

A HOSPITAL MANAGEMENT WEBSITE

INTERDISCIPLINARY PROJECT

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Technology degree in Information Technology
by

DHARSINI M (Reg.No-41120054)



**DEPARTMENT OF INFORMATION TECHNOLOGY
SCHOOL OF COMPUTING**

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

CATEGORY-1 UNIVERSITY BY UGC

Accredited "A++" by NAAC

12B Status by UGC |Approved by AICTE

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI-600119

MAY 2024



SATHYABAMA

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DEPARTMENT OF INFORMATION TECHNOLOGY

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **DHARSINI M (41120054)** who carried out the project entitled **A HOSPITAL MANAGEMENT WEBSITE** under my supervision from January 2024 to May 2024.

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Head of the Department
Dr. R. SUBHASHINI, M.E., Ph. D.,

Submitted for Viva voce Examination held on 08/05/2024

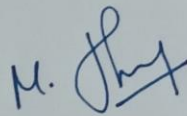
Internal Examiner

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DECLARATION

I **DHARSINI M (41120054)** hereby declare that the project report entitled **A HOSPITAL MANAGEMENT WEBSITE** done by me under the guidance **Dr.Kamatchi K S, M.E.,Ph.D.,** (Internal) is submitted in partial fulfillment of the requirements for the award of Bachelor of Technology degree in Information Technology.

DATE: 08.05.2024



PLACE: CHENNAI

SIGNATURE OF THE CANDIDATE

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I wish to express my thanks to all Teaching and Non-teaching staff members of the Department of Information Technology who were helpful in many ways for the completion of the project.

CERTIFICATE OF COMPLETION



ABSTRACT

Nowadays, the IT system has made many changes in the medical field. Managing a multi-speciality hospital is a challenging task in this fast-paced world of medicine. The fundamental changes in the way of solving organizational problems are the replacement of the traditional analytical approach with the systematic type assessment, according to a management type criterion, which examines the relationships and interaction between various organization components. Therefore, the need for a management type of organization is especially obvious in this field, especially in health services. Accordingly, the interactions between the hospital organization structure's systems and staff are analysed in an effort to enhance their management

Web application manages the storage and retrieval of information through a combination of server-side scripts and client-side (JavaScript and HTML) scripts to provide information to users. HMS is used to control the hospital services and either a mobile or a computer browser can access the HMS application. HMS application consists of ten main modules that include all details regarding doctors, patients, nurses, hospital administrative, etc. into one software. HMS allows the patients to register via a registration module (form), which gathers and stores all required patient's data. Patients can view available appointments to book an appointment. Once the patient visits the hospital, the receptionist will issue a clinic number for him. when the patient's turn came, the patient explains his condition to the consulting nurse, so that the nurse performs the pre-assessment examinations to diagnose the problem and then redirect him to the concerned doctor. Then, the concerned doctor will diagnose the patient, and then enter the prescription needed for the patient. If the patient needs further examination, then the doctor will redirect him to the nurse or lab assistant .

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1. INTRODUCTION

Hospital management system (HMS) is a website to solve the complications coming from managing all the paperwork of every patient associated with the various departments of hospitalization with confidentiality. HMS provides the ability to manage all the paperwork in one place, reducing the work of staff in arranging and analyzing the paperwork of the patients. HMS does many works like: Maintain the medical records of the patient, Maintain the contact details of the patient, Keep track of the appointment dates, Save the insurance information for later reference, Tracking the bill payments. Web application manages the storage and retrieval of information through a combination of server-side scripts and client-side (JavaScript and HTML) scripts to provide information to users. HMS is used to control the hospital services and either a mobile or a computer browser can access the HMS application. HMS application consists of ten main modules that include all details regarding doctors, patients, nurses, hospital administrative, etc. into one software. HMS allows the patients to register via a registration module (form), which gathers and stores all required patient's data. Patients can view available appointments to book an appointment. Once the patient visits the hospital, the receptionist will issue a clinic number for him. when the patient's turn came, the patient explains his condition to the consulting nurse, so that the nurse performs the pre-assessment examinations to diagnose the problem and then redirect him to the concerned doctor. Then, the concerned doctor will diagnose the patient, and then enter the prescription needed for the patient. If the patient needs further examination, then the doctor will redirect him to the nurse or lab assistant .

User can search about the doctor whether they are available or not and the details of a patient. The hospital management system can be entered using a username and password. It is accessible either by an administrator or receptionist. Only they can add data into the database. The data can be retrieved easily. The interface is very user friendly. The data is well protected for personal use and fast data processing. Hospital Management System is designed for multispecialty hospitals, to cover a wide range of hospital administration processes. Hospital Management

System is a useful to improve the management of hospital in the area of clinical process analysis and activity-based costing. Hospital Management System enables you to develop your organization and improve effectiveness and quality of work. Improved Efficiency: By automating routine tasks and centralizing data management, our HMS website enhances operational efficiency, allowing healthcare providers to focus more on patient care.

Enhanced Patient Care: Access to accurate patient information and streamlined processes translates to improved patient care and satisfaction.

