CLINIC MANAGEMENT SYSTEM

A MINI-PROJECT BY:

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in partial fulfillment of the award of the degree

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BONAFIDE CERTIFICATE

Certified that this project report **"CLINIC MANAGEMENT SYSTEM"** is a Bonafide work of **"KAVEESHAA S (230701146) & MEGHANA SRI P (230701182)" .**

Submitted for the Practical Examination held on _____

Internal Examiner **External Examiner**

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ABSTRACT:

In today's fast-paced world, effective management of healthcare services is essential for maintaining high-quality care and improving clinic operations. Small and medium-sized clinics, in particular, often struggle with managing patient records efficiently. Many still rely on manual, paper-based methods or disconnected software, which can lead to mistakes, delays, and inefficiencies. These problems can affect the quality of patient care and the overall productivity of the clinic. To address this, it's crucial to create a Clinic Management System (CMS) that focuses on simplifying patient registration while ensuring data is secure, accurate, and easy to manage.

This project specifically targets the patient registration process, using SQL for the backend database to store and manage patient information, and Java for the frontend interface to make the system user-friendly for clinic staff. The system will allow staff to quickly and securely input patient details such as personal information, medical history, and contact information. By automating the registration process, the system will help reduce errors, save time, and improve the overall patient experience.

Clinics that still use paper-based or outdated software systems often face challenges such as data loss, difficulty accessing patient information, and the potential for human error. This patient registration system is designed to solve these problems by providing a simple, organized, and secure way to register and store patient data. With this system in place, clinics can improve efficiency, reduce administrative burdens, and ensure that patient information is always accurate and accessible when needed.

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Chapter 1 INTRODUCTION

1.1 INTRODUCTION

In the modern healthcare environment, small and medium-sized clinics often face challenges in managing patient records due to outdated or manual systems. This project aims to address these challenges by developing a Clinic Management System (CMS) that focuses on automating and streamlining the patient registration process. The system utilizes SQL for secure and efficient backend data storage, and Java for a user-friendly frontend interface. The primary objective is to simplify patient registration by allowing clinic staff to quickly and accurately input essential patient details, such as personal information, medical history, and contact data. By automating this process, the system reduces the risk of errors, minimizes administrative workload, and improves the overall efficiency of clinic operations. Data security and accuracy are ensured through robust validation features and access controls, while a user-friendly interface ensures quick adoption by clinic staff with minimal training. Additionally, the system is designed to be scalable, allowing for future expansion to include features like appointment scheduling and medical records management. Ultimately, this CMS aims to improve patient care, reduce administrative burdens, and enhance the overall productivity of clinic operations.

1.2 OBJECTIVES

The primary objective of this project is to design and implement a Clinic Management System (CMS) focused on streamlining and automating the patient registration process in a clinic setting. By leveraging SQL for backend data management and Java for the frontend interface, the project aims to

achieve the following goals:

-Simplify Patient Registration: Create an easy-to-use system that allows clinic staff to efficiently register new patients by entering personal details, medical history, and contact information. The system will automate data entry, reducing the time and effort spent on manual record-keeping.

-Ensure Data Security and Accuracy: Implement a secure backend database using SQL to store patient information safely, ensuring that data is accurate, consistent, and accessible only to authorized users. The system will include features like data validation to minimize human error during registration.

-Improve Clinic Efficiency: By automating the registration process, the system will eliminate the need for paper-based records, reduce administrative workload, and allow clinic staff to focus more on patient care rather than on paperwork.

-Enhance Data Accessibility: Design a system where patient data can be quickly retrieved, updated, and managed. This will help ensure that patient information is always available and up-to-date, improving overall clinic operations.

-User-Friendly Interface: Develop a simple, intuitive frontend interface using Java that clinic staff can easily navigate. The system will be designed to minimize training time and ensure smooth adoption by clinic personnel.

-Scalability for Future Expansion: Build a flexible and scalable system that can be expanded in the future to include additional features, such as appointment scheduling, medical records management, and billing, if needed.

In essence, the goal of this project is to create a reliable and efficient patient registration system that improves both the accuracy of patient records and the overall productivity of clinic staff.

1.3 MODULES

1 LOGIN

The Clinic Management System (CMS) login page serves as the entry point to the system. Upon accessing the page, users are presented with two login options: one for Doctors and one for Receptionists. Each user type has specific permissions and functionalities available based on their role within the clinic.

The login interface is simple yet secure, requiring the user to enter their Username and Password to authenticate their credentials. Once these details are submitted, the system verifies them and grants access to the user's designated dashboard

2 Doctor Module

The **Doctor Module** provides a **comprehensive overview** of the doctor's personal and professional details, allowing doctors to view and update their own information. This includes personal details such as **contact information** and any **specializations** they are associated with, like Pediatrics or General Medicine. The system ensures that this information is readily accessible to the doctor, allowing them to stay organized and up-to-date with their work schedule and responsibilities.

3.1.2 Non-Functional Requirements

Security

- **Data Encryption:** Ensure that sensitive data, including patient information is encrypted while stored in the database to protect it from unauthorized access or breaches.

Performance

- **Scalability:** Design the system to efficiently accommodate increasing numbers of users, patient registrations, and transactions as the clinic grows. The system should be able to handle greater workloads without significant performance degradation.
- **Response Time:** Ensure that the system responds quickly to user actions, such as submitting patient details or querying patient records, with minimal delays to enhance user experience and clinic workflow.

Reliability

- **Availability:** Guarantee high system availability with minimal downtime to ensure that clinic operations are not interrupted and patient care is consistently supported. The system should be robust, with backup mechanisms in place to ensure continuous service.
- **Data Backup:** Implement regular, automated data backups to safeguard against data loss. In case of a system failure, the backup ensures data can be restored quickly and efficiently to minimize disruptions in clinic operations.

Usability

- **User-Friendly Interface:** Provide a simple, intuitive, and easy-to-navigate interface that is tailored for all user roles—receptionists and doctors . The system should require minimal training to use, ensuring seamless adoption by staff members.

Maintainability

- **Modular Design:** Adopt a modular architecture to ensure that the system is easy to maintain, update, and expand. This approach will allow for smooth integration of new features and easier troubleshooting.
- **Comprehensive Documentation:** Provide clear and detailed documentation for both end-users and developers. This will assist users in navigating the system and developers in maintaining and upgrading the platform.

3.2 HARDWARE AND SOFTWARE REQUIREMENTS

Hardware Requirements:

- **Desktop PC or Laptop:** A reliable desktop PC or laptop to run the Clinic Management System (CMS) smoothly, capable of handling everyday clinic operations.
- **Processor:** Intel® Core™ i3 or equivalent, providing sufficient processing power for handling patient data management, appointments, and other tasks without lag.
- **RAM:** 4.00 GB RAM, ensuring the system can handle multiple simultaneous user requests, such as data entry and queries, without performance degradation.
- **System Architecture:** 64-bit operating system with an x64-based processor for optimal performance, supporting the latest technologies and large datasets used

by the CMS.

