

**FINOLEX ACADEMY OF MANAGEMENT AND  
TECHNOLOGY, RATNAGIRI**

**DEPARTMENT OF INFORMATION TECHNOLOGY**

*Mini Project On Internet Banking*

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**Problem Statement:**

Create a database for Bank. Bank allows customers to open one or multiple accounts. For opening an account, it requires customer's basic details such as customers name, address, date of birth, contact number, e-mail id, proof id, proof of living, nominee name, nominee details, it also requires minimum Rs.500 for open a new account. After creating an account customer can see his/her account info, balance, credit, saving, either by visiting to branch or via ATM or net banking. Customer can withdraw his/her money either by visiting to bank or atm. Customer can get printed records of his/her transaction by visiting to the branch. Customer can get a loan by full filling all conditions for the loan. Customer can pay his/her EMI my multiple ways. This bank database, also stores details of HR Manager, Branch Manager, Cashier and other Employees. HR manager and branch manager can have special permission to access database. Other employees will have "read only" permissions.

**Solution:**

An internet banking system is widely usable service nowadays. Everyday new digital banks are coming in markets. One example of digital banks is PayTM Digital Bank. anyone having Aadhar Card can join as a customer in this bank. It is purely digital as it does not have any branch. It gives attractive interest to new customers.

Here I have tried to develop an app which is likely a digital bank. following steps have to be taken to develop a basic app which provides enrolling and login function to user.

**1. MYSqlConnection.java**

```
import java.sql.*;

import javax.swing.*;

public class MYSqlConnection {

    Connection conn=null;

    public static Connection JK(){

        try{

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

            Connection

            conn=DriverManager.getConnection("jdbc:mysql://localhost/Bank","root","ILoveYouRehanaKazi");
```

```

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

```

## 2. Authentication.java

```

import java.sql.*;
import javax.swing.*;

public class Authentication extends javax.swing.JFrame {

    Connection conn=null;
    PreparedStatement pst=null;
    ResultSet rs=null;

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

    /**
     * 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() {

        jPanel1 = new javax.swing.JPanel();
        jLabel1 = new javax.swing.JLabel();
    }
}

```

```

jTextField2 = new javax.swing.JTextField();
jTextField1 = new javax.swing.JTextField();
jButton2 = new javax.swing.JButton();
jLabel5 = new javax.swing.JLabel();
jLabel3 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
jButton1 = new javax.swing.JButton();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder(javax.swing.BorderFactory.createLineBorder(new java.awt.Color(0, 255, 255)), "Authentication",
javax.swing.border.TitledBorder.DEFAULT_JUSTIFICATION,
javax.swing.border.TitledBorder.DEFAULT_POSITION, new java.awt.Font("Tahoma", 0, 18), new
java.awt.Color(0, 204, 204))); // NOI18N

jLabel1.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking
System\\Icons\\RTEmagicC_ibanking-logo_33_converted.png")); // NOI18N
jLabel1.setCursor(new java.awt.Cursor(java.awt.Cursor.DEFAULT_CURSOR));

jTextField2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField2ActionPerformed(evt);
    }
});

jTextField1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField1ActionPerformed(evt);
    }
});

jButton2.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking
System\\Icons\\addusericon_2.png")); // NOI18N

```

```

jButton2.setText("New Account");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

jLabel5.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking
System\\Icons\\icon_key.gif")); // NOI18N

jLabel3.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
jLabel3.setText("Pin:");

jLabel4.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking System\\Icons\\Security-
Password-2-icon.png")); // NOI18N

jLabel2.setFont(new java.awt.Font("Tahoma", 0, 14)); // NOI18N
jLabel2.setText("Enter Account No:");

jButton1.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking System\\Icons\\login.gif"));
// NOI18N
jButton1.setText("Login");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .add(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .add(jButton1)
                .add(jLabel5)
                .add(jLabel4)
                .add(jLabel3)
                .add(jLabel2)
            )
            .addContainerGap())
        .add(jButton2)
    );
jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .add(jButton2)
        .add(jLabel5)
        .add(jLabel4)
        .add(jLabel3)
        .add(jLabel2)
        .add(jButton1)
    );

