

Java Project

Theory Digital Assignment

Faculty: Anitha A

Course: Java Programming

Title: Hospital Management System

Aim

The aim of this project is to make a small application for receptionist at a clinic to make appointments of patients with doctors at a particular date.

Introduction

A Hospital Management System (HMS) is a system that allows hospitals to manage information and data related to all aspects of healthcare – processes, providers, patients, and more – ensuring that processes are completed quickly and effectively. When one considers the various aspects and departments of a hospital, it is clear that an HMS is essential. The hospital management system was introduced in 1960 and has evolved significantly since then, with the ability to integrate with a hospital's existing facilities, technologies, software, and systems. Patients can now begin the healthcare process in the palm of their hand, thanks to mobile devices and apps. This procedure is then carried out by healthcare providers and hospitals.

Hardware Specifications –

- HP (Intel i5, 8 GB ram, 128 GB SSD Storage)

Software Specifications –

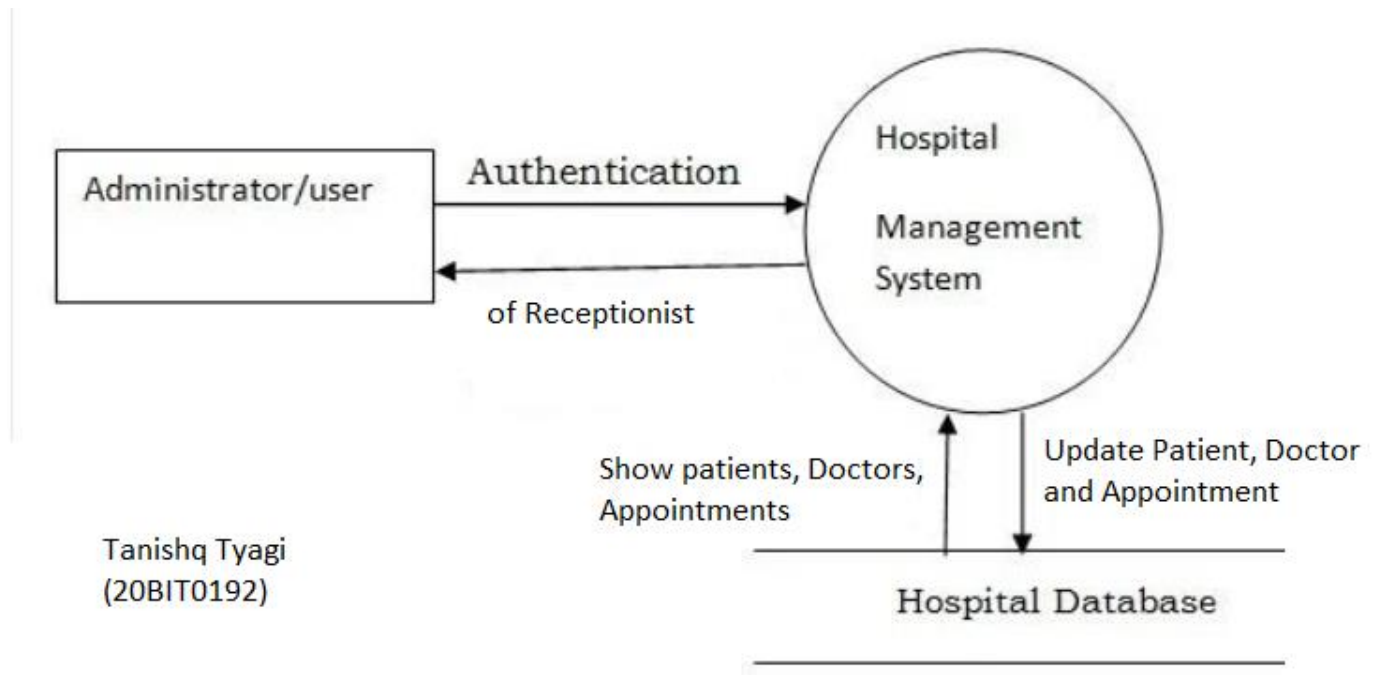
Operating System – Windows 10 Compiler – IntelliJ Ultimate

Database – MySQL with Wampp

Modules –

1. Receptionist/Staff login: These are the one who administers the system by adding or removing the patients or doctors and make appointment in the system.
2. Add and Update User: The Receptionist/Staff can add users to the system by entering the details of the Patient and Doctor even update the Appointment
3. Delete : They will be able to delete the patients, doctors or appointments as well.

DFD:



HelloApplication.java ->

```
package com.example.hospitalmanagementsystem;

import javafx.application.Application;
import javafx.fxml.FXMLLoader;
import javafx.scene.Scene;
import javafx.scene.image.Image;
import javafx.stage.Stage;

import java.io.IOException;

public class HelloApplication extends Application {
    @Override
    public void start(Stage stage) throws IOException {
        FXMLLoader fxmlLoader = new
FXMLLoader(HelloApplication.class.getResource("hello-view.fxml"));
        Scene scene = new Scene(fxmlLoader.load(), 600, 400);
        stage.setTitle("Hospital Management System");
        stage.setScene(scene);
        stage.show();
    }

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

DB.java ->

```
package com.example.hospitalmanagementsystem.database;

import com.example.hospitalmanagementsystem.model.Appointment;
import com.example.hospitalmanagementsystem.model.Doctor;
import com.example.hospitalmanagementsystem.model.Patient;
import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
```

```

import javafx.scene.control.Alert;
import javafx.scene.control.ButtonType;
import javafx.scene.layout.Region;

import java.sql.*;

public class DB {

    public static void showMessage(String content, Alert.AlertType type) {
        Alert alert = new Alert(type, content, ButtonType.OK);
        alert.getDialogPane().setMinHeight(Region.USE_PREF_SIZE);
        alert.show();
    }

    public static void register(String user, String pwd){
        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            Statement statement = con.createStatement();
            String insertS = "insert into user(username, password) values
('"+user+"','"+pwd+"')";
            showMessage("Inserted Successfully", Alert.AlertType.NONE);
            statement.execute(insertS);
        } catch (Exception e) {
            System.out.println(e);
        }
    }

    public static boolean isUser(String user, String pwd) {
        boolean userFound = false;
        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            PreparedStatement statement = con.prepareStatement("select * from user
where username=('"+user+"') and password='"+pwd+"'");
            ResultSet rs = statement.executeQuery();
            while(rs.next()) {
                userFound = true;
            }
            con.close();
        } catch (Exception e) {
            System.out.println(e);
        }

        return userFound;
    }

    public static void logOut(){
    }

    public static void insertPatient(int id, String firstName, String lastName, String
gen, String ph_no, String add) {
        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            Statement statement = con.createStatement();
            String insertS = "insert into patient(pat_id, pat_first_name,
pat_last_name, pat_gen, pat_ph_no, pat_address) values ('"+id+"','"+firstName
+"','"+lastName+"','"+gen+"','"+ph_no+"','"+add+"')";
            showMessage("Inserted Successfully", Alert.AlertType.NONE);
            statement.execute(insertS);
        } catch (Exception e) {
            System.out.println(e);
        }
    }

    public static void insertDoctor(int id, String firstName, String lastName, String

```

```

gen, String ph_no, String add) {
    try {
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
        Statement statement = con.createStatement();
        String insertS = "insert into doctor(doc_id, doc_first_name, doc_last_name,
doc_gen, doc_ph_no, doc_address) values ('"+id+"', '"+ firstName
+"', '"+lastName+"', '"+gen+"', '"+ph_no+"', '"+add+"')";
        showMessage("Inserted Successfully", Alert.AlertType.NONE);
        statement.execute(insertS);
    } catch (Exception e) {
        System.out.println(e);
    }
}

public static ObservableList<Patient> getPatients(){
    ObservableList<Patient> list = FXCollections.observableArrayList();

    try {
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
        PreparedStatement statement = con.prepareStatement("select * from
patient");
        ResultSet rs = statement.executeQuery();

        while(rs.next()) {
            int s1 = Integer.parseInt(rs.getString(1));
            String s2 = rs.getString(2);
            String s3 = rs.getString(3);
            String s4 = rs.getString(4);
            String s5 = rs.getString(5);
            String s6 = rs.getString(6);
            list.add(new Patient(s1, s2, s3, s4, s5, s6));
            System.out.println(s1 + " " + s2 + " " + s3 + " " + s4);
        }
        con.close();
    } catch (Exception e) {
        e.printStackTrace();
    }
    return list;
}

public static ObservableList<Doctor> getDoctors(){
    ObservableList<Doctor> list = FXCollections.observableArrayList();

    try {
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
        PreparedStatement statement = con.prepareStatement("select * from doctor");
        ResultSet rs = statement.executeQuery();

        while(rs.next()) {
            int s1 = Integer.parseInt(rs.getString(1));
            String s2 = rs.getString(2);
            String s3 = rs.getString(3);
            String s4 = rs.getString(4);
            String s5 = rs.getString(5);
            String s6 = rs.getString(6);
            list.add(new Doctor(s1, s2, s3, s4, s5, s6));
            System.out.println(s1 + " " + s2 + " " + s3 + " " + s4);
        }
        con.close();
    } catch (Exception e) {
        e.printStackTrace();
    }
    return list;
}

```