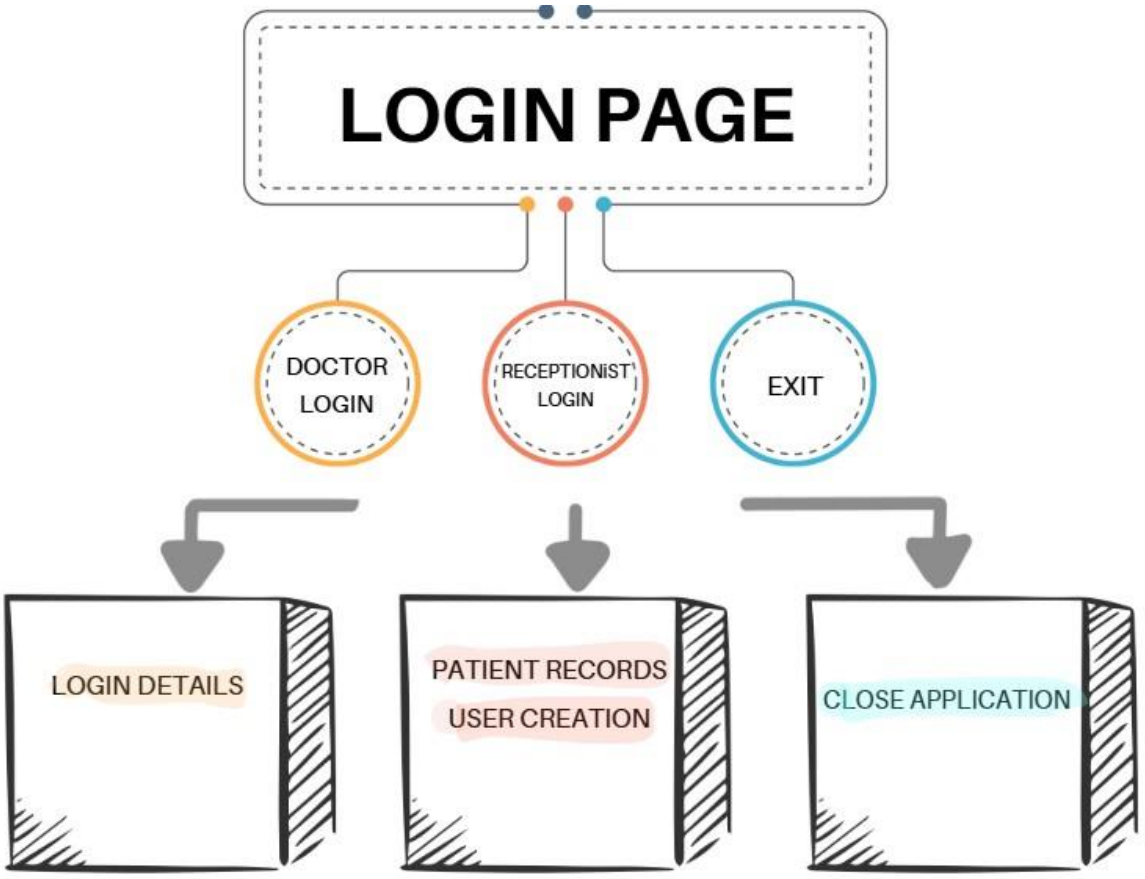
- **Monitor Resolution:** 1024 x 768 monitor resolution, providing a clear, organized interface for clinic staff to interact with the system effectively.
- **Input Devices:** Keyboard and Mouse, enabling easy navigation and user interaction with the system interface.
- **Server:** A server with high processing capacity, sufficient storage, and reliable backup solutions for handling patient records, appointments, and other essential clinic data securely.
- **Reliable Network Infrastructure:** A stable, high-speed network infrastructure to ensure seamless communication between frontend users (doctors, receptionists) and backend systems (server/database).

Software Requirements:

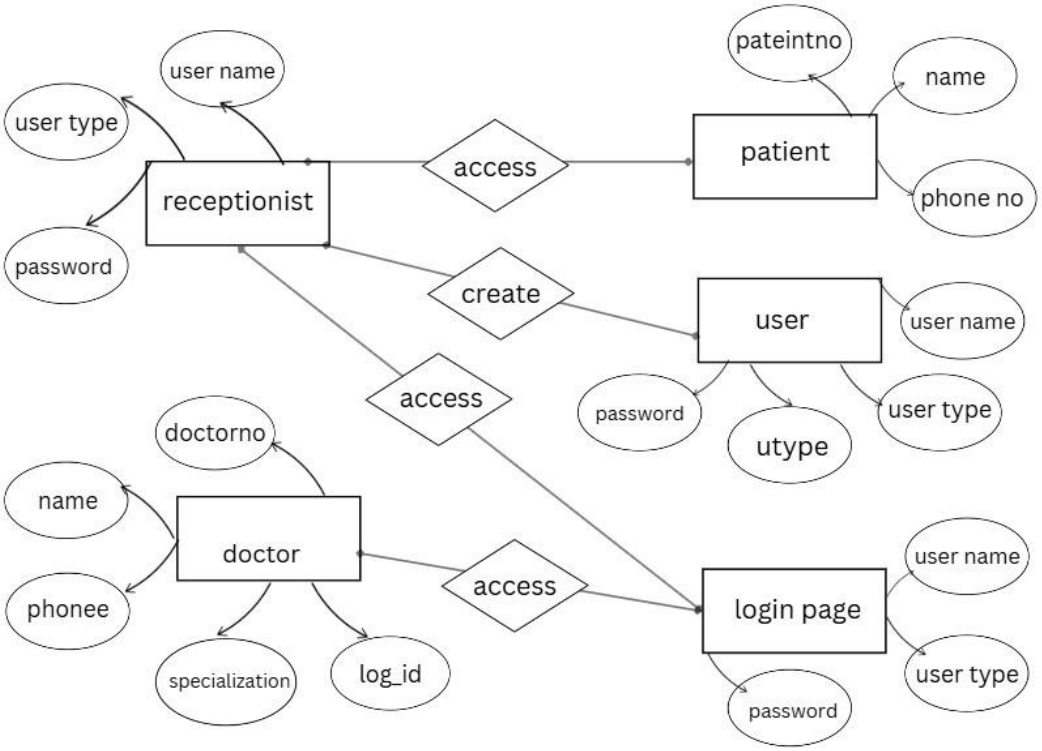
- Operating System: Windows 11
- Code editor : netbeans
- Front End: Java
- Back End: MySQL
- Middleware: XAMPP (Apache, MySQL, PHP

3.3 ARCHITECTURE DIAGRAM

A visual diagram that provides an overall view of the Clinic Management system.



3.4 ER DIAGRAM



3.5 RAW DATABASE

DATABASE NAME - jdclinic

Doctor's table

doctorno	name	Phone	specialization	log_id
1	Kaveeshaa	7245638967	general	IDB654321
2	…..	…..	…..	…..
…..	…..	……	…..	…..

patient's table

patientno	name	phoneno
JD001	Krithika	8985739847
JD002	……	……

user's table

name	username	password	utype
Kaveeshaa	Kaveeshaa	kaveeshaa	Doctor
Meghana	Meghana	meghana	Receptionist

CHAPTER4
PROGRAM CODE

1. MAIN PAGE

```
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import main.java.User; public
Main() { initComponents(); } int
idd; String uctype; int newid;
    String uname ; String usertype; public Main(int
    id,String username,String utype) {
    initComponents(); this.uname = username;
    jLabel4.setText(uname); this.usertype = utype;
    jLabel5.setText(usertype); this.newid = id; idd=
    newid; uctype = jLabel5.getText();
    if(uctype.equals("Doctor")){
    jButton10.setVisible(false);
    jButton6.setVisible(false);
            } else
        if(uctype.equals("Receptionist")){
        jButton1.setVisible(false);
       }
} private void initComponents() {


        jButton8 = new javax.swing.JButton();
        jPanel1 = new javax.swing.JPanel();
        jButton1 = new javax.swing.JButton();
        jButton6 = new javax.swing.JButton();
        jButton9 = new javax.swing.JButton();
        jButton10 = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jPanel2 = new javax.swing.JPanel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
```

```
jLabel4 = new javax.swing.JLabel();

jLabel5 = new javax.swing.JLabel();


jButton8.addActionListener(new java.awt.event.ActionListener() {

    public void actionPerformed(java.awt.event.ActionEvent evt) {

    jButton8ActionPerformed(evt);

    }

});


setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);


jPanel1.setBackground(new java.awt.Color(153, 0, 51));


jButton1.setText("Doctor"); jButton1.addActionListener(new

java.awt.event.ActionListener() { public void

actionPerformed(java.awt.event.ActionEvent evt) {

jButton1ActionPerformed(evt);

    }

});


jButton6.setText("Create User"); jButton6.addActionListener(new

java.awt.event.ActionListener() { public void

actionPerformed(java.awt.event.ActionEvent evt) {

jButton6ActionPerformed(evt);

    }

});


jButton9.setText("Exit"); jButton9.addActionListener(new

java.awt.event.ActionListener() { public void

actionPerformed(java.awt.event.ActionEvent evt) {

jButton9ActionPerformed(evt);


    }

});


jButton10.setText("Patient"); jButton10.addActionListener(new

java.awt.event.ActionListener() { public void

actionPerformed(java.awt.event.ActionEvent evt) {

jButton10ActionPerformed(evt);

    }

});
```

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

        jPanel1.setLayout(jPanel1Layout); jPanel1Layout.setHorizontalGroup(

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

            .addGroup(jPanel1Layout.createSequentialGroup()

                .addGap(58, 58, 58)

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

                    .addComponent(jButton1, javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

                    .addComponent(jButton6, javax.swing.GroupLayout.DEFAULT_SIZE, 117, Short.MAX_VALUE)

                    .addComponent(jButton9, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)

                    .addComponent(jButton10, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))

                .addContainerGap(56, Short.MAX_VALUE))

