

Project Report of
Car Rent Management System
Enterprise Application Development - 1

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Motivation

The basic level EAD project using java programming language is designed for a specific car rent company called urban ride rent car in order to automate their day-to-day tasks by proposing a “Car Rent Management System”. It stores the customer, supplier, car, rent and purchase details regarding the business. The system enhances the functionality of the business by facilitating them to store their records in software which replaces the automated paper-based collection strategy.

The foremost motivation of developing the car rent management system is ensuring that the data collected are accurate and organized by making the task easier to perform. The system can transform the human powered tasks into one click automatically generated records.

Objectives

The main objective of implementing a car rent management system is automating the day-to-day tasks by replacing the manual of the organization. As the data load of a company increases with time scalability is a well-known problem faced. Therefore, the company expects a system which will handle the scalability issue in a systematic way.

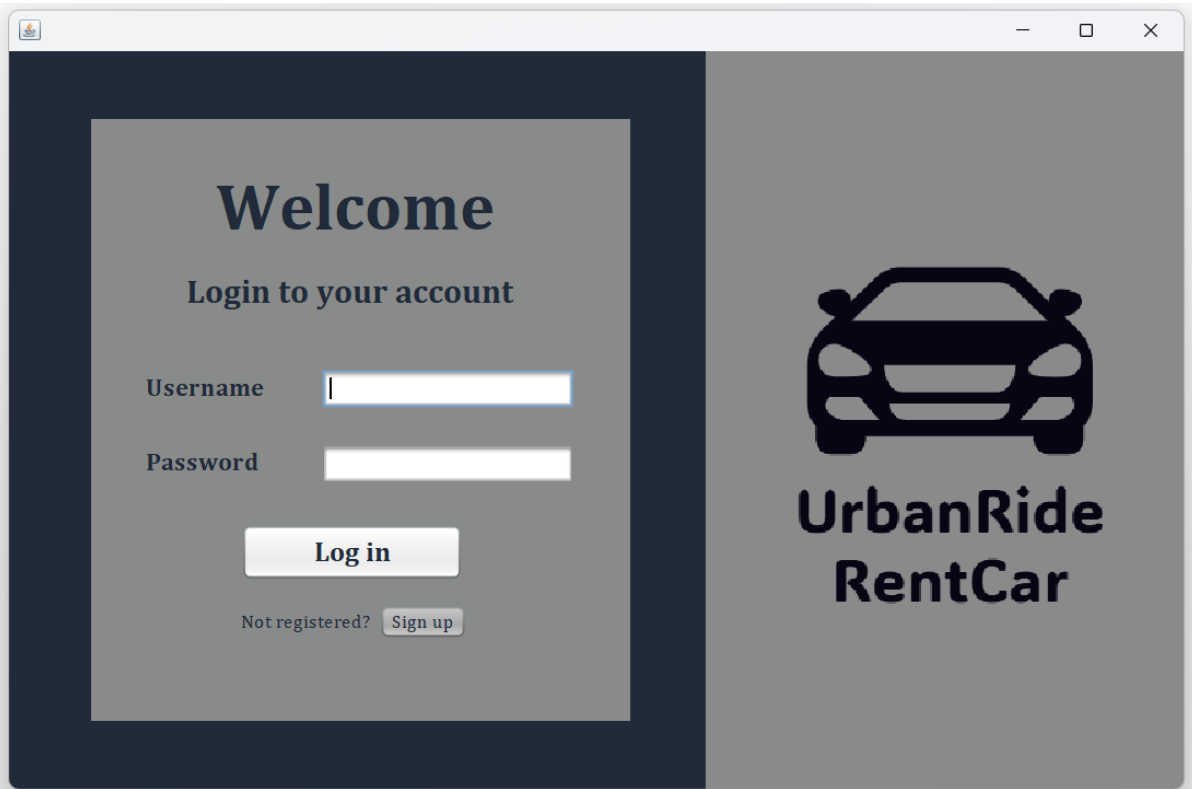
Moreover, the system needs to forecast business trends and take appropriate decisions before a problem arises. As the system generates reports of available data company can fulfil the requirements.

Development Tools

1. Programming Language - Java SE Development Kit (JDK)
 - Version: 11.0.2
 - Provider: Oracle
2. Build Tools - Apache Ant
 - Version: 1.10.13
 - Group ID: org.apache.ant
 - Artifact ID: ant-core
3. Java Swing GUI Components
 - Framework: Swing
4. Database - MySQL
 - Version: 8.0.23
 - Provider: Oracle
 - Connection Type: JDBC
5. Dependencies and Libraries - JDBC (Java Database Connectivity)
 - Artifact ID: mysql-connector-java (if using MySQL-specific JDBC driver)
 - Group ID: mysql
 - Version: 8.0.23
6. Reporting - JasperReports
 - Version: 6.21.3
 - Group ID: net.sf.jasperreports
 - Artifact ID: jasperreports
7. Editor / IDE - Apache NetBeans IDE
 - Version: 23

Graphical User Interfaces (GUI)

1. Login Form



A screenshot of a web browser window displaying the login form for UrbanRide RentCar. The window has a title bar with standard OS controls. The form is divided into two main sections. The left section, on a dark blue background, contains a 'Welcome' heading, a 'Login to your account' sub-heading, and input fields for 'Username' and 'Password'. Below these is a 'Log in' button and a link for 'Not registered? Sign up'. The right section, on a light gray background, features a car icon and the 'UrbanRide RentCar' logo.

Welcome

Login to your account

Username

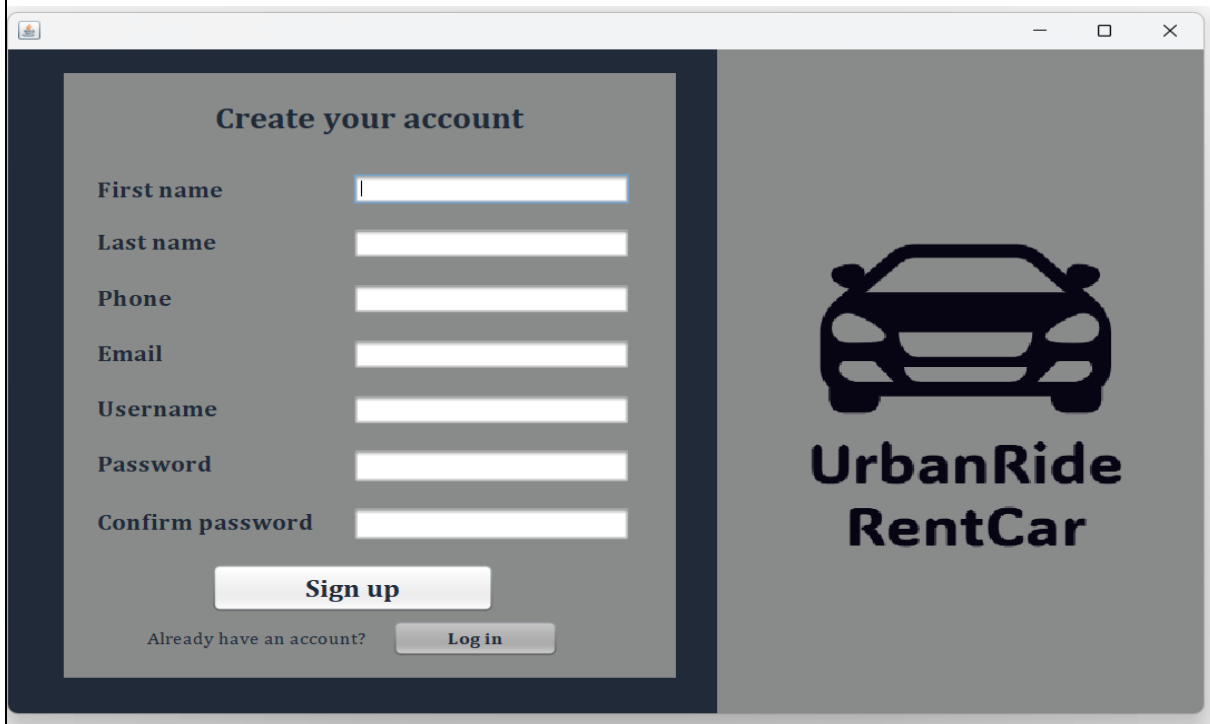
Password

Log in

Not registered? [Sign up](#)

UrbanRide RentCar

2. Register Form



A screenshot of a web browser window displaying the registration form for UrbanRide RentCar. The window has a title bar with standard OS controls. The form is divided into two main sections. The left section, on a dark blue background, contains a 'Create your account' heading and input fields for 'First name', 'Last name', 'Phone', 'Email', 'Username', 'Password', and 'Confirm password'. Below these is a 'Sign up' button and a link for 'Already have an account? Log in'. The right section, on a light gray background, features a car icon and the 'UrbanRide RentCar' logo.

Create your account

First name

Last name

Phone

Email

Username

Password

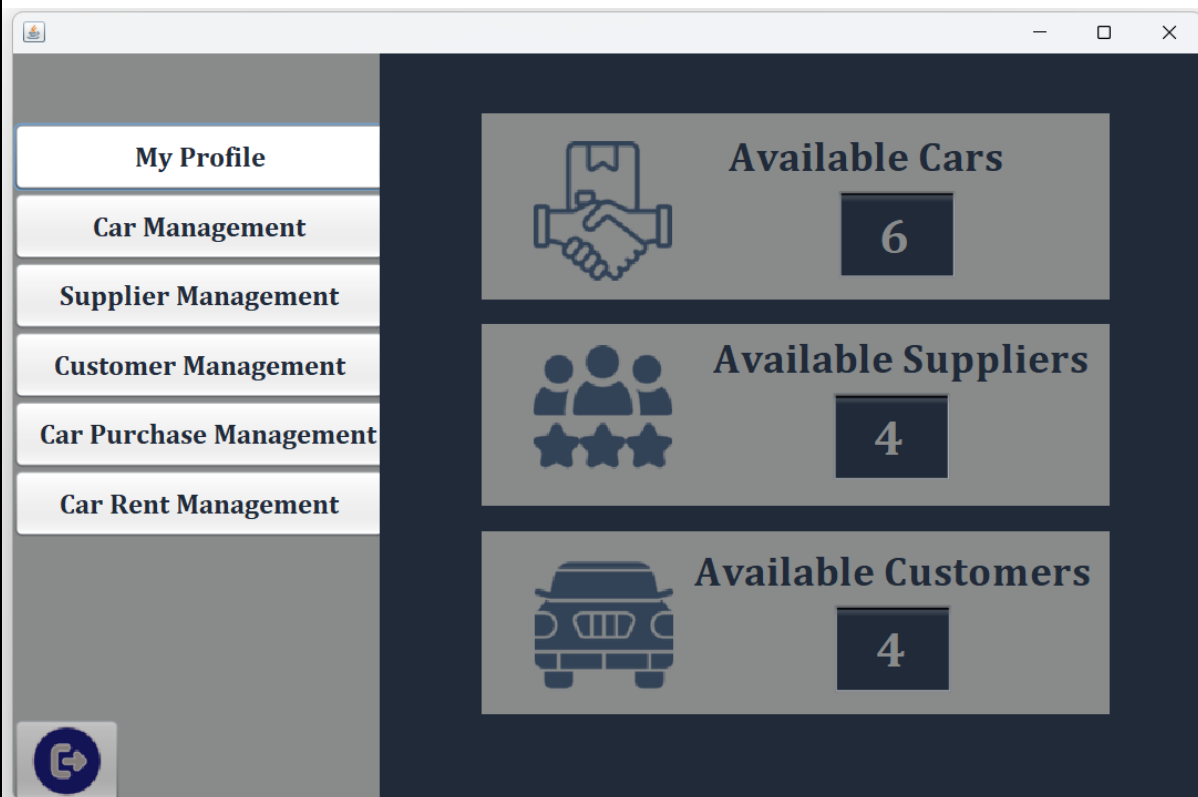
Confirm password

Sign up

Already have an account? [Log in](#)

UrbanRide RentCar

3. Dashboard



4. User Profile Form

The user profile form interface features a dark blue sidebar on the left with a home icon at the top and a large user profile icon below it. Below the icon, the text "Hi Alex123!" is displayed. The main content area has a dark blue background and contains a form titled "My profile" with the following fields:

First name	<input type="text" value="Alex"/>
Last name	<input type="text" value="Ben"/>
Phone	<input type="text" value="0777654456"/>
Email	<input type="text" value="Alex@gmail.com"/>
Username	<input type="text" value="Alex123"/>
Password	<input type="text" value="A123"/>

Below the form fields is a button labeled "Update Data".

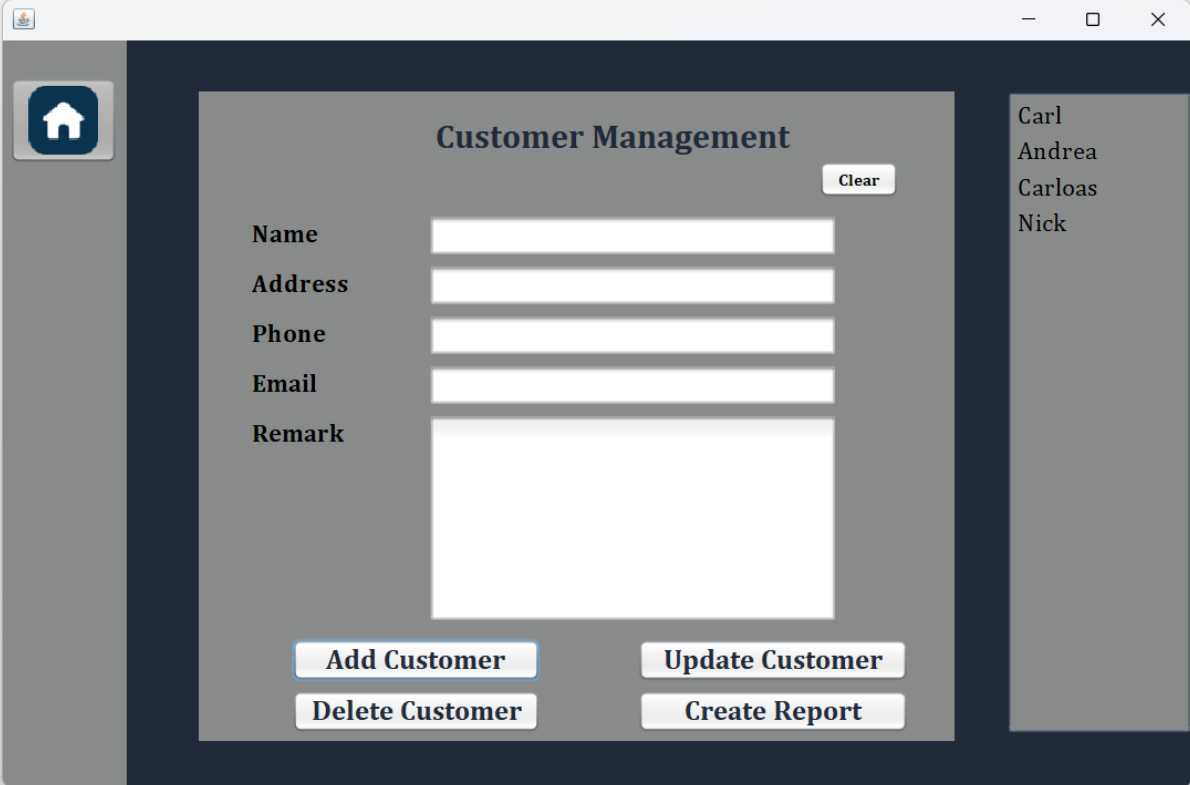
5. Car Form

The screenshot shows a web application window titled "Car Management". On the left is a sidebar with a home icon. The main content area contains a form with the following fields: "Reg Number" (text input), "Brand" (dropdown menu), "Model" (dropdown menu), "Price per day" (text input), and "Remark" (text area). A "Clear" button is located at the top right of the form. Below the form are four buttons: "Add Car", "Delete Car", "Update data", and "Create Report". On the right side of the window, there is a list of car registration numbers: ABC 2357, ALI 3027 (highlighted in blue), BDN 1602, CAJ 8753, CBH 6784, and KV 2550.

6. Supplier Form

The screenshot shows a web application window titled "Supplier Management". On the left is a sidebar with a home icon. The main content area contains a form with the following fields: "Name" (text input), "Address" (text input), "Phone" (text input), "Email" (text input), and "Remark" (text area). A "Clear" button is located at the top right of the form. Below the form are four buttons: "Add Supplier", "Delete Supplier", "Update Supplier", and "Create Report". On the right side of the window, there is a list of names: Ilma, Alex, Amjad, and Monalisa.

7. Customer Form



A screenshot of a web application window titled "Customer Management". The window has a dark blue header bar with a home icon on the left. The main content area is light gray and contains a form with the following fields: Name, Address, Phone, Email, and Remark. Each field has a corresponding input box. To the right of the form is a list of customer names: Carl, Andrea, Carloas, and Nick. Below the form are four buttons: "Add Customer", "Update Customer", "Delete Customer", and "Create Report". A "Clear" button is located at the top right of the form area.

Customer Management

Clear

Name

Address

Phone

Email

Remark

Add Customer

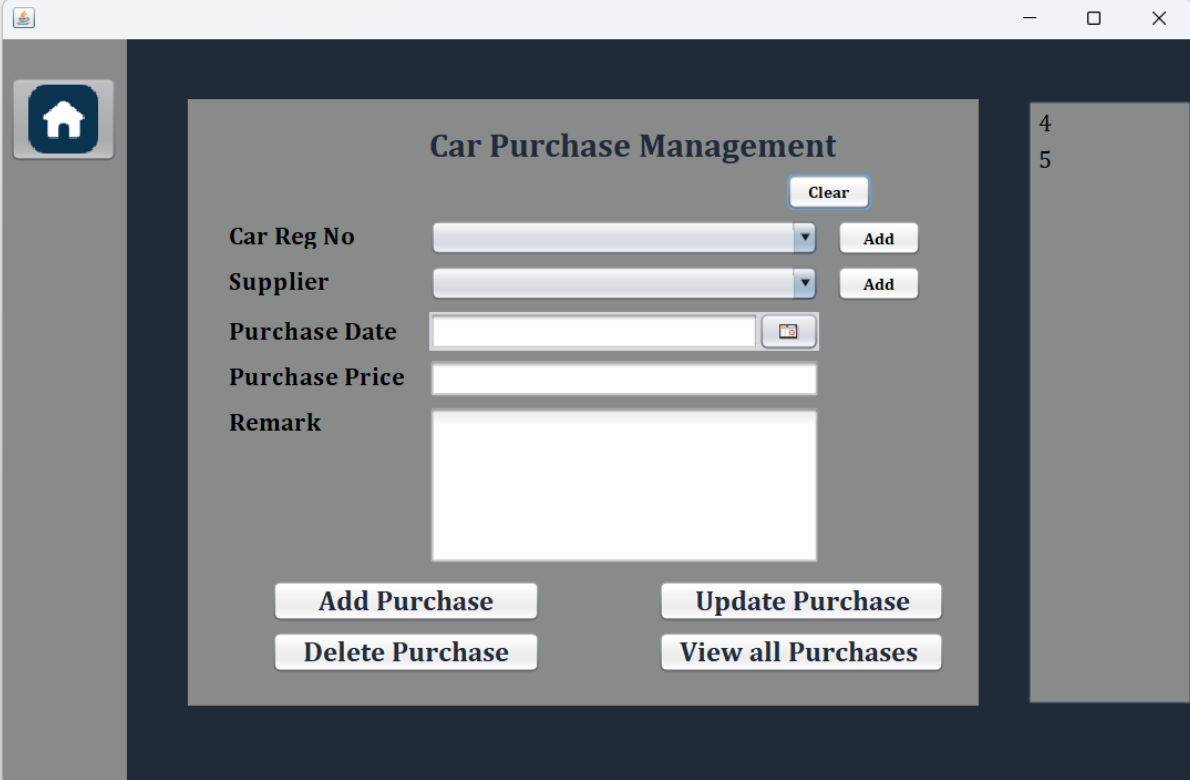
Update Customer

Delete Customer

Create Report

Carl
Andrea
Carloas
Nick

8. Car Purchase Form



A screenshot of a web application window titled "Car Purchase Management". The window has a dark blue header bar with a home icon on the left. The main content area is light gray and contains a form with the following fields: Car Reg No, Supplier, Purchase Date, Purchase Price, and Remark. Each field has a corresponding input box. To the right of the form is a list of car purchase numbers: 4 and 5. Below the form are four buttons: "Add Purchase", "Update Purchase", "Delete Purchase", and "View all Purchases". A "Clear" button is located at the top right of the form area.

Car Purchase Management

Clear

Car Reg No

Supplier

Purchase Date

Purchase Price

Remark

Add Purchase

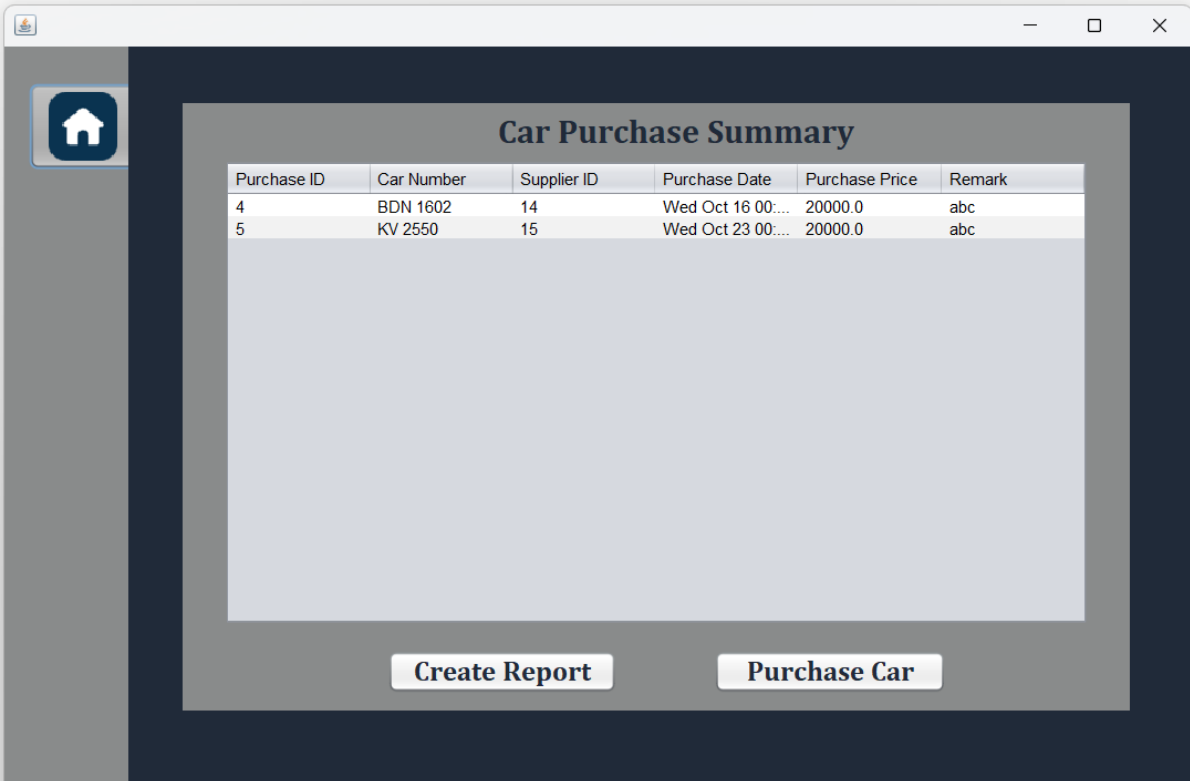
Update Purchase

Delete Purchase

View all Purchases

4
5

9. Display Purchase Form

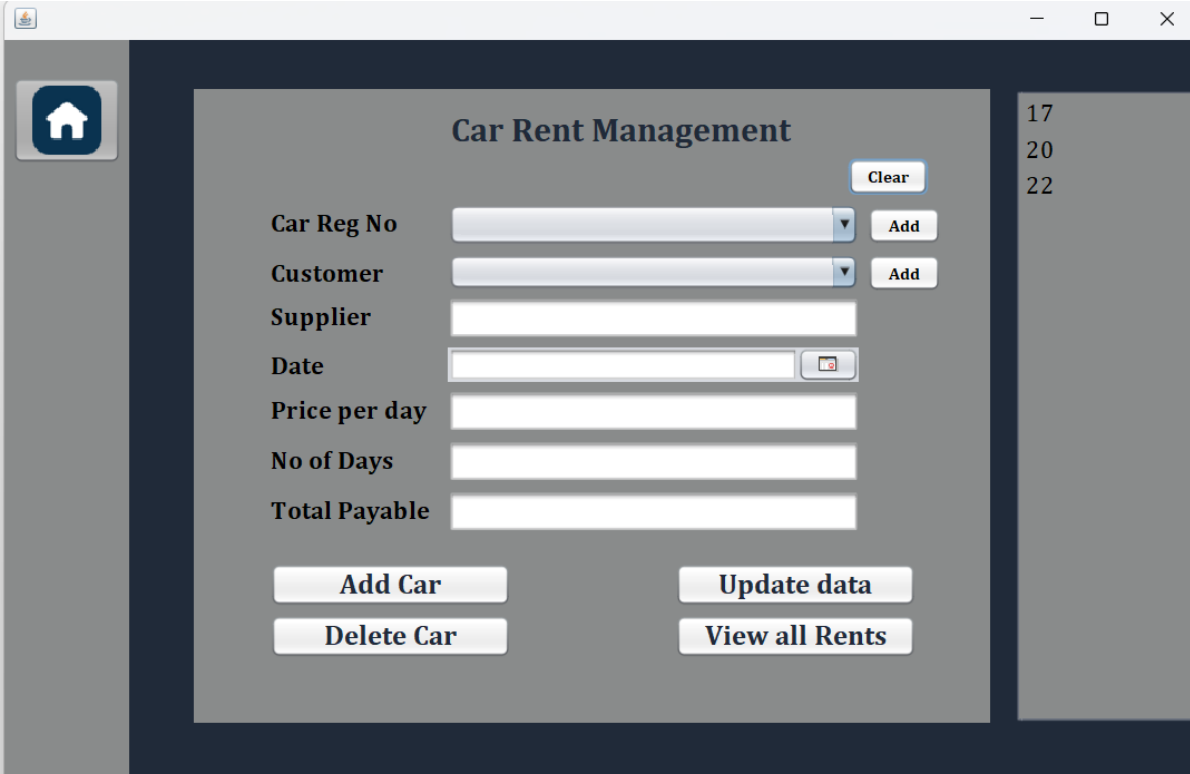


A screenshot of a web application window titled "Car Purchase Summary". The window has a dark blue header bar with a home icon on the left and standard window controls (minimize, maximize, close) on the right. The main content area is light gray and contains a table with the following data:

Purchase ID	Car Number	Supplier ID	Purchase Date	Purchase Price	Remark
4	BDN 1602	14	Wed Oct 16 00:...	20000.0	abc
5	KV 2550	15	Wed Oct 23 00:...	20000.0	abc

Below the table, there are two buttons: "Create Report" and "Purchase Car".

