**LAPORAN PRAKTIKUM BAHASA PEMROGRAMAN**

Disusun Untuk Memenuhi Tugas Mata Kuliah Bahasa Pemrograman

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**PROGRAM STUDI TEKNIK INFORMATIKA**

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**KATA PENGANTAR**

Alhamdulillah puji syukur kehadirat Allah swt karena atas rahmat-Nya lah penulis dapat menyusun laporan praktikum bahasa pemrograman ini.

Dan juga tidak lupa penulis berterimakasih kepada semua pihak yang telah membantu dan mengarahkan untuk menyusun laporan ini. Penulis berharap semoga laporan ini bermanfa’at bagi pengembangan ilmu pengetahuan dan teknologi informatika dan sebagai penambah wawasan bagi pembacanya.

Penulis menyadari bahwa laporan ini masih tidak sempurna, masih banyak kekurangan yang harus diperbaiki, maka dari itu penulis meminta kritik dan saran agar dapat memperbaiki laporan ini dengan baik.

Penulis

**BAB I**

**PENDAHULUAN**

1. **Maksud Dan Tujuan Praktikum**
2. Mahasiswa dapat membuat database MySQL
3. Mahasiswa dapat memahami konsep dasar perintah SQL
4. Mahasiswa dapat membuat aplikasi database menggunakan java
5. **Dasar Teori**

Pada praktikum kali ini, kita akan membahas tentang database MySQL dan cara menghubungkannya dengan aplikasi Java. MySQL merupakan DBMS (Database Management System).