        ); jPanel1Layout.setVerticalGroup(

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

            .addGroup(jPanel1Layout.createSequentialGroup()

                .addGap(39, 39, 39)

                .addComponent(jButton10, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addGap(45, 45, 45)

                .addComponent(jButton6, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addGap(45, 45, 45)

                .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 35,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addGap(45, 45, 45)

                .addComponent(jButton9, javax.swing.GroupLayout.PREFERRED_SIZE, 34,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addContainerGap(39, Short.MAX_VALUE))

        );


        jLabel1.setBackground(new java.awt.Color(204, 0, 51));

        jLabel1.setFont(new java.awt.Font("Serif", 2, 48)); // NOI18N

        jLabel1.setForeground(new java.awt.Color(204, 0, 0)); jLabel1.setText("

            JD Clinic");


        jPanel2.setBackground(new java.awt.Color(153, 0, 51));


        jLabel2.setBackground(new java.awt.Color(255, 255, 255));

        jLabel2.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N

        jLabel2.setForeground(new java.awt.Color(255, 255, 255));

        jLabel2.setText(" User Name ");
```

```
        jLabel3.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel3.setForeground(new java.awt.Color(255, 255, 255));
        jLabel3.setText("User Type");

        jLabel4.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel4.setForeground(new java.awt.Color(255, 255, 255));
        jLabel4.setText("jLabel4");

        jLabel5.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel5.setForeground(new java.awt.Color(255, 255, 255));
        jLabel5.setText("jLabel5");

        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(40, 40, 40)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addComponent(jLabel2, javax.swing.GroupLayout.DEFAULT_SIZE, 97, Short.MAX_VALUE)
                    .addComponent(jLabel3, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
                .addGap(91, 91, 91)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel4)
                    .addComponent(jLabel5))
                .addContainerGap(105, Short.MAX_VALUE))
        ); jPanel2Layout.setVerticalGroup(
        jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel2Layout.createSequentialGroup()
                .addGap(65, 65, 65)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 29,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel4))
                .addGap(28, 28, 28)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(jLabel5))
                .addContainerGap(65, Short.MAX_VALUE))
        );

        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(28, 28, 28)

                .addComponent(jPanel2, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)

                .addGap(18, 18, 18)

                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addGap(38, 38, 38))

            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()

                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 339,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addGap(182, 182, 182))

        ); layout.setVerticalGroup(

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

            .addGroup(layout.createSequentialGroup()

                .addContainerGap()

                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 79,
javax.swing.GroupLayout.PREFERRED_SIZE)

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

                    .addGroup(layout.createSequentialGroup()

                        .addGap(76, 76, 76)

                        .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

                    .addGroup(layout.createSequentialGroup()

                        .addGap(18, 18, 18)

                        .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))

                .addContainerGap(115, Short.MAX_VALUE))

        );


        pack();

        setLocationRelativeTo(null); }//

        </editor-fold>



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

        // TODO add your handling code here:

        if(uctype.equals("Doctor")){ String

        uctype = jLabel5.getText(); try {

                new Doctor(idd,uctype).setVisible(true);

            } catch (SQLException ex) {

                Logger.getLogger(Main.class.getName()).log(Level.SEVERE, null, ex);

            }
```

```
    }

}

private void jButton8ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void jButton10ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    Patient p = null; try { p = new
    Patient();
    } catch (SQLException ex) {
        Logger.getLogger(Main.class.getName()).log(Level.SEVERE, null, ex);
    }
    p.setVisible(true);
}

private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    User u = null; try { u = new User();
        u.setVisible(true);
    } catch (SQLException ex) {
        Logger.getLogger(Main.class.getName()).log(Level.SEVERE, "error", ex);
    }

}

private void jButton9ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
     this.setVisible(false);
}

/**
   * @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(Main.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(Main.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(Main.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(Main.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 Main().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton10;
    private javax.swing.JButton jButton6;
    private javax.swing.JButton jButton8;
    private javax.swing.JButton jButton9;
    private javax.swing.JLabel jLabel1; private
    javax.swing.JLabel jLabel2; private
    javax.swing.JLabel jLabel3; private
    javax.swing.JLabel jLabel4; private
    javax.swing.JLabel jLabel5; private
    javax.swing.JPanel jPanel1; private
    javax.swing.JPanel jPanel2;
    // End of variables declaration
}
```

2.LOGIN PAGE

```
import java.sql.Connection; import
java.sql.PreparedStatement; import
java.sql.SQLException; import
java.util.logging.Level; import
java.util.logging.Logger; import
main.java.User; import
java.sql.ResultSet; 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
 */

/**
 *
 * @author meghana
 */ public class Login extends
javax.swing.JFrame {

    /**
 * Creates new form Login
     */ public Login() throws
    SQLException { initComponents();
        Connect();
    }
    Connection con;
    PreparedStatement pst;
    ResultSet rs;


    public void Connect() throws java.sql.SQLException{
        try {
            Class.forName("com.mysql.jdbc.Driver");
             con = java.sql.DriverManager.getConnection("jdbc:mysql://localhost/jd clinic","root","");
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(User.class.getName()).log(Level.SEVERE, null, ex);
        }
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always *
     regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        jPanel1 = new javax.swing.JPanel(); jLabel1 =
        new javax.swing.JLabel(); jLabel2 = new
        javax.swing.JLabel(); jLabel3 = new
        javax.swing.JLabel(); txtusername = new
        javax.swing.JTextField(); txtpassword = new
        javax.swing.JPasswordField(); txtutype = new
        javax.swing.JComboBox<>(); jButton1 = new
        javax.swing.JButton(); jButton2 = new
        javax.swing.JButton(); jLabel4 = new
        javax.swing.JLabel();
        setDefaultCloseOperation(javax.swing.WindowCons
        tants.EXIT_ON_CLOSE);

        jPanel1.setBackground(new java.awt.Color(153, 0, 51));
        jPanel1.setBorder(javax.swing.BorderFactory.createCompoundBorder());

        jLabel1.setBackground(new java.awt.Color(255, 255, 255));
        jLabel1.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel1.setForeground(new java.awt.Color(255, 255, 255));
        jLabel1.setText("User Name");

        jLabel2.setBackground(new java.awt.Color(255, 255, 255));
        jLabel2.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel2.setForeground(new java.awt.Color(255, 255, 255));
        jLabel2.setText("Password ");

        jLabel3.setBackground(new java.awt.Color(255, 255, 255));
        jLabel3.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel3.setForeground(new java.awt.Color(255, 255, 255));
        jLabel3.setText("User Type");

        txtusername.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
            txtusernameActionPerformed(evt);
            } }); txtutype.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Doctor",
        "Receptionist", " " }));

        jButton1.setText("Login");
```

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

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

        jLabel4.setFont(new java.awt.Font("Serif", 2, 36)); // NOI18N
        jLabel4.setForeground(new java.awt.Color(255, 255, 255));
        jLabel4.setText("Login Page ");

        javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
        jPanel1.setLayout(jPanel1Layout); jPanel1Layout.setHorizontalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(105, 105, 105)
                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                            .addComponent(jLabel1)
                            .addComponent(jLabel2, javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jLabel3, javax.swing.GroupLayout.Alignment.LEADING))
                        .addGap(144, 144, 144)
                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                            .addComponent(txtusername)
                            .addComponent(txtpassword)
                            .addComponent(txtutype, 0, 261, Short.MAX_VALUE)))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(149, 149, 149)
                        .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 140,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(105, 105, 105)
                        .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 137,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(255, 255, 255)
                        .addComponent(jLabel4)))
                .addContainerGap(142, Short.MAX_VALUE))
        );
        jPanel1Layout.setVerticalGroup(
            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(27, 27, 27)
                .addComponent(jLabel4)
                .addGap(40, 40, 40)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(txtusername, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(86, 86, 86)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(txtpassword, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel2))
                .addGap(86, 86, 86)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(txtutype, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 71, Short.MAX_VALUE)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 36,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 36,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(43, 43, 43))
        );

        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()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap())
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(21, 21, 21)
                .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
                .addContainerGap())
        );

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

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

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String username = txtusername.getText();
        String password = txtpassword.getText();
        String utype = txtutype.getSelectedItem().toString();


        try { pst = con.prepareStatement("select * from user where username = ? and password = ? and utype =
            ?"); pst.setString(1,username); pst.setString(2,password); pst.setString(3,utype);

            rs = pst.executeQuery();
            if(rs.next()){ int userid =
            rs.getInt("id");
                this.dispose();
                this.setVisible(false);
                new Main(userid,username,utype).setVisible(true);
            }
            else{
                JOptionPane.showMessageDialog(this,"UserName or Password do not match ");
            txtusername.setText(""); txtpassword.setText(""); txtutype.setSelectedIndex(-
            1); txtusername.requestFocus(); }







        } catch (SQLException ex) {
            Logger.getLogger(Login.class.getName()).log(Level.SEVERE, null, ex);
        }

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

    /**
     * @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(Login.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
```

```
            } catch (IllegalAccessException ex) {
                java.util.logging.Logger.getLogger(Login.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
            } catch (javax.swing.UnsupportedLookAndFeelException ex) {
                java.util.logging.Logger.getLogger(Login.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() { try { new
                Login().setVisible(true);
                    } catch (SQLException ex) {
                        Logger.getLogger(Login.class.getName()).log(Level.SEVERE, null, ex);
                    }
                }
            });
        }

        // Variables declaration - do not modify
        private javax.swing.JButton jButton1; private
        javax.swing.JButton jButton2; private
        javax.swing.JLabel jLabel1; private
        javax.swing.JLabel jLabel2; private
        javax.swing.JLabel jLabel3; private
        javax.swing.JLabel jLabel4; private
        javax.swing.JPanel jPanel1; private
        javax.swing.JPasswordField txtpassword; private
        javax.swing.JTextField txtusername; private
        javax.swing.JComboBox<String> txtutype;
        // End of variables declaration
    }
```

