Nama : Vony Ayu Anggraeni
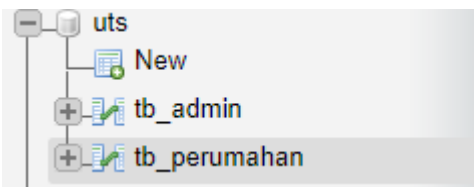Nim : 18090100
Kelas : 4D

<div align="center">**Manual book Perumahan Dokumentasi**</div>

1.   Membuat data base

-          Buka xampp, lalu aktifkan klik start pada Apache dan Mysql dan pilih admin untuk masuk ke phpmyadmin

-          Lalu kita buat basis data seperti di bawah ini :

-          Bagian table admin kalian bikin seperti di bawah ini :

-          Bagian tabel perumahan bikin seperti di bawah ini :

-        Membuat data base sudah selesai.

2.   Menyiapkan Project

-        Buka aplikasi Netbeans anda, kemudian buat project baru dengan nama uts.

-        Setelah anda membuat project baru buatlah new package dengan nama Perumahan.
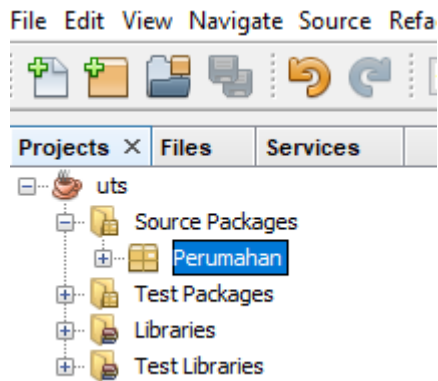
3. **Membuat kelas**

Buat new JFrame Form dengan nama Login.
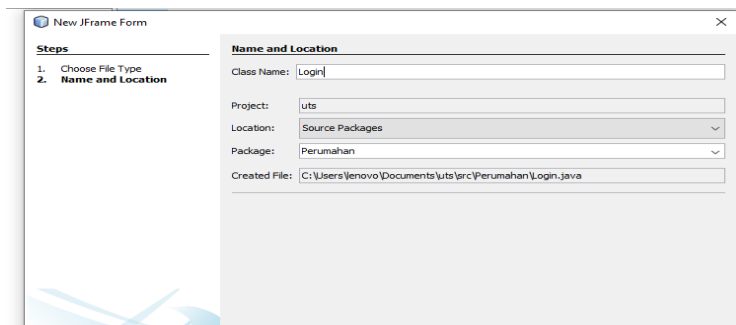
4. **Jframen Login**
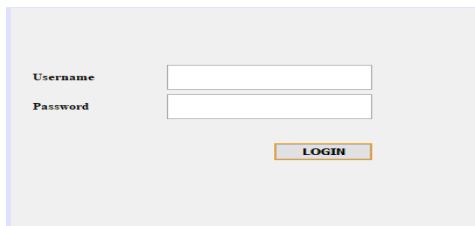
Ini Source code login :

```
package Perumahan;
import java.awt.Frame;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;
import java.sql.Connection;
import java.sql.ResultSet;
import java.sql.DriverManager;
import java.sql.Statement;
import javax.swing.JOptionPane;
/**
 *
 * @author vony
 */
public class Login extends javax.swing.JFrame {

    /**
     * Creates new form Login
     */
    public Login() {
        initComponents();
```

```java
    }

    /**
     * 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() {

        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        txtUsername = new javax.swing.JTextField();
        btnLogin = new javax.swing.JButton();
        txtPassword = new javax.swing.JPasswordField();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        setBackground(new java.awt.Color(255, 153, 0));

        jLabel2.setBackground(new java.awt.Color(255, 153, 0));
        jLabel2.setFont(new java.awt.Font("Times New Roman", 1, 12)); // NOI18N
        jLabel2.setText("Username");

        jLabel3.setBackground(new java.awt.Color(255, 153, 0));
        jLabel3.setFont(new java.awt.Font("Times New Roman", 1, 12)); // NOI18N
        jLabel3.setText("Password");

        txtUsername.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                txtUsernameActionPerformed(evt);
            }
        });

        btnLogin.setBackground(new java.awt.Color(255, 153, 0));
        btnLogin.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        btnLogin.setText("LOGIN");
        btnLogin.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btnLoginActionPerformed(evt);
```

```java
            }
        });

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(19, 19, 19)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addComponent(btnLogin, javax.swing.GroupLayout.PREFERRED_SIZE, 84, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGroup(layout.createSequentialGroup()
                        .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 97, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(18, 18, 18)
                        .addComponent(txtPassword, javax.swing.GroupLayout.PREFERRED_SIZE, 176, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGroup(layout.createSequentialGroup()
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 97, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(18, 18, 18)
                    .addComponent(txtUsername, javax.swing.GroupLayout.PREFERRED_SIZE, 176, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addContainerGap(90, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(78, 78, 78)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 34, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(txtUsername, javax.swing.GroupLayout.PREFERRED_SIZE, 34, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 34, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```java
                .addComponent(txtPassword, javax.swing.GroupLayout.PREFERRED_SIZE, 34,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(33, 33, 33)
            .addComponent(btnLogin)
            .addContainerGap(92, Short.MAX_VALUE))
    );
    pack();
}// </editor-fold>

private void btnLoginActionPerformed(java.awt.event.ActionEvent evt) {
    doLogin();
}
private void txtUsernameActionPerformed(java.awt.event.ActionEvent evt) {
}
/**
 * @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(Login.class.getName()).log(java.util.logging.Level.SEVERE
, null, ex);
    } catch (InstantiationException ex) {

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