```

    public static Patient getPatient(int id) {
        Patient patient = new Patient();
        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            PreparedStatement statement = con.prepareStatement("select * from patient
where pat_id=('" + id + "')");
            ResultSet rs = statement.executeQuery();

            while(rs.next()) {
                int s1 = Integer.parseInt(rs.getString(1));
                String s2 = rs.getString(2);
                String s3 = rs.getString(3);
                String s4 = rs.getString(4);
                String s5 = rs.getString(5);
                String s6 = rs.getString(6);
                patient.setId(s1);
                patient.setFirstName(s2);
                patient.setLastName(s3);
                patient.setGender(s4);
                patient.setPhone_no(s5);
                patient.setAddress(s6);
                System.out.println(s1 + " " + s2 + " " + s3 + " " + s4);
            }
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
        return patient;
    }

    public static void deletePatient(int id) {
        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            Statement statement = con.createStatement();
            String insertS = "delete from patient where pat_id=('" + id + "')";
            showMessage("Deleted Successfully", Alert.AlertType.NONE);
            statement.execute(insertS);
        } catch (Exception e) {
            System.out.println(e);
        }
    }

    public static void updatePatient(Patient patient) {
        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            Statement statement = con.createStatement();
            String insertS = "update patient set
pat_first_name=('" + patient.getFirstName() + "') , " +
                "pat_last_name=('" + patient.getLastName() + "') , " +
                "pat_ph_no=('" + patient.getPhone_no() + "') , " +
                "pat_gen=('" + patient.getGender() + "') , " +
                "pat_address=('" + patient.getAddress() + "') " +
                "where pat_id=('" + patient.getId() + "')";
            System.out.println(patient.getGender());
            showMessage("Updated Successfully", Alert.AlertType.NONE);
            statement.execute(insertS);
        } catch (Exception e) {
            System.out.println(e);
        }
    }

    public static Doctor getDoctor(int id) {
        Doctor doctor = new Doctor();

```

```

        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            PreparedStatement statement = con.prepareStatement("select * from doctor
where doc_id =('"+id+"');");
            ResultSet rs = statement.executeQuery();

            while(rs.next()) {
                int s1 = Integer.parseInt(rs.getString(1));
                String s2 = rs.getString(2);
                String s3 = rs.getString(3);
                String s4 = rs.getString(4);
                String s5 = rs.getString(5);
                String s6 = rs.getString(6);
                doctor.setId(s1);
                doctor.setFirstName(s2);
                doctor.setLastName(s3);
                doctor.setGender(s4);
                doctor.setPhone_no(s5);
                doctor.setAddress(s6);
                System.out.println(s1 + " " + s2 + " " + s3 + " " + s4);
            }
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
    return doctor;
}

public static void deleteDoctor(int id) {
    try {
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
        Statement statement = con.createStatement();
        String insertS = "delete from doctor where doc_id=('"+id+"')";
        showMessage("Deleted Successfully", Alert.AlertType.NONE);
        statement.execute(insertS);
    } catch (Exception e) {
        System.out.println(e);
    }
}

public static void updateDoctor(Doctor doctor) {
    try {
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
        Statement statement = con.createStatement();
        String insertS = "update doctor set
doc_first_name=('"+doctor.getFirstName()+"') , " +
                "doc_last_name=('"+doctor.getLastName()+"') , " +
                "doc_ph_no=('"+doctor.getPhone_no()+"') , " +
                "doc_gen=('"+doctor.getGender()+"') , " +
                "doc_address=('"+doctor.getAddress()+"') " +
                "where doc_id=('"+doctor.getId()+"')";
        System.out.println(doctor.getGender());
        showMessage("Updated Successfully", Alert.AlertType.NONE);
        statement.execute(insertS);
    } catch (Exception e) {
        System.out.println(e);
    }
}

public static ObservableList<Patient> searchInPatient(String name) {
    ObservableList<Patient> list = FXCollections.observableArrayList();

    try {
        Connection con =

```

```

DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
PreparedStatement statement = con.prepareStatement("select * from patient
where pat_first_name=('"+name+"'");
ResultSet rs = statement.executeQuery();

while(rs.next()) {
    int s1 = Integer.parseInt(rs.getString(1));
    String s2 = rs.getString(2);
    String s3 = rs.getString(3);
    String s4 = rs.getString(4);
    String s5 = rs.getString(5);
    String s6 = rs.getString(6);
    list.add(new Patient(s1, s2, s3, s4, s5, s6));
    System.out.println(s1 + " " + s2 + " " + s3 + " " + s4);
}
con.close();
}catch (Exception e) {
    e.printStackTrace();
}
return list;
}

public static ObservableList<Doctor> searchInDoctor(String name) {
    ObservableList<Doctor> list = FXCollections.observableArrayList();

    try {
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
        PreparedStatement statement = con.prepareStatement("select * from doctor
where doc_first_name=('"+name+"'");
        ResultSet rs = statement.executeQuery();

        while(rs.next()) {
            int s1 = Integer.parseInt(rs.getString(1));
            String s2 = rs.getString(2);
            String s3 = rs.getString(3);
            String s4 = rs.getString(4);
            String s5 = rs.getString(5);
            String s6 = rs.getString(6);
            list.add(new Doctor(s1, s2, s3, s4, s5, s6));
            System.out.println(s1 + " " + s2 + " " + s3 + " " + s4);
        }
        con.close();
    }catch (Exception e) {
        e.printStackTrace();
    }
    return list;
}

public static int getCountPatient() {
    int count = 0;

    try {
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
        Statement s = con.createStatement();
        ResultSet r = s.executeQuery("SELECT COUNT(*) AS recordCount FROM
patient");
        r.next();
        count = r.getInt("recordCount");
        r.close();
        con.close();
    }catch (Exception e) {
        e.printStackTrace();
    }
    return count;
}

```

```

    public static int getCountDoctor() {
        int count = 0;

        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            Statement s = con.createStatement();
            ResultSet r = s.executeQuery("SELECT COUNT(*) AS recordCount FROM doctor");
            r.next();
            count = r.getInt("recordCount");
            r.close();
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
        return count;
    }

    public static int getCountAppointment() {
        int count = 0;

        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            Statement s = con.createStatement();
            ResultSet r = s.executeQuery("SELECT COUNT(*) AS recordCount FROM
appointment");
            r.next();
            count = r.getInt("recordCount");
            r.close();
            con.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
        return count;
    }

    public static void bookAppointment(int pat_id, int doc_id, Date date) {
        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            Statement statement = con.createStatement();
            String insertS = "insert into appointment(pat_id, doc_id, app_date) values
('"+pat_id+"','"+doc_id+"','"+date+"')";
            showMessage("Appointment Booked", Alert.AlertType.NONE);
            statement.execute(insertS);
        } catch (Exception e) {
            e.printStackTrace();
        }
    }

    public static ObservableList<Appointment> getAppointments() {
        ObservableList<Appointment> list = FXCollections.observableArrayList();

        try {
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
            PreparedStatement statement = con.prepareStatement("select pat_id,
pat_first_name, doc_id, doc_first_name, app_date from patient natural join (appointment
natural join doctor)");
            ResultSet rs = statement.executeQuery();

            while(rs.next()) {
                int s1 = rs.getInt(1);
                String s2 = rs.getString(2);
                int s3 = rs.getInt(3);
            }
        }
    }

```



```

        String s4 = rs.getString(4);
        Date s5 = rs.getDate(5);
        list.add(new Appointment(s1, s2, s3, s4, s5));
        System.out.println(s1 + " " + s2 + " " + s3 + " " + s4);
    }
    con.close();
} catch (Exception e) {
    e.printStackTrace();
}
return list;
}

public static ObservableList<Appointment> searchInAppointment(String name) {
    ObservableList<Appointment> list = FXCollections.observableArrayList();

    try {
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/hospital", "root", "");
        PreparedStatement statement = con.prepareStatement("select pat_id,
pat_first_name, doc_id, doc_first_name, app_date from patient natural join (doctor
natural join appointment)where pat_first_name=('"+name+"')");
        ResultSet rs = statement.executeQuery();

        while(rs.next()) {
            int s1 = rs.getInt(1);
            String s2 = rs.getString(2);
            int s3 = rs.getInt(3);
            String s4 = rs.getString(4);
            Date s5 = rs.getDate(5);
            list.add(new Appointment(s1, s2, s3, s4, s5));
            System.out.println(s1 + " " + s2 + " " + s3 + " " + s4);
        }
        con.close();
    } catch (Exception e) {
        e.printStackTrace();
    }
    return list;
}
}

```

hello-view.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.PasswordField?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.effect.ColorAdjust?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<?import java.net.URL?>
<AnchorPane styleClass="mainFXMLClass" maxHeight="-Infinity" maxWidth="-Infinity"
minHeight="-Infinity" minWidth="-Infinity" prefHeight="400.0" prefWidth="600.0"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.HelloController">
    <stylesheets>
        <URL value="@style.css" />
    </stylesheets>
    <children>
        <Label alignment="CENTER" layoutX="-1.0" prefHeight="78.0" prefWidth="600.0"
style="-fx-background-color: #00bfff;" text="HOSPITAL MANAGEMENT SYSTEM"
textAlignment="CENTER" textFill="#ffffef">
            <font>
                <Font name="Bookman Old Style Bold" size="30.0" />
            </font>
        </Label>
    </children>
</AnchorPane>