Cost Savings: Reduce administrative costs, minimize errors, and optimize resource utilization, leading to significant cost savings for your healthcare facility

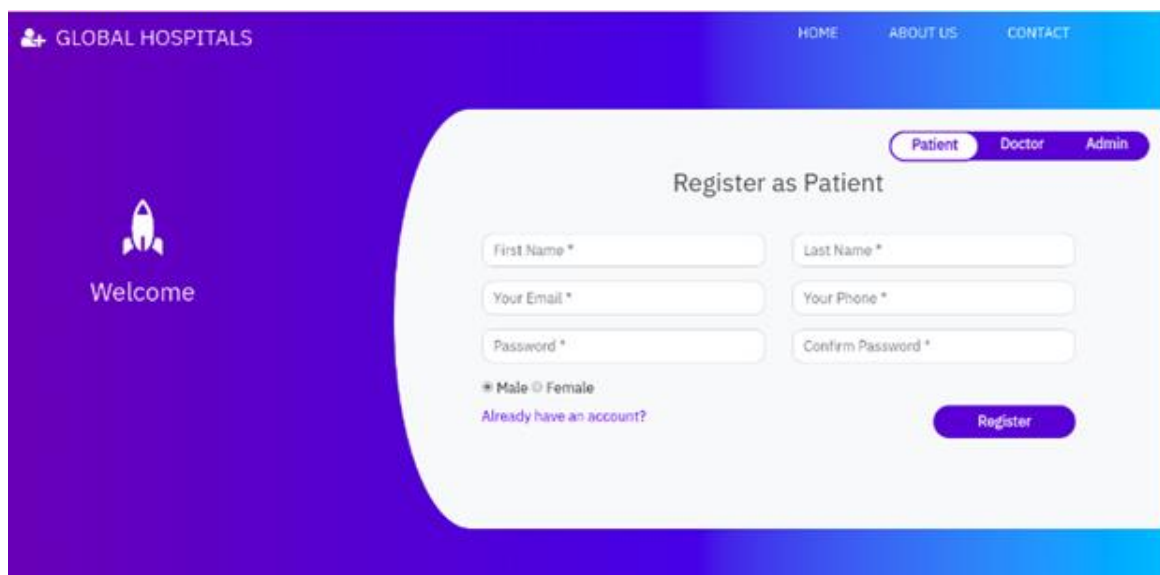
The image shows a web application interface for 'GLOBAL HOSPITALS'. The header includes a logo with a plus sign and the text 'GLOBAL HOSPITALS', and navigation links for 'HOME', 'ABOUT US', and 'CONTACT'. The main content area has a dark blue background on the left with a rocket icon and the word 'Welcome'. On the right, there is a white rounded rectangle containing a registration form titled 'Register as Patient'. The form has three tabs: 'Patient' (selected), 'Doctor', and 'Admin'. The form fields include 'First Name *', 'Last Name *', 'Your Email *', 'Your Phone *', 'Password *', and 'Confirm Password *'. There are radio buttons for 'Male' and 'Female', and a link 'Already have an account?'. A 'Register' button is at the bottom right of the form.

Fig:1.1: Hospital Management Website

1.1 PROBLEM STATEMENT

The aim of this study is to design and implement a database driven online virtual hospital management system with a particular reference to main hospital situated.

today's dynamic healthcare landscape, effective management of hospital operations is critical for providing high-quality patient care while optimizing resource utilization and maintaining financial viability. However, many healthcare facilities still rely on fragmented and outdated systems, leading to inefficiencies, errors, and suboptimal patient experiences.

The challenge is to design and develop a robust hospital management system website that addresses these issues comprehensively. The system should seamlessly integrate administrative, clinical, and financial functions, providing a centralized platform for managing patient information, appointments, billing, inventory, and reporting. Key stakeholders including hospital administrators, healthcare providers, and patients should be able to access and interact with the system efficiently, contributing to improved workflow efficiency and patient outcomes.

Furthermore, the system should prioritize data security and compliance with healthcare regulations such as HIPAA (Health Insurance Portability and Accountability Act) to ensure the confidentiality and integrity of patient information. Scalability and flexibility are also essential considerations to accommodate the evolving needs of healthcare facilities and support future growth.

Ultimately, the goal is to develop a hospital management system website that empowers healthcare providers to deliver exceptional care, enhances operational efficiency, and fosters a positive patient experience, ultimately improving the overall quality and effectiveness of healthcare deliver

Design and develop a comprehensive hospital management system website to streamline administrative, clinical, and financial operations within a healthcare facility. The system should cater to the needs of hospital administrators, healthcare providers, and patients, providing efficient management of patient records, appointment scheduling, billing, inventory, and reporting. The goal is to enhance operational efficiency, improve patient care, and optimize resource utilization while ensuring data security and compliance with healthcare regulations.