```java
        } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Level.SEVERE
, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(Login.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 Login().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JButton btnLogin;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JPasswordField txtPassword;
    private javax.swing.JTextField txtUsername;
    // End of variables declaration
public static String md5(String data){
        String hashed = "";
        try {
            MessageDigest md5 = MessageDigest.getInstance("MD5");
            md5.update(data.getBytes());
            byte[] byteData = md5.digest();
            StringBuilder sb = new StringBuilder();
            for (int i = 0; i < byteData.length; i++) {
                sb.append(Integer.toString((byteData[i] & 0xff) +
                        0x100, 16).substring(1));
            }
            hashed = sb.toString();
        } catch (NoSuchAlgorithmException e) {
        }
        return hashed;
    }
```

```java
public void doLogin(){
    String user = txtUsername.getText();
    char[] pass = txtPassword.getPassword();
    if (user.isEmpty()) {
        JOptionPane.showMessageDialog(this, "Username wajib diisi!");
        txtUsername.requestFocus();
    } else if (pass.length == 0) {
        JOptionPane.showMessageDialog(this, "password wajib diisi!");
        txtPassword.requestFocus();
    }
    else {
        String password = new String(pass);
        String md5_pass = md5(password);
        try{
            Connection c =Koneksi.sambungDB();
            Statement st =c.createStatement();
            String q ="SELECT * FROM tb_admin "
                    + "WHERE username ='" +user+ "' "
                    + "AND password ='" +md5_pass+ "' ";
            ResultSet rs = st.executeQuery(q);
            int n = 0;
            while (rs.next ()){
                String u = rs.getString("Username");
                String p = rs.getString("Password");
                n++;
            }
            if (n == 0) {
                JOptionPane.showMessageDialog(this , "Username / Password salah!");
                txtUsername.requestFocus();
                btnLogin.setEnabled(true);
            } else {
                Data d = new Data();
                this.setVisible(false);
                d.setExtendedState(Frame.MAXIMIZED_BOTH);
                d.setVisible(true);
            }
        } catch (Exception e){
            System.out.println(e.getMessage());
        }
    }
```

```
    }
}

Ini source kode koneksi kelas koneksi:
/**
 *
 * @author vony
 */
public class Koneksi {
    public static Connection sambungDB(){
    try {
        MysqlDataSource dataSource = new MysqlDataSource();
        dataSource.setUser("root");
        dataSource.setPassword("");
        dataSource.setServerName("localhost");
        dataSource.setDatabaseName("uts");
        dataSource.setPortNumber(3306);
        dataSource.setAllowMultiQueries(true);
        Connection c = dataSource.getConnection();
        return c;
      } catch (Exception e) {
        System.err.println(e.getMessage());
      }
      return null;
    }
}
```

- **Membuat jframe data perumahan seperti ini :**

Ini Source Kodenya :