1. **Praktikum**

## Membuat Database

## Membuat Table

## Memasukkan Data

## Menampilkan Data

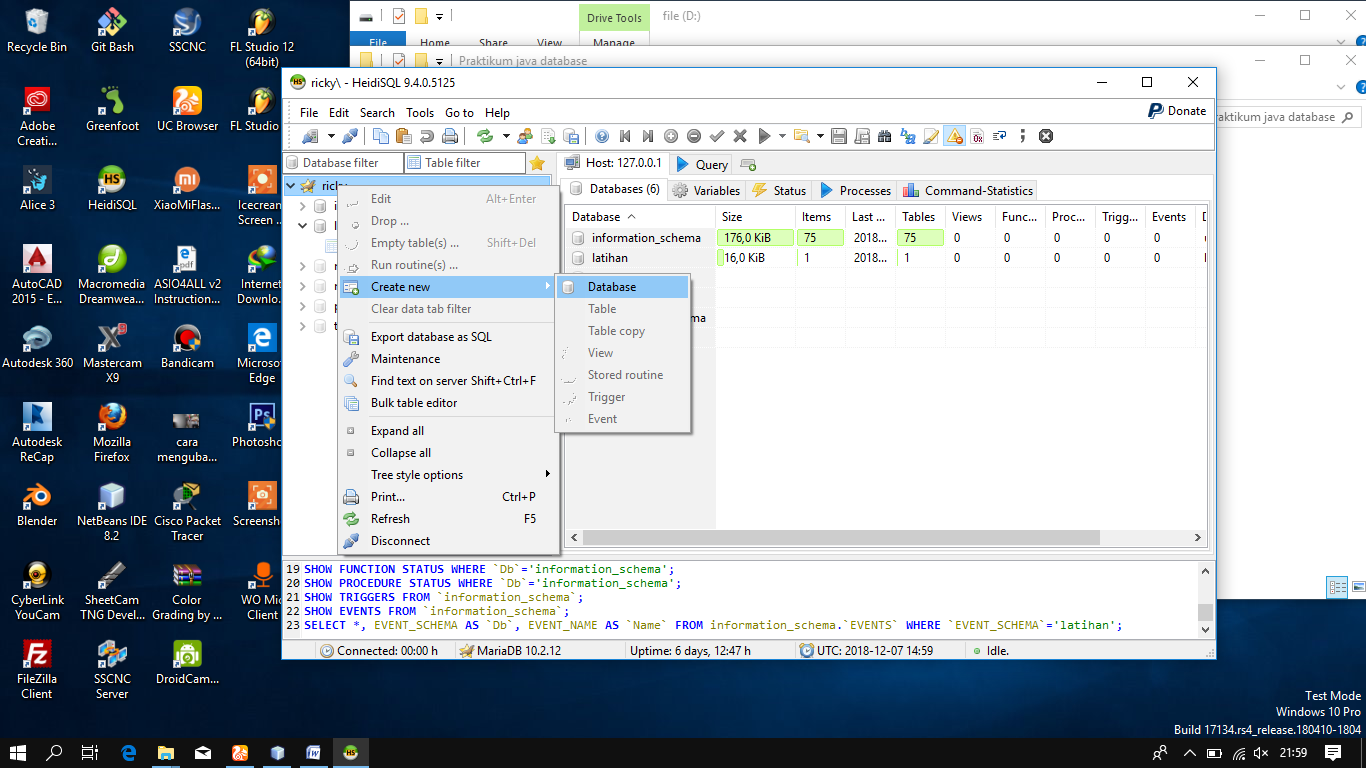
**BAB II**

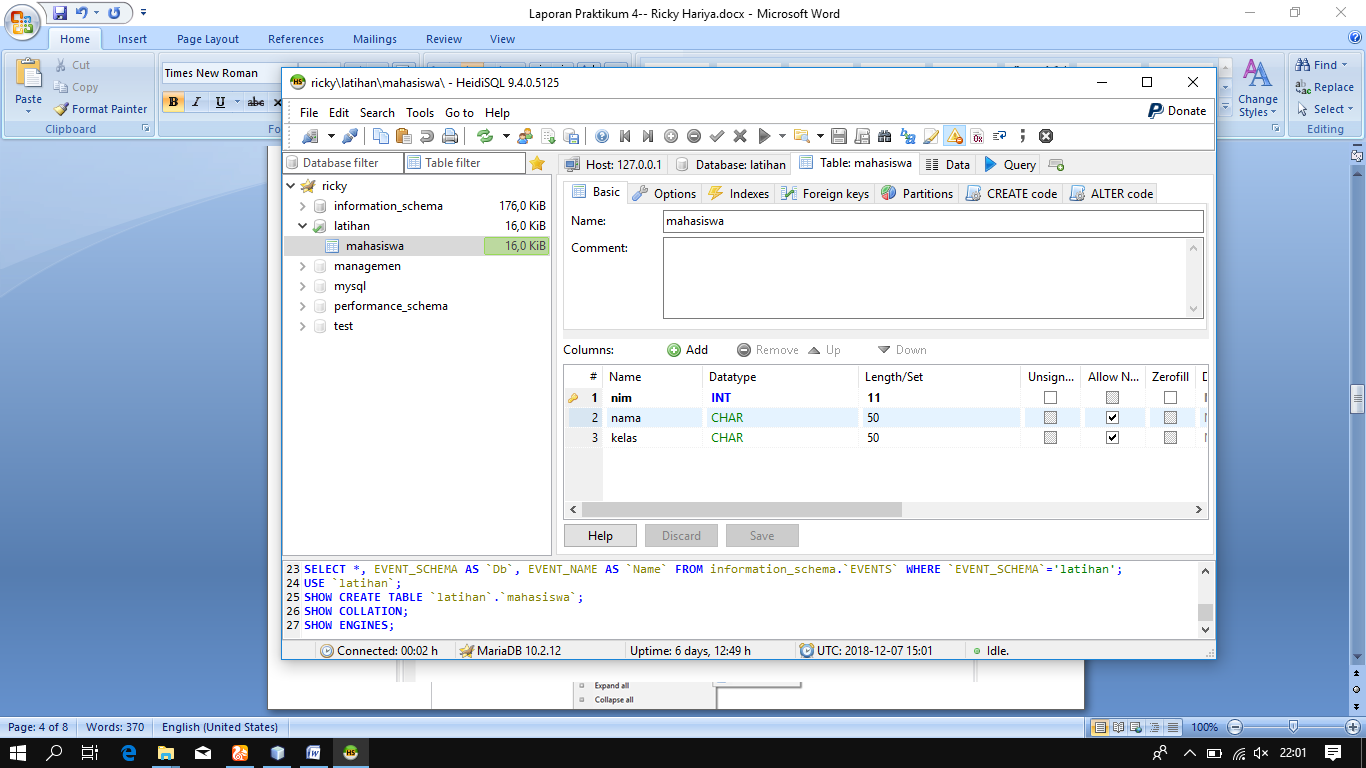
