

# BS-Software Engineering 2<sup>nd</sup>-E

OOP

Hamza Mehmood Roll# SP-21-110 NUML-S21-2352 9

Title: Project Report

Submitted to: Mam. Sadaf

## **National University of Modern Languages**

**Object Oriented Programming** 

# Student Database Management System

# Source Code of Login Form:

```
/**
 * @author Hamza._.Dezire
 *SP-21-110
 * NUML-S21-23529
 * BS-SOFTWARE ENGINEERING
 */
import java.awt.HeadlessException;
import java.sql.Connection;
```

```
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import javax.swing.JOptionPane;
public class Login extends javax.swing.JFrame {
  public Login() {
    initComponents();
  }
  @SuppressWarnings("unchecked")
  // <editor-fold defaultstate="collapsed" desc="Generated Code">
  private void initComponents() {
    jPanel1 = new javax.swing.JPanel();
    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    pass = new javax.swing.JPasswordField();
    user = new javax.swing.JTextField();
    jButton1 = new javax.swing.JButton();
    jButton2 = new javax.swing.JButton();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
```

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    setTitle("Student Data Base Management System");
    setBackground(new java.awt.Color(153, 153, 153));
    setFont(new java.awt.Font("Adlinnaka Bold", 0, 12)); // NOI18N
    setResizable(false);
    jPanel1.setBackground(new java.awt.Color(102, 102, 255));
jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder(javax.swing.BorderFactory.createBevel
Border(javax.swing.border.BevelBorder.LOWERED),
                                                                                            "Login",
javax.swing.border.TitledBorder.DEFAULT JUSTIFICATION,
javax.swing.border.TitledBorder.DEFAULT_POSITION, new java.awt.Font("Adlinnaka Bold", 0, 18), new
java.awt.Color(255, 255, 255))); // NOI18N
    jLabel1.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jLabel1.setForeground(new java.awt.Color(255, 255, 255));
    jLabel1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/emailhh.png"))); //
NOI18N
    jLabel1.setText("Email");
    jLabel2.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jLabel2.setForeground(new java.awt.Color(255, 255, 255));
    jLabel2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/password.png"))); //
NOI18N
    jLabel2.setText("Password");
    user.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        userActionPerformed(evt);
      }
```

```
});
    jButton1.setIcon(new
                           javax.swing.lmagelcon("F:\\NUML
                                                                BS-SE\\2nd
                                                                              Semester\\OOP\\New
folder\\StudentDBMS\\src\\Images\\icons8-enter-24.png")); // NOI18N
    jButton1.setText("LOGIN");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
      }
    });
                           javax.swing.lmagelcon("F:\\NUML
                                                                BS-SE\\2nd
                                                                              Semester\\OOP\\New
    ¡Button2.setIcon(new
folder\\StudentDBMS\\src\\Images\\delete_16x16.gif")); // NOI18N
    jButton2.setText("CANCEL");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
      }
    });
    jLabel3.setFont(new java.awt.Font("Adlinnaka Bold", 0, 24)); // NOI18N
    jLabel3.setIcon(new javax.swing.lmageIcon(getClass().getResource("/Images/download.png"))); //
NOI18N
    jLabel4.setFont(new java.awt.Font("Adlinnaka Bold", 0, 24)); // NOI18N
    jLabel4.setForeground(new java.awt.Color(255, 255, 255));
    jLabel4.setText("Welcome to Login Page");
    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
```

¡Panel1.setLayout(¡Panel1Layout); jPanel1Layout.setHorizontalGroup( jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(jPanel1Layout.createSequentialGroup() .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(jPanel1Layout.createSequentialGroup() .addGap(136, 136, 136) .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED\_SIZE, 113, javax.swing.GroupLayout.PREFERRED SIZE) .addGap(31, 31, 31) .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED SIZE, 147, javax.swing.GroupLayout.PREFERRED\_SIZE)) .addGroup(jPanel1Layout.createSequentialGroup() .addGap(104, 104, 104) .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING) .addGroup(jPanel1Layout.createSequentialGroup() .addComponent(jLabel2) .addGap(57, 57, 57) .addComponent(pass, javax.swing.GroupLayout.PREFERRED SIZE, 191, javax.swing.GroupLayout.PREFERRED\_SIZE)) .addGroup(jPanel1Layout.createSequentialGroup() .addComponent(jLabel1) .addGap(96, 96, 96) .addComponent(user, javax.swing.GroupLayout.PREFERRED SIZE, 191, javax.swing.GroupLayout.PREFERRED\_SIZE)) .addComponent(jLabel3, javax.swing.GroupLayout.DEFAULT\_SIZE, 438, Short.MAX\_VALUE))) .addGroup(jPanel1Layout.createSequentialGroup() .addGap(141, 141, 141)

```
.addComponent(jLabel4)))
        .addGap(72, 72, 72))
    );
    jPanel1Layout.setVerticalGroup(
      jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(jPanel1Layout.createSequentialGroup()
        .addContainerGap()
                                          javax.swing.GroupLayout.PREFERRED_SIZE,
        .addComponent(jLabel3,
                                                                                             98,
javax.swing.GroupLayout.PREFERRED SIZE)
        .addGap(31, 31, 31)
        .addComponent(jLabel4)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
                                                                                             32,
Short.MAX_VALUE)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(user,
                                         javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                             28,
javax.swing.GroupLayout.PREFERRED_SIZE)
          .addComponent(jLabel1))
        .addGap(18, 18, 18)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(pass,
                                          javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                             28,
javax.swing.GroupLayout.PREFERRED_SIZE)
          .addComponent(jLabel2))
        .addGap(38, 38, 38)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(jButton1,
                                           javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                             40,
javax.swing.GroupLayout.PREFERRED_SIZE)
          .addComponent(jButton2,
                                           javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                             40,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(76, 76, 76))
    );
```