```java
package Perumahan;
import Perumahan.Koneksi;
import java.awt.HeadlessException;
import java.sql.Connection;
import java.sql.SQLException;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
/**
 *
 * @author vony
 */
public class Data extends javax.swing.JFrame {
    String idData;
    private void tampilkan_data(String key) {
        DefaultTableModel model = new DefaultTableModel();
        model.addColumn("No.");
        model.addColumn("Id.");
        model.addColumn("Nama Perumahan");
        model.addColumn("Alamat");
        model.addColumn("NO. Telephone");
        model.addColumn("Email");
        model.addColumn("Pengembang");
        model.addColumn("Tipe Perumahan");
        model.addColumn("File Brosur");
        try {
            int no = 1;
            String where = key.isEmpty() ? "" : "WHERE nama LIKE '%" + key + "%' ";
            String sql = "SELECT * FROM tb_perumahan "+where;
            java.sql.Connection conn = (Connection) Koneksi.sambungDB();
            java.sql.Statement stm = conn.createStatement();
            java.sql.ResultSet res = stm.executeQuery(sql);
            while (res.next()) {
                model.addRow(new Object[]{no++, res.getString(1),
                    res.getString(2), res.getString(3), res.getString(4), res.getString(5), res.getString(6),
res.getString(7), res.getString(8)});
            }
            tblData.setModel(model);
        } catch (Exception e) {
```

```java
            System.out.println("Error : " + e.getMessage());
        }
    }
    /**
     * Creates new form Data
     */
    public Data() {
        initComponents();
        tampilkan_data("");
    }
    /**
     * 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();
        jLabel4 = new javax.swing.JLabel();
        jLabel5 = new javax.swing.JLabel();
        jLabel6 = new javax.swing.JLabel();
        jLabel7 = new javax.swing.JLabel();
        jLabel8 = new javax.swing.JLabel();
        txtNama = new javax.swing.JTextField();
        txtAlamat = new javax.swing.JTextField();
        txtTelephone = new javax.swing.JTextField();
        txtEmail = new javax.swing.JTextField();
        txtPengembang = new javax.swing.JTextField();
        txtFile = new javax.swing.JTextField();
        cmbTipe = new javax.swing.JComboBox<>();
        btnUbah = new javax.swing.JButton();
        btnHapus = new javax.swing.JButton();
        btnKeluar = new javax.swing.JButton();
        txtCari = new javax.swing.JTextField();
        jLabel9 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        tblData = new javax.swing.JTable();
```

```java
btnTambah = new javax.swing.JButton();
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
setBackground(new java.awt.Color(255, 153, 0));
jLabel1.setBackground(new java.awt.Color(255, 153, 0));
jLabel1.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
jLabel1.setText("Perumahan");
jLabel2.setBackground(new java.awt.Color(255, 153, 0));
jLabel2.setFont(new java.awt.Font("Times New Roman", 0, 12)); // NOI18N
jLabel2.setText("Nama Perumahan");
jLabel3.setBackground(new java.awt.Color(255, 153, 0));
jLabel3.setFont(new java.awt.Font("Times New Roman", 0, 12)); // NOI18N
jLabel3.setText("Alamat");
jLabel4.setBackground(new java.awt.Color(255, 153, 0));
jLabel4.setFont(new java.awt.Font("Times New Roman", 0, 12)); // NOI18N
jLabel4.setText("No.Telephone");
jLabel5.setBackground(new java.awt.Color(255, 153, 0));
jLabel5.setFont(new java.awt.Font("Times New Roman", 0, 12)); // NOI18N
jLabel5.setText("Email");
jLabel6.setBackground(new java.awt.Color(255, 153, 0));
jLabel6.setFont(new java.awt.Font("Times New Roman", 0, 12)); // NOI18N
jLabel6.setText("Pengembang");
jLabel7.setBackground(new java.awt.Color(255, 153, 0));
jLabel7.setFont(new java.awt.Font("Times New Roman", 0, 12)); // NOI18N
jLabel7.setText("Tipe Perumahan");
jLabel8.setBackground(new java.awt.Color(255, 153, 0));
jLabel8.setFont(new java.awt.Font("Times New Roman", 0, 12)); // NOI18N
jLabel8.setText("File Brosur");
cmbTipe.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Tipe A1",
"Tipe A2", "Tipe A3", "Tipe A4" }));
btnUbah.setBackground(new java.awt.Color(255, 153, 0));
btnUbah.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
btnUbah.setText("UBAH");
btnUbah.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnUbahActionPerformed(evt);
    }
});
btnHapus.setBackground(new java.awt.Color(255, 153, 0));
btnHapus.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
btnHapus.setText("Hapus");
```

