JAVA CA2 PROJECT

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CLASS: SYCS A

TOPIC : Bank Management System

Mahatma Education Society's
Pillai College of Arts, Commerce & Science

(Autonomous)
Affiliated to University of Mumbai
NAAC Accredited 'A' grade (3 cycles) Best College Award
by University of Mumbai
ISO 9001:2015 Certified
CERTIFICATE

This is to certify that Miss. _____**Alice Narendra Durge**_____ of **S.Y**

B.Sc. C.S. Semester III has completed the project work in the Subject of

Core Java during the academic year 2022-23 under the guidance of

Prof**. __Simran Shinde___**being the partial requirement for the

fulfillment of the curriculum of **Degree of Bachelor of Science in**

Computer Science, **University of Mumbai**.

Place:
Date:

Name & Signature of faculty

INTRODUCTION :

Bank is a place where customers feel a sense of safety for their property. In the bank, customers deposit and withdraw their money. Transaction of money also is a part where customers take shelter in the bank. Now to keep the belief and trust of customers, there is the positive need for management of the bank, which can handle all this with comfort and ease. Smooth and efficient management affects the satisfaction of the customers and staff members, indirectly. And of course, it encourages the management committee in taking some needed decisions for future enhancement of the bank. Nowadays, managing a bank is a tedious job upto certain limit. So software that reduces the work is essential. Also today's world is a genuine computer world and is getting faster and faster day-by-day. Thus, considering the above necessities, the software for bank management has become necessary which would be useful in managing the bank more efficiently.

<u>PROJECT DESCRIPTION :</u>

The bank management system is a project in Java for maintaining a person's account in a bank.The Employee of the bank can easily use this in order to perform the accounting functions in the most efficient manner. The system allows customers to create accounts, deposit/withdraw money from their accounts, and examine reports for all of their accounts.

<u>PROJECT FUNCTIONING:</u>

The initial page is the login page . If the user is new , then they are registered first . After login , the operations such as depositing money , withdrawal ,transfer of money can be done. Also the edition of profile or change of pin can be performed when needed .

Account.java class:

```java
import java.util.Random;
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import javax.swing.JOptionPane;
import javax.swing.JTextField;

public class Account extends javax.swing.JFrame {
Connection conn;
ResultSet rs;
PreparedStatement pst;

    public Account() {
        super("Create Account");
        initComponents();
        conn = dbconnect.connectDb();
        randomAcc();
        randomMICR();
        randomPin();

    }

    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        buttonGroup1 = new javax.swing.ButtonGroup();
        AccountPage = new javax.swing.JPanel();
        AccnumtxtAP = new javax.swing.JLabel();
        Female = new javax.swing.JRadioButton();
        AddresstxtAP = new javax.swing.JLabel();
        Male = new javax.swing.JRadioButton();
        Other = new javax.swing.JRadioButton();
        Create = new javax.swing.JButton();
        LogoAP = new javax.swing.JLabel();
        DateofbirthAP = new com.toedter.calendar.JDateChooser();
        AnswerAP = new javax.swing.JTextField();
        FullnameAP = new javax.swing.JTextField();
        ClearAP = new javax.swing.JButton();
        MnumAP = new javax.swing.JTextField();
        DateofbirthtxtAP = new javax.swing.JLabel();
        AcctypetxtAP = new javax.swing.JLabel();
        SecurityqtxtAP = new javax.swing.JLabel();
        EthnicitytxtAP = new javax.swing.JLabel();
        MobileAP = new javax.swing.JTextField();
        MobiletxtAP = new javax.swing.JLabel();
        AnswertxtAP = new javax.swing.JLabel();
```

```java
GendertxtAP = new javax.swing.JLabel();
AddressAP = new javax.swing.JTextField();
MnumtxtAP = new javax.swing.JLabel();
PintxtAP = new javax.swing.JLabel();
FullnametxtAP = new javax.swing.JLabel();
EthnicityAP = new javax.swing.JComboBox<>();
Back = new javax.swing.JButton();
AcctypeAP = new javax.swing.JComboBox<>();
AccnumAP = new javax.swing.JTextField();
PinAP = new javax.swing.JTextField();
NewacctxtAP = new javax.swing.JLabel();
AmounttxtAP = new javax.swing.JLabel();
AmountxtAP = new javax.swing.JTextField();
SecurityqAP = new javax.swing.JComboBox<>();

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

AccountPage.setBackground(new java.awt.Color(255, 255, 255));
AccountPage.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(21, 33, 57), 3));

AccnumtxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
AccnumtxtAP.setText("Account Number:");

buttonGroup1.add(Female);
Female.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
Female.setText("Female");

AddresstxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
AddresstxtAP.setText("Address:");

buttonGroup1.add(Male);
Male.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
Male.setText("Male ");
Male.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      MaleActionPerformed(evt);
   }
});

buttonGroup1.add(Other);
Other.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
Other.setText("Other");

Create.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
Create.setText("Create");
Create.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      CreateActionPerformed(evt);
```

```
        }
    });

    LogoAP.setIcon(new javax.swing.ImageIcon(getClass().getResource("/BankingImages/banking logo
(2).png"))); // NOI18N
    LogoAP.setText("jLabel1");

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

    ClearAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    ClearAP.setText("Clear");
    ClearAP.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        ClearAPActionPerformed(evt);
      }
    });

    MnumAP.setEditable(false);

    DateofbirthtxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    DateofbirthtxtAP.setText("Date of birth:");

    AcctypetxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    AcctypetxtAP.setText("Account type:");

    SecurityqtxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    SecurityqtxtAP.setText("Security Question:");

    EthnicitytxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    EthnicitytxtAP.setText("Ethnicity:");

    MobiletxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    MobiletxtAP.setText("Mobile:");

    AnswertxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    AnswertxtAP.setText("Answer:");

    GendertxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    GendertxtAP.setText("Gender:");

    MnumtxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    MnumtxtAP.setText("MICR Number:");

    PintxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    PintxtAP.setText("PIN:");
```

```java
        FullnametxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        FullnametxtAP.setText("Name:");

        EthnicityAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        EthnicityAP.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Select", "New Zealand
European", "Māori", "Asian", "Pacific", "Indian/Asian", "Other" }));

        Back.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        Back.setText("Back");
        Back.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                BackActionPerformed(evt);
            }
        });

        AcctypeAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        AcctypeAP.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Checking", "Savings", " ",
" " }));

        AccnumAP.setEditable(false);
        AccnumAP.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                AccnumAPActionPerformed(evt);
            }
        });

        PinAP.setEditable(false);
        PinAP.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                PinAPActionPerformed(evt);
            }
        });

        NewacctxtAP.setFont(new java.awt.Font("Tahoma", 1, 18)); // NOI18N
        NewacctxtAP.setForeground(new java.awt.Color(25, 36, 70));
        NewacctxtAP.setText("New Account Registration");

        AmounttxtAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        AmounttxtAP.setText("Amount:");

        SecurityqAP.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        SecurityqAP.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "What is the name of your
first pet?", "What is the name of your mother?", "What is the name of your favouite teacher?", "What is your
nickname?" }));

        javax.swing.GroupLayout AccountPageLayout = new javax.swing.GroupLayout(AccountPage);
        AccountPage.setLayout(AccountPageLayout);
        AccountPageLayout.setHorizontalGroup(
```

```
        AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(AccountPageLayout.createSequentialGroup()
          .addGap(67, 67, 67)
          .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
              .addComponent(MnumtxtAP)
              .addComponent(AccnumtxtAP)
              .addComponent(PintxtAP)
              .addComponent(AcctypetxtAP)
              .addComponent(GendertxtAP)
              .addComponent(AddresstxtAP))
            .addComponent(AmounttxtAP))
          .addGap(18, 18, 18)
          .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
AccountPageLayout.createSequentialGroup()
              .addGap(383, 383, 383)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(DateofbirthtxtAP)
                .addComponent(FullnametxtAP, javax.swing.GroupLayout.PREFERRED_SIZE, 98,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(EthnicitytxtAP)
                .addComponent(MobiletxtAP)
                .addComponent(SecurityqtxtAP)
                .addComponent(AnswertxtAP))
              .addGap(18, 18, 18)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
AccountPageLayout.createSequentialGroup()
                  .addComponent(Create, javax.swing.GroupLayout.PREFERRED_SIZE, 93,
javax.swing.GroupLayout.PREFERRED_SIZE)
                  .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 72,
Short.MAX_VALUE)
                  .addComponent(ClearAP, javax.swing.GroupLayout.PREFERRED_SIZE, 93,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addComponent(AnswerAP)
                .addComponent(FullnameAP)
                .addComponent(DateofbirthAP, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(SecurityqAP, javax.swing.GroupLayout.PREFERRED_SIZE, 251,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(MobileAP)
                .addComponent(EthnicityAP, 0, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
              .addGap(85, 85, 85))
            .addGroup(AccountPageLayout.createSequentialGroup()
```

```
                .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addGroup(AccountPageLayout.createSequentialGroup()
                          .addComponent(Male)
                          .addGap(18, 18, 18)
                          .addComponent(Female)
                          .addGap(18, 18, 18)
                          .addComponent(Other))
                        .addComponent(AddressAP, javax.swing.GroupLayout.PREFERRED_SIZE, 231,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                          .addComponent(Back, javax.swing.GroupLayout.PREFERRED_SIZE, 79,
javax.swing.GroupLayout.PREFERRED_SIZE)
                          .addComponent(AmountxtAP, javax.swing.GroupLayout.PREFERRED_SIZE, 231,
javax.swing.GroupLayout.PREFERRED_SIZE))
                        .addComponent(AcctypeAP, javax.swing.GroupLayout.PREFERRED_SIZE, 231,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(PinAP, javax.swing.GroupLayout.PREFERRED_SIZE, 231,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(MnumAP, javax.swing.GroupLayout.PREFERRED_SIZE, 231,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(AccnumAP, javax.swing.GroupLayout.PREFERRED_SIZE, 231,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))))
            .addGroup(AccountPageLayout.createSequentialGroup()
              .addGap(372, 372, 372)
              .addComponent(NewacctxtAP)
              .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addGroup(AccountPageLayout.createSequentialGroup()
              .addComponent(LogoAP, javax.swing.GroupLayout.PREFERRED_SIZE, 412,
javax.swing.GroupLayout.PREFERRED_SIZE)
              .addGap(0, 0, Short.MAX_VALUE))
        );

        AccountPageLayout.linkSize(javax.swing.SwingConstants.HORIZONTAL, new java.awt.Component[]
{DateofbirthtxtAP, EthnicitytxtAP, MobiletxtAP, SecurityqtxtAP});

        AccountPageLayout.linkSize(javax.swing.SwingConstants.HORIZONTAL, new java.awt.Component[]
{AccnumtxtAP, AcctypetxtAP, AddresstxtAP, GendertxtAP, MnumtxtAP, PintxtAP});

        AccountPageLayout.setVerticalGroup(
            AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(AccountPageLayout.createSequentialGroup()
              .addGap(6, 6, 6)
              .addComponent(LogoAP, javax.swing.GroupLayout.PREFERRED_SIZE, 110,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(NewacctxtAP)
```

```
            .addGap(40, 40, 40)
            .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING,
false)
                .addGroup(AccountPageLayout.createSequentialGroup()

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(AccnumtxtAP)
                    .addComponent(AccnumAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(18, 18, 18)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(MnumtxtAP)
                    .addComponent(MnumAP, javax.swing.GroupLayout.PREFERRED_SIZE, 20,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(18, 18, 18)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(PintxtAP)
                    .addComponent(PinAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(18, 18, 18)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(AcctypetxtAP)
                    .addComponent(AcctypeAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(24, 24, 24)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(GendertxtAP)
                    .addComponent(Male)
                    .addComponent(Female)
                    .addComponent(Other)))
                .addGroup(AccountPageLayout.createSequentialGroup()

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(FullnametxtAP)
                    .addComponent(FullnameAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(18, 18, 18)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(DateofbirthtxtAP)
                    .addComponent(DateofbirthAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(18, 18, 18)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```
                    .addComponent(EthnicitytxtAP)
                    .addComponent(EthnicityAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, Short.MAX_VALUE)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(MobiletxtAP)
                    .addComponent(MobileAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(16, 16, 16)

.addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(SecurityqtxtAP)
                    .addComponent(SecurityqAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))))
            .addGap(18, 18, 18)
            .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(AddresstxtAP)
              .addComponent(AddressAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
              .addComponent(AnswertxtAP)
              .addComponent(AnswerAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(18, 18, 18)
            .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(AmounttxtAP)
              .addComponent(AmountxtAP, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(18, 18, 18)
            .addGroup(AccountPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(Back)
              .addComponent(Create)
              .addComponent(ClearAP))
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        );

        AccountPageLayout.linkSize(javax.swing.SwingConstants.VERTICAL, new java.awt.Component[]
{AccnumAP, AccnumtxtAP, AcctypeAP, AcctypetxtAP, AddressAP, AddresstxtAP, DateofbirthtxtAP,
EthnicitytxtAP, Female, FullnametxtAP, GendertxtAP, Male, MnumAP, MnumtxtAP, MobiletxtAP, Other, PinAP,
PintxtAP, SecurityqtxtAP});

        AccountPageLayout.linkSize(javax.swing.SwingConstants.VERTICAL, new java.awt.Component[]
{AnswerAP, DateofbirthAP, EthnicityAP, FullnameAP, MobileAP});

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
          layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```java
        .addComponent(AccountPage, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(AccountPage, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );

    setSize(new java.awt.Dimension(1070, 621));
    setLocationRelativeTo(null);
  }// </editor-fold>
  //generate a random account number between 1 and 10000
  public void randomAcc(){
    Random ra = new Random();
    AccnumAP.setText(""+ra.nextInt(10000+1));
  }
  //generate a random MICR number between 1 and 1000
  public void randomMICR(){
    Random ra = new Random();
    MnumAP.setText(""+ra.nextInt(1000+1));
  }
  //generate a random pin number between 1 and 1000
  public void randomPin(){
    Random ra = new Random();
    PinAP.setText(""+ra.nextInt(1000+1));
  }


  public void Bal(){
    String sql = "insert into Balances(Name,Acc,MICR_No,Balance)values (?,?,?,?)";
    try{
      pst = conn.prepareStatement(sql);
      pst.setString(1,FullnameAP.getText());
      pst.setString(2,AccnumAP.getText());
      pst.setString(3,MnumAP.getText());
      pst.setString(4,AmountxtAP.getText());
      pst.execute();
    }catch(Exception e){
      JOptionPane.showMessageDialog(null,e);
    }
  }


  private void PinAPActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
  }

  private void MaleActionPerformed(java.awt.event.ActionEvent evt) {
```

```java
        // TODO add your handling code here:
    }
//Create a bank account
    private void CreateActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String sql = "insert into
Account(Acc,Name,DOB,Pin,Acc_Type,Ethnicity,MICR_No,Gender,Mob,Address,Sec_Q,Sec_A,Balance)
values(?,?,?,?,?,?,?,?,?,?,?,?,?)";
        try{
            pst = conn.prepareStatement(sql);
            pst.setString(1, AccnumAP.getText());
            pst.setString(2, FullnameAP.getText());
            pst.setString(3, ((JTextField)DateofbirthAP.getDateEditor().getUiComponent()).getText());
            pst.setString(4, PinAP.getText());
            pst.setString(5, (String) AcctypeAP.getSelectedItem());
            pst.setString(6, (String) EthnicityAP.getSelectedItem());
            pst.setString(7, MnumAP.getText());

            Male.setActionCommand("Male");
            Female.setActionCommand("Female");
            Other.setActionCommand("Other");
            pst.setString(8, buttonGroup1.getSelection().getActionCommand());
            pst.setString(9, MobileAP.getText());
            pst.setString(10, AddressAP.getText());
            pst.setString(11, (String) SecurityqAP.getSelectedItem());
            pst.setString(12, AnswerAP.getText());
            pst.setString(13, AmountxtAP.getText());
            pst.execute();
            JOptionPane.showMessageDialog(null, "Success! Account has been created");
            Bal();
        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
        }

    }

    private void FullnameAPActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }
//go back to login screen
    private void BackActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        setVisible(false);
        Authentication ob = new Authentication();
        ob.setVisible(true);
    }
//clearing fields
    private void ClearAPActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
```

```java
        AccnumAP.setText("");
        MnumAP.setText("");
        PinAP.setText("");
        AddressAP.setText("");
        FullnameAP.setText("");
        AmountxtAP.setText("");
        MobileAP.setText("");

        AnswerAP.setText("");


    }

    private void AccnumAPActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    /**
     * @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(Account.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(Account.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(Account.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(Account.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
        }
        //</editor-fold>
```

