

Java Project

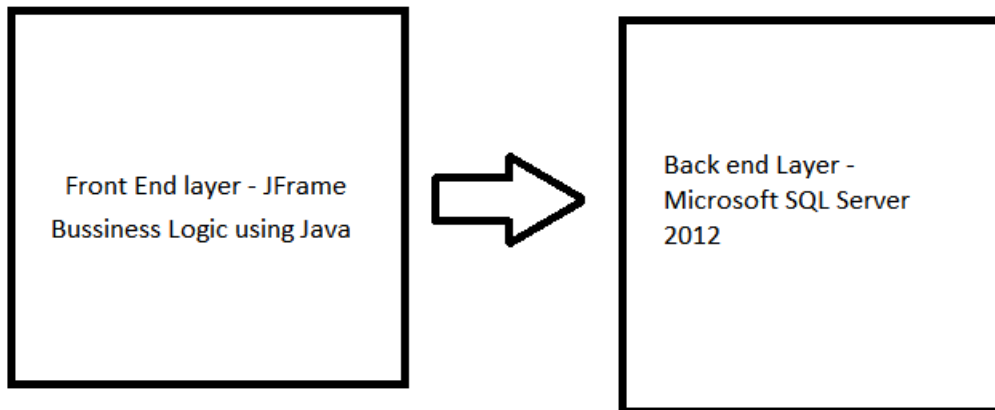
Simple Bank Application

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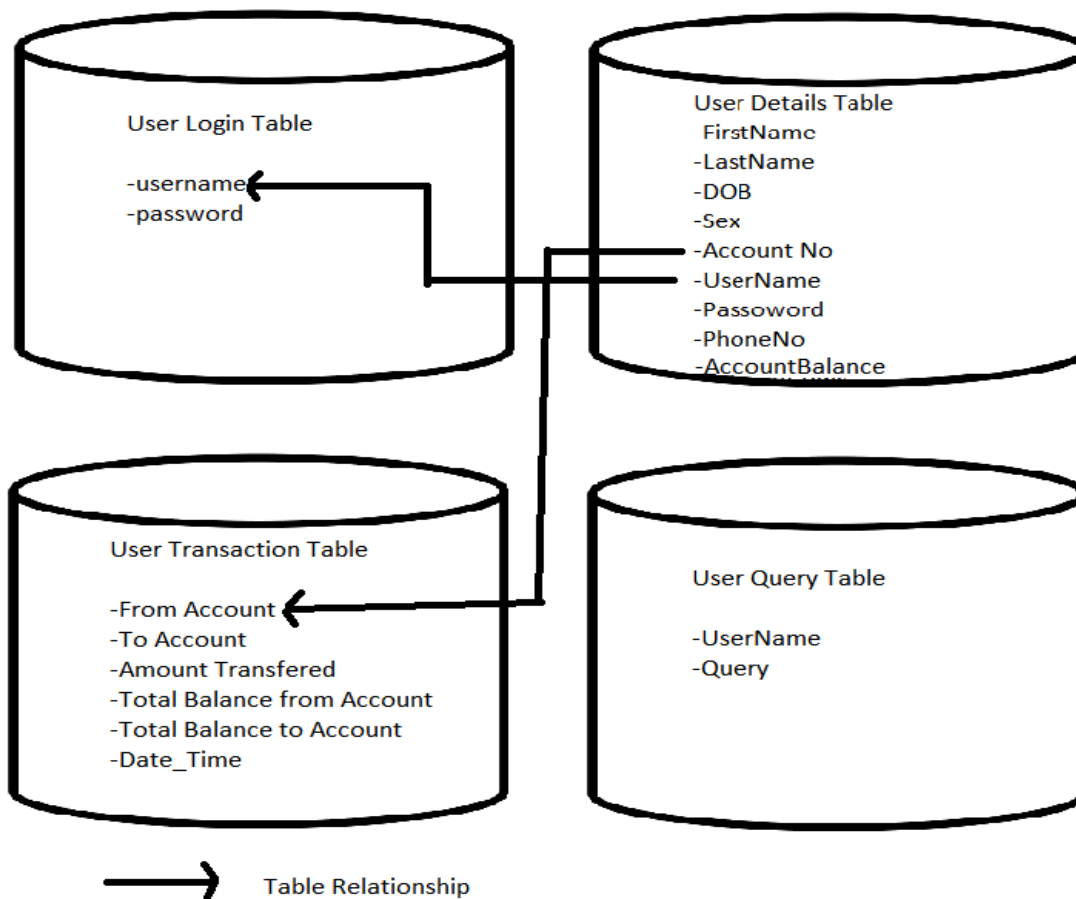
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Layers in the Application



List of Tables Used:



Essential Use Cases:

Scope:

- Creating a simple banking application
- User must able to create an account
- User can update the account details
- Transfer money from one account to another account
- View the transaction summary in the application or able to export it
- Can able to contact bank support

Level: User Goal

Primary Actor:

- The primary actor can be anybody who wants to use a simple bank application and

Main Success Scenario:

- Must check for correct user password
- Able to create account successfully
- The Account details should be correctly displayed
- Must be able to transfer money from one account to another
- The transaction summary should be correctly displayed
- Must be able to contact support

Code: UserLogin.java

```

package myProject;

import java.awt.Color;
import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPasswordField;
import javax.swing.JTextField;

public class UserLogin {

    private static JFrame frame;
    private JTextField userTxt;
    private JPasswordField passTxt;
    private JButton btnLogin;
    public static String user="",pass;

    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {
                    UserLogin window = new UserLogin();
                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    public UserLogin() {
        initialize();
    }

    public void initialize() {
        System.out.println("Frame Created");
        frame = new JFrame();
        frame.getContentPane().setBackground(new Color(210, 105, 30));
        frame.setVisible(true);
        frame.setBounds(100, 100, 530, 443);
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.getContentPane().setLayout(null);

        JLabel lblUserName = new JLabel("User Name:");
    }

