```java
import java.awt.BorderLayout;
import java.awt.Color;
import java.awt.Font;
import java.awt.GridLayout;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.JOptionPane;
import javax.swing.*;

/*
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 */

/**
 *
 * @author sominachi
 */
public class FirstPage extends javax.swing.JFrame {

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

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jTextField1 = new javax.swing.JTextField();
        jLabel3 = new javax.swing.JLabel();
        jTextField2 = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton();
        jButton2 = new javax.swing.JButton();
        jLabel4 = new javax.swing.JLabel();

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

        jLabel1.setFont(new java.awt.Font("Zapf Dingbats", 1, 48)); // NOI18N
        jLabel1.setForeground(new java.awt.Color(255, 255, 255));
        jLabel1.setText("LOGIN DETAILS");
        jLabel1.setBorder(new javax.swing.border.MatteBorder(null));
        //getContentPane().add(jLabel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(240, 90, -1, 39));

        jLabel2.setFont(new java.awt.Font("Krub", 1, 18)); // NOI18N
        jLabel2.setForeground(new java.awt.Color(255, 255, 255));
        jLabel2.setText("NAME");
        //getContentPane().add(jLabel2, new org.netbeans.lib.awtextra.AbsoluteConstraints(370, 230, -1, 20));
```

```
    //getContentPane().add(jTextField1, new org.netbeans.lib.awtextra.AbsoluteConstraints(460, 220, 369, 45));

    jLabel3.setFont(new java.awt.Font("Kailasa", 1, 18)); // NOI18N
    jLabel3.setForeground(new java.awt.Color(255, 255, 255));
    jLabel3.setText("MOBILE");
    /*getContentPane().add(jLabel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(370, 310, -1, 20));
    getContentPane().add(jTextField2, new org.netbeans.lib.awtextra.AbsoluteConstraints(460, 300, 369, 46));*/

    jButton1.setFont(new java.awt.Font("Yuanti TC", 1, 13)); // NOI18N
    jButton1.setText("CONFIRM");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
      }
    });
    //getContentPane().add(jButton1, new org.netbeans.lib.awtextra.AbsoluteConstraints(730, 370, 102, 32));

    jButton2.setFont(new java.awt.Font("Helvetica Neue", 1, 13)); // NOI18N
    jButton2.setText("CLOSE");
    jButton2.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
      }
    });
    //getContentPane().add(jButton2, new org.netbeans.lib.awtextra.AbsoluteConstraints(60, 50, 91, 32));

    jLabel4.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/backchoice_1.png"))); // NOI18N
    jLabel4.setMaximumSize(new java.awt.Dimension(1366, 768));
    //getContentPane().add(jLabel4, new org.netbeans.lib.awtextra.AbsoluteConstraints(0, 0, 1370, 770));

    pack();
  }// </editor-fold>//GEN-END:initComponents

  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_jButton1ActionPerformed
    openChoice();
  }//GEN-LAST:event_jButton1ActionPerformed

  private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_jButton2ActionPerformed
    // TODO add your handling code here:
    int a = JOptionPane.showConfirmDialog(null, "Do you want TO
CLOSE","Select",JOptionPane.YES_NO_OPTION);
    if(a==0){
      System.exit(0);
    }
```

```
  }//GEN-LAST:event_jButton2ActionPerformed

  private static void openChoice() {
    // Open the Choice window
    Choice choice = new Choice();
    choice.setVisible(true);
  }
  public FirstPage() {
    // Frame settings
    setTitle("Login Details");
    setSize(400, 300);
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setLocationRelativeTo(null);
    setLayout(null);

    // Background color
    getContentPane().setBackground(new Color(10, 25, 45));

    JLabel backgroundLabel = new JLabel(new
javax.swing.ImageIcon(getClass().getResource("/images/backchoice.png")));
    backgroundLabel.setLayout(null); // Set layout to null for custom positioning
    setContentPane(backgroundLabel); // Set the backgroundLabel as content pane

    // Title Label
    JLabel titleLabel = new JLabel("LOGIN DETAILS");
    titleLabel.setFont(new Font("SansSerif", Font.BOLD, 24));
    titleLabel.setForeground(Color.WHITE);
    titleLabel.setBounds(400, 375, 400, 50);
    add(titleLabel);

    // Name Label and Field
    JLabel nameLabel = new JLabel("NAME");
    nameLabel.setForeground(Color.WHITE);
    nameLabel.setFont(new Font("SansSerif", Font.BOLD, 14));
    nameLabel.setBounds(500, 500, 500, 70);
    add(nameLabel);

    JTextField nameField = new JTextField();
    nameField.setBounds(150, 80, 200, 30);
    add(nameField);

    // Mobile Label and Field
    JLabel mobileLabel = new JLabel("MOBILE");
    mobileLabel.setForeground(Color.WHITE);
    mobileLabel.setFont(new Font("SansSerif", Font.BOLD, 14));
    mobileLabel.setBounds(50, 130, 100, 30);
```

```
    add(mobileLabel);

    JTextField mobileField = new JTextField();
    mobileField.setBounds(150, 130, 200, 30);
    add(mobileField);

    // Confirm Button
    JButton confirmButton = new JButton("CONFIRM");
    confirmButton.setBounds(150, 180, 100, 30);
    add(confirmButton);

    // Close Button
    JButton closeButton = new JButton("CLOSE");
    closeButton.setBounds(10, 10, 80, 30);
    add(closeButton);

    // Action listeners for buttons
    confirmButton.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent e) {
        openChoice();
      }
    });

    closeButton.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent e) {
        int a = JOptionPane.showConfirmDialog(null, "Do you want TO
CLOSE","Select",JOptionPane.YES_NO_OPTION);
    if(a==0){
      System.exit(0);
    }
      }
    });
  }









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

```
    // Run the GUI in the Event-Dispatching Thread for thread safety
     // Run the GUI in the Event-Dispatching Thread for thread safety
    SwingUtilities.invokeLater(new Runnable() {
        @Override
        public void run() {
            new FirstPage().setVisible(true);
        }
    });
  }