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


// Variables declaration - do not modify
private javax.swing.JTextField AccnumAP;
private javax.swing.JLabel AccnumtxtAP;
private javax.swing.JPanel AccountPage;
private javax.swing.JComboBox<String> AcctypeAP;
private javax.swing.JLabel AcctypetxtAP;
private javax.swing.JTextField AddressAP;
private javax.swing.JLabel AddresstxtAP;
private javax.swing.JLabel AmounttxtAP;
private javax.swing.JTextField AmountxtAP;
private javax.swing.JTextField AnswerAP;
private javax.swing.JLabel AnswertxtAP;
private javax.swing.JButton Back;
private javax.swing.JButton ClearAP;
private javax.swing.JButton Create;
private com.toedter.calendar.JDateChooser DateofbirthAP;
private javax.swing.JLabel DateofbirthtxtAP;
private javax.swing.JComboBox<String> EthnicityAP;
private javax.swing.JLabel EthnicitytxtAP;
private javax.swing.JRadioButton Female;
private javax.swing.JTextField FullnameAP;
private javax.swing.JLabel FullnametxtAP;
private javax.swing.JLabel GendertxtAP;
private javax.swing.JLabel LogoAP;
private javax.swing.JRadioButton Male;
private javax.swing.JTextField MnumAP;
private javax.swing.JLabel MnumtxtAP;
private javax.swing.JTextField MobileAP;
private javax.swing.JLabel MobiletxtAP;
private javax.swing.JLabel NewacctxtAP;
private javax.swing.JRadioButton Other;
private javax.swing.JTextField PinAP;
private javax.swing.JLabel PintxtAP;
private javax.swing.JComboBox<String> SecurityqAP;
private javax.swing.JLabel SecurityqtxtAP;
private javax.swing.ButtonGroup buttonGroup1;
// End of variables declaration
}
```

OUTPUT:

Authentication.java class:

```java
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import javax.swing.JOptionPane;
import javax.swing.UIManager;


public class Authentication extends javax.swing.JFrame {
Connection conn;
ResultSet rs;
PreparedStatement pst;

    public Authentication() {
        super("Login");
        initComponents();
```

```java
    conn = dbconnect.connectDb();
}

@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    LoginPage = new javax.swing.JPanel();
    AccnumLP = new javax.swing.JTextField();
    PinLP = new javax.swing.JTextField();
    PintxtLP = new javax.swing.JLabel();
    AccnumtxtLP = new javax.swing.JLabel();
    Logon = new javax.swing.JButton();
    LogoLP = new javax.swing.JLabel();
    NewAccount = new javax.swing.JButton();

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

    LoginPage.setBackground(new java.awt.Color(255, 255, 255));
    LoginPage.setBorder(new javax.swing.border.LineBorder(new java.awt.Color(11, 56, 95), 3, true));
    LoginPage.setAutoscrolls(true);

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

    PintxtLP.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    PintxtLP.setText("PIN:");

    AccnumtxtLP.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    AccnumtxtLP.setText("Account Number:");

    Logon.setFont(new java.awt.Font("Tahoma", 1, 11)); // NOI18N
    Logon.setText("Log on");
    Logon.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            LogonActionPerformed(evt);
        }
    });

    LogoLP.setIcon(new javax.swing.ImageIcon(getClass().getResource("/BankingImages/banking logo
(2).png"))); // NOI18N
    LogoLP.setText("jLabel1");

    NewAccount.setFont(new java.awt.Font("Tahoma", 1, 11)); // NOI18N
    NewAccount.setText("New Account");
```

```
        NewAccount.addActionListener(new java.awt.event.ActionListener() {
          public void actionPerformed(java.awt.event.ActionEvent evt) {
            NewAccountActionPerformed(evt);
          }
        });

        javax.swing.GroupLayout LoginPageLayout = new javax.swing.GroupLayout(LoginPage);
        LoginPage.setLayout(LoginPageLayout);
        LoginPageLayout.setHorizontalGroup(
          LoginPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addGroup(LoginPageLayout.createSequentialGroup()
            .addGap(34, 34, 34)
            .addGroup(LoginPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(AccnumtxtLP)
              .addComponent(PintxtLP))
            .addGap(18, 18, 18)
            .addGroup(LoginPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
              .addGroup(LoginPageLayout.createSequentialGroup()
                .addComponent(Logon, javax.swing.GroupLayout.PREFERRED_SIZE, 88,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(NewAccount, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
              .addComponent(PinLP)
              .addComponent(AccnumLP))
            .addContainerGap(137, Short.MAX_VALUE))
          .addComponent(LogoLP, javax.swing.GroupLayout.PREFERRED_SIZE, 0, Short.MAX_VALUE)
        );
        LoginPageLayout.setVerticalGroup(
          LoginPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addGroup(LoginPageLayout.createSequentialGroup()
            .addComponent(LogoLP, javax.swing.GroupLayout.PREFERRED_SIZE, 172,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(55, 55, 55)
            .addGroup(LoginPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(AccnumtxtLP)
              .addGroup(LoginPageLayout.createSequentialGroup()
                .addGap(1, 1, 1)
                .addComponent(AccnumLP, javax.swing.GroupLayout.PREFERRED_SIZE, 20,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGap(18, 18, 18)
            .addGroup(LoginPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
              .addComponent(PintxtLP, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
              .addComponent(PinLP))
            .addGap(8, 8, 8)
            .addGroup(LoginPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
              .addComponent(NewAccount, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
```

```
            .addComponent(Logon, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addContainerGap(45, Short.MAX_VALUE))
    );

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(LoginPage, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(LoginPage, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );

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

private void AccnumLPActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}
// create new account
private void NewAccountActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    setVisible(false);
    Account ob = new Account();
    ob.setVisible(true);
}
// authenticate user details with database
private void LogonActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String sql = "select * from Account where Acc=? and Pin=?";
    try{
        pst = conn.prepareStatement(sql);
        pst.setString(1, AccnumLP.getText());
        pst.setString(2, PinLP.getText());
        rs=pst.executeQuery();
        if(rs.next()){
            setVisible(false);
            Loading ob = new Loading();
            ob.setUpLoading();
            ob.setVisible(true);
            rs.close();
            pst.close();
        }else{
            JOptionPane.showMessageDialog(null,"Incorrect login");
```

```java
        }

      }catch(Exception e){
        JOptionPane.showMessageDialog(null, e);

      }finally{
        try{
          rs.close();
          pst.close();

        }catch(Exception e){

        }
      }

    }


  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;
        }*/
        UIManager.setLookAndFeel("com.jtattoo.plaf.smart.SmartLookAndFeel");
      }
    } catch (ClassNotFoundException ex) {
      java.util.logging.Logger.getLogger(Authentication.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (InstantiationException ex) {
      java.util.logging.Logger.getLogger(Authentication.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (IllegalAccessException ex) {
      java.util.logging.Logger.getLogger(Authentication.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
      java.util.logging.Logger.getLogger(Authentication.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 Authentication().setVisible(true);
        }
    });
}


    // Variables declaration - do not modify
    private javax.swing.JTextField AccnumLP;
    private javax.swing.JLabel AccnumtxtLP;
    private javax.swing.JPanel LoginPage;
    private javax.swing.JLabel LogoLP;
    private javax.swing.JButton Logon;
    private javax.swing.JButton NewAccount;
    private javax.swing.JTextField PinLP;
    private javax.swing.JLabel PintxtLP;
    // End of variables declaration
}
```

OUTPUT:
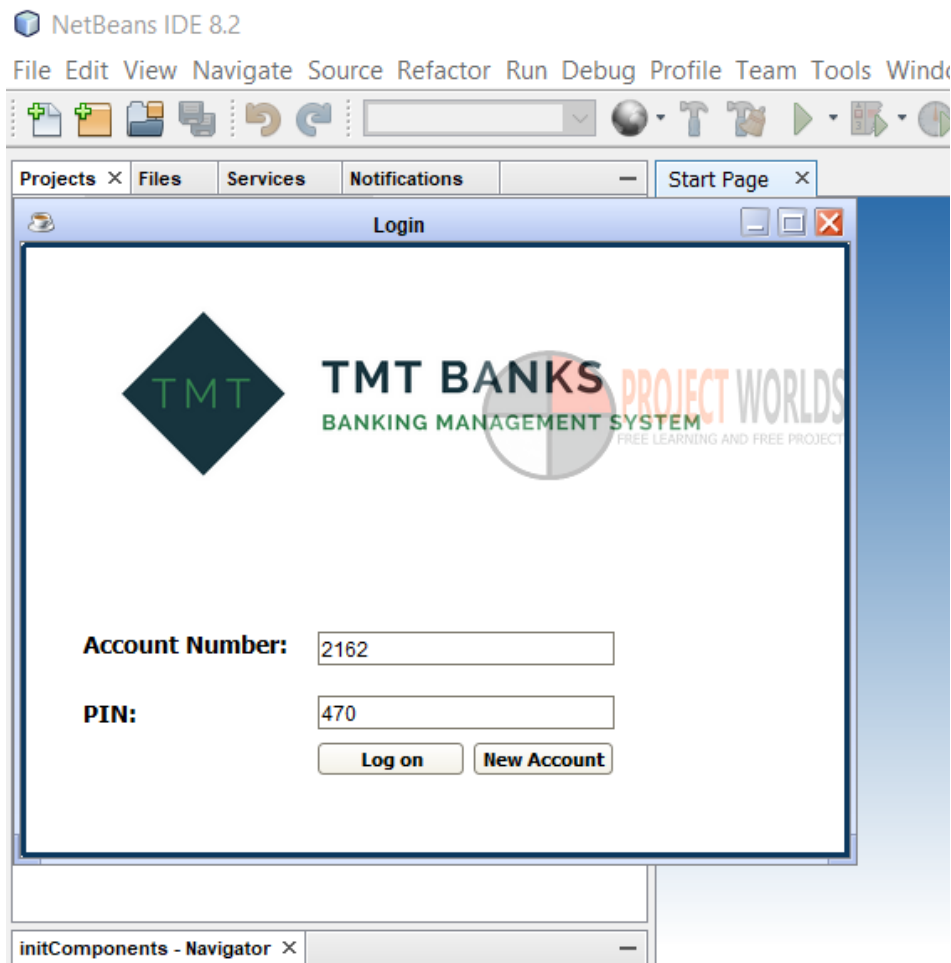
Loading.java class:

```java
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import javax.swing.*;

public class Loading extends javax.swing.JFrame implements Runnable {
Connection conn;
ResultSet rs;
PreparedStatement pst;
int s =0;
Thread th;
  /**
   * Creates new form Loading
   */
  public Loading() {
    super("Loading");
    initComponents();
    th=new Thread((Runnable)this);
  }

  public void setUpLoading(){
    setVisible(false);
    th.start();
  }

  public void run(){
    try{
      for(int i=0;i<=200;i++){
        s++;
        int m = Progressbar.getMaximum();
        int v = Progressbar.getValue();
        if(v<m){
          Progressbar.setValue(Progressbar.getValue()+1);

        }else{
          i = 201;
          setVisible(false);
          MyPage ob = new MyPage();
          ob.setVisible(true);
        }
      Thread.sleep(50);
      }
    }catch(Exception e){

    }

  }
```

```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() {

    LoadingPage = new javax.swing.JPanel();
    Loadingtxt = new javax.swing.JLabel();
    Progressbar = new javax.swing.JProgressBar();
    Loading = new javax.swing.JLabel();
    LogoLdP = new javax.swing.JLabel();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    LoadingPage.setBackground(new java.awt.Color(255, 255, 255));
    LoadingPage.setBorder(new javax.swing.border.LineBorder(new java.awt.Color(21, 21, 48), 3, true));

    Loadingtxt.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    Loadingtxt.setText("Loading....");

    Progressbar.setForeground(new java.awt.Color(36, 51, 97));
    Progressbar.setStringPainted(true);

    Loading.setIcon(new javax.swing.ImageIcon(getClass().getResource("/BankingImages/icon-swirl-big.png")));
// NOI18N

    LogoLdP.setIcon(new javax.swing.ImageIcon(getClass().getResource("/BankingImages/banking logo
(2).png"))); // NOI18N

    javax.swing.GroupLayout LoadingPageLayout = new javax.swing.GroupLayout(LoadingPage);
    LoadingPage.setLayout(LoadingPageLayout);
    LoadingPageLayout.setHorizontalGroup(
      LoadingPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(LoadingPageLayout.createSequentialGroup()
        .addGroup(LoadingPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addComponent(LogoLdP, javax.swing.GroupLayout.PREFERRED_SIZE, 0, Short.MAX_VALUE)
          .addGroup(LoadingPageLayout.createSequentialGroup()

.addGroup(LoadingPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(LoadingPageLayout.createSequentialGroup()
              .addGap(81, 81, 81)
              .addComponent(Progressbar, javax.swing.GroupLayout.PREFERRED_SIZE, 329,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(LoadingPageLayout.createSequentialGroup()
              .addGap(211, 211, 211)
```

```
                .addComponent(Loadingtxt)))
            .addGap(0, 71, Short.MAX_VALUE)))
        .addContainerGap())
      .addGroup(LoadingPageLayout.createSequentialGroup()
        .addGap(192, 192, 192)
        .addComponent(Loading, javax.swing.GroupLayout.PREFERRED_SIZE, 105,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    LoadingPageLayout.setVerticalGroup(
      LoadingPageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(LoadingPageLayout.createSequentialGroup()
        .addGap(4, 4, 4)
        .addComponent(LogoLdP, javax.swing.GroupLayout.PREFERRED_SIZE, 193,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(32, 32, 32)
        .addComponent(Progressbar, javax.swing.GroupLayout.PREFERRED_SIZE, 39,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(Loadingtxt)
        .addGap(32, 32, 32)
        .addComponent(Loading, javax.swing.GroupLayout.PREFERRED_SIZE, 79,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(186, Short.MAX_VALUE))
    );

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addComponent(LoadingPage, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addComponent(LoadingPage, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );

    setSize(new java.awt.Dimension(513, 643));
    setLocationRelativeTo(null);
  }// </editor-fold>