```
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jPanel1,
                                                            javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
        .addContainerGap())
    );
    layout.setVerticalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jPanel1,
                                                            javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addContainerGap())
    );
    setSize(new java.awt.Dimension(662, 512));
    setLocationRelativeTo(null);
  }// </editor-fold>
```

## Data Base Code

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

```
Connection con = null;
PreparedStatement pst = null;
```

```
ResultSet rs = null;
    try {
      Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
      con = DriverManager.getConnection("jdbc:ucanaccess://F:\\Student.accdb");
      String sql = "select * from Login where Email='" + user.getText() + "'and Password='" +
pass.getText() + "'";
      pst = con.prepareStatement(sql);
      rs = pst.executeQuery();
      if (rs.next()) {
        JOptionPane.showMessageDialog(null, "Login Successfully");
        MainFrane e = new MainFrane();
        e.setVisible(true);
        this.setVisible(false);
      } else {
        JOptionPane.showMessageDialog(null, "Invalid Username or Password");
      }
    } catch (HeadlessException | ClassNotFoundException | SQLException e) {
      JOptionPane.showMessageDialog(null, e);
    }
```

```
}
  private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    System.exit(0);
  }
  private void userActionPerformed(java.awt.event.ActionEvent evt) {
  }
  public static void main(String args[]) {
    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);
    } 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);
    }
    java.awt.EventQueue.invokeLater(new Runnable() {
      public void run() {
         new Login().setVisible(true);
      }
    });
  }
  // Variables declaration - do not modify
  private javax.swing.JButton jButton1;
  private javax.swing.JButton jButton2;
  private javax.swing.JLabel jLabel1;
  private javax.swing.JLabel jLabel2;
  private javax.swing.JLabel jLabel3;
  private javax.swing.JLabel jLabel4;
  private javax.swing.JPanel jPanel1;
  private javax.swing.JPasswordField pass;
```

```
private javax.swing.JTextField user;
  // End of variables declaration
  private static class password {
    private static String getText() {
      throw new UnsupportedOperationException("Not supported yet.");
    }
    public p/**
* @author Hamza._.Dezire
*SP-21-110
* NUML-S21-23529
* BS-SOFTWARE ENGINEERING
*/
import java.awt.HeadlessException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import javax.swing.JOptionPane;
public class Login extends javax.swing.JFrame {
  public Login() {
```

```
initComponents();
}
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {
  jPanel1 = new javax.swing.JPanel();
  jLabel1 = new javax.swing.JLabel();
  jLabel2 = new javax.swing.JLabel();
  pass = new javax.swing.JPasswordField();
  user = new javax.swing.JTextField();
  jButton1 = new javax.swing.JButton();
  ¡Button2 = new javax.swing.JButton();
  jLabel3 = new javax.swing.JLabel();
  jLabel4 = new javax.swing.JLabel();
  setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
  setTitle("Student Data Base Management System");
  setBackground(new java.awt.Color(153, 153, 153));
  setFont(new java.awt.Font("Adlinnaka Bold", 0, 12)); // NOI18N
  setResizable(false);
  jPanel1.setBackground(new java.awt.Color(102, 102, 255));
```

jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder(javax.swing.BorderFactory.createBevel Border(javax.swing.border.BevelBorder.LOWERED), "Login",

```
javax.swing.border.TitledBorder.DEFAULT JUSTIFICATION,
javax.swing.border.TitledBorder.DEFAULT POSITION, new java.awt.Font("Adlinnaka Bold", 0, 18), new
java.awt.Color(255, 255, 255))); // NOI18N
    jLabel1.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jLabel1.setForeground(new java.awt.Color(255, 255, 255));
    jLabel1.setIcon(new javax.swing.lmageIcon(getClass().getResource("/lmages/emailhh.png"))); //
NOI18N
    jLabel1.setText("Email");
    jLabel2.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jLabel2.setForeground(new java.awt.Color(255, 255, 255));
    jLabel2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/password.png"))); //
NOI18N
    jLabel2.setText("Password");
    user.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        userActionPerformed(evt);
      }
    });
    jButton1.setIcon(new
                            javax.swing.ImageIcon("F:\\NUML
                                                                              Semester\\OOP\\New
                                                                BS-SE\\2nd
folder\\StudentDBMS\\src\\Images\\icons8-enter-24.png")); // NOI18N
    jButton1.setText("LOGIN");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
      }
    });
```

```
Semester\\OOP\\New
    jButton2.setIcon(new
                           javax.swing.lmagelcon("F:\\NUML
                                                               BS-SE\\2nd
folder\\StudentDBMS\\src\\Images\\delete_16x16.gif")); // NOI18N
    jButton2.setText("CANCEL");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
      }
    });
    jLabel3.setFont(new java.awt.Font("Adlinnaka Bold", 0, 24)); // NOI18N
    ¡Label3.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/download.png"))); //
NOI18N
    jLabel4.setFont(new java.awt.Font("Adlinnaka Bold", 0, 24)); // NOI18N
    jLabel4.setForeground(new java.awt.Color(255, 255, 255));
    jLabel4.setText("Welcome to Login Page");
    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
    ¡Panel1.setLayout(¡Panel1Layout);
    jPanel1Layout.setHorizontalGroup(
      jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(jPanel1Layout.createSequentialGroup()
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(136, 136, 136)
            .addComponent(jButton1,
                                             javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                              113,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(31, 31, 31)
```