3.PATIENT PAGE

```
import com.mysql.cj.jdbc.result.ResultSetMetaData;

import com.mysql.cj.xdevapi.Statement; import

java.sql.Connection; import

java.sql.PreparedStatement; import

java.sql.SQLException; import

java.util.logging.Level; import

java.util.logging.Logger; import main.java.User;

import java.sql.ResultSet; import

java.util.Vector; import javax.swing.JFrame;

import javax.swing.JLabel; import

javax.swing.JOptionPane; import

javax.swing.table.DefaultTableModel;



/*

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 */




/**
```

```
 *
 * @author meghana
 */ public class Patient extends
javax.swing.JFrame {

    /**
 * Creates new form Patient
     */ public Patient() throws
    SQLException { initComponents();
        Connect();
        AutoID(); Patient_table(); setTitle("Patient
        Window"); setSize(400, 300);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        JLabel label = new JLabel("Patient Information");
        add(label);
    } public static void main(String[] args)
    {
        // Ensure the GUI is created on the Event Dispatch Thread
        java.awt.EventQueue.invokeLater(new Runnable() { public
        void run() { try {
                    new Patient().setVisible(true);
                } catch (SQLException ex) {
                    Logger.getLogger(Patient.class.getName()).log(Level.SEVERE, null, ex);
                }
            }
        });
    }
    Connection con;
    PreparedStatement pst; ResultSet rs; public void
    Connect() throws java.sql.SQLException{ try {
            Class.forName("com.mysql.cj.jdbc.Driver"); con =
            java.sql.DriverManager.getConnection("jdbc:mysql://localhost:3306/jd clinic","root","");
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(User.class.getName()).log(Level.SEVERE, null, ex);
```

```
}
    } public void AutoID(){ try { java.sql.Statement s =

       con.createStatement(); rs = s.executeQuery("select

       MAX(patientno) from patient"); rs.next();

       rs.getString("MAX(patientno)");



            if(rs.getString("MAX(patientno)")== null)

            { lblpno.setText("JD001");



            }

            else

            { try { long id =

Long.parseLong(rs.getString("MAX(patientno)").substring(2,rs.getString("MAX(patientno)").length()));

                    id++;
                    lblpno.setText("JD"+String.format("%03d", id));

                } catch (SQLException ex) {

                    Logger.getLogger(Patient.class.getName()).log(Level.SEVERE, null, ex);

                }



            }

        }catch (SQLException ex) {

            Logger.getLogger(Patient.class.getName()).log(Level.SEVERE, null, ex);

        }



       } public void Patient_table() throws SQLException{


    pst = con.prepareStatement("select * from patient"); rs=


    pst.executeQuery();


        ResultSetMetaData Rsm = (ResultSetMetaData) rs.getMetaData();

        int c; c = Rsm.getColumnCount();


        DefaultTableModel df = (DefaultTableModel)jTable1.getModel();

        df.setRowCount(0);


        while(rs.next())
```

```
    {

        Vector v2 = new Vector();

        for(int i=1;i<=c;i++)

        {

        v2.add(rs.getString("patientno"));

        v2.add(rs.getString("name"));

        v2.add(rs.getString("phone"));

    } df.addRow(v2);

    }
}
/**
 * This method is called from within the constructor to initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is always *
 regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    jPanel1 = new javax.swing.JPanel(); jPanel2 = new
    javax.swing.JPanel(); jLabel1 = new javax.swing.JLabel(); jLabel2 =
    new javax.swing.JLabel(); jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel(); txtpname = new
    javax.swing.JTextField(); txtphone = new javax.swing.JTextField();
    lblpno = new javax.swing.JLabel(); jButton1 = new
    javax.swing.JButton(); jButton2 = new javax.swing.JButton();
    jButton3 = new javax.swing.JButton(); jButton4 = new
    javax.swing.JButton(); jScrollPane1 = new javax.swing.JScrollPane();
    jTable1 = new javax.swing.JTable(); jLabel5 = new
    javax.swing.JLabel();
    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    jPanel1.setBackground(new java.awt.Color(153, 0, 51));
    jPanel2.setBackground(new java.awt.Color(153, 153, 153));

    jLabel1.setFont(new java.awt.Font("Serif", 2, 24)); // NOI18N
    jLabel1.setForeground(new java.awt.Color(255, 255, 255));
    jLabel1.setText("Patient Registration");

    jLabel2.setBackground(new java.awt.Color(255, 255, 255));
    jLabel2.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
    jLabel2.setForeground(new java.awt.Color(255, 255, 255));
    jLabel2.setText("Patient no");

    jLabel3.setBackground(new java.awt.Color(255, 255, 255));
    jLabel3.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
    jLabel3.setForeground(new java.awt.Color(255, 255, 255));
    jLabel3.setText("Patient Name");

    jLabel4.setBackground(new java.awt.Color(255, 255, 255));
    jLabel4.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
    jLabel4.setForeground(new java.awt.Color(255, 255, 255));
    jLabel4.setText("Phone no");

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

    lblpno.setBackground(new java.awt.Color(255, 255, 255));
    lblpno.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
    lblpno.setForeground(new java.awt.Color(255, 255, 255));
    lblpno.setText("jLabel5");
```

```
        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(116, 116, 116)
                .addComponent(jLabel1)
                .addContainerGap(130, Short.MAX_VALUE))
            .addGroup(jPanel2Layout.createSequentialGroup()
                .addGap(25, 25, 25)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addComponent(jLabel3)
                    .addComponent(jLabel2, javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel4, javax.swing.GroupLayout.Alignment.LEADING))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                        .addComponent(txtpname)
                        .addComponent(txtphone, javax.swing.GroupLayout.DEFAULT_SIZE, 176, Short.MAX_VALUE))
                    .addComponent(lblpno))
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        ); jPanel2Layout.setVerticalGroup(
        jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel2Layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jLabel1)
                .addGap(28, 28, 28)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
                    .addComponent(lblpno))
                .addGap(51, 51, 51)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(txtpname, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(51, 51, 51)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel4)
                    .addComponent(txtphone, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addContainerGap(66, Short.MAX_VALUE))
        );

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

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

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

        jButton4.setText("Exit"); jButton4.addActionListener(new
        java.awt.event.ActionListener() { public void
        actionPerformed(java.awt.event.ActionEvent evt) {
        jButton4ActionPerformed(evt);
            }
        });

        jTable1.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
                {null, null, null},
                {null, null, null},
                {null, null, null},
```

```
                {null, null, null}
            }, new String
            [] {
                "Patient no", "Patient Name", "Phone no "
            }
        ) {
            Class[] types = new Class [] {
                java.lang.String.class, java.lang.String.class, java.lang.Integer.class
            };

            public Class getColumnClass(int columnIndex) {
                return types [columnIndex];
            } }); jTable1.addMouseListener(new
        java.awt.event.MouseAdapter() { public void
        mouseClicked(java.awt.event.MouseEvent evt) {
        jTable1MouseClicked(evt);
            } }); jScrollPane1.setViewportView(jTable1); if
        (jTable1.getColumnModel().getColumnCount() > 0) {
        jTable1.getColumnModel().getColumn(0).setResizable(false);
        }

        jLabel5.setFont(new java.awt.Font("Serif", 2, 48)); // NOI18N
        jLabel5.setForeground(new java.awt.Color(255, 255, 255));
        jLabel5.setText("Patient Registration");

        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(30, 30, 30)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addGroup(jPanel1Layout.createSequentialGroup()
                                .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 92,
javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addGap(31, 31, 31)
                                .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 91,
javax.swing.GroupLayout.PREFERRED_SIZE))
                            .addGroup(jPanel1Layout.createSequentialGroup()
                                .addGap(242, 242, 242)
                                .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 99,
javax.swing.GroupLayout.PREFERRED_SIZE)))
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                        .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED_SIZE, 81,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(0, 8, Short.MAX_VALUE)
                        .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGap(79, 79, 79)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 442,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap(108, Short.MAX_VALUE))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jLabel5)
                .addGap(356, 356, 356))
        ); jPanel1Layout.setVerticalGroup(
        jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(22, 22, 22)
                .addComponent(jLabel5)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(80, 80, 80)
                        .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(62, 62, 62)
                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                            .addComponent(jButton1, javax.swing.GroupLayout.DEFAULT_SIZE, 43, Short.MAX_VALUE)
                            .addComponent(jButton2, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                            .addComponent(jButton3, 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)))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(35, 35, 35)
                        .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addContainerGap(107, Short.MAX_VALUE))
        );

        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()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap())
        ); layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        );

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

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

        String pname=txtpname.getText();
        String phone=txtphone.getText();
        String pno=lblpno.getText();

        try { pst = con.prepareStatement("update patient set name=?, phone=? where patientno =
            ?");

            pst.setString(1,pname);
            pst.setString(2,phone);
            pst.setString(3,pno);
            pst.executeUpdate();

            JOptionPane.showMessageDialog(this,"Patient Record Updated");
            AutoID(); txtpname.setText(""); txtphone.setText("");

            Patient_table();
            jButton1.setEnabled(true);
        } catch (SQLException ex) {
            Logger.getLogger(Patient.class.getName()).log(Level.SEVERE, null, ex);
        }


    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String pno=lblpno.getText();
        String pname=txtpname.getText();
        String phone=txtphone.getText();

        try{ pst = con.prepareStatement("insert into
            patient(patientno,name,phone)values(?,?,?)"); pst.setString(1,pno);
            pst.setString(2,pname); pst.setString(3,phone);
            pst.executeUpdate();
            JOptionPane.showMessageDialog(this,"Patient Record Inserted");
            AutoID(); txtpname.setText(""); txtphone.setText("");
            txtpname.requestFocus(); Patient_table();
        }
        catch (SQLException ex) {
            Logger.getLogger(Patient.class.getName()).log(Level.SEVERE, null, ex);
    } }
```