  /**
   * @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) ">
```

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


  // Variables declaration - do not modify
  private javax.swing.JLabel Loading;
  private javax.swing.JPanel LoadingPage;
  private javax.swing.JLabel Loadingtxt;
  private javax.swing.JLabel LogoLdP;
  private javax.swing.JProgressBar Progressbar;
  // End of variables declaration


}
```
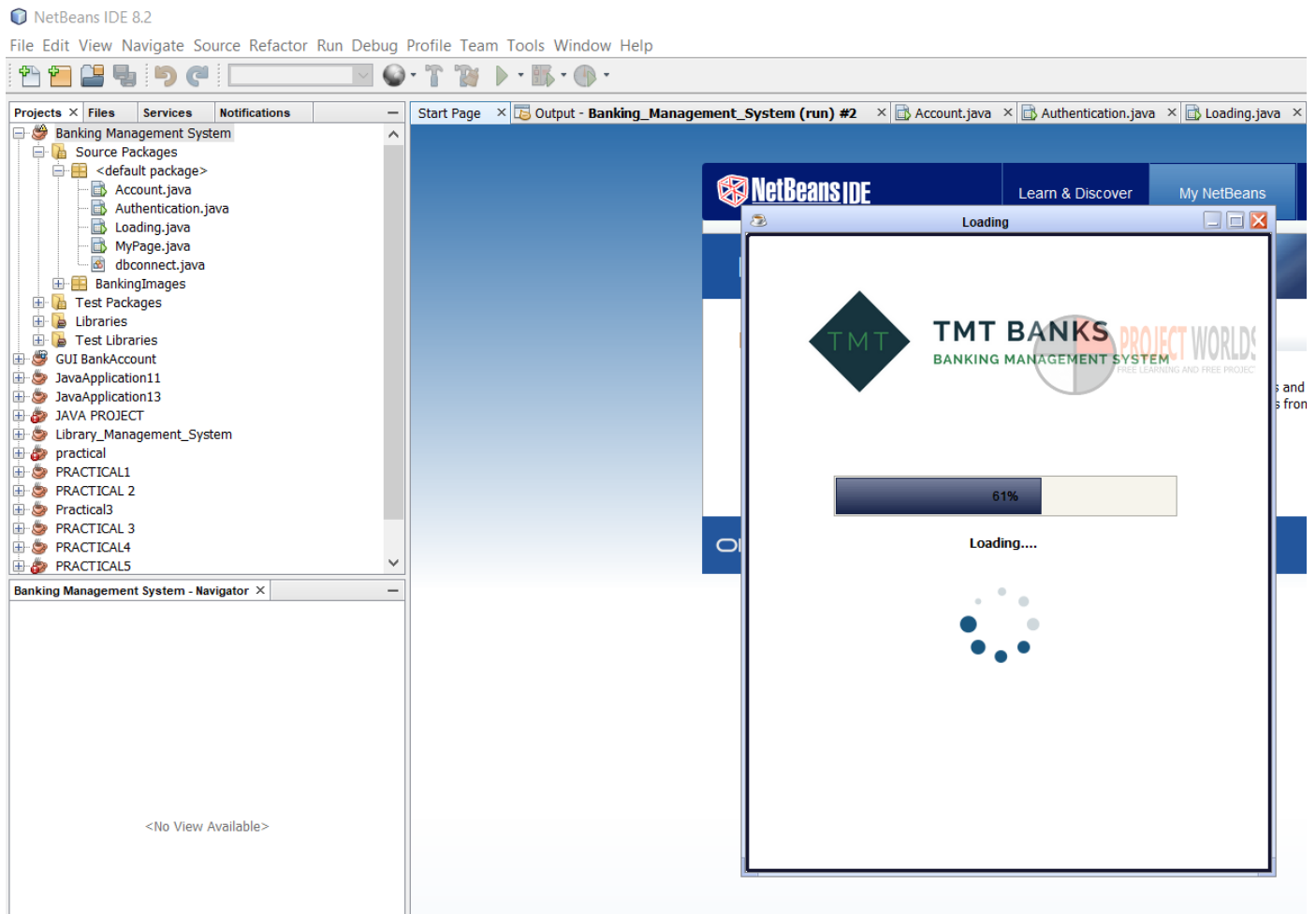
MyPage.java class:

```java
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.util.Calendar;
import java.util.GregorianCalendar;
import javax.swing.JOptionPane;
import net.proteanit.sql.DbUtils;
public class MyPage extends javax.swing.JFrame {
Connection conn;
ResultSet rs;
PreparedStatement pst;

    public MyPage() {
        super("Home");
        initComponents();
        conn = dbconnect.connectDb();
        Calendar();
        Account();
        Table1();

    }

    public void Calendar(){
        Calendar cal = new GregorianCalendar();
        int month = cal.get(Calendar.MONTH);
        int year = cal.get(Calendar.YEAR);
        int day = cal.get(Calendar.DAY_OF_MONTH);
        CurrentDate.setText(+ day + "-" + (month+1) + "-" + year);

    }

    public void Table1(){
        try{
            String sql = "select Acc,Name,DOB,Acc_Type,Gender,Mob from Account";
            pst = conn.prepareStatement(sql);
            rs = pst.executeQuery();
            Customers.setModel(DbUtils.resultSetToTableModel(rs));
        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
        }finally{
            try{
                rs.close();
                pst.close();
            }catch(Exception e){
                JOptionPane.showMessageDialog(null,e);
            }
        }
```

```java
    }

@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    HomePage = new javax.swing.JPanel();
    UnametxtTop = new javax.swing.JLabel();
    CurrentDate = new javax.swing.JTextField();
    DatetxtTop = new javax.swing.JLabel();
    LogoHP = new javax.swing.JLabel();
    UsernameTop = new javax.swing.JTextField();
    FunctionsTab = new javax.swing.JTabbedPane();
    ProfileTab = new javax.swing.JPanel();
    FullnametxtProfile = new javax.swing.JLabel();
    DateofbirthtxtProfile = new javax.swing.JLabel();
    GendertxtProfile = new javax.swing.JLabel();
    EthnicitytxtProfile = new javax.swing.JLabel();
    AddresstxtProfile = new javax.swing.JLabel();
    FullnameProfile = new javax.swing.JTextField();
    DateofBirthProfile = new javax.swing.JTextField();
    GenderProfile = new javax.swing.JTextField();
    EthnicityProfile = new javax.swing.JTextField();
    AddressProfile = new javax.swing.JTextField();
    AccnumtxtProfile = new javax.swing.JLabel();
    AcctypetxtProfile = new javax.swing.JLabel();
    MobiletxtProfile = new javax.swing.JLabel();
    SecurityqtxtProfile = new javax.swing.JLabel();
    AccnumProfile = new javax.swing.JTextField();
    AcctypeProfile = new javax.swing.JTextField();
    MobileProfile = new javax.swing.JTextField();
    SecurityqProfile = new javax.swing.JTextField();
    EditProfile = new javax.swing.JButton();
    SaveProfile = new javax.swing.JButton();
    DepositTab = new javax.swing.JPanel();
    UnametxtDeposit = new javax.swing.JLabel();
    NametxtDeposit = new javax.swing.JLabel();
    AccnumtxtDeposit = new javax.swing.JLabel();
    BaltxtDeposit = new javax.swing.JLabel();
    DeposittxtDeposit = new javax.swing.JLabel();
    UsernameDeposit = new javax.swing.JTextField();
    FullnameDeposit = new javax.swing.JTextField();
    AccnumDeposit = new javax.swing.JTextField();
    BalanceDeposit = new javax.swing.JTextField();
    DepositInput = new javax.swing.JTextField();
    NewbalDeposit = new javax.swing.JTextField();
    SearchDeposit = new javax.swing.JButton();
    CalculateDeposit = new javax.swing.JButton();
    Deposit = new javax.swing.JButton();
```

```
WithdrawTab = new javax.swing.JPanel();
UnametxtWithdraw = new javax.swing.JLabel();
FullnametxtWithdraw = new javax.swing.JLabel();
AccnumtxtWithdraw = new javax.swing.JLabel();
BaltxtWithdraw = new javax.swing.JLabel();
AmounttxtWithdraw = new javax.swing.JLabel();
NewbaltxtWithdraw = new javax.swing.JLabel();
UsernameWithdraw = new javax.swing.JTextField();
FullnameWithdraw = new javax.swing.JTextField();
AccnumWithdraw = new javax.swing.JTextField();
BalWithdraw = new javax.swing.JTextField();
AmountWithdraw = new javax.swing.JTextField();
NewbalWithdraw = new javax.swing.JTextField();
SearchWithdraw = new javax.swing.JButton();
CalculateWithdraw = new javax.swing.JButton();
Withdraw = new javax.swing.JButton();
ViewbalTab = new javax.swing.JPanel();
UsertxtVB = new javax.swing.JLabel();
NametxtVB = new javax.swing.JLabel();
AccnumtxtVB = new javax.swing.JLabel();
MnumtxtVB = new javax.swing.JLabel();
UsernameVB = new javax.swing.JTextField();
SearchVB = new javax.swing.JButton();
FullnameVB = new javax.swing.JTextField();
AccnumVB = new javax.swing.JTextField();
MnumVB = new javax.swing.JTextField();
BaltxtVB = new javax.swing.JLabel();
BalVB = new javax.swing.JTextField();
TransferTab = new javax.swing.JPanel();
UnametxtTransfer = new javax.swing.JLabel();
FullnametxtTransfer = new javax.swing.JLabel();
AccnumtxtTransfer = new javax.swing.JLabel();
BaltxtTransfer = new javax.swing.JLabel();
AmounttxtTransfer = new javax.swing.JLabel();
CreditamounttxtTransfer = new javax.swing.JLabel();
UsernameTransfer = new javax.swing.JTextField();
FullnameTransfer = new javax.swing.JTextField();
AccnumTransfer = new javax.swing.JTextField();
BalTransfer = new javax.swing.JTextField();
TransferInput = new javax.swing.JTextField();
NewbalTransfer = new javax.swing.JTextField();
AccTransfer = new javax.swing.JComboBox();
TransferNewInput = new javax.swing.JTextField();
NewbalAccTransfer = new javax.swing.JTextField();
SearchTransfer = new javax.swing.JButton();
CalculateTransfer1 = new javax.swing.JButton();
CalculateTransfer2 = new javax.swing.JButton();
Transfer = new javax.swing.JButton();
CustomerlistTab = new javax.swing.JPanel();
```

```java
jScrollPane1 = new javax.swing.JScrollPane();
Customers = new javax.swing.JTable();
ChangepinTab = new javax.swing.JPanel();
OldpintxtChangepin = new javax.swing.JLabel();
NewpintxtChangepin = new javax.swing.JLabel();
OldpinChange = new javax.swing.JTextField();
NewpinChange = new javax.swing.JTextField();
Changepin = new javax.swing.JButton();
ClearChangepin = new javax.swing.JButton();
AboutTab = new javax.swing.JPanel();
Info1 = new javax.swing.JLabel();
Authorstxt = new javax.swing.JLabel();
Versiontxt = new javax.swing.JLabel();
SearchTop = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

HomePage.setBackground(new java.awt.Color(255, 255, 255));

UnametxtTop.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
UnametxtTop.setText("Username");

CurrentDate.setEditable(false);
CurrentDate.setBackground(new java.awt.Color(255, 255, 255));

DatetxtTop.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
DatetxtTop.setText("Date");

LogoHP.setIcon(new javax.swing.ImageIcon(getClass().getResource("/BankingImages/banking logo
(2).png"))); // NOI18N

FunctionsTab.setBackground(new java.awt.Color(255, 255, 255));
FunctionsTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(23, 33, 71)));

ProfileTab.setBackground(new java.awt.Color(255, 255, 255));
ProfileTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0, 51, 255)));

FullnametxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
FullnametxtProfile.setText("Name");

DateofbirthtxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
DateofbirthtxtProfile.setText("DOB");

GendertxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
GendertxtProfile.setText("Gender");

EthnicitytxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
EthnicitytxtProfile.setText("Ethnicity");
```

```java
AddresstxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
AddresstxtProfile.setText("Address");

FullnameProfile.setEditable(false);
FullnameProfile.setBackground(new java.awt.Color(255, 255, 255));

DateofBirthProfile.setEditable(false);
DateofBirthProfile.setBackground(new java.awt.Color(255, 255, 255));

GenderProfile.setEditable(false);
GenderProfile.setBackground(new java.awt.Color(255, 255, 255));

EthnicityProfile.setEditable(false);
EthnicityProfile.setBackground(new java.awt.Color(255, 255, 255));

AddressProfile.setEditable(false);
AddressProfile.setBackground(new java.awt.Color(255, 255, 255));

AccnumtxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
AccnumtxtProfile.setText("Account No.");

AcctypetxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
AcctypetxtProfile.setText("Account Type");

MobiletxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
MobiletxtProfile.setText("Mobile");

SecurityqtxtProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
SecurityqtxtProfile.setText("Security question");

AccnumProfile.setEditable(false);
AccnumProfile.setBackground(new java.awt.Color(255, 255, 255));

AcctypeProfile.setEditable(false);
AcctypeProfile.setBackground(new java.awt.Color(255, 255, 255));

MobileProfile.setEditable(false);
MobileProfile.setBackground(new java.awt.Color(255, 255, 255));

SecurityqProfile.setEditable(false);
SecurityqProfile.setBackground(new java.awt.Color(255, 255, 255));

EditProfile.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
EditProfile.setText("Edit");
EditProfile.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      EditProfileActionPerformed(evt);
   }
});
```

```java
      SaveProfile.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
      SaveProfile.setText("Save");
      SaveProfile.addActionListener(new java.awt.event.ActionListener() {
         public void actionPerformed(java.awt.event.ActionEvent evt) {
            SaveProfileActionPerformed(evt);
         }
      });

      javax.swing.GroupLayout ProfileTabLayout = new javax.swing.GroupLayout(ProfileTab);
      ProfileTab.setLayout(ProfileTabLayout);
      ProfileTabLayout.setHorizontalGroup(
         ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
         .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, ProfileTabLayout.createSequentialGroup()
            .addGap(128, 128, 128)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
               .addComponent(FullnametxtProfile)
               .addComponent(DateofbirthtxtProfile)
               .addComponent(GendertxtProfile)
               .addComponent(EthnicitytxtProfile)
               .addComponent(AddresstxtProfile))
            .addGap(27, 27, 27)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
               .addComponent(FullnameProfile)
               .addComponent(DateofBirthProfile)
               .addComponent(GenderProfile)
               .addComponent(EthnicityProfile)
               .addComponent(AddressProfile, javax.swing.GroupLayout.DEFAULT_SIZE, 240,
Short.MAX_VALUE))
            .addGap(60, 60, 60)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
               .addComponent(AccnumtxtProfile)
               .addComponent(AcctypetxtProfile)
               .addComponent(MobiletxtProfile)
               .addComponent(SecurityqtxtProfile))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
               .addGroup(ProfileTabLayout.createSequentialGroup()
                  .addComponent(EditProfile, javax.swing.GroupLayout.PREFERRED_SIZE, 100,
javax.swing.GroupLayout.PREFERRED_SIZE)
                  .addGap(103, 103, 103)
                  .addComponent(SaveProfile, javax.swing.GroupLayout.PREFERRED_SIZE, 100,
javax.swing.GroupLayout.PREFERRED_SIZE))
               .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                  .addComponent(MobileProfile, javax.swing.GroupLayout.PREFERRED_SIZE, 278,
javax.swing.GroupLayout.PREFERRED_SIZE)
                  .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
```

```
                .addComponent(AcctypeProfile, javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, 278, Short.MAX_VALUE)
                    .addComponent(AccnumProfile, javax.swing.GroupLayout.Alignment.LEADING))
                .addComponent(SecurityqProfile, javax.swing.GroupLayout.PREFERRED_SIZE, 278,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGap(77, 77, 77))
    );
    ProfileTabLayout.setVerticalGroup(
        ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(ProfileTabLayout.createSequentialGroup()
            .addGap(43, 43, 43)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(FullnametxtProfile)
                .addComponent(FullnameProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(AccnumtxtProfile)
                .addComponent(AccnumProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(66, 66, 66)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(DateofbirthtxtProfile)
                .addComponent(DateofBirthProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(AcctypetxtProfile)