  // Mock method to validate login credentials (use real validation in production)
   public static boolean validateCredentials(String username, String password) {
      // Hardcoded credentials for demo purposes
      String validUsername = "admin";
      String validmobile = "1234567890";

     return username.equals(validUsername) && password.equals(validmobile);
   }



  // Variables declaration - do not modify//GEN-BEGIN:variables
   private javax.swing.JButton jButton1;
   private javax.swing.JButton jButton2;
   private javax.swing.JLabel jLabel1;
   private javax.swing.JLabel jLabel2;
   private javax.swing.JLabel jLabel3;
   private javax.swing.JLabel jLabel4;
   private javax.swing.JTextField jTextField1;
   private javax.swing.JTextField jTextField2;
   // End of variables declaration//GEN-END:variables

}
```

```
import java.awt.BorderLayout;
import java.awt.GridLayout;
```

```java
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.SwingUtilities;

/*
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 */

/**
 *
 * @author sominachi
 */
public class Choice extends javax.swing.JFrame {

    /**
     * Creates new form Choice
     */
    public Choice() {
        initComponents();
    }
    private static void openUserInterface() {
        // Open the Choice window
        UserInterface User = new UserInterface();
        User.setVisible(true);
    }
    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN:initComponents
    private void initComponents() {

        jButton1 = new javax.swing.JButton();
        jButton2 = new javax.swing.JButton();
        jLabel2 = new javax.swing.JLabel();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jButton1.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/user.png"))); // NOI18N
```

```
    jButton1.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
      }
    });

    jButton2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/imagephar.png"))); // NOI18N
    jButton2.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
      }
    });

    jLabel2.setIcon(new javax.swing.ImageIcon(getClass().getResource("/images/backchoice.png"))); // NOI18N
    jLabel2.setText("jLabel2");

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addGap(205, 205, 205)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
          .addComponent(jButton1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
          .addComponent(jButton2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addContainerGap(1491, Short.MAX_VALUE))
      .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
          .addGap(0, 0, Short.MAX_VALUE)
          .addComponent(jLabel2)
          .addGap(0, 0, Short.MAX_VALUE)))
    );
    layout.setVerticalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addGap(71, 71, 71)
        .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 250,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(44, 44, 44)
        .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 242,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addContainerGap(385, Short.MAX_VALUE))
      .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
          .addGap(0, 0, Short.MAX_VALUE)
```

```
            .addComponent(jLabel2)
            .addGap(0, 0, Short.MAX_VALUE)))
    );

    pack();
  }// </editor-fold>//GEN-END:initComponents

  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_jButton1ActionPerformed
    openUserInterface();
  }//GEN-LAST:event_jButton1ActionPerformed

  private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_jButton2ActionPerformed
    // TODO add your handling code here:
    openPharmacist();
  }//GEN-LAST:event_jButton2ActionPerformed

  private static void openPharmacist() {
    // Open the Choice window
    Pharmacist Pharmacist = new Pharmacist();
    Pharmacist.setVisible(true);
  }

  /**
   * @param args the command line arguments
   */
  public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
    /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
     * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
     */
    try {
      for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
        if ("Nimbus".equals(info.getName())) {
          javax.swing.UIManager.setLookAndFeel(info.getClassName());
          break;
        }
      }
    } catch (ClassNotFoundException ex) {
      java.util.logging.Logger.getLogger(Choice.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
      java.util.logging.Logger.getLogger(Choice.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
      java.util.logging.Logger.getLogger(Choice.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
```

```
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(Choice.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    }
    //</editor-fold>
    SwingUtilities.invokeLater(new Runnable() {
        @Override
        public void run() {
            showMainMenu();  // Show the main menu with User and Pharmacist buttons
        }
    });

}
 public static void showMainMenu() {
    JFrame mainMenuFrame = new JFrame("Pharmacy Management System");
    mainMenuFrame.setSize(400, 300);
    mainMenuFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    mainMenuFrame.setLocationRelativeTo(null);  // Center the window

    // Panel to hold buttons
    JPanel mainMenuPanel = new JPanel();
    mainMenuPanel.setLayout(new GridLayout(2, 1));  // Two rows, one column for buttons

    // Create User Button
    JButton userButton = new JButton("User");
    userButton.addActionListener(new ActionListener() {
        @Override
        public void actionPerformed(ActionEvent e) {
            showUserUI();  // Show the User UI when the button is clicked
            mainMenuFrame.dispose();  // Close the main menu
        }
    });

    // Create Pharmacist Button
    JButton pharmacistButton = new JButton("Pharmacist");
    pharmacistButton.addActionListener(new ActionListener() {
        @Override
        public void actionPerformed(ActionEvent e) {
            showPharmacistUI();  // Show the Pharmacist UI when the button is clicked
            mainMenuFrame.dispose();  // Close the main menu
        }
    });

    // Add buttons to the panel
    mainMenuPanel.add(userButton);
    mainMenuPanel.add(pharmacistButton);
```

```
        // Add the panel to the frame and display it
        mainMenuFrame.add(mainMenuPanel);
        mainMenuFrame.setVisible(true);
    }
    public static void showUserUI() {
        UserInterface User = new UserInterface();
        User.setVisible(true);
    }

    // Method to display the Pharmacist UI
    public static void showPharmacistUI() {
        Pharmacist Pharmacist = new Pharmacist();
        Pharmacist.setVisible(true);
    }




    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JLabel jLabel2;
    // End of variables declaration//GEN-END:variables

}
/*
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 */

/**
 *
 * @author sominachi
 */
public class UserInterface extends javax.swing.JFrame {

