MANUAL BOOK
PEMROGRAMAN KOMPUTER 2

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Tahap 1: Instalasi Server Lokal dan Pembuatan Basis Data

1. Intall aplikasi XAMPP
2. Buka XAMPP dan Jalankan Apache dan MySQL
3. Buka phpMyAdmin, lalu buat data base baru dengan nama ArDok
4. Buat tabel dengan nama admin dan document

Name	Type	Length/Value	AI	Index
admin_id	Int	11	True	Primary
admin_fullname	VARCHAR	50		
admin_username	VARCHAR	25		
admin_password	VARCHAR	25		

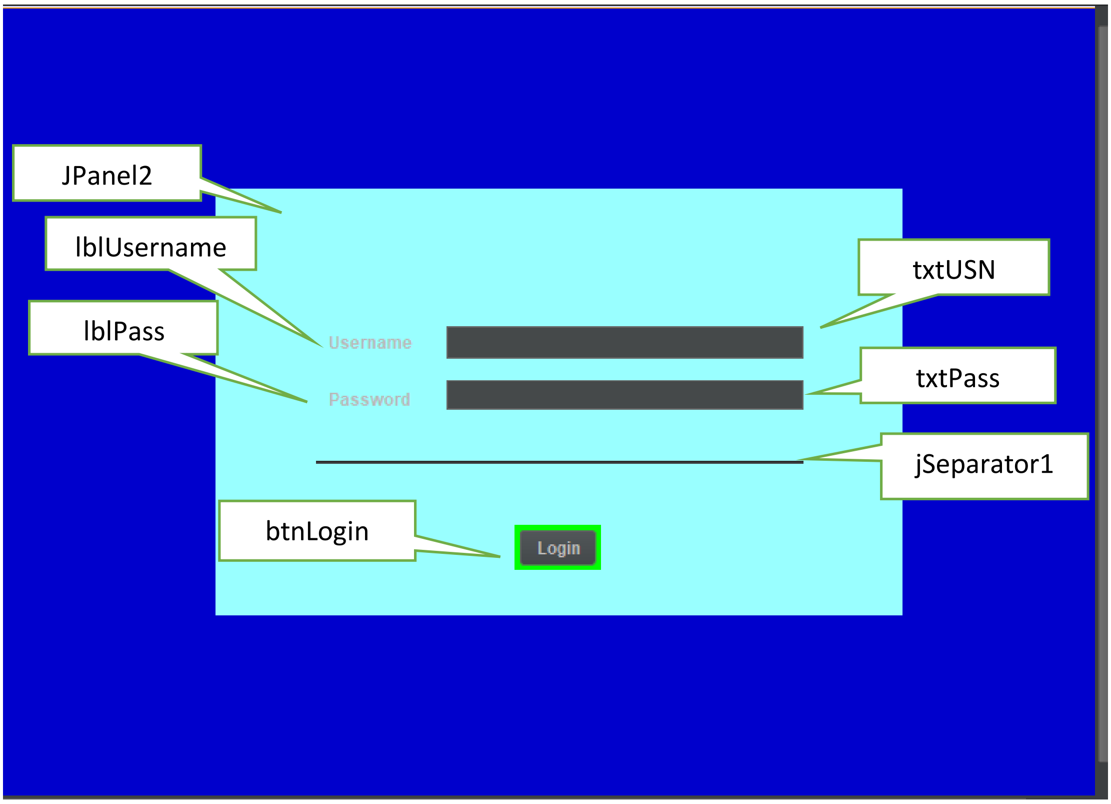
Name	Type	Length/Value	AI	Index
id_document	Int	11	true	Primary
kode_document	Int	11		Unique
nama_document	VARCHAR	50		
kategori_document	VARCHAR	25		
lokasi_document	Blop			
deskripsi_document	VARCHAR	50		
tanggal	VARCHAR	25		