```java
btnHapus.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnHapusActionPerformed(evt);
    }
});
btnKeluar.setBackground(new java.awt.Color(255, 153, 0));
btnKeluar.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
btnKeluar.setText("Keluar");
btnKeluar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnKeluarActionPerformed(evt);
    }
});
txtCari.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        txtCariActionPerformed(evt);
    }
});
txtCari.addKeyListener(new java.awt.event.KeyAdapter() {
    public void keyReleased(java.awt.event.KeyEvent evt) {
        txtCariKeyReleased(evt);
    }
});
jLabel9.setBackground(new java.awt.Color(255, 153, 0));
jLabel9.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
jLabel9.setText("cari");

tblData.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"
    }
) {
    boolean[] canEdit = new boolean [] {
        false, false, false, false
```

```java
        };

        public boolean isCellEditable(int rowIndex, int columnIndex) {
            return canEdit [columnIndex];
        }
    });
    tblData.addMouseListener(new java.awt.event.MouseAdapter() {
        public void mouseClicked(java.awt.event.MouseEvent evt) {
            tblDataMouseClicked(evt);
        }
    });
    jScrollPane1.setViewportView(tblData);

    btnTambah.setBackground(new java.awt.Color(255, 153, 0));
    btnTambah.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    btnTambah.setText("Tambah");
    btnTambah.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            btnTambahActionPerformed(evt);
        }
    });

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jScrollPane1, javax.swing.GroupLayout.Alignment.TRAILING)
        .addGroup(layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(19, 19, 19)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 84,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel2)
                    .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 84,
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
                .addComponent(jLabel5, javax.swing.GroupLayout.PREFERRED_SIZE, 84,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 84,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED_SIZE, 84,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel7, javax.swing.GroupLayout.PREFERRED_SIZE, 93,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(51, 51, 51)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addComponent(txtNama)
                .addComponent(txtAlamat)
                .addComponent(txtTelephone)
                .addComponent(txtEmail)
                .addComponent(txtPengembang)
                .addComponent(cmbTipe, 0, 350, Short.MAX_VALUE)
                .addComponent(txtFile)))
            .addGroup(layout.createSequentialGroup()
                .addGap(14, 14, 14)
                .addComponent(btnTambah)
                .addGap(18, 18, 18)
                .addComponent(btnUbah)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(btnHapus)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(btnKeluar)
                .addGap(12, 12, 12)
                .addComponent(txtCari, javax.swing.GroupLayout.PREFERRED_SIZE, 161,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(jLabel9, javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createSequentialGroup()
                .addGap(221, 221, 221)
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 164,
javax.swing.GroupLayout.PREFERRED_SIZE)))
```

```java
                .addContainerGap(249, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 46,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(txtNama, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(txtAlamat, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(txtTelephone, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel5, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(txtEmail, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(txtPengembang, javax.swing.GroupLayout.PREFERRED_SIZE,
31, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
            .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel7, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(cmbTipe, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(txtFile, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

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

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(btnKeluar, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel9, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(txtCari))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(btnUbah, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btnHapus, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(btnTambah, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 219,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(22, 22, 22))
    );
```