10. Car Rent Form



A screenshot of a web application window titled "Car Rent Management". The window has a dark blue header bar with a home icon on the left and standard window controls (minimize, maximize, close) on the right. The main content area is light gray and contains a form with the following fields and buttons:

Car Reg No

Customer

Supplier

Date


Price per day

No of Days

Total Payable

On the right side of the window, there is a vertical list of numbers: 17, 20, 22.

11. Display Rent Form



Car Rent Summary

Rent ID	Car Registr...	Supplier ID	Customer ID	Borrowed ...	No of Days	Price Per D...	Total Paya...
17	BDN 1602	14	4	Wed Oct 0...	12	1234.0	14808.0
20	BDN 1602	14	3	Tue Oct 29 ...	12	1234.0	14808.0
22	KV 2550	15	3	Wed Oct 0...	12	123.0	1476.0

Create Report

Rent Car

Database Design

Table definition and foreign key constraints

1. Table 1 – Users

```
CREATE TABLE Users (  
    user_id INT AUTO_INCREMENT PRIMARY KEY,  
    first_name VARCHAR(50),  
    last_name VARCHAR(50),  
    phone VARCHAR(15),  
    email VARCHAR(100) UNIQUE,  
    username VARCHAR(50) UNIQUE,  
    password VARCHAR(255)  
);
```

2. Table 2 – cars

```
CREATE TABLE Cars (  
    car_number VARCHAR(50) PRIMARY KEY,  
    brand VARCHAR(50) NOT NULL,  
    model VARCHAR(50) NOT NULL,  
    Remark VARCHAR(100) NOT NULL,  
    price_per_day DECIMAL(10, 2) NOT NULL  
);
```

3. Table 3 – supplier

```
CREATE TABLE supplier (  
    sup_id INT AUTO_INCREMENT PRIMARY KEY,  
    sup_name VARCHAR(255) NOT NULL,  
    sup_address VARCHAR(255),  
    sup_phone VARCHAR(15),  
    sup_email VARCHAR(255),  
    sup_remark VARCHAR(255)  
);
```

4. Table 3 – customer

```
CREATE TABLE customer (  
    cus_id INT AUTO_INCREMENT PRIMARY KEY,  
    cus_name VARCHAR(255) NOT NULL,  
    cus_address VARCHAR(255),  
    cus_phone VARCHAR(15),  
    cus_email VARCHAR(255),  
    cus_remark VARCHAR(255)  
);
```

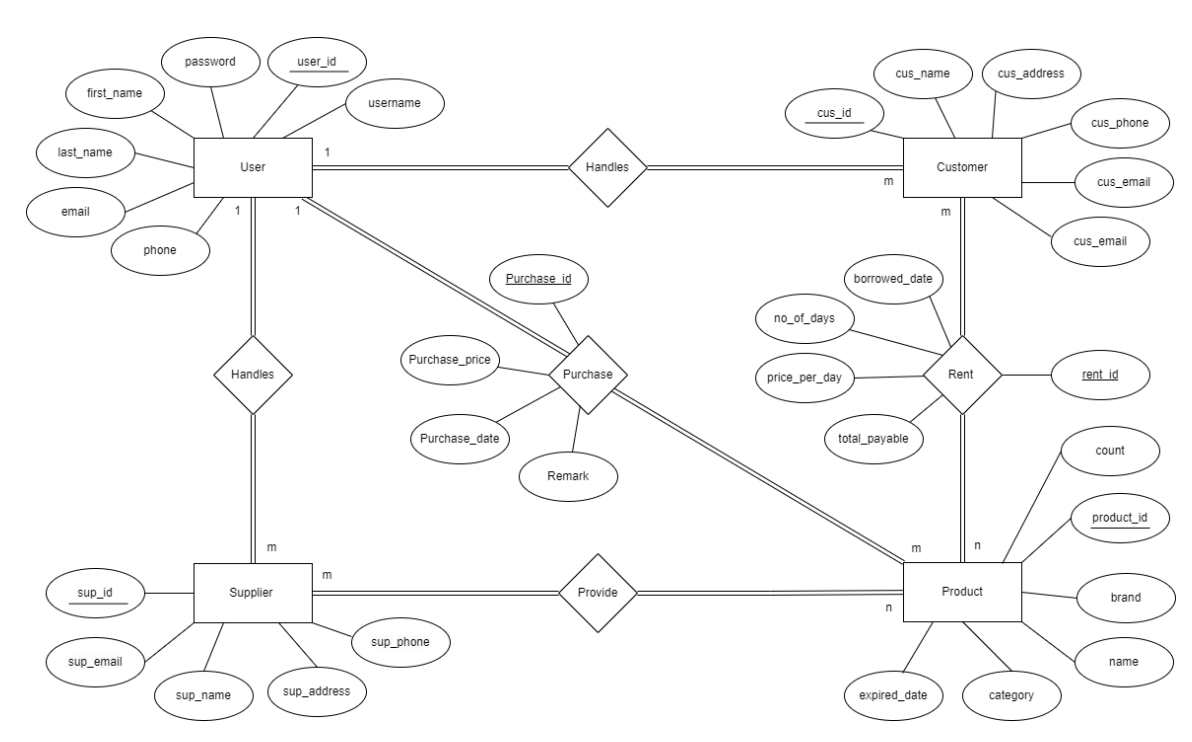
5. Table 3 – Rent

```
CREATE TABLE Rent (  
    rent_id INT AUTO_INCREMENT PRIMARY KEY,  
    car_reg_no VARCHAR(50) NOT NULL,  
    supplier_id INT NOT NULL,  
    customer_id INT NOT NULL,  
    borrowed_date DATE NOT NULL,  
    no_of_days INT NOT NULL,  
    price_per_day DECIMAL(10, 2) NOT NULL,  
    total_payable DECIMAL(10, 2) NOT NULL ,  
  
    FOREIGN KEY (car_reg_no) REFERENCES Cars(car_number),  
    FOREIGN KEY (supplier_id) REFERENCES supplier(sup_id),  
    FOREIGN KEY (customer_id) REFERENCES customer(cus_id)  
);
```

6. Table 3 - car_purchase

```
CREATE TABLE car_purchase (  
    purchase_id INT AUTO_INCREMENT PRIMARY KEY,  
    car_number VARCHAR(50),  
    sup_id INT,  
    purchase_date DATE,  
    purchase_price DECIMAL(10, 2),  
    remark VARCHAR(255)  
);
```

Connection diagram



User input validation

Followings are the steps taken to validate user inputs in the GUI.

- Get the data from the related user input fields for validation purpose
- First check whether all the text fields are entered or not.
- Then check each of the formats such as Emails, Phone numbers are with standard formats or not. Display an error if any field is empty.
- If there are any other conditions check them using conditions.
- If the validations are passed proceed the function and pass a success message.

Challenges

Mainly the challenges were faced when performing the following functions in system development.

- Data validation was challenging when developing system because it ensures the reliability of data in the system.
- Exception handling to ensure that the system works smoothly even with the errors by finding them.
- Database integration failures in certain operations.
- When implementing a user-friendly and responsive design to users.
- Compatibility issues when using external JAR files to connect GUI components.
- When handling concurrency problems in code.
- Scalability issues in certain GUI components.
- Readability of code as one frame contains many methods.
- When passing data between one form to another

Future Directions

As the proposed system focuses only on basic functionalities, it contains only limited features in the project. In order to enhance the system following strategies are planned to be implemented in future.

1. User Interface enhancement

Can use latest UI frameworks such as JavaFX, SwingX for gain enhanced controls and ease of use to users.

2. Reports in different formats

Using libraries such as Apache POI generate reports in multiple formats.

3. Notification management

Use javaMail to access mail and SMS services for relevant actors.

4. Enhanced Security

Using verification and authentication mechanisms for ensure data security.

5. Cloude storage

Replace the database in cloud platforms such as google cloud SQL, Azure SQL to Increase its scalability.

6. Third party APIs

Using payment gateways to perform money transactions is a crucial requirement.

7. AI (Artificial Intelligence)

Systems customer care section can be fulfilled using AI powered chatbots which will also provide real-time responses to users.

Appendix

CarsManagement.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */

import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.io.File;
import java.math.BigDecimal;
import java.sql.*;
import java.util.HashMap;
import java.util.Map;
import javax.swing.DefaultListModel;
import javax.swing.JOptionPane;
import net.sf.jasperreports.engine.JREmptyDataSource;
import net.sf.jasperreports.engine.JRException;
import net.sf.jasperreports.engine.JasperCompileManager;
import net.sf.jasperreports.engine.JasperFillManager;
import net.sf.jasperreports.engine.JasperPrint;
import net.sf.jasperreports.engine.JasperReport;
import net.sf.jasperreports.view.JasperViewer;

public class CarsManagement extends javax.swing.JFrame
{

    String url = "jdbc:mysql://localhost:3306/car";
    String user = "root";
    String password = "AMJU";

    private String username;

    private Map<String, String[]> brandModelMap;

    private DefaultListModel<String> carNumberListModel;

    public CarsManagement()
    {
        initComponents();
        initializeBrandModelMap();
        setupBrandComboBoxListener();
        loadCarNumbers();
    }
}
```

```

jList1.addListSelectionListener(e ->
{
    if (!e.getValueIsAdjusting())
    {
        updateFieldsWithSelectedCar();
    }
});

}

private void initializeBrandModelMap()
{
    brandModelMap = new HashMap<>();
    brandModelMap.put("Toyota", new String[]{"Corolla", "Camry", "RAV4", "Highlander", "Supra"});
    brandModelMap.put("Ford", new String[]{"Mustang", "F-150", "Explorer", "Escape", "Bronco"});
    brandModelMap.put("Honda", new String[]{"Civic", "Accord", "CR-V", "Pilot", "Odyssey"});
    brandModelMap.put("Chevrolet", new String[]{"Camaro", "Silverado", "Malibu", "Equinox", "Corvette"});
    brandModelMap.put("BMW", new String[]{"3 Series", "5 Series", "X5", "X3", "Z4"});
    brandModelMap.put("Mercedes-Benz", new String[]{"C-Class", "E-Class", "GLE", "S-Class", "G-Class"});
    brandModelMap.put("Audi", new String[]{"A4", "Q5", "A6", "Q7", "R8"});
    brandModelMap.put("Tesla", new String[]{"Model S", "Model 3", "Model X", "Model Y", "Cybertruck"});
    brandModelMap.put("Nissan", new String[]{"Altima", "Maxima", "Rogue", "Pathfinder", "GT-R"});
    brandModelMap.put("Hyundai", new String[]{"Elantra", "Sonata", "Santa Fe", "Tucson", "Palisade"});
}

private void setupBrandComboBoxListener()
{
    jComboBox1.addActionListener(new ActionListener()
    {
        @Override
        public void actionPerformed(ActionEvent e) {
            updateModelComboBox();
        }
    });
}

private void updateFieldsWithSelectedCar()
{
    String selectedCarNumber = jList1.getSelectedValue();

    if (selectedCarNumber != null)
    {
        String query = "SELECT * FROM Cars WHERE car_number = ?";

        try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(query))
        {
            pstmt.setString(1, selectedCarNumber);

```

```

        try (ResultSet rs = pstmt.executeQuery())
        {
            if (rs.next())
            {
                jTextField1.setText(rs.getString("car_number"));
                jComboBox1.setSelectedItem(rs.getString("brand"));
                jComboBox2.setSelectedItem(rs.getString("model"));
                jTextField6.setText(rs.getString("Remark"));
                jTextField4.setText(rs.getBigDecimal("price_per_day").toString());
            }
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error fetching car details from the database.");
    }
}

private boolean isCarNumberExists(String carNumber)
{
    String selectQuery = "SELECT COUNT(*) FROM Cars WHERE car_number = ?";

    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(selectQuery))
    {
        pstmt.setString(1, carNumber);
        ResultSet rs = pstmt.executeQuery();
        if (rs.next())
        {
            return rs.getInt(1) > 0;
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error checking car number existence.");
    }
    return false;
}

private void updateModelComboBox()
{
    String selectedBrand = (String) jComboBox1.getSelectedItem();
    if (selectedBrand != null)
    {
        String[] models = brandModelMap.get(selectedBrand);
        jComboBox2.removeAllItems();
        if (models != null)
    }

```

```

        {
            for (String model : models) {
                jComboBox2.addItem(model);
            }
        }
    }
}

private void loadCarNumbers()
{
    String selectQuery = "SELECT car_number FROM Cars";

    carNumberListModel = new DefaultListModel<>();
    jList1.setModel(carNumberListModel);

    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(selectQuery); ResultSet rs = pstmt.executeQuery())
    {

        while (rs.next())
        {
            String carNumber = rs.getString("car_number");
            carNumberListModel.addElement(carNumber);
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error loading car numbers from the database.");
    }
}

private void clearFields()
{
    jTextField1.setText("");
    jComboBox1.setSelectedIndex(-1);
    jComboBox2.removeAllItems();
    jTextField6.setText("");
    jTextField4.setText("");
}

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

    jDateChooser1 = new com.toedter.calendar.JDateChooser();
    jScrollPane2 = new javax.swing.JScrollPane();
    jEditorPane1 = new javax.swing.JEditorPane();
    jPanel3 = new javax.swing.JPanel();

```

```

jButton6 = new javax.swing.JButton();
jPanel1 = new javax.swing.JPanel();
jScrollPane1 = new javax.swing.JScrollPane();
jList1 = new javax.swing.JList<>();
jPanel2 = new javax.swing.JPanel();
jLabel35 = new javax.swing.JLabel();
jLabel36 = new javax.swing.JLabel();
jLabel38 = new javax.swing.JLabel();
jLabel39 = new javax.swing.JLabel();
jLabel1 = new javax.swing.JLabel();
jTextField1 = new javax.swing.JTextField();
jTextField4 = new javax.swing.JTextField();
jButton1 = new javax.swing.JButton();
jButton3 = new javax.swing.JButton();
jButton2 = new javax.swing.JButton();
jButton4 = new javax.swing.JButton();
jLabel40 = new javax.swing.JLabel();
jTextField6 = new javax.swing.JTextField();
jComboBox1 = new javax.swing.JComboBox<>();
jComboBox2 = new javax.swing.JComboBox<>();
jButton5 = new javax.swing.JButton();

jScrollPane2.setViewportView(jEditorPane1);

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jPanel3.setBackground(new java.awt.Color(137, 139, 139));

jButton6.setBackground(new java.awt.Color(137, 139, 139));
jButton6.setIcon(new javax.swing.ImageIcon(getClass().getResource("/home-button (1).png"))); //

```

NOI18N

```

jButton6.setBorderPainted(false);
jButton6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton6ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel3Layout = new javax.swing.GroupLayout(jPanel3);
jPanel3.setLayout(jPanel3Layout);
jPanel3Layout.setHorizontalGroup(
    jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel3Layout.createSequentialGroup()
            .addGap(5, 5, 5)
            .addComponent(jButton6)
            .addGap(29, 29, Short.MAX_VALUE))
        );
jPanel3Layout.setVerticalGroup(

```

```

jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGroup(jPanel3Layout.createSequentialGroup()
.addGap(27, 27, 27)
.addComponent(jButton6)
.addContainerGap(456, Short.MAX_VALUE))
);

getContentPane().add(jPanel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 90, 540));

jPanel1.setBackground(new java.awt.Color(32, 42, 57));

jList1.setBackground(new java.awt.Color(137, 139, 139));
jList1.setFont(new java.awt.Font("Cambria", 0, 18)); // NOI18N
jList1.setModel(new javax.swing.AbstractListModel<String>() {
    String[] strings = { "Item 1", "Item 2", "Item 3", "Item 4", "Item 5" };
    public int getSize() { return strings.length; }
    public String getElementAt(int i) { return strings[i]; }
});
jScrollPane1.setViewportView(jList1);

jPanel2.setBackground(new java.awt.Color(137, 139, 139));

jLabel35.setBackground(new java.awt.Color(32, 42, 57));
jLabel35.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel35.setText("Reg Number");

jLabel36.setBackground(new java.awt.Color(32, 42, 57));
jLabel36.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel36.setText("Brand");

jLabel38.setBackground(new java.awt.Color(32, 42, 57));
jLabel38.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel38.setText("Model");

jLabel39.setBackground(new java.awt.Color(32, 42, 57));
jLabel39.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel39.setText("Price per day");

jLabel1.setBackground(new java.awt.Color(32, 42, 57));
jLabel1.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel1.setForeground(new java.awt.Color(32, 42, 57));
jLabel1.setText("Car Management");

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

```

```
jTextField4.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jTextField4ActionPerformed(evt);  
    }  
});  
  
jButton1.setBackground(new java.awt.Color(204, 204, 204));  
jButton1.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N  
jButton1.setForeground(new java.awt.Color(32, 42, 57));  
jButton1.setText("Add Car");  
jButton1.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jButton1ActionPerformed(evt);  
    }  
});  
  
jButton3.setBackground(new java.awt.Color(204, 204, 204));  
jButton3.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N  
jButton3.setForeground(new java.awt.Color(32, 42, 57));  
jButton3.setText("Delete Car");  
jButton3.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jButton3ActionPerformed(evt);  
    }  
});  
  
jButton2.setBackground(new java.awt.Color(204, 204, 204));  
jButton2.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N  
jButton2.setForeground(new java.awt.Color(32, 42, 57));  
jButton2.setText("Update data");  
jButton2.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jButton2ActionPerformed(evt);  
    }  
});  
  
jButton4.setBackground(new java.awt.Color(204, 204, 204));  
jButton4.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N  
jButton4.setForeground(new java.awt.Color(32, 42, 57));  
jButton4.setText("Create Report");  
jButton4.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jButton4ActionPerformed(evt);  
    }  
});  
  
jLabel40.setBackground(new java.awt.Color(32, 42, 57));  
jLabel40.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N  
jLabel40.setText("Remark");
```



```

jTextField6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField6ActionPerformed(evt);
    }
});

jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Toyota", "Ford",
"Honda", "Chevrolet", "BMW", "Mercedes-Benz", "Audi", "Tesla", "Nissan", "Hyundai" }));

jComboBox2.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "aqua", "fit ", "vezel", "
" }));

jButton5.setBackground(new java.awt.Color(204, 204, 204));
jButton5.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
jButton5.setText("Clear");
jButton5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton5ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel2Layout = new javax.swing.GroupLayout(jPanel2);
jPanel2.setLayout(jPanel2Layout);
jPanel2Layout.setHorizontalGroup(
    jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel2Layout.createSequentialGroup()
            .addGap(55, 55, Short.MAX_VALUE)
            .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel2Layout.createSequentialGroup()
                    .addGap(55, 55, Short.MAX_VALUE)
                    .addComponent(jLabel38, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(jLabel39, javax.swing.GroupLayout.PREFERRED_SIZE, 122,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(jLabel40, javax.swing.GroupLayout.PREFERRED_SIZE, 122,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                        .addComponent(jTextField4, javax.swing.GroupLayout.DEFAULT_SIZE, 295,
Short.MAX_VALUE)
                        .addComponent(jTextField6)
                        .addComponent(jComboBox2, 0, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)))
                .addGroup(jPanel2Layout.createSequentialGroup()
                    .addContainerGap()
                    .addComponent(jButton5)
                    .addContainerGap(170, true)))
            .addContainerGap())
);

```

```

        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
    )
        .addComponent(jLabel35, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 108, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel36, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 108, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
    )
        .addGroup(jPanel2Layout.createSequentialGroup()
            .addGap(20, 20, 20)
            .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING, false)
                .addComponent(jTextField1, javax.swing.GroupLayout.DEFAULT_SIZE, 295,
Short.MAX_VALUE)
                .addComponent(jComboBox1, 0, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
            .addGap(0, 0, Short.MAX_VALUE))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel2Layout.createSequentialGroup()
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel2Layout.createSequentialGroup()
                        .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 196,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(174, 174, 174))
                    .addComponent(jButton5, javax.swing.GroupLayout.Alignment.TRAILING))))))
            .addGap(17, 17, 17))
        .addGroup(jPanel2Layout.createSequentialGroup()
            .addGap(29, 29, 29)
            .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(40, 40, 40))))
    );
    jPanel2Layout.setVerticalGroup(
        jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel2Layout.createSequentialGroup()

```

```

        .addGap(14, 14, 14)
        .addComponent(jLabel1)
        .addGap(1, 1, 1)
        .addComponent(jButton5)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel35, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel36, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jComboBox1, javax.swing.GroupLayout.DEFAULT_SIZE, 30, Short.MAX_VALUE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jLabel38, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 25, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jComboBox2, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel39, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jTextField4, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jLabel40, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jTextField6, javax.swing.GroupLayout.PREFERRED_SIZE, 150,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addContainerGap())
    );

    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);

```

```

jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
            .addGap(42, 42, 42)
            .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 38, Short.MAX_VALUE)
            .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 134,
javax.swing.GroupLayout.PREFERRED_SIZE))
        );
jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
            .addGap(39, Short.MAX_VALUE)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addComponent(jPanel2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jScrollPane1))
            .addGap(49, 49, 49))
        );

getContentPane().add(jPanel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(90, 0, 770, 540));