```

```

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(jPanel1Layout.createSequentialGroup()
        .addGap(116, 116, 116)
        .addComponent(jLabel1)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(jLabel2)
    .addComponent(jLabel3))
    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(jPanel1Layout.createSequentialGroup()
        .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
250, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(jLabel5))
    .addGroup(jPanel1Layout.createSequentialGroup()
        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
250, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(jLabel4)))
    .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))))
.addGroup(jPanel1Layout.createSequentialGroup()
    .addGap(122, 122, 122)
    .addComponent(jButton1)
    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    .addComponent(jButton2)
    .addGap(77, 77, 77))
);

```

```

jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addContainerGap()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
    .addGroup(jPanel1Layout.createSequentialGroup()

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
    .addGroup(jPanel1Layout.createSequentialGroup()
        .addComponent(jLabel1)
        .addGap(80, 80, 80)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(jLabel2)
        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
    .addComponent(jLabel4))
    .addGap(18, 18, 18)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(jLabel3)))
    .addComponent(jLabel5))
    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 39,
Short.MAX_VALUE)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
    .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
    .addComponent(jButton2))
    .addGap(39, 39, 39))
);

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

```

```

        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(62, 62, 62)
                    .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                    .addGap(56, 56, 56))
                );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(36, 36, 36)
                    .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                    .addGap(23, 23, 23))
                );

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

```

```

private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

```

```

private void jTextField2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

```

```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    conn=MYSqlConnection.JK();
    String sql="select * from Account where Account_No=? and Pin=?";
    try{
        pst=conn.prepareStatement(sql);
    }
}

```

```

        pst.setString(1,String.valueOf(jTextField1.getText()));
        pst.setString(2,String.valueOf(jTextField2.getText()));
        rs=pst.executeQuery();
        if(rs.next()){
            JOptionPane.showMessageDialog(null,"Login Successful");
            new Welcome().setVisible(true);
        }
        else{
            JOptionPane.showMessageDialog(null,"Invalid Account No or Pin!!!");
        }
    }catch(Exception e){
        JOptionPane.showMessageDialog(null, e);
    }
}

```

```

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new Account().setVisible(true);
}

```

```

/**
 * @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;*/

        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.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;

```

```

private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JPanel jPanel1;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField2;
// End of variables declaration
}

```

### 3. Authentication.java

```

import java.sql.*;
import javax.swing.*;

public class Account extends javax.swing.JPanel {

    Connection conn=null;
    PreparedStatement pst=null;
    ResultSet rs=null;

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

    /**
     * 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() {

        buttonGroup1 = new javax.swing.ButtonGroup();
        jLabel1 = new javax.swing.JLabel();

```

```
jPanel1 = new javax.swing.JPanel();
jLabel12 = new javax.swing.JLabel();
jLabel8 = new javax.swing.JLabel();
jButton2 = new javax.swing.JButton();
jTextField3 = new javax.swing.JTextField();
jTextField6 = new javax.swing.JTextField();
jComboBox2 = new javax.swing.JComboBox<>();
jLabel10 = new javax.swing.JLabel();
jRadioButton2 = new javax.swing.JRadioButton();
jLabel7 = new javax.swing.JLabel();
jComboBox1 = new javax.swing.JComboBox<>();
jLabel5 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
jTextField8 = new javax.swing.JTextField();
jLabel11 = new javax.swing.JLabel();
jLabel9 = new javax.swing.JLabel();
jComboBox3 = new javax.swing.JComboBox<>();
jButton3 = new javax.swing.JButton();
jTextField10 = new javax.swing.JTextField();
jLabel15 = new javax.swing.JLabel();
jLabel3 = new javax.swing.JLabel();
jTextField5 = new javax.swing.JTextField();
jTextField9 = new javax.swing.JTextField();
jTextField2 = new javax.swing.JTextField();
jTextField4 = new javax.swing.JTextField();
jTextField1 = new javax.swing.JTextField();
jLabel6 = new javax.swing.JLabel();
jLabel13 = new javax.swing.JLabel();
jTextField7 = new javax.swing.JTextField();
jRadioButton1 = new javax.swing.JRadioButton();
jButton1 = new javax.swing.JButton();
jLabel14 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();
```

```

jLabel16 = new javax.swing.JLabel();

jLabel1.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking
System\\Icons\\RTEmagicC_ibanking-logo_33_converted.png")); // NOI18N

jPanel1.setBorder(javax.swing.BorderFactory.createTitledBorder(javax.swing.BorderFactory.createLi
neBorder(new java.awt.Color(0, 0, 0)), "New Account"));

jLabel12.setText("Caste:");

jLabel8.setText("Balance:");

jButton2.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking System\\Icons\\back.png"));
// NOI18N
jButton2.setText("Back");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

jComboBox2.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Select",
"Indian", "Foreign" }));

jLabel10.setText("DOB(dd/mm/yyyy):");

jRadioButton2.setText("Female");
jRadioButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jRadioButton2ActionPerformed(evt);
    }
});

jLabel7.setText(" Address:");