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

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
```

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

    jLabel1 = new javax.swing.JLabel();
    textField1 = new java.awt.TextField();
    jLabel2 = new javax.swing.JLabel();
    textField3 = new java.awt.TextField();
    jLabel3 = new javax.swing.JLabel();

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

    jLabel1.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
    jLabel1.setText("LOCATION");
    //getContentPane().add(jLabel1, new org.netbeans.lib.awtextra.AbsoluteConstraints(83, 78, -1, -1));

    textField1.setBackground(new java.awt.Color(255, 255, 255));
    textField1.setCursor(new java.awt.Cursor(java.awt.Cursor.TEXT_CURSOR));
    textField1.setText("textField1");
    textField1.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            textField1ActionPerformed(evt);
        }
    });
    textField1.addTextListener(new java.awt.event.TextListener() {
        public void textValueChanged(java.awt.event.TextEvent evt) {
            textField1TextValueChanged(evt);
        }
    });
    //getContentPane().add(textField1, new org.netbeans.lib.awtextra.AbsoluteConstraints(388, 130, 470, 39));

    jLabel2.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
    jLabel2.setText("MEDICINE");
    //getContentPane().add(jLabel2, new org.netbeans.lib.awtextra.AbsoluteConstraints(90, 140, -1, -1));

    textField3.setBackground(new java.awt.Color(255, 255, 255));
    textField3.setCursor(new java.awt.Cursor(java.awt.Cursor.TEXT_CURSOR));
    textField3.setText("textField1");
    textField3.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            textField3ActionPerformed(evt);
        }
    });
    textField3.addTextListener(new java.awt.event.TextListener() {
```

```
        public void textValueChanged(java.awt.event.TextEvent evt) {
            textField3TextValueChanged(evt);
        }
    });
    //getContentPane().add(textField3, new org.netbeans.lib.awtextra.AbsoluteConstraints(386, 61, 468, 39));
    //getContentPane().add(jLabel3, new org.netbeans.lib.awtextra.AbsoluteConstraints(250, 190, 170, 160));

    pack();
  }// </editor-fold>//GEN-END:initComponents

  private void textField1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_textField1ActionPerformed
    // TODO add your handling code here:
  }//GEN-LAST:event_textField1ActionPerformed

  private void textField1TextValueChanged(java.awt.event.TextEvent evt) {//GEN-
FIRST:event_textField1TextValueChanged
    // TODO add your handling code here:
  }//GEN-LAST:event_textField1TextValueChanged

  private void textField3ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_textField3ActionPerformed
    // TODO add your handling code here:
  }//GEN-LAST:event_textField3ActionPerformed

  private void textField3TextValueChanged(java.awt.event.TextEvent evt) {//GEN-
FIRST:event_textField3TextValueChanged
    // TODO add your handling code here:
  }//GEN-LAST:event_textField3TextValueChanged

  /**
   * @param args the command line arguments
   */
  public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
    /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
     * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
     */
    try {
      for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
        if ("Nimbus".equals(info.getName())) {
          javax.swing.UIManager.setLookAndFeel(info.getClassName());
          break;
        }
      }
```

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

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

    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private java.awt.TextField textField1;
    private java.awt.TextField textField3;
    // End of variables declaration//GEN-END:variables
}

import java.io.IOException;
import java.net.URLEncoder;
import java.nio.charset.StandardCharsets;
import java.util.Arrays;
import java.util.List;
import java.util.Arrays;
import java.util.List;
import org.json.JSONArray;
import org.json.JSONObject;
import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.net.HttpURLConnection;
import java.net.URL;

public class GeoLocationUtil {
```

```
  private static final String GEOCODE_API_URL = "https://api.opencagedata.com/geocode/v1/json";
  private static final String API_KEY = "73bf8369f88c49b4b4af0652cb78f54c";
  public static double[] getCoordinates(String address) throws Exception {
    String encodedAddress = URLEncoder.encode(address, StandardCharsets.UTF_8);
    String url = GEOCODE_API_URL + "?q=" + encodedAddress + "&key=" + API_KEY + "&limit=1";
    String response = HttpUtil.get(url);
    // Assume HttpUtil.get() fetches a URL as a string
   // Parse JSON response
   JSONObject json = new JSONObject(response);
    System.out.println(json);
    JSONArray results = json.getJSONArray("results");
    JSONObject location = results.getJSONObject(0).getJSONObject("geometry");
    double latitude = location.getDouble("lat");
    double longitude = location.getDouble("lng");
    return new double[]{latitude, longitude};
  }
}

public class HttpUtil {
  public static String get(String urlString) throws Exception
  { URL url = new URL(urlString);
    HttpURLConnection conn = (HttpURLConnection) url.openConnection();
    conn.setRequestMethod("GET");
    try (BufferedReader reader = new BufferedReader(new InputStreamReader(conn.getInputStream()))) {
      StringBuilder response = new StringBuilder();
      String line; while ((line = reader.readLine()) != null) { response.append(line); }
      return response.toString(); } } }



public class Main {
  public static void main(String[] args) {
    try {
      String address = "MG Road, Bangalore";
      // Example address
      String medicineName = "Paracetamol";
      double searchRadius = 10.0; // in km
      // Get latitude and longitude from address
      double[] coordinates = GeoLocationUtil.getCoordinates(address);
      double userLatitude = coordinates[0];
      double userLongitude = coordinates[1];
      // Find nearby stores with the medicine
      List<Store> stores = Arrays.asList(new Store("Dolo", 1, 9,3),
          new Store("Paracetamel", 3, 5, 6));
      for (Store store : stores) {
        System.out.println(store);
      }
    } catch (Exception e) {
```

```
            e.printStackTrace();
        }
// Rest of the findMedicineNearby method remains the same
    }
}

public class Store
{
    String medicineName;

    public Store(String medicineName, int userLatitude, int userLongitude, int searchRadius) {
        this.medicineName = medicineName;
        this.userLatitude = userLatitude;
        this.userLongitude = userLongitude;
        this.searchRadius = searchRadius;
    }

    int userLatitude;
    int userLongitude;
    int searchRadius;

    public String getMedicineName() {
        return medicineName;
    }

    public void setMedicineName(String medicineName) {
        this.medicineName = medicineName;
    }

    public int getUserLatitude() {
        return userLatitude;
    }

    public void setUserLatitude(int userLatitude) {
        this.userLatitude = userLatitude;
    }

    public int getUserLongitude() {
        return userLongitude;
    }

    public void setUserLongitude(int userLongitude) {
        this.userLongitude = userLongitude;
    }
```

