RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR, THANDALAM 602 105

CS23333 OOPS Using Java

Laboratory Record Note Book

Name :

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Certified that this is the bonafide record of work done by the above student in

the...Laboratory

during the academic year 2025- 2026

Signature of Faculty in-charge

Submitted for the Practical Examination held on……………………………

Internal Examiner   **External Examiner**

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HOSPITAL RECORD MANAGEMENT SYSTEM

A MINI-PROJECT REPORT

Submitted by

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in partial fulfillment of the award of the degree

of

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IN

COMPUTER SCIENCE AND ENGINEERING

RAJALAKSHMI ENGINEERING COLLEGE, CHENNAI

An Autonomous Institute

CHENNAI

NOVEMBER 2025

BONAFIDE CERTIFICATE

Certified that this project **"HOSPITAL RECORD MANAGEMENT SYSTEM"** is the Bonafide work of **"MITHUN RAJ D ,MOHAMED ISMAIL FAWAZ K P , MOHAMMED RIZWAN "** who carried out the project work under my supervision.

SIGNATURE

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This mini project report is submitted for the viva voce examination to be held on _____

INTERNAL EXAMINER   **EXTERNAL EXAMINER**

ABSTRACT

Efficient management of hospital records is essential for smooth and accurate healthcare operations. Manual record-keeping often results in errors, data loss, and time delays. To overcome these issues, our team developed a **Hospital Record Management System**, a **database-driven application** designed to **digitize and streamline hospital data management**.

The system includes a **secure admin login** to ensure authorized access and provides functions to **add, view, update, and delete** records of both patients and doctors. It also facilitates **scheduling and managing appointments**, helping hospitals maintain organized and timely operations.

By automating routine tasks, this system reduces paperwork, minimizes duplication, and improves the reliability and accessibility of medical data. It enhances the hospital's administrative efficiency and contributes to better patient service and decision-making.

ACKNOWLEDGEMENT

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3. **Mohammed Rizwan**

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INTRODUCTION

1.1   INTRODUCTION

The **Hospital Record Management System** is a digital application that simplifies hospital administration by managing patient, doctor, and appointment records efficiently. It ensures quick data access, accuracy, and smooth hospital operations

1.2   SCOPE OF THE WORK

The **Hospital Record Management System** enables hospitals to efficiently manage patient and doctor information through a centralized digital platform. It ensures quick access to records, easy appointment handling, and smooth updates. The system improves accessibility, accuracy, and overall hospital efficiency.

1.3   PROBLEM STATEMENT

Hospitals struggle to manage large volumes of patient and doctor records manually, causing errors and delays. The absence of a centralized system makes data handling inefficient. This project aims to develop a digital Hospital Record Management System to ensure accurate, secure, and efficient record management.

1.4   AIM AND OBJECTIVES OF THE PROJECT

The main objective of this project is to **digitally manage hospital records**, including patient and doctor details, and to streamline appointment scheduling. This system helps maintain accurate data, reduce manual work, and improve efficiency, enabling the hospital to deliver **faster and more reliable services**.

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1   HARDWARE SPECIFICATIONS

Processor	:	Intel i5
Memory Size	:	8GB (Minimum)
HDD	:	1 TB (Minimum)

2.2   SOFTWARE SPECIFICATIONS

Operating System	:	WINDOWS 11
Front – End	:	Java FX
Back - End	:	MySQL
Language	:	Java, MySQL

CHAPTER 3

MODULE DESCRIPTION

The **Hospital Record Management System** consists of several modules that work together to manage hospital operations efficiently. Each module performs a specific function, ensuring smooth workflow and easy access to information.

1. **Login Module:**
   Provides secure access to the system through admin authentication, ensuring that only authorized users can view or modify hospital data.

2. **Patient Management Module:**
   Manages patient details such as personal information, medical history, and appointments. The admin can **add**, **update**, **view**, or **delete** records easily for efficient handling.

3. **Doctor Management Module:**
   Stores and manages doctor details, including specialization and availability. It helps in assigning doctors to patients and maintaining updated professional records.

4. **Appointment Scheduling Module:**
   Handles booking and scheduling of appointments between patients and doctors. It ensures proper time management, reduces conflicts, and improves service quality.

5. **Database Management Module:**
   Acts as the backbone of the system by securely storing all records and allowing fast, consistent data retrieval and updates.

Overall, these modules make the **Hospital Record Management System** a reliable and organized platform that minimizes manual effort, ensures data accuracy, and improves hospital efficiency.