```

```

lblUserName.setBackground(Color.BLUE);
lblUserName.setFont(new Font("Tahoma", Font.PLAIN, 16));
lblUserName.setBounds(144, 104, 93, 33);
frame.getContentPane().add(lblUserName);

JLabel lblPassword = new JLabel("Password:");
lblPassword.setFont(new Font("Tahoma", Font.PLAIN, 16));
lblPassword.setBounds(144, 150, 93, 33);
frame.getContentPane().add(lblPassword);

userTxt = new JTextField();
userTxt.setBounds(260, 110, 116, 22);
frame.getContentPane().add(userTxt);
userTxt.setColumns(10);

passTxt = new JPasswordField();
passTxt.setColumns(10);
passTxt.setBounds(260, 156, 116, 22);
frame.getContentPane().add(passTxt);

btnLogin = new JButton("Login");
btnLogin.setBounds(156, 211, 97, 25);
frame.getContentPane().add(btnLogin);

JButton btnCancel = new JButton("Cancel");
btnCancel.setBounds(279, 211, 97, 25);
frame.getContentPane().add(btnCancel);

JButton btnNewUserSign = new JButton("New User? Sign Up");
btnNewUserSign.setBounds(205, 273, 156, 33);
frame.getContentPane().add(btnNewUserSign);

JLabel lblRavisTrustedBank = new JLabel("Ravi's Trusted Bank");
lblRavisTrustedBank.setFont(new Font("Times New Roman", Font.BOLD, 22));
lblRavisTrustedBank.setBounds(156, 58, 220, 33);
frame.getContentPane().add(lblRavisTrustedBank);

btnCancel.addActionListener(new ActionListener(){

    @Override
    public void actionPerformed(ActionEvent arg0) {
        System.exit(0);
    }

});

btnNewUserSign.addActionListener(new ActionListener(){

    public void actionPerformed(ActionEvent arg0) {
        new SignUpPage();
    }

});

checkLoginDetails();
}

public void checkLoginDetails(){

```

```

        btnLogin.addActionListener(new ActionListener(){
            public void actionPerformed(ActionEvent e) {
                setUser(userTxt.getText());
                pass=passTxt.getText();

                String connectionUrl = "jdbc:sqlserver://RAVI-
PC;databaseName=MyBank;integratedSecurity=true;";
                Connection con;
                try {
                    con = DriverManager.getConnection(connectionUrl);
                    Statement s = con.createStatement();
                    ResultSet r = s.executeQuery("SELECT username,rtrim(userpassword)
FROM userlogin where username='"+user+"'");
                    while (r.next()) {
                        String s1=r.getString(2);
                        if(s1.equals(pass)){
                            System.out.println("login Success");
                            frame.dispose();
                            new OptionPage();

                        }else{
                            JOptionPane.showMessageDialog(null, "The user name or
password is not correct");
                        }
                    }
                } catch (SQLException e1) {
                    e1.printStackTrace();
                }
            }
        });

    }
    public void setUser(String user){
        this.user=user;
    }
    public static String getUser(){
        return user;
    }
}

```

Code: OptionPage.java

```

package myProject;

import java.awt.Color;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

```

```

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JTabbedPane;
import javax.swing.JTextPane;

public class OptionPage{
    private JFrame frame;
    public static boolean dwnbool = false;

    public OptionPage() {
        System.out.println("Option Page Called");
        frame = new JFrame();
        frame.setVisible(true);
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setBounds(100, 100, 648, 519);
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.getContentPane().setLayout(null);
        frame.getContentPane().setBackground(Color.BLUE);

        JTabbedPane tabbedPane = new JTabbedPane(JTabbedPane.TOP);
        tabbedPane.setBounds(12, 0, 568, 421);
        frame.getContentPane().add(tabbedPane);

        tabbedPane.add("Account Detail", acctSumm());
        tabbedPane.add("Start Transaction", startTran() );
        tabbedPane.add("Transaction Summary", tranSumm());
        tabbedPane.add("Contact Support", querySumm());
        //tabbedPane.setLayout(null);
        JButton btnLogout = new JButton("Logout");
        btnLogout.setBounds(478, 437, 113, 25);
        frame.getContentPane().add(btnLogout);

        btnLogout.addActionListener(new ActionListener(){

            @Override
            public void actionPerformed(ActionEvent arg0) {

                new UserLogin();
                frame.dispose();

            }

        });

    }

    private JPanel acctSumm(){
        JPanel asum = new JPanel();
        asum.setLayout(null);
        String fname="",lname="",dob="",sex="",accno="",uname="",phone="";
        Statement s;
        String connection1="jdbc:sqlserver://RAVI-
PC;databaseName=MyBank;integratedSecurity=true;";
        try {

```

```

        Connection con=DriverManager.getConnection(connection1);
        s =con.createStatement();
        ResultSet r = s.executeQuery("select
firstname,lastname,dob,sex,accountno,username,phoneno from userdetails where
username='"+UserLogin.getUser()+"'");
        while(r.next()){

            fname="First Name: "+r.getString(1);
            lname="Last Name:  "+r.getString(2);
            dob="DOB:          "+r.getString(3);
            sex="Gender:       "+r.getString(4);
            accno="Account No: "+r.getBigDecimal(5).toString();
            uname="User Name:  "+r.getString(6);
            phone="Phone No:   "+r.getBigDecimal(7).toString();

        }
    }catch(SQLException e){
        e.printStackTrace();
    }
    JLabel lblFirstName = new JLabel(fname);
    lblFirstName.setBounds(73, 55, 407, 16);

    JLabel lblLastName = new JLabel(lname);
    lblLastName.setBounds(73, 93, 407, 16);

    JLabel lblDob = new JLabel(dob);
    lblDob.setBounds(73, 129, 407, 16);

    JLabel lblAccountNo = new JLabel(accno);
    lblAccountNo.setBounds(73, 158, 407, 16);

    JLabel lblUserName = new JLabel(uname);
    lblUserName.setBounds(73, 193, 407, 16);

    JLabel lblPhoneNo = new JLabel(phone);
    lblPhoneNo.setBounds(73, 228, 407, 16);

    JLabel lblGender = new JLabel(sex);
    lblGender.setBounds(73, 257, 407, 16);

    JButton btnUpdateUserDetails = new JButton("Update User Details");
    btnUpdateUserDetails.setBounds(396, 339, 164, 25);
    asum.add(btnUpdateUserDetails);

    btnUpdateUserDetails.addActionListener(new ActionListener(){

        @Override
        public void actionPerformed(ActionEvent arg0) {
            new UpdateUser();
        }

    });

    JButton btnChangePassword = new JButton("Change Password");
    btnChangePassword.setBounds(224, 339, 140, 25);
    asum.add(btnChangePassword);