```

```

        </font>
        <effect>
            <ColorAdjust />
        </effect>
    </Label>
    <Label layoutX="26.0" layoutY="131.0" text="Username : ">
        <font>
            <Font name="Bell MT Bold" size="30.0" />
        </font>
    </Label>
    <Label layoutX="26.0" layoutY="213.0" text="Password :">
        <font>
            <Font name="Bell MT Bold" size="30.0" />
        </font>
    </Label>
    <TextField fx:id="tf_username" layoutX="205.0" layoutY="136.0"
promptText="Tanishq_6210">
        <font>
            <Font name="Bookman Old Style" size="15.0" />
        </font></TextField>
    <Button fx:id="btn_register" layoutX="432.0" layoutY="133.0"
mnemonicParsing="false" onAction="#onRegister" prefHeight="30.0" prefWidth="118.0"
text="REGISTER" />
    <Button fx:id="btn_login" layoutX="432.0" layoutY="216.0" mnemonicParsing="false"
onAction="#onLogin" prefHeight="30.0" prefWidth="118.0" text="LOGIN" />
    <Button fx:id="btn_exit" layoutX="239.0" layoutY="326.0" mnemonicParsing="false"
onAction="#onExit" prefHeight="46.0" prefWidth="118.0" text="EXIT" />
    <PasswordField fx:id="tf_pwd" layoutX="205.0" layoutY="218.0" promptText="1234">
        <font>
            <Font size="15.0" />
        </font>
    </PasswordField>
</children>
</AnchorPane>

```

HelloController.java ->

```

package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Scene;
import javafx.scene.control.Alert;
import javafx.scene.control.Button;
import javafx.scene.control.ButtonType;
import javafx.scene.control.TextField;
import javafx.scene.layout.Region;
import javafx.stage.Stage;
import java.io.IOException;
//import java.swing.*;
//import java.awt.*;

public class HelloController {
    @FXML
    private Button btn_login;

    @FXML
    private Button btn_register;

    @FXML
    private TextField tf_pwd;

    @FXML
    private TextField tf_username;

```

```

private FXMLLoader root;

private Stage stage;

private Scene scene;

@FXML
void onLogin(ActionEvent event) {
    String user = tf_username.getText();
    String pwd = tf_pwd.getText();

    if(user.isEmpty() || pwd.isEmpty()) {
        showMessage("Required Fields are empty", Alert.AlertType.ERROR);
    } else {
        if(DB.isUser(user, pwd)) {
            showMessage("User Logged in", Alert.AlertType.NONE);
            root = new FXMLLoader(getClass().getResource("home.fxml"));
            stage = (Stage) (btn_login.getScene().getWindow());
            try {
                stage.setScene(new Scene(root.load()));
            } catch (IOException e) {
                System.out.println(e);
            }
        } else {
            showMessage("Invalid Credentials", Alert.AlertType.NONE);
        }
    }
}

@FXML
void onRegister(ActionEvent event) {
    if(tf_pwd.getText().length() < 6) {
        showMessage("Password should be of more than 6 characters!",
Alert.AlertType.ERROR);
    } else {
        DB.register(tf_username.getText(), tf_pwd.getText());
        root = new FXMLLoader(getClass().getResource("home.fxml"));
        stage = (Stage) (btn_login.getScene().getWindow());
        try {
            stage.setScene(new Scene(root.load()));
        } catch (IOException e) {
            System.out.println(e);
        }
    }
}

@FXML
void onExit(ActionEvent event) {
    System.exit(0);
}

private void showMessage(String content, Alert.AlertType type) {
    Alert alert = new Alert(type, content, ButtonType.OK);
    alert.getDialogPane().setMinHeight(Region.USE_PREF_SIZE);
    alert.show();
}
}

```

home.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import java.net.URL?>
<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>

```

```

<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<AnchorPane prefHeight="400.0" prefWidth="600.0" styleClass="mainFXMLClass"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.Home">
    <stylesheets>
        <URL value="@style.css" />
    </stylesheets>
    <children>
        <Label layoutX="237.0" layoutY="68.0" text="Home" textFill="#1721ae">
            <font>
                <Font name="Bookman Old Style Bold" size="36.0" />
            </font>
        </Label>
        <Label alignment="CENTER" layoutY="-1.0" prefHeight="58.0" prefWidth="600.0"
style="-fx-background-color: #00bfff;" text="Welcome to Hospital" textFill="WHITE">
            <font>
                <Font name="Bookman Old Style Bold" size="36.0" />
            </font>
        </Label>
        <Button fx:id="btn_patients" alignment="CENTER" layoutX="10.0" layoutY="139.0"
mnemonicParsing="false" onAction="#displayPatients" prefHeight="30.0" prefWidth="98.0"
text="Patients" />
        <Button fx:id="btn_doctors" alignment="CENTER" layoutX="10.0" layoutY="199.0"
mnemonicParsing="false" onAction="#displayDoctors" prefHeight="30.0" prefWidth="98.0"
text="Doctors" />
        <Button fx:id="btn_appoint" alignment="CENTER" layoutX="11.0" layoutY="261.0"
mnemonicParsing="false" onAction="#displayAppointments" prefHeight="37.0"
prefWidth="98.0" text="Appointments" />
        <Button fx:id="btn_logout" layoutX="242.0" layoutY="333.0"
mnemonicParsing="false" onAction="#onLogout" prefHeight="30.0" prefWidth="98.0"
text="Log Out" />
        <Label layoutX="139.0" layoutY="140.0" text="Current no. of Patients :"
textFill="#454dc4">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label layoutX="136.0" layoutY="262.0" text="Current no. of Appointments :"
textFill="#454dc4">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label layoutX="136.0" layoutY="199.0" text="Current no. of Doctors :"
textFill="#454dc4">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label fx:id="label_count_patient" layoutX="540.0" layoutY="140.0" text="3"
textFill="#454dc4">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label fx:id="label_count_doctor" layoutX="540.0" layoutY="199.0" text="3"
textFill="#454dc4">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label fx:id="label_count_apt" layoutX="540.0" layoutY="262.0" text="3"
textFill="#454dc4">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
    </children>
</AnchorPane>

```

```
        </font>
    </Label>

</children>
</AnchorPane>
```

Home.java ->

```
package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.fxml.Initializable;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.Label;
import javafx.stage.Stage;

import java.io.IOException;
import java.net.URL;
import java.util.ResourceBundle;

public class Home implements Initializable {

    @FXML
    private Button btn_appoint;

    @FXML
    private Button btn_doctors;

    @FXML
    private Button btn_patients;

    @FXML
    private Button btn_logout;

    private FXMLLoader root;

    private Stage stage;

    @FXML
    private Label label_count_apt;

    @FXML
    private Label label_count_doctor;

    @FXML
    private Label label_count_patient;

    @FXML
    void displayAppointments(ActionEvent event) {
        root = new FXMLLoader(getClass().getResource("appointments.fxml"));
        stage = (Stage) (btn_patients.getScene().getWindow());
        try {
            stage.setScene(new Scene(root.load()));
        } catch (IOException e) {
            System.out.println(e);
        }
    }

    @FXML
    void displayDoctors(ActionEvent event) {
        root = new FXMLLoader(getClass().getResource("doctors.fxml"));
        stage = (Stage) (btn_logout.getScene().getWindow());
    }
}
```

```

        try {
            stage.setScene(new Scene(root.load()));
        } catch (IOException e) {
            System.out.println(e);
        }
    }

    @FXML
    void displayPatients(ActionEvent event) {
        root = new FXMLLoader(getClass().getResource("patients.fxml"));
        stage = (Stage) (btn_logout.getScene().getWindow());
        try {
            stage.setScene(new Scene(root.load()));
        } catch (IOException e) {
            System.out.println(e);
        }
    }

    @FXML
    void onLogout(ActionEvent event) {
        root = new FXMLLoader(getClass().getResource("hello-view.fxml"));
        stage = (Stage) (btn_logout.getScene().getWindow());
        try {
            stage.setScene(new Scene(root.load()));
        } catch (IOException e) {
            System.out.println(e);
        }
    }

    @Override
    public void initialize(URL location, ResourceBundle resources) {
        label_count_patient.setText(String.valueOf(DB.getCountPatient()));
        label_count_doctor.setText(String.valueOf(DB.getCountDoctor()));
        label_count_appt.setText(String.valueOf(DB.getCountAppointment()));
    }
}

```

patients.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import java.net.URL?>
<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.TableColumn?>
<?import javafx.scene.control.TableView?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<AnchorPane prefHeight="400.0" prefWidth="600.0" styleClass="mainFXMLClass"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.Patients">
    <stylesheets>
        <URL value="@style_home.css" />
    </stylesheets>
    <children>
        <Label alignment="CENTER" layoutX="-1.0" layoutY="-1.0" prefHeight="45.0"
prefWidth="600.0" style="-fx-background-color: #00bfff;" text="Patients"
textFill="WHITE">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Button fx:id="btn_back" layoutX="521.0" layoutY="348.0" mnemonicParsing="false"
onAction="#onBack" text="Back" />
    </children>
</AnchorPane>

```

```

        <TableView fx:id="table_patient" layoutX="9.0" layoutY="100.0" prefHeight="200.0"
prefWidth="582.0">
            <columns>
                <TableColumn fx:id="col_id" prefWidth="64.0" text="ID" />
                <TableColumn fx:id="col_first_name" prefWidth="88.800048828125" text="First
Name" />
                <TableColumn fx:id="col_last_name" prefWidth="82.39996337890625" text="Last
Name" />
                <TableColumn fx:id="col_gender" prefWidth="84.79998779296875" text="Gender"
/>
                <TableColumn fx:id="col_phone" prefWidth="88.00006103515625" text="Phone
no." />
                <TableColumn fx:id="col_add" prefWidth="175.99993896484375" text="Address"
/>
            </columns>
        </TableView>
        <TextField fx:id="tf_search" layoutX="195.0" layoutY="62.0"
onKeyTyped="#searchedText" prefHeight="26.0" prefWidth="186.0" promptText="Enter name
to be searched..." />
        <Button fx:id="btn_update" layoutX="164.0" layoutY="344.0"
mnemonicParsing="false" onAction="#onUpdate" text="Update Patient" />
        <Button fx:id="btn_add" layoutX="50.0" layoutY="344.0" mnemonicParsing="false"
onAction="#addPatient" text="Add Patient" />
    </children>
</AnchorPane>