                .addComponent(AcctypeProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(66, 66, 66)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(GendertxtProfile)
                .addComponent(GenderProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(MobiletxtProfile)
                .addComponent(MobileProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(66, 66, 66)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(EthnicitytxtProfile)
                .addComponent(EthnicityProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(SecurityqtxtProfile)
                .addComponent(SecurityqProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(62, 62, 62)
            .addGroup(ProfileTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(AddresstxtProfile)
                .addComponent(AddressProfile, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(EditProfile)
                .addComponent(SaveProfile))
```

```
        .addContainerGap(55, Short.MAX_VALUE))
);

FunctionsTab.addTab("Profile", ProfileTab);

DepositTab.setBackground(new java.awt.Color(255, 255, 255));
DepositTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0, 0, 204)));

UnametxtDeposit.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
UnametxtDeposit.setText("User");

NametxtDeposit.setBackground(new java.awt.Color(255, 255, 255));
NametxtDeposit.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
NametxtDeposit.setText("Name");

AccnumtxtDeposit.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
AccnumtxtDeposit.setText("Account No.");

BaltxtDeposit.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
BaltxtDeposit.setText("Available Balance");

DeposittxtDeposit.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
DeposittxtDeposit.setText("Deposit");

FullnameDeposit.setEditable(false);
FullnameDeposit.setBackground(new java.awt.Color(255, 255, 255));

AccnumDeposit.setEditable(false);
AccnumDeposit.setBackground(new java.awt.Color(255, 255, 255));

BalanceDeposit.setEditable(false);
BalanceDeposit.setBackground(new java.awt.Color(255, 255, 255));

SearchDeposit.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
SearchDeposit.setText("Search");
SearchDeposit.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        SearchDepositActionPerformed(evt);
    }
});

CalculateDeposit.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
CalculateDeposit.setText("Calculate");
CalculateDeposit.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        CalculateDepositActionPerformed(evt);
    }
});
```

```java
        Deposit.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
        Deposit.setText("Deposit");
        Deposit.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                DepositActionPerformed(evt);
            }
        });

        javax.swing.GroupLayout DepositTabLayout = new javax.swing.GroupLayout(DepositTab);
        DepositTab.setLayout(DepositTabLayout);
        DepositTabLayout.setHorizontalGroup(
            DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(DepositTabLayout.createSequentialGroup()
                .addGap(246, 246, 246)
                .addGroup(DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(UnametxtDeposit)
                    .addComponent(NametxtDeposit)
                    .addComponent(AccnumtxtDeposit)
                    .addComponent(BaltxtDeposit)
                    .addComponent(DeposittxtDeposit))
                .addGap(19, 19, 19)
                .addGroup(DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(AccnumDeposit)
                    .addComponent(BalanceDeposit)
                    .addComponent(UsernameDeposit)
                    .addComponent(FullnameDeposit)
                    .addGroup(DepositTabLayout.createSequentialGroup()
                        .addComponent(DepositInput, javax.swing.GroupLayout.PREFERRED_SIZE, 120, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(18, 18, 18)
                        .addComponent(NewbalDeposit, javax.swing.GroupLayout.PREFERRED_SIZE, 120, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGap(40, 40, 40)
                .addGroup(DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(Deposit, javax.swing.GroupLayout.DEFAULT_SIZE, 109, Short.MAX_VALUE)
                    .addComponent(SearchDeposit, javax.swing.GroupLayout.DEFAULT_SIZE, 109, Short.MAX_VALUE)
                    .addComponent(CalculateDeposit, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                .addContainerGap(246, Short.MAX_VALUE))
        );
        DepositTabLayout.setVerticalGroup(
            DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(DepositTabLayout.createSequentialGroup()
                .addGap(38, 38, 38)
                .addGroup(DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(UnametxtDeposit)
```

```
                .addComponent(UsernameDeposit, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(SearchDeposit))
            .addGap(47, 47, 47)
            .addGroup(DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(NametxtDeposit)
                .addComponent(FullnameDeposit, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(47, 47, 47)
            .addGroup(DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(AccnumtxtDeposit)
                .addComponent(AccnumDeposit, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(47, 47, 47)
            .addGroup(DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(BaltxtDeposit)
                .addComponent(BalanceDeposit, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(47, 47, 47)
            .addGroup(DepositTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(DeposittxtDeposit)
                .addComponent(DepositInput, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(NewbalDeposit, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(CalculateDeposit))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addComponent(Deposit)
            .addContainerGap(91, Short.MAX_VALUE))
    );

    FunctionsTab.addTab("Deposit", DepositTab);

    WithdrawTab.setBackground(new java.awt.Color(255, 255, 255));
    WithdrawTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0, 0, 204)));

    UnametxtWithdraw.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    UnametxtWithdraw.setText("User");

    FullnametxtWithdraw.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    FullnametxtWithdraw.setText("Name");

    AccnumtxtWithdraw.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    AccnumtxtWithdraw.setText("Account No.");

    BaltxtWithdraw.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    BaltxtWithdraw.setText("Available balance");

    AmounttxtWithdraw.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
```

```java
AmounttxtWithdraw.setText("Amount");

NewbaltxtWithdraw.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
NewbaltxtWithdraw.setText("Total");

UsernameWithdraw.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N

FullnameWithdraw.setEditable(false);
FullnameWithdraw.setBackground(new java.awt.Color(255, 255, 255));
FullnameWithdraw.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N

AccnumWithdraw.setEditable(false);
AccnumWithdraw.setBackground(new java.awt.Color(255, 255, 255));
AccnumWithdraw.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N

BalWithdraw.setEditable(false);
BalWithdraw.setBackground(new java.awt.Color(255, 255, 255));
BalWithdraw.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N

AmountWithdraw.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N

NewbalWithdraw.setEditable(false);
NewbalWithdraw.setBackground(new java.awt.Color(255, 255, 255));
NewbalWithdraw.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N

SearchWithdraw.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
SearchWithdraw.setText("Search");
SearchWithdraw.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      SearchWithdrawActionPerformed(evt);
   }
});

CalculateWithdraw.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
CalculateWithdraw.setText("Calculate ");
CalculateWithdraw.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      CalculateWithdrawActionPerformed(evt);
   }
});

Withdraw.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
Withdraw.setText("Withdraw");
Withdraw.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      WithdrawActionPerformed(evt);
   }
});
```

```
        javax.swing.GroupLayout WithdrawTabLayout = new javax.swing.GroupLayout(WithdrawTab);
        WithdrawTab.setLayout(WithdrawTabLayout);
        WithdrawTabLayout.setHorizontalGroup(
            WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(WithdrawTabLayout.createSequentialGroup()
                .addGap(128, 128, 128)
                .addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addComponent(Withdraw, javax.swing.GroupLayout.PREFERRED_SIZE, 127,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGroup(WithdrawTabLayout.createSequentialGroup()

.addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(UnametxtWithdraw)
                        .addComponent(FullnametxtWithdraw)
                        .addComponent(AccnumtxtWithdraw)
                        .addComponent(BaltxtWithdraw)
                        .addComponent(AmounttxtWithdraw)
                        .addComponent(NewbaltxtWithdraw))
                      .addGap(26, 26, 26)

.addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                        .addComponent(UsernameWithdraw)
                        .addComponent(FullnameWithdraw)
                        .addComponent(AccnumWithdraw)
                        .addComponent(BalWithdraw)
                        .addComponent(AmountWithdraw)
                        .addComponent(NewbalWithdraw, javax.swing.GroupLayout.DEFAULT_SIZE, 289,
Short.MAX_VALUE))))
                .addGap(18, 18, 18)
                .addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                    .addComponent(CalculateWithdraw, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                    .addComponent(SearchWithdraw, javax.swing.GroupLayout.DEFAULT_SIZE, 115,
Short.MAX_VALUE))
                .addContainerGap(343, Short.MAX_VALUE))
        );
        WithdrawTabLayout.setVerticalGroup(
            WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(WithdrawTabLayout.createSequentialGroup()
                .addGap(38, 38, 38)
                .addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(UnametxtWithdraw)
                    .addComponent(UsernameWithdraw, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(SearchWithdraw))
                .addGap(47, 47, 47)
                .addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(FullnametxtWithdraw)
```

```
            .addComponent(FullnameWithdraw, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(47, 47, 47)
        .addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(AccnumtxtWithdraw)
          .addComponent(AccnumWithdraw, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(47, 47, 47)
        .addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(BaltxtWithdraw)
          .addComponent(BalWithdraw, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(47, 47, 47)
        .addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(AmounttxtWithdraw)
          .addComponent(AmountWithdraw, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(47, 47, 47)
        .addGroup(WithdrawTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
          .addComponent(NewbaltxtWithdraw)
          .addComponent(NewbalWithdraw, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
          .addComponent(CalculateWithdraw))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(Withdraw)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );

    FunctionsTab.addTab("Withdraw", WithdrawTab);

    ViewbalTab.setBackground(new java.awt.Color(255, 255, 255));
    ViewbalTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(255, 204, 0)));

    UsertxtVB.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    UsertxtVB.setText("User");

    NametxtVB.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    NametxtVB.setText("Name");

    AccnumtxtVB.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    AccnumtxtVB.setText("Account No.");

    MnumtxtVB.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    MnumtxtVB.setText("MICR No.");

    SearchVB.setText("Search");
    SearchVB.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        SearchVBActionPerformed(evt);
```

```
      }
   });

   FullnameVB.setEditable(false);
   FullnameVB.setBackground(new java.awt.Color(255, 255, 255));

   AccnumVB.setEditable(false);
   AccnumVB.setBackground(new java.awt.Color(255, 255, 255));

   MnumVB.setEditable(false);
   MnumVB.setBackground(new java.awt.Color(255, 255, 255));

   BaltxtVB.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
   BaltxtVB.setText("Available Balance");

   BalVB.setEditable(false);
   BalVB.setBackground(new java.awt.Color(255, 255, 255));