CHAPTER 4

SAMPLE CODING -1 Login Module

This code handles the admin login functionality of the Hospital Record Management System. It validates the entered username and password, authenticates the user through the database using the UserDAO class, and loads the main dashboard upon successful login. If the credentials are invalid, it displays an appropriate error message using JavaFX alerts.

```java
package com.hospital.controller;

import com.hospital.dao.UserDAO;

import com.hospital.model.User;

import javafx.fxml.FXML;

import javafx.fxml.FXMLLoader;

import javafx.scene.Parent;

import javafx.scene.Scene;

import javafx.scene.control.Alert;

import javafx.scene.control.PasswordField;

import javafx.scene.control.TextField;

import javafx.stage.Stage;

public class LoginController {

    @FXML

    private TextField usernameField;
```

```java
    @FXML

    private PasswordField passwordField;

    private UserDAO userDAO;

    @FXML

    public void initialize() {

        userDAO = new UserDAO();

    }

    @FXML

    private void handleLogin() {

        String username = usernameField.getText();

        String password = passwordField.getText();

        if (username.isEmpty() || password.isEmpty()) {

            showAlert(Alert.AlertType.WARNING, "Validation Error", "Please enter both
username and password.");

            return;

        }

        User user = userDAO.authenticate(username, password);

        if (user != null) {

            try {
```

```
        FXMLLoader loader = new
FXMLLoader(getClass().getClassLoader().getResource("com/hospital/view/MainView.fxml"
));

        Parent root = loader.load();

        MainController mainController = loader.getController();

        mainController.setLoggedInUser(user);

        Stage stage = (Stage) usernameField.getScene().getWindow();

        Scene scene = new Scene(root);

        stage.setTitle("Hospital Management System");

        stage.setScene(scene);

        stage.setMaximized(true);

    } catch (Exception e) {

        e.printStackTrace();

        showAlert(Alert.AlertType.ERROR, "Error", "Failed to load main view.");

    }

} else {

    showAlert(Alert.AlertType.ERROR, "Login Failed", "Invalid username or
password.");

    }

}
```

```java
private void showAlert(Alert.AlertType alertType, String title, String message) {

    Alert alert = new Alert(alertType);

    alert.setTitle(title);

    alert.setHeaderText(null);

    alert.setContentText(message);

    alert.showAndWait();

    }

}
```