```

Patients.java ->

```

package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import com.example.hospitalmanagementsystem.model.Patient;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.fxml.Initializable;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.TableColumn;
import javafx.scene.control.TableView;
import javafx.scene.control.TextField;
import javafx.scene.control.cell.PropertyValueFactory;
import javafx.scene.input.InputMethodEvent;
import javafx.scene.input.KeyEvent;
import javafx.stage.Stage;

import java.io.IOException;
import java.net.URL;
import java.util.ResourceBundle;

public class Patients implements Initializable {
    private FXMLLoader root;

    private Stage stage;

    @FXML
    private TextField tf_search;

    @FXML
    private TableColumn<Patient, String> col_add;

    @FXML
    private TableColumn<Patient, String> col_first_name;

```

```

@FXML
private TableColumn<Patient, String> col_gender;

@FXML
private TableColumn<Patient, Integer> col_id;

@FXML
private TableColumn<Patient, String> col_last_name;

@FXML
private TableColumn<Patient, String> col_phone;
@FXML
private Button btn_back;

@FXML
private TableView<Patient> table_patient;

@FXML
void addPatient(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("add_patient.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void onUpdate(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("delete_patient.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void onBack(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("home.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@Override
public void initialize(URL location, ResourceBundle resources) {
    col_first_name.setCellValueFactory(new PropertyValueFactory<>("firstName"));
    col_last_name.setCellValueFactory(new PropertyValueFactory<>("lastName"));
    col_gender.setCellValueFactory(new PropertyValueFactory<>("gender"));
    col_id.setCellValueFactory(new PropertyValueFactory<>("id"));
    col_phone.setCellValueFactory(new PropertyValueFactory<>("phone_no"));
    col_add.setCellValueFactory(new PropertyValueFactory<>("address"));

    ObservableList items = DB.getPatients();
    table_patient.setItems(items);
}

public void searchedText(KeyEvent keyEvent) {
    System.out.println(tf_search.getText());
    table_patient.getItems().clear();
}

```



```

        if(tf_search.getText().equals("")) {
            ObservableList items = DB.getPatients();
            table_patient.setItems(items);
        } else {
            ObservableList items = DB.searchInPatient(tf_search.getText());
            table_patient.setItems(items);
        }
    }
}

```

doctors.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.TableColumn?>
<?import javafx.scene.control.TableView?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<?import java.net.URL?>
<AnchorPane styleClass="mainFXMLClass" prefHeight="400.0" prefWidth="600.0"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.Doctors">
    <stylesheets>
        <URL value="@style_home.css" />
    </stylesheets>
    <children>
        <Label alignment="CENTER" layoutY="-2.0" prefHeight="47.0" prefWidth="600.0"
style="-fx-background-color: #00bfff;" text="Doctors" textFill="WHITE">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Button fx:id="btn_back" layoutX="521.0" layoutY="348.0" mnemonicParsing="false"
onAction="#onBack" text="Back" />
        <TableView fx:id="table_doctor" layoutX="9.0" layoutY="100.0" prefHeight="200.0"
prefWidth="582.0">
            <columns>
                <TableColumn fx:id="col_id" prefWidth="64.0" text="ID" />
                <TableColumn fx:id="col_first_name" prefWidth="88.800048828125" text="First
Name" />
                <TableColumn fx:id="col_last_name" prefWidth="82.39996337890625" text="Last
Name" />
                <TableColumn fx:id="col_gender" prefWidth="84.79998779296875" text="Gender"
/>
                <TableColumn fx:id="col_phone" prefWidth="88.00006103515625" text="Phone
no." />
                <TableColumn fx:id="col_add" prefWidth="175.99993896484375" text="Address"
/>
            </columns>
        </TableView>
        <TextField fx:id="tf_search" layoutX="225.0" layoutY="52.0"
onKeyTyped="#onSearchedText" prefHeight="26.0" prefWidth="172.0" promptText="Enter name
to be searched..." />
        <Button fx:id="btn_update" layoutX="164.0" layoutY="344.0"
mnemonicParsing="false" onAction="#updateDoctor" text="Update Doctor" />
        <Button fx:id="btn_add" layoutX="50.0" layoutY="344.0" mnemonicParsing="false"
onAction="#addDoctor" text="Add Doctor" />
    </children>
</AnchorPane>

```

Doctors.java ->

```
package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import com.example.hospitalmanagementsystem.model.Doctor;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.fxml.Initializable;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.TableColumn;
import javafx.scene.control.TableView;
import javafx.scene.control.TextField;
import javafx.scene.control.cell.PropertyValueFactory;
import javafx.scene.input.KeyEvent;
import javafx.stage.Stage;

import java.io.IOException;
import java.net.URL;
import java.util.ResourceBundle;

public class Doctors implements Initializable {
    private FXMLLoader root;

    private Stage stage;

    @FXML
    private TableColumn<Doctor, String> col_add;

    @FXML
    private TableColumn<Doctor, String> col_first_name;

    @FXML
    private TableColumn<Doctor, String> col_gender;

    @FXML
    private TableColumn<Doctor, Integer> col_id;

    @FXML
    private TableColumn<Doctor, String> col_last_name;

    @FXML
    private TableColumn<Doctor, String> col_phone;

    @FXML
    private Button btn_add;

    @FXML
    private Button btn_back;

    @FXML
    private Button btn_update;

    @FXML
    private TableView<Doctor> table_doctor;

    @FXML
    private TextField tf_search;

    @FXML
    void addDoctor(ActionEvent event) {
        root = new FXMLLoader(getClass().getResource("add_doctor.fxml"));
        stage = (Stage) (btn_back.getScene().getWindow());
        try {
```

```

        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void updateDoctor(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("delete_doctor.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void onBack(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("home.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@Override
public void initialize(URL location, ResourceBundle resources) {
    col_first_name.setCellValueFactory(new PropertyValueFactory<>("firstName"));
    col_last_name.setCellValueFactory(new PropertyValueFactory<>("lastName"));
    col_gender.setCellValueFactory(new PropertyValueFactory<>("gender"));
    col_id.setCellValueFactory(new PropertyValueFactory<>("id"));
    col_phone.setCellValueFactory(new PropertyValueFactory<>("phone_no"));
    col_add.setCellValueFactory(new PropertyValueFactory<>("address"));

    ObservableList items = DB.getDoctors();
    table_doctor.setItems(items);
}

public void onSearchedText(KeyEvent keyEvent) {
    System.out.println(tf_search.getText());
    table_doctor.getItems().clear();

    if(tf_search.getText().equals("")) {
        ObservableList items = DB.getDoctors();
        table_doctor.setItems(items);
    } else {
        ObservableList items = DB.searchInDoctor(tf_search.getText());
        table_doctor.setItems(items);
    }
}
}
}

```

appointments.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.TableColumn?>
<?import javafx.scene.control.TableView?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

```

```

<?import java.net.URL?>
<AnchorPane styleClass="mainFXMLClass" prefHeight="400.0" prefWidth="600.0"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.Appointments">
    <stylesheets>
        <URL value="@style_home.css" />
    </stylesheets>
    <children>
        <Label alignment="CENTER" layoutY="-1.0" prefHeight="46.0" prefWidth="600.0"
style="-fx-background-color: #00bfff;" text="Appointments" textFill="WHITE">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Button fx:id="btn_back" layoutX="465.0" layoutY="354.0" mnemonicParsing="false"
onAction="#onBack" prefHeight="26.0" prefWidth="110.0" text="BACK" />
        <TableView fx:id="table_appointment" layoutX="20.0" layoutY="86.0"
prefHeight="246.0" prefWidth="560.0">
            <columns>
                <TableColumn fx:id="col_pat_id" prefWidth="72.0" text="Patient ID" />
                <TableColumn fx:id="col_pat_name" prefWidth="111.20001220703125"
text="Patient Name" />
                <TableColumn fx:id="col_doc_id" minWidth="0.0" prefWidth="89.5999755859375"
text="Doctor ID" />
                <TableColumn fx:id="col_doc_name" prefWidth="172.7999267578125"
text="Doctor Name" />
                <TableColumn fx:id="col_date" prefWidth="113.60009765625" text="Date" />
            </columns>
        </TableView>
        <Button layoutX="20.0" layoutY="353.0" mnemonicParsing="false"
onAction="#bookAppointment" prefHeight="26.0" prefWidth="162.0" text="BOOK APPOINTMENT"
/>
        <TextField fx:id="tf_search_text" layoutX="179.0" layoutY="51.0"
onKeyTyped="#searchAppointment" prefHeight="26.0" prefWidth="219.0" promptText="Enter
patient name to be searched ...." />
    </children>
</AnchorPane>

```

Appointments.java ->

```

package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import com.example.hospitalmanagementsystem.model.Appointment;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.fxml.Initializable;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.control.cell.PropertyValueFactory;
import javafx.scene.input.KeyEvent;
import javafx.stage.Stage;

import java.io.IOException;
import java.net.URL;
import java.sql.Date;
import java.util.ResourceBundle;

public class Appointments implements Initializable {
    private FXMLLoader root;

    private Stage stage;