```



```

btnChangePassword.addActionListener(new ActionListener(){

    @Override
    public void actionPerformed(ActionEvent arg0) {

        try {
            Connection con = DriverManager.getConnection(connection1);
            Statement s = con.createStatement();
            ResultSet r1= s.executeQuery("select rtrim(password) from
userdetails where username='"+UserLogin.getUser()+"'");
            while(r1.next()){
                String pass = r1.getString(1);
                new UpdateUser(pass);
            }
        } catch (SQLException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }

    }

});

asum.add(lblFirstName);
asum.add(lblLastName);
asum.add(lblDob);
asum.add(lblAccountNo);
asum.add(lblUserName);
asum.add(lblPhoneNo);
asum.add(lblGender);

return asum;

}

public JPanel startTran(){
    JPanel str = new JPanel();
    Transaction t = new Transaction();
    str =t.tranc();
    return str;
}

public JPanel tranSumm(){
    JPanel tsum = new JPanel();
    tsum.setLayout(null);
    JButton btnShowTransactionSummary = new JButton("Show Transaction Summary");
    btnShowTransactionSummary.setBounds(167, 101, 233, 25);
    btnShowTransactionSummary.addActionListener(new ActionListener(){
        public void actionPerformed(ActionEvent arg0) {
            new ShowSummary();
        }
    });
    JButton btndwnldsum = new JButton("Download Transaction Summary");
    btndwnldsum.setBounds(167, 158, 233, 25);
    btndwnldsum.addActionListener(new ActionListener(){
        public void actionPerformed(ActionEvent arg0) {
            dwnbool=true;
            new ShowSummary();
        }
    });
}

```

```

});

tsum.add(btnShowTransactionSummary);
tsum.add(btndwnldsum);
return tsum;
}
public JPanel querySumm(){
    JPanel qp = new JPanel();
    JTextPane textPane = new JTextPane();
    textPane.setBounds(83, 94, 397, 157);
    qp.setLayout(null);

    JLabel lblSubmitQuery = new JLabel("Submit Query");
    lblSubmitQuery.setFont(new Font("Tahoma", Font.PLAIN, 20));
    lblSubmitQuery.setBounds(83, 56, 152, 25);
    qp.add(lblSubmitQuery);

    JButton btnSubmit = new JButton("Submit");
    btnSubmit.setBounds(374, 52, 97, 25);
    qp.add(btnSubmit);
    qp.add(textPane);

    btnSubmit.addActionListener(new ActionListener(){

        @Override
        public void actionPerformed(ActionEvent arg0) {
            String user = UserLogin.getUser();
            String query = textPane.getText();
            String connectionurl="jdbc:sqlserver://Ravi-
PC;databaseName=MyBank;integratedSecurity=true;";
            try {
                Connection c = DriverManager.getConnection(connectionurl);
                Statement s =c.createStatement();
                s.executeUpdate("insert into userquery
values('"+user+"','"+query+"')");
                JOptionPane.showMessageDialog(null,"Your query has been raised");
            } catch (SQLException e) {
                // TODO Auto-generated catch block
                e.printStackTrace();
            }

        }

    });
    return qp;
}
}

```

Code: SignUpPage.java

```
package myProject;
```

```

import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Statement;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPasswordField;
import javax.swing.JTextField;

public class SignUpPage {
    private JFrame frmSignUp;
    private JTextField textField;
    private JTextField textField_1;
    private JTextField textField_2;
    private JTextField textField_3;
    private JTextField textField_4;
    private JTextField textField_5;
    private JPasswordField textField_6;
    private JPasswordField textField_7;
    private JTextField textField_8;
    private JLabel lblAccountBalance;
    private JTextField textField_9;

    public SignUpPage(){
        frmSignUp = new JFrame();
        frmSignUp.setVisible(true);
        frmSignUp.setTitle("Sign Up");
        frmSignUp.setBounds(100, 100, 642, 606);
        frmSignUp.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frmSignUp.getContentPane().setLayout(null);

        JLabel lblFirstName = new JLabel("First Name:");
        lblFirstName.setBounds(169, 42, 117, 16);
        frmSignUp.getContentPane().add(lblFirstName);

        JLabel lblLastName = new JLabel("Last Name:");
        lblLastName.setBounds(169, 88, 117, 16);
        frmSignUp.getContentPane().add(lblLastName);

        JLabel lblDateOfBirth = new JLabel("Date of Birth(MM/DD/YY):");
        lblDateOfBirth.setBounds(169, 132, 146, 16);
        frmSignUp.getContentPane().add(lblDateOfBirth);

        JLabel lblSex = new JLabel("Sex:");
        lblSex.setBounds(169, 174, 56, 16);
        frmSignUp.getContentPane().add(lblSex);

        JLabel lblAccountNumber = new JLabel("Account Number:");
        lblAccountNumber.setBounds(169, 217, 117, 16);
        frmSignUp.getContentPane().add(lblAccountNumber);

        JLabel lblUserName = new JLabel("User Name:");
        lblUserName.setBounds(169, 259, 117, 16);
    }