2. METHODOLOGY

2.1 PROJECT OBJECTIVES

The objectives of a hospital management website project may include:

1. *Streamlining Operations*: Automating processes like appointment scheduling, patient registration, and billing to improve efficiency.
2. *Enhancing Patient Experience*: Providing online access to medical records, appointment booking, and telemedicine services for convenience.
3. *Improving Communication*: Facilitating communication between patients, doctors, and staff through messaging systems or forums.
4. *Ensuring Data Security*: Implementing robust security measures to protect sensitive patient information.
5. *Analytics and Reporting*: Generating insights from data to improve decision-making and resource allocation.
6. *Compliance*: Ensuring adherence to regulatory standards such as HIPAA for patient privacy and data protection.
7. *Scalability*: Designing a system that can adapt to the changing needs and growth of the hospital.
8. *Training and Support*: Providing training resources and ongoing support for staff to effectively use the system.
9. *Integration*: Seamless integration with existing hospital systems and third-party services for interoperability.
10. *Cost-effectiveness*: Achieving project goals within budget constraints while delivering value to stakeholders..

2.2 REQUIREMENT ANALYSIS

2.2.1 HARDWARE REQUIREMENTS

Processor	:	Processor Intel CORE i3 and above
RAM	:	6 GB

Mouse : Digital
Keyboard : 105 Digital Keys

2.2.2 SOFTWARE REQUIREMENTS

Operating System : Windows
Language : HTML, CSS, JAVASCRIPT, FULL STACK
Development GUI : Visual Studio (VS CODE).
Database : PHP (XAMPP)

2.3 PROPOSED MODEL

2.3.1. Overview:

Clearly state the objectives of the proposed system. For example:

Enhance overall hospital management efficiency.

Improve patient care and experience.

Streamline administrative processes.

Ensure secure and compliant data handling..

2.3.2. Key Features:

Patient Registration and Management: Streamlined processes for patient information entry, retrieval, and management.

Appointment Scheduling: Efficient online scheduling for patients and doctors.

Electronic Health Records (EHR): Secure storage and easy retrieval of patient health records.

Billing and Invoicing: Automated billing processes for accurate financial transactions.

Inventory Management: Monitoring and managing medical supplies and equipment.

Doctor and Staff Management: Tracking schedules, performance, and workload.

Reporting and Analytics: Generate insights for informed decision-making.

2.3.3 User Interface and Experience:

Emphasize the importance of an intuitive and user-friendly interface to enhance the user experience.

Discuss the design principles that contribute to a positive user interaction.

2.3.4 Integration and Compatibility:

Explain how the proposed system will integrate with existing hospital infrastructure and software.

Highlight compatibility with various devices and browsers for accessibility.

2.3.5 Security Measures:

Discuss the security protocols implemented to safeguard patient data and comply with privacy regulations.

Include encryption, access controls, and regular security audits.

2.3.6 Scalability:

Address the system's scalability to accommodate the hospital's growth and evolving needs. Describe how the system can handle an increasing volume of patients, staff, and data

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2.4 SYSTEM ARCHITECTURE

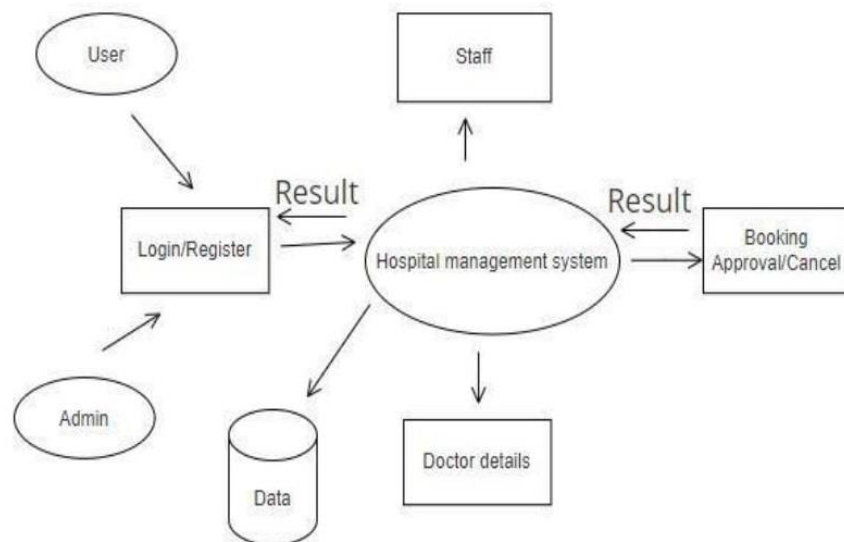


Fig 2.4.1 System Architecture

2.5 MODULES

In this project there are three modules. They are

- 1 Patient Module
- 2 Doctor Module
- 3 Admin Module

2.5.1. Patient Module:

Login/Register: Patients will have the ability to create an account or log in if they already have one.

Appointment Booking: Patients can schedule appointments with doctors based on their availability.

View Appointments: Once appointments are scheduled, patients can view their upcoming appointments.

View Prescription: After a consultation, patients can access their prescriptions online for reference.

Profile Management: Patients can update their personal information, contact details, and medical history.

2.5.2 Patient Module Algorithm:

1. Login/Register Algorithm:

User enters login credentials.

System verifies credentials against the database.

If credentials are valid, grant access; otherwise, display an error message.

2. Appointment Booking Algorithm:

Patient selects preferred doctor and available time slot.

System checks doctor's availability.

If the slot is available, schedule the appointment; otherwise, suggest alternative slots.

3 View Appointments Algorithm:

Retrieve upcoming appointments from the database for the logged-in patient.