**PEMBAHASAN**

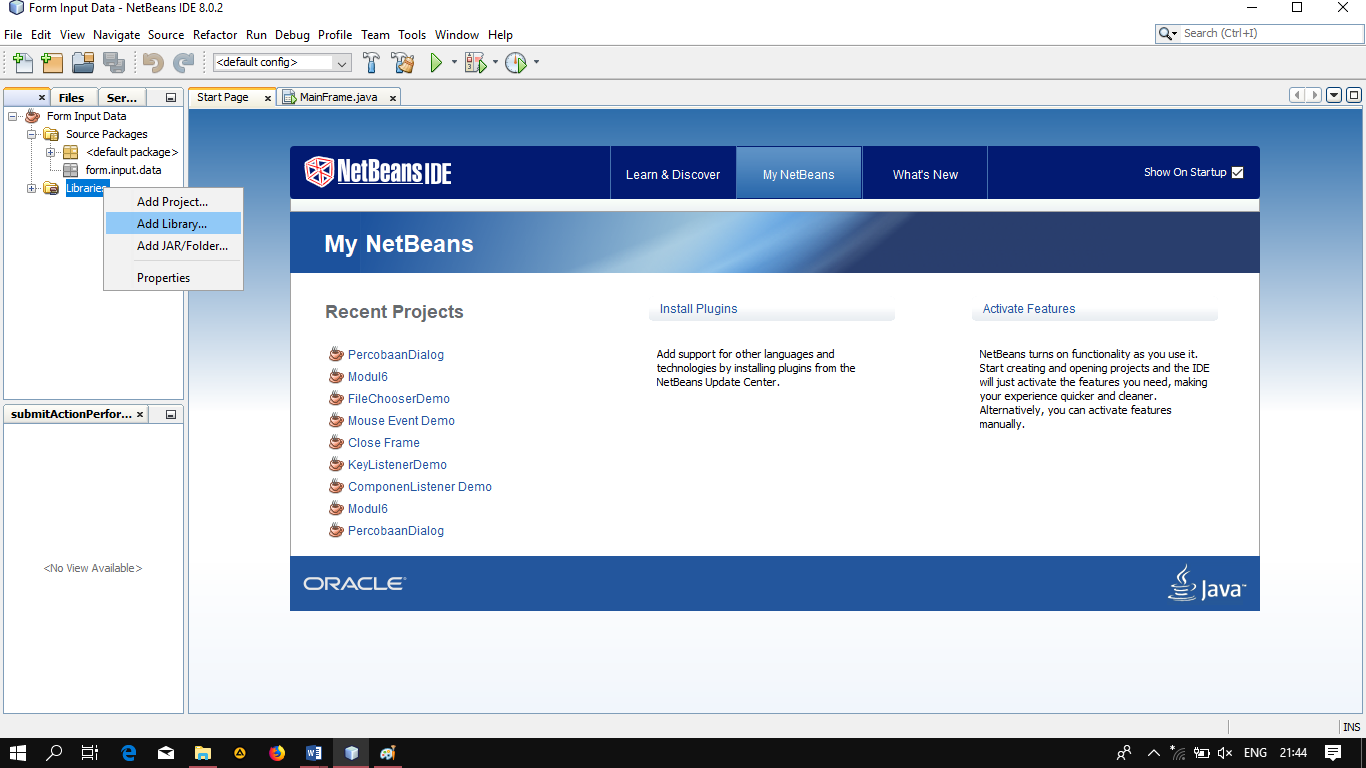
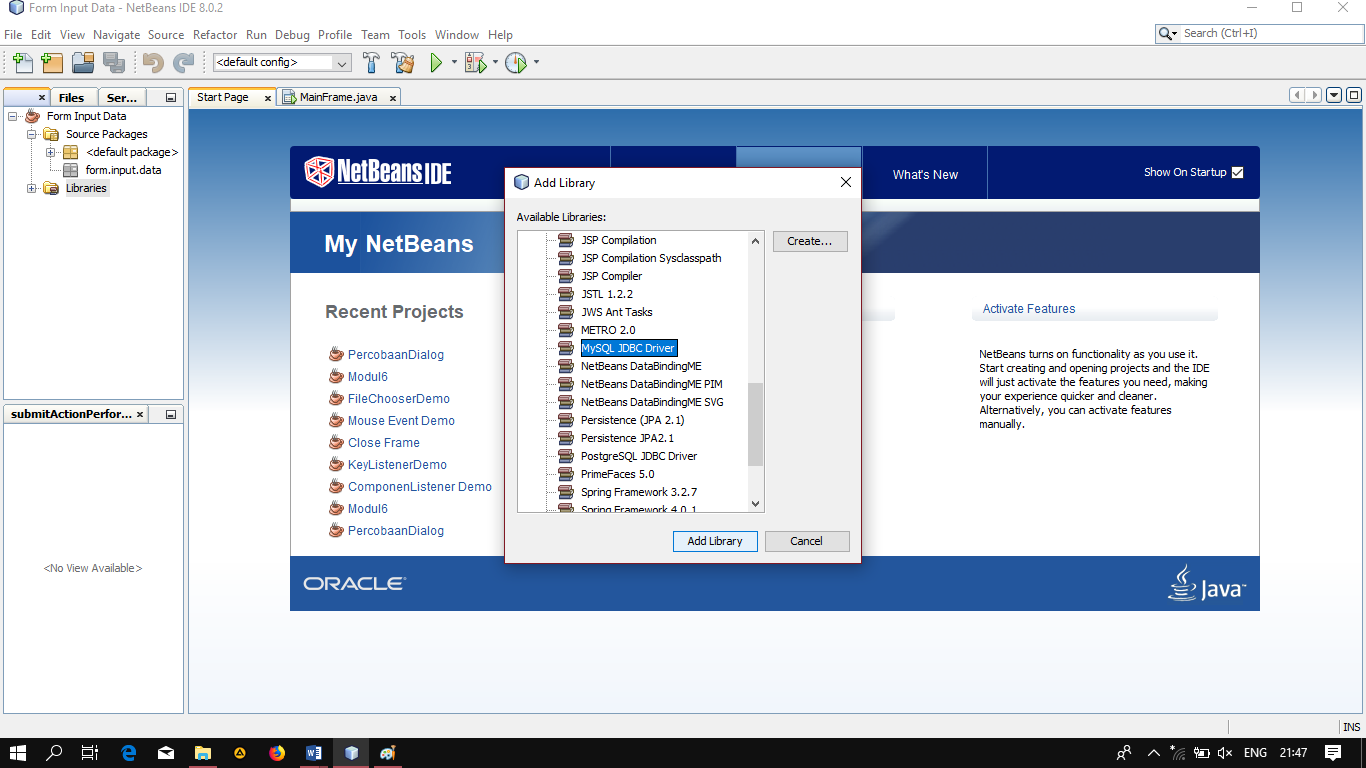
## Membuat Database