```

```

private Scene scene;

@FXML
private Button btn_back;

@FXML
private TableView<Appointment> table_appointment;

@FXML
private TableColumn<Appointment, Date> col_date;

@FXML
private TableColumn<Appointment, Integer> col_doc_id;

@FXML
private TableColumn<Appointment, String> col_doc_name;

@FXML
private TableColumn<Appointment, Integer> col_pat_id;

@FXML
private TableColumn<Appointment, String> col_pat_name;

@FXML
private TextField tf_search_text;

@FXML
void bookAppointment(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("add_appointment.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void onBack(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("home.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@Override
public void initialize(URL location, ResourceBundle resources) {
    col_pat_id.setCellValueFactory(new PropertyValueFactory<>("pat_id"));
    col_pat_name.setCellValueFactory(new PropertyValueFactory<>("pat_name"));
    col_doc_id.setCellValueFactory(new PropertyValueFactory<>("doc_id"));
    col_doc_name.setCellValueFactory(new PropertyValueFactory<>("doc_name"));
    col_date.setCellValueFactory(new PropertyValueFactory<>("date"));

    ObservableList items = DB.getAppointments();
    table_appointment.setItems(items);
}

public void searchAppointment(KeyEvent keyEvent) {
    table_appointment.getItems().clear();
    if(tf_search_text.getText().isBlank()) {
        ObservableList items = DB.getAppointments();
        table_appointment.setItems(items);
    } else {

```

```

        ObservableList<Appointment> items =
DB.searchInAppointment(tf_search_text.getText());
        table_appointment.setItems(items);
    }
}
}

```

add_patient.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.RadioButton?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.control.ToggleGroup?>
<?import javafx.scene.image.Image?>
<?import javafx.scene.image.ImageView?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<AnchorPane prefHeight="400.0" prefWidth="600.0" style="-fx-background-color: #fff;"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.AddPatient">
    <children>
        <Label alignment="CENTER" layoutX="1.0" layoutY="-2.0" prefHeight="48.0"
prefWidth="600.0" style="-fx-background-color: #00bfff;" text="PATIENT DETAILS"
textFill="WHITE">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label layoutX="48.0" layoutY="86.0" text="First Name: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="50.0" layoutY="136.0" text="Last Name: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="48.0" layoutY="189.0" text="Gender: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <RadioButton fx:id="rb_male" layoutX="189.0" layoutY="188.0"
mnemonicParsing="false" text="Male">
            <font>
                <Font name="Bookman Old Style Bold" size="14.0" />
            </font>
            <toggleGroup>
                <ToggleGroup fx:id="gender" />
            </toggleGroup>
        </RadioButton>
        <RadioButton fx:id="rb_female" layoutX="260.0" layoutY="188.0"
mnemonicParsing="false" text="Female" toggleGroup="$gender">
            <font>
                <Font name="Bookman Old Style Bold" size="14.0" />
            </font>
        </RadioButton>
        <Label layoutX="44.0" layoutY="290.0" text="Address: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
    </children>

```

```

        </font>
    </Label>
    <Label layoutX="48.0" layoutY="238.0" text="Phone no: ">
        <font>
            <Font name="Bookman Old Style Bold" size="18.0" />
        </font>
    </Label>
    <TextField fx:id="tf_firstname" layoutX="188.0" layoutY="84.0" />
    <TextField fx:id="tf_lastname" layoutX="189.0" layoutY="134.0" />
    <TextField fx:id="tf_phone" layoutX="188.0" layoutY="236.0" />
    <TextField fx:id="tf_address" layoutX="189.0" layoutY="288.0" />
    <Button fx:id="btn_add" layoutX="447.0" layoutY="65.0" mnemonicParsing="false"
onAction="#addPatient" text="ADD PATIENT" />
    <Button fx:id="btn_back" layoutX="446.0" layoutY="123.0" mnemonicParsing="false"
onAction="#onBack" prefHeight="26.0" prefWidth="90.0" text="BACK" />
    <Label layoutX="48.0" layoutY="54.0" text="ID:">
        <font>
            <Font name="Bookman Old Style Bold" size="18.0" />
        </font>
    </Label>
    <TextField fx:id="tf_id" layoutX="189.0" layoutY="52.0" />
    <ImageView fitHeight="179.0" fitWidth="239.0" layoutX="348.0" layoutY="199.0"
pickOnBounds="true" preserveRatio="true">
        <image>
            <Image url="@patient.png" />
        </image>
    </ImageView>
</children>
</AnchorPane>

```

AddPatient.java ->

```

package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.stage.Stage;

import java.io.IOException;

public class AddPatient {
    private FXMLLoader root;

    private Stage stage;

    @FXML
    private Button btn_add;

    @FXML
    private Button btn_back;

    @FXML
    private Button btn_delete;

    @FXML
    private Button btn_update;

    @FXML
    private ToggleGroup gender;

    @FXML
    private RadioButton rb_female;

```

```

@FXML
private RadioButton rb_male;

@FXML
private TextField tf_address;

@FXML
private TextField tf_firstname;

@FXML
private TextField tf_lastname;

@FXML
private TextField tf_phone;

@FXML
private TextField tf_id;

@FXML
void addPatient(ActionEvent event) {
    int id = Integer.parseInt(tf_id.getText());
    String fname = tf_firstname.getText();
    String lname = tf_lastname.getText();
    String phone = tf_phone.getText();
    String add = tf_address.getText();
    String gender;
    if(rb_female.isSelected()) gender = "FEMALE";
    else gender = "MALE";

    if(fname.isEmpty() || lname.isEmpty() || phone.isEmpty() || add.isEmpty()) {
        DB.showMessage("All fields are required!", Alert.AlertType.ERROR);
    } else if(tf_phone.getText().length() == 10) {
        DB.insertPatient(id, fname, lname, gender, phone, add);
        tf_id.setText("");
        tf_firstname.setText("");
        tf_lastname.setText("");
        tf_phone.setText("");
        tf_address.setText("");
        rb_male.setSelected(false);
        rb_female.setSelected(false);
    } else {
        DB.showMessage("Phone number should be of length 10",
Alert.AlertType.ERROR);
    }
}

@FXML
void onBack(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("patients.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void updatePatient(ActionEvent event) {
}
}

```

add_doctor.fxml ->


```

<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.RadioButton?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.control.ToggleGroup?>
<?import javafx.scene.image.Image?>
<?import javafx.scene.image.ImageView?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<AnchorPane prefHeight="400.0" prefWidth="600.0" xmlns="http://javafx.com/javafx/17"
xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.AddDoctor">
    <children>
        <Label alignment="CENTER" layoutY="-1.0" prefHeight="45.0" prefWidth="600.0"
style="-fx-background-color: #00bfff;" text="DOCTOR DETAILS" textFill="WHITE">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label layoutX="47.0" layoutY="99.0" text="First Name: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="50.0" layoutY="136.0" text="Last Name: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="48.0" layoutY="189.0" text="Gender: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <RadioButton fx:id="rb_male" layoutX="189.0" layoutY="188.0"
mnemonicParsing="false" text="Male">
            <font>
                <Font name="Bookman Old Style Bold" size="14.0" />
            </font>
        </RadioButton>
        <ToggleGroup fx:id="gender" />
        <RadioButton fx:id="rb_female" layoutX="260.0" layoutY="188.0"
mnemonicParsing="false" text="Female" toggleGroup="$gender">
            <font>
                <Font name="Bookman Old Style Bold" size="14.0" />
            </font>
        </RadioButton>
        <Label layoutX="44.0" layoutY="290.0" text="Address: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="48.0" layoutY="238.0" text="Phone no: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <TextField fx:id="tf_firstname" layoutX="189.0" layoutY="97.0" />
        <TextField fx:id="tf_lastname" layoutX="189.0" layoutY="134.0" />
        <TextField fx:id="tf_phone" layoutX="188.0" layoutY="236.0" />
        <TextField fx:id="tf_address" layoutX="189.0" layoutY="288.0" />
        <Button fx:id="btn_add" layoutX="427.0" layoutY="84.0" mnemonicParsing="false"

```

```

onAction="#addDoctor" text="ADD DOCTOR" />
    <Button fx:id="btn_back" layoutX="427.0" layoutY="134.0"
mnemonicParsing="false" onAction="#onBack" prefHeight="26.0" prefWidth="92.0"
text="BACK" />
    <Label layoutX="47.0" layoutY="62.0" text="ID:">
        <font>
            <Font name="Bookman Old Style Bold" size="18.0" />
        </font>
    </Label>
    <TextField fx:id="tf_id" layoutX="189.0" layoutY="60.0" />
    <ImageView fitHeight="202.0" fitWidth="234.0" layoutX="352.0" layoutY="183.0"
pickOnBounds="true" preserveRatio="true">
        <image>
            <Image url="@doctor.png" />
        </image>
    </ImageView>
</children>
</AnchorPane>

```

AddDoctor.java ->

```

package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.layout.Region;
import javafx.stage.Stage;

import java.io.IOException;

public class AddDoctor {
    private FXMLLoader root;

    private Stage stage;

    @FXML
    private Button btn_add;

    @FXML
    private Button btn_back;

    @FXML
    private ToggleGroup gender;

    @FXML
    private RadioButton rb_female;

    @FXML
    private RadioButton rb_male;

    @FXML
    private TextField tf_address;

    @FXML
    private TextField tf_firstname;

    @FXML
    private TextField tf_lastname;

    @FXML
    private TextField tf_phone;

```

```

@FXML
private TextField tf_id;