```

```
jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Select",  
"Saving", "Current", "Loan" }));
```

```
jLabel5.setText("Account Type:");
```

```
jLabel2.setText("Account No:");
```

```
jLabel11.setText("Nationality:");
```

```
jLabel9.setText("Name:");
```

```
jComboBox3.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Select",  
"Hindu", "Muslim", "Sikh", "Christian", "Jain", "Buddhist" }));
```

```
jButton3.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking  
System\\Icons\\delete.png")); // NOI18N
```

```
jButton3.setText("Clear");
```

```
jButton3.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jButton3ActionPerformed(evt);  
    }  
});
```

```
jLabel15.setText("Sec. Answer:");
```

```
jLabel3.setText("MICR No:");
```

```
jTextField5.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jTextField5ActionPerformed(evt);  
    }  
});
```

```

jTextField4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField4ActionPerformed(evt);
    }
});

jLabel6.setText("Gender:");

jLabel13.setText("Mobile:");

jRadioButton1.setText("Male");
jRadioButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jRadioButton1ActionPerformed(evt);
    }
});

jButton1.setIcon(new javax.swing.ImageIcon("D:\\Project\\Banking
System\\Icons\\addusericon_2.png")); // NOI18N
jButton1.setText("Create");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jLabel14.setText("Sec. Question:");

jLabel4.setText("Pin:");

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

```

```

        .addGroup(jPanel1Layout.createSequentialGroup())
        .addContainerGap()

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

        .addGroup(jPanel1Layout.createSequentialGroup())
        .addGap(88, 88, 88)
        .addComponent(jButton1))
    .addGroup(jPanel1Layout.createSequentialGroup())
        .addComponent(jLabel5)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(jComboBox1, 0, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())

    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jLabel2)
        .addComponent(jLabel3)
        .addComponent(jLabel4))
        .addGap(18, 18, 18)

    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
        .addComponent(jTextField3)
        .addComponent(jTextField2)
        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 163,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())

    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addComponent(jLabel8)

    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jLabel6)
        .addComponent(jLabel7)))

```

```

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

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

        .addGroup(jPanel1Layout.createSequentialGroup()

            .addComponent(jRadioButton1)

            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

            .addComponent(jRadioButton2))

            .addComponent(jTextField5, javax.swing.GroupLayout.Alignment.TRAILING)

            .addComponent(jTextField4, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 161,
javax.swing.GroupLayout.PREFERRED_SIZE)))

        .addGap(26, 26, 26)

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

        .addGroup(jPanel1Layout.createSequentialGroup()

            .addComponent(jButton2)

            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 93,
Short.MAX_VALUE)

            .addComponent(jButton3)

            .addGap(54, 54, 54))

        .addGroup(jPanel1Layout.createSequentialGroup()

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

                .addComponent(jLabel10)

                .addComponent(jLabel9)

                .addComponent(jLabel14)

                .addComponent(jLabel13)

                .addComponent(jLabel12)

                .addComponent(jLabel11)

                .addComponent(jLabel15))

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

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

                .addComponent(jTextField6)

```



```

        .addComponent(jTextField7)

        .addComponent(jTextField8)

        .addComponent(jTextField9)

        .addComponent(jTextField10)

        .addComponent(jComboBox2, 0, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)

        .addComponent(jComboBox3, 0, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))))

        .addContainerGap()

    );

    jPanel1Layout.setVerticalGroup(

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

        .addGroup(jPanel1Layout.createSequentialGroup()

            .addContainerGap()

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

                .addComponent(jLabel2)

                .addComponent(jLabel9)

                .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jTextField6, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

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

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

                .addComponent(jLabel3)

                .addComponent(jLabel10)

                .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jTextField7, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

            .addGap(18, 18, 18)

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

                .addComponent(jLabel4)

                .addComponent(jLabel11)