```java
    pack();
}// </editor-fold>

private void btnUbahActionPerformed(java.awt.event.ActionEvent evt) {
    try {
        String sql = "UPDATE tb_perumahan set nama ='"+txtNama.getText()+"',alamat
='"+txtAlamat.getText()+"',no_hp ='"+txtTelephone.getText()+"',email
='"+txtEmail.getText()+"',pengembang ='"+txtPengembang.getText()+"',tipe
='"+cmbTipe.getSelectedItem()+"',file ='"+txtFile.getText()+"' WHERE id ='"+idData+"'";

        java.sql.Connection conn = (Connection) Koneksi.sambungDB();
        java.sql.PreparedStatement pstm = conn.prepareStatement(sql);
        pstm.execute();
        JOptionPane.showMessageDialog(null, "Ubah Berhasil");
    } catch (HeadlessException | SQLException e) {
        JOptionPane.showMessageDialog(this, e.getMessage());
    }
    tampilkan_data("");
}

private void btnHapusActionPerformed(java.awt.event.ActionEvent evt) {
    try {
        String sql = "DELETE FROM tb_perumahan WHERE id = '" + idData + "'";
        java.sql.Connection conn = (Connection) Koneksi.sambungDB();
        java.sql.PreparedStatement pstm = conn.prepareStatement(sql);
        pstm.execute();
        JOptionPane.showMessageDialog(null, "Hapus Berhasil");
    } catch (HeadlessException | SQLException e) {
        JOptionPane.showMessageDialog(this, e.getMessage());
    }
    tampilkan_data("");
}

private void btnKeluarActionPerformed(java.awt.event.ActionEvent evt) {
    System.exit(0);
}

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

}
```

```java
    private void btnTambahActionPerformed(java.awt.event.ActionEvent evt) {
        try {
            String sql = "INSERT INTO tb_perumahan VALUES (NULL, '" + txtNama.getText() +
"','" + txtAlamat.getText() + "','" + txtTelephone.getText() + "','" + txtEmail.getText() + "','" +
txtPengembang.getText() + "','" + cmbTipe.getSelectedItem() + "','" + txtFile.getText() + "')";
            java.sql.Connection conn = (Connection) Koneksi.sambungDB();
            java.sql.PreparedStatement pstm = conn.prepareStatement(sql);
            pstm.execute();
            JOptionPane.showMessageDialog(null, "Simpan Berhasil");
            tampilkan_data("");

        } catch (HeadlessException | SQLException e) {
            JOptionPane.showMessageDialog(this, e.getMessage());
        }
        txtNama.setFocusable(true);
    }

    private void tblDataMouseClicked(java.awt.event.MouseEvent evt) {
        int baris = tblData.getSelectedRow();

        if (baris > -1) {
            idData = tblData.getValueAt(baris, 1).toString();
            txtNama.setText(tblData.getValueAt(1, 2).toString());
            txtAlamat.setText(tblData.getValueAt(1, 3).toString());
            txtTelephone.setText(tblData.getValueAt(1, 4).toString());
            txtEmail.setText(tblData.getValueAt(1, 5).toString());
            txtPengembang.setText(tblData.getValueAt(1, 6).toString());
            cmbTipe.setSelectedItem(tblData.getValueAt(1, 7).toString());
            txtFile.setText(tblData.getValueAt(1, 8).toString());
        }
    }

    private void txtCariKeyReleased(java.awt.event.KeyEvent evt) {
        String key = txtCari.getText();
        if (key.isEmpty()) {
            tampilkan_data("");
        } else {
            tampilkan_data(key);
        }
```

```java
    }

    /**
     * @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
         */
        //</editor-fold>