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

    private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {
        // TODO add your handling code here:
        DefaultTableModel d1 = (DefaultTableModel)jTable1.getModel();
        int SelectIndex = jTable1.getSelectedRow();
        lblpno.setText(d1.getValueAt(SelectIndex,0).toString());
        txtpname.setText(d1.getValueAt(SelectIndex,1).toString());
        txtphone.setText(d1.getValueAt(SelectIndex,2).toString());

        jButton1.setEnabled(false);
    }

    private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        this.setVisible(false);
    }

    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here: String pno=lblpno.getText();

        try { pst = con.prepareStatement("delete from patient where patientno =
            ?");


            pst.setString(1,pno);
            pst.executeUpdate();

            JOptionPane.showMessageDialog(this,"Patient Record Deleted");
            AutoID(); txtpname.setText(""); txtphone.setText("");

            Patient_table();
            jButton1.setEnabled(true);
        } catch (SQLException ex) {
            Logger.getLogger(Patient.class.getName()).log(Level.SEVERE, null, ex);
        }
    }

    /**
     * @param args the command line arguments
     */


    // 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.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JPanel jPanel1;
    private javax.swing.JPanel jPanel2;
    private javax.swing.JScrollPane
    jScrollPane1; private javax.swing.JTable
    jTable1; private javax.swing.JLabel
    lblpno; private javax.swing.JTextField
    txtphone; private javax.swing.JTextField
    txtpname;
    // End of variables declaration
}
```

4.USER PAGE

```
/*
 * 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
 */ package main.java; import
java.sql.Connection; import
java.sql.DriverManager; import
java.sql.PreparedStatement; import
java.sql.SQLException; import
```

```
java.util.logging.Level; import
java.util.logging.Logger; import
javax.swing.JOptionPane;

/**
 *
 * @author meghana
 */ public class User extends
javax.swing.JFrame {

    /**
 * Creates new form User
     */ public User() throws
    SQLException { initComponents();
    Connect(); }
    Connection con; PreparedStatement pst;
    public void Connect() throws SQLException{
    try {
            Class.forName("com.mysql.cj.jdbc.Driver"); con =
            DriverManager.getConnection("jdbc:mysql://localhost/jd clinic","root","");
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(User.class.getName()).log(Level.SEVERE, null, ex);
        }
    }



    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always *
     regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        jPanel1 = new javax.swing.JPanel(); jLabel1 = new
        javax.swing.JLabel(); jLabel2 = new javax.swing.JLabel(); jLabel3 =
        new javax.swing.JLabel(); jLabel4 = new javax.swing.JLabel();
        jLabel5 = new javax.swing.JLabel(); txtname = new
        javax.swing.JTextField(); txtusername = new
        javax.swing.JTextField(); txtpassword = new
        javax.swing.JPasswordField(); txtutype = new
        javax.swing.JComboBox<>(); jButton1 = new javax.swing.JButton();
        jButton2 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        jPanel1.setBackground(new java.awt.Color(153, 0, 51));
        jLabel1.setBackground(new java.awt.Color(204, 0, 51));
        jLabel1.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel1.setForeground(new java.awt.Color(255, 255, 255));
        jLabel1.setText("Name");

        jLabel2.setBackground(new java.awt.Color(204, 0, 51));
        jLabel2.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel2.setForeground(new java.awt.Color(255, 255, 255));
        jLabel2.setText("User Name");

        jLabel3.setBackground(new java.awt.Color(204, 0, 51));
        jLabel3.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel3.setForeground(new java.awt.Color(255, 255, 255));
        jLabel3.setText("Password");

        jLabel4.setBackground(new java.awt.Color(204, 0, 51));
        jLabel4.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel4.setForeground(new java.awt.Color(255, 255, 255));
        jLabel4.setText("User Type");

        jLabel5.setFont(new java.awt.Font("Serif", 2, 36)); // NOI18N
        jLabel5.setForeground(new java.awt.Color(255, 255, 255));
        jLabel5.setText("User Creation");
```

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

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

        txtutype.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Doctor ", "Receptionist" }));
        txtutype.addActionListener(new java.awt.event.ActionListener() { public void
        actionPerformed(java.awt.event.ActionEvent evt) { txtutypeActionPerformed(evt);
            }
        });

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

        jButton2.setText("Cancel"); 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()
                .addContainerGap(179, Short.MAX_VALUE)
                .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 82,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(192, 192, 192)
                .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 80,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(179, 179, 179))
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(275, 275, 275)
                        .addComponent(jLabel5))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(165, 165, 165)
                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jLabel4)
                            .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 96,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(jLabel2)
                            .addComponent(jLabel1))
                        .addGap(146, 146, 146)
                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(txtname, javax.swing.GroupLayout.PREFERRED_SIZE, 182,
javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addComponent(txtpassword, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 182, javax.swing.GroupLayout.PREFERRED_SIZE))
                            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                                .addComponent(txtusername, javax.swing.GroupLayout.PREFERRED_SIZE, 182,
javax.swing.GroupLayout.PREFERRED_SIZE)
                                .addComponent(txtutype, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 182, 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(27, 27, 27)
                .addComponent(jLabel5)
                .addGap(58, 58, 58)
```

```
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(txtname, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(45, 45, 45)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
                    .addComponent(txtusername, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(45, 45, 45)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(txtpassword, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 50, Short.MAX_VALUE)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel4)
                    .addComponent(txtutype, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(55, 55, 55)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 36,
javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 36,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(56, 56, 56))
        );

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout); layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jPanel1, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        ); layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
                .addContainerGap())
        );

        pack();

        setLocati

        onRelativ

        eTo(null)

        ;

    }// </editor-fold>

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

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

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String name = txtname.getText();
        String username = txtusername.getText();
        String password = txtpassword.getText();
        String usertype = txtutype.getSelectedItem().toString();

        try {
            pst =con.prepareStatement("insert into user(name,username,password,utype)values(?,?,?,?)");
            pst.setString(1, name); pst.setString(2, username); pst.setString(3, password);
            pst.setString(4, usertype); pst.executeUpdate();
```

```
            JOptionPane.showMessageDialog(this,"User Inserted");
            txtname.setText(""); txtusername.setText("");
            txtpassword.setText(""); txtutype.setSelectedIndex(-
            1); txtname.requestFocus();
        } catch (java.sql.SQLException ex) {
            Logger.getLogger(User.class.getName()).log(Level.SEVERE, null, ex);
        }

    }

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

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

    }

    /**
       * @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(User.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(User.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(User.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(User.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() { try { new
        User().setVisible(true);
                } catch (SQLException ex) {
                    Logger.getLogger(User.class.getName()).log(Level.SEVERE, null, ex);
                }
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JButton jButton1; private
    javax.swing.JButton jButton2; private
    javax.swing.JLabel jLabel1; private
    javax.swing.JLabel jLabel2; private
    javax.swing.JLabel jLabel3; private
    javax.swing.JLabel jLabel4; private
    javax.swing.JLabel jLabel5; private
    javax.swing.JPanel jPanel1; private
    javax.swing.JTextField txtname; private
    javax.swing.JPasswordField txtpassword; private
    javax.swing.JTextField txtusername; private
    javax.swing.JComboBox<String> txtutype;
    // End of variables declaration
}
```