SAMPLE -2 Patient Registration Function

Sample 2 depicts the booking part of the code, where it displays booking details and enter user data and store it in data

```java
 @FXML

private void handleRegister() {

  if (validateFields()) {

    Patient patient = new Patient();

    patient.setFirstName(firstNameField.getText().trim());

    patient.setLastName(lastNameField.getText().trim());

    patient.setDateOfBirth(dateOfBirthPicker.getValue());
```

```java
RadioButton selected = (RadioButton) genderGroup.getSelectedToggle();

patient.setGender(selected != null ? selected.getText() : "");

patient.setPhone(phoneField.getText().trim());

patient.setEmail(emailField.getText().trim());

patient.setAddress(addressField.getText().trim());



if (patientDAO.createPatient(patient)) {

    showAlert(Alert.AlertType.INFORMATION, "Success", "Patient registered
successfully!");

    clearFields();

    loadPatients();

  }

 }

}
```
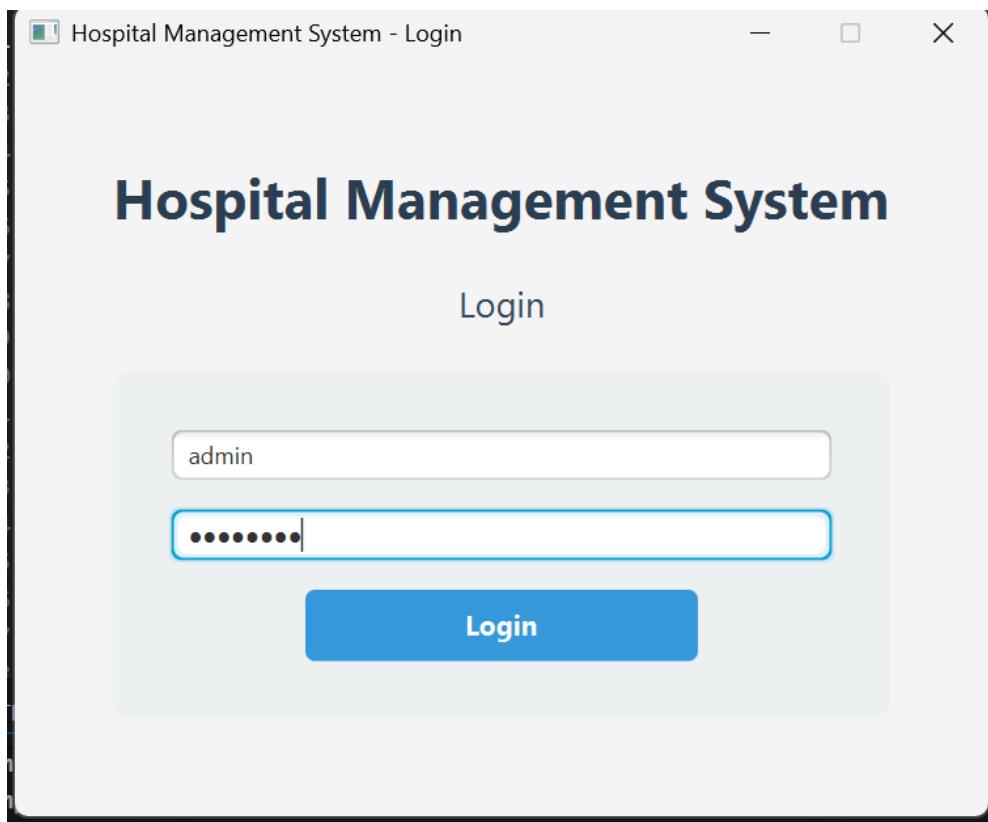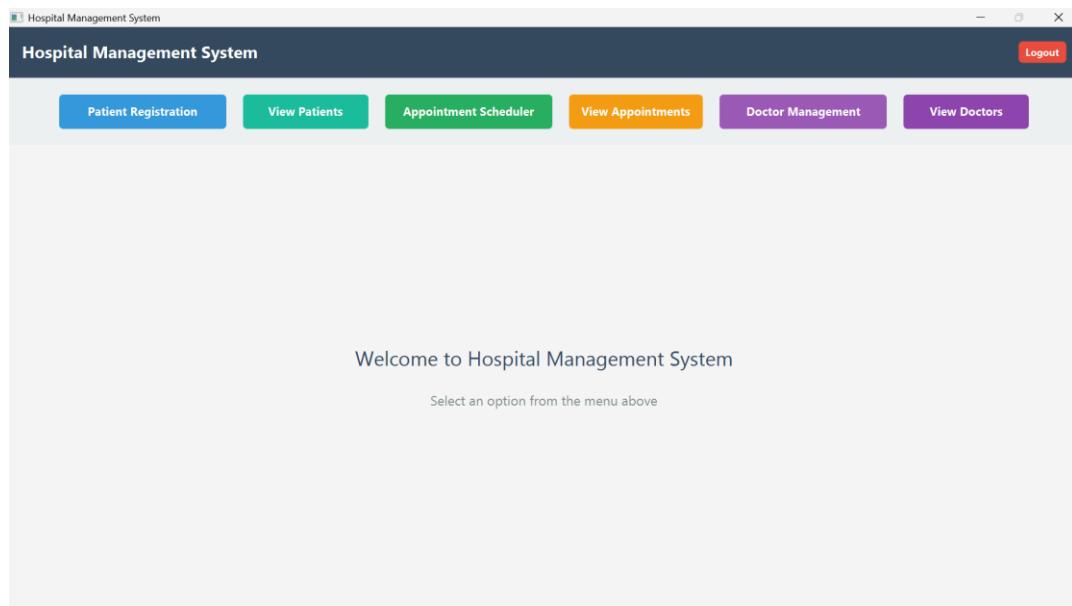
CHAPTER 5 - SCREEN SHOTS

Fig 5.1 Login page

Fig 5.2 Menu Page

Fig 5.3 Patient Registration

Fig 5.4 Doctor Management

Fig 5.5 Appointment Scheduler

Fig 5.6 Patient Table

CHAPTER 6

CONCLUSION AND FUTURE ENHANCEMENT

The **Hospital Record Management System** successfully streamlines hospital operations by digitalizing patient, doctor, and appointment management. It eliminates manual record-keeping, reduces errors, and ensures quick access to accurate information, thereby improving the overall efficiency of hospital administration. The system provides a secure and user-friendly interface that simplifies daily hospital tasks and supports better healthcare delivery.

For **future enhancements**, the system can be expanded to include additional modules such as **billing management, pharmacy tracking, medical report generation, and patient portal access**. Integration with **cloud storage** and **mobile applications** can further improve accessibility and scalability, making the system more versatile and effective for real-world hospital environments.

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