```
    public int getSearchRadius() {
        return searchRadius;
    }

    public void setSearchRadius(int searchRadius) {
        this.searchRadius = searchRadius;
    }
}

/*
 * 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
 */

/**
 *
 * @author sominachi
 */
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.net.HttpURLConnection;
import java.net.URL;
import java.sql.*;
import javax.swing.table.DefaultTableModel;

public class Pharmacist extends JFrame {

    private JTextField shopNameField, shopLocationField, medicineNameField, stockCountField, supplierField,
manufacturerField;
    private JFormattedTextField expiryDateField;
    private JButton saveButton,showDetailsButton;
    private JTable resultTable;



    /**
     * Creates new form Pharmacist
     */
    public Pharmacist() {
        setTitle("Pharmacist Interface");
        setSize(1000, 800);
        setLayout(new GridLayout(10, 2));

        // Initialize Components
        shopNameField = new JTextField();
        shopLocationField = new JTextField();
```

```
    medicineNameField = new JTextField();
    stockCountField = new JTextField();
    supplierField = new JTextField();
    manufacturerField = new JTextField();
    expiryDateField = new JFormattedTextField("yyyy-mm-dd");
    saveButton = new JButton("Save Medicine Details");
    showDetailsButton = new JButton("Show Details");

    DefaultTableModel tableModel = new DefaultTableModel(new Object[]{"ID", "Medicine Name", "Expiry Date",
"Stock Count", "Supplier", "Manufacturer"}, 0);
    JTable detailsTable = new JTable(tableModel);
    JScrollPane scrollPane = new JScrollPane(detailsTable);

    // Add components to JFrame
    add(new JLabel("Shop Name:"));
    add(shopNameField);
    add(new JLabel("Shop Location (Google Address Link):"));
    add(shopLocationField);
    add(new JLabel("Medicine Name:"));
    add(medicineNameField);
    add(new JLabel("Expiry Date (yyyy-MM-dd):"));
    add(expiryDateField);
    add(new JLabel("Stock Count:"));
    add(stockCountField);
    add(new JLabel("Supplier:"));
    add(supplierField);
    add(new JLabel("Manufacturer:"));
    add(manufacturerField);
    add(saveButton);
    add(showDetailsButton);
    add(scrollPane);
    showDetailsButton.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent e) {
        fetchAndShowMedicineDetails();  // Fetch data and update the table
      }
    });

    saveButton.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent e) {
        if (isLocationAuthenticated(shopLocationField.getText())) {
          saveMedicineDetails();
        } else {
          JOptionPane.showMessageDialog(Pharmacist.this, "Invalid location URL. Please enter a valid URL.");
        }
      }
```

```
    });
    resultTable.addMouseListener(new MouseAdapter() {
      @Override
      public void mouseClicked(MouseEvent e) {
        int selectedRow = resultTable.getSelectedRow();
        if (selectedRow != -1) {
          int selectedMedicineId = (int) tableModel.getValueAt(selectedRow, 0);
          int confirmDelete = JOptionPane.showConfirmDialog(Pharmacist.this, "Do you want to delete this
medicine?", "Delete", JOptionPane.YES_NO_OPTION);
          if (confirmDelete == JOptionPane.YES_OPTION) {
            deleteMedicineDetails(selectedMedicineId);  // Delete the selected medicine from the DB
          }
        }
      }
    });

    // Add the scroll pane for the table
    add(scrollPane);

    this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    this.setLocationRelativeTo(null);
  }

    // Mouse Listener for table row click (to delete)
    detailsTable.addMouseListener(new MouseAdapter() {
      @Override
      public void mouseClicked(MouseEvent e) {
        int selectedRow = detailsTable.getSelectedRow();
        if (selectedRow != -1) {
          int selectedMedicineId = (int) tableModel.getValueAt(selectedRow, 0);
          int confirmDelete = JOptionPane.showConfirmDialog(Pharmacist.this, "Do you want to delete this
medicine?", "Delete", JOptionPane.YES_NO_OPTION);
          if (confirmDelete == JOptionPane.YES_OPTION) {
            deleteMedicineDetails(selectedMedicineId);
          }
        }
      }
    });

    this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    this.setLocationRelativeTo(null);
  }
  private boolean isLocationAuthenticated(String locationUrl) {
    try {
      URL url = new URL(locationUrl);
      HttpURLConnection connection = (HttpURLConnection) url.openConnection();
      connection.setRequestMethod("GET");
```

```
            connection.setConnectTimeout(5000);
            connection.setReadTimeout(5000);

            int responseCode = connection.getResponseCode();
            return responseCode == HttpURLConnection.HTTP_OK;  // 200 OK means the URL is accessible
        } catch (Exception e) {
            return false;  // If any exception occurs, the URL is considered invalid
        }
    }

    private void saveMedicineDetails() {
        String shopName = shopNameField.getText();
        String shopLocation = shopLocationField.getText();
        String medicineName = medicineNameField.getText();
        String expiryDate = expiryDateField.getText();
        int stockCount = Integer.parseInt(stockCountField.getText());
        String supplier = supplierField.getText();
        String manufacturer = manufacturerField.getText();

        try (Connection conn = DataBaseConnection.getConnection()) {
            // Insert Pharmacy Details
            String insertPharmacySql = "INSERT INTO pharmacy_details (shop_name, shop_location) VALUES (?, ?)";
            try (PreparedStatement pst = conn.prepareStatement(insertPharmacySql,
Statement.RETURN_GENERATED_KEYS)) {
                pst.setString(1, shopName);
                pst.setString(2, shopLocation);
                pst.executeUpdate();