   javax.swing.GroupLayout ViewbalTabLayout = new javax.swing.GroupLayout(ViewbalTab);
   ViewbalTab.setLayout(ViewbalTabLayout);
   ViewbalTabLayout.setHorizontalGroup(
      ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(ViewbalTabLayout.createSequentialGroup()
         .addGap(128, 128, 128)
         .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(ViewbalTabLayout.createSequentialGroup()
               .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addComponent(UsertxtVB)
                  .addComponent(NametxtVB))
               .addGap(149, 149, 149)
               .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addComponent(FullnameVB, javax.swing.GroupLayout.DEFAULT_SIZE, 337,
Short.MAX_VALUE)
                  .addComponent(UsernameVB)))
            .addGroup(ViewbalTabLayout.createSequentialGroup()
               .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addComponent(AccnumtxtVB)
                  .addComponent(MnumtxtVB)
                  .addComponent(BaltxtVB))
               .addGap(72, 72, 72)
               .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addComponent(MnumVB, javax.swing.GroupLayout.Alignment.TRAILING)
                  .addComponent(AccnumVB)
                  .addComponent(BalVB))))
         .addGap(36, 36, 36)
         .addComponent(SearchVB)
         .addGap(280, 280, 280))
   );
   ViewbalTabLayout.setVerticalGroup(
```

```
        ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(ViewbalTabLayout.createSequentialGroup()
          .addGap(38, 38, 38)
          .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(UsertxtVB)
            .addComponent(UsernameVB, javax.swing.GroupLayout.PREFERRED_SIZE, 23,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(SearchVB))
          .addGap(38, 38, 38)
          .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(NametxtVB)
            .addComponent(FullnameVB, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
          .addGap(38, 38, 38)
          .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(AccnumtxtVB)
            .addComponent(AccnumVB, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
          .addGap(38, 38, 38)
          .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(MnumVB, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(MnumtxtVB))
          .addGap(38, 38, 38)
          .addGroup(ViewbalTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(BaltxtVB)
            .addComponent(BalVB, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
          .addContainerGap(170, Short.MAX_VALUE))
    );

    FunctionsTab.addTab("View balance", ViewbalTab);

    TransferTab.setBackground(new java.awt.Color(255, 255, 255));
    TransferTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0, 0, 204)));

    UnametxtTransfer.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    UnametxtTransfer.setText("Username");

    FullnametxtTransfer.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    FullnametxtTransfer.setText("Name");

    AccnumtxtTransfer.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    AccnumtxtTransfer.setText("Account No.");

    BaltxtTransfer.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    BaltxtTransfer.setText("Available Balance");

    AmounttxtTransfer.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
```

```java
AmounttxtTransfer.setText("Transfer Amount");

CreditamounttxtTransfer.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
CreditamounttxtTransfer.setText("Credit Account");

FullnameTransfer.setEditable(false);
FullnameTransfer.setBackground(new java.awt.Color(255, 255, 255));

AccnumTransfer.setEditable(false);
AccnumTransfer.setBackground(new java.awt.Color(255, 255, 255));

BalTransfer.setEditable(false);
BalTransfer.setBackground(new java.awt.Color(255, 255, 255));

NewbalTransfer.setEditable(false);
NewbalTransfer.setBackground(new java.awt.Color(255, 255, 255));

AccTransfer.addPopupMenuListener(new javax.swing.event.PopupMenuListener() {
    public void popupMenuCanceled(javax.swing.event.PopupMenuEvent evt) {
    }
    public void popupMenuWillBecomeInvisible(javax.swing.event.PopupMenuEvent evt) {
        AccTransferPopupMenuWillBecomeInvisible(evt);
    }
    public void popupMenuWillBecomeVisible(javax.swing.event.PopupMenuEvent evt) {
    }
});

TransferNewInput.setEditable(false);
TransferNewInput.setBackground(new java.awt.Color(255, 255, 255));

NewbalAccTransfer.setEditable(false);
NewbalAccTransfer.setBackground(new java.awt.Color(255, 255, 255));

SearchTransfer.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
SearchTransfer.setText("Search");
SearchTransfer.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        SearchTransferActionPerformed(evt);
    }
});

CalculateTransfer1.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
CalculateTransfer1.setText("Calculate");
CalculateTransfer1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        CalculateTransfer1ActionPerformed(evt);
    }
});
```

```java
    CalculateTransfer2.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
    CalculateTransfer2.setText("Calculate");
    CalculateTransfer2.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        CalculateTransfer2ActionPerformed(evt);
      }
    });

    Transfer.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    Transfer.setText("Transfer");
    Transfer.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        TransferActionPerformed(evt);
      }
    });

    javax.swing.GroupLayout TransferTabLayout = new javax.swing.GroupLayout(TransferTab);
    TransferTab.setLayout(TransferTabLayout);
    TransferTabLayout.setHorizontalGroup(
      TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(TransferTabLayout.createSequentialGroup()
        .addGap(128, 128, 128)
        .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addComponent(UnametxtTransfer)
          .addComponent(FullnametxtTransfer)
          .addComponent(AccnumtxtTransfer)
          .addComponent(BaltxtTransfer)
          .addComponent(AmounttxtTransfer)
          .addComponent(CreditamounttxtTransfer))
        .addGap(41, 41, 41)
        .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addComponent(UsernameTransfer)
          .addComponent(FullnameTransfer)
          .addComponent(AccnumTransfer, javax.swing.GroupLayout.DEFAULT_SIZE, 373,
Short.MAX_VALUE)
          .addComponent(BalTransfer)
          .addGroup(TransferTabLayout.createSequentialGroup()

.addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
              .addComponent(TransferInput)
              .addComponent(AccTransfer, 0, 121, Short.MAX_VALUE))
            .addGap(30, 30, 30)

.addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(NewbalTransfer)
              .addComponent(TransferNewInput))))
        .addGap(18, 18, 18)
        .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
```

```
                .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                    .addComponent(SearchTransfer, javax.swing.GroupLayout.DEFAULT_SIZE, 100,
Short.MAX_VALUE)
                    .addComponent(CalculateTransfer1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                .addGroup(TransferTabLayout.createSequentialGroup()
                    .addComponent(NewbalAccTransfer, javax.swing.GroupLayout.PREFERRED_SIZE, 100,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(18, 18, 18)

.addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(Transfer, javax.swing.GroupLayout.PREFERRED_SIZE, 99,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(CalculateTransfer2, javax.swing.GroupLayout.PREFERRED_SIZE, 99,
javax.swing.GroupLayout.PREFERRED_SIZE))))
            .addGap(140, 140, 140))
        );
        TransferTabLayout.setVerticalGroup(
          TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addGroup(TransferTabLayout.createSequentialGroup()
            .addGap(38, 38, 38)
            .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(UnametxtTransfer)
              .addComponent(UsernameTransfer, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
              .addComponent(SearchTransfer))
            .addGap(38, 38, 38)
            .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(FullnametxtTransfer)
              .addComponent(FullnameTransfer, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(38, 38, 38)
            .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(AccnumtxtTransfer)
              .addGroup(TransferTabLayout.createSequentialGroup()
                .addGap(1, 1, 1)
                .addComponent(AccnumTransfer, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGap(47, 47, 47)
            .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(BaltxtTransfer)
              .addComponent(BalTransfer, javax.swing.GroupLayout.PREFERRED_SIZE, 17,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(38, 38, 38)
            .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
              .addComponent(AmounttxtTransfer)
              .addComponent(TransferInput, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
                .addComponent(NewbalTransfer, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(CalculateTransfer1, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(47, 47, 47)
            .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(CalculateTransfer2, javax.swing.GroupLayout.DEFAULT_SIZE, 31,
Short.MAX_VALUE)
                .addGroup(TransferTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(CreditamounttxtTransfer)
                    .addComponent(AccTransfer, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(TransferNewInput, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(NewbalAccTransfer, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGap(25, 25, 25)
            .addComponent(Transfer)
            .addGap(23, 23, 23))
    );

    FunctionsTab.addTab("Transfer", TransferTab);

    CustomerlistTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0, 51, 255)));

    Customers.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    Customers.setModel(new javax.swing.table.DefaultTableModel(
        new Object [][] {
            {null, null, null, null},
            {null, null, null, null},
            {null, null, null, null},
            {null, null, null, null}
        },
        new String [] {
            "Title 1", "Title 2", "Title 3", "Title 4"
        }
    ));
    jScrollPane1.setViewportView(Customers);

    javax.swing.GroupLayout CustomerlistTabLayout = new javax.swing.GroupLayout(CustomerlistTab);
    CustomerlistTab.setLayout(CustomerlistTabLayout);
    CustomerlistTabLayout.setHorizontalGroup(
        CustomerlistTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(CustomerlistTabLayout.createSequentialGroup()
            .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 917,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(0, 118, Short.MAX_VALUE))
    );
    CustomerlistTabLayout.setVerticalGroup(
```

```java
        CustomerlistTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jScrollPane1, javax.swing.GroupLayout.DEFAULT_SIZE, 463, Short.MAX_VALUE)
    );

    FunctionsTab.addTab("Customer list", CustomerlistTab);

    ChangepinTab.setBackground(new java.awt.Color(255, 255, 255));
    ChangepinTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(102, 0, 102)));

    OldpintxtChangepin.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    OldpintxtChangepin.setText("Username");

    NewpintxtChangepin.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N
    NewpintxtChangepin.setText("Enter New Pin:");

    Changepin.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
    Changepin.setText("Change");
    Changepin.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        ChangepinActionPerformed(evt);
      }
    });

    ClearChangepin.setFont(new java.awt.Font("Tahoma", 1, 11)); // NOI18N
    ClearChangepin.setText("Clear");
    ClearChangepin.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        ClearChangepinActionPerformed(evt);
      }
    });

    javax.swing.GroupLayout ChangepinTabLayout = new javax.swing.GroupLayout(ChangepinTab);
    ChangepinTab.setLayout(ChangepinTabLayout);
    ChangepinTabLayout.setHorizontalGroup(
      ChangepinTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(ChangepinTabLayout.createSequentialGroup()
        .addGap(255, 255, 255)
        .addGroup(ChangepinTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addComponent(OldpintxtChangepin)
          .addComponent(NewpintxtChangepin))
        .addGap(34, 34, 34)
        .addGroup(ChangepinTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
          .addGroup(ChangepinTabLayout.createSequentialGroup()
            .addComponent(Changepin, javax.swing.GroupLayout.PREFERRED_SIZE, 98, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
```

```