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

private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {

    try {
        String reportSource = "C:\\Users\\amjad\\Documents\\New folder\\Car Management.jrxml";

        File file = new File(reportSource);
        if (!file.exists())
        {
            System.out.println("File not found: " + file.getAbsolutePath());
            return;
        }

        JasperReport jasperReport = JasperCompileManager.compileReport(reportSource);

        Connection connection = DriverManager.getConnection(url, user, password);
        JasperPrint jasperPrint = JasperFillManager.fillReport(jasperReport, null, connection);

        JasperViewer.viewReport(jasperPrint, false);
        connection.close();

    } catch (JRException e)
    {

```

```

        System.err.println("JRException: " + e.getMessage());
        e.printStackTrace();
    } catch (SQLException e)
    {
        System.err.println("SQLException: " + e.getMessage());
        e.printStackTrace();
    } catch (Exception e)
    {
        System.err.println("Exception: " + e.getMessage());
        e.printStackTrace();
    }
}

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

    String oldCarNumber = (String) jList1.getSelectedValue();
    if (oldCarNumber == null)
    {
        JOptionPane.showMessageDialog(this, "Please select a car from the list to update.");
        return;
    }

    String newCarNumber = jTextField1.getText().trim();
    String brand = (String) jComboBox1.getSelectedItem();
    String model = (String) jComboBox2.getSelectedItem();
    String remark = jTextField6.getText().trim();
    String pricePerDayStr = jTextField4.getText().trim();

    double pricePerDay;

    try
    {
        pricePerDay = Double.parseDouble(pricePerDayStr);
        if (pricePerDay <= 0)
        {
            throw new NumberFormatException();
        }
    } catch (NumberFormatException e)
    {
        JOptionPane.showMessageDialog(this, "Price per day must be a valid positive number.");
        return;
    }

    String checkCarNumberQuery = "SELECT COUNT(*) FROM Cars WHERE car_number = ? AND
car_number != ?";
    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement checkStmt
= conn.prepareStatement(checkCarNumberQuery)) {
        checkStmt.setString(1, newCarNumber);
        checkStmt.setString(2, oldCarNumber);
    }
}

```

```

        ResultSet rs = checkStmt.executeQuery();
        rs.next();
        int count = rs.getInt(1);
        if (count > 0)
        {
            JOptionPane.showMessageDialog(this, "The car number already exists. Please enter a different car
number.");
            return;
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error checking car numbers in the database.");
        return;
    }

    String updateQuery = "UPDATE Cars SET car_number = ?, brand = ?, model = ?, Remark = ?, price_per_day
= ? WHERE car_number = ?";

    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(updateQuery)) {
        pstmt.setString(1, newCarNumber);
        pstmt.setString(2, brand);
        pstmt.setString(3, model);
        pstmt.setString(4, remark);
        pstmt.setBigDecimal(5, new BigDecimal(pricePerDayStr));
        pstmt.setString(6, oldCarNumber);

        int rowsAffected = pstmt.executeUpdate();

        if (rowsAffected > 0)
        {
            JOptionPane.showMessageDialog(this, "Car details updated successfully.");
            loadCarNumbers();
            clearFields();
        } else
        {
            JOptionPane.showMessageDialog(this, "Car number not found. Please try again.");
        }
    } catch (SQLException e) {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error updating car details in the database.");
    }

}

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

```

```

String carNumber = (String) jList1.getSelectedValue();
if (carNumber == null)
{
    JOptionPane.showMessageDialog(this, "Please select a car from the list to delete.");
    return;
}

int confirmDelete = JOptionPane.showConfirmDialog(this,
    "Are you sure you want to delete the Car ? if you delete the car related rent and purchase information
will be deleted ",
    "Confirm Deletion", JOptionPane.YES_NO_OPTION);

if (confirmDelete != JOptionPane.YES_OPTION)
{
    return;
}

String deleteCarsQuery = "DELETE FROM Cars WHERE car_number = ?";
String deleteRentQuery = "DELETE FROM rent WHERE car_reg_no = ?";
String deleteCarPurchaseQuery = "DELETE FROM car_purchase WHERE car_number = ?";

try (Connection conn = DriverManager.getConnection(url, user, password))
{
    conn.setAutoCommit(false);
    try (PreparedStatement pstmtCars = conn.prepareStatement(deleteCarsQuery);
        PreparedStatement pstmtRent = conn.prepareStatement(deleteRentQuery);
        PreparedStatement pstmtCarPurchase = conn.prepareStatement(deleteCarPurchaseQuery))
    {

        pstmtCars.setString(1, carNumber);
        pstmtRent.setString(1, carNumber);
        pstmtCarPurchase.setString(1, carNumber);

        int rowsAffectedCars = pstmtCars.executeUpdate();
        int rowsAffectedRent = pstmtRent.executeUpdate();
        int rowsAffectedCarPurchase = pstmtCarPurchase.executeUpdate();

        if (rowsAffectedCars > 0)
        {
            conn.commit();
            JOptionPane.showMessageDialog(this, "Car and related records deleted successfully.");
            loadCarNumbers();
            clearFields();
        } else
        {
            JOptionPane.showMessageDialog(this, "Car number not found. Please try again.");
            conn.rollback();
        }
    }
}

```

```

    } catch (SQLException e)
    {
        conn.rollback();
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error deleting car and related records from the database.");
    }
} catch (SQLException e)
{
    e.printStackTrace();
    JOptionPane.showMessageDialog(this, "Database connection error.");
}

}

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

    String number = jTextField1.getText();
    String brand = jComboBox1.getSelectedItem().toString();
    String model = jComboBox2.getSelectedItem().toString();
    String remark = jTextField6.getText();
    String pricePerDayStr = jTextField4.getText();

    if (isCarNumberExists(number))
    {
        JOptionPane.showMessageDialog(this, "Car number already exists. Please enter a different car
number.");
        return;
    }

    double pricePerDay;
    try
    {
        pricePerDay = Double.parseDouble(pricePerDayStr);
    } catch (NumberFormatException e)
    {
        JOptionPane.showMessageDialog(this, "Price per day must be a valid number.");
        return;
    }

    if (brand.isEmpty() || model.isEmpty() || pricePerDay <= 0)
    {
        JOptionPane.showMessageDialog(this, "Please fill all required fields correctly.");
        return;
    }

    String insertQuery = "INSERT INTO Cars (car_number, brand, model, Remark, price_per_day) VALUES
(?, ?, ?, ?, ?)";

```



```

        try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(insertQuery))
        {
            pstmt.setString(1, number);
            pstmt.setString(2, brand);
            pstmt.setString(3, model);
            pstmt.setString(4, remark);
            pstmt.setDouble(5, pricePerDay);

            int rowsInserted = pstmt.executeUpdate();
            if (rowsInserted > 0)
            {
                JOptionPane.showMessageDialog(this, "Car added successfully!");
                loadCarNumbers();
                clearFields();
            }

        } catch (SQLException e)
        {
            e.printStackTrace();
            JOptionPane.showMessageDialog(this, "Error adding car to the database.");
        }

    }

    private void jTextField4ActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jTextField6ActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {
        clearFields();
    }

    private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {
        Dashboard myProfile = new Dashboard(username);
        myProfile.setVisible(true);
        this.dispose();
    }

    public static void main(String args[])
    {
        java.awt.EventQueue.invokeLater(new Runnable()

```

```

    {
        public void run()
        {
            new CarsManagement().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JButton jButton4;
private javax.swing.JButton jButton5;
private javax.swing.JButton jButton6;
private javax.swing.JComboBox<String> jComboBox1;
private javax.swing.JComboBox<String> jComboBox2;
private com.toedter.calendar.JDateChooser jDateChooser1;
private javax.swing.JEditorPane jEditorPane1;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel35;
private javax.swing.JLabel jLabel36;
private javax.swing.JLabel jLabel38;
private javax.swing.JLabel jLabel39;
private javax.swing.JLabel jLabel40;
private javax.swing.JList<String> jList1;
private javax.swing.JPanel jPanel1;
private javax.swing.JPanel jPanel2;
private javax.swing.JPanel jPanel3;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JScrollPane jScrollPane2;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField4;
private javax.swing.JTextField jTextField6;
// End of variables declaration
}

```

Carspurchase.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */

import java.awt.event.MouseAdapter;
import java.awt.event.MouseEvent;
import java.math.BigDecimal;
import java.math.RoundingMode;
import java.sql.*;
import javax.swing.DefaultComboBoxModel;
import javax.swing.DefaultListModel;
import javax.swing.JOptionPane;

public class Carpurchase extends javax.swing.JFrame
{
    private String username;

    public Carpurchase()
    {
        initComponents();
        fillCarNumbersComboBox();
        fillSupplierNamesComboBox();
        loadPurchaseIds();
        setupPurchaseIdSelection();
    }

    private Connection connect()
    {
        {
            String url = "jdbc:mysql://localhost:3306/car";
            String user = "root";
            String password = "AMJU";
            try
            {
                return DriverManager.getConnection(url, user, password);
            } catch (Exception e)
            {
                e.printStackTrace();
                return null;
            }
        }
    }

    private void fillCarNumbersComboBox()
```

```

{
    try (Connection conn = connect(); Statement stmt = conn.createStatement(); ResultSet rs =
stmt.executeQuery("SELECT car_number FROM Cars"))
    {

        DefaultComboBoxModel<String> model = new DefaultComboBoxModel<>();
        while (rs.next())
        {
            model.addElement(rs.getString("car_number"));
        }
        jComboBox3.setModel(model);

    } catch (Exception e)
    {
        e.printStackTrace();
    }
}

private void loadPurchaseIds()
{
    DefaultListModel<String> listModel = new DefaultListModel<>();

    String query = "SELECT purchase_id FROM car_purchase";
    try (Connection conn = connect(); Statement stmt = conn.createStatement(); ResultSet rs =
stmt.executeQuery(query))
    {
        while (rs.next())
        {
            listModel.addElement(rs.getString("purchase_id"));
        }
        jList3.setModel(listModel);

    } catch (Exception e)
    {
        e.printStackTrace();
    }
}

private void fillSupplierNamesComboBox()
{
    try (Connection conn = connect(); Statement stmt = conn.createStatement(); ResultSet rs =
stmt.executeQuery("SELECT sup_name FROM supplier")) {

        DefaultComboBoxModel<String> model = new DefaultComboBoxModel<>();
        while (rs.next())
        {
            model.addElement(rs.getString("sup_name"));
        }
        jComboBox4.setModel(model);
    }
}

```

```

    } catch (Exception e)
    {
        e.printStackTrace();
    }
}

private void setupPurchaseIdSelection()
{
    jList3.addMouseListener(new MouseAdapter()
    {
        public void mouseClicked(MouseEvent evt)
        {
            if (evt.getClickCount() == 1)
            {
                String selectedId = jList3.getSelectedValue();
                loadPurchaseDetails(selectedId);
            }
        }
    });
}

private void loadPurchaseDetails(String purchaseId)
{
    String query = "SELECT car_number, sup_id, purchase_date, purchase_price, remark FROM car_purchase WHERE purchase_id = ?";
    try (Connection conn = connect(); PreparedStatement pstmt = conn.prepareStatement(query))
    {
        pstmt.setString(1, purchaseId);
        try (ResultSet rs = pstmt.executeQuery())
        {
            if (rs.next())
            {
                jComboBox3.setSelectedItem(rs.getString("car_number"));
                jComboBox4.setSelectedItem(getSupplierName(rs.getInt("sup_id")));
                jDateChooser1.setDate(rs.getDate("purchase_date"));
                jTextField3.setText(rs.getString("purchase_price"));
                jTextField4.setText(rs.getString("remark"));
            }
        }
    }

    } catch (Exception e)
    {
        e.printStackTrace();
    }
}

private String getSupplierName(int supId)
{

```

```

String supplierName = null;
String query = "SELECT sup_name FROM supplier WHERE sup_id = ?";
try (Connection conn = connect(); PreparedStatement pstmt = conn.prepareStatement(query))
{
    pstmt.setInt(1, supId);
    try (ResultSet rs = pstmt.executeQuery())
    {
        if (rs.next())
        {
            supplierName = rs.getString("sup_name");
        }
    }
} catch (Exception e)
{
    e.printStackTrace();
}
return supplierName;
}

private int getSupplierId(String supplierName)
{
    int supplierId = -1;
    String query = "SELECT sup_id FROM supplier WHERE sup_name = ?";

    try (Connection conn = connect(); PreparedStatement pstmt = conn.prepareStatement(query))
    {
        if (conn == null)
        {
            JOptionPane.showMessageDialog(this, "Database connection failed.", "Error",
JOptionPane.ERROR_MESSAGE);
            return supplierId;
        }

        pstmt.setString(1, supplierName);

        try (ResultSet rs = pstmt.executeQuery())
        {
            if (rs.next())
            {
                supplierId = rs.getInt("sup_id");
            } else
            {
                JOptionPane.showMessageDialog(this, "Supplier not found: " + supplierName, "Error",
JOptionPane.ERROR_MESSAGE);
            }
        }
    }

} catch (SQLException e)
{

```

```

        JOptionPane.showMessageDialog(this, "SQL Error: " + e.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
        e.printStackTrace();
    } catch (Exception e)
    {
        JOptionPane.showMessageDialog(this, "General Error: " + e.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
        e.printStackTrace();
    }

    return supplierId;
}

private boolean isNumeric(String str)
{
    if (str == null || str.isEmpty())
    {
        return false;
    }
    try
    {
        Double.parseDouble(str);
        return true;
    } catch (NumberFormatException e)
    {
        return false;
    }
}

private boolean isCarNumberUsedElsewhere(String carNumber, String purchaseId)
{
    String query = "SELECT COUNT(*) FROM car_purchase WHERE car_number = ? AND purchase_id <> ?";
    try (Connection conn = connect(); PreparedStatement pstmt = conn.prepareStatement(query))
    {
        pstmt.setString(1, carNumber);
        pstmt.setString(2, purchaseId);

        try (ResultSet rs = pstmt.executeQuery())
        {
            if (rs.next())
            {
                return rs.getInt(1) > 0;
            }
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
    }
    return false;
}

```

```

}

private void updatePurchaseDetails()
{
    String selectedId = jList3.getSelectedValue();
    String carNumber = (String) jComboBox3.getSelectedItem();
    String supplierName = (String) jComboBox4.getSelectedItem();
    java.util.Date purchaseDate = jDateChooser1.getDate();
    String purchasePrice = jTextField3.getText();
    String remark = jTextField4.getText();

    if (isCarNumberUsedElsewhere1(carNumber, selectedId))
    {
        JOptionPane.showMessageDialog(this, "This car number is already purchased.", "Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    if (carNumber == null || supplierName == null || purchaseDate == null || purchasePrice == null)
    {
        JOptionPane.showMessageDialog(this, "Please fill in all fields.", "Error", JOptionPane.ERROR_MESSAGE);
        return;
    }
    if (!isNumeric(purchasePrice))
    {
        JOptionPane.showMessageDialog(this, "Purchase price must be a valid number", "Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    int supplierId = getSupplierId(supplierName);
    if (supplierId == -1)
    {
        JOptionPane.showMessageDialog(this, "Supplier not found: " + supplierName, "Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    String query = "UPDATE car_purchase SET car_number = ?, sup_id = ?, purchase_date = ?, purchase_price
= ?, remark = ? WHERE purchase_id = ?";

    try (Connection conn = connect(); PreparedStatement pstmt = conn.prepareStatement(query))
    {
        if (conn == null) {
            JOptionPane.showMessageDialog(this, "Database connection failed.", "Error",
JOptionPane.ERROR_MESSAGE);
            return;
        }
    }
}

```



```

        pstmt.setString(1, carNumber);
        pstmt.setInt(2, supplierId);
        pstmt.setDate(3, new java.sql.Date(purchaseDate.getTime()));
        pstmt.setString(4, purchasePrice);
        pstmt.setString(5, remark);
        pstmt.setString(6, selectedId);

        int rowsUpdated = pstmt.executeUpdate();
        if (rowsUpdated > 0)
        {
            JOptionPane.showMessageDialog(this, "Record updated successfully.");
            clearFields();
            loadPurchaseIds();
        } else
        {
            JOptionPane.showMessageDialog(this, "No record updated. Verify that purchase_id exists: " +
selectedId, "Error", JOptionPane.ERROR_MESSAGE);
        }

    } catch (SQLException e)
    {
        JOptionPane.showMessageDialog(this, "SQL Error: " + e.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
        e.printStackTrace();
    } catch (Exception e)
    {
        JOptionPane.showMessageDialog(this, "General Error: " + e.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
        e.printStackTrace();
    }
}

private void deletePurchase()
{
    String selectedId = jList3.getSelectedValue();

    if (selectedId == null)
    {
        JOptionPane.showMessageDialog(this, "Please select a purchase ID to delete", "Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    String query = "DELETE FROM car_purchase WHERE purchase_id = ?";

    try (Connection conn = connect(); PreparedStatement pstmt = conn.prepareStatement(query))
    {
        pstmt.setString(1, selectedId);
    }
}

```

```

        int rowsDeleted = pstmt.executeUpdate();
        if (rowsDeleted > 0)
        {
            JOptionPane.showMessageDialog(this, "Purchase deleted successfully");
            clearFields();
            loadPurchaseIds();
        } else
        {
            JOptionPane.showMessageDialog(this, "Failed to delete purchase. Verify that the purchase ID exists.",
"Error", JOptionPane.ERROR_MESSAGE);
        }

    } catch (SQLException e)
    {
        System.out.println("SQL Error: " + e.getMessage());
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Database error: " + e.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
    }
}

private void clearFields()
{
    jComboBox3.setSelectedIndex(-1);
    jComboBox4.setSelectedIndex(-1);
    jDateChooser1.setDate(null);
    jTextField3.setText("");
    jTextField4.setText("");
    jList3.clearSelection();
}

private boolean isCarNumberUsedElsewhere1(String carNumber, String purchaseId)
{
    String query = "SELECT COUNT(*) FROM car_purchase WHERE car_number = ? AND purchase_id <> ?";

    if (purchaseId == null || purchaseId.trim().isEmpty())
    {
        System.out.println("Invalid purchaseId provided.");
        return false;
    }

    try (Connection conn = connect(); PreparedStatement pstmt = conn.prepareStatement(query))
    {
        pstmt.setString(1, carNumber);
        pstmt.setString(2, purchaseId);

        try (ResultSet rs = pstmt.executeQuery())
        {

```

```

        if (rs.next())
        {
            int count = rs.getInt(1);
            System.out.println("Count of car numbers used elsewhere: " + count);
            return count > 0;
        }
    }
} catch (SQLException e)
{
    e.printStackTrace();
}
return false;
}

```

```
@SuppressWarnings("unchecked")
```

```
// <editor-fold defaultstate="collapsed" desc="Generated Code">
```

```
private void initComponents() {
```

```

    jPanel6 = new javax.swing.JPanel();
    jPanel7 = new javax.swing.JPanel();
    jLabel43 = new javax.swing.JLabel();
    jLabel44 = new javax.swing.JLabel();
    jLabel46 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jLabel47 = new javax.swing.JLabel();
    jButton5 = new javax.swing.JButton();
    jLabel49 = new javax.swing.JLabel();
    jTextField3 = new javax.swing.JTextField();
    jTextField4 = new javax.swing.JTextField();
    jDateChooser1 = new com.toedter.calendar.JDateChooser();
    jComboBox3 = new javax.swing.JComboBox<>();
    jComboBox4 = new javax.swing.JComboBox<>();
    jButton1 = new javax.swing.JButton();
    jButton2 = new javax.swing.JButton();
    jButton3 = new javax.swing.JButton();
    jButton7 = new javax.swing.JButton();
    jButton8 = new javax.swing.JButton();
    jButton9 = new javax.swing.JButton();
    jScrollPane3 = new javax.swing.JScrollPane();
    jList3 = new javax.swing.JList<>();
    jPanel5 = new javax.swing.JPanel();
    jButton6 = new javax.swing.JButton();

```

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
```

```
getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());
```

```
jPanel6.setBackground(new java.awt.Color(32, 42, 57));
```

```

jPanel7.setBackground(new java.awt.Color(137, 139, 139));

jLabel43.setBackground(new java.awt.Color(32, 42, 57));
jLabel43.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel43.setText("Car Reg No");

jLabel44.setBackground(new java.awt.Color(32, 42, 57));
jLabel44.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel44.setText("Supplier");

jLabel46.setBackground(new java.awt.Color(32, 42, 57));
jLabel46.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel46.setText("Remark");

jLabel3.setBackground(new java.awt.Color(32, 42, 57));
jLabel3.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel3.setForeground(new java.awt.Color(32, 42, 57));
jLabel3.setText("Car Purchase Management");

jLabel47.setBackground(new java.awt.Color(32, 42, 57));
jLabel47.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel47.setText("Purchase Price");

jButton5.setBackground(new java.awt.Color(204, 204, 204));
jButton5.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
jButton5.setText("Clear");
jButton5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton5ActionPerformed(evt);
    }
});

jLabel49.setBackground(new java.awt.Color(32, 42, 57));
jLabel49.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel49.setText("Purchase Date");

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

jComboBox3.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Item 1", "Item 2",
"Item 3", "Item 4" }));

jComboBox4.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Item 1", "Item 2",
"Item 3", "Item 4" }));

jButton1.setBackground(new java.awt.Color(204, 204, 204));

```

```
jButton1.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton1.setForeground(new java.awt.Color(32, 42, 57));
jButton1.setText("Add Purchase");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});
```

```
jButton2.setBackground(new java.awt.Color(204, 204, 204));
jButton2.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton2.setForeground(new java.awt.Color(32, 42, 57));
jButton2.setText("Update Purchase");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});
```

```
jButton3.setBackground(new java.awt.Color(204, 204, 204));
jButton3.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton3.setForeground(new java.awt.Color(32, 42, 57));
jButton3.setText("Delete Purchase");
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(evt);
    }
});
```

```
jButton7.setBackground(new java.awt.Color(204, 204, 204));
jButton7.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
jButton7.setText("Add");
jButton7.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton7ActionPerformed(evt);
    }
});
```

```
jButton8.setBackground(new java.awt.Color(204, 204, 204));
jButton8.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
jButton8.setText("Add");
jButton8.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton8ActionPerformed(evt);
    }
});
```

```
jButton9.setBackground(new java.awt.Color(204, 204, 204));
jButton9.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
```

```

jButton9.setForeground(new java.awt.Color(32, 42, 57));
jButton9.setText("View all Purchases ");
jButton9.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton9ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel7Layout = new javax.swing.GroupLayout(jPanel7);
jPanel7.setLayout(jPanel7Layout);
jPanel7Layout.setHorizontalGroup(
    jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel7Layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(jButton5, javax.swing.GroupLayout.PREFERRED_SIZE, 62,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(77, 77, 77))
        .addGroup(jPanel7Layout.createSequentialGroup()
            .addGap(29, 29, 29)
            .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel7Layout.createSequentialGroup()
                    .addComponent(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addGroup(jPanel7Layout.createSequentialGroup()
                            .addComponent(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                                .addGroup(jPanel7Layout.createSequentialGroup()
                                    .addComponent(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                                        .addGroup(jPanel7Layout.createSequentialGroup()
                                            .addComponent(jLabel47, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                                            .addComponent(jLabel44, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                                        .addComponent(jLabel43, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
                                        .addComponent(jLabel49)
                                        .addComponent(jLabel46, javax.swing.GroupLayout.PREFERRED_SIZE, 122,
javax.swing.GroupLayout.PREFERRED_SIZE))
                                    .addGap(18, 18, 18)
                                    .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                                        .addGroup(jPanel7Layout.createSequentialGroup()
                                            .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                                                .addComponent(jComboBox3, javax.swing.GroupLayout.Alignment.LEADING, 0,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                                                .addComponent(jComboBox4, 0, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
                                            .addComponent(jTextField4)
                                            .addComponent(jTextField3, javax.swing.GroupLayout.Alignment.LEADING)
                                            .addComponent(jDateChooser1, javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

```