```

```

        .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

        .addComponent(jComboBox2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

        .addGap(18, 18, 18)

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

        .addComponent(jLabel5)

        .addComponent(jLabel12)

        .addComponent(jComboBox1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

        .addComponent(jComboBox3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

        .addGap(18, 18, 18)

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

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

        .addComponent(jLabel13)

        .addComponent(jTextField8, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

        .addComponent(jRadioButton2))

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

        .addComponent(jRadioButton1)

        .addComponent(jLabel6)))

        .addGap(18, 18, 18)

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

        .addComponent(jLabel7)

        .addComponent(jLabel14)

        .addComponent(jTextField4, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

        .addComponent(jTextField9, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

        .addGap(18, 18, 18)

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

```

```

        .addComponent(jLabel8)

        .addComponent(jLabel15)

        .addComponent(jTextField5, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

        .addComponent(jTextField10, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

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

        .addComponent(jButton1)

        .addComponent(jButton2)

        .addComponent(jButton3))

.addContainerGap())

);

jLabel16.setText("Thank you for banking with us");

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(this);
this.setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(28, 28, 28)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addGroup(layout.createSequentialGroup()
                    .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 258,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(0, 0, Short.MAX_VALUE)))
            .addContainerGap())
        .addGroup(layout.createSequentialGroup()
            .addGap(246, 246, 246)
            .addComponent(jLabel16)

```

```

        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 65,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(30, 30, 30)
            .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addComponent(jLabel16)
            .addGap(14, 14, 14))
        );
} // </editor-fold>

```

```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    conn=MYSqLConnect.JK();
    String t1=String.valueOf(jTextField1.getText());
    String t2=String.valueOf(jTextField2.getText());
    String t3=String.valueOf(jTextField3.getText());
    String t4=String.valueOf(jComboBox1.getSelectedItem());
    jRadioButton1.setActionCommand("Male");
    jRadioButton2.setActionCommand("Female");
    String t5=String.valueOf(buttonGroup1.getSelection().getActionCommand());
    String t6=jTextField4.getText();
    String t7=jTextField5.getText();
    String t8=jTextField6.getText();
    String t9=jTextField7.getText();
    String t10=String.valueOf(jComboBox2.getSelectedItem());
    String t11=String.valueOf(jComboBox3.getSelectedItem());
    String t12=jTextField8.getText();
    String t13=jTextField9.getText();
}

```

```

String t14=jTextField10.getText();

try{

    String sql="insert into
Account(Account_No,MICR_No,Pin,Gender,Address,Balance,Name,DOB,Nationality,Caste,Mobile,
Securty_Question,Securty_Answer) values(?,?,?,?,?,?,?,?,?,?,?,?,?)";

    PreparedStatement st=conn.prepareStatement(sql);

    st.setString(1,t1);
    st.setString(2,t2);
    st.setString(3,t3);
    st.setString(4,t4);
    st.setString(5,t5);
    st.setString(6,t6);
    st.setString(7,t7);
    st.setString(8,t8);
    st.setString(9,t9);
    st.setString(10,t10);
    st.setString(11,t11);
    st.setString(12,t12);
    st.setString(13,t13);
    st.setString(14,t14);

    st.execute();

    JOptionPane.showMessageDialog(null,"Data is successfully saved");
}catch(Exception e){
    JOptionPane.showMessageDialog(null,"Data is not saved");
}

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {

    // TODO add your handling code here:

    new Authentication().setVisible(true);

}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {

    // TODO add your handling code here:

```

```

jTextField1.setText("");
jTextField2.setText("");
jTextField3.setText("");
jTextField4.setText("");
jTextField5.setText("");
jTextField6.setText("");
jTextField7.setText("");
jTextField8.setText("");
jTextField9.setText("");
jTextField10.setText("");
}

/**
 * @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>
```

```
/* 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.ButtonGroup buttonGroup1;
```

```
private javax.swing.JButton jButton1;
```

```
private javax.swing.JButton jButton2;
```

```
private javax.swing.JButton jButton3;
```

```
private javax.swing.JComboBox<String> jComboBox1;
```

```
private javax.swing.JComboBox<String> jComboBox2;
```

```
private javax.swing.JComboBox<String> jComboBox3;
```

```
private javax.swing.JLabel jLabel1;
```

```
private javax.swing.JLabel jLabel10;
```

```
private javax.swing.JLabel jLabel11;
```

```
private javax.swing.JLabel jLabel12;
```

```
private javax.swing.JLabel jLabel13;
```

```

private javax.swing.JLabel jLabel14;
private javax.swing.JLabel jLabel15;
private javax.swing.JLabel jLabel16;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JLabel jLabel6;
private javax.swing.JLabel jLabel7;
private javax.swing.JLabel jLabel8;
private javax.swing.JLabel jLabel9;
private javax.swing.JPanel jPanel1;
private javax.swing.JRadioButton jRadioButton1;
private javax.swing.JRadioButton jRadioButton2;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField10;
private javax.swing.JTextField jTextField2;
private javax.swing.JTextField jTextField3;
private javax.swing.JTextField jTextField4;
private javax.swing.JTextField jTextField5;
private javax.swing.JTextField jTextField6;
private javax.swing.JTextField jTextField7;
private javax.swing.JTextField jTextField8;
private javax.swing.JTextField jTextField9;

// End of variables declaration
}

```

#### 4. **Welcome.java**

```

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(Welcome.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);

        } catch (InstantiationException ex) {

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

        } catch (IllegalAccessException ex) {

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

        } catch (javax.swing.UnsupportedLookAndFeelException ex) {

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

        }
    }
}
//</editor-fold>

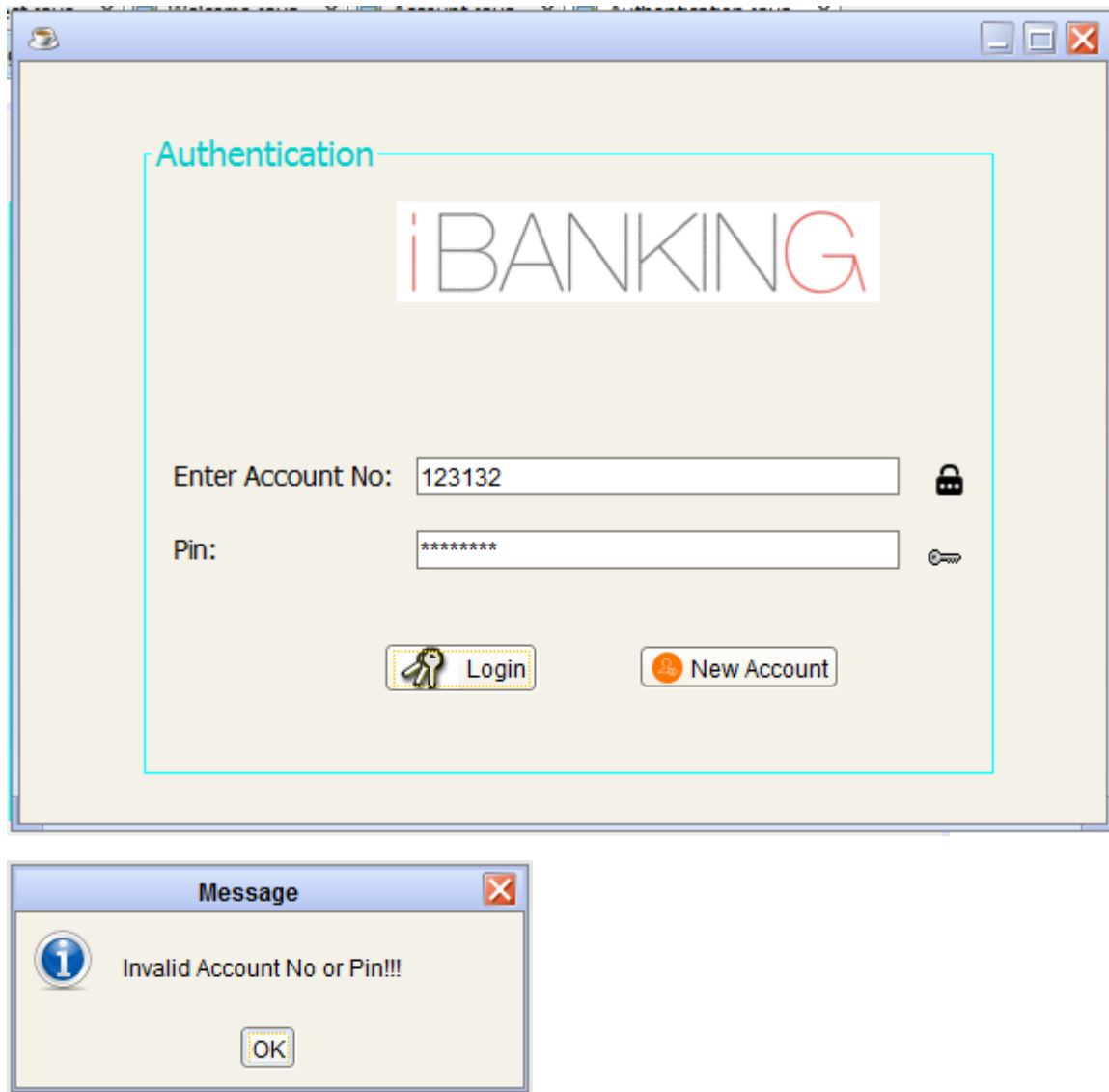
/* Create and display the form */
java.awt.EventQueue.invokeLater(new Runnable() {
    public void run() {
        new Welcome().setVisible(true);
    }
});
}