        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
            new Data().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JButton btnHapus;
    private javax.swing.JButton btnKeluar;
    private javax.swing.JButton btnTambah;
    private javax.swing.JButton btnUbah;
    private javax.swing.JComboBox<String> cmbTipe;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JLabel jLabel6;
    private javax.swing.JLabel jLabel7;
    private javax.swing.JLabel jLabel8;
    private javax.swing.JLabel jLabel9;
    private javax.swing.JScrollPane jScrollPane1;
    private javax.swing.JTable tblData;
    private javax.swing.JTextField txtAlamat;
    private javax.swing.JTextField txtCari;
```
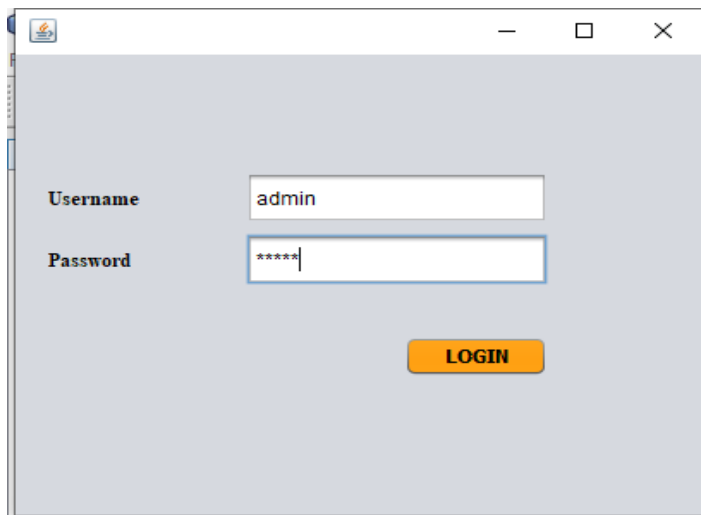
private javax.swing.JTextField txtEmail;
private javax.swing.JTextField txtFile;
private javax.swing.JTextField txtNama;
private javax.swing.JTextField txtPengembang;
private javax.swing.JTextField txtTelephone;
// End of variables declaration
    }
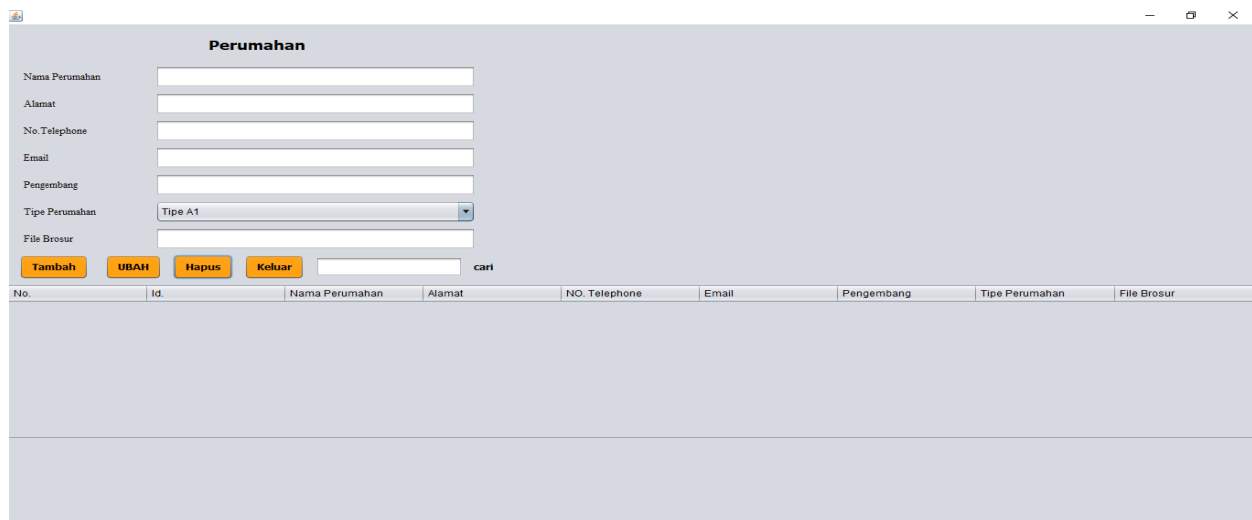
Finish, coba di run dan liat hasilnya

    Kalau bener entar seperti ini;

    Kalau berhasil login nanti akan langsung akses ketampilan yang seperti ini

Ini contoh kalau kita akan menambahkan data dengan btnTambah

Berhasil.

Ini contoh kalau kita akan mengedit data yang telah kita input dengan btnUbah

Berhasil.

Ini contoh kalau kita akan menghapus data yang telah kita buat dengan btnHapus.

berhasil.