Tahap 2: Menyiapkan Project

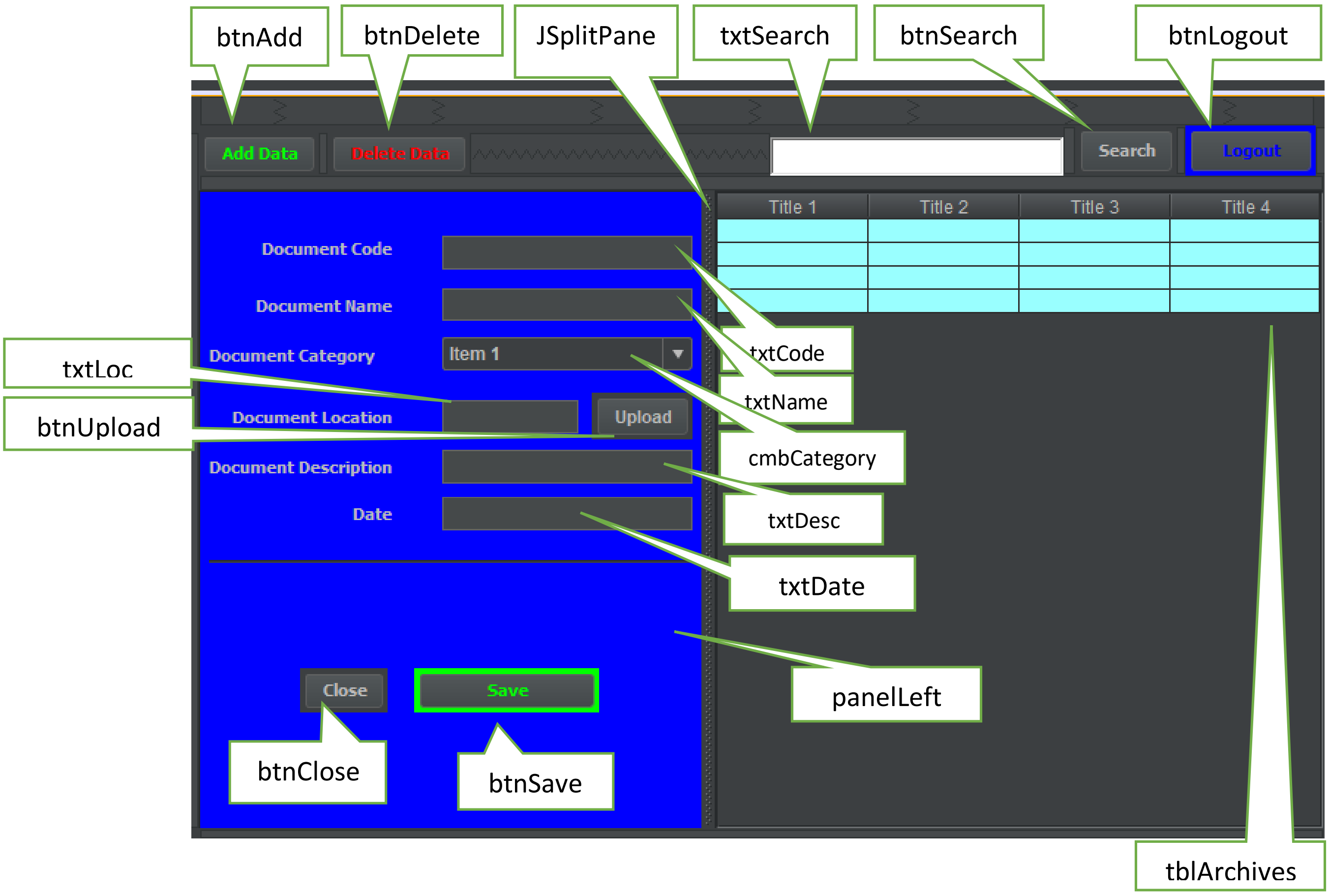
1. Buka aplikasi Netbeans, kemudian buat project baru dengan nama ArchivesDocument.
2. Setelah membuat project baru, buatlah package baru dengan nama “archivesdocument”.
3. Buka lokasi project anda, kemudian buat folder baru dengan nama lib.
4. Copy-Paste driver mysql-connector-java8.0.18.jar dan weblaf ke dalam folder lib.
5. Tambahkan library yang telah disiapkan (dalam folder lib) ke dalam project

Tahap 3: Membuat Desain Aplikasi.

1. Buat JFrame Form
2. Nama class Login



3. Buat JframeForm lagi dengan nama class Application



Tahap 4: Membuat Kelas Connection

```java
package archivesdocument;

import com.mysql.jdbc.jdbc2.optional.MysqlDataSource;
import java.sql.Connection;
import java.sql.SQLException;
/**
 *
 * @author Yanuar Ardani N
 */
public class connection {
    public static Connection MySQL(){
        try {
           MysqlDataSource ds = new MysqlDataSource();
           ds.setUser("root");
           ds.setPassword("");
           ds.setServerName("localhost");
           ds.setDatabaseName("ArDok");
           ds.setPortNumber(3306);
           Connection c = ds.getConnection();
           return c;
        } catch (SQLException e) {
            System.err.println(e.getMessage());
            return null;
        }

    }
}
```

Tahap 5: Pembuatan Method Pada form Login

```java
public class Login extends javax.swing.JFrame {

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


public static void main(String args[]) {
        try {
            UIManager.setLookAndFeel(new WebLookAndFeel());
        } catch (Exception e) {
        }
        java.awt.EventQueue.invokeLater(() -> {
            //new Login().setVisible(true);
            Login L = new Login();
            L.setExtendedState(Frame.MAXIMIZED_BOTH);
            L.setVisible(true);
        });
    }
private void Login() {
        String user = txtUsn.getText();
        char[] pass = txtPass.getPassword();

        if(user.isEmpty()){
            JOptionPane.showMessageDialog(this, "Username Harus Diisi!");
            txtUsn.requestFocus();
        }else if(pass.length == 0){
            JOptionPane.showMessageDialog(this, "Password Harus Diisi!");
            txtPass.requestFocus();
        }else{
           String password = new String(pass);
           btnLogin.setEnabled(false);
            try {
                Connection c = connection.MySQL();
                Statement st = c.createStatement();
                String q = "SELECT * FROM admin " + "WHERE 
admin_username='"+user+"'" + "AND admin_password=MD5('"+password+"')";
                System.out.println(q);
                ResultSet rs = st.executeQuery(q);
                if(rs.next()){
                    Application h = new Application();
                    h.setExtendedState(Frame.MAXIMIZED_BOTH);
                    this.setVisible(false);
                    h.setVisible(true);
                }else{
                    JOptionPane.showMessageDialog(this, "Username/Password 
Salah!");
                    txtUsn.requestFocus();
                }
                    btnLogin.setEnabled(true);
            } catch (Exception e) {
                JOptionPane.showMessageDialog(this, e.getMessage());
            }
        }
    }
}
```

