku.setLayout(new FlowLayout());

```

```
flowku.add(Judul);
```

```
JPanel gridku = new JPanel();
```

```
gridku.setLayout(new GridLayout(2,2));
```

```
gridku.add(username);
```

```
gridku.add(inputUser);
```

```
gridku.add(password);
```

```
gridku.add(inputPass);
```

```
JPanel flowku2 = new JPanel();
```

```
flowku2.setLayout(new FlowLayout(FlowLayout.TRAILING));
```

```
flowku2.add(Oke);
```

```
flowku2.add(Batal);
```

```
JPanel flowku3 = new JPanel();
```

```
flowku3.setLayout(new FlowLayout(FlowLayout.LEADING));
```

```
flowku3.add(Bawah);
```

```
JPanel gridku2 = new JPanel();
```

```
gridku2.setLayout(new GridLayout(2,1));
```

```
gridku2.add(flowku2);
```

```
gridku2.add(flowku3);
```

```
bungkus.add(flowku,BorderLayout.PAGE_START);
```

```
bungkus.add(gridku,BorderLayout.CENTER);
```

```
bungkus.add(gridku2,BorderLayout.PAGE_END);
```

//membuat frame

JFrame bingkai = new JFrame("Form Password");

//Menutup Proses setelah diklik Close

bingkai.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

//Membuat Dekstop Panel

JDesktopPane desktop = new JDesktopPane();

desktop.setSize(800,600);

//Mengganti warna Background

desktop.setBackground(Color.blue);

JInternalFrame inframe = new JInternalFrame();

inframe.setTitle("internal frame Form Password");

inframe.setSize(400,400);

inframe.setClosable(true);

inframe.setResizable(true);

inframe.setMaximizable(true);

//Posisi Tengah Internal Frame

Dimension desktopSize = desktop.getSize();

Dimension jInternalFrameSize = inframe.getSize();

*inframe.setLocation((desktopSize.width - jInternalFrameSize.width)/2,
(desktopSize.height - jInternalFrameSize.height)/2);*

inframe.add(bungkus);


```
desktop.add(inframe);

inframe.setVisible(true);


//memasukan yang dibungkus di panel kedalam frame
bingkai.getContentPane().add(desktop);

//mengeset ukuran bingkai
bingkai.setSize(800,600);

//meletakkan bingkai dengan posisi ditengah
bingkai.setLocationRelativeTo(null);

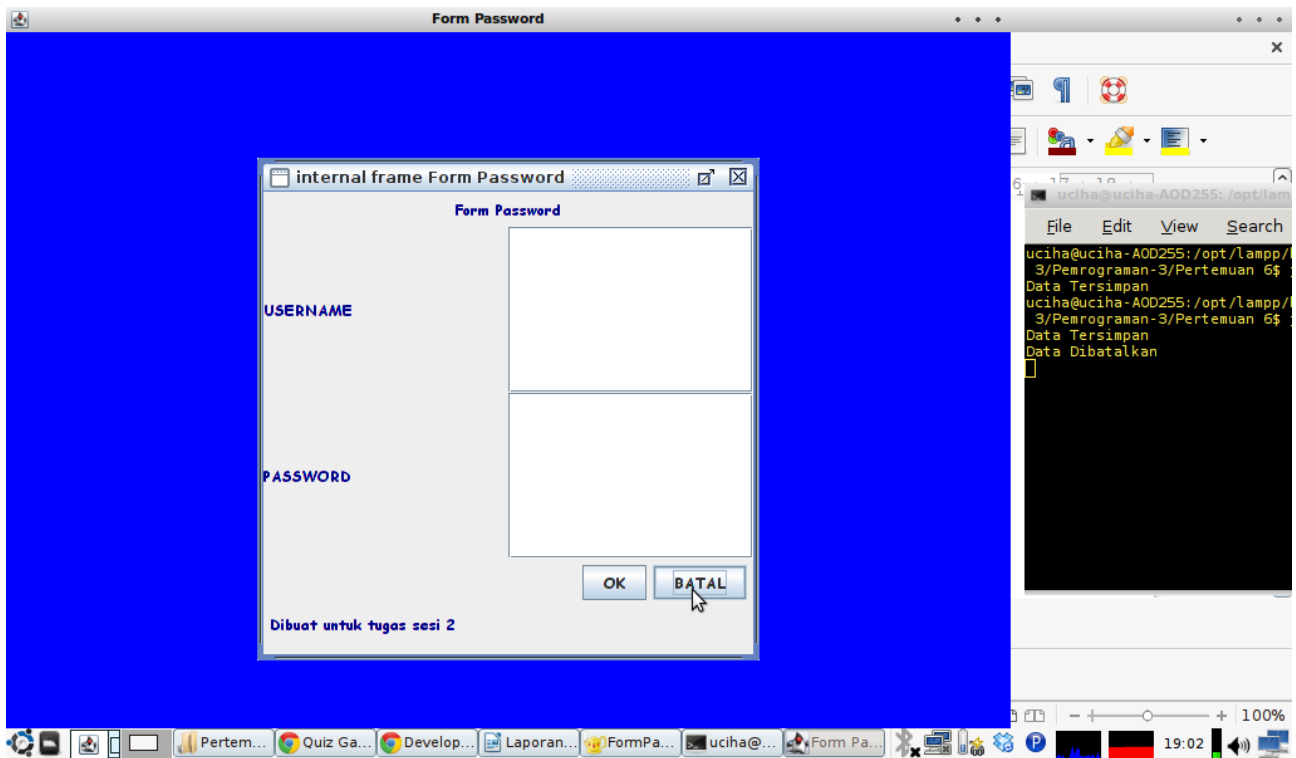
//menampilkan
bingkai.setVisible(true);

//bingkai.pack();

}

}
```

6) screenshot setelah dicompile



BAB 6 Kesimpulan

Dengan diajarkannya mata kuliah Pemograman 3 saya semakin mengerti tentang membuat program yang baik.

Dan kedepannya semoga dengan bekal ilmu yang telah diajarkan di Mata Kuliah Pemograman 3 Ini bisa diterapkan dalam kehidupan sehari hari agar dapat bermanfaat bagi semua orang.

BAB 7 Daftar Pustaka

Referensi

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