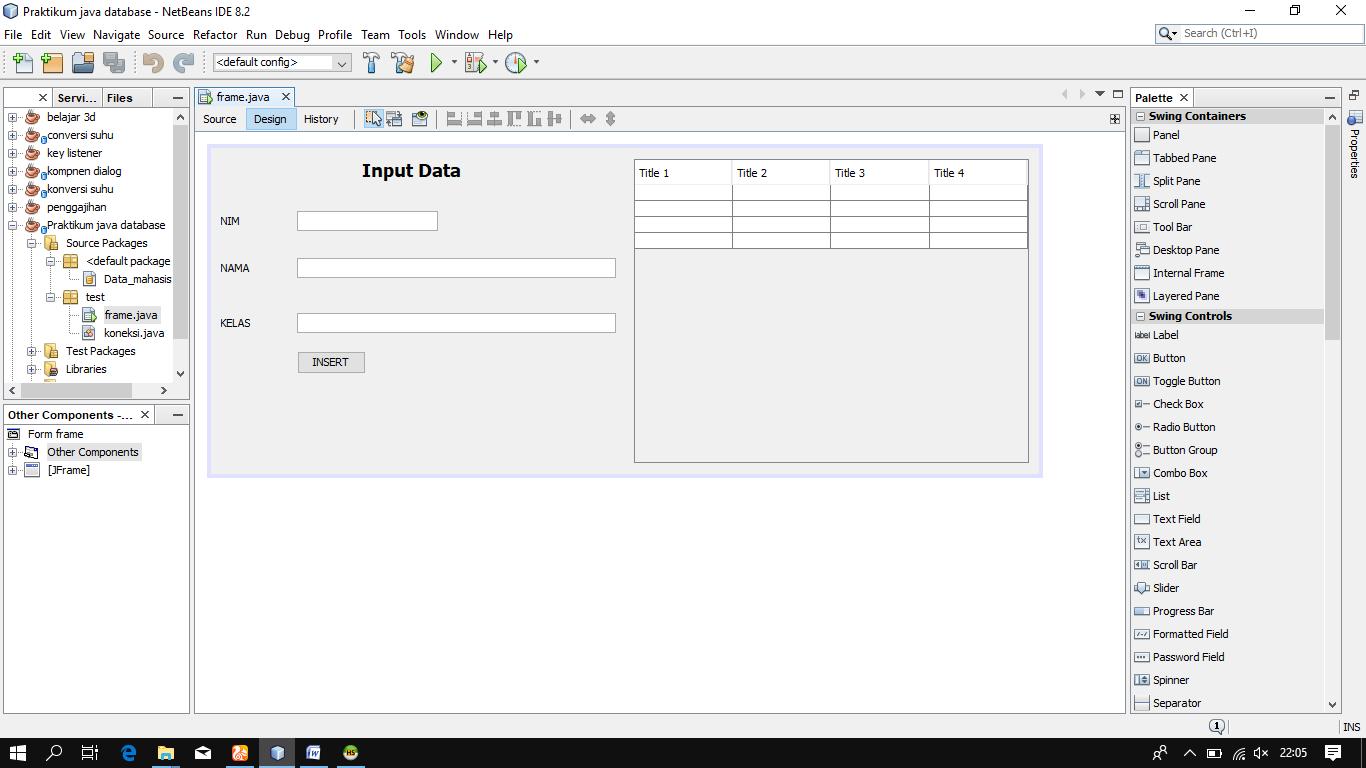
## Sebagai contoh kita akan membuat database latihan yang berisi inputan data mahasiswa