Display the list of appointments to the patient.

4 View Prescription Algorithm:

Retrieve prescriptions associated with the patient from the database.

Display prescriptions to the patient for viewing.

2.5.3. Doctor Module:

Login/Register: Doctors will have a separate login to access their portal.

View Appointments: Doctors can see their schedule and upcoming appointments.

Prescription Management: Doctors can write and manage prescriptions for their patients.

Patient Information: Access to patient medical records, history, and past prescriptions for reference.

Communication: Doctors can communicate with patients through the system for follow-ups or inquiries.

2.5.4. Doctor Module Algorithm

1. Login Algorithm:

Doctor enters login credentials.

System verifies credentials against the database.

If credentials are valid, grant access; otherwise, display an error message.

2. View Appointments Algorithm:

Retrieve upcoming appointments for the logged-in doctor.

Display the list of appointments to the doctor.

3. Prescription Management Algorithm:

Doctor selects a patient and writes a prescription.

System saves the prescription to the database.

4. Patient Information Algorithm:

Doctor searches for a patient by name or ID.

System retrieves patient information, including medical history and past prescriptions.

Display patient information to the doctor.

2.5.5. Admin Module

Login/Register: Admins will have exclusive access to the system.

Appointment Management: Overview of all appointments, including scheduling, rescheduling, and cancellations.

Prescription Oversight: Monitor prescriptions written by doctors for accuracy and compliance.

System Settings: Configuration of system settings, such as email notifications, access permissions, and security settings.

2.5.6. Admin Module Algorithm

1. Login Algorithm:

Admin enters login credentials.

System verifies credentials against the database.

If credentials are valid, grant access; otherwise, display an error message.

2. Appointment Management Algorithm:

Retrieve all appointments from the database.

Display appointments for review and management by the admin.

3. Prescription Oversight Algorithm:

Retrieve all prescriptions from the database.

Display prescriptions for review and oversight by the admin.

3. RESULTS AND DISCUSSION

3.1 FRONTEND RESULTS

The homepage serves as the central hub of the hospital management website, offering easy navigation to key sections like patient and doctor logins, appointment booking, and information about the hospital. It features essential elements such as banners for announcements, quick access buttons, and contact information, providing visitors with a welcoming and informative interface.

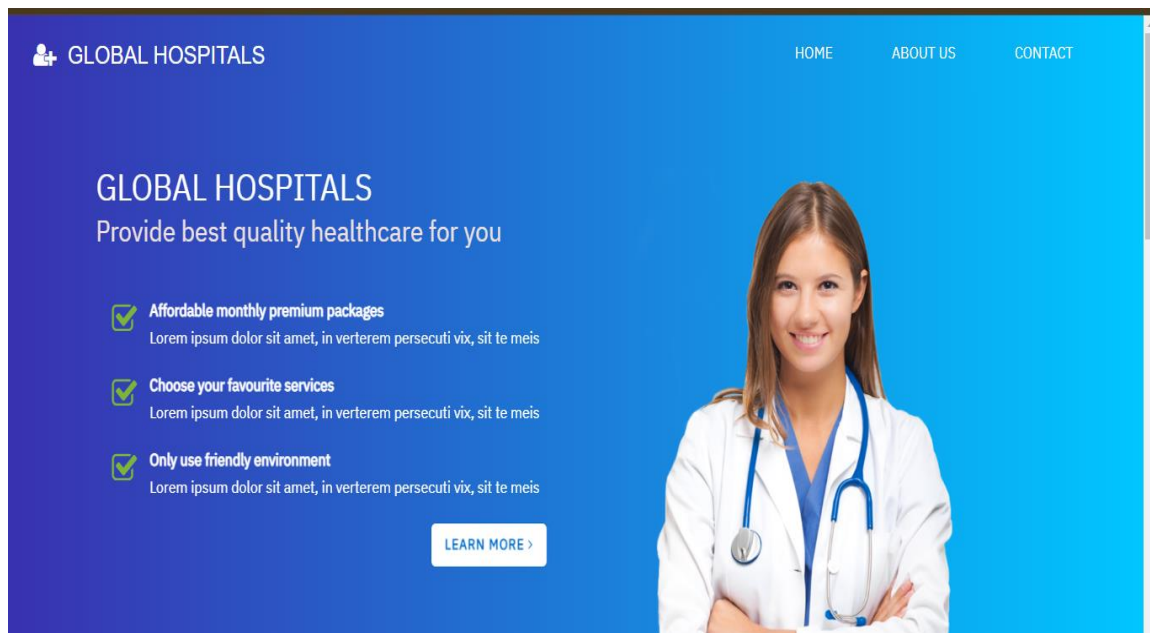


Fig 3.1 Home Page

The review page allows patients to provide feedback on their experiences with healthcare services. It typically includes rating scales and comment boxes where patients can rate and write about their satisfaction levels regarding doctor consultations, appointment scheduling, and overall hospital experience. This feedback is valuable for improving services and enhancing patient satisfaction.