Tahap 6: Menambahkan event pada Komponen di Form Login

1. Double-click pada “txtUSN,txtPass, dan btn Login”, kemudian ubah kode program menjadi seperti di bawah ini.

```
private void txtPassActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_txtPassActionPerformed
        // TODO add your handling code here:
        if(txtUsn.getText().isEmpty()){
            txtUsn.requestFocus();
        }else{
            Login();
        }
    }//GEN-LAST:event_txtPassActionPerformed

    private void txtUsnActionPerformed(java.awt.event.ActionEvent evt) 
{//GEN-FIRST:event_txtUsnActionPerformed
        // TODO add your handling code here:
        if(txtPass.getPassword().length == 0){
            txtPass.requestFocus();
        }else{
            Login();
        }
    }//GEN-LAST:event_txtUsnActionPerformed
    private void btnLoginActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnLoginActionPerformed
        // TODO add your handling code here:
        Login();
    }//GEN-LAST:event_btnLoginActionPerformed
```

Tahap 7: Deklarasi Variabel Global pada Form Application

```
public class Application extends javax.swing.JFrame {
    int idLine= 0;
    String role;
    DefaultTableModel model;
```

Tahap 8: Pembuatan Method-Method pada Form Apllication

```
private void aturModelTabel() {
        Object[] kolom = {"id","Doc Code","Doc Name","Doc Category","Doc
Location","Doc Desc","Date"};
        model = new DefaultTableModel(kolom, 0) {
            boolean[] canEdit = new boolean[]{
                false, false, false, false, false, false
            };

            @Override
            public boolean isCellEditable(int rowIndex, int columnIndex) {
                return canEdit[columnIndex];
            }
        };
        tblArchives.setModel(model);
        tblArchives.setRowHeight(20);
        tblArchives.getColumnModel().getColumn(0).setMinWidth(0);
        tblArchives.getColumnModel().getColumn(0).setMaxWidth(0);
    }

    private void showForm(boolean b) {
        areaSplit.setDividerLocation(0.3);
        areaSplit.getLeftComponent().setVisible(b);
    }

    private void resetForm() {
        tblArchives.clearSelection();
        txtCode.setText("");
        txtName.setText("");
        cmbCategory.setSelectedIndex(0);
        txtLoc.setText("");
        txtDesc.setText("");
        txtDate.setText("");
        txtCode.requestFocus();
    }

    private void kategori_document() {
        cmbCategory.removeAllItems();
        cmbCategory.addItem("Select Category");
        cmbCategory.addItem("Literary Document");
        cmbCategory.addItem("Korporil Document");
        cmbCategory.addItem("Private Document");
    }

    private void showData(String key) {
        model.getDataVector().removeAllElements();
        String where = "";
        if (!key.isEmpty()) {
            where += "WHERE kode_document LIKE '%" + key + "%' "
                    + "OR nama_document LIKE '%" + key + "%' "
                    + "OR kategori_document LIKE '%" + key + "%' "
                    + "OR lokasi_document LIKE '%" + key + "%' "
                    + "OR deskripsi_document LIKE '%" + key + "%'"
                    + "OR tanggal LIKE '%" + key + "%'";
        }
        String sql = "SELECT * FROM document " + where;
        Connection con;
        Statement st;
        ResultSet rs;
        int baris = 0;
        try {
            con = connection.MySQL();
            st = con.createStatement();
            rs = st.executeQuery(sql);
            while (rs.next()) {
                Object id = rs.getInt(1);
                Object kode_document = rs.getInt(2);
                Object nama_document = rs.getString(3);
                Object kategori_document = rs.getString(4);
                Object lokasi_document = rs.getString(5);
                Object deskripsi_document = rs.getString(6);
                Object tanggal = rs.getString(7);
                Object[] data = {id, kode_document, nama_document,
kategori_document, lokasi_document, deskripsi_document, tanggal};
                model.insertRow(baris, data);
                baris++;
            }
            st.close();
            con.close();
            tblArchives.revalidate();
            tblArchives.repaint();
        } catch (SQLException e) {
            System.err.println("showData(): " + e.getMessage());
        }
    }

    private void resetView() {
        resetForm();
        showForm(false);
        showData("");
        btnDelete.setEnabled(false);
        idLine = 0;
    }

    private void pilihData(String n) {
        btnDelete.setEnabled(true);
        String sql = "SELECT * FROM document WHERE id='" + n + "'";
        Connection con;
        Statement st;
        ResultSet rs;
        try {
            con = connection.MySQL();
            st = con.createStatement();
            rs = st.executeQuery(sql);
            while (rs.next()) {
                int id = rs.getInt(1);
                String kode_document = rs.getString(2);
                String nama_document = rs.getString(3);
                Object kategori_document = rs.getString(4);
                String lokasi_document = rs.getString(5);
                String deskripsi_document = rs.getString(6);
                String tanggal = rs.getString(7);
                idLine = id;
                txtCode.setText(kode_document);
                txtName.setText(nama_document);
                cmbCategory.setSelectedItem(kategori_document);
                txtLoc.setText(lokasi_document);
                txtDesc.setText(deskripsi_document);
                txtDate.setText(tanggal);
            }
            st.close();
            con.close();
            showForm(true);
        } catch (SQLException e) {
            System.err.println("pilihData(): " + e.getMessage());
        }
    }

    private void simpanData() {
        String kode_document = txtCode.getText();
        String nama_document = txtName.getText();
        int kategori_document = cmbCategory.getSelectedIndex();
        String lokasi_document = txtLoc.getText();
        String deskripsi_document =txtDesc.getText();
        String tanggal = txtDate.getText();
        if (kode_document.isEmpty() || nama_document.isEmpty() ||
kategori_document == 0 || lokasi_document.isEmpty() ||
deskripsi_document.isEmpty()
                || tanggal.isEmpty()) {
            JOptionPane.showMessageDialog(this, "Mohon lengkapi data!");
        } else {
            String kategori = cmbCategory.getSelectedItem().toString();
            String sql
                    = "INSERT INTO document (kode_document, nama_document,
kategori_document, lokasi_document, deskripsi_document, tanggal)"
                    + "VALUES ('" + kode_document + "','" + nama_document +
"','" + kategori + "','" + lokasi_document + "','" + deskripsi_document +
"','"+tanggal+"')";
            Connection con;
            Statement st;
            try {
                con = connection.MySQL();
                st = con.createStatement();
                st.executeUpdate(sql);
                st.close();
                con.close();
                resetView();
                JOptionPane.showMessageDialog(this,"Data telah disimpan!");
            } catch (SQLException e) {
                JOptionPane.showMessageDialog(this, e.getMessage());
            }
        }
    }

    private void ubahData() {
        String kode_document = txtCode.getText();
        String nama_document = txtName.getText();
        int kategori_document = cmbCategory.getSelectedIndex();
        String lokasi_document = txtLoc.getText();
        String deskripsi_document =txtDesc.getText();
        String tanggal = txtDate.getText();
        if (kode_document.isEmpty() || nama_document.isEmpty() ||
kategori_document == 0 || lokasi_document.isEmpty() ||
deskripsi_document.isEmpty()
                || tanggal.isEmpty()) {
            JOptionPane.showMessageDialog(this, "Mohon lengkapi data!");
        } else {
            String kategori = cmbCategory.getSelectedItem().toString();
            String sql = "UPDATE document "
                    + "SET kode_document='" + kode_document + "',"
                    + "nama_document='" + nama_document + "',"
                    + "kategori_document='" + kategori + "',"
                    + "lokasi_document='" +lokasi_document+ "',"
                    + "deskripsi_document='" +deskripsi_document+ "',"
                    + "tanggal='" + tanggal + "' WHERE id='" + idLine +
"'";
            Connection con;
            Statement st;
            try {
                con = connection.MySQL();
                st = con.createStatement();
                st.executeUpdate(sql);
                st.close();
                con.close();
                resetView();
                JOptionPane.showMessageDialog(this, "Data telah diubah!");
            } catch (SQLException e) {
                JOptionPane.showMessageDialog(this, e.getMessage());
            }
        }
    }

    private void hapusData(int baris) {
        Connection con;
        Statement st;
        try {
            con = connection.MySQL();
            st = con.createStatement();
            st.executeUpdate("DELETE FROM document WHERE id=" + baris);
            st.close();
            con.close();
            resetView();
            JOptionPane.showMessageDialog(this, "Data telah dihapus");
        } catch (SQLException e) {
            JOptionPane.showMessageDialog(this, e.getMessage());
        }
    }
```