```

**OUTPUT:**

*JAWWAD KAZI*

1. When customer is not joined with Bank.




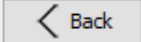
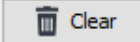
## 2. When customer Registers in Bank

Design Preview [Account]

iBANKING


New Account

Account No:	60180	Name:	Jawwad Kazi
MICR No:	40105099	DOB(dd/mm/yyyy):	06/09/1998
Pin:	6998	Nationality:	Indian
Account Type:	Saving	Caste:	Muslim
Gender:	<input checked="" type="radio"/> Male <input type="radio"/> Female	Mobile:	220467
Address:	Sagave, Rajapur	Sec. Question:	Hero
Balance:	5000	Sec. Answer:	Aamir Khan

 Create  Back  Clear

Thank you for banking with us

Message

 Data is successfully saved

OK

### 3. Database is created

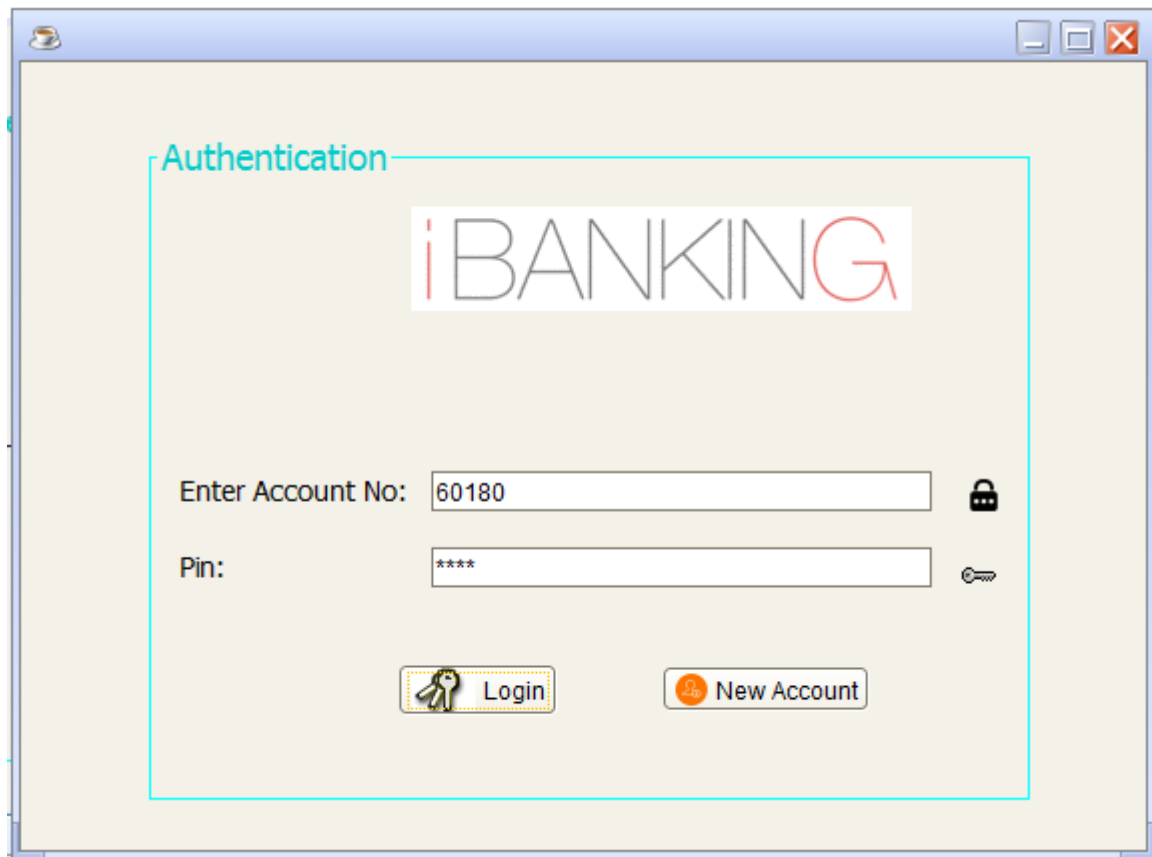
```
mysql> use Bank;
```

Database changed

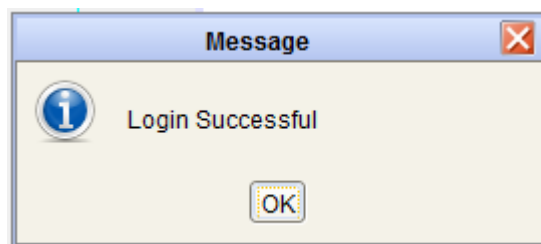
```
mysql> SELECT * FROM Account;
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+
| Account_No | MICR_No | Pin | Account_Type | Gender | Address      | Balance | Name      | DOB
| Nationality | Caste  | Mobile | Secuirty_Question | Secuirty_Answer |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 60180 | 40105099 | 6998 | Saving      | Male | Sagave, Rajapur | 5000 | Jawwad Kazi |
