

Bahria University, Karachi Campus



**COURSE: CSC-210 OBJECT ORIENTED
PROGRAMMING**

TERM: FALL 2022, CLASS: BCE-3A

CLASS PROJECT

TRAIN RESERVATION SYSTEM

GROUP MEMBERS

Syeda Eeman Zubair (02-132212-015)

Kinza Naz (02-132212-012)

Arooba Aqeel (02-132212-019)

COURSE INSTRUCTOR

ENGR. Usra Sami

CODE:

FOR LOGIN:

```
/**
package railwayreservation;

import java.awt.Color;
import javax.swing.JOptionPane;

/**
 *
 * @author Syeda Eeman Zubair
 */
public class login extends javax.swing.JFrame {

    /**
     * Creates new form login
     */
    public login() {
        initComponents();
        getContentPane().setBackground( c:Color.WHITE);
    }

    /**
```

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:

    if(txtusername.getText().equals( anObject: "" ) && txtpassword.getText().equals( anObject: ""))
    {
        JOptionPane.showMessageDialog( parentComponent: this, message: "Blank not allowed");
    }

    else if(txtusername.getText().equals( anObject: "Admin" ) && txtpassword.getText().equals( anObject: "123")){

        Main m=new Main();
        this.hide();
        m.setVisible( b:true);

    }
    else{
        JOptionPane.showMessageDialog( parentComponent: this, message: "User name or Password: Do not match");
    }
}
```

FOR MAIN:

```
package railwayreservation;

import java.awt.Color;

/**
 *
 * @author Syeda Eeman Zubair
 */
public class Main extends javax.swing.JFrame {

    /**
     * Creates new form Main
     */
    public Main() {
        initComponents();
        getContentPane().setBackground(c: Color.GRAY);
    }

    /**
```

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    addtrain a=new addtrain();
    a.setVisible(b:true);
}

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

}
```

FOR ADD TRAIN:

```
package railwayreservation;
import java.awt.Color;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.sql.ResultSet;
import java.sql.PreparedStatement;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;

/**
 *
 * @author Syeda Eeman Zubair
 */
public class addtrain extends JFrame {

    /**
     * Creates new form add train
     */
    public addtrain() {
        initComponents();
        Train_details();
        getContentPane().setBackground( c:Color.cyan );
    }
    Connection conn;
    PreparedStatement pst;
    ResultSet rs;
```

```
ResultSet rs;

public void Train_details() {
    int c;

    try {
        Class.forName( className:"net.ucanaccess.jdbc.UcanaccessDriver" );
        conn = DriverManager.getConnection( url:"jdbc:ucanaccess://C:\\Users\\Syeda Eeman Zubair\\OneDrive\\Documents\\railwayreservation1.acodb" );
        pst = conn.prepareStatement( string:"select * from traindetails" );
        rs = pst.executeQuery();
        ResultSetMetaData rsd = rs.getMetaData();
        c = rsd.getColumnCount();
        DefaultTableModel dft = (DefaultTableModel) jTable1.getModel();
        dft.setRowCount( rowCount:0 );

        while(rs.next()){
            Vector v = new Vector();
            for(int i=1; i<=c; i++){
                v.add( c:rs.getString( string:"TrainNo" ) );
                v.add( c:rs.getString( string:"TrainName" ) );
                v.add( c:rs.getString( string:"StartPlace" ) );
                v.add( c:rs.getString( string:"DestinationPlace" ) );
                v.add( c:rs.getString( string:"Price" ) );
            }
            dft.addRow( rowData:v );
        }
    }
}
```

```

        while(rs.next()){
            Vector v=new Vector();
            for(int i=1; i<=c; i++){
                v.add(e:rs.getString( string: "TrainNo"));
                v.add(e:rs.getString( string: "TrainName"));
                v.add(e:rs.getString( string: "StartPlace"));
                v.add(e:rs.getString( string: "DestinationPlace"));
                v.add(e:rs.getString( string: "Price"));
            }
            dft.addRow( rowData:v);
        }

    } catch (ClassNotFoundException ex) {
        Logger.getLogger( name: addtrain.class.getName()).log( level:Level.SEVERE, msg:null, thrown:ex);
    } catch (SQLException ex) {
        Logger.getLogger( name: addtrain.class.getName()).log( level:Level.SEVERE, msg:null, thrown:ex);
    }

}