                // Get the last inserted pharmacy ID
                ResultSet rs = pst.getGeneratedKeys();
                int pharmacyId = -1;
                if (rs.next()) {
                    pharmacyId = rs.getInt(1);
                }

                // Insert Medicine Details
                String insertMedicineSql = "INSERT INTO medicine_stock (medicine_name, expiry_date, stock_count,
supplier, manufacturer, pharmacy_id) VALUES (?, ?, ?, ?, ?, ?)";
                try (PreparedStatement pst2 = conn.prepareStatement(insertMedicineSql)) {
                    pst2.setString(1, medicineName);
                    pst2.setString(2, expiryDate);
                    pst2.setInt(3, stockCount);
                    pst2.setString(4, supplier);
                    pst2.setString(5, manufacturer);
                    pst2.setInt(6, pharmacyId);
                    pst2.executeUpdate();
```

```
            JOptionPane.showMessageDialog(this, "Medicine details saved successfully!");
        }
      }
    } catch (SQLException ex) {
      ex.printStackTrace();
      JOptionPane.showMessageDialog(this, "Error saving data: " + ex.getMessage());
    }
}



// <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN:initComponents
private void initComponents() {

    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    jLabel5 = new javax.swing.JLabel();
    jLabel6 = new javax.swing.JLabel();
    jLabel7 = new javax.swing.JLabel();
    textField1 = new java.awt.TextField();
    textField2 = new java.awt.TextField();
    textField3 = new java.awt.TextField();
    textField4 = new java.awt.TextField();
    textField5 = new java.awt.TextField();
    textField6 = new java.awt.TextField();
    textField7 = new java.awt.TextField();
    jLabel8 = new javax.swing.JLabel();
    scrollPane1 = new java.awt.ScrollPane();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    jLabel1.setFont(new java.awt.Font("Phosphate", 0, 18)); // NOI18N
    jLabel1.setText("SHOP NAME");

    jLabel2.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
    jLabel2.setText("SHOP LOCATION LINK");

    jLabel3.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
    jLabel3.setText("MEDICINE NAME");

    jLabel4.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
    jLabel4.setText("EXPIRE DATE DD/MM/YYYY");

    jLabel5.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
```

```
jLabel5.setText("SUPPLIER NAME");

jLabel6.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
jLabel6.setText("MANUFACTURER NAME");

jLabel7.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
jLabel7.setText("IN-STOCK COUNT");

textField1.setText("textField1");
textField1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        textField1ActionPerformed(evt);
    }
});

textField2.setText("textField2");

textField3.setText("textField3");

textField4.setText("textField4");
textField4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        textField4ActionPerformed(evt);
    }
});

textField5.setText("textField5");
textField5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        textField5ActionPerformed(evt);
    }
});

textField6.setText("textField6");

textField7.setText("textField7");

jLabel8.setText("jLabel8");

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
        .addGap(273, 273, 273)
```

```
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 112,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel7)
                .addComponent(jLabel6)
                .addComponent(jLabel5)
                .addComponent(jLabel4)
                .addComponent(jLabel3)
                .addComponent(jLabel2))
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 113, Short.MAX_VALUE)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                .addComponent(textField3, javax.swing.GroupLayout.DEFAULT_SIZE, 478, Short.MAX_VALUE)
                .addComponent(textField2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(textField1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(textField4, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(textField5, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(textField6, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(textField7, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addGap(204, 204, 204)
            .addComponent(scrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 12,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(23, 23, 23))
        .addGroup(layout.createSequentialGroup()
            .addGap(236, 236, 236)
            .addComponent(jLabel8)
            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(116, 116, 116)
            .addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED_SIZE, 42,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(18, 18, 18)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(textField1, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(35, 35, 35)
```

```
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(textField2, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel2))
                .addGap(26, 26, 26)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel3)
                    .addComponent(textField3, javax.swing.GroupLayout.PREFERRED_SIZE, 36,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(33, 33, 33)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel7)
                    .addComponent(textField4, javax.swing.GroupLayout.PREFERRED_SIZE, 41,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(24, 24, 24)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel4)
                    .addComponent(textField5, javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(27, 27, 27)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel5)
                    .addComponent(textField6, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(41, 41, 41)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel6)
                    .addComponent(textField7, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addGroup(layout.createSequentialGroup()
                .addGap(9, 9, 9)
                .addComponent(scrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 515,
javax.swing.GroupLayout.PREFERRED_SIZE)))
            .addContainerGap(28, Short.MAX_VALUE))
        );

        pack();
    }// </editor-fold>//GEN-END:initComponents

    private void textField1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_textField1ActionPerformed
        // TODO add your handling code here:
    }//GEN-LAST:event_textField1ActionPerformed

    private void textField5ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_textField5ActionPerformed
        // TODO add your handling code here:
```

```
  }//GEN-LAST:event_textField5ActionPerformed

  private void textField4ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_textField4ActionPerformed
    // TODO add your handling code here:
  }//GEN-LAST:event_textField4ActionPerformed

  private void fetchAndShowMedicineDetails() {
    try (Connection conn = DataBaseConnection.getConnection()) {
      String selectSql = "SELECT * FROM medicine_stock";
      try (PreparedStatement pst = conn.prepareStatement(selectSql);
        ResultSet rs = pst.executeQuery()) {
        DefaultTableModel tableModel = (DefaultTableModel) resultTable.getModel();
        // Clear existing table data
        tableModel.setRowCount(0);

        // Add rows to the table model
        while (rs.next()) {
          int id = rs.getInt("id");
          String medicineName = rs.getString("medicine_name");
          String expiryDate = rs.getString("expiry_date");
          int stockCount = rs.getInt("stock_count");
          String supplier = rs.getString("supplier");
          String manufacturer = rs.getString("manufacturer");
          tableModel.addRow(new Object[]{id, medicineName, expiryDate, stockCount, supplier, manufacturer});
        }
      }
    } catch (SQLException ex) {
      ex.printStackTrace();
      JOptionPane.showMessageDialog(this, "Error fetching data: " + ex.getMessage());
    }
  }

