# Shivaji University, Kolhapur.

**A PROJECT REPORT**

**ON**

# "Hospital Appointment Booking System"

**Submitted To,**

**Yashwantrao Chavan School of Rural Development**

**Shivaji University, Kolhapur.**

**in the partial fulfillment of**
**MCA Part-II, Sem-III**
**(2023-2024)**

## Submitted By

**Mr. Onkar S. Yevale**
**Mr. Shreyash S. Abdagire**

## Under The Guidance of

**Dr. Vaishali Bhosale**

**2023 – 2024**

## Yashwantrao Chavan School of Rural Development

**Shivaji University, Kolhapur**

# CERTIFICATE

This is to certify that, **Mr. Onkar Shrirang Yevale** and **Mr. Shreyash Sunil Abdagire** have satisfactorily completed the project entitled as **"Hospital Appointment Booking System"** in the partial fulfillment of MCA-II, SEM-III during the academic year 2023-2024.

**Place:** Kolhapur

**Date:** …. /. /2023

**Internal Guide** **Examiner** **MCA Co-Ordinator**

# ACKNOWLEDGEMENT

Every project is always a scheduled, guided & coordinated team effort aimed at achieving common minimum goals. This minimum goal cannot be achieved without the guidance of guide.

It is with immense pleasure that we present our report to our project guide **Dr. Vaishali Bhosale.** We find no words to describe her efforts and total confidence in our potential to see this project to completion. She has always been a source of inspiration and a tower of support boosting our moral beyond imagination. We would like to express our gratitude to our Head of the Department **Dr. Vaishali P. Bhosale I/C Director, YCSRD** for her continuing support and encouragement. We sincerely express our gratitude to our parents for their blessing for making this project successful.

Finally, we are thankful to our department and all our friends who havehelped us to realize our efforts.

Thanking all of them, again.

**Place:** Kolhapur

**Date:** …. /…. /2023

**Name of Student:**

**Mr. Onkar Shrirang Yevale**

**Mr. Shreyash Sunil Abdagire**

# DECLARATION

Respected Sir/Ma'am,

We, undersigned here by declare that the project entitled **"Hospital Appointment Booking System"**. Developed under the guidance of Dr. Vaishali Bhosale

The reports generated in the project work are based on the informationcollected by us.

**Place:** Kolhapur

**Date:** …. /…. / 2023

Name of Student:
Mr. Onkar Shrirang Yevale
Mr. Shreyash Sunil Abdagire

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# INTRODUCTION

# INTRODUCTION:

**Introduction of the Project Doctor Appointment System**:

The "Doctor Appointment System" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. More-over this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly.

Doctor Appointment System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.
Every organization, whether big or small, has challenges to overcome and managing the information of Appointment, Doctor, Booking, Doctor Fees, Doctor Schedule. Every Doctor Appointment System has different Doctor needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

# SYSTEM ANALYSIS

System analysis for your Hospital Appointment Booking System involves a structured process of understanding, diagnosing issues, and proposing improvements for the system. It's essential to facilitate effective communication between users and developers. Here's a simplified explanation of the system analysis for your Hospital Appointment System:

**Understanding the Current System:** The first step is to through examine how your current appointment system works. This includes looking at how patients book appointments, how the staff manages these appointments, and the overall workflow.

**Identifying Problems:** As a system analyst, you need to identify any challenges or inefficiencies in the current system. This could be issues like long waiting times, appointment scheduling conflicts, or difficulty in managing patient records.

**Gathering Information:** To gather information, you may conduct interviews with hospital staff and patients. You can also use questionnaires to collect data that will help in understanding the system's strengths and weaknesses.

**Data Analysis:** Once you've collected data, you'll need to analyze it to gain insights into how the system functions and where improvements can be made. This is crucial to understand the existing system thoroughly.

**Proposing Solutions:** After identifying the problem areas, you'll work on proposing solutions to address them. These solutions might include streamlining appointment scheduling, implementing an electronic health record system, or improving patient communication.

**User Involvement:** Your proposed solutions should be presented to the hospital staff for their input and feedback. They should be involved in the decision-making process to ensure that the changes are practical and meet their needs.

**Review and Refinement:** The proposed changes are reviewed by users, and any necessary adjustments or modifications are made based on their feedback. This iterative process continues until users are satisfied with the proposed improvements.

**Feasibility Studies:** In addition to the above steps, feasibility studies are conducted to determine the cost, resource requirements, and potential benefits of implementing the proposed changes.

**Selecting the Best Solution:** Ultimately, the most suitable solution is chosen, considering user feedback, feasibility, and the expected impact on the hospital appointment system.

**Implementation:** Once a solution is selected, the implementation phase begins. This involves making the necessary changes to the system and ensuring that users are trained to use the new system effectively.

**Monitoring and Evaluation:** After the system changes are in place, continuous monitoring and evaluation are essential to ensure that the improvements are achieving the desired outcomes and that any further adjustments are made as needed.

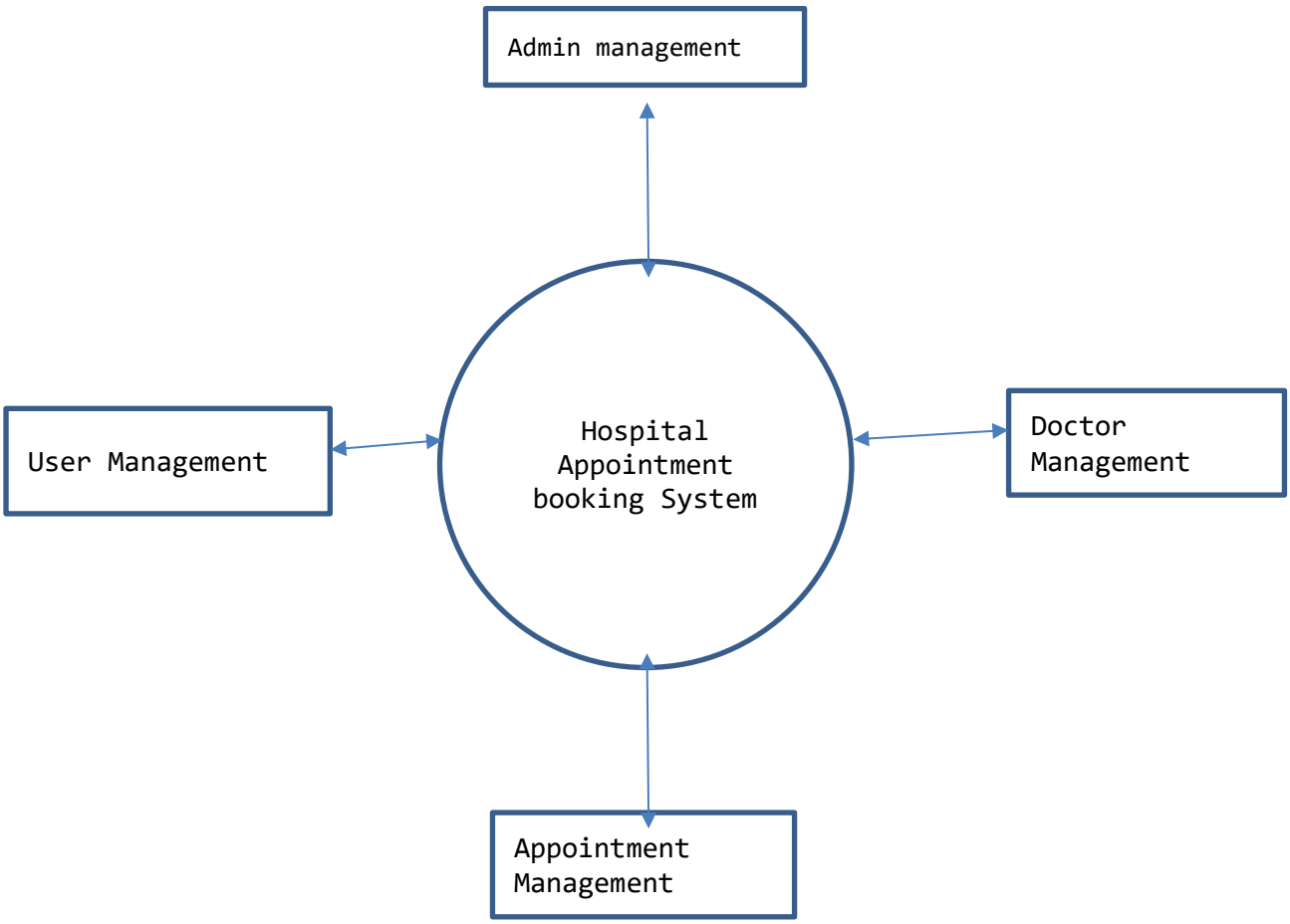
# OBJECTIVES

**Objective of Project on Doctor Appointment System:**

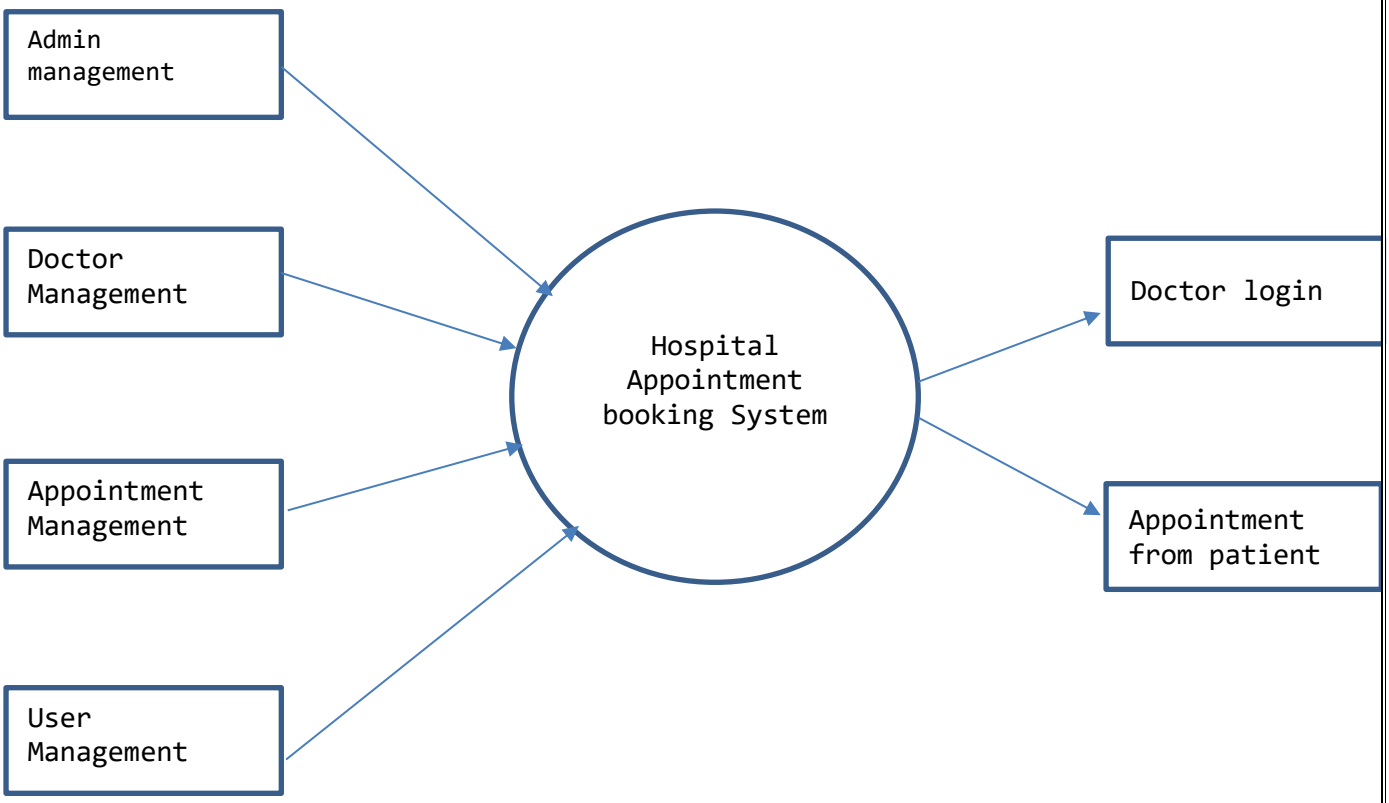
The main objective of the Project on Doctor Appointment Booking System is to manage the details of Doctor, Appointment, Patient, Booking, Doctor Schedule. It manages all the information about Doctor, Doctor Fees, Doctor Schedule, Doctor. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Doctor, Appointment, Doctor Fees, Patient. It tracks all the details about the Patient, Booking, Doctor Schedule.