4.DOCTOR PAGE

```
import com.mysql.cj.jdbc.result.ResultSetMetaData;
import com.mysql.cj.xdevapi.Statement; import
java.sql.Connection; import
java.sql.PreparedStatement; import
```

```
java.sql.SQLException; import
java.util.logging.Level; import
java.util.logging.Logger; import main.java.User;
import java.sql.ResultSet; import
java.util.Vector; import javax.swing.JFrame;
import javax.swing.JLabel; import
javax.swing.JOptionPane; import
javax.swing.table.DefaultTableModel;

/*
 * 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 meghana
 */ public class Doctor extends
javax.swing.JFrame {

    /**
 * Creates new form Patient
     */ public Doctor() throws
    SQLException { initComponents();


    }
    String uctype;

    int id; int

    newid;

    public Doctor(int id,String utype) throws SQLException {
        initComponents();
        this.id = id;
        this.uctype = utype;
        newid = id;

        //JOptionPane.showMessageDialog(this, newid);
        Connect();
        AutoID(); Doctor_table(); setTitle("Patient
        Window"); setSize(400, 300);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        JLabel label = new JLabel("Doctor Information");
        add(label);
    }
    public static void main(String[] args) {
        // Ensure the GUI is created on the Event Dispatch Thread
        java.awt.EventQueue.invokeLater(new Runnable() { public
        void run() { try {
                    new Doctor().setVisible(true);
                } catch (SQLException ex) {
                    Logger.getLogger(Doctor.class.getName()).log(Level.SEVERE, null, ex);
                }
            }
        });
    }
    Connection con;
    PreparedStatement pst;
    ResultSet rs;
    public void Connect() throws java.sql.SQLException{
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            con = java.sql.DriverManager.getConnection("jdbc:mysql://localhost:3306/jd
clinic","root","");
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(User.class.getName()).log(Level.SEVERE, null, ex);
        }
    } public void AutoID(){
```

```
        try { java.sql.Statement s = con.createStatement(); rs =
            s.executeQuery("select MAX(doctorno) from doctor");
            rs.next();
            rs.getString("MAX(doctorno)");

            if(rs.getString("MAX(doctorno)")== null)
            { lbldno.setText("DS001");

            }
            else
            { try { long id =
Long.parseLong(rs.getString("MAX(doctorno)").substring(2,rs.getString("MAX(doctorno)").length()));
                    id++;

                    lbldno.setText("DS"+String.format("%03d", id));
                } catch (SQLException ex) {
                    Logger.getLogger(Doctor.class.getName()).log(Level.SEVERE, null, ex);
                }

            }
        }catch (SQLException ex) {
            Logger.getLogger(Doctor.class.getName()).log(Level.SEVERE, null, ex);
        }

       }


    @SuppressWarnings("unchecked")
    public void Doctor_table() throws SQLException{ pst =
        con.prepareStatement("select * from doctor where log_id =?");
        pst.setInt(1, newid);
        rs= pst.executeQuery();
        ResultSetMetaData Rsm = (ResultSetMetaData) rs.getMetaData();
        int c; c = Rsm.getColumnCount();

        DefaultTableModel df = (DefaultTableModel)jTable1.getModel();
        df.setRowCount(0);

        while(rs.next())
        {
            Vector v2 = new Vector();
            for(int i=1;i<=c;i++)
            {
            v2.add(rs.getString("doctorno"));
            v2.add(rs.getString("name"));
            v2.add(rs.getString("phone"));
            v2.add(rs.getString("specialization"));
        } df.addRow(v2);
        }

    }
    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always *
     regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        jPanel1 = new javax.swing.JPanel(); jPanel2 = new
        javax.swing.JPanel(); jLabel1 = new javax.swing.JLabel(); jLabel2 =
        new javax.swing.JLabel(); jLabel3 = new javax.swing.JLabel();
        jLabel4 = new javax.swing.JLabel(); txtdname = new
        javax.swing.JTextField(); txtphone = new javax.swing.JTextField();
        lbldno = new javax.swing.JLabel(); jLabel6 = new
        javax.swing.JLabel(); txtspl = new javax.swing.JTextField();
        jButton1 = new javax.swing.JButton(); jButton2 = new
        javax.swing.JButton(); jButton3 = new javax.swing.JButton();
        jButton4 = new javax.swing.JButton(); jScrollPane1 = new
        javax.swing.JScrollPane(); jTable1 = new javax.swing.JTable();
        jLabel5 = new javax.swing.JLabel();
```

```
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        jPanel1.setBackground(new java.awt.Color(153, 0, 51));
        jPanel2.setBackground(new java.awt.Color(153, 153, 153));

        jLabel1.setFont(new java.awt.Font("Serif", 2, 24)); // NOI18N
        jLabel1.setForeground(new java.awt.Color(255, 255, 255));
        jLabel1.setText("Doctor Registration");

        jLabel2.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel2.setForeground(new java.awt.Color(255, 255, 255));
        jLabel2.setText("Doctor no");

        jLabel3.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel3.setForeground(new java.awt.Color(255, 255, 255));
        jLabel3.setText("Doctor Name");

        jLabel4.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel4.setForeground(new java.awt.Color(255, 255, 255));
        jLabel4.setText("Phone no");

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

        lbldno.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        lbldno.setForeground(new java.awt.Color(255, 255, 255));
        lbldno.setText("jLabel5");

        jLabel6.setFont(new java.awt.Font("Serif", 2, 18)); // NOI18N
        jLabel6.setForeground(new java.awt.Color(255, 255, 255));
        jLabel6.setText("Specialization");

        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(116, 116, 116)
                .addComponent(jLabel1)
                .addContainerGap(130, Short.MAX_VALUE))
            .addGroup(jPanel2Layout.createSequentialGroup()
                .addGap(25, 25, 25)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                        .addComponent(jLabel3)
                        .addComponent(jLabel2, javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(jLabel4, javax.swing.GroupLayout.Alignment.LEADING))
                    .addComponent(jLabel6))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                    .addComponent(txtdname)
                    .addComponent(txtphone, javax.swing.GroupLayout.DEFAULT_SIZE, 176,
Short.MAX_VALUE)
                    .addComponent(lbldno)
                    .addComponent(txtspl))
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
        );
        jPanel2Layout.setVerticalGroup(
            jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel2Layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jLabel1)
                .addGap(28, 28, 28)

.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel2)
                    .addComponent(lbldno))
                .addGap(45, 45, 45)
```

```
.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(txtdname, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(45, 45, 45)
                .addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(txtphone, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel4))
                .addGap(45, 45, 45)

.addGroup(jPanel2Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(txtspl, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel6))
                .addContainerGap(45, Short.MAX_VALUE))
        );

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

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

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

        jButton4.setText("Exit");
        jButton4.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
            jButton4ActionPerformed(evt);
            }
        });

        jTable1.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
                {null, null, null, null},
                {null, null, null, null},
                {null, null, null, null},
                {null, null, null, null}
            },
            new String [] {
                "Doctor no", "Doctor Name", "Phone no ", "Specialization"
            }
        ) {
            Class[] types = new Class [] {
                java.lang.String.class, java.lang.String.class, java.lang.Integer.class,
java.lang.String.class
            };

            public Class getColumnClass(int columnIndex) {
                return types [columnIndex];
            }
        });
        jTable1.addMouseListener(new java.awt.event.MouseAdapter() {
            public void mouseClicked(java.awt.event.MouseEvent evt) {
            jTable1MouseClicked(evt);
            }
        });
```