  // Method to delete a medicine record from the database
  private void deleteMedicineDetails(int medicineId)  {
    Connection db = null;
    try{
      db = DriverManager.getConnection("jdbc:mysql://localhost:3306/pharmacy_system","root",
"SomiKarthi1995");}
    catch(SQLException e){
      System.out.println(e.getMessage());
    }
    try (Connection conn = db) {
      String deleteSql = "DELETE FROM medicine_stock WHERE id = ?";
      try (PreparedStatement pst = conn.prepareStatement(deleteSql)) {
        pst.setInt(1, medicineId);
        int rowsDeleted = pst.executeUpdate();
```

```
            if (rowsDeleted > 0) {
                JOptionPane.showMessageDialog(this, "Medicine record deleted successfully!");
                fetchAndShowMedicineDetails();  // Refresh table after deletion
            } else {
                JOptionPane.showMessageDialog(this, "Error deleting record.");
            }
        }
    } catch (SQLException ex) {
        ex.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error deleting data: " + ex.getMessage());
    }
}
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
    /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
     * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
     */
    try {
        for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
            if ("Nimbus".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
            }
        }
    } catch (ClassNotFoundException ex) {
        java.util.logging.Logger.getLogger(Pharmacist.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(Pharmacist.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(Pharmacist.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(Pharmacist.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
    }
    //</editor-fold>
    SwingUtilities.invokeLater(new Runnable() {
        @Override
        public void run() {
            new Pharmacist().setVisible(true);
        }
    });
```

```
  }


  // Variables declaration - do not modify//GEN-BEGIN:variables
  private javax.swing.JLabel jLabel1;
  private javax.swing.JLabel jLabel2;
  private javax.swing.JLabel jLabel3;
  private javax.swing.JLabel jLabel4;
  private javax.swing.JLabel jLabel5;
  private javax.swing.JLabel jLabel6;
  private javax.swing.JLabel jLabel7;
  private javax.swing.JLabel jLabel8;
  private java.awt.ScrollPane scrollPane1;
  private java.awt.TextField textField1;
  private java.awt.TextField textField2;
  private java.awt.TextField textField3;
  private java.awt.TextField textField4;
  private java.awt.TextField textField5;
  private java.awt.TextField textField6;
  private java.awt.TextField textField7;
  // End of variables declaration//GEN-END:variables
}

/*
 * 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
 */

/**
 *
 * @author sominachi
 */
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.net.HttpURLConnection;
import java.net.URL;
import java.sql.*;
import javax.swing.table.DefaultTableModel;

public class Pharmacist extends JFrame {

  private JTextField shopNameField, shopLocationField, medicineNameField, stockCountField, supplierField,
manufacturerField;
  private JFormattedTextField expiryDateField;
  private JButton saveButton,showDetailsButton;
```

```
    private JTable resultTable;



    /**
     * Creates new form Pharmacist
     */
    public Pharmacist() {
        setTitle("Pharmacist Interface");
        setSize(1000, 800);
        setLayout(new GridLayout(10, 2));

        // Initialize Components
        shopNameField = new JTextField();
        shopLocationField = new JTextField();
        medicineNameField = new JTextField();
        stockCountField = new JTextField();
        supplierField = new JTextField();
        manufacturerField = new JTextField();
        expiryDateField = new JFormattedTextField("yyyy-mm-dd");
        saveButton = new JButton("Save Medicine Details");
        showDetailsButton = new JButton("Show Details");

       DefaultTableModel tableModel = new DefaultTableModel(new Object[]{"ID", "Medicine Name", "Expiry Date",
"Stock Count", "Supplier", "Manufacturer"}, 0);
        JTable detailsTable = new JTable(tableModel);
        JScrollPane scrollPane = new JScrollPane(detailsTable);

        // Add components to JFrame
        add(new JLabel("Shop Name:"));
        add(shopNameField);
        add(new JLabel("Shop Location (Google Address Link):"));
        add(shopLocationField);
        add(new JLabel("Medicine Name:"));
        add(medicineNameField);
        add(new JLabel("Expiry Date (yyyy-MM-dd):"));
        add(expiryDateField);
        add(new JLabel("Stock Count:"));
        add(stockCountField);
        add(new JLabel("Supplier:"));
        add(supplierField);
        add(new JLabel("Manufacturer:"));
        add(manufacturerField);
        add(saveButton);
        add(showDetailsButton);
        add(scrollPane);
        showDetailsButton.addActionListener(new ActionListener() {
```

```
        @Override
        public void actionPerformed(ActionEvent e) {
            fetchAndShowMedicineDetails();  // Fetch data and update the table
        }
    });

    saveButton.addActionListener(new ActionListener() {
        @Override
        public void actionPerformed(ActionEvent e) {
            if (isLocationAuthenticated(shopLocationField.getText())) {
                saveMedicineDetails();
            } else {
                JOptionPane.showMessageDialog(Pharmacist.this, "Invalid location URL. Please enter a valid URL.");
            }
        }
    });
    resultTable.addMouseListener(new MouseAdapter() {
        @Override
        public void mouseClicked(MouseEvent e) {
            int selectedRow = resultTable.getSelectedRow();
            if (selectedRow != -1) {
                int selectedMedicineId = (int) tableModel.getValueAt(selectedRow, 0);
                int confirmDelete = JOptionPane.showConfirmDialog(Pharmacist.this, "Do you want to delete this
medicine?", "Delete", JOptionPane.YES_NO_OPTION);
                if (confirmDelete == JOptionPane.YES_OPTION) {
                    deleteMedicineDetails(selectedMedicineId);  // Delete the selected medicine from the DB
                }
            }
        }
    });

    // Add the scroll pane for the table
    add(scrollPane);

    this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    this.setLocationRelativeTo(null);
  }