**DFD:**

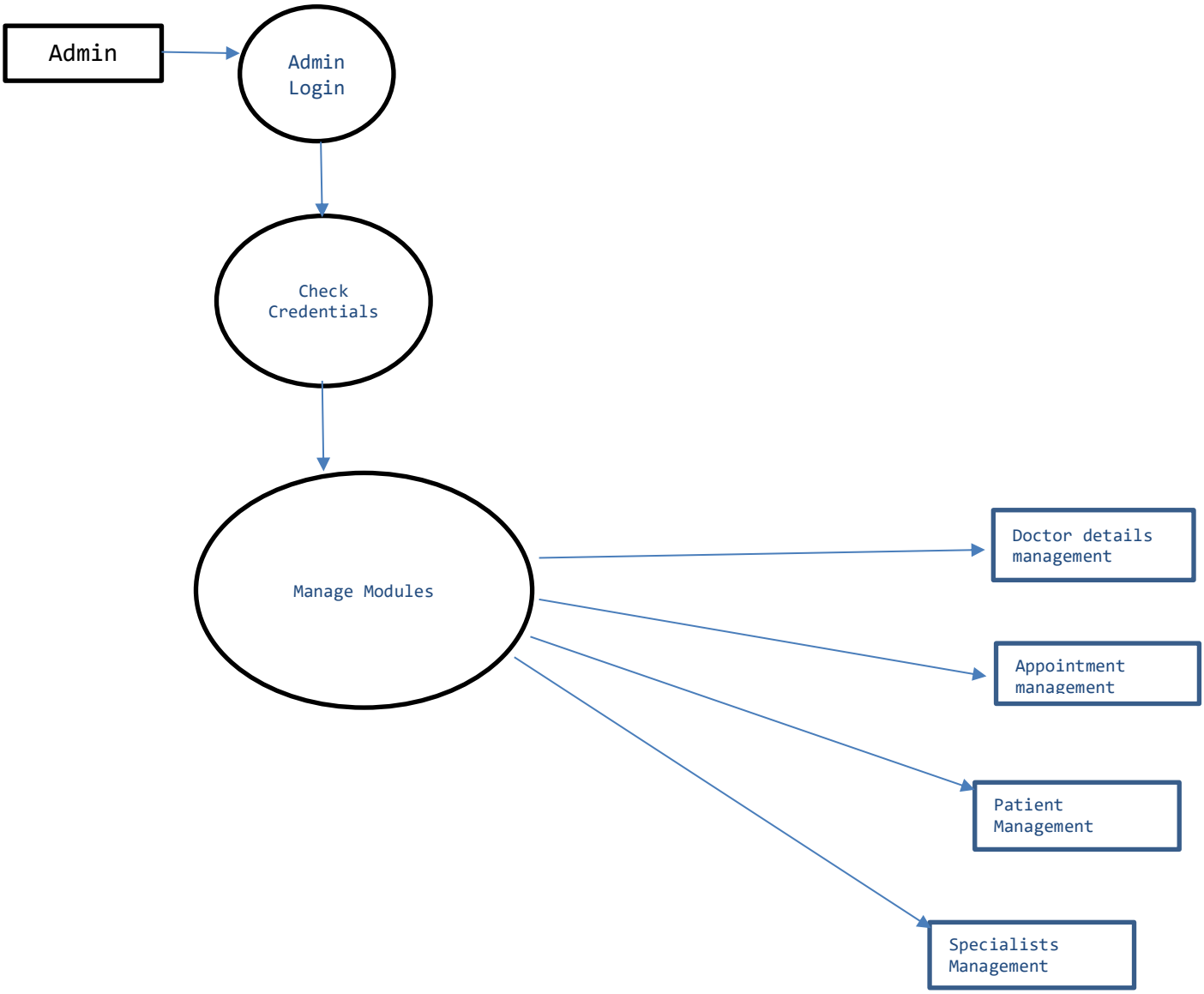
Zero Level DFD:



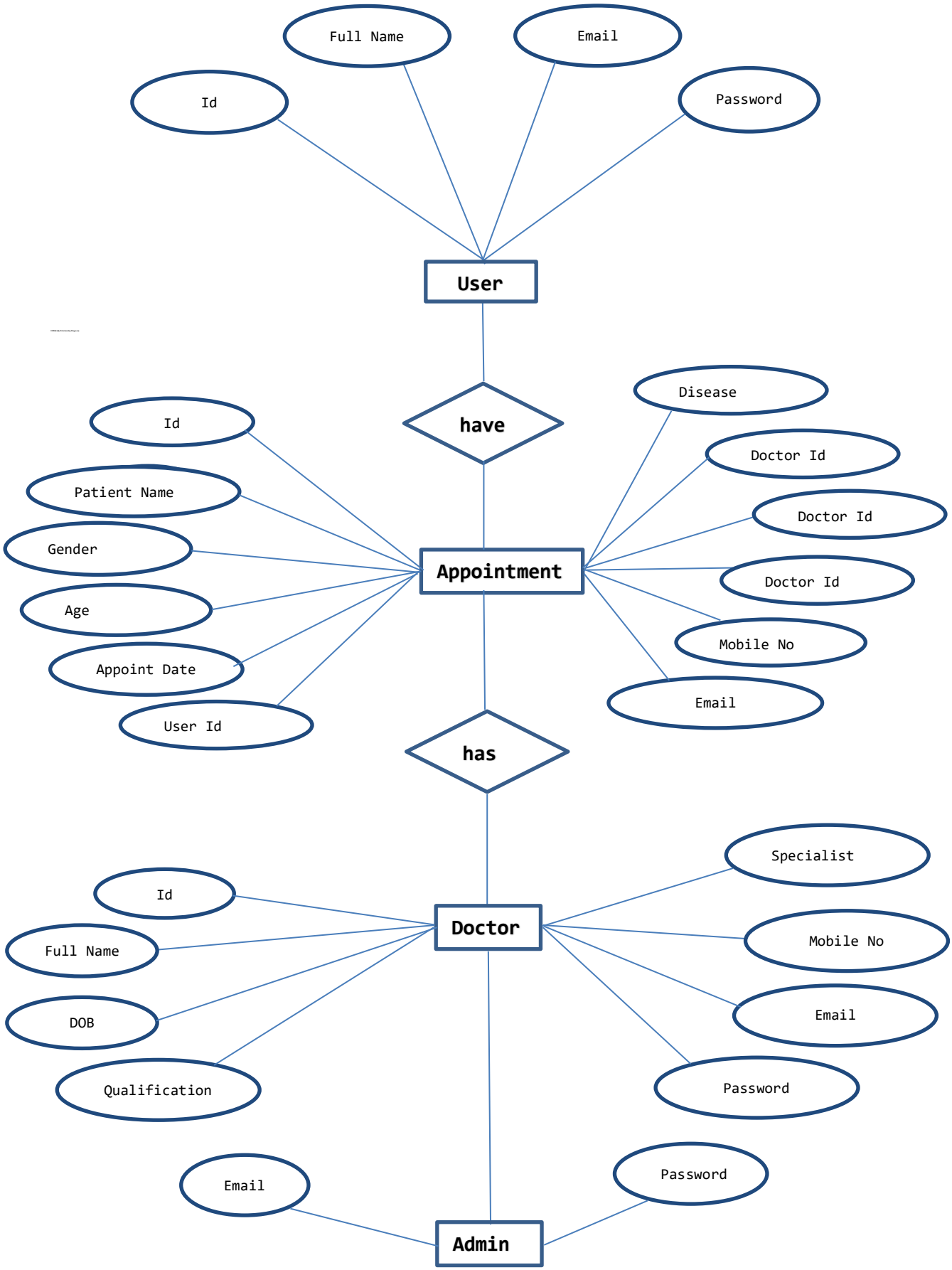
## Level 1 DFD:


Admin management
Doctor Management
Appointment Management
User Management
Hospital Appointment booking System
Doctor login
Appointment from patient

**Level 2 DFD:**


Admin
Admin Login
Check Credentials
Manage Modules
Doctor details management
Appointment management
Patient Management
Specialists Management

# ERD:


Full Name
Email
Id
Password
User
have
Disease
Id
Doctor Id
Patient Name
Doctor Id
Gender
Appointment
Doctor Id
Age
Mobile No
Appoint Date
Email
User Id
has
Specialist
Id
Doctor
Mobile No
Full Name
Email
DOB
Password
Qualification
Password
Email
Admin

# SYSTEM REQUIREMENT

- **Hardware and Software**

### A. Software Requirement

Operating System: Windows 11(64bit)

Web browser: Chrome, Firefox, Etc.

### B. Hardware Requirement:

| | |
|---|---|
| Hard Disk | : 1GB free space |
| RAM | : 512 MB |

### C. Front End

1)JSP, Servlet
2)JAVASCRIPT
3)Bootstrap

### D. Back End

1) Core Java
2) JDBC API
3) MYSQL

# FEASIBILITY STUDY

Feasibility Study for Hospital Appointment Booking System:

When considering the feasibility of implementing a Hospital Appointment Booking System, we must assess various aspects to ensure the project's viability:

**A. Economical Feasibility:**

**Cost Assessment:** We need to estimate the costs involved in developing and maintaining the system. This includes hardware, software, and personnel costs.
Benefit Analysis: Evaluate the benefits the hospital will receive from the proposed system. This could include reduced administrative workload, better patient management, and improved efficiency.
Return on Investment (ROI): Calculate the expected ROI to ensure that the benefits will outweigh the costs. The savings in terms of staff time, reduced paperwork, and improved resource allocation should be considered.