@FXML
void addDoctor(ActionEvent event) {
    int id = Integer.parseInt(tf_id.getText());
    String fname = tf_firstname.getText();
    String lname = tf_lastname.getText();
    String phone = tf_phone.getText();
    String add = tf_address.getText();
    String gender;
    if(rb_female.isSelected()) gender = "FEMALE";
    else gender = "MALE";

    if(fname.isEmpty() || lname.isEmpty() || phone.isEmpty() || add.isEmpty()) {
        DB.showMessage("All fields are required!", Alert.AlertType.ERROR);
    } else if(tf_phone.getText().length() == 10) {
        DB.insertDoctor(id, fname, lname, gender, phone, add);
        tf_id.setText("");
        tf_firstname.setText("");
        tf_lastname.setText("");
        tf_phone.setText("");
        tf_address.setText("");
        rb_male.setSelected(false);
        rb_female.setSelected(false);
    } else {
        DB.showMessage("Phone number should be of length 10",
Alert.AlertType.ERROR);
    }
}

@FXML
void onBack(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("doctors.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}
}

```

add_appointment.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import javafx.scene.control.Button?>
<?import javafx.scene.control.ComboBox?>
<?import javafx.scene.control.DatePicker?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.image.Image?>
<?import javafx.scene.image.ImageView?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<AnchorPane prefHeight="400.0" prefWidth="600.0" style="-fx-background-color: #fff;"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.AddAppointment">
    <children>
        <Label alignment="CENTER" layoutX="-1.0" layoutY="-2.0" prefHeight="60.0"
prefWidth="600.0" style="-fx-background-color: #00bfff;" text="MAKE APPOINTMENT"
textFill="WHITE">
            <font>

```

```

        <Font name="Bookman Old Style Bold" size="24.0" />
    </font>
</Label>
<Label layoutX="21.0" layoutY="70.0" text="Patient: ">
    <font>
        <Font name="Bookman Old Style Bold" size="18.0" />
    </font>
</Label>
<Label layoutX="21.0" layoutY="120.0" text="Doctor:">
    <font>
        <Font name="Bookman Old Style Bold" size="18.0" />
    </font>
</Label>
<ComboBox fx:id="cb_patient" layoutX="116.0" layoutY="68.0" prefWidth="150.0" />
<ComboBox fx:id="cb_doctor" layoutX="116.0" layoutY="118.0" prefWidth="150.0" />
<DatePicker fx:id="dp_date" layoutX="385.0" layoutY="68.0" />
<Label layoutX="290.0" layoutY="70.0" text="Date: ">
    <font>
        <Font name="Bookman Old Style Bold" size="18.0" />
    </font>
</Label>
<Button fx:id="btn_back" layoutX="295.0" layoutY="118.0" mnemonicParsing="false"
onAction="#onBack" text="BACK" />
<Button layoutX="385.0" layoutY="118.0" mnemonicParsing="false"
onAction="#onBookAppointment" prefHeight="26.0" prefWidth="175.0" text="BOOK
APPOINTMENT" />
<ImageView fitHeight="248.0" fitWidth="477.0" layoutX="69.0" layoutY="152.0"
pickOnBounds="true" preserveRatio="true">
    <image>
        <Image url="@appointment.jpg" />
    </image>
</ImageView>
</children>
</AnchorPane>

```

AddAppointment.java ->

```

package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import com.example.hospitalmanagementsystem.model.Doctor;
import com.example.hospitalmanagementsystem.model.Patient;
import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.fxml.Initializable;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.ComboBox;
import javafx.scene.control.DatePicker;
import javafx.scene.control.TableView;
import javafx.stage.Stage;

import java.io.IOException;
import java.net.URL;
import java.sql.Date;
import java.util.ArrayList;
import java.util.ResourceBundle;

public class AddAppointment implements Initializable {
    private FXMLLoader root;

    private Stage stage;

```

```

@FXML
private Button btn_back;

@FXML
private ComboBox<Integer> cb_doctor;

@FXML
private ComboBox<Integer> cb_patient;

@FXML
private DatePicker dp_date;

ObservableList<Integer> plist = FXCollections.observableArrayList();
ObservableList<Integer> dlist = FXCollections.observableArrayList();

@FXML
void onBack(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("appointments.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void onBookAppointment(ActionEvent event) {

    int pat_id = cb_patient.getValue();
    int doc_id = cb_doctor.getValue();
    Date date = Date.valueOf(dp_date.getValue());
    DB.bookAppointment(pat_id, doc_id, date);
}

@Override
public void initialize(URL location, ResourceBundle resources) {
    int n = DB.getCountPatient();
    ObservableList patients = DB.getPatients();
    for(int i=0; i<n; i++) {
        Patient p = (Patient)patients.get(i);
        plist.add(p.getId());
    }

    cb_patient.setItems(plist);

    n = DB.getCountDoctor();

    ObservableList doctors = DB.getDoctors();
    for(int i=0; i<n; i++) {
        Doctor d = (Doctor) doctors.get(i);
        dlist.add(d.getId());
    }

    cb_doctor.setItems(dlist);
}
}

```

delete_patient.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import java.net.URL?>
<?import javafx.scene.control.Button?>

```

```

<?import javafx.scene.control.ComboBox?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.RadioButton?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.control.ToggleGroup?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<AnchorPane prefHeight="400.0" prefWidth="600.0" styleClass="mainFXMLClass"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.DeletePatient">
    <stylesheets>
        <URL value="@style_home.css" />
    </stylesheets>
    <children>
        <Label alignment="CENTER" layoutY="-1.0" prefHeight="50.0" prefWidth="600.0"
style="-fx-background-color: #00bfff;" text="Update Patient" textFill="WHITE">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label layoutX="47.0" layoutY="136.0" text="First Name: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="50.0" layoutY="189.0" text="Last Name: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="47.0" layoutY="232.0" text="Gender: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <RadioButton fx:id="rb_male" layoutX="208.0" layoutY="233.0"
mnemonicParsing="false" text="Male">
            <font>
                <Font name="Bookman Old Style Bold" size="14.0" />
            </font>
        </RadioButton>
        <ToggleGroup fx:id="gender" />
        <RadioButton fx:id="rb_female" layoutX="283.0" layoutY="233.0"
mnemonicParsing="false" text="Female" toggleGroup="$gender">
            <font>
                <Font name="Bookman Old Style Bold" size="14.0" />
            </font>
        </RadioButton>
        <Label layoutX="44.0" layoutY="332.0" text="Address: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="48.0" layoutY="282.0" text="Phone no: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <TextField fx:id="tf_firstname" layoutX="208.0" layoutY="134.0" />
        <TextField fx:id="tf_lastname" layoutX="208.0" layoutY="187.0" />
        <TextField fx:id="tf_phone" layoutX="208.0" layoutY="280.0" />
        <TextField fx:id="tf_address" layoutX="208.0" layoutY="330.0" />
        <Button fx:id="btn_delete" layoutX="425.0" layoutY="134.0"
mnemonicParsing="false" onAction="#deletePatient" text="DELETE PATIENT" />
    </children>
</AnchorPane>

```

```

        <Button fx:id="btn_update" layoutX="424.0" layoutY="186.0"
mnemonicParsing="false" onAction="#updatePatient" prefHeight="26.0" prefWidth="103.0"
text="UPDATE" />
        <Button fx:id="btn_back" layoutX="424.0" layoutY="239.0"
mnemonicParsing="false" onAction="#onBack" prefHeight="26.0" prefWidth="103.0"
text="BACK" />
        <Label layoutX="47.0" layoutY="86.0" text="Enter Patient ID">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Button fx:id="btn_get_patient" layoutX="428.0" layoutY="84.0"
mnemonicParsing="false" onAction="#getPatient" prefHeight="26.0" prefWidth="103.0"
text="GET PATIENT" />
        <ComboBox fx:id="cb_patients" layoutX="208.0" layoutY="84.0" prefWidth="150.0" />
    </children>
</AnchorPane>

```

DeletePatient.java ->

```

package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import com.example.hospitalmanagementsystem.model.Patient;
import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.fxml.Initializable;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.stage.Stage;

import java.io.IOException;
import java.net.URL;
import java.util.ResourceBundle;

public class DeletePatient implements Initializable {
    private FXMLLoader root;

    private Stage stage;

    @FXML
    private Button btn_back;

    @FXML
    private Button btn_delete;

    @FXML
    private Button btn_update;

    @FXML
    private ToggleGroup gender;

    @FXML
    private RadioButton rb_female;

    @FXML
    private RadioButton rb_male;

    @FXML
    private TextField tf_address;

    @FXML

```

```

private TextField tf_firstname;

@FXML
private TextField tf_lastname;

@FXML
private TextField tf_phone;

@FXML
private ComboBox<Integer> cb_patients;

ObservableList<Integer> plist = FXCollections.observableArrayList();

@FXML
void getPatient(ActionEvent event) {
    int id = cb_patients.getValue();
    Patient patient = DB.getPatient(id);
    tf_firstname.setText(patient.getFirstName());
    tf_lastname.setText(patient.getLastName());
    tf_address.setText(patient.getAddress());
    tf_phone.setText(patient.getPhone_no());

    if(patient.getGender().equals("MALE")) rb_male.setSelected(true);
    else rb_female.setSelected(true);
}

@FXML
void deletePatient(ActionEvent event) {
    int id = cb_patients.getValue();
    DB.deletePatient(id);
}