```

```
frmSignUp.getContentPane().add(lblUserName);

JLabel lblPassword = new JLabel("Password:");
lblPassword.setBounds(169, 296, 117, 16);
frmSignUp.getContentPane().add(lblPassword);

JLabel lblRetypePassword = new JLabel("Retype Password:");
lblRetypePassword.setBounds(169, 333, 117, 16);
frmSignUp.getContentPane().add(lblRetypePassword);

JLabel lblPhoneNumber = new JLabel("Phone Number:");
lblPhoneNumber.setBounds(169, 374, 117, 16);
frmSignUp.getContentPane().add(lblPhoneNumber);

textField = new JTextField();
textField.setBounds(334, 39, 189, 22);
frmSignUp.getContentPane().add(textField);
textField.setColumns(10);

textField_1 = new JTextField();
textField_1.setColumns(10);
textField_1.setBounds(334, 85, 189, 22);
frmSignUp.getContentPane().add(textField_1);

textField_2 = new JTextField();
textField_2.setColumns(10);
textField_2.setBounds(334, 129, 189, 22);
frmSignUp.getContentPane().add(textField_2);

textField_3 = new JTextField();
textField_3.setColumns(10);
textField_3.setBounds(334, 171, 189, 22);
frmSignUp.getContentPane().add(textField_3);

textField_4 = new JTextField();
textField_4.setColumns(10);
textField_4.setBounds(334, 214, 189, 22);
frmSignUp.getContentPane().add(textField_4);

textField_5 = new JTextField();
textField_5.setColumns(10);
textField_5.setBounds(334, 256, 189, 22);
frmSignUp.getContentPane().add(textField_5);

textField_6 = new JPasswordField();
textField_6.setColumns(10);
textField_6.setBounds(334, 293, 189, 22);
frmSignUp.getContentPane().add(textField_6);

textField_7 = new JPasswordField();
textField_7.setColumns(10);
textField_7.setBounds(334, 330, 189, 22);
frmSignUp.getContentPane().add(textField_7);

textField_8 = new JTextField();
textField_8.setColumns(10);
textField_8.setBounds(334, 371, 189, 22);
frmSignUp.getContentPane().add(textField_8);
```

```

JButton btnSubmit = new JButton("Submit");
btnSubmit.setBounds(189, 487, 97, 25);
frmSignUp.getContentPane().add(btnSubmit);
btnSubmit.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent e){
        saveUser();
    }
});
JButton btnCancel = new JButton("Cancel");
btnCancel.setBounds(336, 487, 97, 25);
frmSignUp.getContentPane().add(btnCancel);

btnCancel.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent arg0) {
        frmSignUp.dispose();
    }
});

JLabel lblSignUp = new JLabel("Sign Up");
lblSignUp.setBounds(281, 13, 56, 16);
frmSignUp.getContentPane().add(lblSignUp);

lblAccountBalance = new JLabel("Account Balance:");
lblAccountBalance.setBounds(169, 415, 117, 16);
frmSignUp.getContentPane().add(lblAccountBalance);

textField_9 = new JTextField();
textField_9.setColumns(10);
textField_9.setBounds(334, 412, 189, 22);
frmSignUp.getContentPane().add(textField_9);
}
private void saveUser() {
    String connection1="jdbc:sqlserver://RAVI-
PC;databaseName=MyBank;integratedSecurity=true;";
    try {
        Connection con=DriverManager.getConnection(connection1);
        Statement s =con.createStatement();
        if(textField_6.getText().equals(textField_7.getText()))
        {
            s.executeUpdate("insert into userdetails
values('"+textField_1.getText()+"','"+textField_2.getText()+"','"+textField_3.getText()+"','"+textField_4.getText()+"','"+textField_5.getText()+"','"+textField_6.getText()+"','"+textField_8.getText()+"','"+textField_9.getText()+"')");
            s.executeUpdate("insert into userlogin
values('"+textField_5.getText()+"','"+textField_6.getText()+"')");
            JOptionPane.showMessageDialog(null, "Registered Successfully");
            new UserLogin();
        }
        else{
            JOptionPane.showMessageDialog(null, "The password does not match");
        }
    } catch (SQLException e) {
        e.printStackTrace();
    }
}
}
}

```

Code: Transaction.java

```

package myProject;

import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.text.SimpleDateFormat;
import java.util.Date;

import javax.swing.JButton;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JPasswordField;
import javax.swing.JTextField;

public class Transaction {
    private JTextField textField;
    private JTextField textField_1;
    private JPasswordField textField_2;
    JLabel lblCurrentBalance;

    static int frmacc=0,toacc=0,amttran=0,totbalfrom=0,totbalto=0;
    String dt="";

    public JPanel tranc(){
        JPanel p= new JPanel();
        p.setLayout(null);
        JLabel lblTransferToAccount = new JLabel("Transfer to Account:");
        lblTransferToAccount.setBounds(96, 135, 132, 16);
        p.add(lblTransferToAccount);

        textField = new JTextField();
        textField.setBounds(226, 132, 165, 22);
        p.add(textField);
        textField.setColumns(10);

        JLabel lblAmount = new JLabel("Amount:");
        lblAmount.setBounds(96, 175, 56, 16);
        p.add(lblAmount);

        textField_1 = new JTextField();
        textField_1.setColumns(10);
        textField_1.setBounds(226, 172, 165, 22);
        p.add(textField_1);

        JLabel lblPassword = new JLabel("Password:");
        lblPassword.setBounds(96, 217, 118, 16);
        p.add(lblPassword);
    }
}

```

```

textField_2 = new JPasswordField();
textField_2.setBounds(226, 214, 165, 22);
p.add(textField_2);
textField_2.setColumns(10);

lblCurrentBalance = new JLabel();
lblCurrentBalance.setBounds(96, 75, 195, 16);
p.add(lblCurrentBalance);

displayTotal();
JButton btnSubmit = new JButton("Submit");
btnSubmit.setBounds(111, 272, 97, 25);
p.add(btnSubmit);
btnSubmit.addActionListener(new ActionListener(){

    public void actionPerformed(ActionEvent arg0) {
        String con="jdbc:sqlserver://RAVI-
PC;databaseName=MyBank;integratedSecurity=true;";
        amttran=Integer.parseInt(textField_1.getText());
        try {
            Connection c=DriverManager.getConnection(con);
            Statement s = c.createStatement();
            int amt=Integer.parseInt(textField_1.getText());
            ResultSet r= s.executeQuery("select
rtrim(password),accountno,acc_bal from userdetails where username='"+UserLogin.getUser()+"");
            while(r.next()){
                int acc1 = r.getInt(3)-amt;
                totbalfrom=acc1;
                frmacc=r.getInt(2);
                if(r.getString(1).equals(textField_2.getText())){
                    s.executeUpdate("update userdetails set
acc_bal="+acc1+"where username='"+UserLogin.getUser()+"");
                    System.out.println("Transaction processed");
                    displayTotal();
                }
            }

        } catch (SQLException e) {
            //e.printStackTrace();
        }
        try{
            Connection c2=DriverManager.getConnection(con);
            Statement s2 = c2.createStatement();
            int amt=Integer.parseInt(textField_1.getText());
            ResultSet r2=s2.executeQuery("select acc_bal from userdetails where
accountno="+textField.getText());
            while(r2.next()){
                toacc=Integer.parseInt(textField.getText());
                int acc2=r2.getInt(1)+amt;
                totbalto=acc2;
                s2.executeUpdate("update userdetails set acc_bal="+acc2+"where
accountno="+textField.getText());
                JOptionPane.showMessageDialog(null, "Transaction is
Successfull");
            }
        }catch(SQLException e){
            //e.printStackTrace();
        }
    }
}

```

```

        saveTransaction();
    }
});

    return p;
}
public void displayTotal(){
    String con="jdbc:sqlserver://RAVI-PC;databaseName=MyBank;integratedSecurity=true;";
    try {
        Connection c1=DriverManager.getConnection(con);
        Statement s1 = c1.createStatement();
        ResultSet r1=s1.executeQuery("select acc_bal from userdetails where
username='"+UserLogin.getUser()+"'");
        while(r1.next()){
            lblCurrentBalance.setText("Current Balance: $" +r1.getString(1));
        }
    }catch(SQLException e){
        e.printStackTrace();
    }
}

public JPanel transSumm(){
    return null;
}
public void saveTransaction(){
    String con="jdbc:sqlserver://RAVI-PC;databaseName=MyBank;integratedSecurity=true;";
    try {
        Connection c3=DriverManager.getConnection(con);
        Statement s3 = c3.createStatement();
        s3.executeUpdate("insert into transdetail
values("+frmacc+", "+toacc+", "+amttran+", "+totbalfrom+", "+totbalto+", '"+getDate()+"')");
    }catch(SQLException e){
        e.printStackTrace();
    }
}
public String getDate(){
    String time;
    Date d = new Date();
    SimpleDateFormat fmt = new SimpleDateFormat("hh:mm:ss a d MMMM yyyy E");
    time=fmt.format(d);
    return(time);
}
}