```

        .addComponent(jButton7, javax.swing.GroupLayout.PREFERRED_SIZE, 62,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jButton8, javax.swing.GroupLayout.PREFERRED_SIZE, 62,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(41, 41, 41))
        .addGroup(jPanel7Layout.createSequentialGroup())
        .addComponent(jLabel3)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))))
    .addGroup(jPanel7Layout.createSequentialGroup())
        .addGap(31, 31, 31)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
            .addComponent(jButton1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addComponent(jButton3, javax.swing.GroupLayout.DEFAULT_SIZE, 195, Short.MAX_VALUE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 84,
Short.MAX_VALUE)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
            .addComponent(jButton9, javax.swing.GroupLayout.DEFAULT_SIZE, 208, Short.MAX_VALUE)
            .addComponent(jButton2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addGap(24, 24, 24))))
    );
    jPanel7Layout.setVerticalGroup(
        jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel7Layout.createSequentialGroup())
            .addGap(18, 18, 18)
            .addComponent(jLabel3)
            .addGap(6, 6, 6)
            .addComponent(jButton5)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jComboBox3, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 25, Short.MAX_VALUE)
                .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel43)
                    .addComponent(jButton7)))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jComboBox4, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 25, Short.MAX_VALUE)
                .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel44, javax.swing.GroupLayout.PREFERRED_SIZE, 22,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jButton8)))
            .addGap(7, 7, 7)
            .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel7Layout.createSequentialGroup())

```

```

        .addComponent(jDateChooser1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jTextField3)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jTextField4, javax.swing.GroupLayout.PREFERRED_SIZE, 114,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(11, 11, 11))
    .addGroup(jPanel7Layout.createSequentialGroup())
        .addComponent(jLabel49, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jLabel47, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jLabel46, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(81, 81, 81)))
    .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton9, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(23, 23, 23))
    );

jList3.setBackground(new java.awt.Color(137, 139, 139));
jList3.setFont(new java.awt.Font("Cambria", 0, 18)); // NOI18N
jList3.setModel(new javax.swing.AbstractListModel<String>() {
    String[] strings = { "Item 1", "Item 2", "Item 3", "Item 4", "Item 5" };
    public int getSize() { return strings.length; }
    public String getElementAt(int i) { return strings[i]; }
});
jScrollPane3.setViewportViewView(jList3);

javax.swing.GroupLayout jPanel6Layout = new javax.swing.GroupLayout(jPanel6);
jPanel6.setLayout(jPanel6Layout);
jPanel6Layout.setHorizontalGroup(
    jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel6Layout.createSequentialGroup()
            .addGroup(jPanel6Layout.createSequentialGroup()
                .addGap(44, 44, 44)
                .addComponent(jPanel7, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

```



```

        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 35, Short.MAX_VALUE)
        .addComponent(jScrollPane3, javax.swing.GroupLayout.PREFERRED_SIZE, 120,
javax.swing.GroupLayout.PREFERRED_SIZE))
    );
    jPanel6Layout.setVerticalGroup(
        jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel6Layout.createSequentialGroup()
            .addGap(44, 44, 44)
            .addGroup(jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addComponent(jScrollPane3)
                .addComponent(jPanel7, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addContainerGap(80, Short.MAX_VALUE))
    );

    getContentPane().add(jPanel6, new org.netbeans.lib.awtextra.AbsoluteConstraints(90, 0, 770, 540));

    jPanel5.setBackground(new java.awt.Color(137, 139, 139));

    jButton6.setBackground(new java.awt.Color(137, 139, 139));
    jButton6.setIcon(new javax.swing.ImageIcon(getClass().getResource("/home-button (1).png"))); //
NOI18N
    jButton6.setBorderPainted(false);
    jButton6.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton6ActionPerformed(evt);
        }
    });

    javax.swing.GroupLayout jPanel5Layout = new javax.swing.GroupLayout(jPanel5);
    jPanel5.setLayout(jPanel5Layout);
    jPanel5Layout.setHorizontalGroup(
        jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel5Layout.createSequentialGroup()
            .addGap(5, 5, 5)
            .addComponent(jButton6)
            .addContainerGap(29, Short.MAX_VALUE))
    );
    jPanel5Layout.setVerticalGroup(
        jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel5Layout.createSequentialGroup()
            .addGap(27, 27, 27)
            .addComponent(jButton6)
            .addContainerGap(456, Short.MAX_VALUE))
    );

    getContentPane().add(jPanel5, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 90, 540));

    pack();

```

```

} // </editor-fold>

private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {
    clearFields();
}

private void jTextField4ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    String carNumber = jComboBox3.getSelectedItem().toString();
    String supplierName = jComboBox4.getSelectedItem().toString();
    java.util.Date date = jDateChooser1.getDate();
    double purchasePrice;
    String selectedId = jList3.getSelectedValue();
    String remark = jTextField4.getText();

    if (isCarNumberUsedElsewhere(carNumber, selectedId))
    {
        JOptionPane.showMessageDialog(this, "This car number is already purchased.", "Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    try
    {
        purchasePrice = Double.parseDouble(jTextField3.getText());
    } catch (NumberFormatException e) {
        JOptionPane.showMessageDialog(this, "Invalid purchase price", "Error", JOptionPane.ERROR_MESSAGE);
        return;
    }

    if (date == null)
    {
        JOptionPane.showMessageDialog(this, "Please select a purchase date", "Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    java.sql.Date purchaseDate = new java.sql.Date(date.getTime());

    String query = "INSERT INTO car_purchase (car_number, sup_id, purchase_date, purchase_price, remark) "
        + "VALUES (?, (SELECT sup_id FROM supplier WHERE sup_name = ?), ?, ?, ?)";

    try (Connection conn = connect(); PreparedStatement pstmt = conn.prepareStatement(query))
    {
        pstmt.setString(1, carNumber);
        pstmt.setString(2, supplierName);
        pstmt.setDate(3, purchaseDate);
    }
}

```

```

BigDecimal formattedPrice = BigDecimal.valueOf(purchasePrice).setScale(2, RoundingMode.HALF_UP);
pstmt.setBigDecimal(4, formattedPrice);
pstmt.setString(5, remark);

int rowsInserted = pstmt.executeUpdate();
if (rowsInserted > 0)
{
    JOptionPane.showMessageDialog(this, "Purchase successful");
    clearFields();
    loadPurchaseIds();
} else
{
    JOptionPane.showMessageDialog(this, "Failed to add purchase", "Error",
JOptionPane.ERROR_MESSAGE);
}
} catch (SQLException e)
{
    e.printStackTrace();
    JOptionPane.showMessageDialog(this, "Database error: " + e.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
}
}

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

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

    int confirm = JOptionPane.showConfirmDialog(this, "Are you sure you want to delete this purchase?",
"Confirm Deletion", JOptionPane.YES_NO_OPTION);
    if (confirm == JOptionPane.YES_OPTION) {
        deletePurchase();
        clearFields();
    }
}

private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {
    Dashboard myProfile = new Dashboard(username);
    myProfile.setVisible(true);
    this.dispose();
}

private void jButton7ActionPerformed(java.awt.event.ActionEvent evt) {
    CarsManagement myProfile = new CarsManagement();
    myProfile.setVisible(true);
    this.dispose();
}

```

```
private void jButton8ActionPerformed(java.awt.event.ActionEvent evt) {  
    Supplier myProfile = new Supplier();  
    myProfile.setVisible(true);  
    this.dispose();  
}
```

```
private void jButton9ActionPerformed(java.awt.event.ActionEvent evt) {  
    displayPurchase myProfile = new displayPurchase();  
    myProfile.setVisible(true);  
    this.dispose();  
}
```

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

```
// Variables declaration - do not modify  
private javax.swing.JButton jButton1;  
private javax.swing.JButton jButton2;  
private javax.swing.JButton jButton3;  
private javax.swing.JButton jButton5;  
private javax.swing.JButton jButton6;  
private javax.swing.JButton jButton7;  
private javax.swing.JButton jButton8;  
private javax.swing.JButton jButton9;  
private javax.swing.JComboBox<String> jComboBox3;  
private javax.swing.JComboBox<String> jComboBox4;  
private com.toedter.calendar.JDateChooser jDateChooser1;  
private javax.swing.JLabel jLabel3;  
private javax.swing.JLabel jLabel43;  
private javax.swing.JLabel jLabel44;  
private javax.swing.JLabel jLabel46;  
private javax.swing.JLabel jLabel47;  
private javax.swing.JLabel jLabel49;  
private javax.swing.JList<String> jList3;  
private javax.swing.JPanel jPanel5;  
private javax.swing.JPanel jPanel6;  
private javax.swing.JPanel jPanel7;  
private javax.swing.JScrollPane jScrollPane3;  
private javax.swing.JTextField jTextField3;
```

```
private javax.swing.JTextField jTextField4;  
// End of variables declaration  
}
```

CustomerManagement.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */

import java.io.File;
import java.sql.*;

import java.util.regex.Pattern;
import javax.swing.DefaultListModel;
import javax.swing.JOptionPane;
import net.sf.jasperreports.engine.JRException;
import net.sf.jasperreports.engine.JasperCompileManager;
import net.sf.jasperreports.engine.JasperFillManager;
import net.sf.jasperreports.engine.JasperPrint;
import net.sf.jasperreports.engine.JasperReport;
import net.sf.jasperreports.view.JasperViewer;

public class CustomerManagement extends javax.swing.JFrame
{

    String url = "jdbc:mysql://localhost:3306/car";
    String user = "root";
    String password = "AMJU";

    private String username;

    private DefaultListModel<String> cusListModel;

    public CustomerManagement()
    {
        initComponents();

        cusListModel = new DefaultListModel<>();
        jList3.setModel(cusListModel);

        loadcusNames();

        jList3.addListSelectionListener(e ->
        {
            if (!e.getValueIsAdjusting())
            {
                updateFieldsWithSelectedcustomer();
            }
        })
    }
}
```

```

    });
}

private void loadcusNames()
{
    String selectQuery = "SELECT cus_name FROM customer";
    cusListModel.clear();

    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(selectQuery); ResultSet rs = pstmt.executeQuery()) {

        while (rs.next())
        {
            String customerName = rs.getString("cus_name");
            cusListModel.addElement(customerName);
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error loading customer names from the database.");
    }
}

private boolean isValidPhone(String phone)
{
    return Pattern.matches("\\d{10}", phone);
}

private boolean isValidEmail(String email)
{
    String emailRegex = "^[A-Za-z0-9+_.-]+@[A-Za-z0-9.-]+\\.[A-Za-z]{2,6}$";
    return Pattern.matches(emailRegex, email);
}

private int selectedCustomerId;

private void updateFieldsWithSelectedcustomer()
{
    String selectedcus = jList3.getSelectedValue();

    if (selectedcus != null)
    {
        String query = "SELECT * FROM customer WHERE cus_name = ?";

        try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(query)) {
            pstmt.setString(1, selectedcus);

            try (ResultSet rs = pstmt.executeQuery())

```

```

        {
            if (rs.next())
            {
                selectedCustomerId = rs.getInt("cus_id");
                textname2.setText(rs.getString("cus_name"));
                textadd.setText(rs.getString("cus_address"));
                txtphone.setText(rs.getString("cus_phone"));
                txtmail.setText(rs.getString("cus_email"));
                txtRemark.setText(rs.getString("cus_remark"));
            }
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error fetching customer details from the database.");
    }
}
}

```

```

private void clearFields()
{
    textname2.setText("");
    textadd.setText("");
    txtphone.setText("");
    txtmail.setText("");
    txtRemark.setText("");
}

```

```

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

```

```

private void initComponents() {

    jPanel5 = new javax.swing.JPanel();
    jButton6 = new javax.swing.JButton();
    jPanel6 = new javax.swing.JPanel();
    jScrollPane3 = new javax.swing.JScrollPane();
    jList3 = new javax.swing.JList<>();
    jPanel7 = new javax.swing.JPanel();
    jLabel43 = new javax.swing.JLabel();
    jLabel44 = new javax.swing.JLabel();
    jLabel45 = new javax.swing.JLabel();
    jLabel46 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    textname2 = new javax.swing.JTextField();
    txtmail = new javax.swing.JTextField();
    jButton1 = new javax.swing.JButton();
    jButton3 = new javax.swing.JButton();
    jButton2 = new javax.swing.JButton();
    jButton4 = new javax.swing.JButton();
}

```



```

jLabel47 = new javax.swing.JLabel();
txtRemark = new javax.swing.JTextField();
jButton5 = new javax.swing.JButton();
txtphone = new javax.swing.JTextField();
textadd = new javax.swing.JTextField();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jPanel5.setBackground(new java.awt.Color(137, 139, 139));

jButton6.setBackground(new java.awt.Color(137, 139, 139));
jButton6.setIcon(new javax.swing.ImageIcon(getClass().getResource("/home-button (1).png"))); //

```

NOI18N

```

jButton6.setBorderPainted(false);
jButton6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton6ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel5Layout = new javax.swing.GroupLayout(jPanel5);
jPanel5.setLayout(jPanel5Layout);
jPanel5Layout.setHorizontalGroup(
    jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel5Layout.createSequentialGroup()
            .addGap(5, 5, 5)
            .addComponent(jButton6)
            .addGap(29, 29, Short.MAX_VALUE))
        );
jPanel5Layout.setVerticalGroup(
    jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel5Layout.createSequentialGroup()
            .addGap(27, 27, 27)
            .addComponent(jButton6)
            .addGap(456, 456, Short.MAX_VALUE))
        );

getContentPane().add(jPanel5, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 90, 540));

jPanel6.setBackground(new java.awt.Color(32, 42, 57));

jList3.setBackground(new java.awt.Color(137, 139, 139));
jList3.setFont(new java.awt.Font("Cambria", 0, 18)); // NOI18N
jList3.setModel(new javax.swing.AbstractListModel<String>() {
    String[] strings = { "Item 1", "Item 2", "Item 3", "Item 4", "Item 5" };
    public int getSize() { return strings.length; }
    public String getElementAt(int i) { return strings[i]; }
});

```

```
jScrollPane3.setViewportViewView(jList3);

jPanel7.setBackground(new java.awt.Color(137, 139, 139));

jLabel43.setBackground(new java.awt.Color(32, 42, 57));
jLabel43.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel43.setText("Name");

jLabel44.setBackground(new java.awt.Color(32, 42, 57));
jLabel44.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel44.setText("Address");

jLabel45.setBackground(new java.awt.Color(32, 42, 57));
jLabel45.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel45.setText("Phone");

jLabel46.setBackground(new java.awt.Color(32, 42, 57));
jLabel46.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel46.setText("Email");

jLabel3.setBackground(new java.awt.Color(32, 42, 57));
jLabel3.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel3.setForeground(new java.awt.Color(32, 42, 57));
jLabel3.setText("Customer Management");

textname2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        textname2ActionPerformed(evt);
    }
});

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

jButton1.setBackground(new java.awt.Color(204, 204, 204));
jButton1.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton1.setForeground(new java.awt.Color(32, 42, 57));
jButton1.setText("Add Customer");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jButton3.setBackground(new java.awt.Color(204, 204, 204));
jButton3.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
```

```

jButton3.setForeground(new java.awt.Color(32, 42, 57));
jButton3.setText("Delete Customer");
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(evt);
    }
});

jButton2.setBackground(new java.awt.Color(204, 204, 204));
jButton2.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton2.setForeground(new java.awt.Color(32, 42, 57));
jButton2.setText("Update Customer");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

jButton4.setBackground(new java.awt.Color(204, 204, 204));
jButton4.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton4.setForeground(new java.awt.Color(32, 42, 57));
jButton4.setText("Create Report");
jButton4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton4ActionPerformed(evt);
    }
});

jLabel47.setBackground(new java.awt.Color(32, 42, 57));
jLabel47.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel47.setText("Remark");

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

jButton5.setBackground(new java.awt.Color(204, 204, 204));
jButton5.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
jButton5.setText("Clear");
jButton5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton5ActionPerformed(evt);
    }
});

txtphone.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {

```

[illegible]

```

        .addComponent(jLabel46, javax.swing.GroupLayout.PREFERRED_SIZE, 122,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel47, javax.swing.GroupLayout.PREFERRED_SIZE, 122,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
        .addComponent(txtmail, javax.swing.GroupLayout.DEFAULT_SIZE, 295,
Short.MAX_VALUE)
        .addComponent(txtRemark))
        .addComponent(txtphone, javax.swing.GroupLayout.PREFERRED_SIZE, 295,
javax.swing.GroupLayout.PREFERRED_SIZE))))
        .addGap(0, 68, Short.MAX_VALUE)))
        .addGap(17, 17, 17))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel7Layout.createSequentialGroup()
        .addGap(0, 0, Short.MAX_VALUE)
        .addComponent(jButton5)
        .addGap(40, 40, 40))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel7Layout.createSequentialGroup()
        .addGap(29, 29, 29)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
        .addComponent(jButton3, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addComponent(jButton1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
        .addComponent(jButton2, javax.swing.GroupLayout.DEFAULT_SIZE, 196, Short.MAX_VALUE)
        .addComponent(jButton4, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addGap(33, 33, 33))))
    );
    jPanel7Layout.setVerticalGroup(
        jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel7Layout.createSequentialGroup()
        .addGap(18, 18, 18)
        .addComponent(jLabel3)
        .addGap(3, 3, 3)
        .addComponent(jButton5)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(textname2, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)

```

```

        .addComponent(jLabel43, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(textadd, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel44, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(jLabel45, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(txtphone, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(jLabel46, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(txtmail, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jLabel47, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(txtRemark, javax.swing.GroupLayout.PREFERRED_SIZE, 150,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
        .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addContainerGap());
    };

    javax.swing.GroupLayout jPanel6Layout = new javax.swing.GroupLayout(jPanel6);
    jPanel6.setLayout(jPanel6Layout);
    jPanel6Layout.setHorizontalGroup(
        jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel6Layout.createSequentialGroup()
        .addContainerGap(52, Short.MAX_VALUE)

```

```

        .addComponent(jPanel7, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(38, 38, 38)
        .addComponent(jScrollPane3, javax.swing.GroupLayout.PREFERRED_SIZE, 134,
javax.swing.GroupLayout.PREFERRED_SIZE))
    );
    jPanel6Layout.setVerticalGroup(
        jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel6Layout.createSequentialGroup())
        .addContainerGap(42, Short.MAX_VALUE)
        .addGroup(jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jScrollPane3, javax.swing.GroupLayout.PREFERRED_SIZE, 464,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jPanel7, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(34, 34, 34))
    );

    getContentPane().add(jPanel6, new org.netbeans.lib.awtextra.AbsoluteConstraints(90, 0, 770, 540));

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

private void textname2ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void txtmailActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    String name = textname2.getText();
    String address = textadd.getText();
    String phone = txtphone.getText();
    String email = txtmail.getText();
    String remark = txtRemark.getText();

    String insertQuery = "INSERT INTO customer (cus_name, cus_address, cus_phone, cus_email, cus_remark)
VALUES (?, ?, ?, ?, ?)";
    String checkQuery = "SELECT COUNT(*) FROM customer WHERE cus_name = ?";

    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement checkStmt
= conn.prepareStatement(checkQuery); PreparedStatement insertStmt =
conn.prepareStatement(insertQuery))
    {
        checkStmt.setString(1, name);
        ResultSet rs = checkStmt.executeQuery();
        rs.next();

        if (rs.getInt(1) > 0)

```

```

        {
            JOptionPane.showMessageDialog(this, "A customer with this name already exists. Please use a
different name.");
            return;
        }

        if (name.isEmpty() || address.isEmpty() || phone.isEmpty() || email.isEmpty())
        {
            JOptionPane.showMessageDialog(this, "Please fill all required fields correctly.");
            return;
        }

        if (!isValidPhone(phone))
        {
            JOptionPane.showMessageDialog(this, "Invalid phone number. Please enter a valid 10-digit
number.");
            return;
        }

        if (!isValidEmail(email))
        {
            JOptionPane.showMessageDialog(this, "Invalid email address. Please enter a valid email.");
            return;
        }

        insertStmt.setString(1, name);
        insertStmt.setString(2, address);
        insertStmt.setString(3, phone);
        insertStmt.setString(4, email);
        insertStmt.setString(5, remark);

        int rowsInserted = insertStmt.executeUpdate();

        if (rowsInserted > 0)
        {
            JOptionPane.showMessageDialog(this, "Supplier data saved successfully!");
            loadcusNames();
            clearFields();
        }

    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error saving supplier data.");
    }
}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    String name = textname2.getText();

```



```

if (name.isEmpty())
{
JOptionPane.showMessageDialog(this, "Please enter the customer name to delete.");
return;
}

int confirm = JOptionPane.showConfirmDialog(this,
    "Are you sure you want to delete the customer ? if you delete the customer related rent information
will be deleted ",
    "Delete Confirmation",
    JOptionPane.YES_NO_OPTION);

if (confirm != JOptionPane.YES_OPTION)
{
    return;
}

String deleteRentQuery = "DELETE FROM rent WHERE customer_id = (SELECT cus_id FROM customer WHERE
cus_name = ?)";
String deleteCustomerQuery = "DELETE FROM customer WHERE cus_name = ?";

try (Connection conn = DriverManager.getConnection(url, user, password))
{
    conn.setAutoCommit(false);

    try (PreparedStatement pstmtRent = conn.prepareStatement(deleteRentQuery);
        PreparedStatement pstmtCustomer = conn.prepareStatement(deleteCustomerQuery))
    {

        pstmtRent.setString(1, name);
        pstmtCustomer.setString(1, name);

        int rentRowsDeleted = pstmtRent.executeUpdate();
        int customerRowsDeleted = pstmtCustomer.executeUpdate();

        if (customerRowsDeleted > 0)
        {
            conn.commit();
            clearFields();
            loadcusNames();
        } else
        {
            JOptionPane.showMessageDialog(this, "Customer not found. Deletion failed.");
            conn.rollback();
        }
    } catch (SQLException e)
    {
        conn.rollback();
    }
}

```

```

        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error deleting customer and associated rentals.");
    }
} catch (SQLException e)
{
    e.printStackTrace();
}

}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    String name = textname2.getText();
    String address = textadd.getText();
    String phone = txtphone.getText();
    String email = txtmail.getText();
    String remark = txtRemark.getText();

    if (name.isEmpty() || address.isEmpty() || phone.isEmpty() || email.isEmpty())
    {
        JOptionPane.showMessageDialog(this, "Please fill all required fields correctly.");
        return;
    }

    if (!isValidPhone(phone))
    {
        JOptionPane.showMessageDialog(this, "Invalid phone number. Please enter a valid 10-digit number.");
        return;
    }

    if (!isValidEmail(email))
    {
        JOptionPane.showMessageDialog(this, "Invalid email address. Please enter a valid email.");
        return;
    }

    String updateQuery = "UPDATE customer SET cus_name = ?, cus_address = ?, cus_phone = ?, cus_email
= ?, cus_remark = ? WHERE cus_id = ?";

    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(updateQuery))
    {

        pstmt.setString(1, name);
        pstmt.setString(2, address);
        pstmt.setString(3, phone);
        pstmt.setString(4, email);
        pstmt.setString(5, remark);
        pstmt.setInt(6, selectedCustomerId);
    }
}

```

```

        int rowsUpdated = pstmt.executeUpdate();

        if (rowsUpdated > 0)
        {
            JOptionPane.showMessageDialog(this, "Customer data updated successfully!");
            loadcusNames();
            clearFields();
        } else
        {
            JOptionPane.showMessageDialog(this, "Customer not found. Update failed.");
        }

    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error updating customer data.");
    }
}

private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
    try
    {
        String reportSource = "C:\\Users\\amjad\\Documents\\New folder\\Customer.jrxml";

        File file = new File(reportSource);
        if (!file.exists())
        {
            System.out.println("File not found: " + file.getAbsolutePath());
            return;
        }

        JasperReport jasperReport = JasperCompileManager.compileReport(reportSource);

        Connection connection = DriverManager.getConnection(url, user, password);
        JasperPrint jasperPrint = JasperFillManager.fillReport(jasperReport, null, connection);

        JasperViewer.viewReport(jasperPrint, false);
        connection.close();

    } catch (JRException e)
    {
        System.err.println("JRException: " + e.getMessage());
        e.printStackTrace();
    } catch (SQLException e)
    {
        System.err.println("SQLException: " + e.getMessage());
        e.printStackTrace();
    } catch (Exception e)
    {