```

Generated Code

```

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

    String tno, Tname, splace, dplace, Price;
    tno=txtno.getText();
    Tname=tname.getText();
    splace=tstartplace.getText();
    dplace=tdplace.getText();
    Price=price.getText();

    try {
        Class.forName( className: "net.ucanaccess.jdbc.UcanaccessDriver");

        conn =DriverManager.getConnection( url: "jdbc:ucanaccess://C:\\Users\\Syeda Eeman Zubair\\OneDrive\\Documents\\railwayreservation1.acodb");

        pst=conn.prepareStatement( string: "INSERT into traindetails(TrainNo, TrainName, StartPlace, DestinationPlace, Price)values(?, ?, ?, ?, ?)");

        pst.setString( i:1, string: tno);
        pst.setString( i:2, string: Tname);
        pst.setString( i:3, string: splace);
        pst.setString( i:4, string: dplace);
        pst.setString( i:5, string: Price);
        int k=pst.executeUpdate();

        if(k==1){
            JOptionPane.showMessageDialog( parentComponent: this, message: "Record Added Successfully");
        }
        else{

```

```

            int k=pst.executeUpdate();

            if(k==1){
                JOptionPane.showMessageDialog( parentComponent: this, message: "Record Added Successfully");
            }
            else{
                JOptionPane.showMessageDialog( parentComponent: this, message: "Record Added Failed");
            }
            txtno.setText( s: "");
            tname.setText( s: "");
            tstartplace.setText( s: "");
            tdplace.setText( s: "");
            price.setText( s: "");
            txtno.requestFocus();
            Train_details();
        } catch (ClassNotFoundException | SQLException ex) {
            Logger.getLogger( name: addtrain.class.getName()).log( level:Level.SEVERE, msg:null, thrown:ex);
            JOptionPane.showMessageDialog( parentComponent: this, message: ex);
        }
    }
}

```

```

    }

    private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {
        // TODO add your handling code here:
        DefaultTableModel dft=(DefaultTableModel)jTable1.getModel();

        int selectIndex= jTable1.getSelectedRow();

        txtno.setText( t: dft.getValueAt (row:selectIndex, column:0).toString());
        tname.setText( t: dft.getValueAt (row:selectIndex, column:1).toString());
        tstartplace.setText( t: dft.getValueAt (row:selectIndex, column:2).toString());
        tdplace.setText( t: dft.getValueAt (row:selectIndex, column:3).toString());
        price.setText( t: dft.getValueAt (row:selectIndex, column:4).toString());

        jButton1.setEnabled( b: false);
    }

```

```

    }

    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        DefaultTableModel dft=(DefaultTableModel)jTable1.getModel();

        int selectIndex= jTable1.getSelectedRow();

        String tno, Tname, splace, dplace, Price;
        tno=txtno.getText();
        Tname=tname.getText();
        splace=tstartplace.getText();
        dplace=tdplace.getText();
        Price=price.getText();

        try {
            Class.forName( className: "net.ucanaccess.jdbc.UcanaccessDriver");

            conn =DriverManager.getConnection( url: "jdbc:ucanaccess://C:\\Users\\Syeda Eeman Zubair\\OneDrive\\Documents\\railwayreservation1.accdb");

            pst=conn.prepareStatement( string: "update traindetails set TrainName=?, StartPlace=?, DestinationPlace=?, Price=? where TrainNo=?");

            pst.setString( i:1, string:Tname);
            pst.setString( i:2, string:spplace);
            pst.setString( i:3, string:dplace);
            pst.setString( i:4, string:Price);
            pst.setString( i:5, string:tno);
            int k=pst.executeUpdate();

```

```

            pst.setString( i:4, string:Price);
            pst.setString( i:5, string:tno);
            int k=pst.executeUpdate();

            if(k==1){
                JOptionPane.showMessageDialog( parentComponent: this, message: "Record Updated");
            }
            else{
                JOptionPane.showMessageDialog( parentComponent: this, message: "Record Added Failed");
            }
            txtno.setText( t: "");
            tname.setText( t: "");
            tstartplace.setText( t: "");
            tdplace.setText( t: "");
            price.setText( t: "");
            txtno.requestFocus();
            Train_details();
            jButton1.setEnabled( b: true);
        } catch (ClassNotFoundException | SQLException ex) {
            Logger.getLogger( name: addtrain.class.getName()).log( level:Level.SEVERE, msg:null, thrown:ex);
            JOptionPane.showMessageDialog( parentComponent: this, message: ex);
        }
    }