```
.addComponent(jButton2,
                                            javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                            147,
javax.swing.GroupLayout.PREFERRED SIZE))
          .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(104, 104, 104)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addGroup(jPanel1Layout.createSequentialGroup()
                .addComponent(jLabel2)
                .addGap(57, 57, 57)
                .addComponent(pass,
                                            javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                            191,
javax.swing.GroupLayout.PREFERRED SIZE))
              .addGroup(jPanel1Layout.createSequentialGroup()
                .addComponent(jLabel1)
                .addGap(96, 96, 96)
                .addComponent(user,
                                            javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                            191,
javax.swing.GroupLayout.PREFERRED SIZE))
              .addComponent(jLabel3,
                                              javax.swing.GroupLayout.DEFAULT_SIZE,
                                                                                            438,
Short.MAX VALUE)))
          .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(141, 141, 141)
            .addComponent(jLabel4)))
        .addGap(72, 72, 72))
    );
    jPanel1Layout.setVerticalGroup(
      jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(jPanel1Layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jLabel3,
                                          javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                              98,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(31, 31, 31)
```

```
.addComponent(jLabel4)
                                                                                             32,
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
Short.MAX_VALUE)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                                                                                             28,
          .addComponent(user,
                                          javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.PREFERRED SIZE)
          .addComponent(jLabel1))
        .addGap(18, 18, 18)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(pass,
                                          javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                             28,
javax.swing.GroupLayout.PREFERRED SIZE)
          .addComponent(jLabel2))
        .addGap(38, 38, 38)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(jButton1,
                                           javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                             40,
javax.swing.GroupLayout.PREFERRED SIZE)
          .addComponent(jButton2,
                                           javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                             40,
javax.swing.GroupLayout.PREFERRED SIZE))
        .addGap(76, 76, 76))
    );
    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jPanel1,
                                                           javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addContainerGap())
```

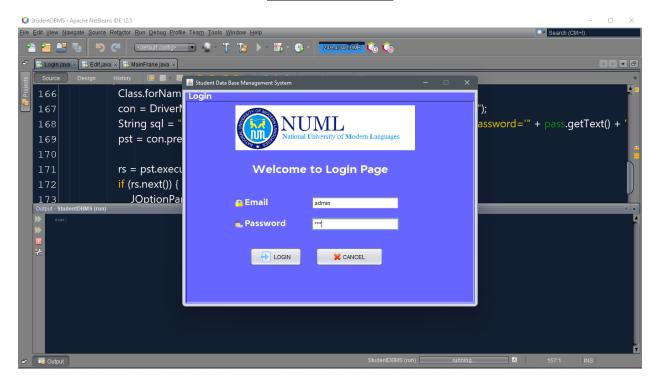
```
);
    layout.setVerticalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jPanel1,
                                                             javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addContainerGap())
    );
    setSize(new java.awt.Dimension(662, 512));
    setLocationRelativeTo(null);
  }// </editor-fold>
  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    Connection con = null;
    PreparedStatement pst = null;
    ResultSet rs = null;
    try {
      Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
      con = DriverManager.getConnection("jdbc:ucanaccess://F:\\Student.accdb");
      String sql = "select * from Login where Email="" + user.getText() + "'and Password="" +
pass.getText() + """;
      pst = con.prepareStatement(sql);
      rs = pst.executeQuery();
```

```
if (rs.next()) {
      JOptionPane.showMessageDialog(null, "Login Successfully");
      MainFrane e = new MainFrane();
      e.setVisible(true);
      this.setVisible(false);
    } else {
      JOptionPane.showMessageDialog(null, "Invalid Username or Password");
    }
  } catch (HeadlessException | ClassNotFoundException | SQLException e) {
    JOptionPane.showMessageDialog(null, e);
  }
}
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
  System.exit(0);
}
private void userActionPerformed(java.awt.event.ActionEvent evt) {
}
```

```
public static void main(String args[]) {
    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);
    } 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);
    }
    java.awt.EventQueue.invokeLater(new Runnable() {
       public void run() {
         new Login().setVisible(true);
      }
```

```
});
  }
  // Variables declaration - do not modify
  private javax.swing.JButton jButton1;
  private javax.swing.JButton jButton2;
  private javax.swing.JLabel jLabel1;
  private javax.swing.JLabel jLabel2;
  private javax.swing.JLabel jLabel3;
  private javax.swing.JLabel jLabel4;
  private javax.swing.JPanel jPanel1;
  private javax.swing.JPasswordField pass;
  private javax.swing.JTextField user;
  // End of variables declaration
  private static class password {
    private static String getText() {
      throw new UnsupportedOperationException("Not supported yet.");
    }
    public password() {
    }
  }
}password() {
    }
  }
```

## **OUTPUT**



## Source Code of HOME PAGE:

/\*\*

- \* @author Hamza.\_.Dezire
- \*SP-21-110
- \* NUML-S21-23529
- \* BS-SOFTWARE ENGINEERING

\*/

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

```
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;

public class MainFrane extends javax.swing.JFrame {
    public MainFrane() {
        initComponents();
        tableupdate();}
```

## Data Base Code