06/09/1998 | Indian  | Muslim | 220467 | Hero      | Aamir Khan  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.06 sec)
```

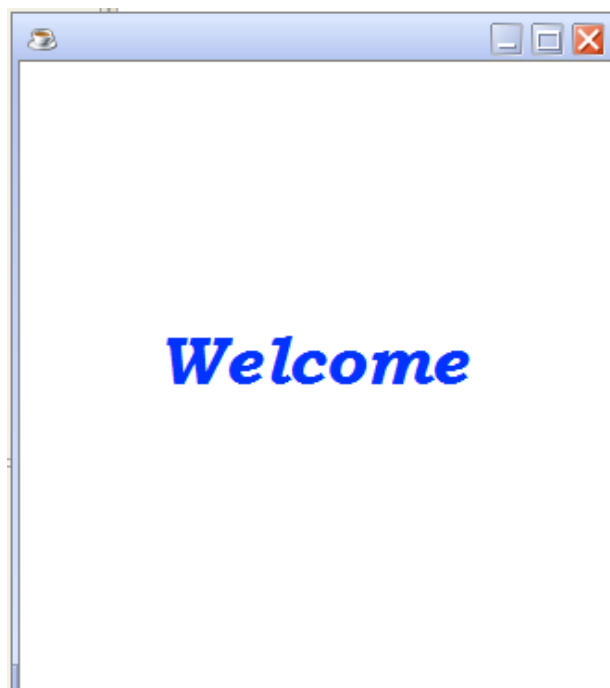
4. When registered customer tries to access its account



The image shows a software window titled "Authentication" with a light beige background. At the top center is the "iBANKING" logo, where the "i" is red and "BANKING" is grey, with a red "G". Below the logo are two input fields. The first is labeled "Enter Account No:" and contains the text "60180". To its right is a black padlock icon. The second field is labeled "Pin:" and contains five asterisks "\*\*\*\*\*". To its right is a black key icon. At the bottom of the window are two buttons: "Login" with a key icon and "New Account" with an orange plus icon.



The image shows a small "Message" dialog box with a blue title bar and a close button. It has a light beige background. On the left is a blue circular icon with a white "i". To its right is the text "Login Successful". At the bottom center is an "OK" button.



The image shows a software window with a light beige background. In the center, the word "Welcome" is displayed in a large, bold, blue, italicized serif font.