Langkah-langkahnya sebagai berikut :

1. Klik kanan > Pilih Creat new > Database. Beri nama “**latihan**” 
2. Membuat Tabel, dengan cara Klik kanan pada latihan > creat new > Table. Beri nama table “**mahasiswa**”
3. Masukan data mahasiswa, berupa **nim, nama, kelas** Seperti berikut ini :



1. Buka aplikasi NetBean. Klik kanan pada Library > Add Library > MySQL JDBC Driver > Lalu klik Add Library.
2. Buat new JFrame, dengan menambahkan komponen Label, Text Field, dan Button.



1. Klik Kanan pada komponen Button (Submit) > Even > Action > ActionPerformed
2. Masukkan kode berikut ini :

import com.mysql.jdbc.Connection;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import javax.swing.JOptionPane;

import javax.swing.table.DefaultTableModel;

/\*\*

\*

\* @author Ricky Hr

\*/

public class frame extends javax.swing.JFrame {

koneksi conec = new koneksi();

Connection con = conec.konek();

/\*\*

\* Creates new form frame

\*/

public frame() {

initComponents();

tabel();

}

/\*\*

\* This method is called from within the constructor to initialize the form.

\* WARNING: Do NOT modify this code. The content of this method is always

\* regenerated by the Form Editor.