Tahap 9: Menambahkan event pada Komponen di Form Application

1. Double-click tombol “Add Data, Save, Close, Delete Data, Logout, Upload”, kemudian ubah kode program menjadi seperti di bawah ini.

```
private void btnAddActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_btnAddActionPerformed
        // TODO add your handling code here:
        role = "Tambah";
        btnSave.setText("SIMPAN");
        idLine = 0;
        resetForm();
        showForm(true);
        btnDelete.setEnabled(false);
    }//GEN-LAST:event_btnAddActionPerformed

    private void btnSaveActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnSaveActionPerformed
        // TODO add your handling code here:
        if (role.equals("Tambah")) {
            simpanData();
        } else if (role.equals("Ubah")) {
            ubahData();
        }
    }//GEN-LAST:event_btnSaveActionPerformed

    private void btnCloseActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnCloseActionPerformed
        // TODO add your handling code here:
        resetForm();
        showForm(false);
        btnDelete.setEnabled(false);
        idLine = 0;
    }//GEN-LAST:event_btnCloseActionPerformed

    private void btnDeleteActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnDeleteActionPerformed
        // TODO add your handling code here:
        if (idLine == 0) {
            JOptionPane.showMessageDialog(this, "Dihapus!");
        } else{
            hapusData(idLine);
        }
    }//GEN-LAST:event_btnDeleteActionPerformed

private void btnLogoutActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnLogoutActionPerformed
        // TODO add your handling code here:
        int pilih = JOptionPane.showConfirmDialog(this,
                    "Apakah anda yakin ingin keluar?",
                    "Konfirmasi Keluar", JOptionPane.YES_NO_OPTION);
        if(pilih == JOptionPane.YES_OPTION){
            Login l = new Login();
            l.setExtendedState(Frame.MAXIMIZED_BOTH);
            this.setVisible(false);
            l.setVisible(true);
        }
    }//GEN-LAST:event_btnLogoutActionPerformed


private void btnUploadActionPerformed(java.awt.event.ActionEvent evt)
{//GEN-FIRST:event_btnUploadActionPerformed
        // TODO add your handling code here:
        JFileChooser chooser = new JFileChooser();
        chooser.showOpenDialog(null);
        File f = chooser.getSelectedFile();
        filename = f.getAbsolutePath();
        txtLoc.setText(filename);
    }//GEN-LAST:event_btnUploadActionPerformed
```