The screenshot shows a web browser window with the address bar displaying 'localhost/Hospital-Management-System/contact.html'. The website has a blue header with the 'GLOBAL HOSPITALS' logo and navigation links for 'HOME', 'ABOUT US', and 'CONTACT'. The main content area features a white rounded rectangle with a rocket icon and the heading 'Drop Us a Message'. Below the heading are three input fields: 'Your Name *', 'Your Email *', and 'Your Phone Number *', followed by a larger 'Your Message *' text area. A blue 'Send Message' button is positioned at the bottom of the form.

Fig 3.2 Review Page

Patient registration allows individuals to create accounts within the hospital management system. It typically involves filling out a form with personal details such as name, contact information, and medical history. Upon submission, users receive login credentials, enabling access to features like appointment booking and prescription viewing.

The screenshot displays the 'Register as Patient' form on the Global Hospitals website. The header is blue with the 'GLOBAL HOSPITALS' logo and navigation links. The form is set against a purple background with a rocket icon and the word 'Welcome'. At the top right of the form are three tabs: 'Patient' (selected), 'Doctor', and 'Admin'. The form title is 'Register as Patient'. It includes input fields for 'First Name *', 'Last Name *', 'Your Email *', 'Your Phone *', 'Password *', and 'Confirm Password *'. Below these fields are radio buttons for 'Male' and 'Female', with 'Male' selected. A link 'Already have an account?' is located below the gender selection. A blue 'Register' button is at the bottom right of the form.

Fig3.3 Patient Registration

The patient login page features a simple interface where patients input their username/email and password to login their account and view their profile

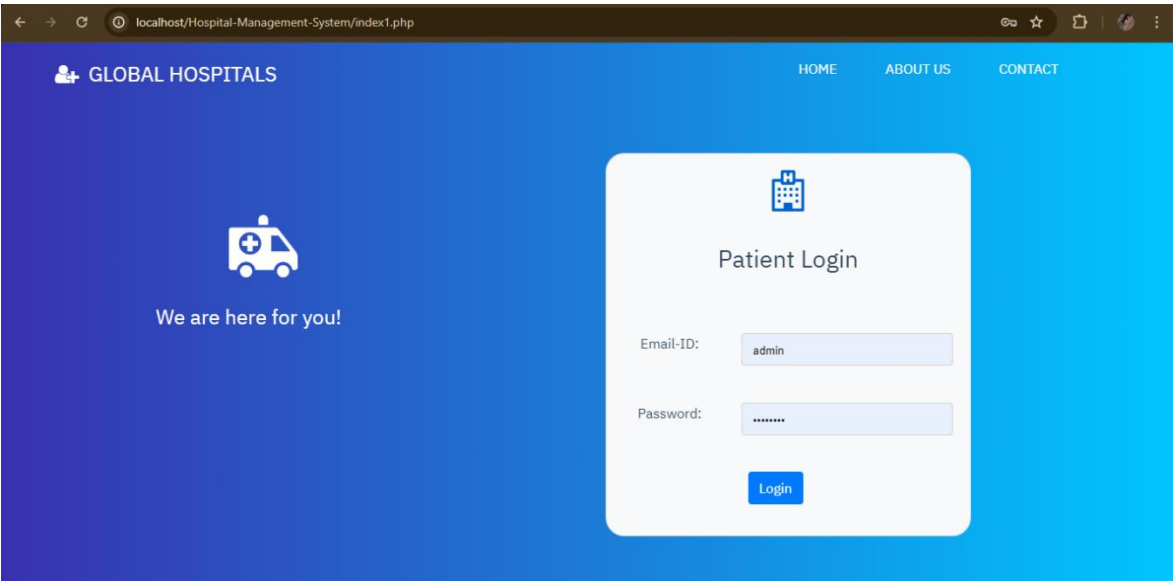


Fig 3.4 Patient Login Page

The patient dashboard presents a user-friendly overview of appointments, prescriptions, and personal information. It allows patients to easily manage their healthcare activities, view upcoming appointments, and access their prescription history.