```

```

    }

```

```

    }

    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        DefaultTableModel dft=(DefaultTableModel)jTable1.getModel();

        int selectIndex= jTable1.getSelectedRow();
        String tno;
        tno=txtno.getText();

        try {
            Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");

            conn = DriverManager.getConnection("jdbc:ucanaccess://C:\\Users\\Syeda Eeman Zubair\\OneDrive\\Documents\\railwayreservation1.accdb");

            pst=conn.prepareStatement("delete from traindetails where TrainNo=?");

            pst.setString(1, tno);

            int k=pst.executeUpdate();

            if(k==1){
                JOptionPane.showMessageDialog(parentComponent: this, message: "Record Deleted");
            }
        }
    }

```

```

        pst.setString(1, tno);

        int k=pst.executeUpdate();

        if(k==1){
            JOptionPane.showMessageDialog(parentComponent: this, message: "Record Deleted");
        }
        else{
            JOptionPane.showMessageDialog(parentComponent: this, message: "Record Added Failed");
        }

        txtno.setText("");
        tname.setText("");
        tstartplace.setText("");
        tdplace.setText("");
        price.setText("");
        txtno.requestFocus();
        Train_details();
        jButton1.setEnabled(b: true);
    } catch (ClassNotFoundException | SQLException ex) {
        Logger.getLogger(addtrain.class.getName()).log(Level.SEVERE, msg: null, thrown: ex);
        JOptionPane.showMessageDialog(parentComponent: this, message: ex);
    }
}

```

FOR RESERVATION:

```
package railwayreservation;

import java.awt.Color;
import java.awt.event.KeyEvent;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;

/**
 *
 * @author Syeda Eeman Zubair
 */
public class reservation extends javax.swing.JFrame {

    /**
     * Creates new form reservation
     */
    public reservation() {
        initComponents();
        LoadStartPlace();
        LoadEndPlace();
        getContentPane().setBackground(Color.PINK);
    }

    Connection conn;
    PreparedStatement pst;
    ResultSet rs;

    /**
     * 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.
     */
}
```



```

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    String pno=txtpno.getText();
    String splace=txtsplace.getSelectedItem().toString();
    String eplace=txtteplace.getSelectedItem().toString();
    String tno=txttno.getText();
    String tname=txttname.getText();
    String Price=txttprice.getText();
    String ticket=txttticket.getText();
    String total=txtttotal.getText();

    try {
        Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");

        conn = DriverManager.getConnection("jdbc:ucanaccess://C:\\Users\\Syeda Eman Zubair\\OneDrive\\Documents\\railwayreservation1.accdb");

        pst=conn.prepareStatement("INSERT into reservation(PassengerNo, StartPlace, EndPlace, TrainNo, TrainName, Price, NoOfTickets, Total)values

        pst.setString(1, string:pno);
        pst.setString(2, string:splace);
        pst.setString(3, string:eplace);
        pst.setString(4, string:tno);
        pst.setString(5, string:tname);
        pst.setString(6, string:Price);
    }
}

```

```

        pst=conn.prepareStatement("INSERT into reservation(PassengerNo, StartPlace, EndPlace, TrainNo, TrainName, Price, NoOfTickets, Total)

        pst.setString(1, string:pno);
        pst.setString(2, string:splace);
        pst.setString(3, string:eplace);
        pst.setString(4, string:tno);
        pst.setString(5, string:tname);
        pst.setString(6, string:Price);
        pst.setString(7, string:ticket);
        pst.setString(8, string:total);
        int k=pst.executeUpdate();

        if(k==1){
            JOptionPane.showMessageDialog(parentComponent: this, message: "Record Added Successfully");
        }
        else{
            JOptionPane.showMessageDialog(parentComponent: this, message: "Record Added Failed");
        }

    } catch (ClassNotFoundException | SQLException ex) {
        Logger.getLogger(addtrain.class.getName()).log(Level.SEVERE, msg: null, thrown: ex);
        JOptionPane.showMessageDialog(parentComponent: this, message: ex);
    }
}