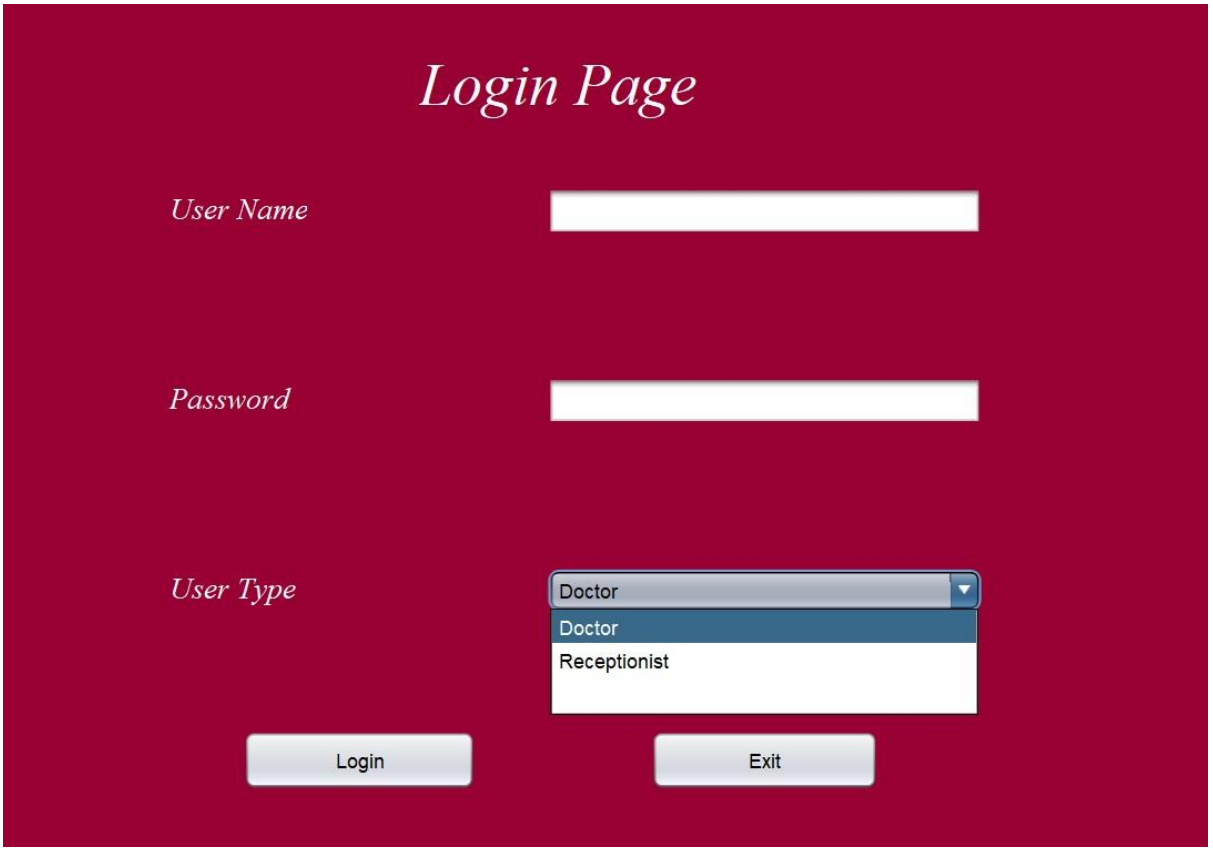
```
        jScrollPane1.setViewportView(jTable1); if
        (jTable1.getColumnModel().getColumnCount() > 0) {
        jTable1.getColumnModel().getColumn(0).setResizable(false);
        }

        jLabel5.setFont(new java.awt.Font("Serif", 2, 36)); // NOI18N
        jLabel5.setForeground(new java.awt.Color(255, 255, 255));
        jLabel5.setText("Doctor Registration");

        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(85, 85, 85)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addComponent(jButton1)
                        .addGap(46, 46, 46)
                        .addComponent(jButton2)
                        .addGap(52, 52, 52)
                        .addComponent(jButton3)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                        .addComponent(jButton4))
                    .addComponent(jPanel2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 223,
Short.MAX_VALUE)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 442,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(52, 52, 52))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()
                .addGap(0, 0, Short.MAX_VALUE)
                .addComponent(jLabel5)
                .addGap(472, 472, 472))
        );
        jPanel1Layout.setVerticalGroup(
            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(92, 92, 92)
                        .addComponent(jPanel2, 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(jButton1, javax.swing.GroupLayout.PREFERRED_SIZE, 34,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED_SIZE, 34,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED_SIZE, 34,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED_SIZE, 34,
javax.swing.GroupLayout.PREFERRED_SIZE)))
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(14, 14, 14)
                        .addComponent(jLabel5)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGap(115, 115, 115))
        );

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout); layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jPanel1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
```

```
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addGap(0, 106, Short.MAX_VALUE))
        );

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

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

        String pname=txtdname.getText();
        String phone=txtphone.getText();
        String spl = txtspl.getText();
        String pno=lbldno.getText();

        try { pst = con.prepareStatement("update doctor set name=?, phone=? , specialization=?
            where
doctorno = ?");

            pst.setString(1,pname);
            pst.setString(2,phone);
            pst.setString(3,spl);
            pst.setString(4,pno);
            pst.executeUpdate();

            JOptionPane.showMessageDialog(this,"Doctor Record Updated");
            AutoID(); txtdname.setText(""); txtphone.setText("");
            txtspl.setText(""); txtdname.requestFocus();

            Doctor_table();
            jButton1.setEnabled(true);
        } catch (SQLException ex) {
            Logger.getLogger(Doctor.class.getName()).log(Level.SEVERE, null, ex);
        }


    }

    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String pno=lbldno.getText();
        String pname=txtdname.getText();
        String phone=txtphone.getText();
        String spl = txtspl.getText();

        try{ pst = con.prepareStatement("insert into
doctor(doctorno,name,phone,specialization,log_id)values(?,?,?,?,?)");
            pst.setString(1,pno);
            pst.setString(2,pname);
            pst.setString(3,phone);
            pst.setString(4,spl);
            pst.setInt(5,newid);
            pst.executeUpdate();
            JOptionPane.showMessageDialog(this,"Doctor Record Inserted");
            AutoID(); txtdname.setText(""); txtphone.setText("");
            txtspl.setText(""); txtdname.requestFocus();
            Doctor_table();
        }
        catch (SQLException ex) {
            Logger.getLogger(Doctor.class.getName()).log(Level.SEVERE, null, ex);
        }
    }

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

```
    private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {
        // TODO add your handling code here:
        DefaultTableModel d1 = (DefaultTableModel)jTable1.getModel();
        int SelectIndex = jTable1.getSelectedRow();
        lbldno.setText(d1.getValueAt(SelectIndex,0).toString());
        txtdname.setText(d1.getValueAt(SelectIndex,1).toString());
        txtphone.setText(d1.getValueAt(SelectIndex,2).toString());
        txtspl.setText(d1.getValueAt(SelectIndex,3).toString());
        jButton1.setEnabled(false);
    }

    private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        this.setVisible(false);
    }

    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:

        String pno=lbldno.getText();
        try { pst = con.prepareStatement("delete from doctor where doctorno =
            ?");


            pst.setString(1,pno);
            pst.executeUpdate();

            JOptionPane.showMessageDialog(this,"Doctor Record Deleted");
            AutoID(); txtdname.setText(""); txtphone.setText("");
            txtspl.setText("");
            Doctor_table();
            jButton1.setEnabled(true);
        } catch (SQLException ex) {
            Logger.getLogger(Doctor.class.getName()).log(Level.SEVERE, null, ex);
        }
    }