2. Klik kanan komponen text Search → pilih Events → pilih Key → pilih KeyReleased, kemudian ubah kode program menjadi seperti di bawah ini.

```
private void txtSearchKeyReleased(java.awt.event.KeyEvent evt) {//GEN-
FIRST:event_txtSearchKeyReleased
        // TODO add your handling code here:
        String key = txtSearch.getText();
        showData(key);
    }//GEN-LAST:event_txtSearchKeyReleased
```

3. Klik kanan JFrame melalui navigator → pilih Events → pilih Component → componentResized, kemudian ubah kode program menjadi seperti di bawah ini.

```
private void formComponentResized(java.awt.event.ComponentEvent evt)
{//GEN-FIRST:event_formComponentResized
        // TODO add your handling code here:
        areaSplit.setDividerLocation(0.3);
    }
```

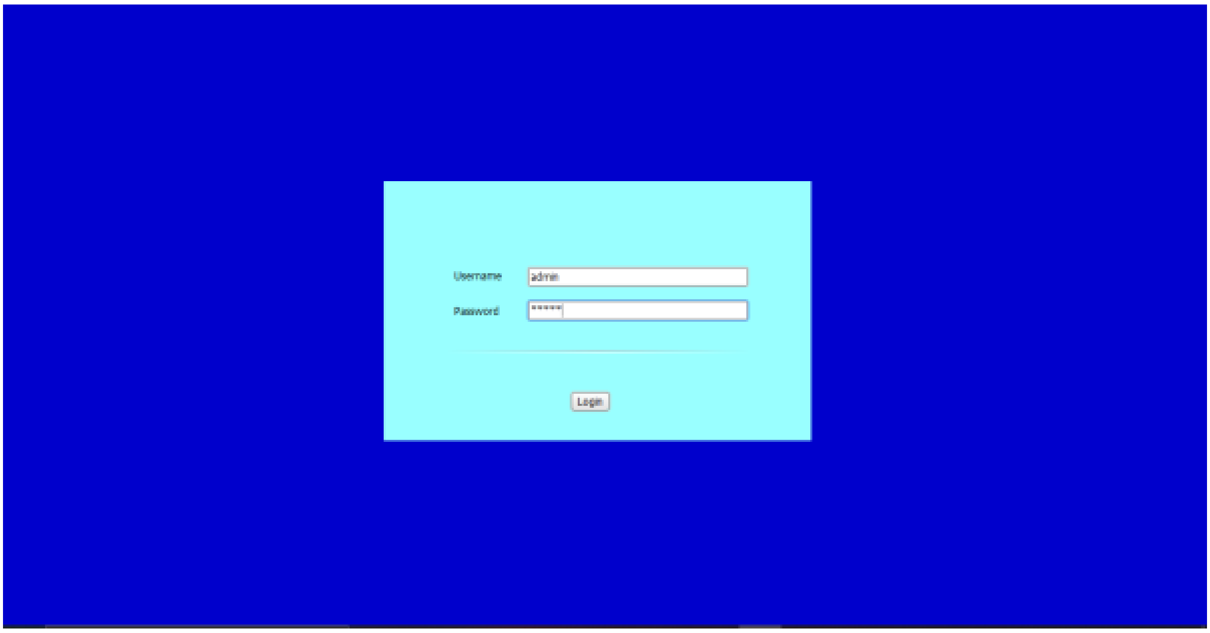
4. Menambahkan event pada saat tabel di klik. Caranya klik kanan pada tabel → pilih Events → Mouse → mouseClicked. Selanjutnya tambahkan kode berikut:

```
private void tblArchivesMouseClicked(java.awt.event.MouseEvent evt) {//GEN-
FIRST:event_tblArchivesMouseClicked
        // TODO add your handling code here:
        role = "Ubah";
        int row = tblArchives.getRowCount();
        if(row>0){
            int sel = tblArchives.getSelectedRow();
            if(sel != -1){
                pilihData(tblArchives.getValueAt(sel, 0).toString());
                btnSave.setText("UBAH DATA");
            }
        }
    }
```