**B. Technical Feasibility:**

**Functionality Assessment:** Examine the technical capabilities required for the system. Ensure that the system can handle the essential functions like appointment scheduling, patient record management, and communication efficiently.
Performance Evaluation: Assess whether the proposed system can perform all necessary tasks within acceptable timeframes and without major technical constraints.
Compatibility: Confirm that the system can work with the existing hospital infrastructure, including databases and networks.

**C. Operational Feasibility:**

**User-Friendliness:** Evaluate how user-friendly the system is. It should be easy to use for both staff and patients, ensuring that the appointment booking process is smooth and efficient.
**Training and Adoption:** Determine the readiness of the hospital staff to adopt the new system. Training programs should be designed to help users understand and utilize the system effectively.
**Stakeholder Satisfaction:** Consider the comfort and satisfaction of both hospital staff

and patients. The system should simplify appointment booking and management, reducing workloads for staff and enhancing the patient experience.

In conclusion, the feasibility study for the Hospital Appointment Booking System should indicate that:

The costs associated with system development and maintenance are justified by the expected benefits, and the return on investment is favourable.

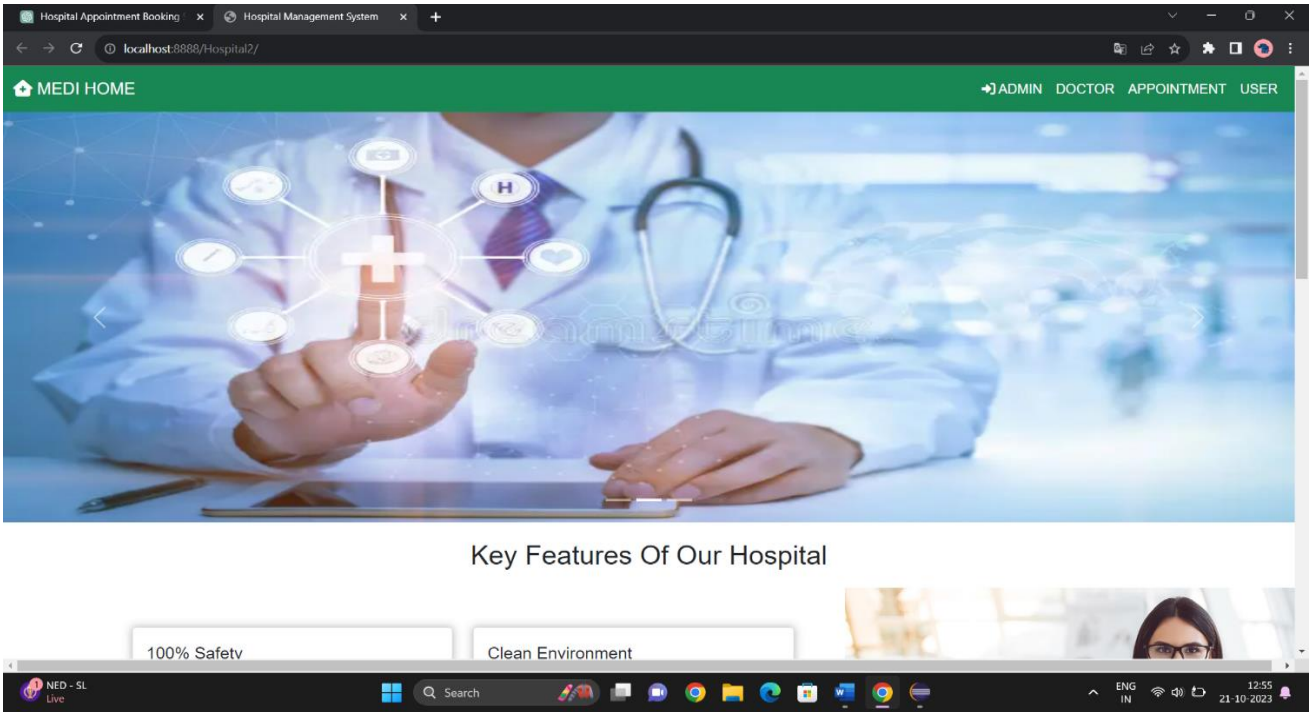
The technical requirements and constraints can be met, ensuring the system's reliability and performance.

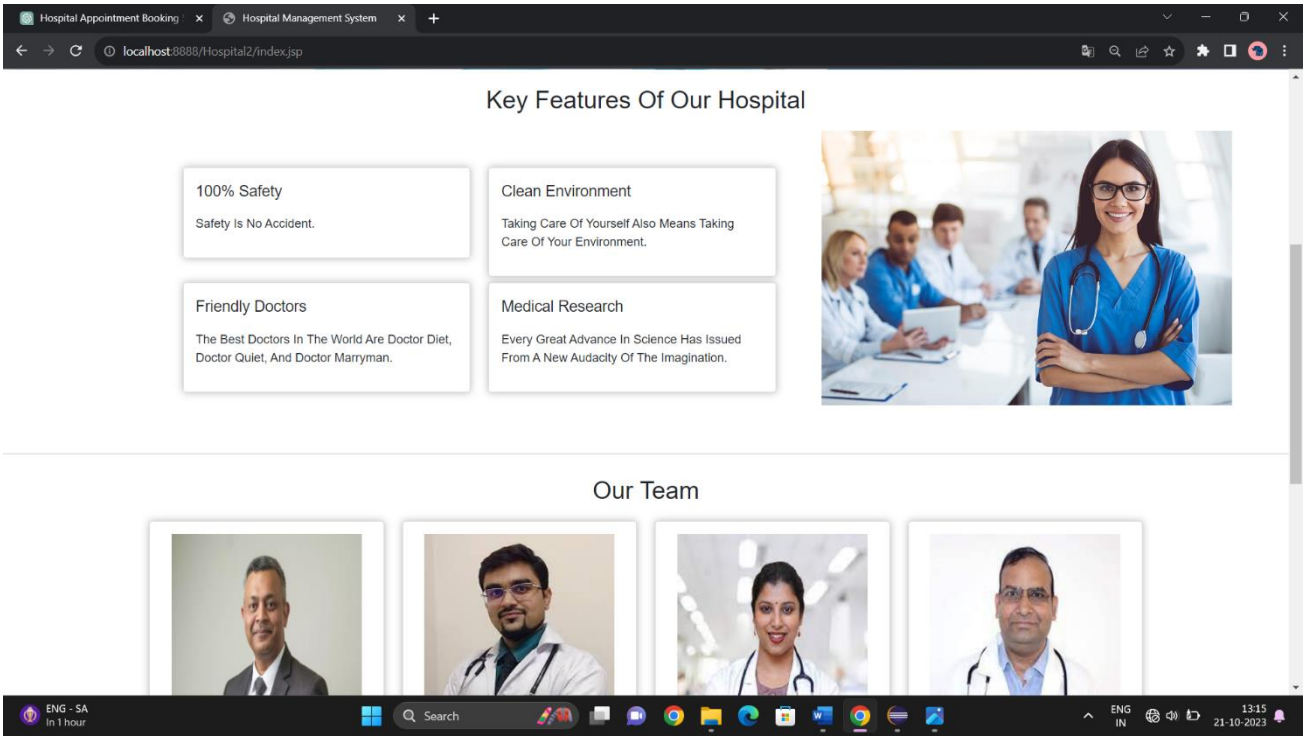
The system is user-friendly, and the hospital staff is prepared to use it effectively. Stakeholders, including hospital staff and patients, are likely to benefit from the system's implementation