    // Mouse Listener for table row click (to delete)
    detailsTable.addMouseListener(new MouseAdapter() {
        @Override
        public void mouseClicked(MouseEvent e) {
            int selectedRow = detailsTable.getSelectedRow();
            if (selectedRow != -1) {
                int selectedMedicineId = (int) tableModel.getValueAt(selectedRow, 0);
                int confirmDelete = JOptionPane.showConfirmDialog(Pharmacist.this, "Do you want to delete this
medicine?", "Delete", JOptionPane.YES_NO_OPTION);
```

```
            if (confirmDelete == JOptionPane.YES_OPTION) {
                deleteMedicineDetails(selectedMedicineId);
            }
        }
    }
});

    this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    this.setLocationRelativeTo(null);
}
private boolean isLocationAuthenticated(String locationUrl) {
    try {
        URL url = new URL(locationUrl);
        HttpURLConnection connection = (HttpURLConnection) url.openConnection();
        connection.setRequestMethod("GET");
        connection.setConnectTimeout(5000);
        connection.setReadTimeout(5000);

        int responseCode = connection.getResponseCode();
        return responseCode == HttpURLConnection.HTTP_OK;  // 200 OK means the URL is accessible
    } catch (Exception e) {
        return false;  // If any exception occurs, the URL is considered invalid
    }
}

private void saveMedicineDetails() {
    String shopName = shopNameField.getText();
    String shopLocation = shopLocationField.getText();
    String medicineName = medicineNameField.getText();
    String expiryDate = expiryDateField.getText();
    int stockCount = Integer.parseInt(stockCountField.getText());
    String supplier = supplierField.getText();
    String manufacturer = manufacturerField.getText();

    try (Connection conn = DataBaseConnection.getConnection()) {
        // Insert Pharmacy Details
        String insertPharmacySql = "INSERT INTO pharmacy_details (shop_name, shop_location) VALUES (?, ?)";
        try (PreparedStatement pst = conn.prepareStatement(insertPharmacySql,
Statement.RETURN_GENERATED_KEYS)) {
            pst.setString(1, shopName);
            pst.setString(2, shopLocation);
            pst.executeUpdate();

            // Get the last inserted pharmacy ID
            ResultSet rs = pst.getGeneratedKeys();
            int pharmacyId = -1;
```

```
            if (rs.next()) {
                pharmacyId = rs.getInt(1);
            }

            // Insert Medicine Details
            String insertMedicineSql = "INSERT INTO medicine_stock (medicine_name, expiry_date, stock_count,
supplier, manufacturer, pharmacy_id) VALUES (?, ?, ?, ?, ?, ?)";
            try (PreparedStatement pst2 = conn.prepareStatement(insertMedicineSql)) {
                pst2.setString(1, medicineName);
                pst2.setString(2, expiryDate);
                pst2.setInt(3, stockCount);
                pst2.setString(4, supplier);
                pst2.setString(5, manufacturer);
                pst2.setInt(6, pharmacyId);
                pst2.executeUpdate();
                JOptionPane.showMessageDialog(this, "Medicine details saved successfully!");
            }
        }
    } catch (SQLException ex) {
        ex.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error saving data: " + ex.getMessage());
    }
  }



  // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-BEGIN:initComponents
  private void initComponents() {

    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    jLabel5 = new javax.swing.JLabel();
    jLabel6 = new javax.swing.JLabel();
    jLabel7 = new javax.swing.JLabel();
    textField1 = new java.awt.TextField();
    textField2 = new java.awt.TextField();
    textField3 = new java.awt.TextField();
    textField4 = new java.awt.TextField();
    textField5 = new java.awt.TextField();
    textField6 = new java.awt.TextField();
    textField7 = new java.awt.TextField();
    jLabel8 = new javax.swing.JLabel();
    scrollPane1 = new java.awt.ScrollPane();