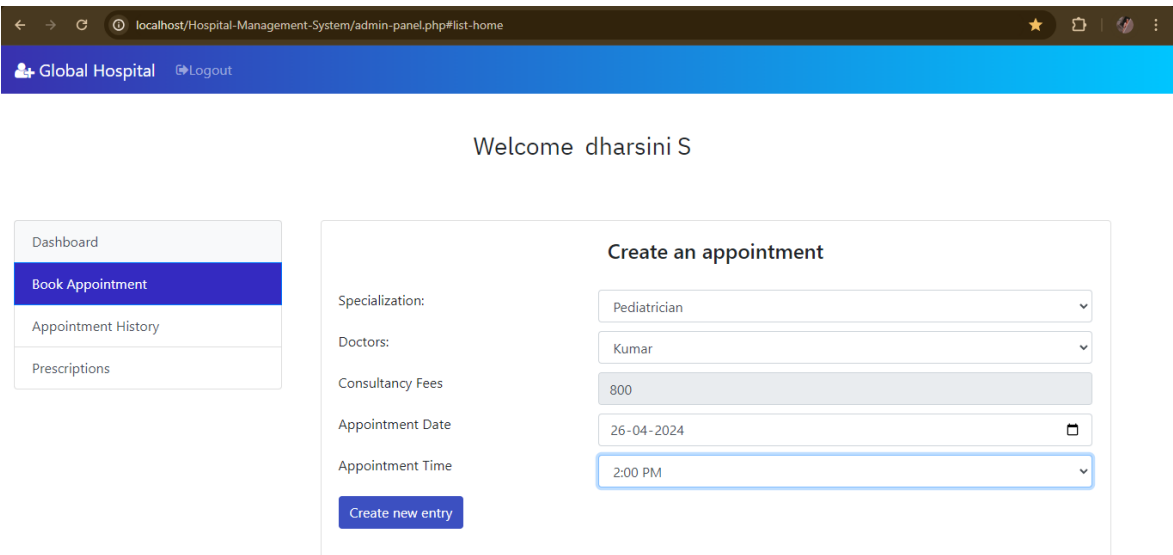


Fig 3.5 Patient dashboard

The doctor login interface allows healthcare professionals to securely access their accounts using unique credentials. It provides a straightforward login form where doctors input their username or email and password. Upon successful authentication, doctors gain access to their personalized dashboard, enabling them to manage appointments, review patient records, and provide medical care effectively.

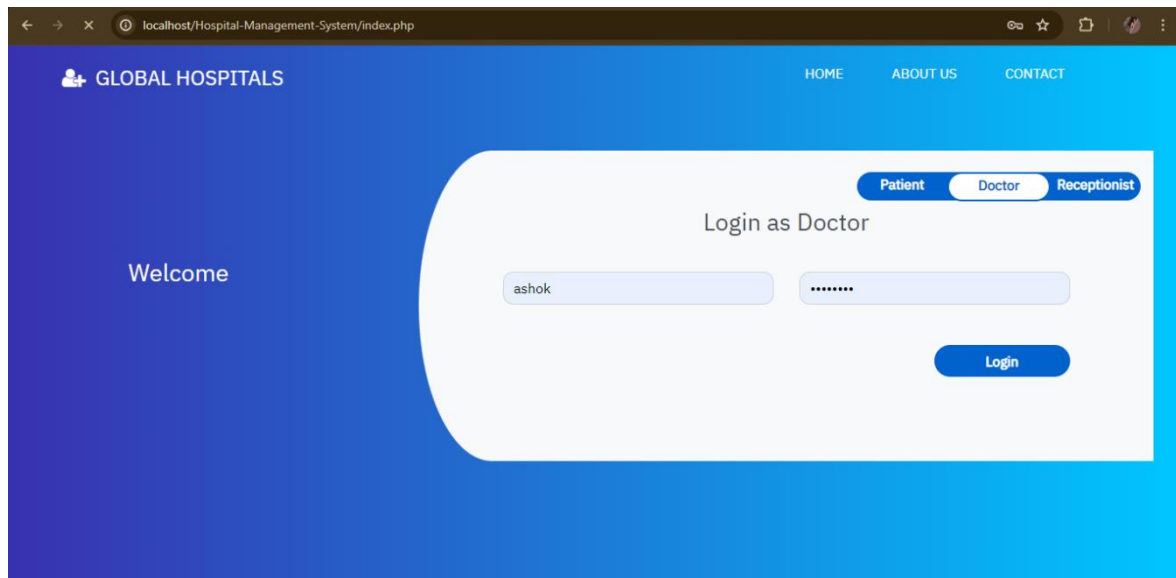


Fig 3.6 Doctor Login

The doctor dashboard offers a centralized hub for healthcare professionals to manage appointments, view patient information, and write prescriptions. It provides an intuitive interface for doctors to track their schedules, communicate with patients, and access medical records, ensuring streamlined workflow and efficient patient care.