5. Memanggil method-method di awal aplikasi dijalankan, ubah kode program pada konstruktor menjadi seperti di bawah ini.

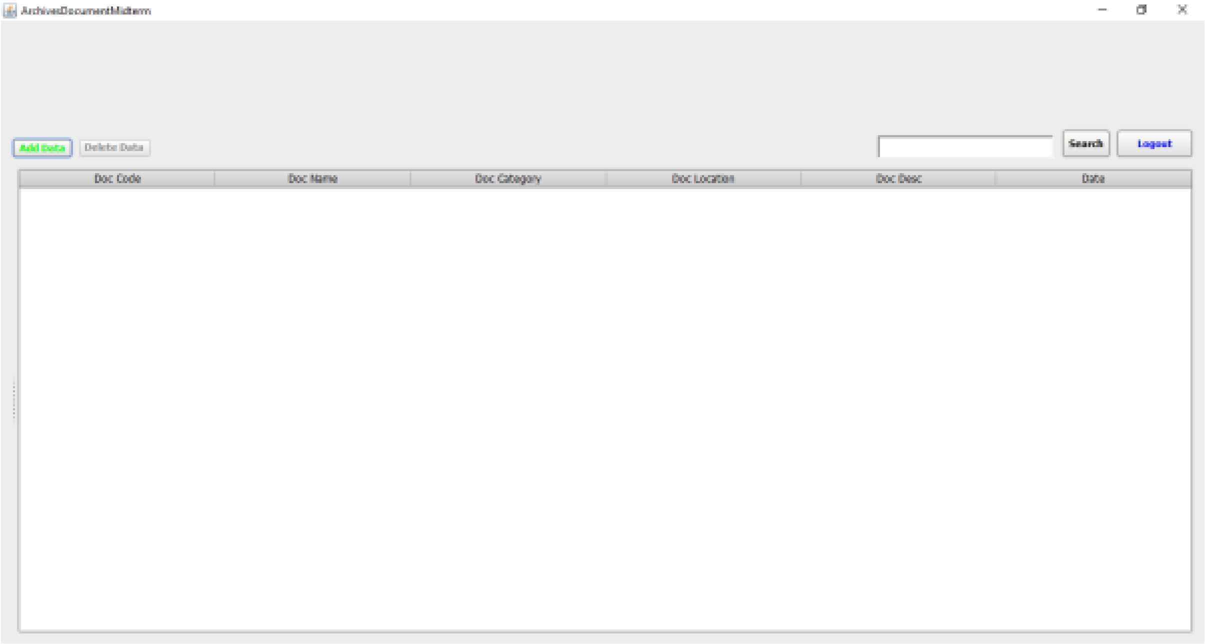
```
public Application() {
        initComponents();
        aturModelTabel();
        kategori_document();
        showForm(false);
        showData("");
    }
```

Hasil :