```

Code: ShowSummary.java

```

package myProject;

import java.io.File;
import java.io.FileWriter;
import java.io.IOException;
import java.math.BigInteger;
import java.sql.Connection;

```



```

import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Vector;

import javax.swing.JOptionPane;
import javax.swing.JScrollPane;
import javax.swing.JTable;
import javax.swing.table.DefaultTableModel;
import javax.swing.table.TableModel;

public class ShowSummary {
    BigInteger acc;
    JTable table;
    FileWriter os;
    public ShowSummary() {
        String con="jdbc:sqlserver://RAVI-
PC;databaseName=MyBank;integratedSecurity=true;";
        try {
            Connection c3=DriverManager.getConnection(con);
            Statement s3 = c3.createStatement();
            ResultSet rs=s3.executeQuery("select accountno from userdetails where
username='"+UserLogin.getUser()+"'");
            while(rs.next()){
                acc=BigInteger.valueOf(rs.getInt(1));
                System.out.println(acc);
            }
        }catch(SQLException e){
            e.printStackTrace();
        }
        try {
            Connection c3=DriverManager.getConnection(con);
            Statement s3 = c3.createStatement();
            ResultSet rs=s3.executeQuery("select * from trandetail where
from_acc="+acc+" or to_acc="+acc+" order by date_time");
            table = new JTable(buildTableModel(rs));
            if(!OptionPage.dwnbool){
                JOptionPane.showMessageDialog(null, new JScrollPane(table));
            }
            else{
                try {
                    os = new FileWriter(new File("E:\\\\tran1.txt"));
                } catch (IOException e1) {
                    // TODO Auto-generated catch block
                    e1.printStackTrace();
                }
                TableModel model = table.getModel();
                for(int i = 0; i < model.getColumnCount(); i++){
                    os.write(model.getColumnName(i) + "\t");
                }
                for( int i = 0; i < model.getRowCount(); i++ )
                {
                    for( int j = 0; j < model.getColumnCount(); j++ )
                    {
                        System.out.println(model.getValueAt(i, j));
                    }
                }
            }
        }
    }
}

```

```

        os.write(model.getValueAt(i, j).toString()+"\t");
    } catch (IOException e) {
        e.printStackTrace();
    }
}

os.write("\n");

    }
}
} catch (SQLException e){
    e.printStackTrace();
} catch (IOException e) {
    // TODO Auto-generated catch block
    e.printStackTrace();
}
}

public static DefaultTableModel buildTableModel(ResultSet rs)
    throws SQLException {

    ResultSetMetaData metaData = rs.getMetaData();

    // names of columns
    Vector<String> columnNames = new Vector<String>();
    int columnCount = metaData.getColumnCount();
    for (int column = 1; column <= columnCount; column++) {
        columnNames.add(metaData.getColumnName(column));
    }
    System.out.println(columnNames);

    // data of the table
    Vector<Vector<Object>> data = new Vector<Vector<Object>>();
    while (rs.next()) {
        Vector<Object> vector = new Vector<Object>();
        for (int columnIndex = 1; columnIndex <= columnCount; columnIndex++) {
            vector.add(rs.getObject(columnIndex));
        }
        data.add(vector);
    }
    System.out.println(data);
    return new DefaultTableModel(data, columnNames);
}
}

```

Code: UpdateUser.java

```

package myProject;

import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;

```

```

import java.sql.Statement;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPasswordField;
import javax.swing.JTextField;

public class UpdateUser {

    private JPasswordField ptextField;
    private JPasswordField ptextField_1;
    private JPasswordField ptextField_2;
    private JTextField textField;
    private JTextField textField_1;
    private JTextField textField_2;
    private JTextField textField_3;
    private JTextField textField_4;
    private JButton btnSubmit;

    JFrame frame;
    String connection1="jdbc:sqlserver://RAVI-PC;databaseName=MyBank;integratedSecurity=true;";

    public UpdateUser(){
        frame = new JFrame();
        frame.setVisible(true);
        frame.setTitle("Update Details");
        frame.setBounds(100, 100, 640, 384);
        frame.getContentPane().setLayout(null);

        JLabel lblFirstName = new JLabel("First Name:");
        lblFirstName.setBounds(169, 42, 117, 16);
        frame.getContentPane().add(lblFirstName);

        JLabel lblLastName = new JLabel("Last Name:");
        lblLastName.setBounds(169, 88, 117, 16);
        frame.getContentPane().add(lblLastName);

        JLabel lblDateOfBirth = new JLabel("Date of Birth(MM/DD/YY):");
        lblDateOfBirth.setBounds(169, 132, 146, 16);
        frame.getContentPane().add(lblDateOfBirth);

        JLabel lblSex = new JLabel("Sex:");
        lblSex.setBounds(169, 174, 56, 16);
        frame.getContentPane().add(lblSex);

        JLabel lblPhoneNumber = new JLabel("Phone Number:");
        lblPhoneNumber.setBounds(169, 209, 117, 16);
        frame.getContentPane().add(lblPhoneNumber);

        textField = new JTextField();
        textField.setBounds(334, 39, 189, 22);
        frame.getContentPane().add(textField);
        textField.setColumns(10);

        textField_1 = new JTextField();
        textField_1.setColumns(10);