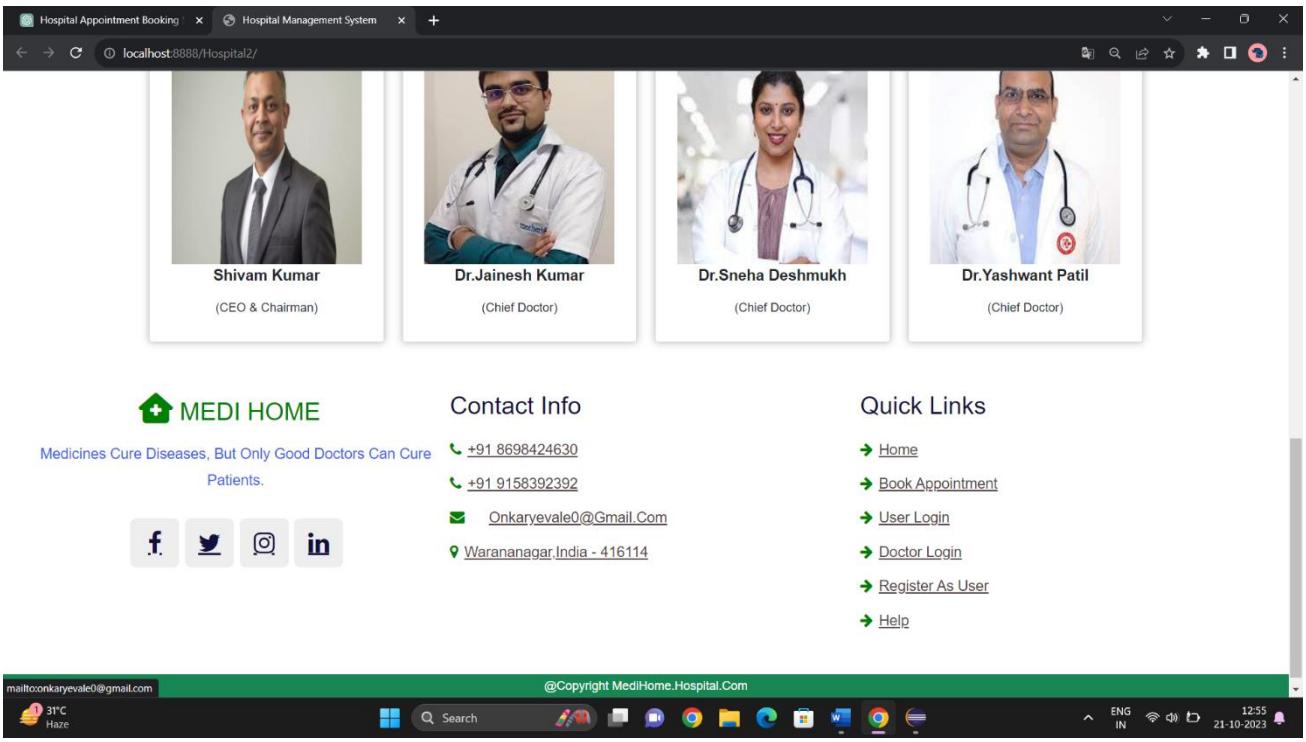
# OUTPUT DESIGN AND REPORT

## GUIs:

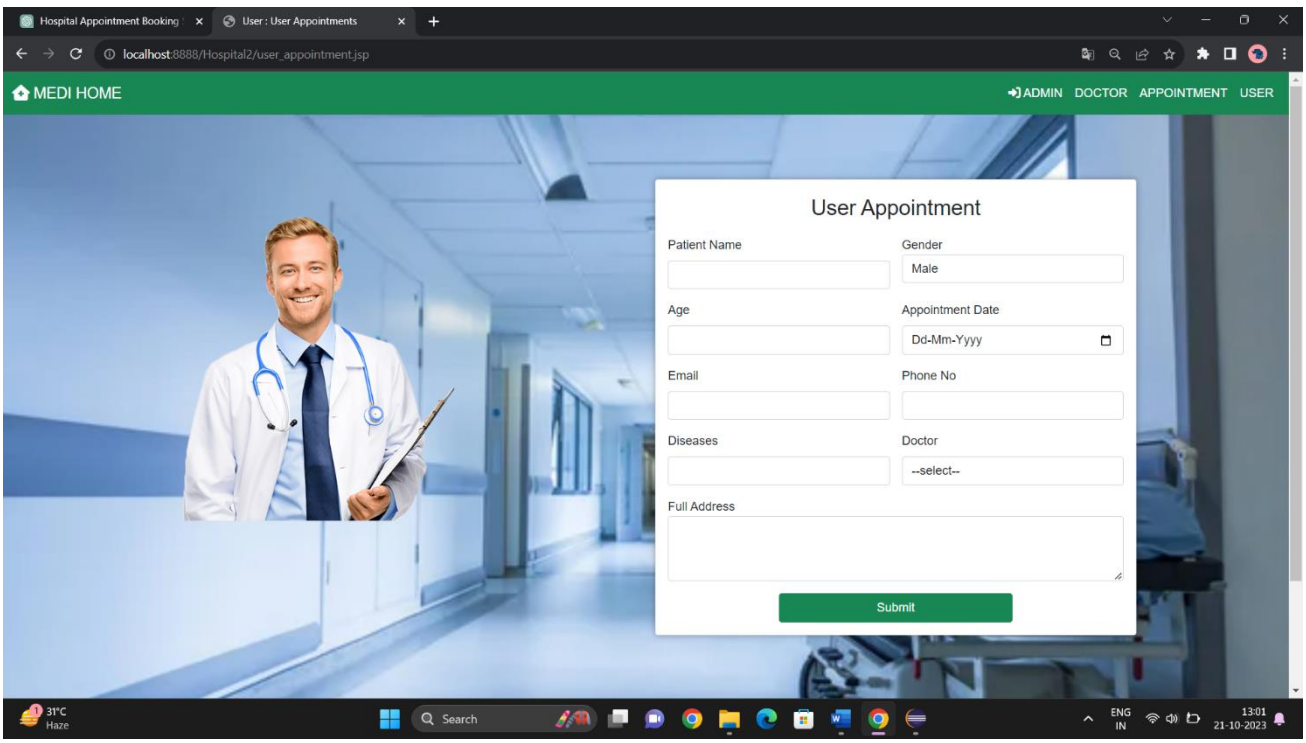
### 1. Landing Page



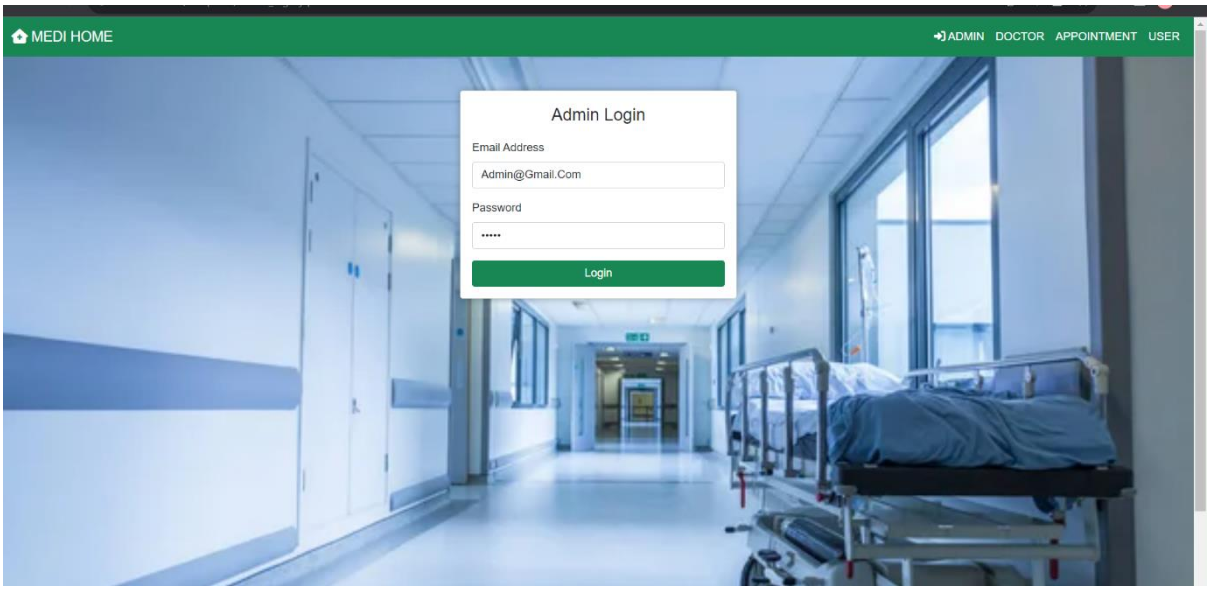





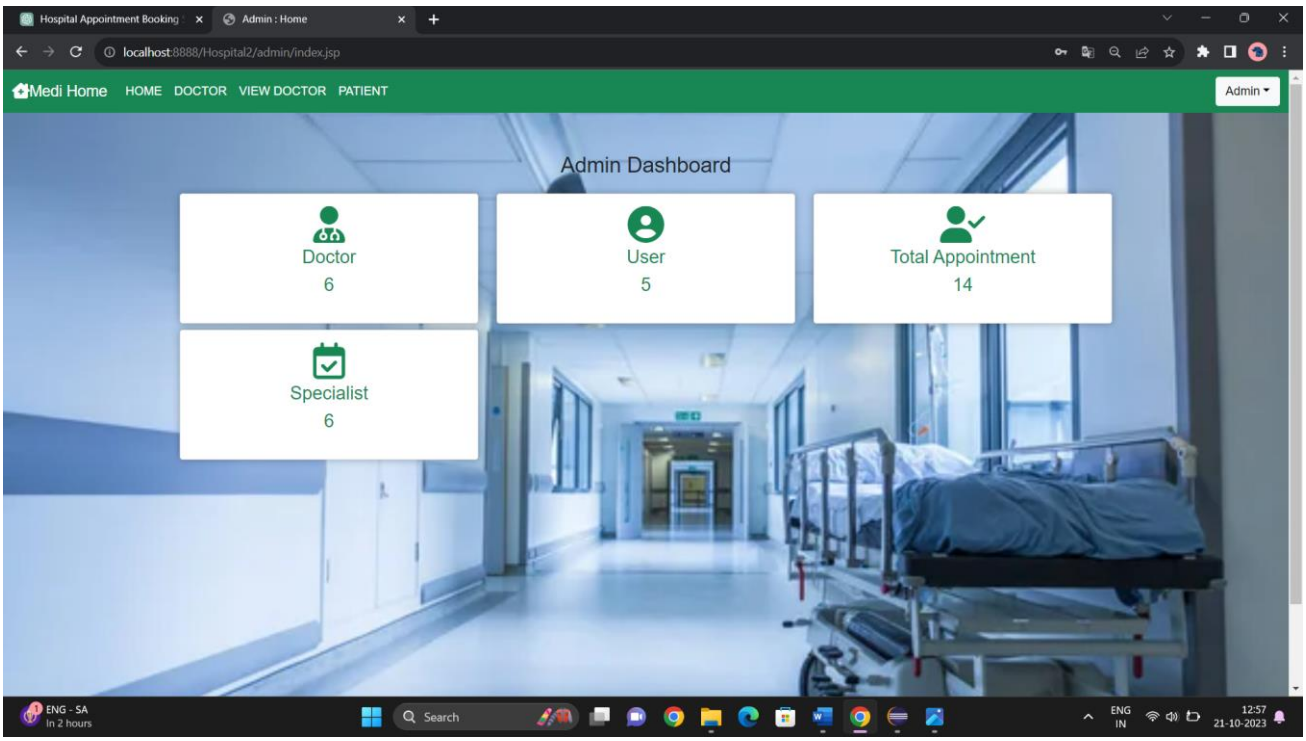

## 1. Landing Page: Appointment Booking Form Without Login



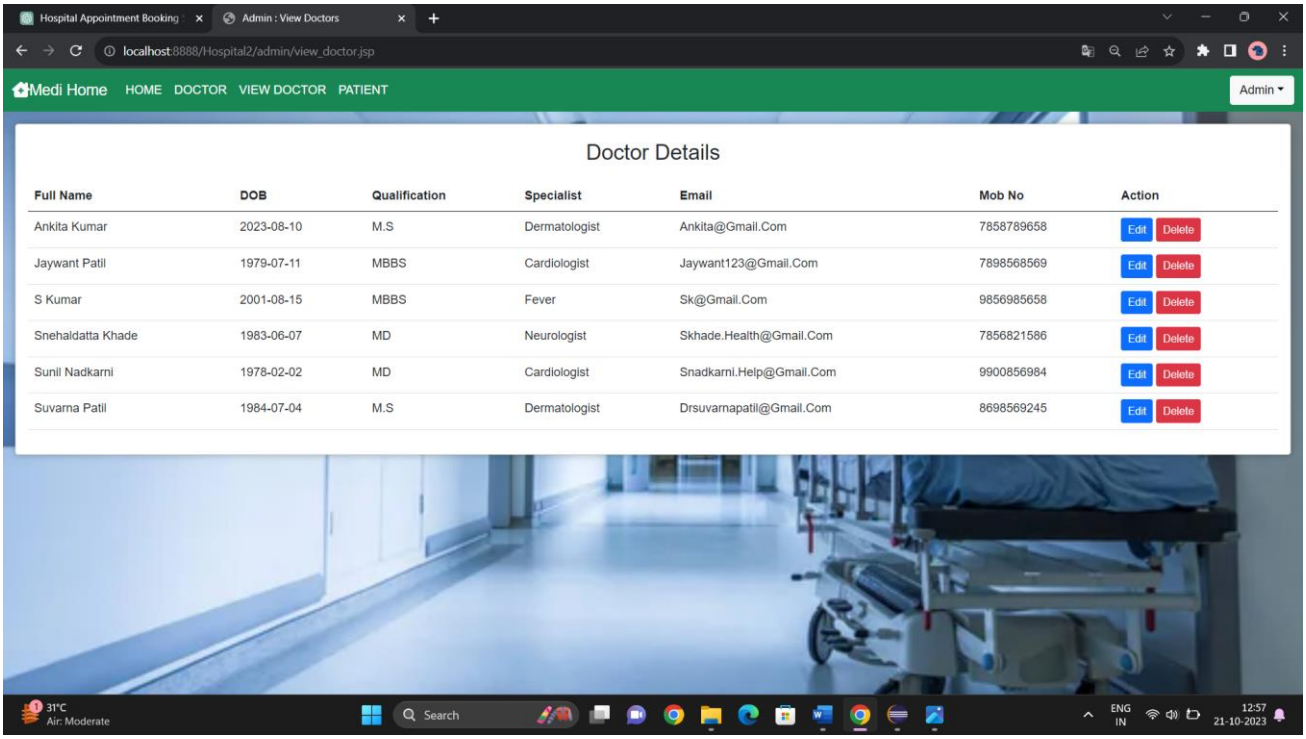
## 2. Admin: Login



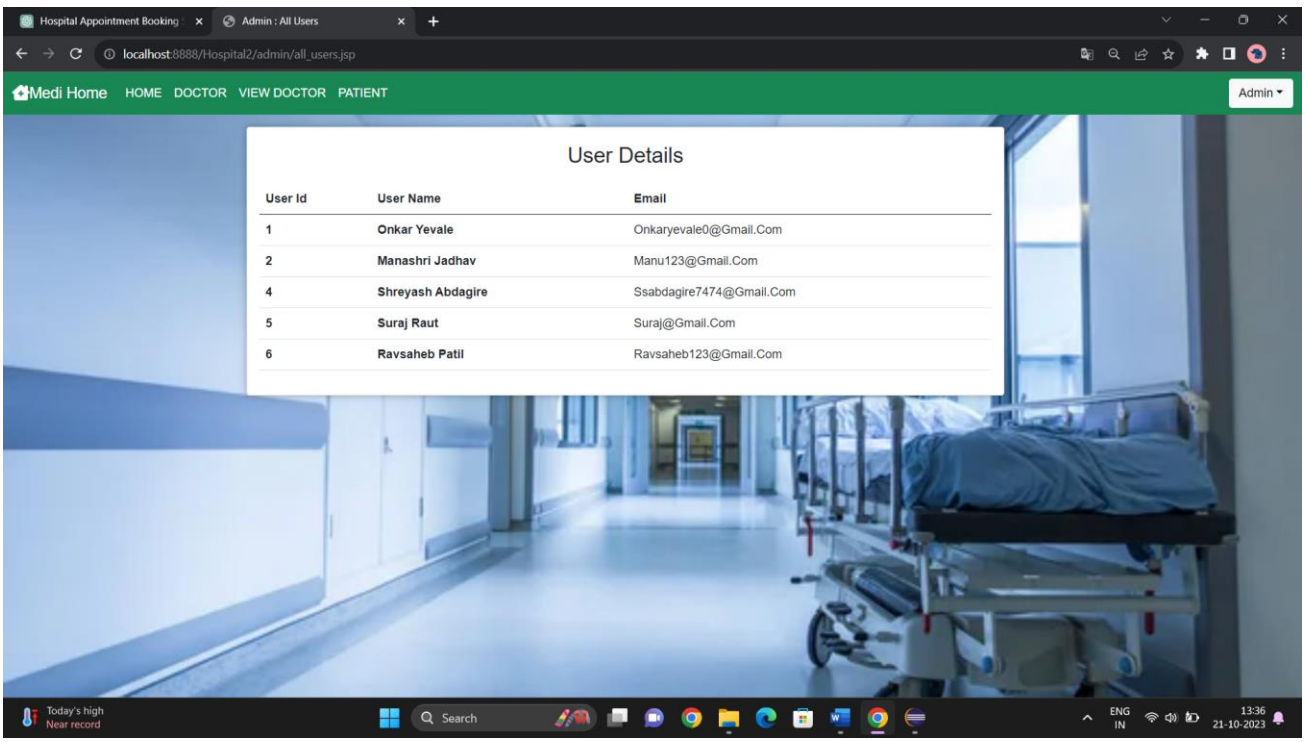

## 2. Admin: Home



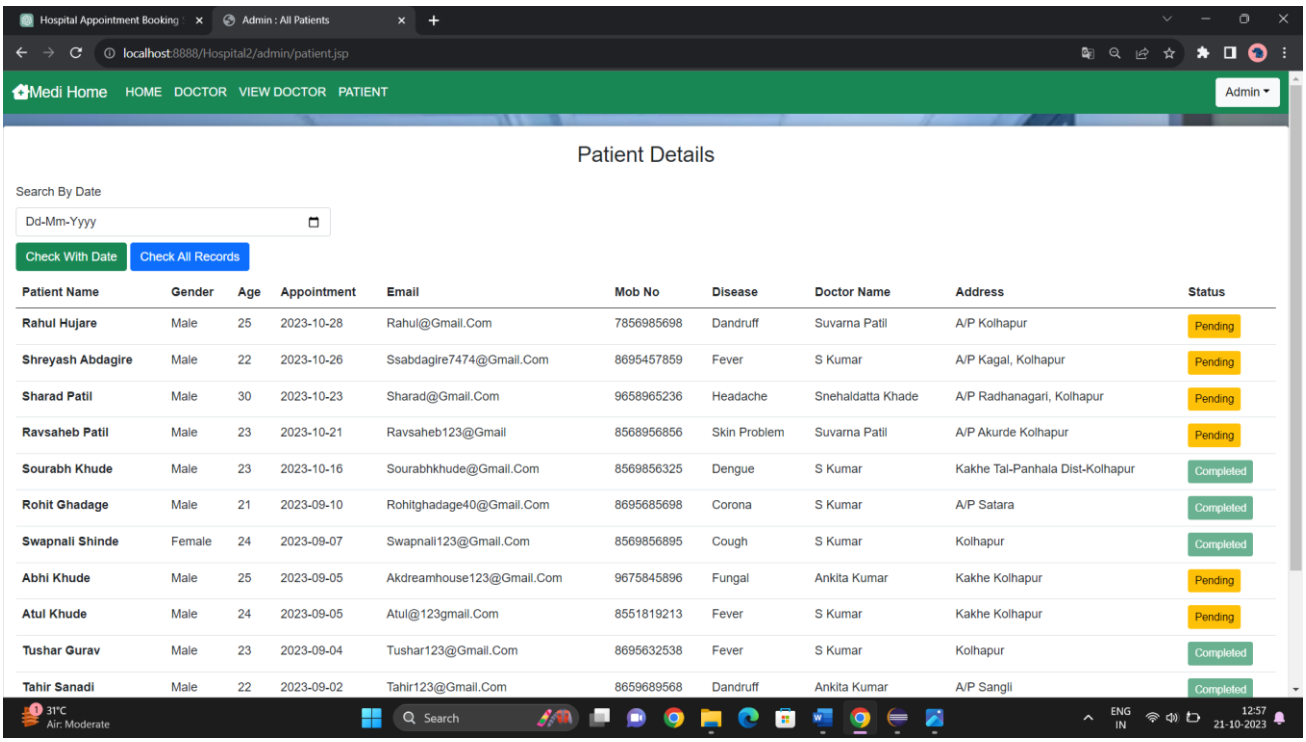
## 2) Admin: Doctor Details



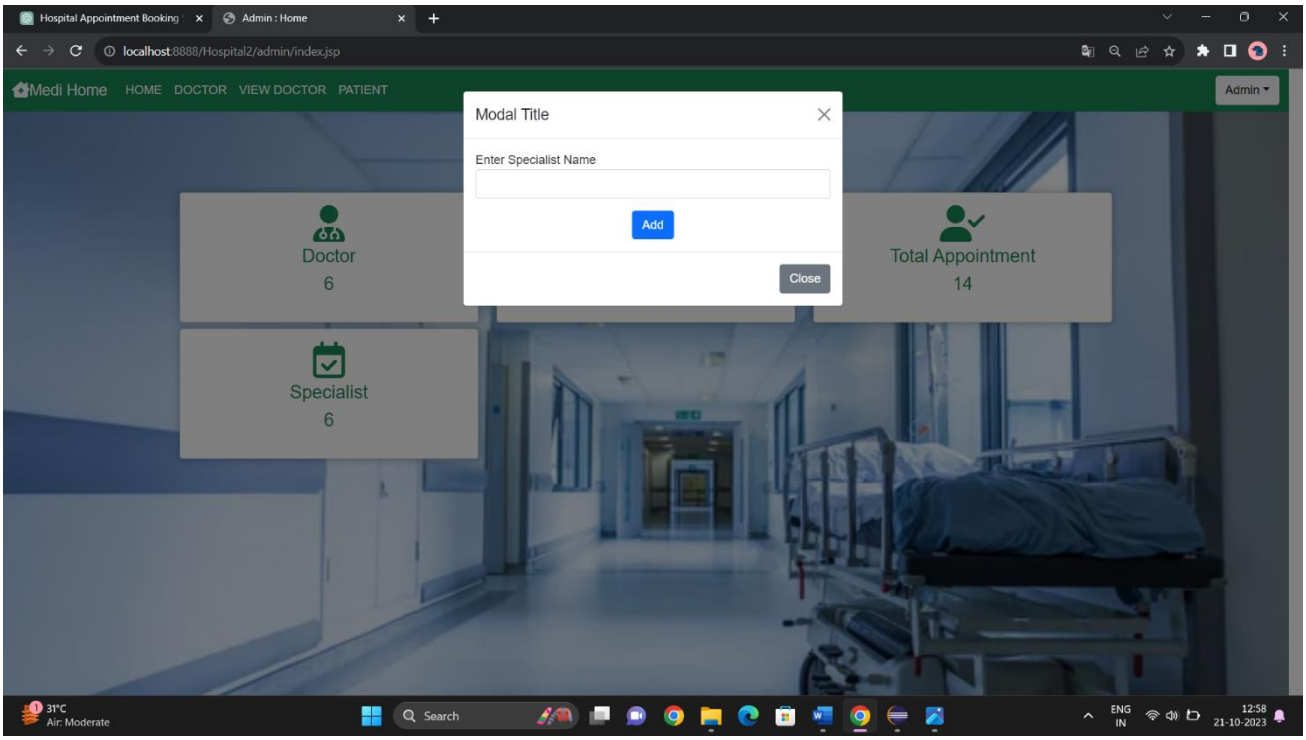

## 2) Admin: User Details



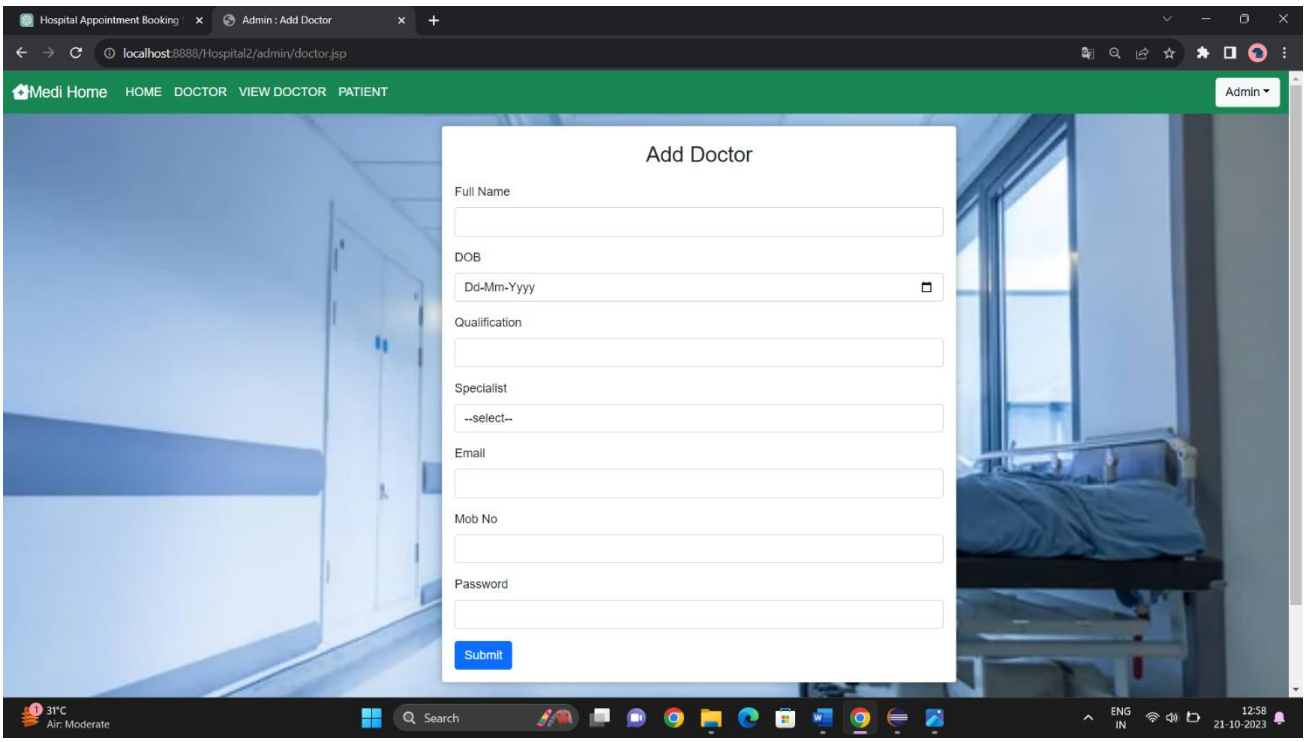
## 2) Admin: Patient Details



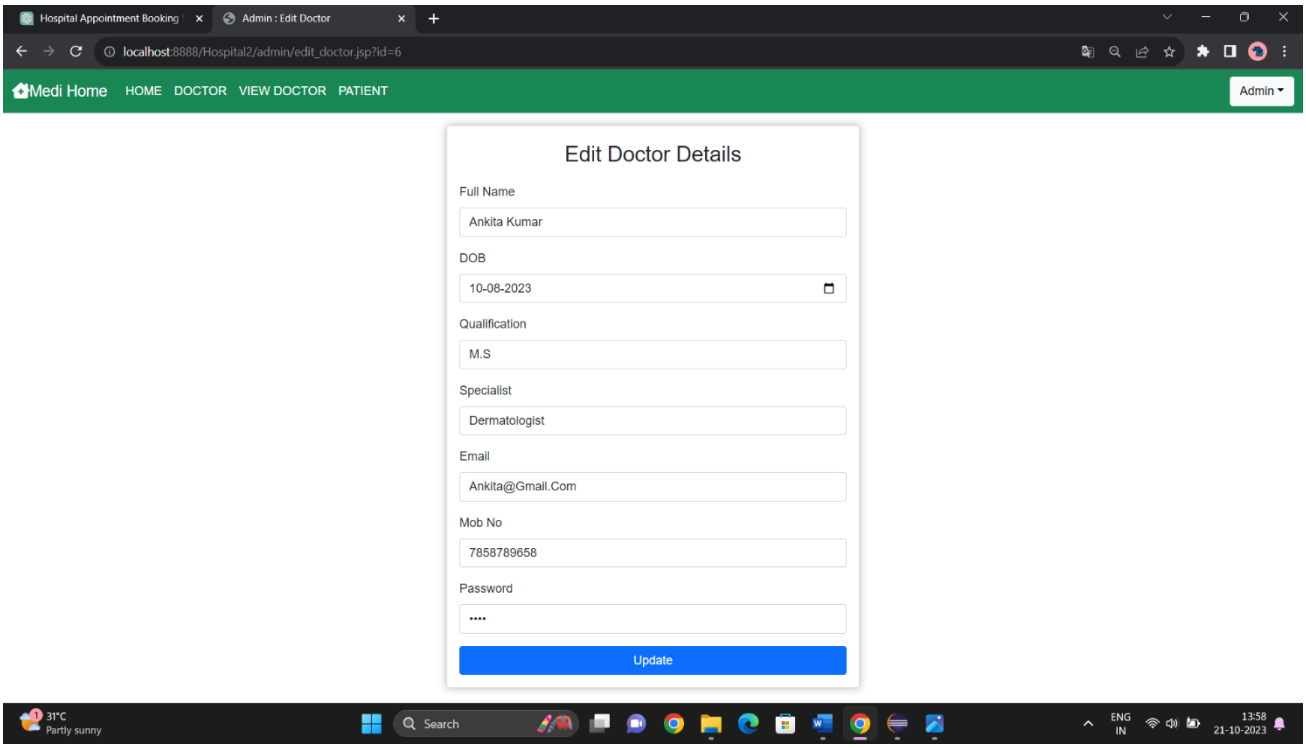

## 2) Admin: Add Specialist



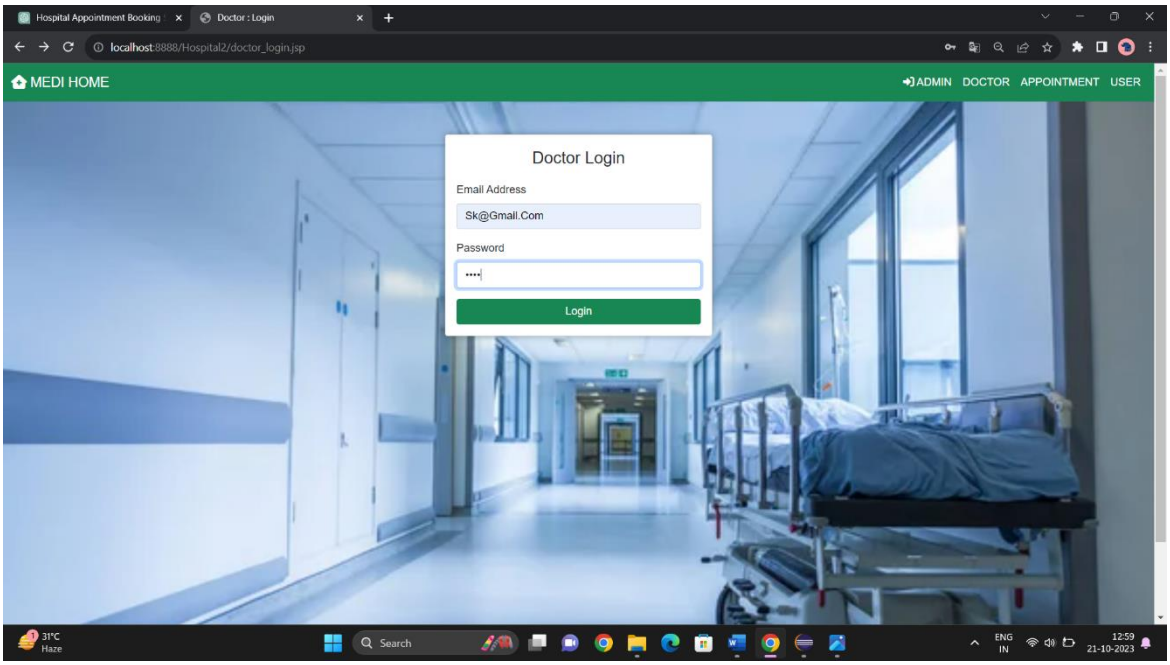
## 2) Admin: Add Doctor



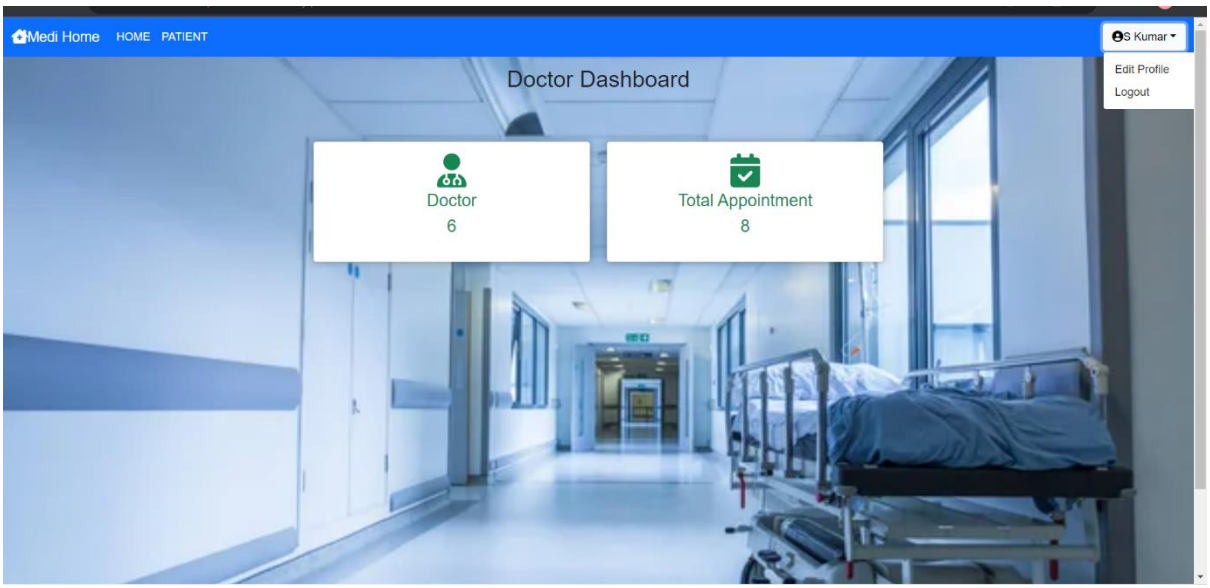

## 2) Admin: Edit Doctor



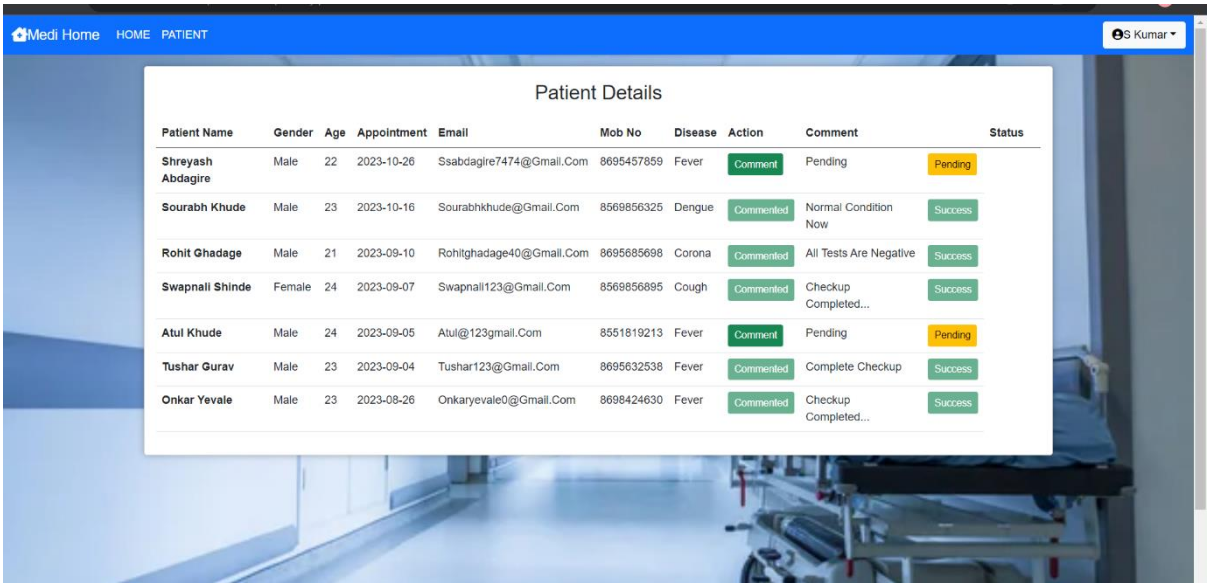
## 3. Doctor: Login



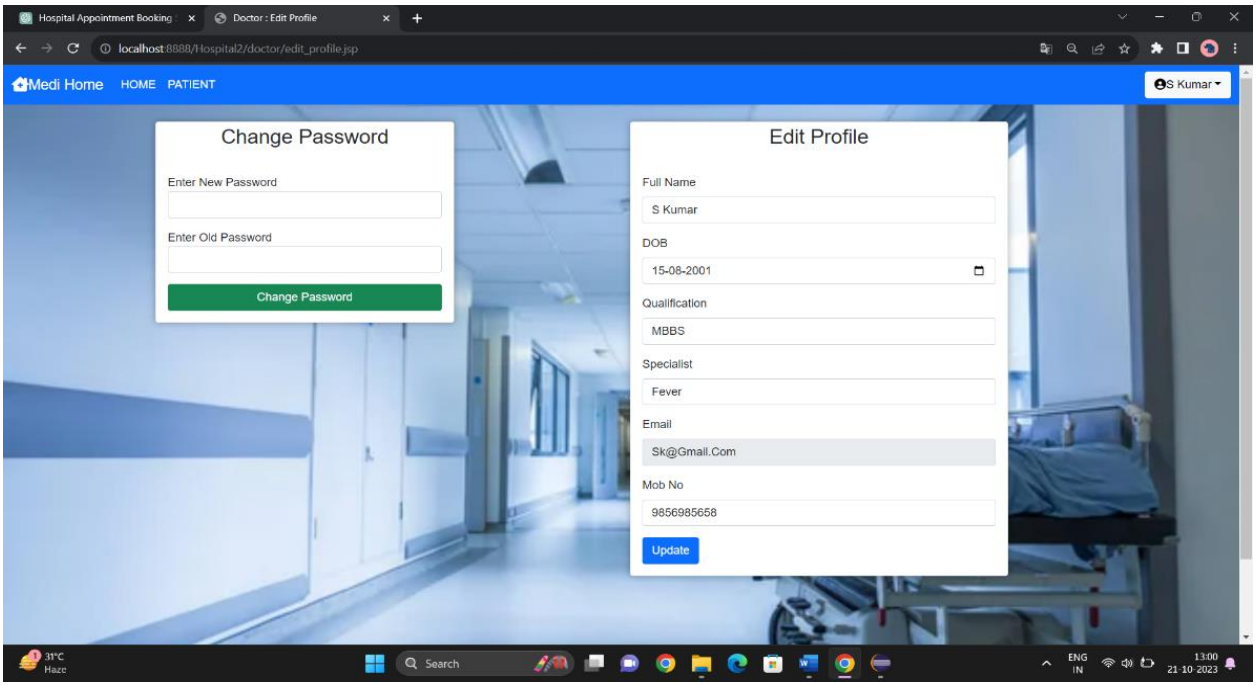

## 3. Doctor: Home



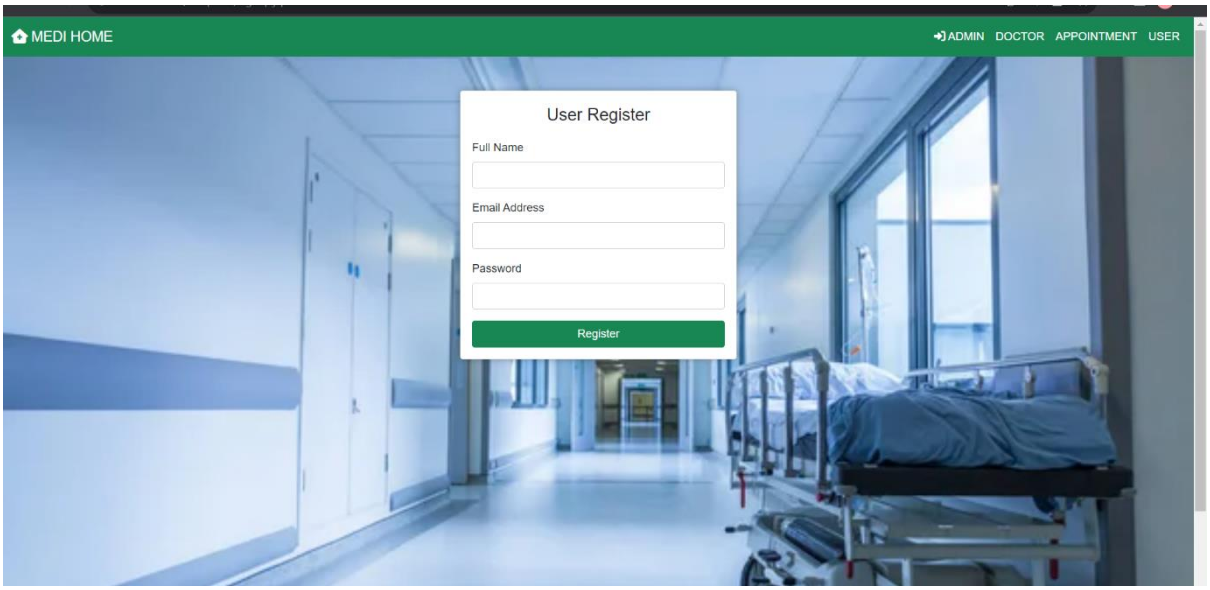