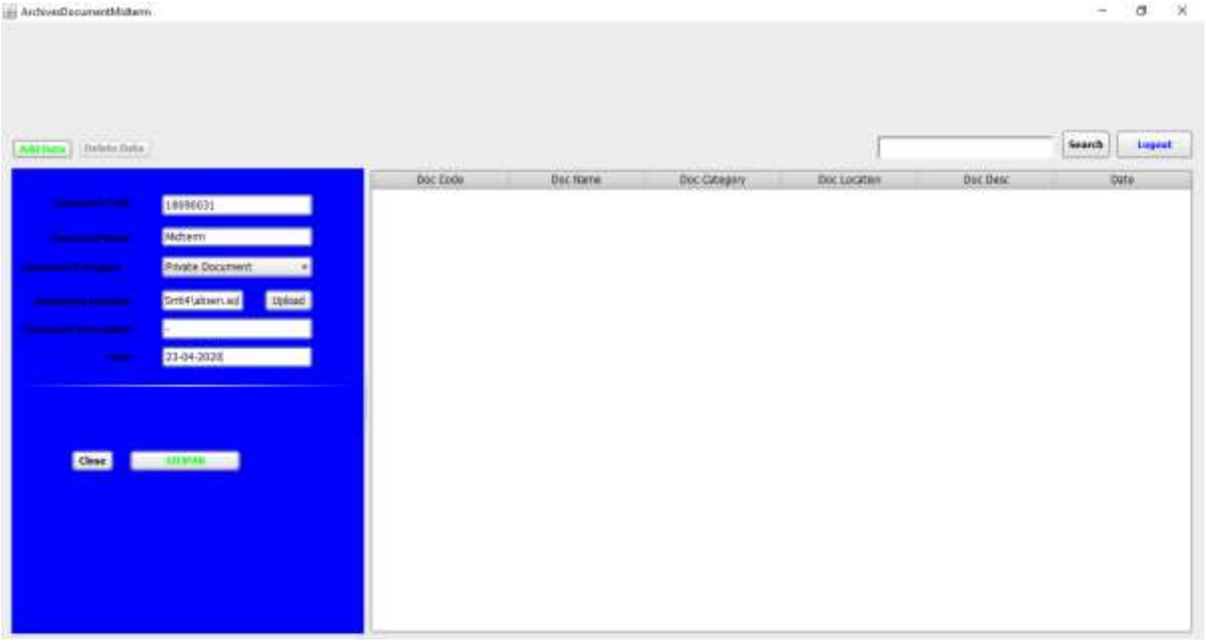


Username admin

Password *****

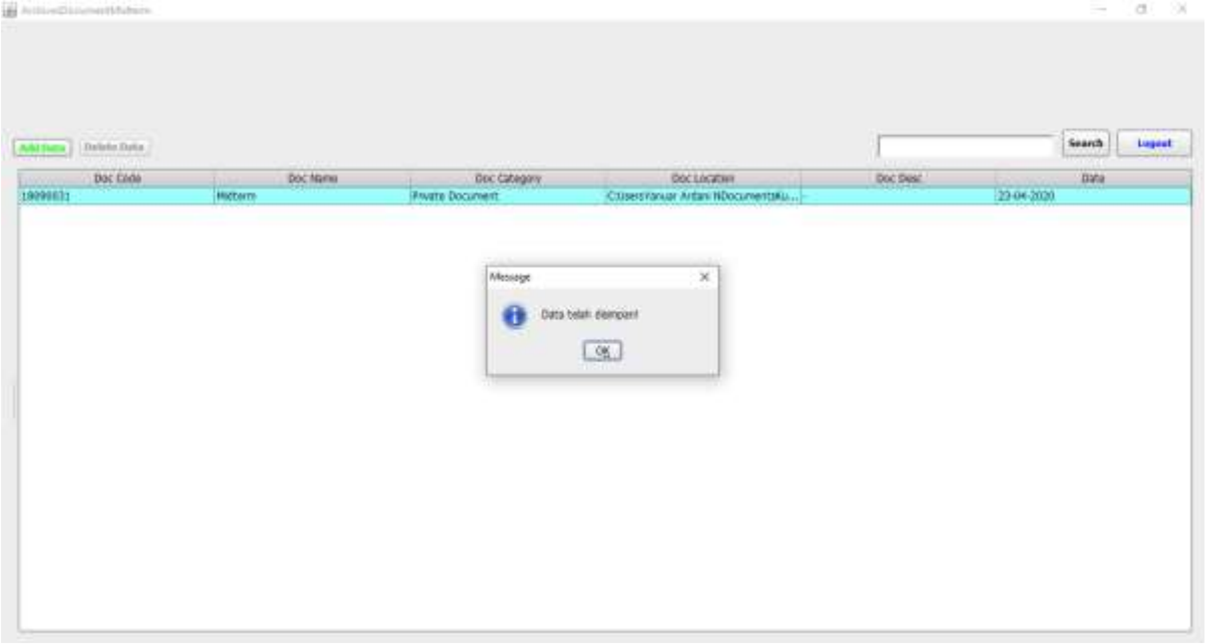


Doc Code	Doc Name	Doc Category	Doc Location	Doc Desc	Date



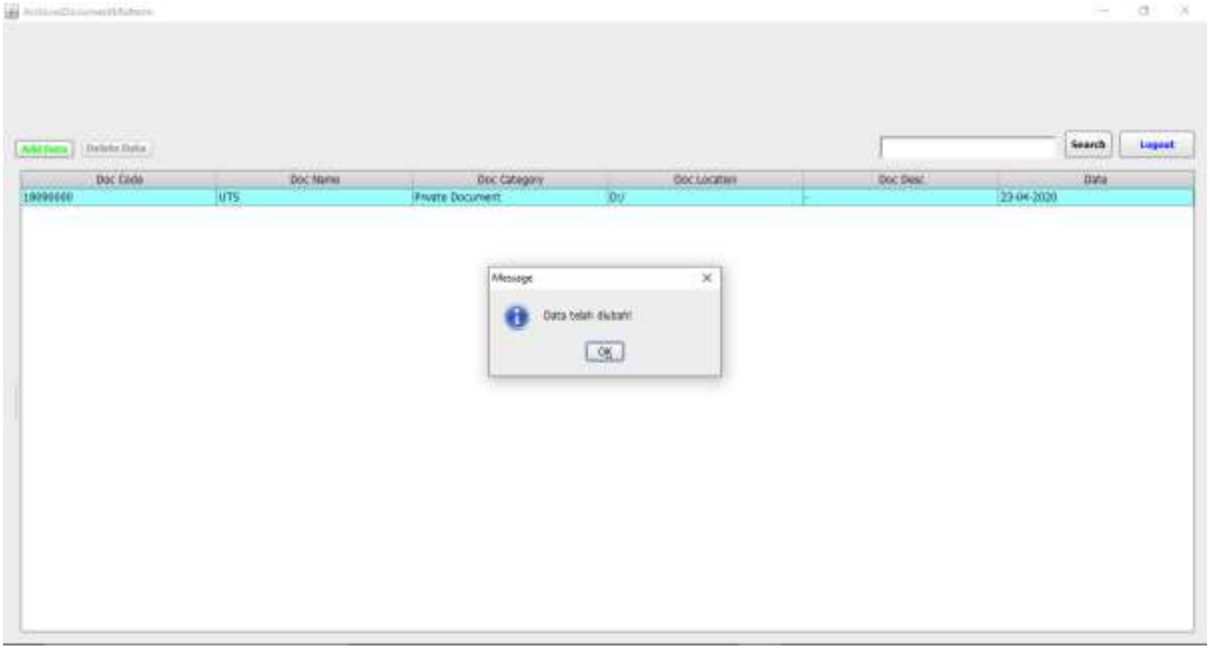
	18996031
	Midterm
	Private Document
	Smt4\absen.sql
	-
	23-04-2020