@FXML
void onBack(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("patients.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void updatePatient(ActionEvent event) {
    int id = cb_patients.getValue();
    String fname = tf_firstname.getText();
    String lname = tf_lastname.getText();
    String phone = tf_phone.getText();
    String add = tf_address.getText();
    String gender;
    if(rb_female.isSelected()) gender = "FEMALE";
    else gender = "MALE";
    Patient patient = new Patient(id, fname, lname, gender, phone, add);
    DB.updatePatient(patient);
    cb_patients.getSelectionModel().select(0);
    tf_firstname.setText("");
    tf_lastname.setText("");
    tf_phone.setText("");
    tf_address.setText("");
    rb_male.setSelected(false);
    rb_female.setSelected(false);
}

@Override
public void initialize(URL location, ResourceBundle resources) {
    int n = DB.getCountPatient();

```



```

        ObservableList patients = DB.getPatients();
        for(int i=0; i<n; i++) {
            Patient p = (Patient)patients.get(i);
            plist.add(p.getId());
        }

        cb_patients.setItems(plist);
    }
}

```

delete_doctor.fxml ->

```

<?xml version="1.0" encoding="UTF-8"?>

<?import java.net.URL?>
<?import javafx.scene.control.Button?>
<?import javafx.scene.control.ComboBox?>
<?import javafx.scene.control.Label?>
<?import javafx.scene.control.RadioButton?>
<?import javafx.scene.control.TextField?>
<?import javafx.scene.control.ToggleGroup?>
<?import javafx.scene.layout.AnchorPane?>
<?import javafx.scene.text.Font?>

<AnchorPane prefHeight="400.0" prefWidth="600.0" styleClass="mainFxmlClass"
xmlns="http://javafx.com/javafx/17" xmlns:fx="http://javafx.com/fxml/1"
fx:controller="com.example.hospitalmanagementsystem.DeleteDoctor">
    <stylesheets>
        <URL value="@style_home.css" />
    </stylesheets>
    <children>
        <Label alignment="CENTER" layoutX="1.0" layoutY="1.0" prefHeight="59.0"
prefWidth="600.0" style="-fx-background-color: #00bfff;" text="Update Doctor"
textFill="WHITE">
            <font>
                <Font name="Bookman Old Style Bold" size="24.0" />
            </font>
        </Label>
        <Label layoutX="47.0" layoutY="136.0" text="First Name: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="50.0" layoutY="189.0" text="Last Name: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <Label layoutX="47.0" layoutY="232.0" text="Gender: ">
            <font>
                <Font name="Bookman Old Style Bold" size="18.0" />
            </font>
        </Label>
        <RadioButton fx:id="rb_male" layoutX="208.0" layoutY="233.0"
mnemonicParsing="false" text="Male">
            <font>
                <Font name="Bookman Old Style Bold" size="14.0" />
            </font>
        </RadioButton>
        <ToggleGroup fx:id="gender">
            <RadioButton fx:id="rb_female" layoutX="283.0" layoutY="233.0"

```

```

mnemonicParsing="false" text="Female" toggleGroup="$gender">
    <font>
        <Font name="Bookman Old Style Bold" size="14.0" />
    </font>
</RadioButton>
<Label layoutX="44.0" layoutY="332.0" text="Address: ">
    <font>
        <Font name="Bookman Old Style Bold" size="18.0" />
    </font>
</Label>
<Label layoutX="48.0" layoutY="282.0" text="Phone no: ">
    <font>
        <Font name="Bookman Old Style Bold" size="18.0" />
    </font>
</Label>
<TextField fx:id="tf_firstname" layoutX="208.0" layoutY="134.0" />
<TextField fx:id="tf_lastname" layoutX="208.0" layoutY="187.0" />
<TextField fx:id="tf_phone" layoutX="208.0" layoutY="280.0" />
<TextField fx:id="tf_address" layoutX="208.0" layoutY="330.0" />
<Button fx:id="btn_delete" layoutX="424.0" layoutY="134.0"
mnemonicParsing="false" onAction="#deleteDoctor" text="DELETE DOCTOR" />
<Button fx:id="btn_update" layoutX="422.0" layoutY="187.0"
mnemonicParsing="false" onAction="#updateDoctor" text="UPDATE DOCTOR" />
<Button fx:id="btn_back" layoutX="424.0" layoutY="241.0"
mnemonicParsing="false" onAction="#onBack" prefHeight="26.0" prefWidth="106.0"
text="BACK" />
<Label layoutX="47.0" layoutY="86.0" text="Enter Doctor ID">
    <font>
        <Font name="Bookman Old Style Bold" size="18.0" />
    </font>
</Label>
<Button fx:id="btn_get_doctor" layoutX="422.0" layoutY="74.0"
mnemonicParsing="false" onAction="#onGetDoctor" prefHeight="26.0" prefWidth="106.0"
text="GET DOCTOR" />
<ComboBox fx:id="cb_doctors" layoutX="208.0" layoutY="84.0" prefWidth="150.0" />
</children>
</AnchorPane>

```

DeleteDoctor.java ->

```

package com.example.hospitalmanagementsystem;

import com.example.hospitalmanagementsystem.database.DB;
import com.example.hospitalmanagementsystem.model.Doctor;
import com.example.hospitalmanagementsystem.model.Patient;
import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
import javafx.event.ActionEvent;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.fxml.Initializable;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.stage.Stage;

import java.io.IOException;
import java.net.URL;
import java.util.ResourceBundle;

public class DeleteDoctor implements Initializable {

    private FXMLLoader root;

    private Stage stage;

```

```

@FXML
private Button btn_back;

@FXML
private Button btn_delete;

@FXML
private Button btn_get_doctor;

@FXML
private Button btn_update;

@FXML
private ToggleGroup gender;

@FXML
private RadioButton rb_female;

@FXML
private RadioButton rb_male;

@FXML
private TextField tf_address;

@FXML
private TextField tf_firstname;

@FXML
private TextField tf_lastname;

@FXML
private TextField tf_phone;

@FXML
private ComboBox<Integer> cb_doctors;

ObservableList<Integer> dlist = FXCollections.observableArrayList();

@FXML
void onBack(ActionEvent event) {
    root = new FXMLLoader(getClass().getResource("doctors.fxml"));
    stage = (Stage) (btn_back.getScene().getWindow());
    try {
        stage.setScene(new Scene(root.load()));
    } catch (IOException e) {
        System.out.println(e);
    }
}

@FXML
void onGetDoctor(ActionEvent event) {
    int id = cb_doctors.getValue();
    Doctor doctor = DB.getDoctor(id);
    tf_firstname.setText(doctor.getFirstName());
    tf_lastname.setText(doctor.getLastName());
    tf_address.setText(doctor.getAddress());
    tf_phone.setText(doctor.getPhone_no());

    if(doctor.getGender().equals("MALE")) rb_male.setSelected(true);
    else rb_female.setSelected(true);
}

public void deleteDoctor(ActionEvent actionEvent) {
    int id = cb_doctors.getValue();
    DB.deleteDoctor(id);
}

```

```

public void updateDoctor(ActionEvent actionEvent) {
    int id = cb_doctors.getValue();
    String fname = tf_firstname.getText();
    String lname = tf_lastname.getText();
    String phone = tf_phone.getText();
    String add = tf_address.getText();
    String gender;
    if(rb_female.isSelected()) gender = "FEMALE";
    else gender = "MALE";
    Doctor doctor = new Doctor(id, fname, lname, gender, phone, add);
    DB.updateDoctor(doctor);
    cb_doctors.getSelectionModel().select(0);
    tf_firstname.setText("");
    tf_lastname.setText("");
    tf_phone.setText("");
    tf_address.setText("");
    rb_male.setSelected(false);
    rb_female.setSelected(false);
}

@Override
public void initialize(URL location, ResourceBundle resources) {
    int n = DB.getCountDoctor();

    ObservableList doctors = DB.getDoctors();
    for(int i=0; i<n; i++) {
        Doctor d = (Doctor) doctors.get(i);
        dlist.add(d.getId());
    }

    cb_doctors.setItems(dlist);
}
}

```

login.css ->

```

.anchor {
    background-image:
url('F:\Github\HospitalManagementSystem\src\main\resources\com\example\hospitalmanagementsystem\login.jpg');
}

```

Style.css ->

```

.mainFxmlClass {
    -fx-background-image: url('login.jpg');
    -fx-background-size: cover;
}

```

Style_home.css ->

```

.mainFxmlClass {
    -fx-background-image: url('homepage.jpg');
    -fx-background-size: cover;
}

```

Database ->

Error 1054 (42S22): Unknown column 'hospital' in 'field list'

```
mysql> use hospital;
```

Database changed

```
mysql> show tables;
```

```
+-----+
| Tables_in_hospital |
+-----+
| appointment        |
| doctor              |
| patient             |
| user                |
+-----+
```

4 rows in set (0.04 sec)

```
mysql> describe user;
```

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| username   | varchar(20)   | YES  |     | NULL    |       |
| password   | varchar(20)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

2 rows in set (0.01 sec)

```
mysql> describe patient;
```

```
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| pat_id         | int           | NO   | PRI | NULL    |       |
| pat_first_name | varchar(30)   | NO   |     | NULL    |       |
| pat_last_name  | varchar(30)   | NO   |     | NULL    |       |
| pat_gen        | varchar(10)   | NO   |     | NULL    |       |
| pat_ph_no      | varchar(30)   | NO   |     | NULL    |       |
| pat_address    | varchar(100)  | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