```
rs = pst.executeQuery();
    ResultSetMetaData rsd = rs.getMetaData();
    c = rsd.getColumnCount();
    DefaultTableModel dft = (DefaultTableModel) jTable1.getModel();
    dft.setRowCount(0);
    while (rs.next()) {
      Vector v2 = new Vector();
      for (int i = 1; i <= c; i++) {
        v2.add(rs.getString("ID"));
        v2.add(rs.getString("StudentName"));
        v2.add(rs.getString("Phone"));
        v2.add(rs.getString("Semester"));
      }
      dft.addRow(v2);
    }
  } catch (ClassNotFoundException ex) {
    Logger.getLogger(MainFrane.class.getName()).log(Level.SEVERE, null, ex);
  } catch (SQLException ex) {
    Logger.getLogger(MainFrane.class.getName()).log(Level.SEVERE, null, ex);
  }
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
```

}

```
private void initComponents() {
            jPanel1 = new javax.swing.JPanel();
            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();
            txtid = new javax.swing.JTextField();
            txtname = new javax.swing.JTextField();
            txtphone = new javax.swing.JTextField();
            txtsemester = new javax.swing.JTextField();
            jScrollPane1 = new javax.swing.JScrollPane();
            jTable1 = new javax.swing.JTable();
            jButton1 = new javax.swing.JButton();
            ¡Button2 = new javax.swing.JButton();
            setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
            setTitle("STUDENT DBMS-HOME");
            setResizable(false);
            jPanel1.setBackground(new java.awt.Color(204, 204, 255));
jPanel1.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border.BevelBorder.LOWE
RED));
            jLabel1.setFont(new java.awt.Font("Adlinnaka Bold", 1, 24)); // NOI18N
                                                                                        javax. swing. Imagel con(get Class (). get Resource ("/Images/icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-students-icons8-student
            jLabel1.setIcon(new
40.png"))); // NOI18N
```

```
jLabel1.setText("Student DataBase Management System");
    jLabel2.setFont(new java.awt.Font("Adlinnaka Bold", 0, 14)); // NOI18N
                                                                           Semester\\OOP\\ProJect
    jLabel2.setIcon(new javax.swing.ImageIcon("F:\\NUML BS-SE\\2nd
Src\\Java v1\\src\\main\\icons8-eye-24.png")); // NOI18N
    jLabel2.setText("ID");
    jLabel3.setFont(new java.awt.Font("Adlinnaka Bold", 0, 14)); // NOI18N
    jLabel3.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/vg.png"))); // NOI18N
    ¡Label3.setText("Student Name");
    jLabel4.setFont(new java.awt.Font("Adlinnaka Bold", 0, 14)); // NOI18N
    jLabel4.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/sm.png"))); // NOI18N
    jLabel4.setText("Phone No");
    jLabel5.setFont(new java.awt.Font("Adlinnaka Bold", 0, 14)); // NOI18N
    jLabel5.setIcon(new
                           javax.swing.lmagelcon(getClass().getResource("/Images/mnk.png")));
                                                                                                   //
NOI18N
    jLabel5.setText("Semester");
    txtid.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        txtidActionPerformed(evt);
      }
    });
    jTable1.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 [] {
         "ID", "Student Name", "Phone No", "Semester"
      }
    ) {
      Class[] types = new Class [] {
        java.lang. Integer. class, java.lang. String. class, java.lang. Integer. class, java.lang. Integer. class
      };
      public Class getColumnClass(int columnIndex) {
         return types [columnIndex];
      }
    });
    jScrollPane1.setViewportView(jTable1);
    jButton1.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jButton1.setIcon(new
                              javax.swing.ImageIcon(getClass().getResource("/Images/edit.png")));
                                                                                                         //
NOI18N
    jButton1.setText("Update");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
         jButton1ActionPerformed(evt);
      }
    });
```

```
jButton2.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
                                 javax.swing.Imagelcon(getClass().getResource("/Images/icons8-plus-
    jButton2.setIcon(new
24.png"))); // NOI18N
    jButton2.setText("ADD");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
      }
    });
    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
    jPanel1.setLayout(jPanel1Layout);
    jPanel1Layout.setHorizontalGroup(
      jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(jPanel1Layout.createSequentialGroup()
        .addContainerGap()
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
          .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
¡Panel1Layout.createSequentialGroup()
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jLabel5)
              .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(21, 21, 21)
                .addComponent(jButton2,
                                               javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                              128,
javax.swing.GroupLayout.PREFERRED_SIZE)))
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addGroup(jPanel1Layout.createSequentialGroup()
```

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(jButton1, javax.swing.GroupLayout.PREFERRED\_SIZE, 136, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(32, 32, 32))

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(14, 14, 14)

.addComponent(txtsemester, javax.swing.GroupLayout.PREFERRED\_SIZE, 186, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(0, 0, Short.MAX VALUE))))

 $. add Group (javax. swing. Group Layout. A lignment. TRAILING, \\jPanel 1 Layout. create Sequential Group ()$ 

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jLabel3)

.addComponent(jLabel2)

.addComponent(jLabel4))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(txtphone, javax.swing.GroupLayout.PREFERRED\_SIZE, 186, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)

.addComponent(txtid, javax.swing.GroupLayout.DEFAULT\_SIZE, 186, Short.MAX\_VALUE)

.addComponent(txtname)))))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 24, Short.MAX\_VALUE)

.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED\_SIZE, 442, javax.swing.GroupLayout.PREFERRED\_SIZE)