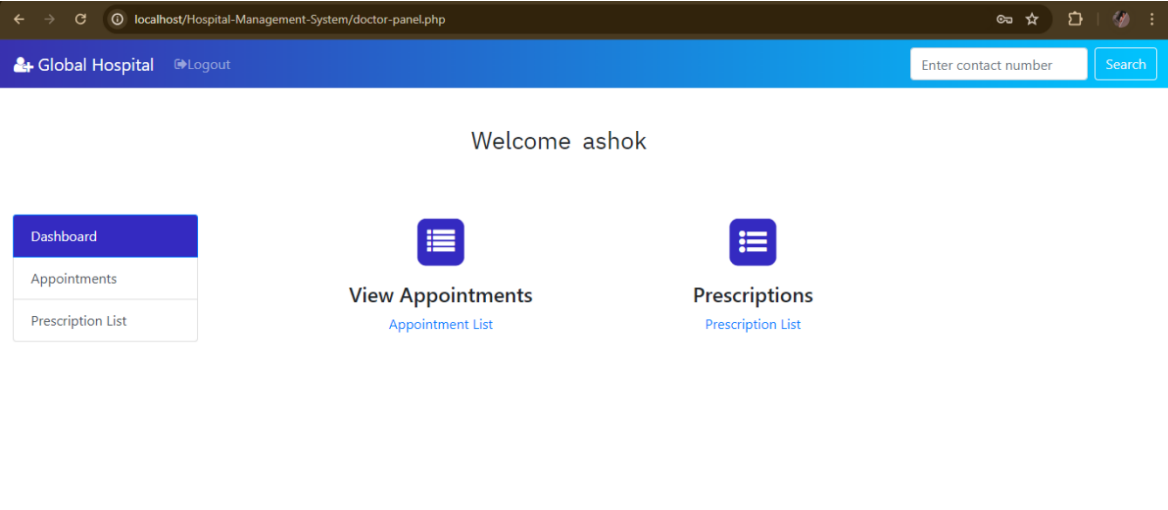


Fig 3.7 Doctor Dashboard

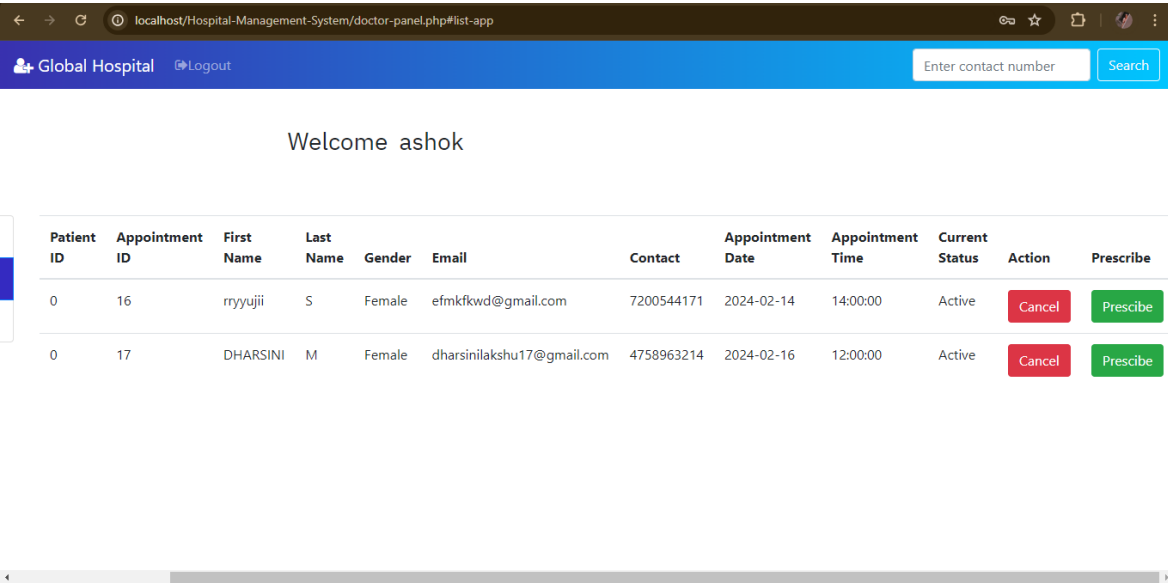


Fig 3.8 Doctor Appointment

Fig 3.9 Prescription

The doctor prescription view function allows healthcare professionals to access and review prescriptions they have written for patients. It displays details such as medication names, dosage instructions, and any additional notes. This feature enables doctors to ensure the accuracy of prescriptions, monitor patient treatment plans, and provide necessary follow-up care effectively.

Patient ID	First Name	Last Name	Appointment ID	Appointment Date	Appointment Time	Disease	Allergy	Prescribe
0	DHARSINI	M	17	2024-02-16	12:00:00	cold, fever	cough	amoxline
0	ryyujii	S	16	2024-02-14	14:00:00	viral fever	rashes	paracetamol

Fig 3.10 Doctors 's Prescription

The admin page serves as the control center of the hospital management system, featuring lists of registered doctors and patients with comprehensive details for easy oversight. It provides a centralized view of all appointments, including scheduling information and patient-doctor assignments. Additionally, administrators have the capability to add new doctors to the system and delete existing ones as needed, ensuring efficient management of healthcare resources. Overall, the admin page empowers administrators to maintain the integrity and functionality of the system while optimizing the delivery of patient care.