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

```
jLabel1.setFont(new java.awt.Font("Phosphate", 0, 18)); // NOI18N
jLabel1.setText("SHOP NAME");

jLabel2.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
jLabel2.setText("SHOP LOCATION LINK");

jLabel3.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
jLabel3.setText("MEDICINE NAME");

jLabel4.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
jLabel4.setText("EXPIRE DATE DD/MM/YYYY");

jLabel5.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
jLabel5.setText("SUPPLIER NAME");

jLabel6.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
jLabel6.setText("MANUFACTURER NAME");

jLabel7.setFont(new java.awt.Font(".AppleSystemUIFont", 3, 18)); // NOI18N
jLabel7.setText("IN-STOCK COUNT");

textField1.setText("textField1");
textField1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        textField1ActionPerformed(evt);
    }
});

textField2.setText("textField2");

textField3.setText("textField3");

textField4.setText("textField4");
textField4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        textField4ActionPerformed(evt);
    }
});

textField5.setText("textField5");
textField5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        textField5ActionPerformed(evt);
    }
```

```
    });

    textField6.setText("textField6");

    textField7.setText("textField7");

    jLabel8.setText("jLabel8");

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
        .addGap(273, 273, 273)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 112,
javax.swing.GroupLayout.PREFERRED_SIZE)
          .addComponent(jLabel7)
          .addComponent(jLabel6)
          .addComponent(jLabel5)
          .addComponent(jLabel4)
          .addComponent(jLabel3)
          .addComponent(jLabel2))
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 113, Short.MAX_VALUE)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
          .addComponent(textField3, javax.swing.GroupLayout.DEFAULT_SIZE, 478, Short.MAX_VALUE)
          .addComponent(textField2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
          .addComponent(textField1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
          .addComponent(textField4, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
          .addComponent(textField5, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
          .addComponent(textField6, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
          .addComponent(textField7, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        .addGap(204, 204, 204)
        .addComponent(scrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 12,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(23, 23, 23))
      .addGroup(layout.createSequentialGroup()
        .addGap(236, 236, 236)
        .addComponent(jLabel8)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
    );
```

```
    layout.setVerticalGroup(
      layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
      .addGroup(layout.createSequentialGroup()
        .addGap(116, 116, 116)
        .addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED_SIZE, 42,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addComponent(textField1, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
          .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE))
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
          .addGroup(layout.createSequentialGroup()
            .addGap(35, 35, 35)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(textField2, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)
              .addComponent(jLabel2))
            .addGap(26, 26, 26)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jLabel3)
              .addComponent(textField3, javax.swing.GroupLayout.PREFERRED_SIZE, 36,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(33, 33, 33)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jLabel7)
              .addComponent(textField4, javax.swing.GroupLayout.PREFERRED_SIZE, 41,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(24, 24, 24)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jLabel4)
              .addComponent(textField5, javax.swing.GroupLayout.PREFERRED_SIZE, 44,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(27, 27, 27)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jLabel5)
              .addComponent(textField6, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(41, 41, 41)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jLabel6)
              .addComponent(textField7, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
javax.swing.GroupLayout.PREFERRED_SIZE)))
          .addGroup(layout.createSequentialGroup()
            .addGap(9, 9, 9)
            .addComponent(scrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 515,
javax.swing.GroupLayout.PREFERRED_SIZE)))
```

```
            .addContainerGap(28, Short.MAX_VALUE))
        );

        pack();
    }// </editor-fold>//GEN-END:initComponents

    private void textField1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_textField1ActionPerformed
        // TODO add your handling code here:
    }//GEN-LAST:event_textField1ActionPerformed

    private void textField5ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_textField5ActionPerformed
        // TODO add your handling code here:
    }//GEN-LAST:event_textField5ActionPerformed

    private void textField4ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_textField4ActionPerformed
        // TODO add your handling code here:
    }//GEN-LAST:event_textField4ActionPerformed

    private void fetchAndShowMedicineDetails() {
        try (Connection conn = DataBaseConnection.getConnection()) {
            String selectSql = "SELECT * FROM medicine_stock";
            try (PreparedStatement pst = conn.prepareStatement(selectSql);
                ResultSet rs = pst.executeQuery()) {
                DefaultTableModel tableModel = (DefaultTableModel) resultTable.getModel();
                // Clear existing table data
                tableModel.setRowCount(0);

                // Add rows to the table model
                while (rs.next()) {
                    int id = rs.getInt("id");
                    String medicineName = rs.getString("medicine_name");
                    String expiryDate = rs.getString("expiry_date");
                    int stockCount = rs.getInt("stock_count");
                    String supplier = rs.getString("supplier");
                    String manufacturer = rs.getString("manufacturer");
                    tableModel.addRow(new Object[]{id, medicineName, expiryDate, stockCount, supplier, manufacturer});
                }
            }
        } catch (SQLException ex) {
            ex.printStackTrace();
            JOptionPane.showMessageDialog(this, "Error fetching data: " + ex.getMessage());
        }
    }
```

```
  // Method to delete a medicine record from the database
  private void deleteMedicineDetails(int medicineId)  {
     Connection db = null;
     try{
        db = DriverManager.getConnection("jdbc:mysql://localhost:3306/pharmacy_system","root",
"SomiKarthi1995");}
     catch(SQLException e){
        System.out.println(e.getMessage());
     }
     try (Connection conn = db) {
        String deleteSql = "DELETE FROM medicine_stock WHERE id = ?";
        try (PreparedStatement pst = conn.prepareStatement(deleteSql)) {
           pst.setInt(1, medicineId);
           int rowsDeleted = pst.executeUpdate();
           if (rowsDeleted > 0) {
              JOptionPane.showMessageDialog(this, "Medicine record deleted successfully!");
              fetchAndShowMedicineDetails();  // Refresh table after deletion
           } else {
              JOptionPane.showMessageDialog(this, "Error deleting record.");
           }
        }
     } catch (SQLException ex) {
        ex.printStackTrace();
        JOptionPane.showMessageDialog(this, "Error deleting data: " + ex.getMessage());
     }
  }
  public static void main(String args[]) {
     /* Set the Nimbus look and feel */
     //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
     /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
      * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
     */
     try {
        for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
           if ("Nimbus".equals(info.getName())) {
              javax.swing.UIManager.setLookAndFeel(info.getClassName());
              break;
           }
        }
     } catch (ClassNotFoundException ex) {
        java.util.logging.Logger.getLogger(Pharmacist.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
     } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(Pharmacist.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
     } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(Pharmacist.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
     } catch (javax.swing.UnsupportedLookAndFeelException ex) {
```

```
            java.util.logging.Logger.getLogger(Pharmacist.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        //</editor-fold>
        SwingUtilities.invokeLater(new Runnable() {
            @Override
            public void run() {
                new Pharmacist().setVisible(true);
            }
        });









    }



    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JLabel jLabel6;
    private javax.swing.JLabel jLabel7;
    private javax.swing.JLabel jLabel8;
    private java.awt.ScrollPane scrollPane1;
    private java.awt.TextField textField1;
    private java.awt.TextField textField2;
    private java.awt.TextField textField3;
    private java.awt.TextField textField4;
    private java.awt.TextField textField5;
    private java.awt.TextField textField6;
    private java.awt.TextField textField7;
    // End of variables declaration//GEN-END:variables
}



import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
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```

```java
 */


/**
 *
 * @author sominachi
 */
public class DataBaseConnection {
   private static final String URL = "jdbc:mysql://localhost:3306/pharmacy_system";
   private static final String USER = "root";
   private static final String PASSWORD = "SomiKarthi1995";



      // Update your MySQL password
     //return DriverManager.getConnection(url, username, password);
     public static Connection getConnection() throws SQLException {
       try{
       Class.forName("com.mysql.cj.jdbc.Driver");
       }
       catch(ClassNotFoundException e){
          System.out.println(e.getMessage());
       }
          return DriverManager.getConnection(URL, USER, PASSWORD);



}

}
```