```
.addContainerGap())
      .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addComponent(jLabel1)
        .addGap(126, 126, 126))
    );
    jPanel1Layout.setVerticalGroup(
      jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(jPanel1Layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jLabel1,
                                                                                             29,
                                          javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(33, 33, 33)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addGroup(jPanel1Layout.createSequentialGroup()
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(jLabel2)
              .addComponent(txtid,
                                                        javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(29, 29, 29)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(jLabel3)
              .addComponent(txtname,
                                                        javax.swing.GroupLayout.PREFERRED SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(32, 32, 32)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(jLabel4)
```

```
.addComponent(txtphone,
                                                        javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, javax.swing.GroupLayout.PREFERRED SIZE))
            .addGap(41, 41, 41)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(jLabel5)
              .addComponent(txtsemester,
                                                        javax.swing.GroupLayout.PREFERRED SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, javax.swing.GroupLayout.PREFERRED SIZE))
            .addGap(38, 38, 38)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(jButton2,
                                              javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                             37,
javax.swing.GroupLayout.PREFERRED_SIZE)
              .addComponent(jButton1,
                                              javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                              37,
javax.swing.GroupLayout.PREFERRED_SIZE)))
          .addComponent(jScrollPane1,
                                             javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                            291,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addContainerGap(15, Short.MAX VALUE))
    );
    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jPanel1,
                                                          javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
        .addContainerGap())
    );
    layout.setVerticalGroup(
```

```
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jPanel1,
                                                          javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    pack();
    setLocationRelativeTo(null);
  }// </editor-fold>
  private void txtidActionPerformed(java.awt.event.ActionEvent evt) {
   // TODO add your handling code here:
  }
  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    Edit e = new Edit();
    e.setVisible(true);
    setVisible(false);
  }
  private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    String id, name, phone, semester;
    name = txtname.getText();
```

```
phone = txtphone.getText();
    semester = txtsemester.getText();
    id = txtid.getText();
    try {
      Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
      con = DriverManager.getConnection("jdbc:ucanaccess://F:/Student.accdb");
      pst
                                          con.prepareStatement("insert
                                                                                       into
Studentt(StudentName,Phone,Semester)values(?,?,?)");
      pst.setString(1, name);
      pst.setString(2, phone);
      pst.setString(3, semester);
      pst.executeUpdate();
      JOptionPane.showMessageDialog(this, "Record Added");
      txtid.setText("");
      txtname.setText("");
      txtphone.setText("");
      txtsemester.setText("");
      txtid.requestFocus();
      tableupdate();
    } catch (ClassNotFoundException ex) {
      Logger.getLogger(MainFrane.class.getName()).log(Level.SEVERE, null, ex);
      JOptionPane.showMessageDialog(this, ex);
    } catch (SQLException ex) {
      Logger.getLogger(MainFrane.class.getName()).log(Level.SEVERE, null, ex);
```

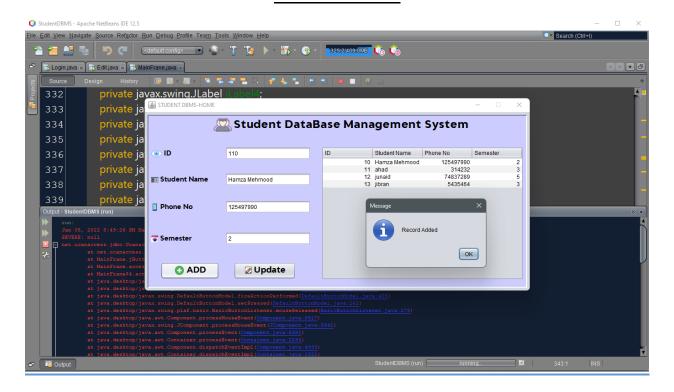
```
JOptionPane.showMessageDialog(this, ex);
    }
  }
  public static void main(String args[]) {
    //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
    /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
     * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
     */
    try {
                          (javax.swing.UIManager.LookAndFeelInfo
      for
                                                                                   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(MainFrane.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (InstantiationException ex) {
      java.util.logging.Logger.getLogger(MainFrane.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (IllegalAccessException ex) {
      java.util.logging.Logger.getLogger(MainFrane.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
```

```
} catch (javax.swing.UnsupportedLookAndFeelException ex) {
                     java.util.logging.Logger.getLogger(MainFrane.class.getName()).log(java.util.logging.Level.SEVERE, properties of the pr
null, ex);
              }
              //</editor-fold>
             java.awt.EventQueue.invokeLater(new Runnable() {
                     public void run() {
                             new MainFrane().setVisible(true);
                    }
              });
       }
       // Variables declaration - do not modify
       private javax.swing.JButton jButton1;
       private javax.swing.JButton jButton2;
       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.JPanel jPanel1;
       private javax.swing.JScrollPane jScrollPane1;
       private javax.swing.JTable jTable1;
       private javax.swing.JTextField txtid;
       private javax.swing.JTextField txtname;
       private javax.swing.JTextField txtphone;
       private javax.swing.JTextField txtsemester;
```

// End of variables declaration

}

OUTPUT



# Source Code of Updating DATA:

/\*\*

\* @author Hamza.\_.Dezire

\*SP-21-110

\* NUML-S21-23529

\* BS-SOFTWARE ENGINEERING

\*/

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

```
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.text.MessageFormat;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.JTable;
import javax.swing.JTable.DefaultTableModel;
public class Edit extends javax.swing.JFrame {
```

## Data Base Code