                .addComponent(ClearChangepin, javax.swing.GroupLayout.PREFERRED_SIZE, 94,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addComponent(OldpinChange)
            .addComponent(NewpinChange, javax.swing.GroupLayout.DEFAULT_SIZE, 244,
Short.MAX_VALUE))
        .addContainerGap(399, Short.MAX_VALUE))
    );
    ChangepinTabLayout.setVerticalGroup(
        ChangepinTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(ChangepinTabLayout.createSequentialGroup()
          .addGap(111, 111, 111)
          .addGroup(ChangepinTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(OldpintxtChangepin)
            .addComponent(OldpinChange, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
          .addGap(38, 38, 38)
          .addGroup(ChangepinTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(NewpintxtChangepin)
            .addComponent(NewpinChange, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
          .addGap(38, 38, 38)
          .addGroup(ChangepinTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(Changepin)
            .addComponent(ClearChangepin))
          .addContainerGap(212, Short.MAX_VALUE))
    );

    FunctionsTab.addTab("Change PIN", ChangepinTab);

    AboutTab.setBackground(new java.awt.Color(255, 255, 255));
    AboutTab.setBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(51, 204, 255)));

    Authorstxt.setText("ALICE DURGE -5840");

    Versiontxt.setText("TMT v1.0");

    javax.swing.GroupLayout AboutTabLayout = new javax.swing.GroupLayout(AboutTab);
    AboutTab.setLayout(AboutTabLayout);
    AboutTabLayout.setHorizontalGroup(
        AboutTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, AboutTabLayout.createSequentialGroup()
          .addContainerGap(529, Short.MAX_VALUE)
          .addComponent(Info1)
          .addGap(439, 439, 439))
        .addGroup(AboutTabLayout.createSequentialGroup()
          .addGap(42, 42, 42)
          .addComponent(Versiontxt)
          .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, AboutTabLayout.createSequentialGroup()
```

```
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addComponent(Authorstxt, javax.swing.GroupLayout.PREFERRED_SIZE, 320,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    AboutTabLayout.setVerticalGroup(
        AboutTabLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(AboutTabLayout.createSequentialGroup()
          .addGap(85, 85, 85)
          .addComponent(Info1)
          .addGap(30, 30, 30)
          .addComponent(Authorstxt, javax.swing.GroupLayout.PREFERRED_SIZE, 50,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 245, Short.MAX_VALUE)
            .addComponent(Versiontxt)
            .addGap(40, 40, 40))
    );

    FunctionsTab.addTab("About", AboutTab);

    SearchTop.setFont(new java.awt.Font("Tahoma", 1, 11)); // NOI18N
    SearchTop.setText("Search");
    SearchTop.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            SearchTopActionPerformed(evt);
        }
    });

    javax.swing.GroupLayout HomePageLayout = new javax.swing.GroupLayout(HomePage);
    HomePage.setLayout(HomePageLayout);
    HomePageLayout.setHorizontalGroup(
        HomePageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(HomePageLayout.createSequentialGroup()
          .addContainerGap()
          .addGroup(HomePageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(FunctionsTab, javax.swing.GroupLayout.PREFERRED_SIZE, 0,
Short.MAX_VALUE)
            .addGroup(HomePageLayout.createSequentialGroup()
              .addComponent(LogoHP, javax.swing.GroupLayout.PREFERRED_SIZE, 449,
javax.swing.GroupLayout.PREFERRED_SIZE)
              .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
              .addGroup(HomePageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(DatetxtTop)
                .addComponent(UnametxtTop))
              .addGap(31, 31, 31)
              .addGroup(HomePageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                .addComponent(CurrentDate)
```

```
                    .addComponent(UsernameTop, javax.swing.GroupLayout.PREFERRED_SIZE, 227,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addComponent(SearchTop, javax.swing.GroupLayout.PREFERRED_SIZE, 117,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(21, 21, 21)))
        .addContainerGap())
    );
    HomePageLayout.setVerticalGroup(
        HomePageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(HomePageLayout.createSequentialGroup()
            .addGroup(HomePageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(HomePageLayout.createSequentialGroup()
                    .addGap(25, 25, 25)
                    .addGroup(HomePageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(UnametxtTop, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(UsernameTop, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(SearchTop, javax.swing.GroupLayout.PREFERRED_SIZE, 32,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGap(18, 18, 18)
                    .addGroup(HomePageLayout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(DatetxtTop, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(CurrentDate, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGroup(HomePageLayout.createSequentialGroup()
                    .addContainerGap()
                    .addComponent(LogoHP, javax.swing.GroupLayout.PREFERRED_SIZE, 143,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(FunctionsTab, javax.swing.GroupLayout.DEFAULT_SIZE, 523, Short.MAX_VALUE)
            .addContainerGap())
    );

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(HomePage, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
            .addComponent(HomePage, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addContainerGap())
```

```java
        );

        setSize(new java.awt.Dimension(1019, 716));
        setLocationRelativeTo(null);
    }// </editor-fold>
// search for customer and grab details and put into profile page
    private void SearchTopActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String sql = "SELECT * FROM Account WHERE Name = ?";
        try{
            pst = conn.prepareStatement(sql);
            pst.setString(1,UsernameTop.getText());
            rs = pst.executeQuery();
            if (rs.next()){
                String add1 = rs.getString("Name");
                FullnameProfile.setText(add1);

                String add2 = rs.getString("Acc");
                AccnumProfile.setText(add2);

                String add3 = rs.getString("DOB");
                DateofBirthProfile.setText(add3);

                String add4 = rs.getString("Acc_Type");
                AcctypeProfile.setText(add4);

                String add5 = rs.getString("Gender");
                GenderProfile.setText(add5);

                String add6 = rs.getString("Ethnicity");
                EthnicityProfile.setText(add6);

                String add7 = rs.getString("Mob");
                MobileProfile.setText(add7);

                String add8 = rs.getString("Address");
                AddressProfile.setText(add8);

                String add9 = rs.getString("Sec_Q");
                SecurityqProfile.setText(add9);

                rs.close();
                pst.close();

            }else{
                JOptionPane.showMessageDialog(null,"Please enter correct Name");
            }
        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
```

```java
      }finally{
         try{
            rs.close();
            pst.close();
         }catch(Exception e){

         }
      }
   }
//withdraw money from user and update database balances
   private void WithdrawActionPerformed(java.awt.event.ActionEvent evt) {
      // TODO add your handling code here:
      try{
         String a1 = UsernameWithdraw.getText();
         String a2 = NewbalWithdraw.getText();
         String sql = "UPDATE Balances SET Balance = '" +a2+ "' WHERE Name = '" +a1+ "' ";
         pst = conn.prepareStatement(sql);
         pst.execute();
         JOptionPane.showMessageDialog(null,"Withdrawn Successfully.");

         UsernameWithdraw.setText("");
         FullnameWithdraw.setText("");
         AccnumWithdraw.setText("");
         BalWithdraw.setText("");
         AmountWithdraw.setText("");
         NewbalWithdraw.setText("");

      }catch (Exception e){
         JOptionPane.showMessageDialog(null,e);
      }
   }
//calculate new total
   private void CalculateWithdrawActionPerformed(java.awt.event.ActionEvent evt) {
      // TODO add your handling code here:
      try{
         String a1 = BalWithdraw.getText();
         String a2 = AmountWithdraw.getText();
         int sum = Integer.parseInt(a1)-Integer.parseInt(a2);
         String sum1 = String.valueOf(sum);
         NewbalWithdraw.setText(sum1);
      }catch(Exception NumberFormatException){
         JOptionPane.showMessageDialog(null,"Please enter numbers only");
      }
   }
// get users balances details
   private void SearchWithdrawActionPerformed(java.awt.event.ActionEvent evt) {
      // TODO add your handling code here:
      String sql = "SELECT * FROM Balances WHERE Name = ?";
      try{
```

```java
            pst = conn.prepareStatement(sql);
            pst.setString(1,UsernameWithdraw.getText());
            rs = pst.executeQuery();
            if(rs.next()){
                String add1 = rs.getString("Name");
                FullnameWithdraw.setText(add1);

                String add2 = rs.getString("Acc");
                AccnumWithdraw.setText(add2);

                String add3 = rs.getString("Balance");
                BalWithdraw.setText(add3);

                rs.close();
                pst.close();
            }
            else{
                JOptionPane.showMessageDialog(null,"Please enter correct Name");
            }
        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
        }finally{
            try{
                rs.close();
                pst.close();
            }catch(Exception e){

            }
        }
    }
//clear changepin fields
    private void ClearChangepinActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:

        OldpinChange.setText("");
        NewpinChange.setText("");

    }
//set new pin
    private void ChangepinActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:

        try{
            String value1 = OldpinChange.getText();
            String value2 = NewpinChange.getText();

            String sql = "update Account set Pin='"+value2+"' where Name='"+value1+"'";
            pst = conn.prepareStatement(sql);
            pst.execute();
```

```java
            JOptionPane.showMessageDialog(null, "Pin changed successfully");

        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
        }
    }
//save profile details
    private void SaveProfileActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try{
            String value1 = GenderProfile.getText();
            String value2 = EthnicityProfile.getText();
            String value3 = AddressProfile.getText();
            String value4 = MobileProfile.getText();
            String value5 = SecurityqProfile.getText();
            String value6 = UsernameTop.getText();

            String sql = "UPDATE Account SET
Gender='"+value1+"',Ethnicity='"+value2+"',Address='"+value3+"',Mob='"+value4+"',Sec_Q='"+value5+"' where
Name='"+value6+"'";
            pst = conn.prepareStatement(sql);
            pst.execute();
            JOptionPane.showMessageDialog(null, "Profile updated successfully");
        }catch(Exception e){
            JOptionPane.showMessageDialog(null, e);
        }
    }
// make fields editable for changing
    private void EditProfileActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:

        GenderProfile.setEditable(true);
        EthnicityProfile.setEditable(true);
        AddressProfile.setEditable(true);
        MobileProfile.setEditable(true);
        SecurityqProfile.setEditable(true);
    }
//transfers money between two accounts
    private void TransferActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        TransferD();
        TransferC();
        UsernameTransfer.setText("");
        FullnameTransfer.setText("");
        AccnumTransfer.setText("");
        BalTransfer.setText("");
        TransferInput.setText("");
        NewbalTransfer.setText("");
        TransferNewInput.setText("");
```

```java
            NewbalAccTransfer.setText("");

        }
//calculate new balance for account two
    private void CalculateTransfer2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try{
            String a1 = TransferInput.getText();
            String a2 = TransferNewInput.getText();
            int sum = Integer.parseInt(a1)+Integer.parseInt(a2);
            String sum1 = String.valueOf(sum);
            NewbalAccTransfer.setText(sum1);
        }catch(Exception NumberFormatException){
            JOptionPane.showMessageDialog(null,"Please enter numbers only for Transfer Amount");
        }
    }
//calculate new balance for account one
    private void CalculateTransfer1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try{