6 rows in set (0.00 sec)

```
mysql> describe doctor;
```

Field	Type	Null	Key	Default	Extra
doc_id	int	NO	PRI	NULL	
doc_first_name	varchar(30)	NO		NULL	
doc_last_name	varchar(30)	NO		NULL	
doc_gen	varchar(10)	NO		NULL	
doc_ph_no	varchar(30)	NO		NULL	
doc_address	varchar(100)	NO		NULL	

```
6 rows in set (0.00 sec)
```

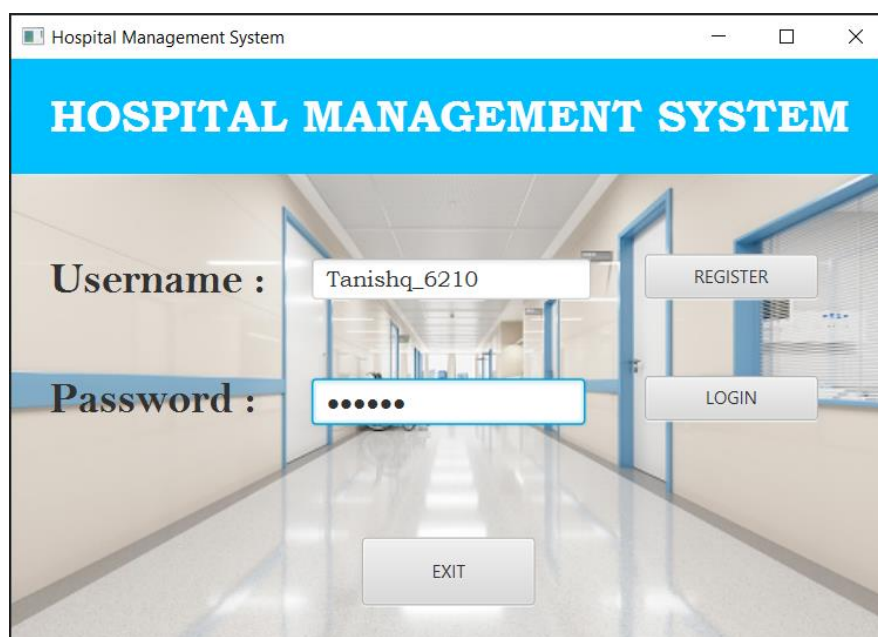
```
mysql> describe appointment;
```

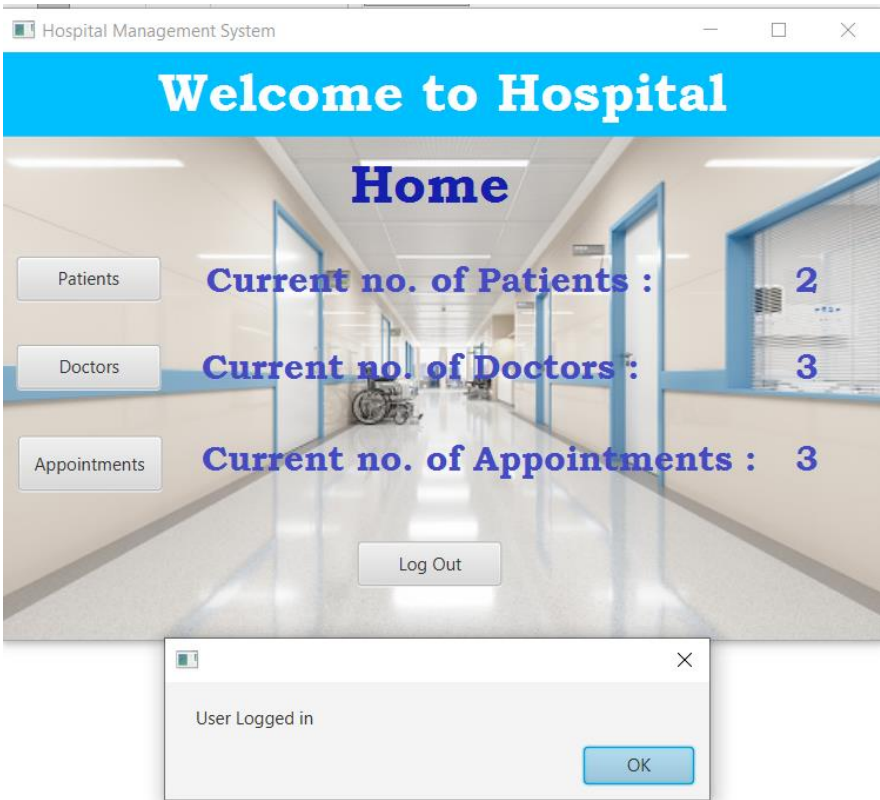
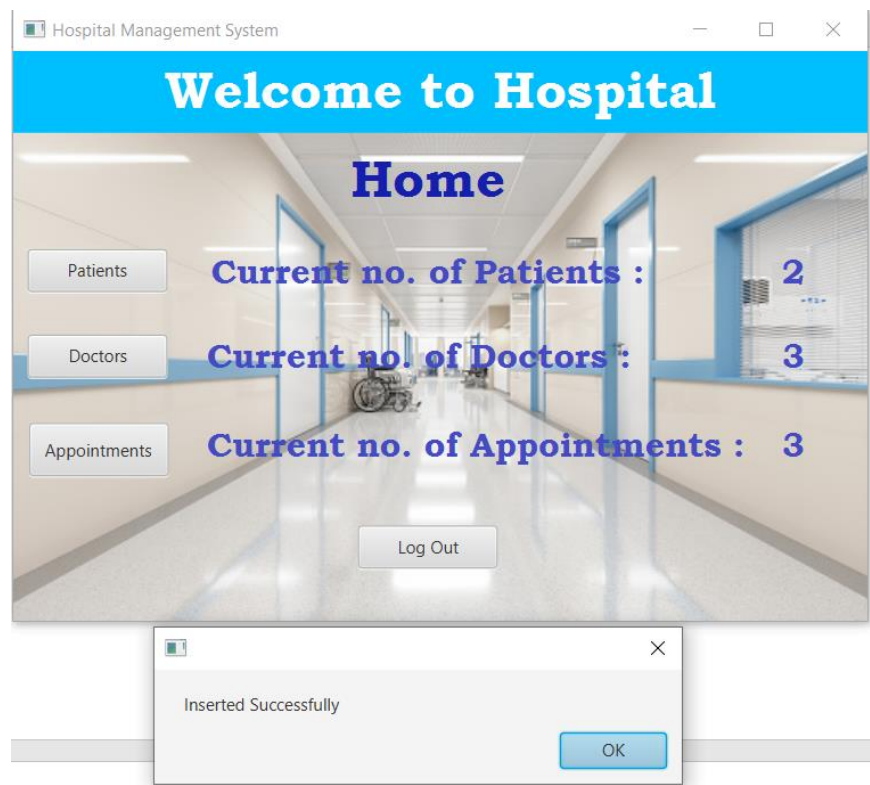
Field	Type	Null	Key	Default	Extra
pat_id	int	NO	MUL	NULL	
doc_id	int	NO	MUL	NULL	
app_date	date	NO		NULL	

```
3 rows in set (0.00 sec)
```

Project Output Screenshots :

Home-view.fxml :





Patient page:

Hospital Management System

Patients

Tanishq

ID	First Name	Last Name	Gender	Phone no.	Address
1002	Tanishq	Salil	MALE	743874989	Dubai

Add Patient Update Patient Back

Add Patient Page:

Hospital Management System

PATIENT DETAILS

ID: 1003 **ADD PATIENT**

First Name: Arjun

Last Name: Rehan **BACK**

Gender: ☒ Male ☐ Female

Phone no: 983788550

Address:

Error

Error

ALL fields are required!

OK



Delete/Update Patient Page:

Hospital Management System

Update Patient

Enter Patient ID

1001

GET PATIENT

First Name:

Yashashvi

DELETE PATIENT

Last Name:

Kala

UPDATE

Gender:

☐ Male ☒ Female

BACK

Phone no:

987

Address:

Noida

Doctors Page:

Hospital Management System

Doctors

Enter name to be searched...

ID	First Name	Last Name	Gender	Phone no.	Address
2002	Tanishq	Tyagi	MALE	94839	Saharanpur
2001	Priyanka	Chowdhury	FEMALE	94835987	Noida
2003	Pranav	Desai	MALE	93240358	Chennai

Add Doctor

Update Doctor

Back

Add Doctor Page:

Hospital Management System

— □ ×

DOCTOR DETAILS

ID:

First Name:

Last Name:

Gender:


☒ Male ☐ Female

Phone no:

Address:

ADD DOCTOR

BACK



Delete/Update Doctor Page:

Hospital Management System

— □ ×

Update Doctor

Enter Doctor ID

Fitst Name:

Last Name:

Gender:

☒ Male ☐ Female

Phone no:

Address:

GET DOCTOR

DELETE DOCTOR

UPDATE DOCTOR

BACK

Appointments:

Hospital Management System

Appointments

Enter patient name to be searched

Patient ID	Patient Name	Doctor ID	Doctor Name	Date
1001	Yashashvi	2001	Priyanka	2022-04-26
1002	Tanishq	2002	Tanishq	2022-04-28
1001	Yashashvi	2001	Priyanka	2022-04-26

BOOK APPOINTMENT

BACK

Book Appointment Page:

Hospital Management System

MAKE APPOINTMENT


Patient:

Date:

Doctor:

BACK

BOOK APPOINTMENT



Result and Discussion – We made an Hospital Management system for small hospitals which will provide them a simple UI platform to book appointments with doctors.

.

Conclusion – This Application will lead the Hospital to maintain the Data of patients and doctors in a very effective manner having every option to manage the Hospital.