```
public Edit() {
   initComponents();
   tableupdate();
}
Connection con;
PreparedStatement pst;
ResultSet rs;
public void tableupdate() {
   int c;
```

```
try {
      Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
      Connection
                                                                                           =
DriverManager.getConnection("jdbc:ucanaccess://F:/Student.accdb");
      PreparedStatement pst = con.prepareStatement("select * from Studentt");
      rs = pst.executeQuery();
      ResultSetMetaData rsd = rs.getMetaData();
      c = rsd.getColumnCount();
      DefaultTableModel dft = (DefaultTableModel) jTable1.getModel();
      dft.setRowCount(0);
      while (rs.next()) {
        Vector v2 = new Vector();
        for (int i = 1; i <= c; i++) {
          v2.add(rs.getString("ID"));
          v2.add(rs.getString("StudentName"));
          v2.add(rs.getString("Phone"));
          v2.add(rs.getString("Semester"));
        }
        dft.addRow(v2);
      }
    } catch (ClassNotFoundException ex) {
      Logger.getLogger(MainFrane.class.getName()).log(Level.SEVERE, null, ex);
    } catch (SQLException ex) {
      Logger.getLogger(MainFrane.class.getName()).log(Level.SEVERE, null, ex);
    }
```

```
}
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {
  jPanel1 = new javax.swing.JPanel();
 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();
  txtid = new javax.swing.JTextField();
  txtname = new javax.swing.JTextField();
  txtphone = new javax.swing.JTextField();
  txtsemester = new javax.swing.JTextField();
  jScrollPane1 = new javax.swing.JScrollPane();
  jTable1 = new javax.swing.JTable();
  jButton1 = new javax.swing.JButton();
  ¡Button2 = new javax.swing.JButton();
  jButton3 = new javax.swing.JButton();
  ¡Button4 = new javax.swing.JButton();
  jLabel6 = new javax.swing.JLabel();
  jButton5 = new javax.swing.JButton();
  setDefaultCloseOperation (javax.swing.WindowConstants.EXIT\_ON\_CLOSE); \\
  setTitle("STUDENT DBMS-UPDATE");
```

```
setCursor(new java.awt.Cursor(java.awt.Cursor.DEFAULT_CURSOR));
    setResizable(false);
    jPanel1.setBackground(new java.awt.Color(204, 255, 204));
jPanel1.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border.BevelBorder.LOWE
RED));
    jLabel1.setBackground(new java.awt.Color(204, 255, 204));
    jLabel1.setFont(new java.awt.Font("Adlinnaka Bold", 1, 36)); // NOI18N
    jLabel1.setIcon(new
                              javax.swing.lmagelcon(getClass().getResource("/lmages/icons8-students-
40.png"))); // NOI18N
    jLabel1.setText("Student DataBase Management System");
    jLabel2.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jLabel2.setIcon(new javax.swing.ImageIcon("F:\\NUML BS-SE\\2nd Semester\\OOP\\ProJect
Src\\Java v1\\src\\main\\icons8-eye-24.png")); // NOI18N
    jLabel2.setText("ID");
    jLabel3.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jLabel3.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/vg.png"))); // NOI18N
    jLabel3.setText("Student Name");
    jLabel4.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jLabel4.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/sm.png"))); // NOI18N
    jLabel4.setText("Phone No");
    jLabel5.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
                           javax.swing.lmagelcon(getClass().getResource("/Images/mnk.png")));
                                                                                                  //
    jLabel5.setIcon(new
NOI18N
```

```
jLabel5.setText("Semester");
txtid.addActionListener(new java.awt.event.ActionListener() {
  public void actionPerformed(java.awt.event.ActionEvent evt) {
    txtidActionPerformed(evt);
  }
});
txtname.addActionListener(new java.awt.event.ActionListener() {
  public void actionPerformed(java.awt.event.ActionEvent evt) {
    txtnameActionPerformed(evt);
  }
});
jTable1.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 [] {
    "ID", "Student Name", "Phone No", "Semester"
  }
) {
  Class[] types = new Class [] {
    java.lang.Integer.class, java.lang.String.class, java.lang.Integer.class, java.lang.Integer.class
  };
```

```
public Class getColumnClass(int columnIndex) {
        return types [columnIndex];
      }
    });
    jTable1.addMouseListener(new java.awt.event.MouseAdapter() {
      public void mouseClicked(java.awt.event.MouseEvent evt) {
        jTable1MouseClicked(evt);
      }
    });
    jScrollPane1.setViewportView(jTable1);
    jButton1.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
                                                                              Semester\\OOP\\New
    jButton1.setIcon(new
                            javax.swing.Imagelcon("F:\\NUML
                                                                BS-SE\\2nd
folder\\StudentDBMS\\src\\Images\\delete_16x16.gif")); // NOI18N
    jButton1.setText("DELETE");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
      }
    });
    jButton2.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jButton2.setIcon(new
                          javax.swing.lmagelcon("F:\\NUML
                                                                BS-SE\\2nd
                                                                              Semester\\OOP\\New
folder\\StudentDBMS\\src\\Images\\edit.png")); // NOI18N
    ¡Button2.setText("EDIT");
    ¡Button2.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
```