Doc Code	Doc Name	Doc Category	Doc Location	Doc Desc	Date



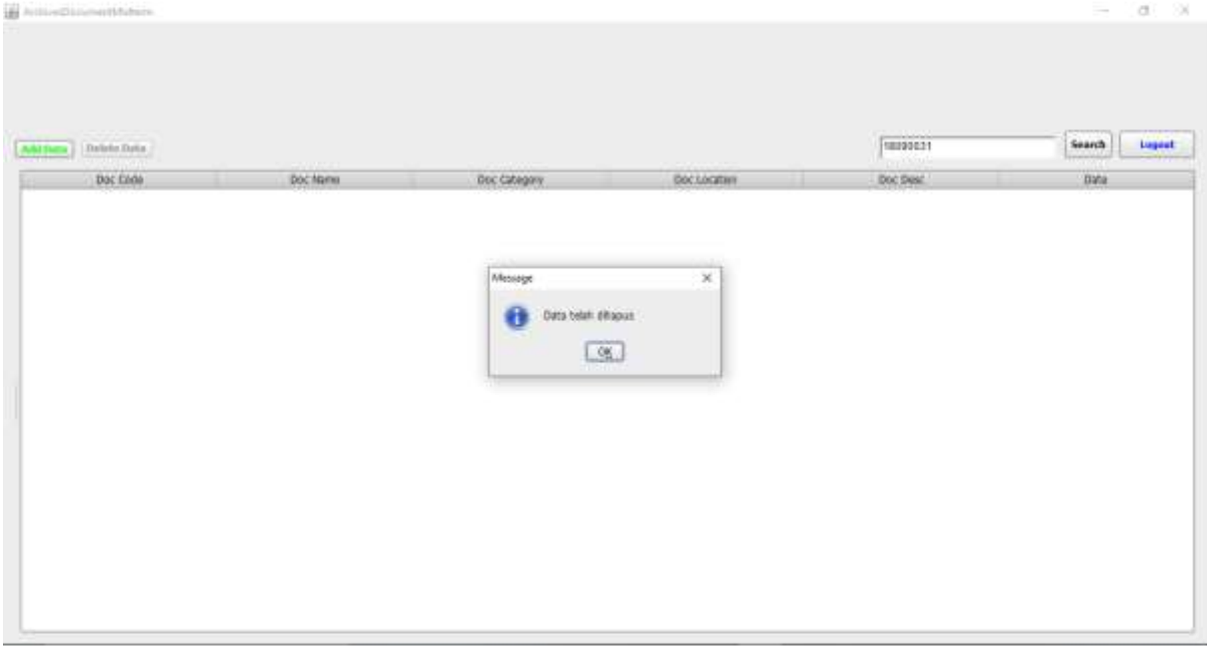
Doc Code	Doc Name	Doc Category	Doc Location	Doc Desc	Date
18996031	Midterm	Private Document	C:\Users\Yanuar Ardani N\Documents\Ku...	-	23-04-2020

Data telah disimpan!



Doc Code	Doc Name	Doc Category	Doc Location	Doc Desc	Data
18090000	UTS	Private Document	D:/	-	23-04-2020

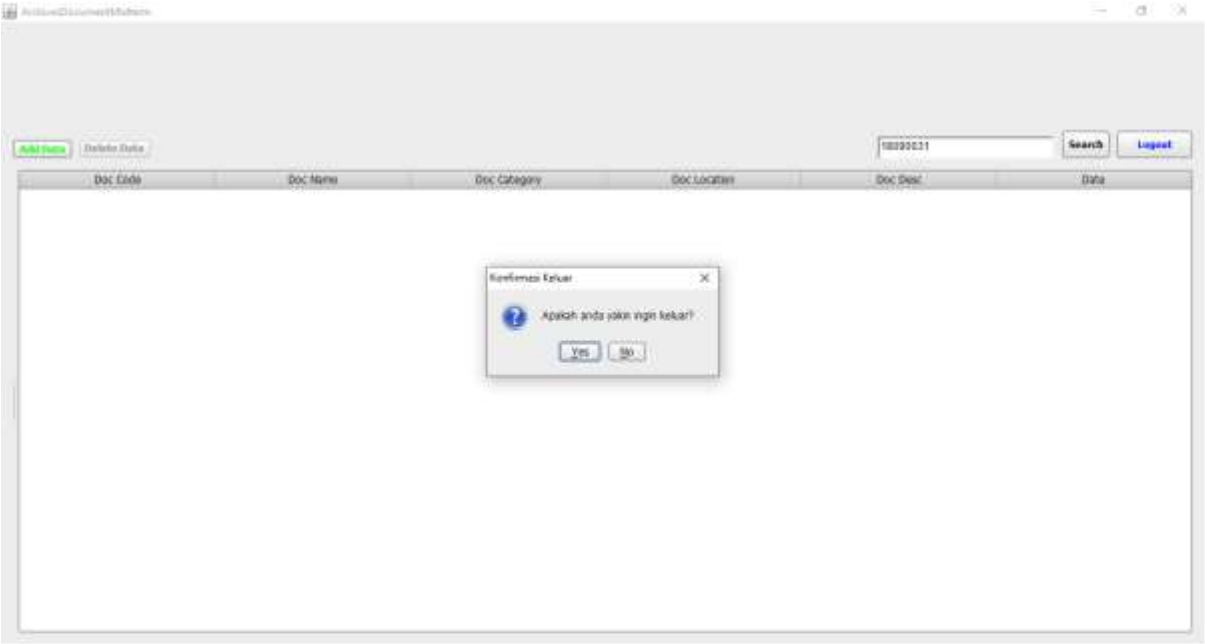
Data telah diubah!



18090031

Doc Code	Doc Name	Doc Category	Doc Location	Doc Desc	Data

Data telah dihapus



Doc Code	Doc Name	Doc Category	Doc Location	Doc Desc	Data

Konfirmasi Keluar

Apakah anda yakin ingin keluar?