            String a1 = BalTransfer.getText();
            String a2 = TransferInput.getText();
            int sum = Integer.parseInt(a1)-Integer.parseInt(a2);
            String sum1 = String.valueOf(sum);
            NewbalTransfer.setText(sum1);
        }catch(Exception NumberFormatException){
            JOptionPane.showMessageDialog(null,"Please enter numbers only");
        }
    }
//Get users details for transfer
    private void SearchTransferActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String sql = "SELECT * FROM Balances WHERE Name = ?";
        try{
            pst = conn.prepareStatement(sql);
            pst.setString(1,UsernameTransfer.getText());
            rs = pst.executeQuery();
            if(rs.next()){
                String add1 = rs.getString("Name");
                FullnameTransfer.setText(add1);

                String add2 = rs.getString("Acc");
                AccnumTransfer.setText(add2);

                String add3 = rs.getString("Balance");
                BalTransfer.setText(add3);

                rs.close();
                pst.close();
```

```java
        }else{
            JOptionPane.showMessageDialog(null,"Please enter correct Name");
        }
    }catch(Exception e){
        JOptionPane.showMessageDialog(null,e);
    }finally{
        try{
            rs.close();
            pst.close();
        }catch(Exception e){

        }
    }
}


private void AccTransferPopupMenuWillBecomeInvisible(javax.swing.event.PopupMenuEvent evt) {
    // TODO add your handling code here:
    try{
        String a1 = (String) AccTransfer.getSelectedItem();
        String sql = "SELECT * FROM Balances WHERE Acc = ?";
        pst = conn.prepareStatement(sql);
        pst.setString(1,a1);
        rs = pst.executeQuery();
        if(rs.next()){
            String add = rs.getString("Balance");
            TransferNewInput.setText(add);
        }
    }catch(Exception e){
        JOptionPane.showMessageDialog(null,e);
    }
}
//get user details for View balance page
    private void SearchVBActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String sql = "select * from Balances where Name=?";
        try{
            pst = conn.prepareStatement(sql);
            pst.setString(1, UsernameVB.getText());
            rs = pst.executeQuery();
            if(rs.next()){
                String add1 = rs.getString("Name");
                FullnameVB.setText(add1);
                String add2 = rs.getString("Acc");
                AccnumVB.setText(add2);
                String add3 = rs.getString("MICR_No");
                MnumVB.setText(add3);
                String add4 = rs.getString("Balance");
                BalVB.setText(add4);
            }
```

```java
        }catch(Exception e){
            JOptionPane.showMessageDialog(null, e);


        }


    }
//update balances after a deposit
    private void DepositActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try{
            String value1 = UsernameDeposit.getText();
            String value2 = NewbalDeposit.getText();
            String sql = "UPDATE Balances SET Balance ='"+value2+"' WHERE Name ='"+value1+"'";
            pst = conn.prepareStatement(sql);
            pst.execute();
            JOptionPane.showMessageDialog(null,"Successfully deposited.");
            UsernameDeposit.setText("");
            FullnameDeposit.setText("");
            AccnumDeposit.setText("");
            BalanceDeposit.setText("");
            DepositInput.setText("");
            NewbalDeposit.setText("");

        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
        }
    }
//calculate new balance after deposit
    private void CalculateDepositActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try{
            String a1 = BalanceDeposit.getText();
            String a2 = DepositInput.getText();
            int sum = Integer.parseInt(a1) + Integer.parseInt(a2);
            String sum1 = String.valueOf(sum);
            NewbalDeposit.setText(sum1);
        }catch(Exception NumberFormatException){
            JOptionPane.showMessageDialog(null,"Please enter numbers only");
        }
    }
//get users details for deposit page
    private void SearchDepositActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String sql = "SELECT * FROM Balances WHERE Name = ?";
        try{
            pst = conn.prepareStatement(sql);
            pst.setString(1,UsernameDeposit.getText());
            rs = pst.executeQuery();
            if(rs.next()){
```

```
                String add1 = rs.getString("Name");
                FullnameDeposit.setText(add1);

                String add2 = rs.getString("Acc");
                AccnumDeposit.setText(add2);

                String add3 = rs.getString("Balance");
                BalanceDeposit.setText(add3);

                rs.close();
                pst.close();
            }
            else{
                JOptionPane.showMessageDialog(null,"Please enter correct Name");
            }
        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
        }finally{
            try{
                rs.close();
                pst.close();
            }catch(Exception e){
            }
        }
    }
}
    //get accounts in database for transfer dropdownbox
    public void Account(){
        try{
            String sql = "SELECT * FROM Balances";
            pst = conn.prepareStatement(sql);
            rs = pst.executeQuery();
            while(rs.next()){
                String account = rs.getString("Acc");
                AccTransfer.addItem(account);
            }
        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
        }
    }
// transfer money from one account to another
public void TransferC(){
    try{
        String value1 = (String) AccTransfer.getSelectedItem();
        String value2 = NewbalAccTransfer.getText();
        String sql = "UPDATE Balances SET Balance = '"+value2+"' WHERE Acc = '"+value1+"' ";
        pst = conn.prepareStatement(sql);
        pst.execute();
        JOptionPane.showMessageDialog(null,"Successfully transfered.");
    }catch(Exception e){
```

```java
          JOptionPane.showConfirmDialog(null, e);
      }
}
 // transfer money from one account to another
 public void TransferD(){
    try{
       String value1 = UsernameTransfer.getText();
       String value2 = NewbalTransfer.getText();
       String sql = "UPDATE Balances SET Balance = '" +value2+ "' WHERE Name = '" +value1+ "' ";
       pst = conn.prepareStatement(sql);
       pst.execute();
    }catch(Exception e){
       JOptionPane.showMessageDialog(null, e);
    }
}
   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(MyPage.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
      } catch (InstantiationException ex) {
         java.util.logging.Logger.getLogger(MyPage.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
      } catch (IllegalAccessException ex) {
         java.util.logging.Logger.getLogger(MyPage.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
      } catch (javax.swing.UnsupportedLookAndFeelException ex) {
         java.util.logging.Logger.getLogger(MyPage.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 MyPage().setVisible(true);
         }
      });
   }

   // Variables declaration - do not modify
   private javax.swing.JPanel AboutTab;
```

```
private javax.swing.JComboBox AccTransfer;
private javax.swing.JTextField AccnumDeposit;
private javax.swing.JTextField AccnumProfile;
private javax.swing.JTextField AccnumTransfer;
private javax.swing.JTextField AccnumVB;
private javax.swing.JTextField AccnumWithdraw;
private javax.swing.JLabel AccnumtxtDeposit;
private javax.swing.JLabel AccnumtxtProfile;
private javax.swing.JLabel AccnumtxtTransfer;
private javax.swing.JLabel AccnumtxtVB;
private javax.swing.JLabel AccnumtxtWithdraw;
private javax.swing.JTextField AcctypeProfile;
private javax.swing.JLabel AcctypetxtProfile;
private javax.swing.JTextField AddressProfile;
private javax.swing.JLabel AddresstxtProfile;
private javax.swing.JTextField AmountWithdraw;
private javax.swing.JLabel AmounttxtTransfer;
private javax.swing.JLabel AmounttxtWithdraw;
private javax.swing.JLabel Authorstxt;
private javax.swing.JTextField BalTransfer;
private javax.swing.JTextField BalVB;
private javax.swing.JTextField BalWithdraw;
private javax.swing.JTextField BalanceDeposit;
private javax.swing.JLabel BaltxtDeposit;
private javax.swing.JLabel BaltxtTransfer;
private javax.swing.JLabel BaltxtVB;
private javax.swing.JLabel BaltxtWithdraw;
private javax.swing.JButton CalculateDeposit;
private javax.swing.JButton CalculateTransfer1;
private javax.swing.JButton CalculateTransfer2;
private javax.swing.JButton CalculateWithdraw;
private javax.swing.JButton Changepin;
private javax.swing.JPanel ChangepinTab;
private javax.swing.JButton ClearChangepin;
private javax.swing.JLabel CreditamounttxtTransfer;
private javax.swing.JTextField CurrentDate;
private javax.swing.JPanel CustomerlistTab;
private javax.swing.JTable Customers;
private javax.swing.JTextField DateofBirthProfile;
private javax.swing.JLabel DateofbirthtxtProfile;
private javax.swing.JLabel DatetxtTop;
private javax.swing.JButton Deposit;
private javax.swing.JTextField DepositInput;
private javax.swing.JPanel DepositTab;
private javax.swing.JLabel DeposittxtDeposit;
private javax.swing.JButton EditProfile;
private javax.swing.JTextField EthnicityProfile;
private javax.swing.JLabel EthnicitytxtProfile;
private javax.swing.JTextField FullnameDeposit;
```
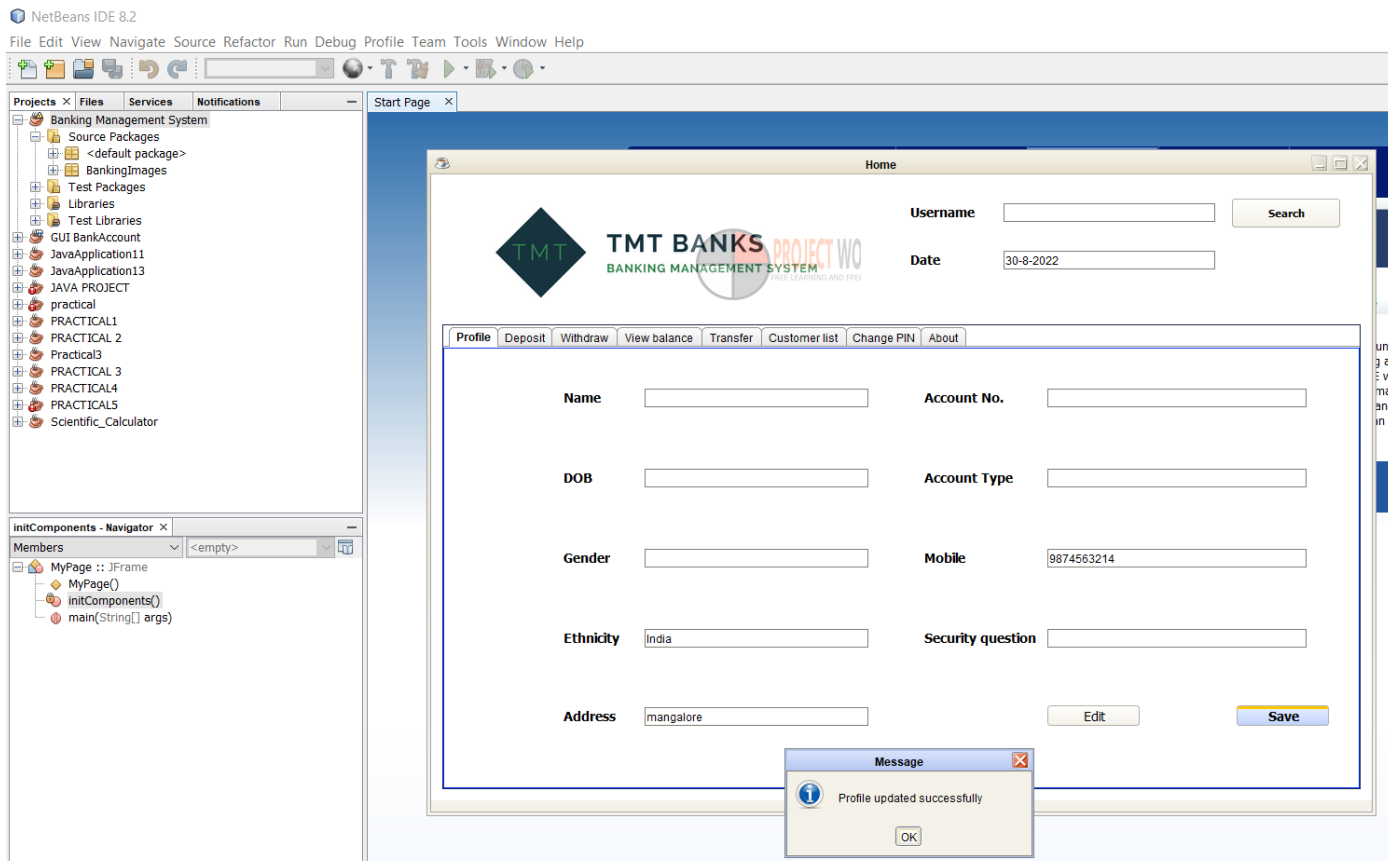
```java
private javax.swing.JTextField FullnameProfile;
private javax.swing.JTextField FullnameTransfer;
private javax.swing.JTextField FullnameVB;
private javax.swing.JTextField FullnameWithdraw;
private javax.swing.JLabel FullnametxtProfile;
private javax.swing.JLabel FullnametxtTransfer;
private javax.swing.JLabel FullnametxtWithdraw;
private javax.swing.JTabbedPane FunctionsTab;
private javax.swing.JTextField GenderProfile;
private javax.swing.JLabel GendertxtProfile;
private javax.swing.JPanel HomePage;
private javax.swing.JLabel Info1;
private javax.swing.JLabel LogoHP;
private javax.swing.JTextField MnumVB;
private javax.swing.JLabel MnumtxtVB;
private javax.swing.JTextField MobileProfile;
private javax.swing.JLabel MobiletxtProfile;
private javax.swing.JLabel NametxtDeposit;
private javax.swing.JLabel NametxtVB;
private javax.swing.JTextField NewbalAccTransfer;
private javax.swing.JTextField NewbalDeposit;
private javax.swing.JTextField NewbalTransfer;
private javax.swing.JTextField NewbalWithdraw;
private javax.swing.JLabel NewbaltxtWithdraw;
private javax.swing.JTextField NewpinChange;
private javax.swing.JLabel NewpintxtChangepin;
private javax.swing.JTextField OldpinChange;
private javax.swing.JLabel OldpintxtChangepin;
private javax.swing.JPanel ProfileTab;
private javax.swing.JButton SaveProfile;
private javax.swing.JButton SearchDeposit;
private javax.swing.JButton SearchTop;
private javax.swing.JButton SearchTransfer;
private javax.swing.JButton SearchVB;
private javax.swing.JButton SearchWithdraw;
private javax.swing.JTextField SecurityqProfile;
private javax.swing.JLabel SecurityqtxtProfile;
private javax.swing.JButton Transfer;
private javax.swing.JTextField TransferInput;
private javax.swing.JTextField TransferNewInput;
private javax.swing.JPanel TransferTab;
private javax.swing.JLabel UnametxtDeposit;
private javax.swing.JLabel UnametxtTop;
private javax.swing.JLabel UnametxtTransfer;
private javax.swing.JLabel UnametxtWithdraw;
private javax.swing.JTextField UsernameDeposit;
private javax.swing.JTextField UsernameTop;
private javax.swing.JTextField UsernameTransfer;
private javax.swing.JTextField UsernameVB;
```
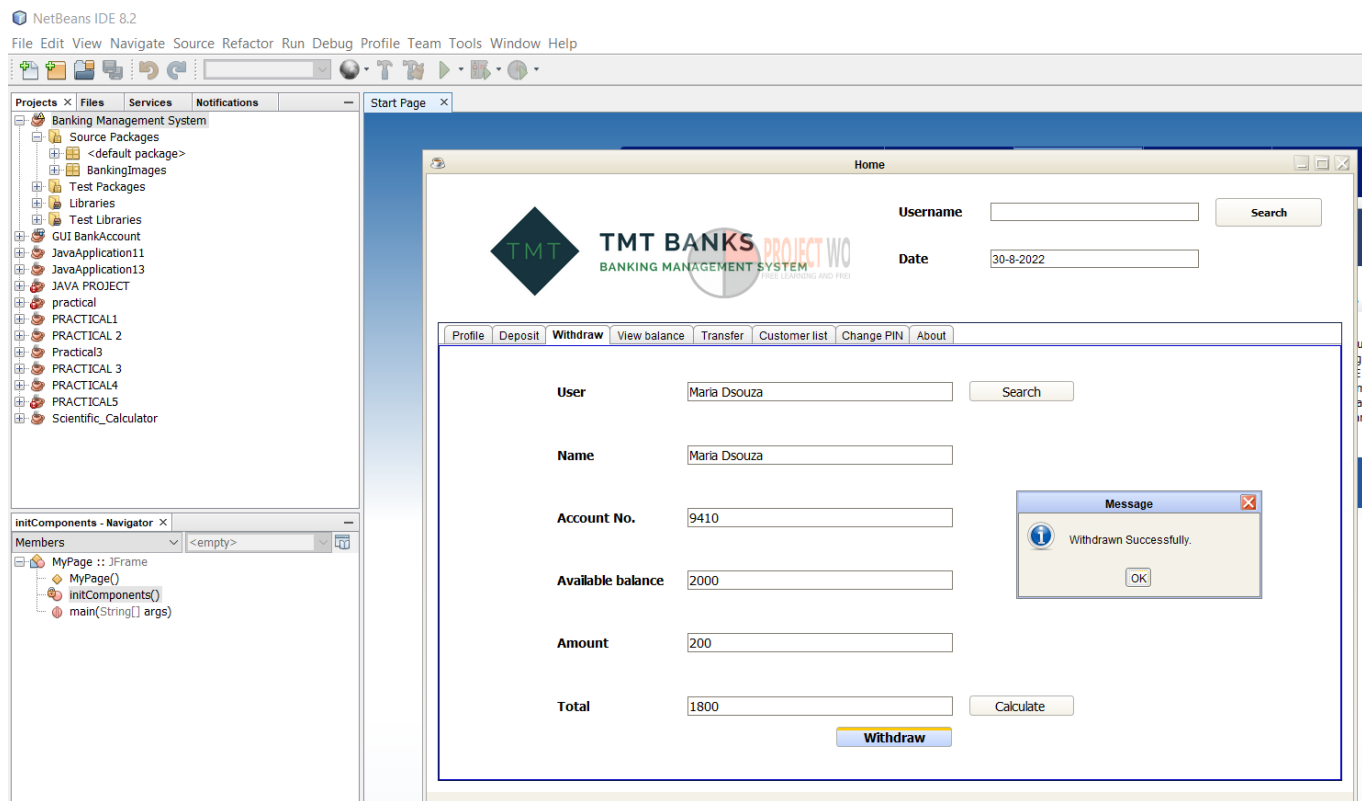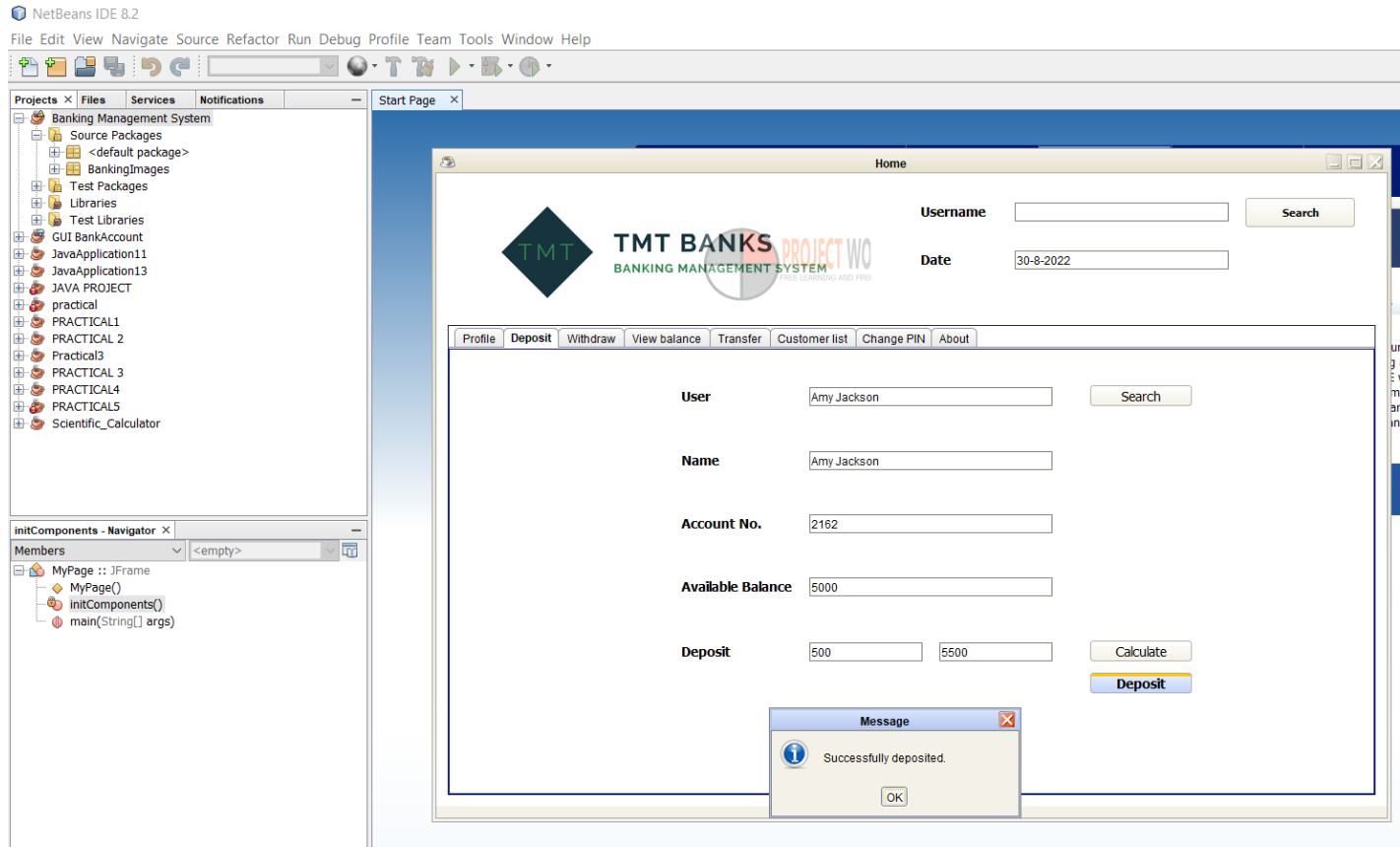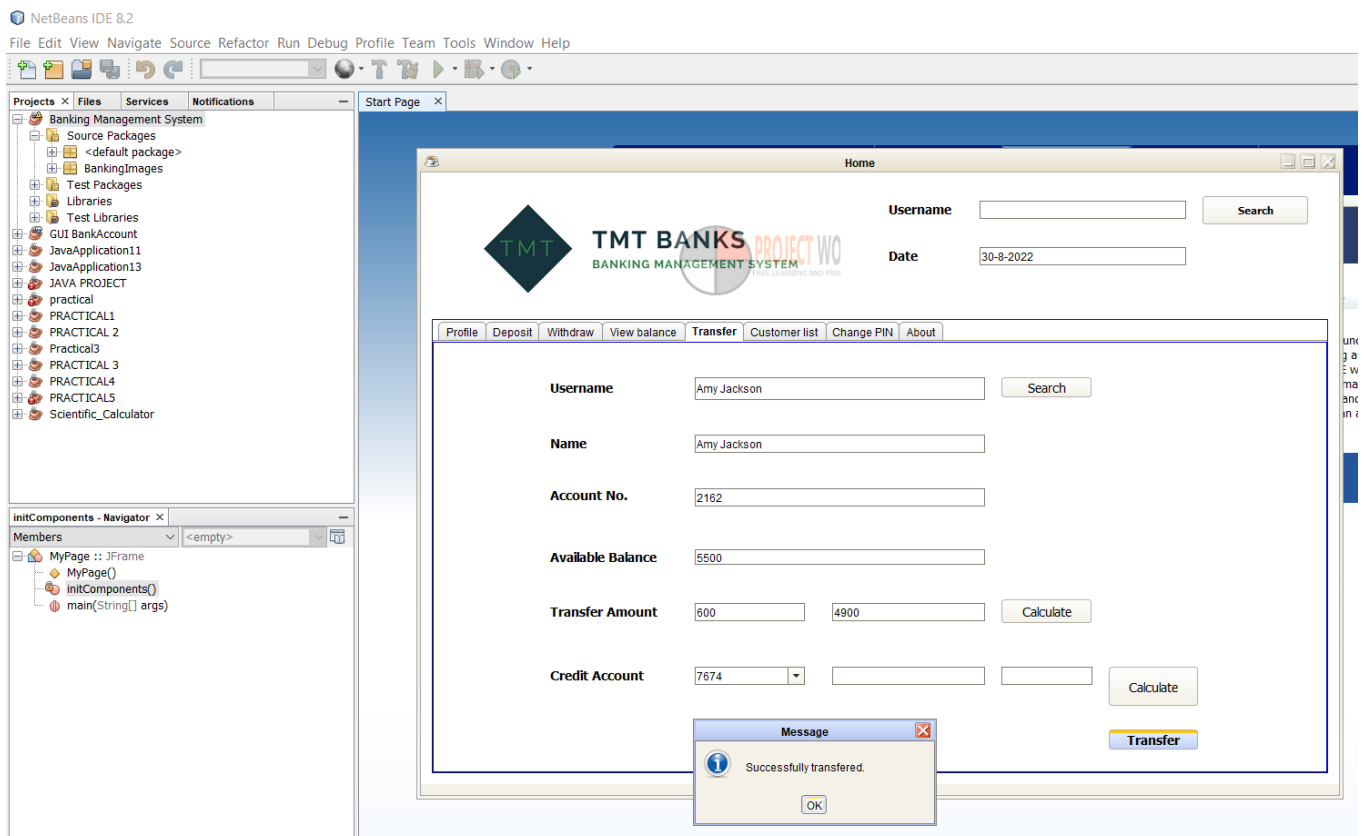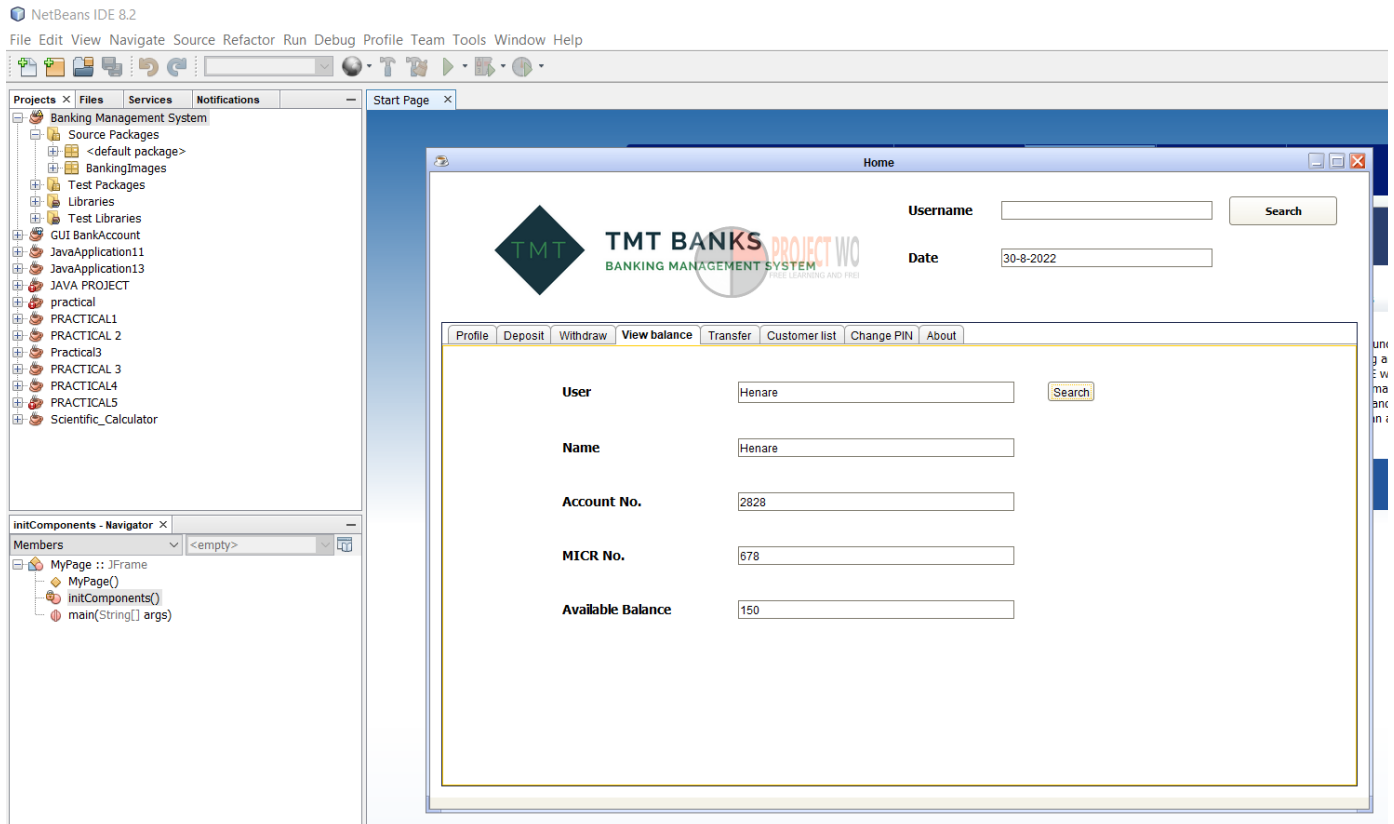
private javax.swing.JTextField UsernameWithdraw;
private javax.swing.JLabel UsertxtVB;
private javax.swing.JLabel Versiontxt;
private javax.swing.JPanel ViewbalTab;
private javax.swing.JButton Withdraw;
private javax.swing.JPanel WithdrawTab;
private javax.swing.JScrollPane jScrollPane1;
// End of variables declaration
}

OUTPUT:

dbconnect.java class:

```
import java.sql.*;
import javax.swing.JOptionPane;
public class dbconnect {
    Connection conn = null;

    public static Connection connectDb(){
        try{
            Class.forName("org.sqlite.JDBC");
            Connection conn = DriverManager.getConnection("jdbc:sqlite:bank.sqlite");

            return conn;
        }catch(Exception e){
            JOptionPane.showMessageDialog(null,e);
        }
        return null;
    }

}
```

CONCLUSION :

The given project illustrates or demonstrates the way to develop a banking system with basic functionalities of banks provided to customers . This project provides an interactive interface for the users to perform and access the transactions and its details in an easier manner.