```
}
    });
    jButton3.setFont(new java.awt.Font("Adlinnaka Bold", 1, 18)); // NOI18N
    ¡Button3.setIcon(new
                            javax.swing.lmagelcon(getClass().getResource("/Images/exit.png")));
                                                                                                   //
NOI18N
    jButton3.setText("EXIT");
    jButton3.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        ¡Button3ActionPerformed(evt);
      }
    });
    jButton4.setFont(new java.awt.Font("Adlinnaka Bold", 1, 18)); // NOI18N
    jButton4.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/printer.png"))); //
NOI18N
    jButton4.setText("PRINT");
    jButton4.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        ¡Button4ActionPerformed(evt);
      }
    });
    jLabel6.setFont(new java.awt.Font("Adlinnaka Bold", 0, 18)); // NOI18N
    jLabel6.setIcon(new
                           javax.swing.lmagelcon(getClass().getResource("/Images/icons8-registration-
24(1).png"))); // NOI18N
    jLabel6.setText("UPDATE DATA");
    jButton5.setFont(new java.awt.Font("Adlinnaka Bold", 1, 14)); // NOI18N
```

```
jButton5.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Images/icons8-back-arrow-
24.png"))); // NOI18N
    ¡Button5.setText("GO BACK");
    jButton5.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton5ActionPerformed(evt);
      }
    });
    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
    ¡Panel1.setLayout(¡Panel1Layout);
    ¡Panel1Layout.setHorizontalGroup(
      j Panel 1 Layout. create Parallel Group (javax. swing. Group Layout. A lignment. LEAD ING) \\
      .addGroup(jPanel1Layout.createSequentialGroup()
        .addContainerGap()
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
          .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
¡Panel1Layout.createSequentialGroup()
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jLabel3)
              .addComponent(jLabel2))
            .addGap(47, 47, 47)
            .addComponent(jLabel1))
          .addComponent(jLabel5, javax.swing.GroupLayout.Alignment.LEADING)
          .addComponent(jLabel4, javax.swing.GroupLayout.Alignment.LEADING)
          .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
jPanel1Layout.createSequentialGroup()
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

## .addGroup(jPanel1Layout.createSequentialGroup()

.addGap(168, 168, 168)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

javax.swing.GroupLayout.PREFERRED\_SIZE, .addComponent(txtid, 230, javax.swing.GroupLayout.PREFERRED SIZE)

230, .addComponent(txtname, javax.swing.GroupLayout.PREFERRED SIZE,

 $javax.swing.Group Layout.PREFERRED\_SIZE)$ 

.addComponent(txtphone, javax.swing.GroupLayout.PREFERRED SIZE, 230,

javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(txtsemester, javax.swing.GroupLayout.PREFERRED\_SIZE, 230,

javax.swing.GroupLayout.PREFERRED SIZE)))

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(106, 106, 106)

.addComponent(jLabel6))

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(47, 47, 47)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)

.addComponent(jButton5, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(jButton2, javax.swing.GroupLayout.PREFERRED SIZE, 133, javax.swing.GroupLayout.PREFERRED SIZE))

.addGap(35, 35, 35)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jButton1, javax.swing.GroupLayout.PREFERRED\_SIZE, 128, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jButton3, javax.swing.GroupLayout.PREFERRED\_SIZE, 128,

javax.swing.GroupLayout.PREFERRED SIZE))))

.addGap(33, 33, 33)

```
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jScrollPane1,
                                               javax.swing.GroupLayout.DEFAULT SIZE,
                                                                                            643,
Short.MAX VALUE)
              .addComponent(jButton4,
                                                          javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))))
        .addContainerGap())
    );
    jPanel1Layout.setVerticalGroup(
      jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(jPanel1Layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jLabel1)
        .addGap(66, 66, 66)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addGroup(jPanel1Layout.createSequentialGroup()
            .addComponent(jScrollPane1,
                                             javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                            348,
javax.swing.GroupLayout.PREFERRED SIZE)
            .addGap(18, 18, 18)
            .addComponent(jButton4,
                                            javax.swing.GroupLayout.PREFERRED_SIZE,
                                                                                             37,
javax.swing.GroupLayout.PREFERRED_SIZE))
          .addGroup(jPanel1Layout.createSequentialGroup()
            .addComponent(jLabel6,
                                            javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                             38,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(21, 21, 21)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(txtid,
                                           javax.swing.GroupLayout.PREFERRED SIZE,
                                                                                             31,
javax.swing.GroupLayout.PREFERRED_SIZE)
              .addComponent(jLabel2))
            .addGap(18, 18, 18)
```

. add Group (jPanel 1 Layout. create Parallel Group (javax. swing. Group Layout. A lignment. BASELINE)		
.addComponent(txtname, javax.swing.GroupLayout.PREFERRED_SIZE)	javax.swing.GroupLayout.PREFERRED_SIZE,	30,
.addComponent(jLabel3))		
.addGap(18, 18, 18)		
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)		
.addComponent(txtphone, javax.swing.GroupLayout.PREFERRED_SIZE)	javax.swing.GroupLayout.PREFERRED_SIZE,	30,
.addComponent(jLabel4))		
.addGap(29, 29, 29)		
. add Group (jPanel 1 Layout.create Parallel Group (javax.swing. Group Layout. A lignment. BASELINE)		
.addComponent(txtsemester, javax.swing.GroupLayout.PREFERRED_SIZE)	javax.swing.GroupLayout.PREFERRED_SIZE,	30,
.addComponent(jLabel5))		
.addGap(36, 36, 36)		
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)		
		27
.addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE)	javax.swing.GroupLayout.PREFERRED_SIZE,	37,
.addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE))	javax.swing.GroupLayout.PREFERRED_SIZE,	37,
.addGap(18, 18, 18)		
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)		
.addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE)	javax.swing.GroupLayout.PREFERRED_SIZE,	37,
.addComponent(jButton5, javax.swing.GroupLayout.PREFERRED_SIZE))))	javax.swing.GroupLayout.PREFERRED_SIZE,	37,
.addContainerGap(24, Short.MAX_VALUE))		

```
);
    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jPanel1,
                                                         javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(20, Short.MAX_VALUE))
    );
    layout.setVerticalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jPanel1,
                                                         javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, javax.swing.GroupLayout.PREFERRED SIZE)
        .addContainerGap(23, Short.MAX_VALUE))
    );
    pack();
    setLocationRelativeTo(null);
  }
  private void txtidActionPerformed(java.awt.event.ActionEvent evt) {
  }
  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
```