```

```

        System.err.println("Exception: " + e.getMessage());
        e.printStackTrace();
    }
}

private void txtRemarkActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {
    clearFields();
}

private void txtphoneActionPerformed(java.awt.event.ActionEvent evt) {
}

private void textaddActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {
    Dashboard myProfile = new Dashboard(username);
    myProfile.setVisible(true);
    this.dispose();
}

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

// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JButton jButton4;
private javax.swing.JButton jButton5;
private javax.swing.JButton jButton6;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel43;
private javax.swing.JLabel jLabel44;
private javax.swing.JLabel jLabel45;
private javax.swing.JLabel jLabel46;
private javax.swing.JLabel jLabel47;

```

```
private javax.swing.JList<String> jList3;  
private javax.swing.JPanel jPanel5;  
private javax.swing.JPanel jPanel6;  
private javax.swing.JPanel jPanel7;  
private javax.swing.JScrollPane jScrollPane3;  
private javax.swing.JTextField textadd;  
private javax.swing.JTextField textname2;  
private javax.swing.JTextField txtRemark;  
private javax.swing.JTextField txtmail;  
private javax.swing.JTextField txtphone;  
// End of variables declaration  
}
```

Dashboard.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GuiForms/JFrame.java to edit this template
 */

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

public class Dashboard extends javax.swing.JFrame
{

    private String username;

    public Dashboard(String username)
    {
        this.username = username;
        initComponents();
        updateCustomerCount();
        loadCarCount();
        loadSupplierCount();
    }

    public void loadSupplierCount()
    {
        String query = "SELECT COUNT(sup_id) FROM supplier";
        try (Connection conn = DriverManager.getConnection(url, user, password);
            Statement stmt = conn.createStatement();
            ResultSet rs = stmt.executeQuery(query))
        {

            if (rs.next())
            {
                int count = rs.getInt(1);
                jTextField1.setText(String.valueOf(count));
            }
        } catch (SQLException e)
        {
            JOptionPane.showMessageDialog(this, "Error fetching supplier count: " + e.getMessage());
            e.printStackTrace();
        }
    }
}
```

```

public void loadCarCount()
{
    String query = "SELECT COUNT(car_number) FROM Cars";
    try (Connection conn = DriverManager.getConnection(url, user, password);
        Statement stmt = conn.createStatement();
        ResultSet rs = stmt.executeQuery(query))
    {
        if (rs.next())
        {
            int count = rs.getInt(1);
            jTextField3.setText(String.valueOf(count));
        }
    } catch (SQLException e) {
        JOptionPane.showMessageDialog(this, "Error fetching car count: " + e.getMessage());
        e.printStackTrace();
    }
}

String url = "jdbc:mysql://localhost:3306/car";
String user = "root";
String password = "AMJU";

public void updateCustomerCount()
{
    String query = "SELECT COUNT(cus_id) FROM customer";
    try (Connection conn = DriverManager.getConnection(url, user, password);
        Statement stmt = conn.createStatement();
        ResultSet rs = stmt.executeQuery(query))
    {
        if (rs.next())
        {
            int count = rs.getInt(1);
            jTextField2.setText(String.valueOf(count));
        }
    } catch (SQLException e)
    {
        JOptionPane.showMessageDialog(this, "Error fetching customer count: " + e.getMessage());
        e.printStackTrace();
    }
}

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

    jPopupMenu1 = new javax.swing.JPopupMenu();
    jPanel1 = new javax.swing.JPanel();

```

```

jPanel3 = new javax.swing.JPanel();
jButton1 = new javax.swing.JButton();
jButton2 = new javax.swing.JButton();
jButton3 = new javax.swing.JButton();
jButton4 = new javax.swing.JButton();
jButton6 = new javax.swing.JButton();
jButton7 = new javax.swing.JButton();
jButton8 = new javax.swing.JButton();
jPanel2 = new javax.swing.JPanel();
jTextField3 = new javax.swing.JTextField();
jLabel4 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
jPanel4 = new javax.swing.JPanel();
jLabel5 = new javax.swing.JLabel();
jTextField1 = new javax.swing.JTextField();
jLabel1 = new javax.swing.JLabel();
jPanel5 = new javax.swing.JPanel();
jLabel6 = new javax.swing.JLabel();
jTextField2 = new javax.swing.JTextField();
jLabel7 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jPanel1.setBackground(new java.awt.Color(32, 42, 57));

jPanel3.setBackground(new java.awt.Color(137, 139, 139));
jPanel3.setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jButton1.setBackground(new java.awt.Color(204, 204, 204));
jButton1.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton1.setForeground(new java.awt.Color(32, 42, 57));
jButton1.setText("My Profile");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});
jPanel3.add(jButton1, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 50, 270, 50));

jButton2.setBackground(new java.awt.Color(204, 204, 204));
jButton2.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton2.setForeground(new java.awt.Color(32, 42, 57));
jButton2.setText("Supplier Management");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

```



```

jPanel3.add(jButton2, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 150, 270, 50));

jButton3.setBackground(new java.awt.Color(204, 204, 204));
jButton3.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton3.setForeground(new java.awt.Color(32, 42, 57));
jButton3.setText("Customer Management");
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(evt);
    }
});
jPanel3.add(jButton3, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 200, 270, 50));

jButton4.setBackground(new java.awt.Color(204, 204, 204));
jButton4.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton4.setForeground(new java.awt.Color(32, 42, 57));
jButton4.setText("Car Rent Management");
jButton4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton4ActionPerformed(evt);
    }
});
jPanel3.add(jButton4, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 300, 270, 50));

jButton6.setBackground(new java.awt.Color(204, 204, 204));
jButton6.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton6.setForeground(new java.awt.Color(32, 42, 57));
jButton6.setText("Car Management");
jButton6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton6ActionPerformed(evt);
    }
});
jPanel3.add(jButton6, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 100, 270, 50));

jButton7.setBackground(new java.awt.Color(204, 204, 204));
jButton7.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton7.setForeground(new java.awt.Color(32, 42, 57));
jButton7.setText("Car Purchase Management");
jButton7.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton7ActionPerformed(evt);
    }
});
jPanel3.add(jButton7, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 250, 280, 50));

jButton8.setBackground(new java.awt.Color(137, 139, 139));
jButton8.setIcon(new javax.swing.ImageIcon(getClass().getResource("/logout (1).png"))); // NOI18N
jButton8.setBorderPainted(false);

```

```

jButton8.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton8ActionPerformed(evt);
    }
});
jPanel3.add(jButton8, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 480, -1, -1));

jPanel2.setBackground(new java.awt.Color(137, 139, 139));

jTextField3.setEditable(false);
jTextField3.setBackground(new java.awt.Color(32, 42, 57));
jTextField3.setFont(new java.awt.Font("Cambria", 1, 36)); // NOI18N
jTextField3.setForeground(new java.awt.Color(137, 139, 139));
jTextField3.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField3ActionPerformed(evt);
    }
});

jLabel4.setFont(new java.awt.Font("Cambria", 1, 30)); // NOI18N
jLabel4.setForeground(new java.awt.Color(32, 42, 57));
jLabel4.setText("Available Cars");

jLabel2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/agreement (1) (1).png"))); // NOI18N

javax.swing.GroupLayout jPanel2Layout = new javax.swing.GroupLayout(jPanel2);
jPanel2.setLayout(jPanel2Layout);
jPanel2Layout.setHorizontalGroup(
    jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel2Layout.createSequentialGroup()
            .addGap(37, 37, 37)
            .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 109,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel2Layout.createSequentialGroup()
                    .addGap(32, 32, 32)
                    .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 200,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(jPanel2Layout.createSequentialGroup()
                    .addGap(110, 110, 110)
                    .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE, 87,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        );
jPanel2Layout.setVerticalGroup(
    jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel2Layout.createSequentialGroup()
            .addContainerGap(12, Short.MAX_VALUE)

```

```

        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel2Layout.createSequentialGroup()
                .addComponent(jLabel4)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE, 66,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(14, 14, 14))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel2Layout.createSequentialGroup()
                .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 116,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap()))
    );

    jPanel4.setBackground(new java.awt.Color(137, 139, 139));

    jLabel5.setFont(new java.awt.Font("Cambria", 1, 30)); // NOI18N
    jLabel5.setForeground(new java.awt.Color(32, 42, 57));
    jLabel5.setText("Available Suppliers");

    jTextField1.setEditable(false);
    jTextField1.setBackground(new java.awt.Color(32, 42, 57));
    jTextField1.setFont(new java.awt.Font("Cambria", 1, 36)); // NOI18N
    jTextField1.setForeground(new java.awt.Color(137, 139, 139));
    jTextField1.setHorizontalAlignment(javax.swing.JTextField.CENTER);
    jTextField1.setCursor(new java.awt.Cursor(java.awt.Cursor.DEFAULT_CURSOR));
    jTextField1.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jTextField1ActionPerformed(evt);
        }
    });

    jLabel1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/best-customer-experience (2)
(1).png"))); // NOI18N

    javax.swing.GroupLayout jPanel4Layout = new javax.swing.GroupLayout(jPanel4);
    jPanel4.setLayout(jPanel4Layout);
    jPanel4Layout.setHorizontalGroup(
        jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel4Layout.createSequentialGroup()
                .addGap(37, 37, 37)
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 124,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGroup(jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel4Layout.createSequentialGroup()
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                        .addComponent(jLabel5)
                        .addGap(115, 115, 115))
                    .addGroup(jPanel4Layout.createSequentialGroup()
                        .addGroup(jPanel4Layout.createSequentialGroup()

```

```

        .addGap(91, 91, 91)
        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 87,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))))
    );
    jPanel4Layout.setVerticalGroup(
        jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel4Layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(jLabel5)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 66,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addContainerGap(17, Short.MAX_VALUE))
        .addComponent(jLabel1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
    );

    jPanel5.setBackground(new java.awt.Color(137, 139, 139));

    jLabel6.setBackground(new java.awt.Color(32, 42, 57));
    jLabel6.setFont(new java.awt.Font("Cambria", 1, 30)); // NOI18N
    jLabel6.setForeground(new java.awt.Color(32, 42, 57));
    jLabel6.setText("Available Customers");

    jTextField2.setEditable(false);
    jTextField2.setBackground(new java.awt.Color(32, 42, 57));
    jTextField2.setFont(new java.awt.Font("Cambria", 1, 36)); // NOI18N
    jTextField2.setForeground(new java.awt.Color(137, 139, 139));
    jTextField2.setHorizontalAlignment(javax.swing.JTextField.CENTER);
    jTextField2.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);
        }
    });

    jLabel7.setIcon(new javax.swing.ImageIcon(getClass().getResource("/car (4) (1) (1).png"))); // NOI18N

    javax.swing.GroupLayout jPanel5Layout = new javax.swing.GroupLayout(jPanel5);
    jPanel5.setLayout(jPanel5Layout);
    jPanel5Layout.setHorizontalGroup(
        jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel5Layout.createSequentialGroup()
            .addContainerGap(38, Short.MAX_VALUE)
            .addComponent(jLabel7, javax.swing.GroupLayout.PREFERRED_SIZE, 109,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addGroup(jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

```

```

        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel5Layout.createSequentialGroup())
        .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE, 87,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(113, 113, 113))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel5Layout.createSequentialGroup())
        .addComponent(jLabel6)
        .addGap(14, 14, 14))))
    );
    jPanel5Layout.setVerticalGroup(
        jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel5Layout.createSequentialGroup())
        .addGap(10, 10, 10)
        .addGroup(jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jLabel7, javax.swing.GroupLayout.PREFERRED_SIZE, 116,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGroup(jPanel5Layout.createSequentialGroup())
            .addComponent(jLabel6)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE, 66,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );

    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
    jPanel1.setLayout(jPanel1Layout);
    jPanel1Layout.setHorizontalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup())
        .addComponent(jPanel3, javax.swing.GroupLayout.PREFERRED_SIZE, 265,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 74, Short.MAX_VALUE)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
            .addComponent(jPanel2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addComponent(jPanel4, javax.swing.GroupLayout.PREFERRED_SIZE, 0, Short.MAX_VALUE)
            .addComponent(jPanel5, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(68, 68, 68))
    );
    jPanel1Layout.setVerticalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup())
        .addComponent(jPanel3, javax.swing.GroupLayout.PREFERRED_SIZE, 540,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(0, 0, Short.MAX_VALUE))
        .addGroup(jPanel1Layout.createSequentialGroup())
        .addGap(44, 44, 44)
        .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

```

```

        .addGap(18, 18, 18)
        .addComponent(jPanel4, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(jPanel5, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );

    getContentPane().add(jPanel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 860, 540));

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

private void jButton8ActionPerformed(java.awt.event.ActionEvent evt) {
    Login c = new Login();
    c.setVisible(true);
    this.dispose();
}

private void jButton7ActionPerformed(java.awt.event.ActionEvent evt) {
    Carpurchase c = new Carpurchase();
    c.setVisible(true);
    this.dispose();
}

private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {

    CarsManagement c = new CarsManagement();
    c.setVisible(true);
    this.dispose();
}

private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {

    Rent c = new Rent();
    c.setVisible(true);
    this.dispose();
}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    CustomerManagement c = new CustomerManagement();
    c.setVisible(true);
    this.dispose();
}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    Supplier c = new Supplier();
    c.setVisible(true);

```

```

        this.dispose();
    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        Myprofile myProfile = new Myprofile(username);
        myProfile.setVisible(true);
        this.dispose();
    }

    private void jTextField3ActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jTextField2ActionPerformed(java.awt.event.ActionEvent evt) {
    }

    public static void main(String args[])
    {

        java.awt.EventQueue.invokeLater(new Runnable()
        {
            @Override
            public void run() {
                String username = "currentUser";
                Dashboard dashboard = new Dashboard(username);
                dashboard.setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JButton jButton3;
    private javax.swing.JButton jButton4;
    private javax.swing.JButton jButton6;
    private javax.swing.JButton jButton7;
    private javax.swing.JButton jButton8;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JLabel jLabel6;
    private javax.swing.JLabel jLabel7;
    private javax.swing.JPanel jPanel1;
    private javax.swing.JPanel jPanel2;

```

```
private javax.swing.JPanel jPanel3;  
private javax.swing.JPanel jPanel4;  
private javax.swing.JPanel jPanel5;  
private javax.swing.JPopupMenu jPopupMenu1;  
private javax.swing.JTextField jTextField1;  
private javax.swing.JTextField jTextField2;  
private javax.swing.JTextField jTextField3;  
// End of variables declaration  
}
```


Database.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
 */

/*
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 */

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.ArrayList;
import java.sql.ResultSetMetaData;

public class Database
{

    private static final String DB_URL = "jdbc:mysql://localhost:3306/pharmacy_db";
    private static final String DB_USER = "root";
    private static final String DB_PASSWORD = "AMJU";

    public void insertUserData(String username, String email, String phoneNumber, String gender, String Password, String address, String firstname, String lastname)
    {
        String insertSQL = "INSERT INTO users (username, email, phone_number, gender, password , address , firstname , lastname) VALUES (?, ?, ?, ?, ?, ?, ?, ?)";
        try (Connection connection = DriverManager.getConnection(DB_URL, DB_USER, DB_PASSWORD);
            PreparedStatement preparedStatement = connection.prepareStatement(insertSQL))
        {

            preparedStatement.setString(1, username);
            preparedStatement.setString(2, email);
            preparedStatement.setString(3, phoneNumber);
            preparedStatement.setString(4, gender);
            preparedStatement.setString(5, Password);
            preparedStatement.setString(6, firstname);
            preparedStatement.setString(7, lastname);
```

```

        preparedStatement.setString(8, address);

        int rowsAffected = preparedStatement.executeUpdate();
        if (rowsAffected > 0)
        {
            System.out.println("User data inserted successfully.");
        } else {
            System.out.println("No rows were affected.");
        }
    } catch (java.sql.SQLException e)
    {
        System.out.println("Error inserting data: " + e);
        e.printStackTrace();
    }
}

public boolean updateUserData(String oldUsername, String newUsername, String email, String
phoneNumber, String address, String firstName, String lastName, String gender, String password)
{
    String updateSQL = "UPDATE users SET username=?, email=?, phone_number=?, address=?, firstname=?,
lastname=?, gender=?, password=? WHERE username=?";

    try (Connection connection = DriverManager.getConnection(DB_URL, DB_USER, DB_PASSWORD))
    {
        if (!checkIfUserExists(connection, oldUsername)) {
            System.err.println("Old username does not exist in the database.");
            return false;
        }

        if (!isUsernameUnique(connection, newUsername, oldUsername))
        {
            System.err.println("Username already exists!");
            return false;
        }

        try (PreparedStatement preparedStatement = connection.prepareStatement(updateSQL))
        {
            preparedStatement.setString(1, newUsername);
            preparedStatement.setString(2, email);
            preparedStatement.setString(3, phoneNumber);
            preparedStatement.setString(4, address);
            preparedStatement.setString(5, firstName);
            preparedStatement.setString(6, lastName);
            preparedStatement.setString(7, gender);
            preparedStatement.setString(8, password);
            preparedStatement.setString(9, oldUsername);

            int rowsAffected = preparedStatement.executeUpdate();
            System.out.println("Rows affected: " + rowsAffected);
            return rowsAffected > 0;
        }
    }
}

```

```

    }
} catch (SQLException e)
{
    System.err.println("Error updating user data: " + e.getMessage());
    e.printStackTrace();
    return false;
}
}

private boolean checkIfUserExists(Connection connection, String username) throws SQLException
{
    String query = "SELECT COUNT(*) FROM users WHERE username = ?";
    try (PreparedStatement checkUserStmt = connection.prepareStatement(query))
    {
        checkUserStmt.setString(1, username);
        try (ResultSet userExists = checkUserStmt.executeQuery())
        {
            return userExists.next() && userExists.getInt(1) > 0;
        }
    }
}

private boolean isUsernameUnique(Connection connection, String newUsername, String oldUsername)
throws SQLException
{
    String query = "SELECT COUNT(*) FROM users WHERE username = ? AND username != ?";
    try (PreparedStatement checkStmt = connection.prepareStatement(query))
    {
        checkStmt.setString(1, newUsername);
        checkStmt.setString(2, oldUsername);
        try (ResultSet rs = checkStmt.executeQuery())
        {
            return rs.next() && rs.getInt(1) == 0;
        }
    }
}
}

```

Login.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */

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

public class Login extends javax.swing.JFrame {

    private static final String DB_URL = "jdbc:mysql://localhost:3306/car";
    private static final String DB_USER = "root";
    private static final String DB_PASSWORD = "AMJU";

    public Login()
    {
        initComponents();
    }

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

        jPanel3 = new javax.swing.JPanel();
        jPanel1 = new javax.swing.JPanel();
        jLabel2 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jLabel3 = new javax.swing.JLabel();
        jPasswordField1 = new javax.swing.JPasswordField();
        jButton1 = new javax.swing.JButton();
        jLabel4 = new javax.swing.JLabel();
        jButton2 = new javax.swing.JButton();
        jLabel5 = new javax.swing.JLabel();
        jLabel6 = new javax.swing.JLabel();
        jPanel2 = new javax.swing.JPanel();
        jLabel8 = new javax.swing.JLabel();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

        jPanel3.setBackground(new java.awt.Color(32, 42, 57));
        jPanel3.setBorder(javax.swing.BorderFactory.createEmptyBorder(1, 1, 1, 1));
```

```
jPanel3.setForeground(new java.awt.Color(0, 51, 51));
jPanel3.setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jPanel1.setBackground(new java.awt.Color(137, 139, 139));

jLabel2.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel2.setForeground(new java.awt.Color(32, 42, 57));
jLabel2.setText("Username");

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

jLabel3.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel3.setForeground(new java.awt.Color(32, 42, 57));
jLabel3.setText("Password");

jPasswordField1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jPasswordField1ActionPerformed(evt);
    }
});

jButton1.setBackground(new java.awt.Color(204, 204, 204));
jButton1.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton1.setForeground(new java.awt.Color(32, 42, 57));
jButton1.setText("Log in");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jLabel4.setFont(new java.awt.Font("Cambria", 0, 14)); // NOI18N
jLabel4.setForeground(new java.awt.Color(32, 42, 57));
jLabel4.setText("Not registered?");

jButton2.setBackground(new java.awt.Color(137, 139, 139));
jButton2.setFont(new java.awt.Font("Cambria", 0, 14)); // NOI18N
jButton2.setForeground(new java.awt.Color(32, 42, 57));
jButton2.setText("Sign up");
jButton2.setBorder(null);
jButton2.setCursor(new java.awt.Cursor(java.awt.Cursor.HAND_CURSOR));
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
})
```

```

});

jLabel5.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel5.setForeground(new java.awt.Color(32, 42, 57));
jLabel5.setText("Login to your account");

jLabel6.setFont(new java.awt.Font("Cambria", 1, 48)); // NOI18N
jLabel6.setForeground(new java.awt.Color(32, 42, 57));
jLabel6.setText("Welcome");

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(40, 40, 40)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel1Layout.createSequentialGroup()
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 111,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(18, 18, 18)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 184,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(jPanel1Layout.createSequentialGroup()
                    .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 111,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(18, 18, 18)
                    .addComponent(jPasswordField1, javax.swing.GroupLayout.PREFERRED_SIZE, 184,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addContainerGap(42, Short.MAX_VALUE)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
                        .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 220,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(84, 84, 84))
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
                        .addComponent(jLabel5, javax.swing.GroupLayout.PREFERRED_SIZE, 260,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(65, 65, 65))))
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(110, 110, 110)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addComponent(jLabel4)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 64,
javax.swing.GroupLayout.PREFERRED_SIZE))

```

```

        .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 162,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(0, 0, Short.MAX_VALUE))
    );
    jPanel1Layout.setVerticalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(33, 33, 33)
            .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 60,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addComponent(jLabel5)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 37, Short.MAX_VALUE)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 37,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jTextField1, 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(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 37,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jPasswordField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(27, 27, 27)
            .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 41,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 18,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(60, 60, 60))
    );

    jPanel3.add(jPanel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(60, 50, -1, 440));

    getContentPane().add(jPanel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 510, 540));

    jPanel2.setBackground(new java.awt.Color(137, 139, 139));
    jPanel2.setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

    jLabel8.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Screenshot 2024-10-25
114333.png"))); // NOI18N
    jPanel2.add(jLabel8, new org.netbeans.lib.awtextra.AbsoluteConstraints(20, 130, -1, 290));

    getContentPane().add(jPanel2, new org.netbeans.lib.awtextra.AbsoluteConstraints(510, 0, 350, 540));

```

```

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

private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {

}

private void jPasswordField1ActionPerformed(java.awt.event.ActionEvent evt) {

}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    String username = jTextField1.getText();
    String password = new String(jPasswordField1.getPassword());

    if (username.isEmpty() || password.isEmpty())
    {
        JOptionPane.showMessageDialog(this, "Please enter both username and password", "Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    try (Connection conn = DriverManager.getConnection(DB_URL, DB_USER, DB_PASSWORD))
    {
        String sql = "SELECT * FROM users WHERE username = ? AND password = ?";
        PreparedStatement pst = conn.prepareStatement(sql);
        pst.setString(1, username);
        pst.setString(2, password);
        ResultSet rs = pst.executeQuery();

        if (rs.next())
        {
            JOptionPane.showMessageDialog(this, "Login successful!");
            Dashboard d = new Dashboard(username);
            this.setVisible(false);
            d.setVisible(true);
        } else
        {
            JOptionPane.showMessageDialog(this, "Invalid username or password", "Error",
JOptionPane.ERROR_MESSAGE);
        }