```

```

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:

    Load();
}

private void txttticketKeyPressed(java.awt.event.KeyEvent evt) {
    // TODO add your handling code here:
    int price,ticket,total;
    if(evt.getKeyCode() ==KeyEvent.VK_ENTER) {

        price=Integer.parseInt(s:txttprice.getText());
        ticket=Integer.parseInt(s:txttticket.getText());
        total=price*ticket;
        txtttotal.setText(s: String.valueOf(s:total));
    }
}

private void txttpriceMouseClicked(java.awt.event.MouseEvent evt) {

```

```

public void LoadStartPlace() {
    try {
        // TODO add your handling code here:
        Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
        conn = DriverManager.getConnection("jdbc:ucanaccess://C:\\Users\\Syeda Eeman Zubair\\OneDrive\\Documents\\railwayreservation1.accodb");
        pst = conn.prepareStatement("SELECT StartPlace FROM traindetails");
        rs = pst.executeQuery();
        txtsplace.removeAllItems();
        while(rs.next()) {
            txtsplace.addItem(item: rs.getString(1));
        }
    } catch (Exception e) {
        e.printStackTrace();
    }
}

```

```

public void LoadEndPlace() {
    try {
        // TODO add your handling code here:
        Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");
        conn = DriverManager.getConnection("jdbc:ucanaccess://C:\\Users\\Syeda Eeman Zubair\\OneDrive\\Documents\\railwayreservation1.accodb");
        pst = conn.prepareStatement("SELECT DestinationPlace FROM traindetails");
        rs = pst.executeQuery();
        txttplace.removeAllItems();
        while(rs.next()) {
            txttplace.addItem(item: rs.getString(1));
        }
    } catch (Exception e) {
        e.printStackTrace();
    }
}

```

```

public void Load() {
    String splace = txtsplace.getSelectedItem().toString();
    String eplace = txttplace.getSelectedItem().toString();

    try {
        pst = conn.prepareStatement("SELECT * FROM traindetails where StartPlace=? and DestinationPlace=?");
        pst.setString(1, splace);
        pst.setString(2, eplace);
        rs = pst.executeQuery();

        if(rs.next() == true) {
            txttno.setText(rs.getString(2));
            txttname.setText(rs.getString(3));
            txtprice.setText(rs.getString(6));
        }
        else {
            JOptionPane.showMessageDialog(parentComponent: this, message: "Record Not Found");
        }
    } catch (Exception e) {
        e.printStackTrace();
    }
}

```

OUTPUT:

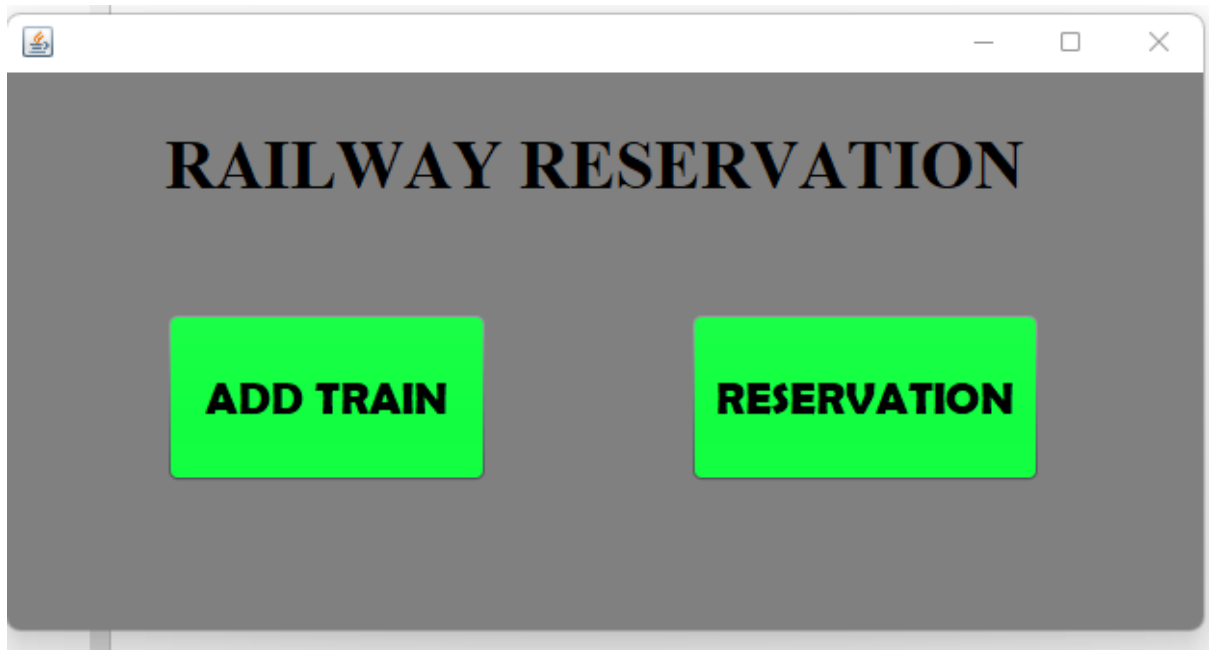
LOGIN:



A Java Swing window titled "WELCOME" with a standard title bar (minimize, maximize, close buttons). The window contains a light gray rectangular panel with the following elements:

- User Name**: A text label followed by a text input field containing the text "Admin".
- Password**: A text label followed by a text input field containing three asterisks "***".
- LOGIN**: A cyan button with black text.
- CANCEL**: A cyan button with black text.

MAIN:



ADD TRAIN:

ADD TRAIN

Train No

Train Name

Start Place

Destination Place

Price

Train No	Train Name	Start Place	Destination Place	Price
34	Tezgam	Rawalpindi	Okara	5000

Add Train

Edit

Delete

ADD TRAIN

Train No

Train Name

Start Place

Destination Place

Price

Train No	Train Name	Start Place	Destination Place	Price
34	Tezgam	Rawalpindi	Okara	5000

Add Train

Edit

Delete

Message

Record Added Successfully

OK

ADD TRAIN ACCESS:

[illegible]

ADD TRAIN; EDIT:

ADD TRAIN

Train No

67

Train Name

KarakoramExpress

Start Place

Islamabad

Destination Place

Karachi

Price

7500

Train No	Train Name	Start Place	Destination Place	Price
34	Tezgam	Rawalpindi	Okara	5000
67	KarakoramExpr...	Lahore	Karachi	7500

Add Train

Edit

Delete

ADD TRAIN

Train No

67

Train Name

KarakoramExpress

Start Place

Islamabad

Destination Place

Karachi

Price

7500

Train No	Train Name	Start Place	Destination Place	Price
34	Tezgam	Rawalpindi	Okara	5000
67	KarakoramExpr...	Lahore	Karachi	7500

Add Train

Edit

Delete

Message

i

Record Updated

OK

ADD TRAIN

Train No

Train Name

Start Place

Destination Place

Price

Train No	Train Name	Start Place	Destination Place	Price
34	Tezgam	Rawalpindi	Okara	5000
67	KarakoramExpr...	Islamabad	Karachi	7500

Add Train
Edit
Delete

EDIT IN ACCESS:

ID	TrainNo	TrainName	StartPlace	DestinationPlace	Price	Click to Add
5	34	Tezgam	Rawalpindi	Okara	5000	
6	67	KarakoramExp	Islamabad	Karachi	7500	
*(New)	0				0	

ADD TRAIN; DELETE:

ADD TRAIN

Train No

67

Train Name

KarakoramExpress

Start Place

Islamabad

Destination Place

Karachi

Price

7500

Train No	Train Name	Start Place	Destination Place	Price
34	Tezgam	Rawalpindi	Okara	5000
67	KarakoramExpr...	Islamabad	Karachi	7500

Add Train

Edit

Delete

ADD TRAIN

Train No

67

Train Name

KarakoramExpress

Start Place

Islamabad

Destination Place

Karachi

Price

7500

Train No	Train Name	Start Place	Destination Place	Price
34	Tezgam	Rawalpindi	Okara	5000
67	KarakoramExpr...	Islamabad	Karachi	7500

Add Train

Edit

Delete

Message

i

Record Deleted

OK

RESERVATION:

RESERVATION

Passanger No

7

Start Place

Rawalpindi

End Place

Okara

Train No

34

Train Name

Tezgam

Price

5000

No of tickets

3

Total

15000

Search

Reserve

RESERVATION

Passanger No

7

Start Place

Rawalpindi

End Place

Train No

Train Name

Price

5000

No of tickets

3


Total

15000

Search

Reserve

Message



Record Added Successfully

OK

RESERVATION IN ACCESS:

ID	PassengerN	StartPlace	EndPlace	TrainNo	TrainName	Price	NoOfTickets	Total	Click to Add
1	7	Rawalpindi	Okara	34	Tezgam	5000	3	15000	
(New)	0			0		0	0	0	