    /**
     * @param args the command line arguments
     */


    // 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.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.JPanel jPanel1; private
    javax.swing.JPanel jPanel2; private
    javax.swing.JScrollPane jScrollPane1; private
    javax.swing.JTable jTable1; private
    javax.swing.JLabel lbldno; private
    javax.swing.JTextField txtdname; private
    javax.swing.JTextField txtphone; private
    javax.swing.JTextField txtspl;
    // End of variables declaration
}
```

Chapter 5 RESULTS

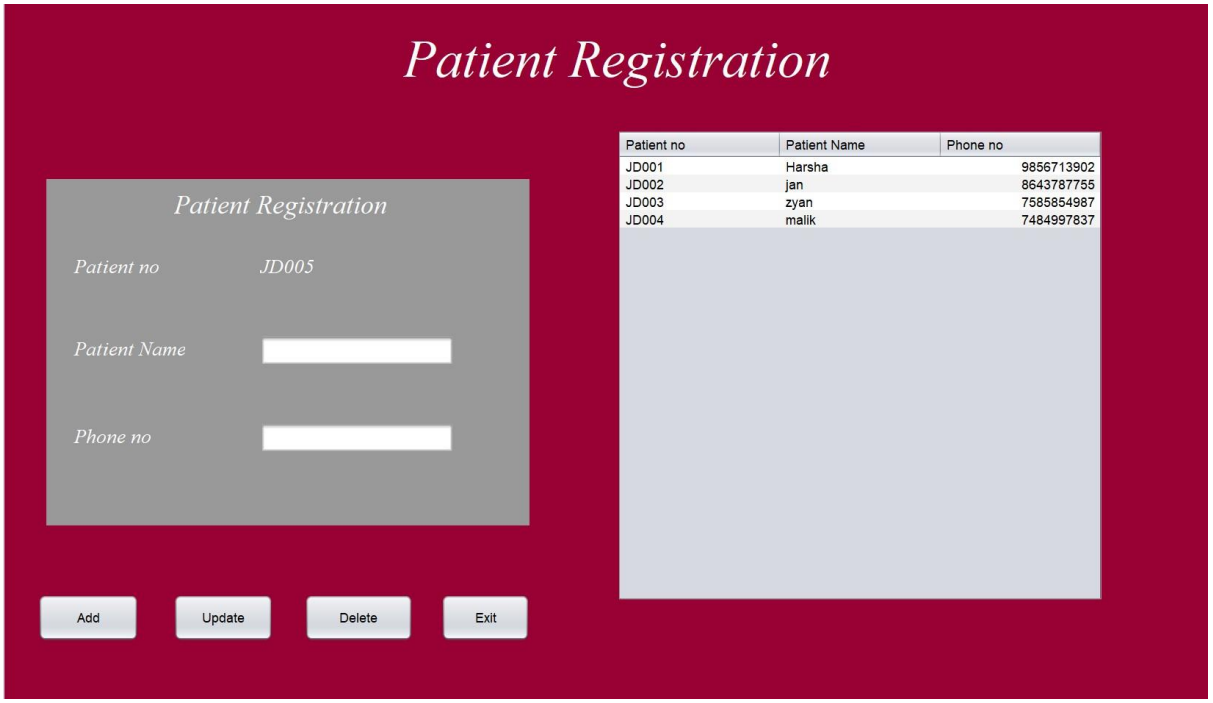
LOGIN PAGE


Login Page
User Name
Password
User Type
Doctor
Doctor
Receptionist
Login
Exit

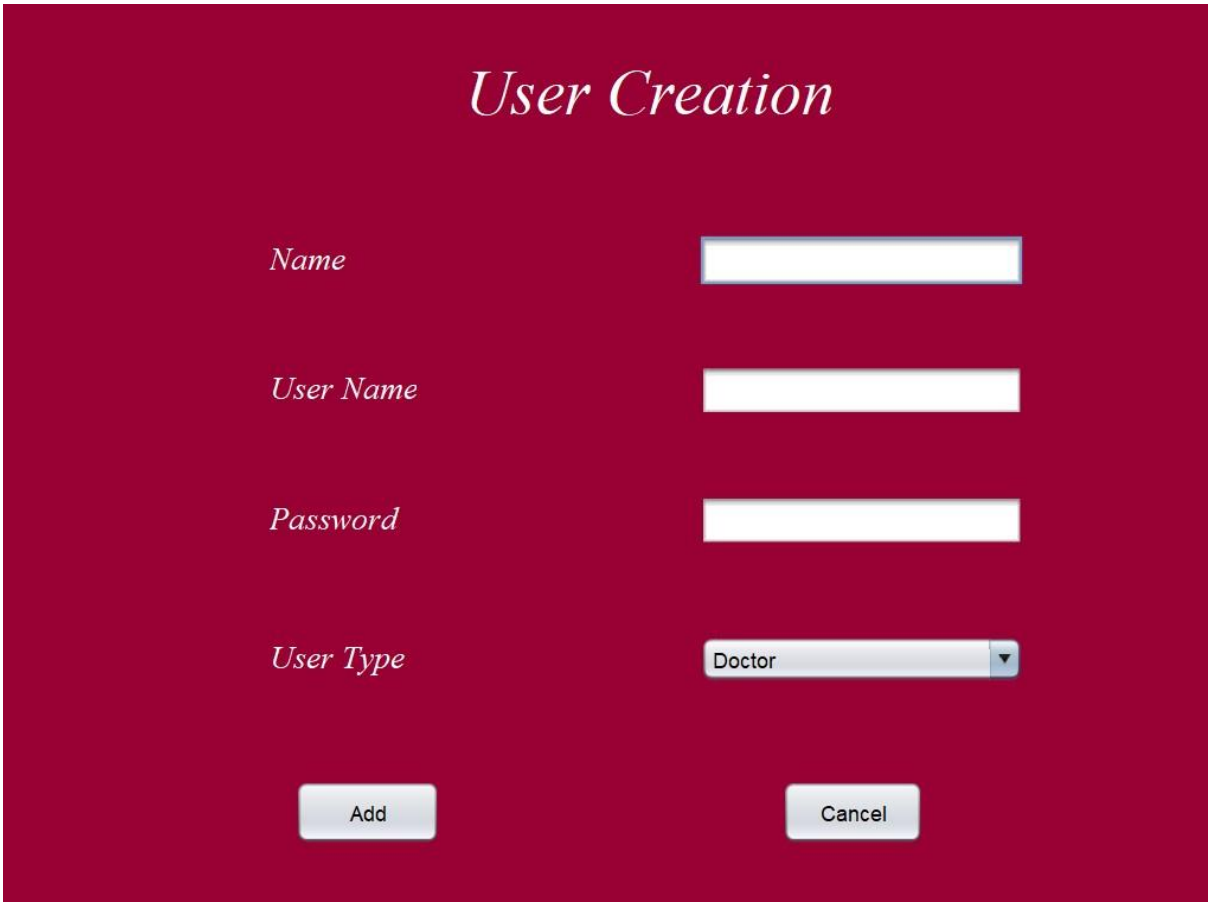
DOCTOR LOGIN

3.RECEPTIONIST LOGIN

PATIENT RECORDS



USER CREATION



Chapter 6
CONCLUSION

6.1 Conclusion

In conclusion, the Clinic Management System (CMS) developed for this project provides a comprehensive and efficient solution to the challenges faced by small and medium-sized clinics in managing patient records and clinic operations. By automating the patient registration process and streamlining administrative tasks, the system significantly reduces the risk of errors, enhances the accuracy of patient data, and improves overall clinic productivity.

The integration of SQL for backend data management ensures that patient information is stored securely and is easily accessible by authorized personnel, while the Java-based frontend interface provides a user-friendly experience for both receptionists and doctors. With a clear distinction between user roles—such as doctors having access to their own details and medical records, and receptionists managing patient registration and administrative tasks—the system ensures that the appropriate data is available to the right personnel.

Moreover, the system's scalability ensures that it can evolve with the clinic's needs, allowing for the addition of future features such as appointment scheduling, medical records management, and billing. The system's design prioritizes both **data security** and **ease of use**, making it a reliable tool for improving clinic operations and ensuring better patient care.

Ultimately, this Clinic Management System not only addresses the immediate need for a more efficient, secure, and user-friendly registration process but also lays the foundation for future improvements and expansions within the clinic. With its successful implementation, clinics can expect reduced administrative burdens, more accurate patient records, and an enhanced overall experience for both staff and patients.

Chapter 7
REFERENCES

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A step-by-step tutorial on how to connect Java with MySQL using JDBC (Java Database Connectivity).

[4]Java MySQL Connection Tutorial A step-by-step tutorial on how to connect Java with MySQL using JDBC (Java Database Connectivity).