\*/

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jLabel1 = new javax.swing.JLabel();

jLabel2 = new javax.swing.JLabel();

jLabel3 = new javax.swing.JLabel();

Tnim = new javax.swing.JTextField();

Tnama = new javax.swing.JTextField();

Tkelas = new javax.swing.JTextField();

insert = new javax.swing.JButton();

jScrollPane1 = new javax.swing.JScrollPane();

table = new javax.swing.JTable();

jLabel4 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

jLabel1.setText("NIM");

jLabel2.setText("NAMA");

jLabel3.setText("KELAS");

insert.setText("INSERT");

insert.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

insertActionPerformed(evt);

}

});

table.setModel(new javax.swing.table.DefaultTableModel(

new Object [][] {

{null, null, null, null},

{null, null, null, null},

{null, null, null, null},

{null, null, null, null}

},

new String [] {

"Title 1", "Title 2", "Title 3", "Title 4"

}

));

jScrollPane1.setViewportView(table);

jLabel4.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N

jLabel4.setText("Input Data");

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addContainerGap()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)

.addGroup(layout.createSequentialGroup()

.addComponent(jLabel2)

.addGap(47, 47, 47)

.addComponent(Tnama, javax.swing.GroupLayout.PREFERRED\_SIZE, 319, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(layout.createSequentialGroup()

.addComponent(jLabel1)

.addGap(57, 57, 57)

.addComponent(Tnim, javax.swing.GroupLayout.PREFERRED\_SIZE, 141, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(layout.createSequentialGroup()

.addComponent(jLabel3)

.addGap(46, 46, 46)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(insert)

.addComponent(Tkelas)))))

.addGroup(layout.createSequentialGroup()

.addGap(151, 151, 151)

.addComponent(jLabel4)))

.addGap(18, 18, 18)

.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED\_SIZE, 395, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addContainerGap()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(layout.createSequentialGroup()

.addComponent(jLabel4)

.addGap(30, 30, 30)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel1)

.addComponent(Tnim, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(27, 27, 27)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel2)

.addComponent(Tnama, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(35, 35, 35)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

.addComponent(jLabel3)

.addComponent(Tkelas, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGap(18, 18, 18)

.addComponent(insert))

.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED\_SIZE, 304, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addContainerGap(javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

);

pack();

}// </editor-fold>

private void insertActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

int nim = Integer.valueOf(Tnim.getText());

String nama = Tnama.getText();

String kelas = Tkelas.getText();

try{

Statement s = con.createStatement();

s.executeUpdate("INSERT INTO mahasiswa"+"(nim,nama,kelas)"+" VALUES ('"+nim+"','"+nama+"','"+kelas+"')");

}catch(SQLException x){

JOptionPane.showMessageDialog(this, x,"Insert data Error",JOptionPane.ERROR\_MESSAGE);

}

tabel();

}

/\*\*

\* @param args the command line arguments

\*/

public static void main(String args[]) {

/\* Set the Nimbus look and feel \*/

//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">

/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.

\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html

\*/

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(frame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(frame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(frame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(frame.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

}

//</editor-fold>

/\* Create and display the form \*/

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new frame().setVisible(true);

}

});

}

// Variables declaration - do not modify

private javax.swing.JTextField Tkelas;

private javax.swing.JTextField Tnama;

private javax.swing.JTextField Tnim;

private javax.swing.JButton insert;

private javax.swing.JLabel jLabel1;

private javax.swing.JLabel jLabel2;

private javax.swing.JLabel jLabel3;

private javax.swing.JLabel jLabel4;

private javax.swing.JScrollPane jScrollPane1;

private javax.swing.JTable table;

// End of variables declaration

private void tabel() {

DefaultTableModel tb = new DefaultTableModel();

tb.addColumn("nim");

tb.addColumn("nama");

tb.addColumn("kelas");

table.setModel(tb);

try{

Statement s = (Statement) con.createStatement();

ResultSet res = s.executeQuery("SELECT \* FROM mahasiswa");

while(res.next()){

tb.addRow(new Object[]{

res.getInt("nim"),

res.getString("nama"),

res.getString("kelas"),

});

}

}catch(SQLException x){

JOptionPane.showMessageDialog(this, x, "data tidak berhasil ditampilkan",JOptionPane.ERROR\_MESSAGE);