```

```

textField_1.setBounds(334, 85, 189, 22);
frame.getContentPane().add(textField_1);

textField_2 = new JTextField();
textField_2.setColumns(10);
textField_2.setBounds(334, 129, 189, 22);
frame.getContentPane().add(textField_2);

textField_3 = new JTextField();
textField_3.setColumns(10);
textField_3.setBounds(334, 171, 189, 22);
frame.getContentPane().add(textField_3);

textField_4 = new JTextField();
textField_4.setColumns(10);
textField_4.setBounds(334, 206, 189, 22);
frame.getContentPane().add(textField_4);

btnSubmit = new JButton("Update");
btnSubmit.setBounds(185, 263, 97, 25);
frame.getContentPane().add(btnSubmit);
displayInTextfield();
btnSubmit.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent e){
        Connection con;
        try {
            con = DriverManager.getConnection(connection1);
            Statement s =con.createStatement();
            s.executeUpdate("update userdetails set firstname='"+
textField.getText()+"',lastname = '"+textField_1.getText()+"',dob ='"+textField_2.getText()+"',sex
='"+textField_3.getText()+"',phoneno ='"+textField_4.getText()+" where username
='"+UserLogin.getUser()+"'");
JOptionPane.showMessageDialog(null, "The account details has been
updated");
            frame.dispose();
        } catch (SQLException e1) {
            // TODO Auto-generated catch block
            e1.printStackTrace();
        }
    }
});

JButton btnCancel = new JButton("Cancel");
btnCancel.setBounds(334, 263, 97, 25);
frame.getContentPane().add(btnCancel);

btnCancel.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent arg0) {
        frame.dispose();
    }
});

JLabel lblSignUp = new JLabel("Update");
lblSignUp.setBounds(281, 13, 56, 16);

```

```

        frame.getContentPane().add(lblSignUp);
    }

    private void displayInTextfield(){
        Connection con;
        try {
            con = DriverManager.getConnection(connection1);
            Statement s =con.createStatement();
            ResultSet rs= s.executeQuery("select firstname,lastname,dob,sex,phoneno from
userdetails where username='"+UserLogin.getUser()+"'");
            while(rs.next()){
                String fname =rs.getString(1), lname =rs.getString(2),dob =
rs.getString(3),sex=rs.getString(4);
                String phone=Integer.toString(rs.getInt(5));
                textField.setText(fname);
                textField_1.setText(lname);
                textField_2.setText(dob);
                textField_3.setText(sex);
                textField_4.setText(phone);
            }
        } catch (SQLException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }
    }

    public UpdateUser(String pass) {
        frame = new JFrame("Update Password");
        frame.setVisible(true);
        frame.getContentPane().setLayout(null);
        frame.setSize(600, 600);
        JLabel lblOldPassword = new JLabel("Old Password:");
        lblOldPassword.setFont(new Font("Tahoma", Font.BOLD, 18));
        lblOldPassword.setBounds(88, 92, 174, 28);
        frame.getContentPane().add(lblOldPassword);

        JLabel lblNewPassword = new JLabel("New Password:");
        lblNewPassword.setFont(new Font("Tahoma", Font.BOLD, 18));
        lblNewPassword.setBounds(88, 148, 174, 28);
        frame.getContentPane().add(lblNewPassword);

        JLabel lblRetypeNewPassword = new JLabel("Retype New Password:");
        lblRetypeNewPassword.setFont(new Font("Tahoma", Font.BOLD, 18));
        lblRetypeNewPassword.setBounds(88, 203, 220, 28);
        frame.getContentPane().add(lblRetypeNewPassword);

        ptextField = new JPasswordField();
        ptextField.setBounds(355, 97, 167, 22);
        frame.getContentPane().add(ptextField);
        ptextField.setColumns(10);

        ptextField_1 = new JPasswordField();
        ptextField_1.setColumns(10);
        ptextField_1.setBounds(355, 153, 167, 22);
        frame.getContentPane().add(ptextField_1);
    }

```

```

ptextField_2 = new JPasswordField();
ptextField_2.setColumns(10);
ptextField_2.setBounds(355, 208, 167, 22);
frame.getContentPane().add(ptextField_2);

JButton btnUpdate = new JButton("Update");
btnUpdate.setBounds(146, 276, 97, 25);
frame.getContentPane().add(btnUpdate);
btnUpdate.addActionListener(new ActionListener(){

    @Override
    public void actionPerformed(ActionEvent e) {
        if(pass.equals(ptextField.getText())){
            if(ptextField_1.getText().equals(ptextField_2.getText())){
                try {
                    Connection con
=DriverManager.getConnection(connection1);
                    Statement s =con.createStatement();
                    s.executeUpdate("update userdetails set password='"+
ptextField_1.getText()+"' where username='"+UserLogin.getUser()+"'");
                    s.executeUpdate("update userlogin set
userpassword='"+ ptextField_1.getText()+"' where username='"+UserLogin.getUser()+"'");
                    JOptionPane.showMessageDialog(null, "The password
has been successfully changed");

                    frame.dispose();

                } catch (SQLException e1) {
                    // TODO Auto-generated catch block
                    e1.printStackTrace();
                }
            }else{
                JOptionPane.showMessageDialog(null, "The entered new
passwords does not match");
            }
        }else{
            JOptionPane.showMessageDialog(null, "Your old password is
wrong");
        }
    }

});

JButton btnCancel = new JButton("Cancel");
btnCancel.setBounds(282, 276, 97, 25);
frame.getContentPane().add(btnCancel);
btnCancel.addActionListener(new ActionListener(){

    @Override
    public void actionPerformed(ActionEvent arg0) {
        frame.dispose();
    }

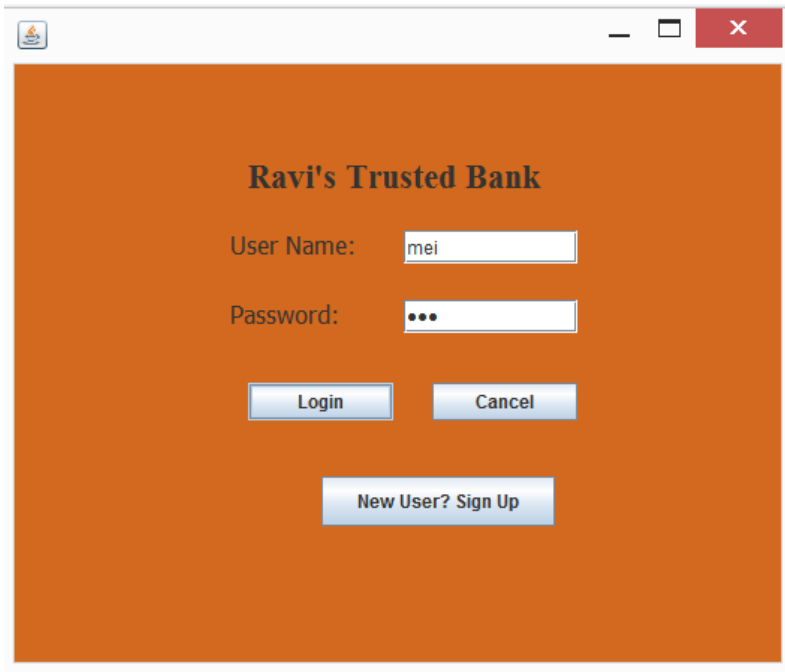
});

}
}