    } catch (Exception ex)
    {
        JOptionPane.showMessageDialog(this, "Database connection error: " + ex.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
    }
}

```



```

    }

    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        Register reg = new Register();
        this.setVisible(false);
        reg.setVisible(true);
    }

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

    // Variables declaration - do not modify
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JLabel 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 jLabel8;
    private javax.swing.JPanel jPanel1;
    private javax.swing.JPanel jPanel2;
    private javax.swing.JPanel jPanel3;
    private javax.swing.JPasswordField jPasswordField1;
    private javax.swing.JTextField jTextField1;
    // End of variables declaration
}

```

Register.java

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

/*
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 * Click nbfs://nbhost/SystemFileSystem/Templates/GuiForms/JFrame.java to edit this template
 */

public class Register extends javax.swing.JFrame
{

    private static final String DB_URL = "jdbc:mysql://localhost:3306/car";
    private static final String DB_USER = "root";
    private static final String DB_PASSWORD = "AMJU";
    public Register()
    {
        initComponents();
    }

    private void insertData(String firstName, String lastName, String phone, String email, String username,
String password)
    {
        String url = "jdbc:mysql://localhost:3306/car";
        String user = "root";
        String dbPassword = "AMJU";

        String query = "INSERT INTO Users (first_name, last_name, phone, email, username, password) VALUES
(?, ?, ?, ?, ?, ?)";

        try (Connection connection = DriverManager.getConnection(url, user, dbPassword);
        PreparedStatement preparedStatement = connection.prepareStatement(query))
        {
            preparedStatement.setString(1, firstName);
            preparedStatement.setString(2, lastName);
            preparedStatement.setString(3, phone);
            preparedStatement.setString(4, email);
            preparedStatement.setString(5, username);
            preparedStatement.setString(6, password);
            preparedStatement.executeUpdate();
            JOptionPane.showMessageDialog(this, "Profile created successfully!");
        } catch (SQLException ex)
        {
            JOptionPane.showMessageDialog(this, "Error: " + ex.getMessage());
        }
    }
}
```

```

    }
}

private String checkUserAvailability(String username)
{
    String query = "SELECT * FROM Users WHERE username = ?";

    try (Connection conn = DriverManager.getConnection(DB_URL, DB_USER, DB_PASSWORD);
        PreparedStatement pstmt = conn.prepareStatement(query))
    {

        pstmt.setString(1, username);
        ResultSet rs = pstmt.executeQuery();
        if (rs.next())
        {
            return "Username is already taken.";
        }
    } catch (Exception e)
    {
        e.printStackTrace();
    }
    return null;
}

private String checkEmailAvailability(String email)
{
    String query = "SELECT * FROM Users WHERE email = ?";

    try (Connection conn = DriverManager.getConnection(DB_URL, DB_USER, DB_PASSWORD);
        PreparedStatement pstmt = conn.prepareStatement(query)) {

        pstmt.setString(1, email);
        ResultSet rs = pstmt.executeQuery();
        if (rs.next())
        {
            return "Email is already registered.";
        }
    } catch (Exception e)
    {
        e.printStackTrace();
    }
    return null;
}

public boolean isValidPhoneNumber(String phoneNumber) {
    String regex = "^((\\+\\d{1,3})[- ]?)?\\d{10}$";
    return phoneNumber.matches(regex);
}

```

```

}

public boolean isValidEmail(String email) {
    String regex = "^[A-Za-z0-9+_.-]+@[A-Za-z0-9.-]+\.[a-z]{2,6}$";
    return email.matches(regex);
}

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

    jPanel2 = new javax.swing.JPanel();
    jPanel1 = new javax.swing.JPanel();
    jLabel2 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jLabel6 = new javax.swing.JLabel();
    jTextFieldIn = new javax.swing.JTextField();
    jLabel8 = new javax.swing.JLabel();
    jTextFieldemail = new javax.swing.JTextField();
    jTextFieldphone = new javax.swing.JTextField();
    jLabel10 = new javax.swing.JLabel();
    jTextFieldUN = new javax.swing.JTextField();
    jLabel11 = new javax.swing.JLabel();
    jLabel13 = new javax.swing.JLabel();
    jTextFieldfn = new javax.swing.JTextField();
    jPasswordFieldCPW = new javax.swing.JPasswordField();
    jPasswordFieldPW = new javax.swing.JPasswordField();
    jLabel1 = new javax.swing.JLabel();
    jButton1 = new javax.swing.JButton();
    jLabel14 = new javax.swing.JLabel();
    jButton2 = new javax.swing.JButton();
    jPanel3 = new javax.swing.JPanel();
    jLabel9 = new javax.swing.JLabel();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

    jPanel2.setBackground(new java.awt.Color(32, 42, 57));
    jPanel2.setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

    jPanel1.setBackground(new java.awt.Color(137, 139, 139));

    jLabel2.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
    jLabel2.setForeground(new java.awt.Color(32, 42, 57));
    jLabel2.setText("Email");

    jLabel3.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
    jLabel3.setForeground(new java.awt.Color(32, 42, 57));

```

```
jLabel3.setText("Last name");

jLabel6.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel6.setForeground(new java.awt.Color(32, 42, 57));
jLabel6.setText("Phone");

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

jLabel8.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel8.setForeground(new java.awt.Color(32, 42, 57));
jLabel8.setText("First name");

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

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

jLabel10.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel10.setForeground(new java.awt.Color(32, 42, 57));
jLabel10.setText("Username");

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

jLabel11.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel11.setForeground(new java.awt.Color(32, 42, 57));
jLabel11.setText("Password");

jLabel13.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel13.setForeground(new java.awt.Color(32, 42, 57));
jLabel13.setText("Confirm password");

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

```

    }
});

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

jLabel1.setBackground(new java.awt.Color(32, 42, 57));
jLabel1.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel1.setForeground(new java.awt.Color(32, 42, 57));
jLabel1.setText("Create your account");

jButton1.setBackground(new java.awt.Color(204, 204, 204));
jButton1.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton1.setForeground(new java.awt.Color(32, 42, 57));
jButton1.setText("Sign up");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jLabel14.setFont(new java.awt.Font("Cambria", 0, 14)); // NOI18N
jLabel14.setForeground(new java.awt.Color(32, 42, 57));
jLabel14.setText("Already have an account?");

jButton2.setBackground(new java.awt.Color(137, 139, 139));
jButton2.setFont(new java.awt.Font("Cambria", 1, 14)); // NOI18N
jButton2.setForeground(new java.awt.Color(32, 42, 57));
jButton2.setText("Log in");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
            .addGap(24, 24, Short.MAX_VALUE)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jLabel11, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
                    javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(76, 76, 76))
        )

```

```

        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup())
        .addComponent(jLabel13)
        .addGap(28, 28, 28))
    .addGroup(jPanel1Layout.createSequentialGroup())
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jLabel10, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(76, 76, 76)))
    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jTextFieldphone, javax.swing.GroupLayout.PREFERRED_SIZE, 199,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
            .addComponent(jPasswordFieldCPW)
            .addComponent(jTextFieldUN, javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jPasswordFieldPW, javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jTextFieldemail, javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.PREFERRED_SIZE, 199, javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
            .addComponent(jTextFielddfn, javax.swing.GroupLayout.PREFERRED_SIZE, 199,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jTextFieldIn, javax.swing.GroupLayout.PREFERRED_SIZE, 199,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGap(756, 756, 756))
    .addGroup(jPanel1Layout.createSequentialGroup())
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(109, 109, 109)
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 270,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(106, 106, 106)
                .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 204,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(60, 60, 60)
                .addComponent(jLabel14)
                .addGap(18, 18, 18)
                .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 120,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );

```

```

jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup())
            .addGap(21, 21, 21)
            .addComponent(jLabel1)
            .addGap(31, 31, 31)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jTextFielddn, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGroup(jPanel1Layout.createSequentialGroup())
                    .addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGap(19, 19, 19)
                    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(jLabel3)
                        .addComponent(jTextFieldln, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))))
                .addGap(19, 19, 19)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jTextFieldphone, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(19, 19, 19)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jTextFieldemail, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(19, 19, 19)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel10, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jTextFieldUN, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(19, 19, 19)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel11, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jPasswordFieldPW, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(19, 19, 19)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel13, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jPasswordFieldCPW, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)

```



```

        .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel14, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton2))
        .addContainerGap(19, Short.MAX_VALUE)
    );

    jPanel2.add(jPanel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(40, 20, 440, 490));

    jPanel3.setBackground(new java.awt.Color(137, 139, 139));
    jPanel3.setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

    jLabel9.setIcon(new javax.swing.ImageIcon(getClass().getResource("/Screenshot 2024-10-25
114333.png"))); // NOI18N
    jPanel3.add(jLabel9, new org.netbeans.lib.awtextra.AbsoluteConstraints(20, 130, -1, 290));

    jPanel2.add(jPanel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(510, 0, 350, 540));

    getContentPane().add(jPanel2, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 860, 539));

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

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    String firstName = jTextFieldfn.getText();
    String lastName = jTextFieldln.getText();
    String phone = jTextFieldphone.getText();
    String email = jTextFieldemail.getText();
    String username = jTextFieldUN.getText();
    String password = new String(jPasswordFieldPW.getPassword());
    String confirmPassword = new String(jPasswordFieldCPW.getPassword());
    String userMessage = checkUserAvailability(username);
    String emailMessage = checkEmailAvailability(email);

    if (userMessage != null)
    {
        JOptionPane.showMessageDialog(null, userMessage);
        return;
    }

    if (emailMessage != null)
    {
        JOptionPane.showMessageDialog(null, emailMessage);
        return;
    }
}

```

```

        if (!isValidPhoneNumber(phone))
        {
            JOptionPane.showMessageDialog(this, "Invalid phone number format.");
            return;
        }

        if (!isValidEmail(email))
        {
            JOptionPane.showMessageDialog(this, "Invalid email format.");
            return;
        }

        if (password.equals(confirmPassword))
        {
            insertData(firstName, lastName, phone, email, username, password);
        } else
        {
            JOptionPane.showMessageDialog(Register.this, "Passwords do not match!", "Error",
JOptionPane.ERROR_MESSAGE);
        }
    }

    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        Login m1 = new Login();
        this.setVisible(false);
        m1.setVisible(true);    }

    private void jTextFieldfnActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jTextFieldUNActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jTextFieldphoneActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jTextFieldemailActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jTextFieldlnActionPerformed(java.awt.event.ActionEvent evt) {
    }

    private void jPasswordFieldCPWActionPerformed(java.awt.event.ActionEvent evt) {
    }

```

```
public static void main(String args[])
{

    java.awt.EventQueue.invokeLater(new Runnable()
    {
        public void run()
        {
            new Register().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 jLabel10;
private javax.swing.JLabel jLabel11;
private javax.swing.JLabel jLabel13;
private javax.swing.JLabel jLabel14;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel6;
private javax.swing.JLabel jLabel8;
private javax.swing.JLabel jLabel9;
private javax.swing.JPanel jPanel1;
private javax.swing.JPanel jPanel2;
private javax.swing.JPanel jPanel3;
private javax.swing.JPasswordField jPasswordFieldCPW;
private javax.swing.JPasswordField jPasswordFieldPW;
private javax.swing.JTextField jTextFieldUN;
private javax.swing.JTextField jTextFieldemail;
private javax.swing.JTextField jTextFieldfn;
private javax.swing.JTextField jTextFieldln;
private javax.swing.JTextField jTextFieldphone;
// End of variables declaration
}
```

Myprofile.java

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

/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */

public class Myprofile extends javax.swing.JFrame
{

    private static final String DB_URL = "jdbc:mysql://localhost:3306/car";
    private static final String DB_USER = "root";
    private static final String DB_PASSWORD = "AMJU";

    private String username;
    private String currentUsername;

    public Myprofile(String username)
    {
        this.currentUsername = username;
        initComponents();
        loadUserProfile();
        jLabel39.setText("Hi " + username + "!");
    }

    private void loadUserProfile()
    {
        if (currentUsername == null)
        {
            JOptionPane.showMessageDialog(this, "No username provided.", "Error",
JOptionPane.ERROR_MESSAGE);
            return;
        }

        try (Connection conn = DriverManager.getConnection(DB_URL, DB_USER, DB_PASSWORD))
        {
            String sql = "SELECT * FROM users WHERE username = ?";
            PreparedStatement pst = conn.prepareStatement(sql);
            pst.setString(1, currentUsername);
            ResultSet rs = pst.executeQuery();
            if (rs.next())
```

```

        {
            fn.setText(rs.getString("first_name"));
            ln.setText(rs.getString("last_name"));
            mail.setText(rs.getString("email"));
            phoone.setText(rs.getString("phone"));
            un.setText(rs.getString("username"));
            pw.setText(rs.getString("password"));
        } else
        {
            JOptionPane.showMessageDialog(this, "User not found", "Error", JOptionPane.ERROR_MESSAGE);
        }
    } catch (Exception ex)
    {
        JOptionPane.showMessageDialog(this, "Error loading profile: " + ex.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
    }
}

```

```

private void updateUserProfile()
{
    String firstName = fn.getText();
    String lastName = ln.getText();
    String email = mail.getText();
    String phoneNumber = phoone.getText();
    String newUsername = un.getText();
    String password = pw.getText();

    if (firstName.isEmpty() || lastName.isEmpty() || email.isEmpty() || phoneNumber.isEmpty() ||
newUsername.isEmpty() || password.isEmpty())
    {
        JOptionPane.showMessageDialog(this, "Please fill in all fields", "Validation Error",
JOptionPane.WARNING_MESSAGE);
        return;
    }

    if (!isValidEmail(email))
    {
        JOptionPane.showMessageDialog(this, "Invalid email format", "Validation Error",
JOptionPane.WARNING_MESSAGE);
        return;
    }

    if (!isValidPhoneNumber(phoneNumber))
    {
        JOptionPane.showMessageDialog(this, "Phone number must be 10 digits", "Validation Error",
JOptionPane.WARNING_MESSAGE);
        return;
    }
}

```

```

        try (Connection conn = DriverManager.getConnection(DB_URL, DB_USER, DB_PASSWORD))
        {
            String sql = "UPDATE users SET first_name = ?, last_name = ?, email = ?, phone = ?, username = ?,
password = ? WHERE username = ?";
            PreparedStatement pst = conn.prepareStatement(sql);
            pst.setString(1, firstName);
            pst.setString(2, lastName);
            pst.setString(3, email);
            pst.setString(4, phoneNumber);
            pst.setString(5, newUsername);
            pst.setString(6, password);
            pst.setString(7, currentUsername);

            int rowsUpdated = pst.executeUpdate();
            System.out.println("Current Username: " + currentUsername);

            if (rowsUpdated > 0)
            {
                JOptionPane.showMessageDialog(this, "Profile updated successfully", "Success",
JOptionPane.INFORMATION_MESSAGE);
                currentUsername = newUsername;
                jLabel39.setText("Hi " + newUsername + "!");
            } else
            {
                JOptionPane.showMessageDialog(this, "Update failed", "Error", JOptionPane.ERROR_MESSAGE);
            }
        } catch (Exception ex)
        {
            JOptionPane.showMessageDialog(this, "Error updating profile: " + ex.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
        }
    }

    private boolean isUsernameTaken(String newUsername)
    {
        try (Connection conn = DriverManager.getConnection(DB_URL, DB_USER, DB_PASSWORD))
        {
            String sql = "SELECT COUNT(*) FROM users WHERE username = ?";
            PreparedStatement pst = conn.prepareStatement(sql);
            pst.setString(1, newUsername);
            ResultSet rs = pst.executeQuery();

            if (rs.next())
            {
                return rs.getInt(1) > 0;
            }
        } catch (Exception ex)
        {

```

```
        JOptionPane.showMessageDialog(this, "Error checking username: " + ex.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
    }
    return false;
}
```

```
private boolean isValidEmail(String email)
{
    String emailRegex = "[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\\.[a-zA-Z]{2,}$";
    return email.matches(emailRegex);
}
```

```
private boolean isValidPhoneNumber(String phoneNumber)
{
    String phoneRegex = "^\\d{10}$";
    return phoneNumber.matches(phoneRegex);
}
```

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

```
    jPanel14 = new javax.swing.JPanel();
    jPanel15 = new javax.swing.JPanel();
    jPanel16 = new javax.swing.JPanel();
    jLabel34 = new javax.swing.JLabel();
    jLabel35 = new javax.swing.JLabel();
    jLabel37 = new javax.swing.JLabel();
    jLabel38 = new javax.swing.JLabel();
    jLabel40 = new javax.swing.JLabel();
    jLabel41 = new javax.swing.JLabel();
    fn = new javax.swing.JTextField();
    ln = new javax.swing.JTextField();
    phoone = new javax.swing.JTextField();
    mail = new javax.swing.JTextField();
    un = new javax.swing.JTextField();
    pw = new javax.swing.JTextField();
    jLabel1 = new javax.swing.JLabel();
    jButton1 = new javax.swing.JButton();
    jLabel42 = new javax.swing.JLabel();
    jLabel39 = new javax.swing.JLabel();
    jButton3 = new javax.swing.JButton();
```

```
    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());
```

```
    jPanel14.setBackground(new java.awt.Color(137, 139, 139));
```

```
    jPanel15.setBackground(new java.awt.Color(32, 42, 57));
```

```
jPanel16.setBackground(new java.awt.Color(137, 139, 139));

jLabel34.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel34.setForeground(new java.awt.Color(32, 42, 57));
jLabel34.setText("First name");

jLabel35.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel35.setForeground(new java.awt.Color(32, 42, 57));
jLabel35.setText("Last name");

jLabel37.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel37.setForeground(new java.awt.Color(32, 42, 57));
jLabel37.setText("Phone");

jLabel38.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel38.setForeground(new java.awt.Color(32, 42, 57));
jLabel38.setText("Email");

jLabel40.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel40.setForeground(new java.awt.Color(32, 42, 57));
jLabel40.setText("Username");

jLabel41.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel41.setForeground(new java.awt.Color(32, 42, 57));
jLabel41.setText("Password");

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

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

jLabel1.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel1.setForeground(new java.awt.Color(32, 42, 57));
jLabel1.setText("My profile");

jButton1.setBackground(new java.awt.Color(204, 204, 204));
jButton1.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton1.setForeground(new java.awt.Color(32, 42, 57));
jButton1.setText("Update Data");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
```



```

        jButton1ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel16Layout = new javax.swing.GroupLayout(jPanel16);
jPanel16.setLayout(jPanel16Layout);
jPanel16Layout.setHorizontalGroup(
    jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel16Layout.createSequentialGroup()
            .addContainerGap()
            .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 232,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(101, 101, 101)
            .addGroup(jPanel16Layout.createSequentialGroup()
                .addGap(47, 47, 47)
                .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addGroup(jPanel16Layout.createSequentialGroup()
                        .addComponent(jLabel37, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(phone))
                    .addGroup(jPanel16Layout.createSequentialGroup()
                        .addComponent(jLabel35, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(ln))
                    .addGroup(jPanel16Layout.createSequentialGroup()
                        .addComponent(jLabel40, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(un))
                    .addGroup(jPanel16Layout.createSequentialGroup()
                        .addComponent(jLabel38, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(mail, javax.swing.GroupLayout.PREFERRED_SIZE, 304,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(jPanel16Layout.createSequentialGroup()
                        .addComponent(jLabel41, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 171,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(pw))))
                .addGap(108, 108, 108)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel34, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

```

```

        .addComponent(fn, javax.swing.GroupLayout.PREFERRED_SIZE, 304,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addContainerGap(41, Short.MAX_VALUE)
    );
    jPanel16Layout.setVerticalGroup(
        jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel16Layout.createSequentialGroup()
            .addGap(26, 26, 26)
            .addComponent(jLabel1)
            .addGap(34, 34, 34)
            .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel34, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(fn, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel35, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(ln, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel37, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(phoone, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel38, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(mail, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel40, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(un, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
            .addGroup(jPanel16Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jLabel41, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(pw, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(37, 37, 37)
            .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 38,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addContainerGap(48, Short.MAX_VALUE))
    );

```

```

);

javax.swing.GroupLayout jPanel15Layout = new javax.swing.GroupLayout(jPanel15);
jPanel15.setLayout(jPanel15Layout);
jPanel15Layout.setHorizontalGroup(
    jPanel15Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel15Layout.createSequentialGroup()
            .addGap(51, 51, 51)
            .addComponent(jPanel16, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(55, 55, Short.MAX_VALUE))
        );
jPanel15Layout.setVerticalGroup(
    jPanel15Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel15Layout.createSequentialGroup()
            .addGap(45, 45, 45)
            .addComponent(jPanel16, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(61, 61, Short.MAX_VALUE))
        );

jLabel42.setIcon(new javax.swing.ImageIcon(getClass().getResource("/people (1).png"))); // NOI18N
jLabel42.setText("jLabel42");

jLabel39.setBackground(new java.awt.Color(32, 42, 57));
jLabel39.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel39.setForeground(new java.awt.Color(32, 42, 57));
jLabel39.setText("jLabel39");

jButton3.setBackground(new java.awt.Color(137, 139, 139));
jButton3.setIcon(new javax.swing.ImageIcon(getClass().getResource("/home-button (1).png"))); //
NOI18N
jButton3.setBorderPainted(false);
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel14Layout = new javax.swing.GroupLayout(jPanel14);
jPanel14.setLayout(jPanel14Layout);
jPanel14Layout.setHorizontalGroup(
    jPanel14Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel14Layout.createSequentialGroup()
            .addGroup(jPanel14Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel14Layout.createSequentialGroup()
                    .addGroup(jPanel14Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addGroup(jPanel14Layout.createSequentialGroup()
                            .addGap(18, 18, 18)

```

```

        .addComponent(jButton3))
        .addGroup(jPanel14Layout.createSequentialGroup())
        .addGap(68, 68, 68)
        .addComponent(jLabel39)))
        .addGap(0, 71, Short.MAX_VALUE))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel14Layout.createSequentialGroup())
        .addGap(0, 0, Short.MAX_VALUE)
        .addComponent(jLabel42, javax.swing.GroupLayout.PREFERRED_SIZE, 211,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jPanel15, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap())
    );
    jPanel14Layout.setVerticalGroup(
        jPanel14Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jPanel15, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGroup(jPanel14Layout.createSequentialGroup())
        .addGap(27, 27, 27)
        .addComponent(jButton3)
        .addGap(66, 66, 66)
        .addComponent(jLabel42, javax.swing.GroupLayout.PREFERRED_SIZE, 188,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addComponent(jLabel39, javax.swing.GroupLayout.PREFERRED_SIZE, 32,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );

    getContentPane().add(jPanel14, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 860, 540));

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

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

private void fnActionPerformed(java.awt.event.ActionEvent evt) {
}

private void lnActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    Dashboard myProfile = new Dashboard(currentUsername);
    myProfile.setVisible(true);
    this.dispose();
}

```

```
}

public static void main(String args[])
{

    java.awt.EventQueue.invokeLater(() -> new Myprofile("currentUsername").setVisible(true));

}

// Variables declaration - do not modify
private javax.swing.JTextField fn;
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel34;
private javax.swing.JLabel jLabel35;
private javax.swing.JLabel jLabel37;
private javax.swing.JLabel jLabel38;
private javax.swing.JLabel jLabel39;
private javax.swing.JLabel jLabel40;
private javax.swing.JLabel jLabel41;
private javax.swing.JLabel jLabel42;
private javax.swing.JPanel jPanel14;
private javax.swing.JPanel jPanel15;
private javax.swing.JPanel jPanel16;
private javax.swing.JTextField ln;
private javax.swing.JTextField mail;
private javax.swing.JTextField phoone;
private javax.swing.JTextField pw;
private javax.swing.JTextField un;
// End of variables declaration
}
```