## 3. Doctor: Appointments



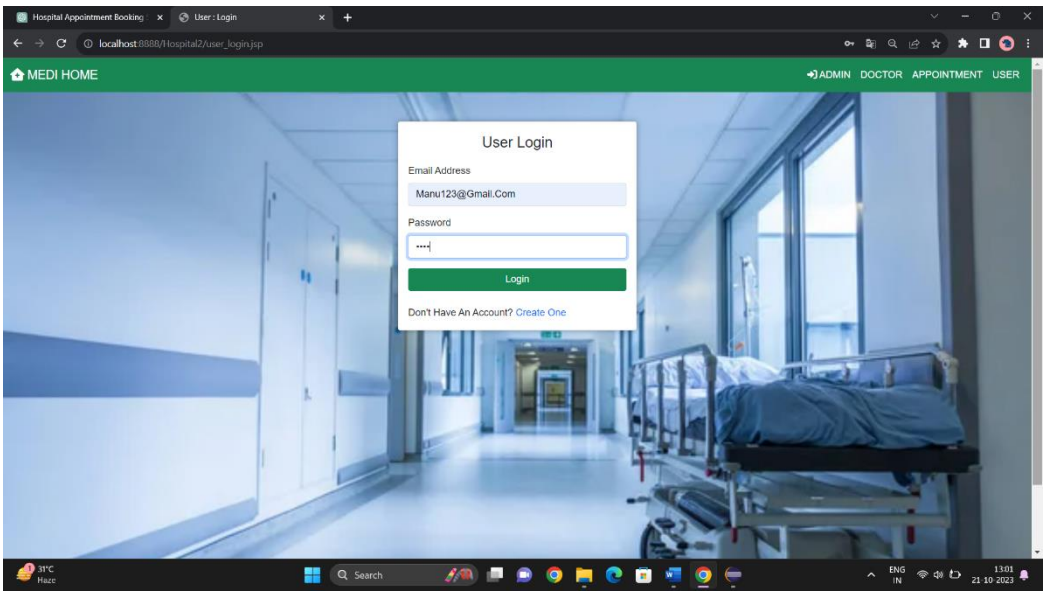

## 3. Doctor: Update Doctor Profile



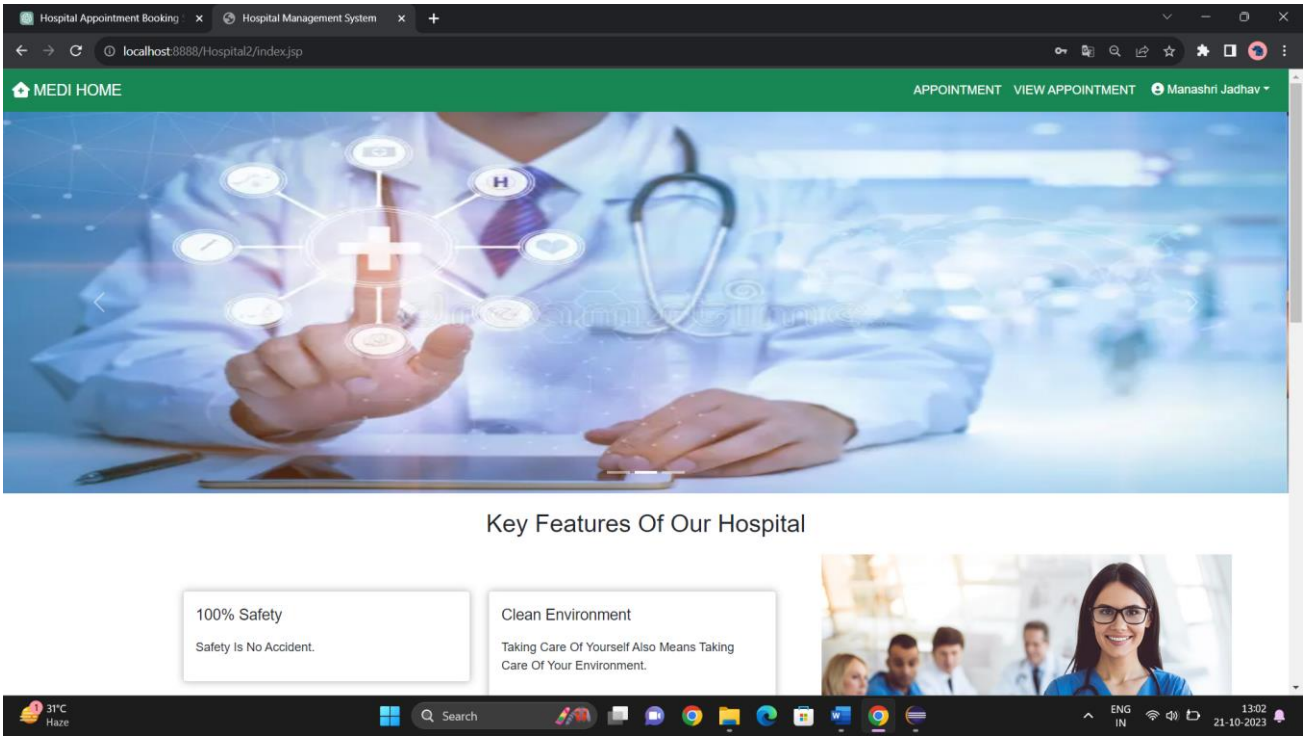
## 4. User: Registration Form



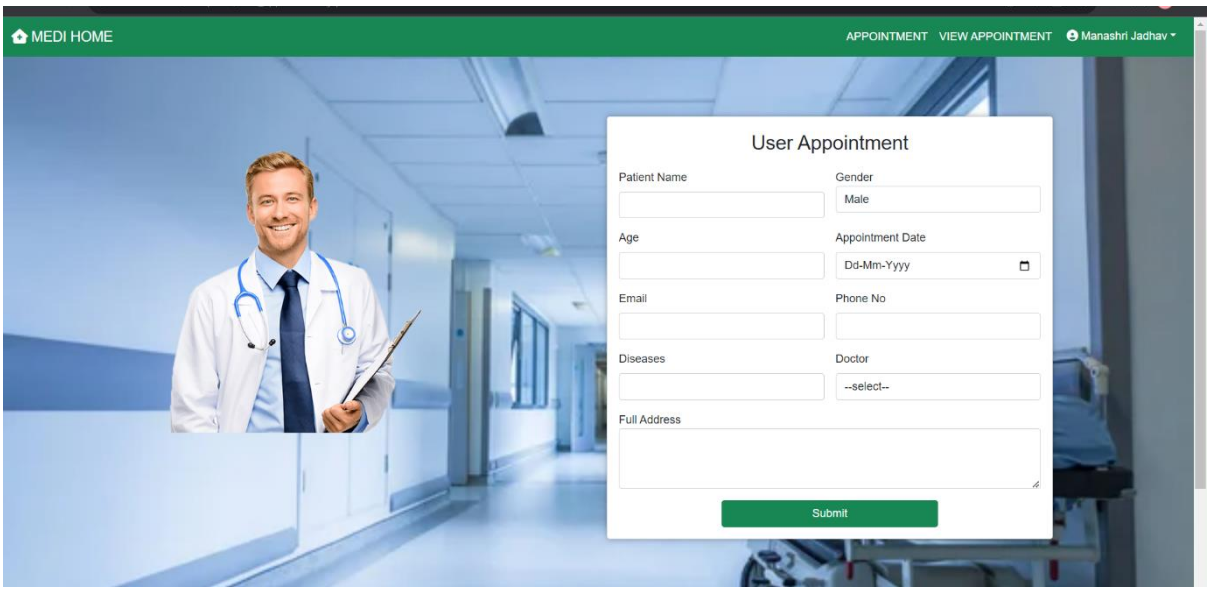

## 4. User: Login



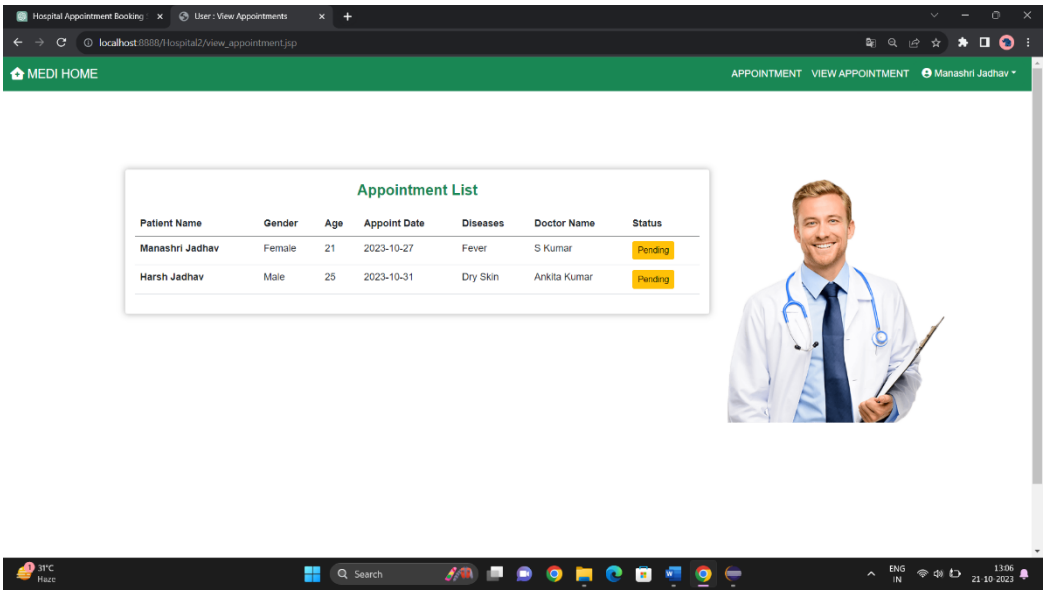
## User: Home



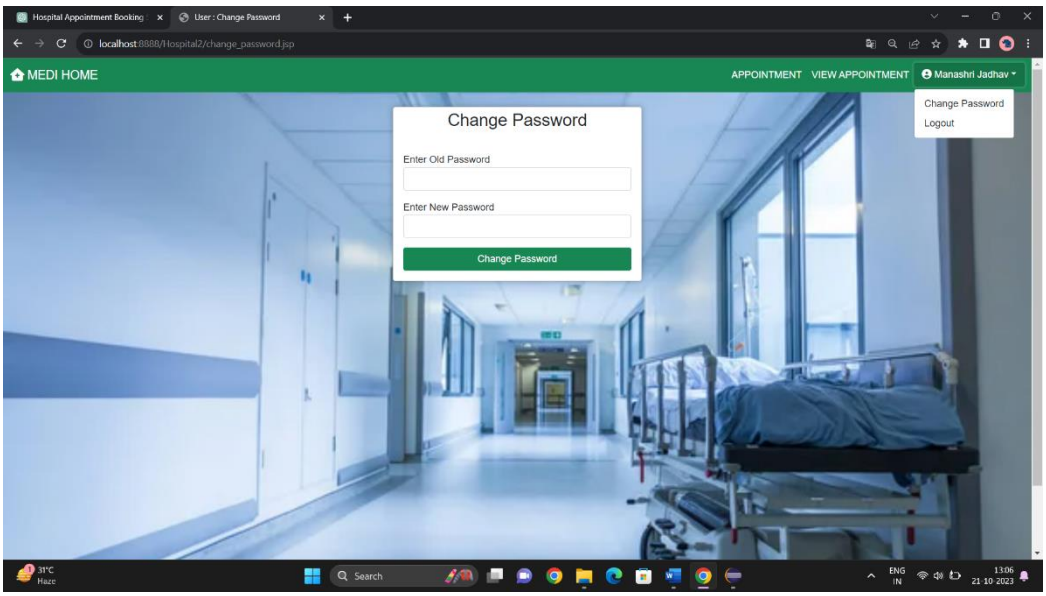

## User: Appointment Booking Form



# User: View Appointments




# User: Change Password



# FEATURES

A hospital appointment booking system is a crucial tool for managing patient appointments efficiently and improving the overall patient experience. Here are some of the key features typically found in such a system:

- User Registration and Authentication:

- User registration for both patients and healthcare providers/staff.
- Secure login/authentication mechanisms to protect patient information.

- Patient Profile Management:

- Patient profiles with personal information, medical history, and contact details.
- The ability for patients to update their profiles and medical information.