```

Screen Shots:

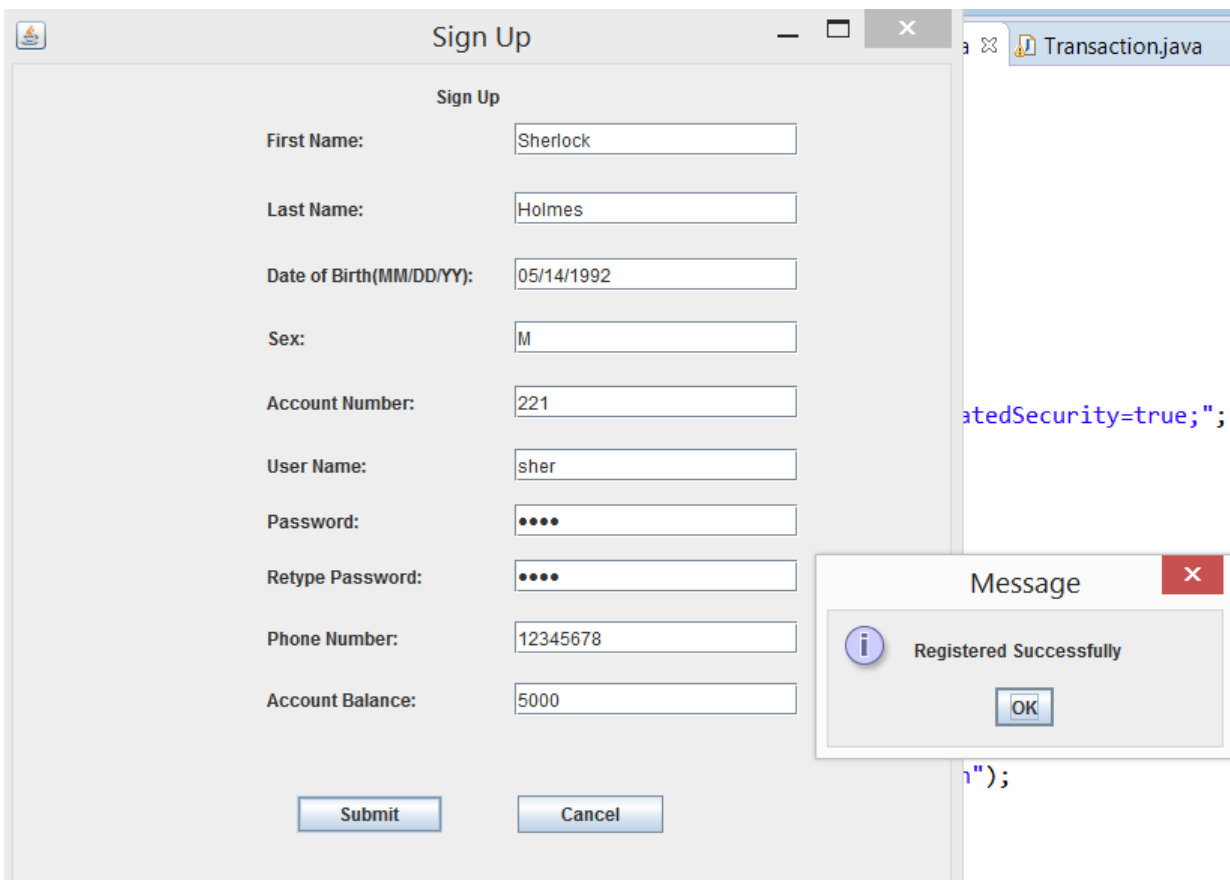
User Login Page



A screenshot of a Java Swing window titled "Ravi's Trusted Bank" with an orange background. It contains a login form with the following fields and buttons:

- User Name:
- Password:
- Login button
- Cancel button
- New User? Sign Up button

Creating New User:



A screenshot showing a "Sign Up" form and a "Message" dialog box. The "Sign Up" form has the following fields:

- First Name:
- Last Name:
- Date of Birth(MM/DD/YY):
- Sex:
- Account Number:
- User Name:
- Password:
- Retype Password:
- Phone Number:
- Account Balance:
- Submit button
- Cancel button

The "Message" dialog box displays the text "Registered Successfully" with an "OK" button.

Data stored in MS SQL server

RAVI-PC.MyBank - dbo.userlogin SQLQuery2.sql - RA...RAVI-PC\RAVI (59))* RAVI-PC.MyBank - dbo.trandetail

```
select * from userdetails;
```

100 %

Results Messages

	firstname	lastname	dob	sex	accountno	username	password	phoneno	acc_bal
1	ravi	ragul	14/05/1992	M	123	ravi	ravi	1234	500
2	Meiyappan	mei	12/2/1994	m	455	mei	mei	123	747
3	Srinivasan	Ksheshadry	5/5/1992	M	111	asdf	asdf	1234567	166
4	arif	mukhtar	1/1/1991	m	555	arif	arif	1234567	500
5	samit	sam	14/5/1992	m	987	sam	sam	123	500
6	Ram	Ragav	16/5/1992	M	444	ram	ram	98988888	540
7	Sherlock	Holmes	05/14/1992	M	221	sher	sher	12345678	5000

Option Page showing the details of the user

Account Detail Start Transaction Transaction Summary Contact Support

First Name: Sherlock

Last Name: Holmes

DOB: 05/14/1992

Account No: 221

User Name: sher

Phone No: 12345678

Gender: M

Change Password Update User Details

Logout

Transferring money from one account to another account

The screenshot shows a web application window with a blue border. It has four tabs: "Account Detail", "Start Transaction", "Transaction Summary", and "Contact Support". The "Start Transaction" tab is active. The main content area displays "Current Balance: \$4600". Below this, there are three input fields: "Transfer to Account:" with the value "555", "Amount:" with the value "400", and "Password:" with masked characters "....". A "Submit" button is located below these fields. In the bottom right corner, there is a "Logout" button. A "Message" dialog box is overlaid on the left side of the window, displaying an information icon, the text "Transaction is Successfull", and an "OK" button.

Viewing Transaction Summary in the application:

The screenshot shows the same web application window, but now the "Transaction Summary" tab is active. The main content area contains two buttons: "Show Transaction Summary" and "Download Transaction Summary". A "Message" dialog box is overlaid on the left side of the window, displaying an information icon and a table with transaction details. The table has six columns: "from_acc", "to_acc", "amt_trans", "tot_bal_from", "tot_bal_to", and "date_time". The table contains three rows of data. At the bottom of the dialog box is an "OK" button. The background application window remains the same as in the previous screenshot, with the "Transaction Summary" tab selected and the "Logout" button visible in the bottom right corner.

from_acc	to_acc	amt_trans	tot_bal_from	tot_bal_to	date_time
221	555	400	4600	900	03:01:07 A...
221	111	250	4350	416	03:01:51 A...
221	111	1000	3350	416	03:02:04 A...