Rent.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */

import java.sql.*;
import java.util.ArrayList;
import java.util.HashMap;
import javax.swing.DefaultListModel;
import javax.swing.JOptionPane;

public class Rent extends javax.swing.JFrame {

    String url = "jdbc:mysql://localhost:3306/car";
    String user = "root";
    String password = "AMJU";
    private String username;

    public Rent() {
        initComponents();
        loadOrderIDs();
        loadCustomerNames();
        loadCarNumbers();

        jComboBox2.addActionListener(e ->
        {
            loadSupplierName();
            loadPricePerDay();
        });

        jList1.addListSelectionListener(e ->
        {
            if (!e.getValueIsAdjusting())
            {
                loadRentDetails();
            }
        });
    }

    private void loadRentDetails()
```

```

{
String selectedRentID = jList1.getSelectedValue();
if (selectedRentID == null) return;

String query = "SELECT * FROM Rent WHERE rent_id = ?";
try (Connection conn = DriverManager.getConnection(url, user, password);
    PreparedStatement stmt = conn.prepareStatement(query)) {

    stmt.setString(1, selectedRentID);
    ResultSet rs = stmt.executeQuery();
    if (rs.next())
    {
        jComboBox2.setSelectedItem(rs.getString("car_reg_no"));
        jComboBox1.setSelectedItem(getCustomerName(rs.getInt("customer_id")));
        jTextField4.setText(String.valueOf(rs.getDouble("price_per_day")));
        jTextField5.setText(String.valueOf(rs.getInt("no_of_days")));
        jTextField7.setText(String.valueOf(rs.getDouble("total_payable")));

        java.sql.Date sqlDate = rs.getDate("borrowed_date");
        if (sqlDate != null)
        {
            jDateChooser1.setDate(new java.util.Date(sqlDate.getTime()));
        }
    }
} catch (Exception e)
{
    e.printStackTrace();
}
}

private void deleteRentRecord() {
String selectedRentID = jList1.getSelectedValue();
if (selectedRentID == null) {
    JOptionPane.showMessageDialog(this, "Please select a rent record to delete.", "Selection Error",
JOptionPane.ERROR_MESSAGE);
    return;
}

int confirm = JOptionPane.showConfirmDialog(this, "Are you sure you want to delete this rent record?",
"Confirm Deletion", JOptionPane.YES_NO_OPTION);
if (confirm == JOptionPane.YES_OPTION)
{
    String deleteQuery = "DELETE FROM Rent WHERE rent_id = ?";
    try (Connection conn = DriverManager.getConnection(url, user, password);
        PreparedStatement pstmt = conn.prepareStatement(deleteQuery))
    {

```

```

{

    pstmt.setString(1, selectedRentID);
    int rowsDeleted = pstmt.executeUpdate();
    if (rowsDeleted > 0)
    {
        JOptionPane.showMessageDialog(this, "Rent record deleted successfully!");
        loadOrderIDs();
    } else
    {
        JOptionPane.showMessageDialog(this, "Failed to delete rent record. Please try again.", "Deletion
Error", JOptionPane.ERROR_MESSAGE);
    }
} catch (Exception e)
{
    e.printStackTrace();
    JOptionPane.showMessageDialog(this, "An error occurred while deleting the rent record.", "Error",
JOptionPane.ERROR_MESSAGE);
}
}
}

```

```

private String getCustomerName(int customerId) {
    String customerName = "";
    String query = "SELECT cus_name FROM customer WHERE cus_id = ?";
    try (Connection conn = DriverManager.getConnection(url, user, password);
        PreparedStatement stmt = conn.prepareStatement(query)) {

        stmt.setInt(1, customerId);
        ResultSet rs = stmt.executeQuery();
        if (rs.next()) {
            customerName = rs.getString("cus_name");
        }
    } catch (Exception e) {
        e.printStackTrace();
    }
    return customerName;
}

```

```

private void updateRentDetails()
{
    try {
        String selectedRentID = jList1.getSelectedValue();
        if (selectedRentID == null)

```



```

    {
        JOptionPane.showMessageDialog(this, "Please select a rent ID to edit.", "Input Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    String carRegNo = (String) jComboBox2.getSelectedItem();
    String selectedCustomerName = (String) jComboBox1.getSelectedItem();
    int selectedCustomerId = getCustomerId(selectedCustomerName);
    int selectedSupplierId = getSelectedSupplierId();

    java.util.Date selectedDate = jDateChooser1.getDate();
    if (selectedDate == null)
    {
        JOptionPane.showMessageDialog(this, "Please select a valid date.", "Input Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }
    java.sql.Date sqlDate = new java.sql.Date(selectedDate.getTime());

    int noOfDays = Integer.parseInt(jTextField5.getText());
    double pricePerDay = Double.parseDouble(jTextField4.getText());
    double totalPayable = pricePerDay * noOfDays;

    String updateQuery = "UPDATE Rent SET car_reg_no = ?, supplier_id = ?, customer_id = ?,
borrowed_date = ?, no_of_days = ?, price_per_day = ?, total_payable = ? WHERE rent_id = ?";
    try (Connection conn = DriverManager.getConnection(url, user, password);
        PreparedStatement pstmt = conn.prepareStatement(updateQuery))
    {

        pstmt.setString(1, carRegNo);
        pstmt.setInt(2, selectedSupplierId);
        pstmt.setInt(3, selectedCustomerId);
        pstmt.setDate(4, sqlDate);
        pstmt.setInt(5, noOfDays);
        pstmt.setDouble(6, pricePerDay);
        pstmt.setDouble(7, totalPayable);
        pstmt.setString(8, selectedRentID);

        int rowsUpdated = pstmt.executeUpdate();
        if (rowsUpdated > 0)
        {
            jTextField7.setText(String.format("%.2f", totalPayable)); // Update total payable field
            JOptionPane.showMessageDialog(this, "Rent details updated successfully!");
            loadOrderIDs();
            clearFormFields();
        }
    }
} catch (Exception e) {

```

```

        e.printStackTrace();
    }
}

private int getSelectedSupplierId()
{
    int supplierId = -1;
    String selectedCarNumber = (String) jComboBox2.getSelectedItemAt();
    if (selectedCarNumber == null) return supplierId;

    String query = "SELECT sup_id FROM car_purchase WHERE car_number = ?";
    try (Connection conn = DriverManager.getConnection(url, user, password);
        PreparedStatement stmt = conn.prepareStatement(query)) {

        stmt.setString(1, selectedCarNumber);
        ResultSet rs = stmt.executeQuery();
        if (rs.next()) {
            supplierId = rs.getInt("sup_id");
        }
    } catch (Exception e)
    {
        e.printStackTrace();
    }
    return supplierId;
}

private void loadOrderIDs()
{
    DefaultListModel<String> model = new DefaultListModel<>();
    try (Connection conn = DriverManager.getConnection(url, user, password);
        PreparedStatement stmt = conn.prepareStatement("SELECT rent_id FROM Rent"))
    {

        ResultSet rs = stmt.executeQuery();
        while (rs.next()) {
            model.addElement(rs.getString("rent_id"));
        }
        jList1.setModel(model);
    } catch (Exception e) {
        e.printStackTrace();
    }
}

private void loadCustomerNames()
{
    jComboBox1.removeAllItems();
    try (Connection conn = DriverManager.getConnection(url, user, password);

```

```

        PreparedStatement stmt = conn.prepareStatement("SELECT cus_name, cus_id FROM customer")
    {

        ResultSet rs = stmt.executeQuery();
        while (rs.next()) {
            jComboBox1.addItem(rs.getString("cus_name"));
        }
    } catch (Exception e)
    {
        e.printStackTrace();
    }
}

private void loadCarNumbers()
{
    jComboBox2.removeAllItems();
    try (Connection conn = DriverManager.getConnection(url, user, password);
        PreparedStatement stmt = conn.prepareStatement("SELECT car_number FROM car_purchase")) {

        ResultSet rs = stmt.executeQuery();
        while (rs.next())
        {
            jComboBox2.addItem(rs.getString("car_number"));
        }
    } catch (Exception e)
    {
        e.printStackTrace();
    }
}

private void clearFormFields()
{
    jComboBox1.setSelectedIndex(-1);
    jComboBox2.setSelectedIndex(-1);
    jTextField4.setText("");
    jTextField5.setText("");
    jTextField6.setText("");
    jTextField7.setText("");
    jDateChooser1.setDate(null);
    jList1.clearSelection();
}

private void loadPricePerDay()
{
    String selectedCarNumber = (String) jComboBox2.getSelectedItem();
    if (selectedCarNumber == null) return;

    String query = "SELECT price_per_day FROM Cars WHERE car_number = ?";

```

```

try (Connection conn = DriverManager.getConnection(url, user, password);
    PreparedStatement stmt = conn.prepareStatement(query))
{

    stmt.setString(1, selectedCarNumber);
    ResultSet rs = stmt.executeQuery();
    if (rs.next())
    {
        jTextField4.setText(rs.getString("price_per_day"));
    } else {
        jTextField4.setText("");
    }
} catch (Exception e) {
    e.printStackTrace();
}
}

private void loadSupplierName()
{
    String selectedCarNumber = (String) jComboBox2.getSelectedItem();
    if (selectedCarNumber == null) return;

    String query = "SELECT sup_name FROM car_purchase "
        + "JOIN supplier ON car_purchase.sup_id = supplier.sup_id "
        + "WHERE car_number = ?";

    try (Connection conn = DriverManager.getConnection(url, user, password);
        PreparedStatement stmt = conn.prepareStatement(query))
    {

        stmt.setString(1, selectedCarNumber);
        ResultSet rs = stmt.executeQuery();
        if (rs.next())
        {
            jTextField6.setText(rs.getString("sup_name"));
        }

    } catch (Exception e)
    {
        e.printStackTrace();
    }
}

private void insertRentDetails()
{
    try
    {

```

```

String carRegNo = (String) jComboBox2.getSelectedItemAt();
String selectedCustomerName = (String) jComboBox1.getSelectedItemAt();

int selectedCustomerId = getCustomerId(selectedCustomerName);
int selectedSupplierId = getSelectedSupplierId();

java.util.Date selectedDate = jDateChooser1.getDate();
if (selectedDate == null)
{
    JOptionPane.showMessageDialog(this, "Please select a valid date.", "Input Error",
JOptionPane.ERROR_MESSAGE);
    return;
}
java.sql.Date sqlDate = new java.sql.Date(selectedDate.getTime());

String noOfDaysText = jTextField5.getText();
if (noOfDaysText.isEmpty() || !noOfDaysText.matches("\\d+"))
{
    JOptionPane.showMessageDialog(this, "Please enter a valid number of days.", "Input Error",
JOptionPane.ERROR_MESSAGE);
    return;
}
int noOfDays = Integer.parseInt(noOfDaysText);

String priceText = jTextField4.getText();
if (priceText.isEmpty() || !priceText.matches("\\d+(\\.\\d{1,2})?"))
{
    JOptionPane.showMessageDialog(this, "Please enter a valid price per day.", "Input Error",
JOptionPane.ERROR_MESSAGE);
    return;
}

double pricePerDay = Double.parseDouble(priceText);
double totalPayable = pricePerDay * noOfDays;

String insertQuery = "INSERT INTO Rent (car_reg_no, supplier_id, customer_id, borrowed_date,
no_of_days, price_per_day, total_payable) "
    + "VALUES (?, ?, ?, ?, ?, ?, ?)";
try (Connection conn = DriverManager.getConnection(url, user, password);
    PreparedStatement pstmt = conn.prepareStatement(insertQuery)) {

    pstmt.setString(1, carRegNo);
    pstmt.setInt(2, selectedSupplierId);
    pstmt.setInt(3, selectedCustomerId);
    pstmt.setDate(4, sqlDate);
    pstmt.setInt(5, noOfDays);
    pstmt.setDouble(6, pricePerDay);
    pstmt.setDouble(7, totalPayable);
}

```

```

        int rowsInserted = pstmt.executeUpdate();
        if (rowsInserted > 0)
        {
            jTextField7.setText(String.format("%.2f", totalPayable));
            JOptionPane.showMessageDialog(this, "Rent details saved successfully!");
            loadOrderIDs();
            clearFormFields();
        }
    }
} catch (SQLException e)
{
    JOptionPane.showMessageDialog(this, "Database error: " + e.getMessage(), "Error",
JOptionPane.ERROR_MESSAGE);
} catch (NumberFormatException e)
{
    JOptionPane.showMessageDialog(this, "Please enter valid numbers.", "Input Error",
JOptionPane.ERROR_MESSAGE);
} catch (Exception e) {
    e.printStackTrace();
}
}

private int getCustomerId(String customerName)
{
    int customerId = -1;
    try (Connection conn = DriverManager.getConnection(url, user, password);
        PreparedStatement stmt = conn.prepareStatement("SELECT cus_id FROM customer WHERE cus_name
= ?"))
    {
        stmt.setString(1, customerName);
        ResultSet rs = stmt.executeQuery();
        if (rs.next())
        {
            customerId = rs.getInt("cus_id");
        }
    } catch (Exception e)
    {
        e.printStackTrace();
    }
    return customerId;
}

```

```

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

    jPanel1 = new javax.swing.JPanel();
    jScrollPane1 = new javax.swing.JScrollPane();
    jList1 = new javax.swing.JList<>();
    jPanel2 = new javax.swing.JPanel();
    jLabel35 = new javax.swing.JLabel();
    jLabel36 = new javax.swing.JLabel();
    jLabel38 = new javax.swing.JLabel();
    jLabel39 = new javax.swing.JLabel();
    jLabel1 = new javax.swing.JLabel();
    jTextField4 = new javax.swing.JTextField();
    jButton9 = new javax.swing.JButton();
    jButton10 = new javax.swing.JButton();
    jButton11 = new javax.swing.JButton();
    jButton12 = new javax.swing.JButton();
    jLabel40 = new javax.swing.JLabel();
    jComboBox1 = new javax.swing.JComboBox<>();
    jComboBox2 = new javax.swing.JComboBox<>();
    jButton13 = new javax.swing.JButton();
    jTextField5 = new javax.swing.JTextField();
    jDateChooser1 = new org.netbeans.modules.form.InvalidComponent();
    jLabel41 = new javax.swing.JLabel();
    jTextField7 = new javax.swing.JTextField();
    jLabel42 = new javax.swing.JLabel();
    jTextField6 = new javax.swing.JTextField();
    jButton15 = new javax.swing.JButton();
    jButton16 = new javax.swing.JButton();
    jPanel3 = new javax.swing.JPanel();
    jButton1 = new javax.swing.JButton();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

    jPanel1.setBackground(new java.awt.Color(32, 42, 57));

    jList1.setBackground(new java.awt.Color(137, 139, 139));
    jList1.setFont(new java.awt.Font("Cambria", 0, 18)); // NOI18N
    jList1.setModel(new javax.swing.AbstractListModel<String>() {
        String[] strings = { "Item 1", "Item 2", "Item 3", "Item 4", "Item 5" };
        public int getSize() { return strings.length; }
        public String getElementAt(int i) { return strings[i]; }
    });
    jScrollPane1.setViewportView(jList1);

    jPanel2.setBackground(new java.awt.Color(137, 139, 139));

```

```

jLabel35.setBackground(new java.awt.Color(32, 42, 57));
jLabel35.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel35.setText("Car Reg No");

jLabel36.setBackground(new java.awt.Color(32, 42, 57));
jLabel36.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel36.setText("Customer");

jLabel38.setBackground(new java.awt.Color(32, 42, 57));
jLabel38.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel38.setText("Date");

jLabel39.setBackground(new java.awt.Color(32, 42, 57));
jLabel39.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel39.setText("Price per day");

jLabel1.setBackground(new java.awt.Color(32, 42, 57));
jLabel1.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel1.setForeground(new java.awt.Color(32, 42, 57));
jLabel1.setText("Car Rent Management");

jTextField4.setText("          generated by system");
jTextField4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField4ActionPerformed(evt);
    }
});

jButton9.setBackground(new java.awt.Color(204, 204, 204));
jButton9.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton9.setForeground(new java.awt.Color(32, 42, 57));
jButton9.setText("Add Car");
jButton9.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton9ActionPerformed(evt);
    }
});

jButton10.setBackground(new java.awt.Color(204, 204, 204));
jButton10.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton10.setForeground(new java.awt.Color(32, 42, 57));
jButton10.setText("Delete Car");
jButton10.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton10ActionPerformed(evt);
    }
});

jButton11.setBackground(new java.awt.Color(204, 204, 204));

```



```

jButton11.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton11.setForeground(new java.awt.Color(32, 42, 57));
jButton11.setText("Update data");
jButton11.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton11ActionPerformed(evt);
    }
});

jButton12.setBackground(new java.awt.Color(204, 204, 204));
jButton12.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton12.setForeground(new java.awt.Color(32, 42, 57));
jButton12.setText("View all Rents");
jButton12.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton12ActionPerformed(evt);
    }
});

jLabel40.setBackground(new java.awt.Color(32, 42, 57));
jLabel40.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel40.setText("No of Days");

jComboBox1.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Toyota", "Ford",
"Honda", "Chevrolet", "BMW", "Mercedes-Benz", "Audi", "Tesla", "Nissan", "Hyundai" }));

jComboBox2.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "aqua", "fit ", "vezel", "
" }));
jComboBox2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jComboBox2ActionPerformed(evt);
    }
});

jButton13.setBackground(new java.awt.Color(204, 204, 204));
jButton13.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
jButton13.setText("Clear");
jButton13.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton13ActionPerformed(evt);
    }
});

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

```

```

jLabel41.setBackground(new java.awt.Color(32, 42, 57));
jLabel41.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel41.setText("Total Payable");

jTextField7.setEditable(false);
jTextField7.setText("          generated by system");
jTextField7.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField7ActionPerformed(evt);
    }
});

jLabel42.setBackground(new java.awt.Color(32, 42, 57));
jLabel42.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel42.setText("Supplier");

jTextField6.setText("          generated by system");
jTextField6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField6ActionPerformed(evt);
    }
});

jButton15.setBackground(new java.awt.Color(204, 204, 204));
jButton15.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
jButton15.setText("Add");
jButton15.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton15ActionPerformed(evt);
    }
});

jButton16.setBackground(new java.awt.Color(204, 204, 204));
jButton16.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
jButton16.setText("Add");
jButton16.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton16ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel2Layout = new javax.swing.GroupLayout(jPanel2);
jPanel2.setLayout(jPanel2Layout);
jPanel2Layout.setHorizontalGroup(
    jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel2Layout.createSequentialGroup()
            .addGap(55, 55, 55)
            .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jTextField7)
                .addComponent(jTextField6)
                .addComponent(jButton15)
                .addComponent(jButton16)
            )
        )
);

```

```

        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jButton9, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton10, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jButton12, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton11, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(53, 53, 53))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel2Layout.createSequentialGroup())
        .addGap(0, 0, Short.MAX_VALUE)
        .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 268,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(119, 119, 119))
        .addGroup(jPanel2Layout.createSequentialGroup())
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel2Layout.createSequentialGroup())
                .addComponent(jLabel41, javax.swing.GroupLayout.PREFERRED_SIZE, 116,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(jTextField7, javax.swing.GroupLayout.PREFERRED_SIZE, 295,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(jPanel2Layout.createSequentialGroup())
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
                    .addGroup(jPanel2Layout.createSequentialGroup())
                        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
                            .addComponent(jLabel35, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 108, javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(jLabel36, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 108, javax.swing.GroupLayout.PREFERRED_SIZE))
                        .addGap(20, 20, 20)
                        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAI
LING)
                            .addComponent(jComboBox2, javax.swing.GroupLayout.PREFERRED_SIZE, 295,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(jComboBox1, javax.swing.GroupLayout.PREFERRED_SIZE, 295,
javax.swing.GroupLayout.PREFERRED_SIZE)))
                    .addGroup(jPanel2Layout.createSequentialGroup())
                        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
                            .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TR
AILING, false)

```

```
.addComponent(jLabel38, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
.addComponent(jLabel39, javax.swing.GroupLayout.DEFAULT_SIZE, 122,  
Short.MAX_VALUE)  
.addComponent(jLabel40, javax.swing.GroupLayout.DEFAULT_SIZE, 122,  
Short.MAX_VALUE))  
.addComponent(jLabel42, javax.swing.GroupLayout.PREFERRED_SIZE, 122,  
javax.swing.GroupLayout.PREFERRED_SIZE))  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)  
  
.addComponent(jTextField4, javax.swing.GroupLayout.Alignment.LEADING,  
javax.swing.GroupLayout.DEFAULT_SIZE, 295, Short.MAX_VALUE)  
.addComponent(jDateChooser1, javax.swing.GroupLayout.Alignment.LEADING,  
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
.addComponent(jTextField6, javax.swing.GroupLayout.Alignment.LEADING)  
.addComponent(jTextField5))))  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING  
)  
  
.addComponent(jButton15, javax.swing.GroupLayout.PREFERRED_SIZE, 53,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jButton16, javax.swing.GroupLayout.PREFERRED_SIZE, 53,  
javax.swing.GroupLayout.PREFERRED_SIZE)))  
.addContainerGap(35, Short.MAX_VALUE)))  
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel2Layout.createSequentialGroup()  
.addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
.addComponent(jButton13)  
.addGap(44, 44, 44))  
);  
jPanel2Layout.setVerticalGroup(  
jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
.addGroup(jPanel2Layout.createSequentialGroup())  
.addGap(14, 14, 14)  
.addComponent(jLabel1)  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
.addComponent(jButton13)  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
.addComponent(jButton15, javax.swing.GroupLayout.Alignment.TRAILING)  
.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)  
.addComponent(jLabel35, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)  
.addComponent(jComboBox2, javax.swing.GroupLayout.PREFERRED_SIZE, 30,  
javax.swing.GroupLayout.PREFERRED_SIZE)))  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)  
.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
.addGroup(jPanel2Layout.createSequentialGroup())
```

```

        .addComponent(jLabel36, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(4, 4, 4)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel42, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jTextField6, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
            .addComponent(jLabel38, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
            .addComponent(jDateChooser1, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel39, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jTextField4, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel40, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jTextField5, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel41, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jTextField7, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(18, 18, Short.MAX_VALUE))
        .addGroup(jPanel2Layout.createSequentialGroup()
            .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jComboBox1)
                .addComponent(jButton16))
            .addGap(195, 195, 195)))
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jButton9, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton11, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jButton10, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)

```

```

        .addComponent(jButton12, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGap(47, 47, 47))
    );

    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
    jPanel1.setLayout(jPanel1Layout);
    jPanel1Layout.setHorizontalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
                .addContainerGap(46, Short.MAX_VALUE)
                .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(18, 18, 18)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 134,
javax.swing.GroupLayout.PREFERRED_SIZE))
            );
    jPanel1Layout.setVerticalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
                    .addContainerGap(45, Short.MAX_VALUE)
                    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                        .addComponent(jPanel2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                        .addComponent(jScrollPane1))
                    .addGap(49, 49, 49))
            );

    getContentPane().add(jPanel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(90, 0, 770, 540));

    jPanel3.setBackground(new java.awt.Color(137, 139, 139));

    jButton1.setBackground(new java.awt.Color(137, 139, 139));
    jButton1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/home-button (1).png"))); //
NOI18N
    jButton1.setBorderPainted(false);
    jButton1.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton1ActionPerformed(evt);
        }
    });

    javax.swing.GroupLayout jPanel3Layout = new javax.swing.GroupLayout(jPanel3);
    jPanel3.setLayout(jPanel3Layout);
    jPanel3Layout.setHorizontalGroup(
        jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel3Layout.createSequentialGroup()
                .addContainerGap(18, Short.MAX_VALUE)
                .addComponent(jButton1)

```

```

        .addGap(16, 16, 16))
    );
    jPanel3Layout.setVerticalGroup(
        jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel3Layout.createSequentialGroup()
            .addGap(27, 27, 27)
            .addComponent(jButton1)
            .addContainerGap(456, Short.MAX_VALUE))
    );

    getContentPane().add(jPanel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 90, 540));