- Search and Match:

- A search feature to find healthcare providers by specialty, location, and availability.
- Matching algorithms to connect patients with appropriate healthcare providers.

- Notifications and Reminders:

- Automated email or SMS reminders for upcoming appointments.
- Notifications for any changes or cancellations in appointments.

- Waiting List Management:

- Option for patients to join a waiting list for earlier appointments if they become available.
- Priority system for patients with urgent needs.

- Multi-Channel Booking:

- Support for online booking through a website or mobile app.
- Phone or in-person booking by hospital staff for patients without internet access.

- Appointment Confirmation:

- Automated confirmation of appointments to patients and healthcare providers.

- Access Control and Permissions:

- Role-based access control to ensure that only authorized personnel can make

changes or access sensitive data.

- Feedback and Reviews:

- Allow patients to leave feedback and reviews about their experiences.

- Mobile-Friendly Interface:

- A responsive design to ensure the system is accessible on mobile devices.

- Security and Privacy:

- Robust data encryption to protect patient information.

- Scalability:

- The ability to handle a growing number of patients, doctors and healthcare providers.

- Technical Support:

- Ongoing technical support and maintenance to address issues and updates.

A well-designed hospital appointment booking system should streamline the appointment booking process, reduce administrative workload, and enhance the patient's experience while ensuring the privacy and security of their health information.

# CONCLUSION

The main goal of this project was to develop an online invoicing system based on the Software as a Service model. This has almost been accomplished, although wider distribution of the product has not commenced. The front-end website that will handle customer subscriptions is currently under development at the time of writing and bugs are still being fixed on the back-end administration panel. This is done in close cooperation with a few early customers whose ongoing use of the system exposed some previously hidden bugs.

Personally, have acquired a significant amount of professional experience and expo- sure to company environments and work ethics. I have also made progress in personal adaption to teamwork.

There are plans to build the system into a full ERP solution in the future that would serve even the most advanced enterprises and be able to scale with the growing needs of each company. This requires high level enhancements to the system and addition of improved hardware infrastructure. With growing appetite for convenience among the wider population, companies are compelled to be more flexible and innovative in their product implementation and service delivery.

# REFERENCE

## Books:

Complete reference of PHP & MySQL

## Websites:

1. www.stackoverflow.Com
2. www.docs.oracle.com
3. www.youtube.com