Downloading the transaction summary into a text file:

```
tran1.txt - Notepad
File Edit Format View Help
221      555      400      4600      900      03:01:07 AM  6 May 2015 Wed
221      111      250      4350      416      03:01:51 AM  6 May 2015 Wed
221      111      1000     3350      416      03:02:04 AM  6 May 2015 Wed
```

Contacting Support:

The screenshot displays a web application interface with a blue header bar containing four tabs: 'Account Detail', 'Start Transaction', 'Transaction Summary', and 'Contact Support'. The 'Contact Support' tab is active. Below the tabs, the main content area has a light gray background. On the left, the text 'Submit Query' is displayed. To its right is a blue button labeled 'Submit'. Below the 'Submit Query' text, there is a white text box containing the message: 'Hi', 'I couldnt transfer money to another account', 'Thanks,', and 'Sherlock'. At the bottom of the page, there is a blue button labeled 'Logout'. A 'Message' dialog box is overlaid on the bottom left of the screen. It has a title bar with the word 'Message' and a red close button. The message text inside the dialog reads: 'Your query has been raised'. There is an information icon (i) to the left of the message text and an 'OK' button at the bottom of the dialog.

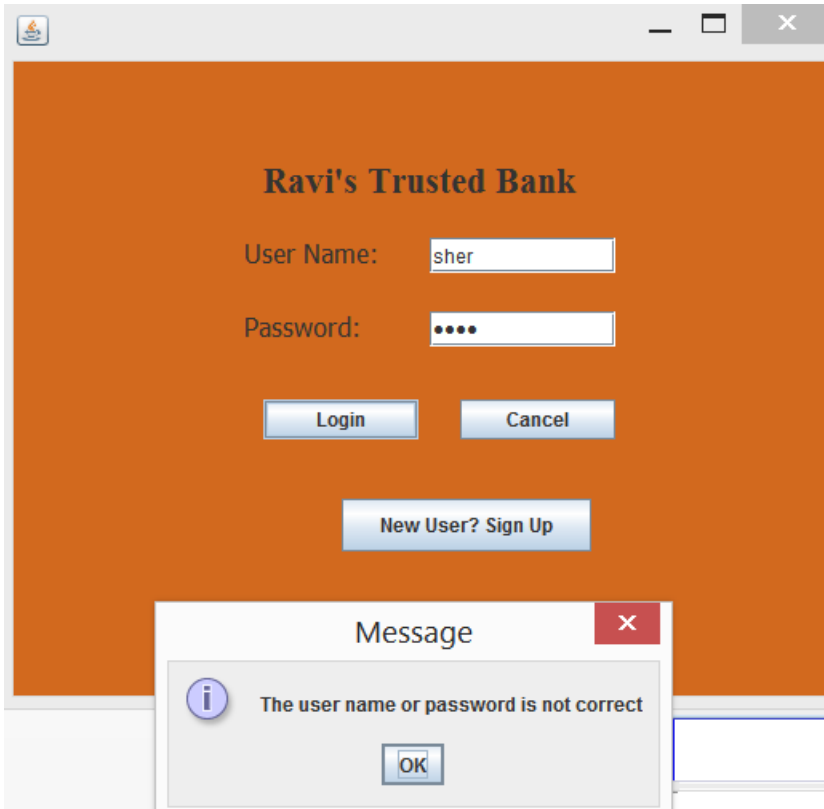
Updating account:

The screenshot shows a web application window with a blue header bar containing four tabs: "Account Detail", "Start Transaction", "Transaction Summary", and "Contact Support". The "Account Detail" tab is active. Overlaid on this is a "Update Details" dialog box. Inside the dialog, under the heading "Update", there are five input fields: "First Name:" with the value "Herlock", "Last Name:" with "Sholmes", "Date of Birth(MM/DD/YY):" with "05/14/1992", "Sex:" with "M", and "Phone Number:" with "1234". Below these fields are two buttons: "Update" and "Cancel". In the bottom right corner of the dialog, there is a "Logout" button. A "Message" dialog box is also open in the foreground, displaying an information icon and the text "The account details has been updated", with an "OK" button at the bottom.

Changing Password:

The screenshot shows the same web application window as before. The "Account Detail" tab is active, displaying the following user information: First Name: Sherlock, Last Name: Holmes, DOB: 05/14/1992, Account No: 221, User Name: sher, Phone No: 12345678, and Gender: M. At the bottom of this window are buttons for "Change Password", "Update User Details", and "Logout". Overlaid on this is an "Update Password" dialog box. It contains three input fields: "Old Password:" (masked with four dots), "New Password:" (masked with six dots), and "Retype New Password:" (masked with six dots). Below these fields are "Update" and "Cancel" buttons. A "Message" dialog box is also open, showing an information icon and the text "The password has been successfully changed", with an "OK" button.

Clicking Logout comes to home page & Message thrown when password is wrong



Screen Shots from MS sql server:

RAVI-PC.MyBank - dbo.userlogin SQLQuery2.sql - RA...RAVI-PC\RAVI (59))* RAVI-PC.MyB...

```

select * from userdetails;
select * from trandetail

```

100 % Results Messages

	from_acc	to_a...	amt_tra...	tot_bal_fr...	tot_bal...	date_time
1	1234567890	455	10	178	732	03:11:50 PM 30 April 2015 Thu
2	1234567890	455	12	166	744	03:14:30 PM 30 April 2015 Thu
3	444	455	43	457	787	06:13:44 PM 30 April 2015 Thu
4	455	444	40	747	540	06:40:48 PM 30 April 2015 Thu
5	221	555	400	4600	900	03:01:07 AM 6 May 2015 Wed
6	221	111	250	4350	416	03:01:51 AM 6 May 2015 Wed
7	221	111	1000	3350	416	03:02:04 AM 6 May 2015 Wed

RAVI-PC.MyBank - dbo.userlogin SQLQuery2.sql - RA...RAVI-PC\RAVI (59))* RAVI-PC.M

```
select * from userdetails;  
  
select * from trandetail  
  
select * from userquery;
```

100 % <

Results Messages

	userna...	query
1	mei	my account not working help
2	mei	my account is working correctly thank you
3	sher	Hi I couldnt transfer money to another account Thanks, Sherlock