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

private void jTextField4ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton9ActionPerformed(java.awt.event.ActionEvent evt) {
    insertRentDetails();
}

private void jButton10ActionPerformed(java.awt.event.ActionEvent evt) {
    String selectedRentID = jList1.getSelectedValue();
    if (selectedRentID == null)
    {
        JOptionPane.showMessageDialog(this, "Please select a rent record to delete.", "Selection Error",
JOptionPane.ERROR_MESSAGE);
        return;
    }

    int confirm = JOptionPane.showConfirmDialog(this, "Are you sure you want to delete this rent record?",
"Confirm Deletion", JOptionPane.YES_NO_OPTION);
    if (confirm == JOptionPane.YES_OPTION)
    {
        String deleteQuery = "DELETE FROM Rent WHERE rent_id = ?";
        try (Connection conn = DriverManager.getConnection(url, user, password);
            PreparedStatement pstmt = conn.prepareStatement(deleteQuery))
        {

            pstmt.setString(1, selectedRentID);
            int rowsDeleted = pstmt.executeUpdate();
            if (rowsDeleted > 0)
            {
                JOptionPane.showMessageDialog(this, "Rent record deleted successfully!");
                loadOrderIDs();
                clearFormFields();
            } else

```

```

        {
            JOptionPane.showMessageDialog(this, "Failed to delete rent record. Please try again.", "Deletion
Error", JOptionPane.ERROR_MESSAGE);
        }
    } catch (Exception e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "An error occurred while deleting the rent record.", "Error",
JOptionPane.ERROR_MESSAGE);
    }
}

}

private void jButton11ActionPerformed(java.awt.event.ActionEvent evt) {
updateRentDetails();
}

private void jButton12ActionPerformed(java.awt.event.ActionEvent evt) {
    displayRent myProfile = new displayRent();
    myProfile.setVisible(true);
    this.dispose();
}

private void jTextField5ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jTextField7ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jTextField6ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    Dashboard myProfile = new Dashboard(username);
    myProfile.setVisible(true);
    this.dispose();
}

private void jComboBox2ActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton16ActionPerformed(java.awt.event.ActionEvent evt) {

    CustomerManagement myProfile = new CustomerManagement();
    myProfile.setVisible(true);
    this.dispose(); }

```



```

private void jButton13ActionPerformed(java.awt.event.ActionEvent evt) {
clearFormFields();
}

private void jButton15ActionPerformed(java.awt.event.ActionEvent evt) {

    Carpurchase myProfile = new Carpurchase();
    myProfile.setVisible(true);
    this.dispose();
}

public static void main(String args[]) {

java.awt.EventQueue.invokeLater(new Runnable()
{
    public void run()
    {
        new Rent().setVisible(true);
    }
});
}

// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton10;
private javax.swing.JButton jButton11;
private javax.swing.JButton jButton12;
private javax.swing.JButton jButton13;
private javax.swing.JButton jButton15;
private javax.swing.JButton jButton16;
private javax.swing.JButton jButton9;
private javax.swing.JComboBox<String> jComboBox1;
private javax.swing.JComboBox<String> jComboBox2;
private org.netbeans.modules.form.InvalidComponent jDateChooser1;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel35;
private javax.swing.JLabel jLabel36;
private javax.swing.JLabel jLabel38;
private javax.swing.JLabel jLabel39;
private javax.swing.JLabel jLabel40;
private javax.swing.JLabel jLabel41;
private javax.swing.JLabel jLabel42;
private javax.swing.JList<String> jList1;
private javax.swing.JPanel jPanel1;
private javax.swing.JPanel jPanel2;
private javax.swing.JPanel jPanel3;
private javax.swing.JScrollPane jScrollPane1;

```

```
private javax.swing.JTextField jTextField4;  
private javax.swing.JTextField jTextField5;  
private javax.swing.JTextField jTextField6;  
private javax.swing.JTextField jTextField7;  
// End of variables declaration  
}
```

Supplier.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */

import java.io.File;
import java.sql.*;

import java.util.regex.Pattern;
import javax.swing.DefaultListModel;
import javax.swing.JOptionPane;
import javax.swing.event.ListSelectionEvent;
import javax.swing.event.ListSelectionListener;
import net.sf.jasperreports.engine.JRException;
import net.sf.jasperreports.engine.JasperCompileManager;
import net.sf.jasperreports.engine.JasperFillManager;
import net.sf.jasperreports.engine.JasperPrint;
import net.sf.jasperreports.engine.JasperReport;
import net.sf.jasperreports.view.JasperViewer;

public class Supplier extends javax.swing.JFrame {

    String url = "jdbc:mysql://localhost:3306/car";
    String user = "root";
    String password = "AMJU";

    private String username;

    private DefaultListModel<String> supListModel;

    public Supplier()
    {
        initComponents();
        loadSupplierNames();
        jList1.addListSelectionListener(e ->
        {
            if (!e.getValueIsAdjusting())
            {
                updateFieldsWithSelectedSupplier();
            }
        });
    }
}
```

```

        jList1.addListSelectionListener(new ListSelectionListener()
        {
            @Override
            public void valueChanged(ListSelectionEvent e)
            {
                if (!e.getValueIsAdjusting()) {
                    updateFieldsWithsupplier();
                }
            }
        });
    }

    private boolean isValidPhone(String phone)
    {
        return Pattern.matches("\\d{10}", phone);
    }

    int selectedSupId=-1;

    private void updateFieldsWithsupplier()
    {
        String selectedSup = jList1.getSelectedValue();

        if (selectedSup != null)
        {
            String query = "SELECT * FROM supplier WHERE sup_name = ?";

            try (Connection conn = DriverManager.getConnection(url, user, password);
                PreparedStatement pstmt = conn.prepareStatement(query)) {
                pstmt.setString(1, selectedSup);

                try (ResultSet rs = pstmt.executeQuery())
                {
                    if (rs.next())
                    {
                        selectedSupId = rs.getInt("sup_id");
                        textname.setText(rs.getString("sup_name"));
                        textadd.setText(rs.getString("sup_address"));
                        txtphone.setText(rs.getString("sup_phone"));
                        txtmail.setText(rs.getString("sup_email"));
                        txtRemark.setText(rs.getString("sup_remark"));
                    } else

```

```

        {
            JOptionPane.showMessageDialog(this, "Supplier not found.");
        }
    }
} catch (SQLException e)
{
    e.printStackTrace();
    JOptionPane.showMessageDialog(this, "Error fetching Supplier details from the database.");
}
}
}

private boolean isValidEmail(String email) {
    String emailRegex = "^[A-Za-z0-9+_.-]+@[A-Za-z0-9.-]+\\.[A-Za-z]{2,6}$";
    return Pattern.matches(emailRegex, email);
}

private void loadSupplierNames()
{
    String selectQuery = "SELECT sup_name FROM supplier";

    supListModel = new DefaultListModel<>();
    jList1.setModel(supListModel);

    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(selectQuery); ResultSet rs = pstmt.executeQuery()) {

        while (rs.next())
        {
            String carNumber = rs.getString("sup_name");
            supListModel.addElement(carNumber);
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error loading supplier names from the database.");
    }
}

private void updateFieldsWithSelectedSupplier()
{
    String selectedsupplier = jList1.getSelectedValue();

    if (selectedsupplier != null)
    {
        String query = "SELECT * FROM supplier WHERE sup_name = ?";
    }
}

```

```

        try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement pstmt =
conn.prepareStatement(query)) {
            pstmt.setString(1, selectedsupplier);

            try (ResultSet rs = pstmt.executeQuery())
            {
                if (rs.next())
                {
                    textname.setText(rs.getString("sup_name"));
                    textadd.setText(rs.getString("sup_address"));
                    txtphone.setText(rs.getString("sup_phone"));
                    txtmail.setText(rs.getString("sup_email"));
                    txtRemark.setText(rs.getString("sup_remark"));
                }
            }
        } catch (SQLException e) {
            e.printStackTrace();
            JOptionPane.showMessageDialog(this, "Error fetching car details from the database.");
        }
    }

}

private void clearFields()
{
    textname.setText("");
    textadd.setText("");
    txtphone.setText("");
    txtmail.setText("");
    txtRemark.setText("");
}

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

    jPanel3 = new javax.swing.JPanel();
    jButton6 = new javax.swing.JButton();
    jPanel1 = new javax.swing.JPanel();
    jScrollPane1 = new javax.swing.JScrollPane();
    jList1 = new javax.swing.JList<>();
    jPanel2 = new javax.swing.JPanel();
    jLabel35 = new javax.swing.JLabel();
    jLabel36 = new javax.swing.JLabel();
    jLabel38 = new javax.swing.JLabel();
    jLabel39 = new javax.swing.JLabel();
    jLabel1 = new javax.swing.JLabel();
    textname = new javax.swing.JTextField();

```

```

txtmail = new javax.swing.JTextField();
jButton1 = new javax.swing.JButton();
jButton3 = new javax.swing.JButton();
jButton2 = new javax.swing.JButton();
jButton4 = new javax.swing.JButton();
jLabel40 = new javax.swing.JLabel();
txtRemark = new javax.swing.JTextField();
jButton5 = new javax.swing.JButton();
txtphone = new javax.swing.JTextField();
textadd = new javax.swing.JTextField();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
getContentPane().setLayout(new org.netbeans.lib.awtextra.AbsoluteLayout());

jPanel3.setBackground(new java.awt.Color(137, 139, 139));

jButton6.setBackground(new java.awt.Color(137, 139, 139));
jButton6.setIcon(new javax.swing.ImageIcon(getClass().getResource("/home-button (1).png"))); //

```

NOI18N

```

jButton6.setBorderPainted(false);
jButton6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton6ActionPerformed(evt);
    }
});

javax.swing.GroupLayout jPanel3Layout = new javax.swing.GroupLayout(jPanel3);
jPanel3.setLayout(jPanel3Layout);
jPanel3Layout.setHorizontalGroup(
    jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel3Layout.createSequentialGroup()
            .addGap(5, 5, 5)
            .addComponent(jButton6)
            .addGap(29, 29, Short.MAX_VALUE))
        );
jPanel3Layout.setVerticalGroup(
    jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel3Layout.createSequentialGroup()
            .addGap(27, 27, 27)
            .addComponent(jButton6)
            .addGap(456, 456, Short.MAX_VALUE))
        );

getContentPane().add(jPanel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 90, 540));

jPanel1.setBackground(new java.awt.Color(32, 42, 57));

jList1.setBackground(new java.awt.Color(137, 139, 139));
jList1.setFont(new java.awt.Font("Cambria", 0, 18)); // NOI18N

```

```

jList1.setModel(new javax.swing.AbstractListModel<String>() {
    String[] strings = { "Item 1", "Item 2", "Item 3", "Item 4", "Item 5" };
    public int getSize() { return strings.length; }
    public String getElementAt(int i) { return strings[i]; }
});
jScrollPane1.setViewportView(jList1);

jPanel2.setBackground(new java.awt.Color(137, 139, 139));

jLabel35.setBackground(new java.awt.Color(32, 42, 57));
jLabel35.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel35.setText("Name");

jLabel36.setBackground(new java.awt.Color(32, 42, 57));
jLabel36.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel36.setText("Address");

jLabel38.setBackground(new java.awt.Color(32, 42, 57));
jLabel38.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel38.setText("Phone");

jLabel39.setBackground(new java.awt.Color(32, 42, 57));
jLabel39.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
jLabel39.setText("Email");

jLabel1.setBackground(new java.awt.Color(32, 42, 57));
jLabel1.setFont(new java.awt.Font("Cambria", 1, 24)); // NOI18N
jLabel1.setForeground(new java.awt.Color(32, 42, 57));
jLabel1.setText("Supplier Management");

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

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

jButton1.setBackground(new java.awt.Color(204, 204, 204));
jButton1.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
jButton1.setForeground(new java.awt.Color(32, 42, 57));
jButton1.setText("Add Supplier");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

```



```

    }
    });

    jButton3.setBackground(new java.awt.Color(204, 204, 204));
    jButton3.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
    jButton3.setForeground(new java.awt.Color(32, 42, 57));
    jButton3.setText("Delete Supplier");
    jButton3.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton3ActionPerformed(evt);
        }
    });

    jButton2.setBackground(new java.awt.Color(204, 204, 204));
    jButton2.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
    jButton2.setForeground(new java.awt.Color(32, 42, 57));
    jButton2.setText("Update Supplier");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton2ActionPerformed(evt);
        }
    });

    jButton4.setBackground(new java.awt.Color(204, 204, 204));
    jButton4.setFont(new java.awt.Font("Cambria", 1, 20)); // NOI18N
    jButton4.setForeground(new java.awt.Color(32, 42, 57));
    jButton4.setText("Create Report");
    jButton4.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton4ActionPerformed(evt);
        }
    });

    jLabel40.setBackground(new java.awt.Color(32, 42, 57));
    jLabel40.setFont(new java.awt.Font("Cambria", 1, 18)); // NOI18N
    jLabel40.setText("Remark");

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

    jButton5.setBackground(new java.awt.Color(204, 204, 204));
    jButton5.setFont(new java.awt.Font("Cambria", 1, 12)); // NOI18N
    jButton5.setText("Clear");
    jButton5.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton5ActionPerformed(evt);
        }
    });

```

```

    }
    });

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

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

    javax.swing.GroupLayout jPanel2Layout = new javax.swing.GroupLayout(jPanel2);
    jPanel2.setLayout(jPanel2Layout);
    jPanel2Layout.setHorizontalGroup(
        jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel2Layout.createSequentialGroup()
                .addContainerGap()
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 260,
                        javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addGroup(jPanel2Layout.createSequentialGroup()
                        .addGap(98, 98, 98)
                        .addComponent(jLabel36, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
                            javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(98, 98, 98)
                        .addComponent(jLabel35, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
                            javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(98, 98, 98)
                        .addComponent(textname, javax.swing.GroupLayout.PREFERRED_SIZE, 295,
                            javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(98, 98, 98)
                        .addComponent(textadd, javax.swing.GroupLayout.PREFERRED_SIZE, 295,
                            javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addContainerGap(10, true))
    );

```

```

        .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
jPanel2Layout.createSequentialGroup()
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
        .addComponent(jLabel38, javax.swing.GroupLayout.PREFERRED_SIZE, 108,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel39, javax.swing.GroupLayout.PREFERRED_SIZE, 122,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel40, javax.swing.GroupLayout.PREFERRED_SIZE, 122,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAI
LING)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
ADING, false)
        .addComponent(txtmail, javax.swing.GroupLayout.DEFAULT_SIZE, 295,
Short.MAX_VALUE)
        .addComponent(txtRemark))
        .addComponent(txtphone, javax.swing.GroupLayout.PREFERRED_SIZE, 295,
javax.swing.GroupLayout.PREFERRED_SIZE))))
        .addGap(0, 68, Short.MAX_VALUE)))
        .addGap(17, 17, 17))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel2Layout.createSequentialGroup())
        .addGap(0, 0, Short.MAX_VALUE)
        .addComponent(jButton5)
        .addGap(40, 40, 40))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel2Layout.createSequentialGroup())
        .addGap(29, 29, 29)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 173,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
        .addComponent(jButton2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addComponent(jButton4, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addGap(33, 33, 33))))
    );
    jPanel2Layout.setVerticalGroup(
        jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel2Layout.createSequentialGroup()
        .addGap(18, 18, 18)
        .addComponent(jLabel1)
        .addGap(3, 3, 3)

```

```

        .addComponent(jButton5)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(textname, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel35, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(textadd, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jLabel36, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel38, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(txtphone, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jLabel39, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(txtmail, javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jLabel40, javax.swing.GroupLayout.PREFERRED_SIZE, 27,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(txtRemark, javax.swing.GroupLayout.PREFERRED_SIZE, 150,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
            .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addContainerGap()
    );

    javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
    jPanel1.setLayout(jPanel1Layout);

```

```

jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
            .addContainerGap(52, Short.MAX_VALUE)
            .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(38, 38, 38)
            .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 134,
javax.swing.GroupLayout.PREFERRED_SIZE))
        );
jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
            .addContainerGap(42, Short.MAX_VALUE)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 464,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(34, 34, 34))
        );

getContentPane().add(jPanel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(90, 0, 770, 540));

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

private void textnameActionPerformed(java.awt.event.ActionEvent evt) {
}

private void txtmailActionPerformed(java.awt.event.ActionEvent evt) {
}

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    String name = textname.getText();
    String address = textadd.getText();
    String phone = txtphone.getText();
    String email = txtmail.getText();
    String remark = txtRemark.getText();

    String insertQuery = "INSERT INTO supplier (sup_name, sup_address, sup_phone, sup_email, sup_remark)
VALUES (?, ?, ?, ?, ?)";
    String checkQuery = "SELECT COUNT(*) FROM supplier WHERE sup_name = ?";

    try (Connection conn = DriverManager.getConnection(url, user, password); PreparedStatement checkStmt
= conn.prepareStatement(checkQuery); PreparedStatement insertStmt =
conn.prepareStatement(insertQuery)) {

        checkStmt.setString(1, name);

```

```

        ResultSet rs = checkStmt.executeQuery();
        rs.next();

        if (rs.getInt(1) > 0) {
            JOptionPane.showMessageDialog(this, "A supplier with this name already exists. Please use a
different name.");
            return;
        }

        if (name.isEmpty() || address.isEmpty() || phone.isEmpty() || email.isEmpty()) {
            JOptionPane.showMessageDialog(this, "Please fill all required fields correctly.");
            return;
        }

        if (!isValidPhone(phone)) {
            JOptionPane.showMessageDialog(this, "Invalid phone number. Please enter a valid 10-digit
number.");
            return;
        }

        if (!isValidEmail(email)) {
            JOptionPane.showMessageDialog(this, "Invalid email address. Please enter a valid email.");
            return;
        }

        insertStmt.setString(1, name);
        insertStmt.setString(2, address);
        insertStmt.setString(3, phone);
        insertStmt.setString(4, email);
        insertStmt.setString(5, remark);

        int rowsInserted = insertStmt.executeUpdate();

        if (rowsInserted > 0) {
            JOptionPane.showMessageDialog(this, "Supplier data saved successfully!");
            loadSupplierNames();
            clearFields();
        }

    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error saving supplier data.");
    }
}

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    String name = textname.getText();

```

```

if (name.isEmpty())
{
    JOptionPane.showMessageDialog(this, "Please enter the supplier name to delete.");
    return;
}

int confirm = JOptionPane.showConfirmDialog(this,
    "Are you sure you want to delete the supplier ? if you delete the supplier related purchase and rent
information will be deleted ",
    "Delete Confirmation",
    JOptionPane.YES_NO_OPTION);
if (confirm != JOptionPane.YES_OPTION)
{
    return;
}

String getIdQuery = "SELECT sup_id FROM supplier WHERE sup_name = ?";
String checkCarPurchaseQuery = "SELECT COUNT(*) FROM car_purchase WHERE sup_id = ?";
String deleteCarPurchaseQuery = "DELETE FROM car_purchase WHERE sup_id = ?";
String deleteRentQuery = "DELETE FROM rent WHERE supplier_id = ?";
String deleteSupplierQuery = "DELETE FROM supplier WHERE sup_name = ?";

try (Connection conn = DriverManager.getConnection(url, user, password);
    PreparedStatement getIdStmt = conn.prepareStatement(getIdQuery);
    PreparedStatement checkCarPurchaseStmt = conn.prepareStatement(checkCarPurchaseQuery);
    PreparedStatement deleteCarPurchaseStmt = conn.prepareStatement(deleteCarPurchaseQuery);
    PreparedStatement deleteRentStmt = conn.prepareStatement(deleteRentQuery);
    PreparedStatement deleteSupplierStmt = conn.prepareStatement(deleteSupplierQuery))
{

    getIdStmt.setString(1, name);
    ResultSet rs = getIdStmt.executeQuery();
    if (!rs.next())
    {
        JOptionPane.showMessageDialog(this, "Supplier not found.");
        return;
    }
    int supId = rs.getInt("sup_id");

    checkCarPurchaseStmt.setInt(1, supId);
    rs = checkCarPurchaseStmt.executeQuery();
    if (rs.next() && rs.getInt(1) > 0)
    {
        deleteCarPurchaseStmt.setInt(1, supId);
        deleteCarPurchaseStmt.executeUpdate();
    }
}

```

```

deleteRentStmt.setInt(1, supId);
deleteRentStmt.executeUpdate();
deleteSupplierStmt.setString(1, name);

int rowsDeleted = deleteSupplierStmt.executeUpdate();
if (rowsDeleted > 0)
{
    JOptionPane.showMessageDialog(this, "Supplier deleted successfully!");
    clearFields();
    loadSupplierNames();
} else
{
    JOptionPane.showMessageDialog(this, "Supplier not found. Deletion failed.");
}
} catch (SQLException e)
{
    e.printStackTrace();
    JOptionPane.showMessageDialog(this, "Error deleting supplier: " + e.getMessage());
}

}

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

    if (selectedSupId > 0) {
        String name = textname.getText().trim();
        String address = textadd.getText().trim();
        String phone = txtphone.getText().trim();
        String email = txtmail.getText().trim();
        String remark = txtRemark.getText().trim();

        if (name.isEmpty() || phone.isEmpty() || email.isEmpty()) {
            JOptionPane.showMessageDialog(this, "Please fill all required fields.");
            return;
        }

        String query = "UPDATE supplier SET sup_name = ?, sup_address = ?, sup_phone = ?, sup_email = ?,
sup_remark = ? WHERE sup_id = ?";

        try (Connection conn = DriverManager.getConnection(url, user, password);
            PreparedStatement pstmt = conn.prepareStatement(query))
        {

            pstmt.setString(1, name);
            pstmt.setString(2, address);
            pstmt.setString(3, phone);
            pstmt.setString(4, email);
            pstmt.setString(5, remark);

```



```

        pstmt.setInt(6, selectedSupId);

        int rowsUpdated = pstmt.executeUpdate();
        if (rowsUpdated > 0)
        {
            JOptionPane.showMessageDialog(this, "supplier details updated successfully!");
            loadSupplierNames();
        } else
        {
            JOptionPane.showMessageDialog(this, "No changes made to the supplier.");
        }
    } catch (SQLException e)
    {
        e.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error updating supplier details.");
    }
} else
{
    JOptionPane.showMessageDialog(this, "No supplier selected for update.");
}

}

private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {

    try {
        String reportSource = "C:\\Users\\amjad\\Documents\\New folder\\Supplier.jrxml";

        File file = new File(reportSource);
        if (!file.exists()) {
            System.out.println("File not found: " + file.getAbsolutePath());
            return;
        }

        JasperReport jasperReport = JasperCompileManager.compileReport(reportSource);
        Connection connection = DriverManager.getConnection(url, user, password);
        JasperPrint jasperPrint = JasperFillManager.fillReport(jasperReport, null, connection);
        JasperViewer.viewReport(jasperPrint, false);
        connection.close();

    } catch (JRException e)
    {
        System.err.println("JRException: " + e.getMessage());
        e.printStackTrace();
    } catch (SQLException e)
    {
        System.err.println("SQLException: " + e.getMessage());
        e.printStackTrace();
    }
}

```

```

    } catch (Exception e) {
        System.err.println("Exception: " + e.getMessage());
        e.printStackTrace();
    }

}

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

}

private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {

    clearFields(); }

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

}

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

}

private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {
    Dashboard myProfile = new Dashboard(username);
    myProfile.setVisible(true);
    this.dispose();
}

public static void main(String args[])
{

    java.awt.EventQueue.invokeLater(new Runnable()
    {
        public void run() {
            new Supplier().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JButton jButton1;
private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
private javax.swing.JButton jButton4;
private javax.swing.JButton jButton5;
private javax.swing.JButton jButton6;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel35;
private javax.swing.JLabel jLabel36;

```

```
private javax.swing.JLabel jLabel38;  
private javax.swing.JLabel jLabel39;  
private javax.swing.JLabel jLabel40;  
private javax.swing.JList<String> jList1;  
private javax.swing.JPanel jPanel1;  
private javax.swing.JPanel jPanel2;  
private javax.swing.JPanel jPanel3;  
private javax.swing.JScrollPane jScrollPane1;  
private javax.swing.JTextField textadd;  
private javax.swing.JTextField textname;  
private javax.swing.JTextField txtRemark;  
private javax.swing.JTextField txtmail;  
private javax.swing.JTextField txtphone;  
// End of variables declaration  
}
```