# Data Base Code of Updation

```
DefaultTableModel model = (DefaultTableModel) jTable1.getModel();
   int selectedIndex = jTable1.getSelectedRow();
    int id = Integer.parseInt(model.getValueAt(selectedIndex, 0).toString());
    int dialogresult = JOptionPane.showConfirmDialog(null, "Do You Want to Delete The
Record?", "Warning", JOptionPane.YES_NO_OPTION);
    if (dialogresult == JOptionPane.YES NO OPTION) {
      try {
        Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
        con = DriverManager.getConnection("jdbc:ucanaccess://F:/Student.accdb");
        pst = con.prepareStatement("delete from Studentt where ID =?");
        pst.setInt(1, id);
        pst.executeUpdate();
        JOptionPane.showMessageDialog(this, "Record Deleted");
        tableupdate();
        txtid.setText("");
        txtname.setText("");
        txtphone.setText("");
        txtsemester.setText("");
        txtid.requestFocus();
```

```
} catch (SQLException ex) {
      Logger.getLogger(Edit.class.getName()).log(Level.SEVERE, null, ex);
    } catch (ClassNotFoundException ex) {
      Logger.getLogger(Edit.class.getName()).log(Level.SEVERE, null, ex);
    }
  }
}
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
  // TODO add your handling code here:
  DefaultTableModel model = (DefaultTableModel) jTable1.getModel();
  int selectedIndex = jTable1.getSelectedRow();
  int id = Integer.parseInt(model.getValueAt(selectedIndex, 0).toString());
  String idd, name, phone, semester;
  name = txtname.getText();
  phone = txtphone.getText();
  semester = txtsemester.getText();
  try {
    Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
    con = DriverManager.getConnection("jdbc:ucanaccess://F:/Student.accdb");
```

```
pst
                             con.prepareStatement("update
                                                                      Studentt
                                                                                        set
StudentName=?,Phone=?,Semester=? where ID =?");
      pst.setString(1, name);
      pst.setString(2, phone);
      pst.setString(3, semester);
      pst.setInt(4, id);
      pst.executeUpdate();
      JOptionPane.showMessageDialog(this, "Record Updated");
      tableupdate();
      txtid.setText("");
      txtname.setText("");
      txtphone.setText("");
      txtsemester.setText("");
      txtid.requestFocus();
    } catch (ClassNotFoundException ex) {
      Logger.getLogger(MainFrane.class.getName()).log(Level.SEVERE, null, ex);
      JOptionPane.showMessageDialog(this, ex);
    } catch (SQLException ex) {
      Logger.getLogger(MainFrane.class.getName()).log(Level.SEVERE, null, ex);
      JOptionPane.showMessageDialog(this, ex);
    }
```

}

```
private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {
    // TODO add your handling code here:
    DefaultTableModel model = (DefaultTableModel) jTable1.getModel();
    int selectedIndex = jTable1.getSelectedRow();
    txtid.setText(model.getValueAt(selectedIndex, 0).toString());
    txtname.setText(model.getValueAt(selectedIndex, 1).toString());
    txtphone.setText(model.getValueAt(selectedIndex, 2).toString());
    txtsemester.setText(model.getValueAt(selectedIndex, 3).toString());
  }
  private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    int dialogeresult = JOptionPane.showConfirmDialog(null, "Are You Sure?", "Warning",
JOptionPane.YES_NO_OPTION);
    if (dialogeresult == JOptionPane.YES NO OPTION) {
      System.exit(0);
    }
  }
  private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
   // TODO add your handling code here:
```

## Print FORM Source Code

```
MessageFormat header = new MessageFormat("HELLO");
  MessageFormat footer = new MessageFormat("page (0,number,integer)");
  try {
    jTable1.print(JTable.PrintMode.NORMAL, header, footer);
  } catch (Exception e) {
    JOptionPane.showMessageDialog(null, e);
  }
private void txtnameActionPerformed(java.awt.event.ActionEvent evt) {
 // TODO add your handling code here:
private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {
 // TODO add your handling code here:
  MainFrane e = new MainFrane();
  e.setVisible(true);
  this.setVisible(false);
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 {
                          (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(MainFrane.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (InstantiationException ex) {
      java.util.logging.Logger.getLogger(MainFrane.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (IllegalAccessException ex) {
      java.util.logging.Logger.getLogger(MainFrane.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
      java.util.logging.Logger.getLogger(MainFrane.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    }
    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
```

```
public void run() {
       new MainFrane().setVisible(true);
    }
  });
}
// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JButton jButton4;
private javax.swing.JButton jButton5;
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.JPanel jPanel1;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JTable jTable1;
private javax.swing.JTextField txtid;
private javax.swing.JTextField txtname;
private javax.swing.JTextField txtphone;
private javax.swing.JTextField txtsemester;
// End of variables declaration
```

}

# **OUTPUT**