}

}

}

1. Buat clash baru untuk koneksi dengan nama koneksi, dan masukan kode berikut:

import com.mysql.jdbc.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

import javax.swing.JOptionPane;

/\*\*

\*

\* @author Ricky Hr

\*/

public class koneksi {

private Connection conec;

public Connection konek(){

try{

Class.forName("com.mysql.jdbc.Driver").newInstance();

String user = "root";

String pass = "rikiharya21";

conec =(Connection) DriverManager.getConnection("jdbc:mysql://localhost/latihan", user, pass);

System.out.print("koneksi berhasil");

}catch(ClassNotFoundException | IllegalAccessException | InstantiationException | SQLException x){

JOptionPane.showMessageDialog(null, x,"koneksi error",JOptionPane.WARNING\_MESSAGE);

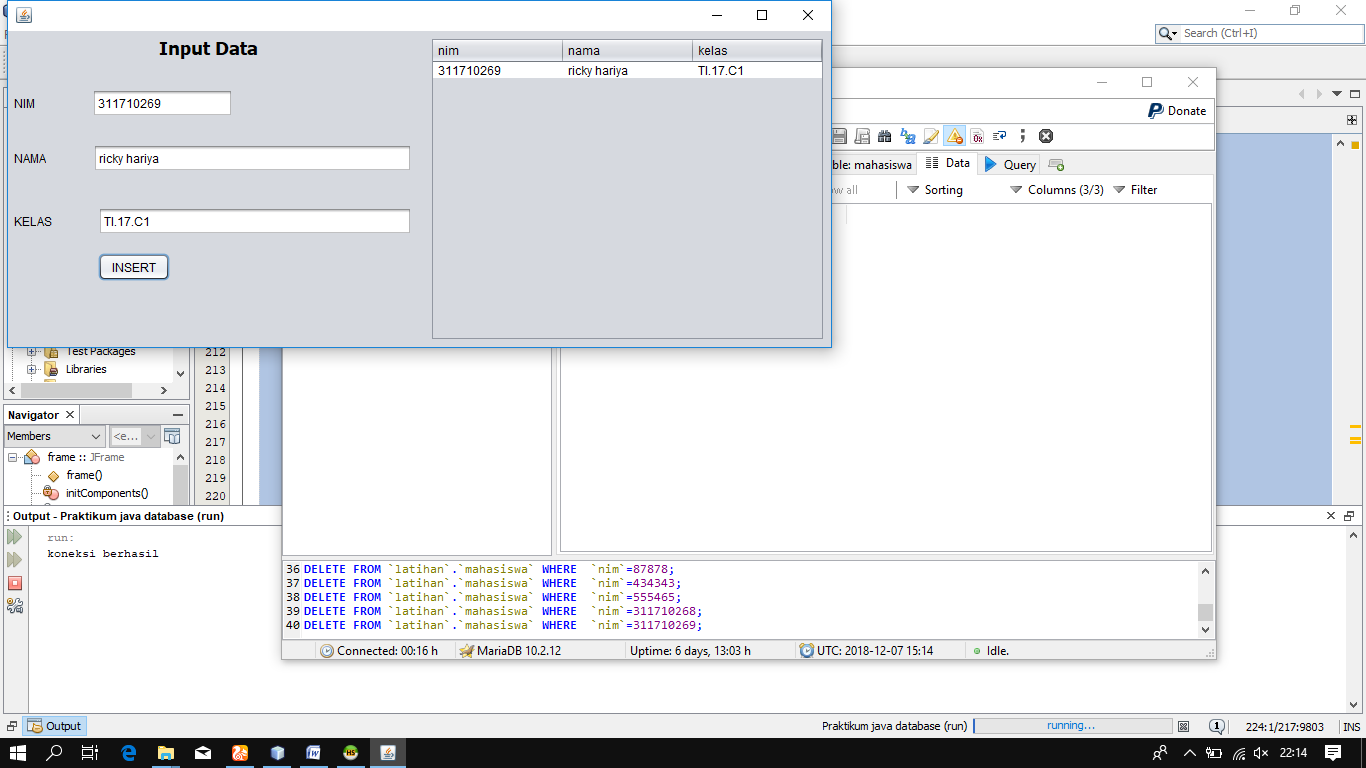
}

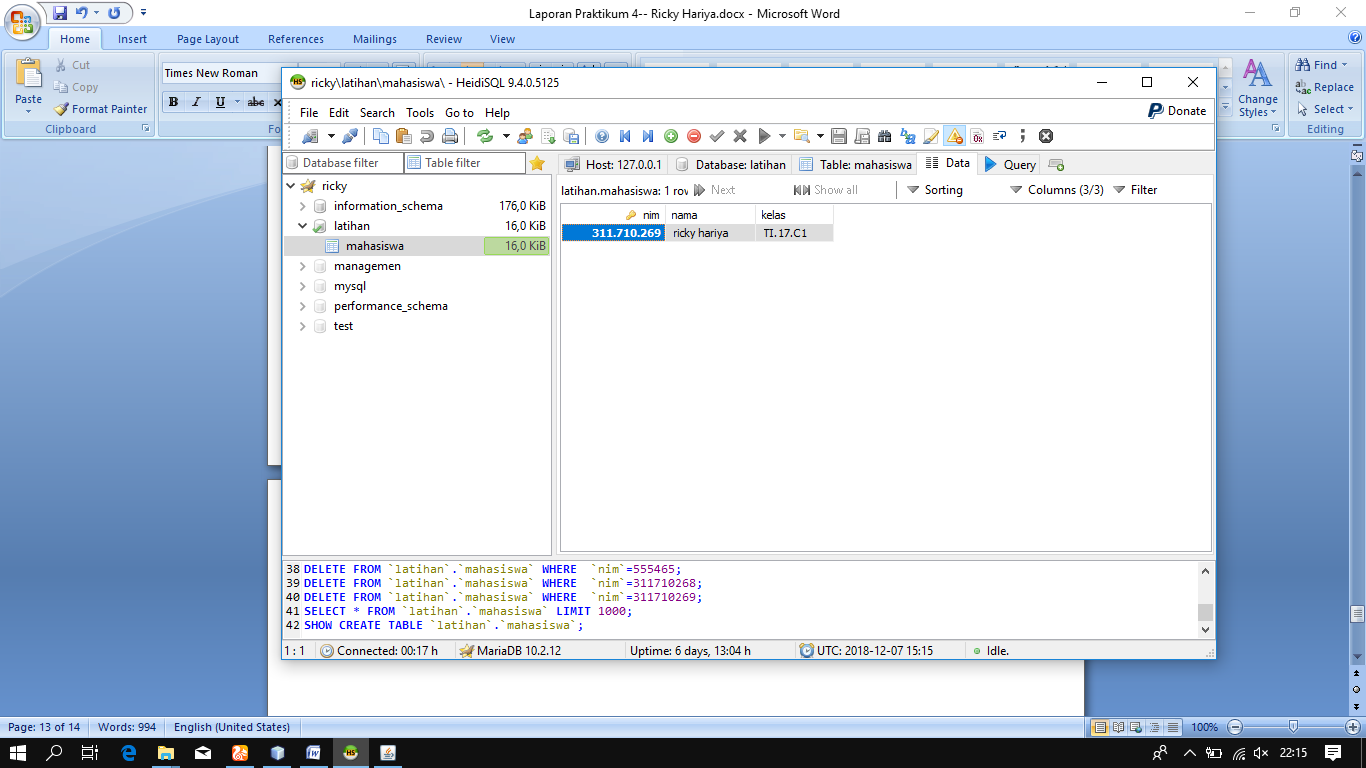
return conec;

}

}

1. Klik Run Project Form Input data tersebut.
2. Masukkan data > Klik Insert. Jika berhasil terhubung dengan database yang sebelumnya dibuat, maka akan muncul permberitahuan “koneksi berhasil”



1. Buka Database yang sebelumnya telah dibuat, Klik Refresh untuk melihat hasil inputan tersimpan atau tidak. 
2. Selesai.