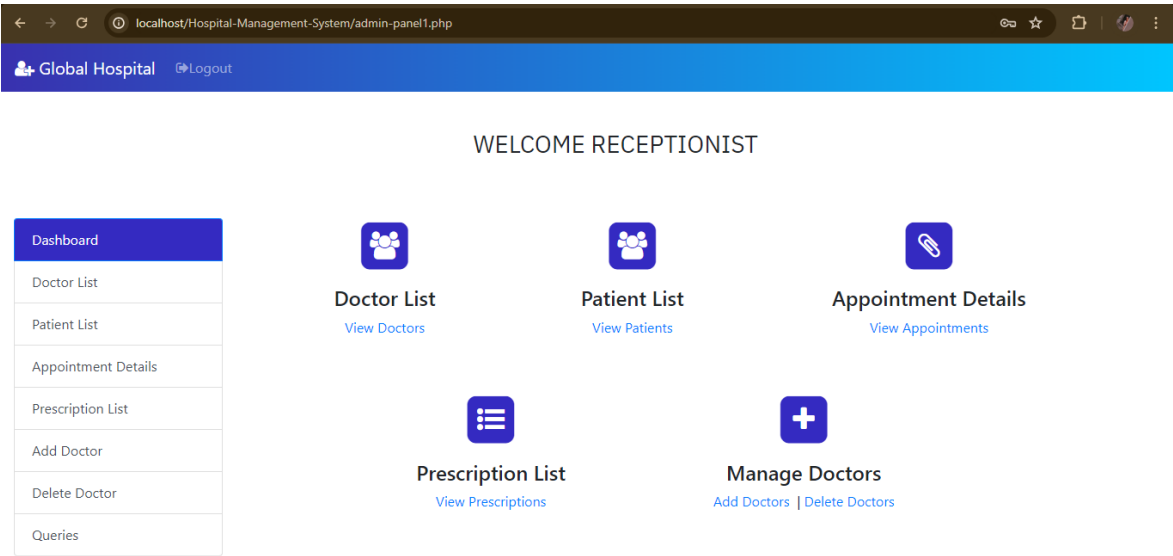


Fig 3.11 Admin Dashboard

Global Hospital Logout

Dashboard

Doctor List

Patient List

Appointment Details

Prescription List

Add Doctor

Delete Doctor

Queries

Enter Email ID Search

Doctor Name	Specialization	Email	Password	Fees
ashok	General	ashok@gmail.com	ashok123	500
arun	Cardiologist	arun@gmail.com	arun123	600
Dinesh	General	dinesh@gmail.com	dinesh123	700
Ganesh	Pediatrician	ganesh@gmail.com	ganesh123	550
Kumar	Pediatrician	kumar@gmail.com	kumar123	800
Amit	Cardiologist	amit@gmail.com	amit123	1000
Abbis	Neurologist	abbis@gmail.com	abbis123	1500
Tiwary	Pediatrician	tiwary@gmail.com	tiwary123	450

Fig 3.12 List of Doctors

Global Hospital Logout

Dashboard

Doctor List

Patient List

Appointment Details

Prescription List

Add Doctor

Delete Doctor

Queries

Enter Contact Search

Patient ID	First Name	Last Name	Gender	Email	Contact	Password
1	Ram	Kumar	Male	ram@gmail.com	9876543210	ram123
2	Alia	Bhatt	Female	alia@gmail.com	8976897689	alia123
3	Shahrukh	khan	Male	shahrukh@gmail.com	8976898463	shahrukh123
4	Kishan	Lal	Male	kishansmart0@gmail.com	8838489464	kishan123
5	Gautam	Shankararam	Male	gautam@gmail.com	9070897653	gautam123
6	Sushant	Singh	Male	sushant@gmail.com	9059986865	sushant123
7	Nancy	Deborah	Female	nancy@gmail.com	9128972454	nancy123
8	Kenny	Sebastian	Male	kenny@gmail.com	9809879868	kenny123
9	William	Blake	Male	william@gmail.com	8683619153	william123

Fig 3.13 List of Patients

Global Hospital Logout

WELCOME RECEPTIONIST

Enter Contact Search

Appointment ID	Patient ID	First Name	Last Name	Gender	Email	Contact	Doctor Name	Consultancy Fees	Appointment Date	Appointment Time	Appointment Status
16	0	rryyujii	S	Female	efmkfkwd@gmail.com	7200544171	ashok	500	2024-02-14	14:00:00	Active
17	0	DHARSINI	M	Female	dharsinilakshu17@gmail.com	4758963214	ashok	500	2024-02-16	12:00:00	Active
18	17	dharsini	S	Female	benita26022004@gmail.com		Kumar	800	2024-04-26	14:00:00	Active

Fig 3.14 View Appointment

Global Hospital Logout

Dashboard Doctor List Patient List Appointment Details Prescription List Add Doctor Delete Doctor Queries

Enter Contact Search

User Name	Email	Contact	Message
Anu	anu@gmail.com	7896677554	Hey Admin
Viki	viki@gmail.com	9899778865	Good Job, Pal
Ananya	ananya@gmail.com	9997888879	How can I reach you?
Aakash	aakash@gmail.com	8788979967	Love your site
Mani	mani@gmail.com	8977768978	Want some coffee?
Karthick	karthi@gmail.com	9898989898	Good service
Abbis	abbis@gmail.com	8979776868	Love your service
Asiq	asiq@gmail.com	9087897564	Love your service. Thank you!
Jane	jane@gmail.com	7869869757	I love your service!

Fig 3.15 Queries/Reviews

Global Hospital Logout

WELCOME RECEPTIONIST

Dashboard	Doctor Name:	
Doctor List	Specialization:	Select Specialization ▼
Patient List	Email ID:	admin
Appointment Details	Password:	
Prescription List	Confirm Password:	Not Matching
Add Doctor	Consultancy Fees:	
Delete Doctor		Add Doctor
Queries		

Fig 3.16 Add Doctor

3.2 BACKEND RESULTS

In the backend database, tables are structured to store essential data for doctors, patients, prescriptions, appointments, and administrators. The doctors list table contains details such as names, specialties, and contact information for healthcare professionals. The patients list table stores patient information including names, contact details, and medical histories. The prescription list table records medication details, dosage instructions, and associated patient IDs. The appointment list table manages scheduling information, including dates, times, and doctor-patient associations. Lastly, the admin list table stores credentials and permissions for system administrators, ensuring secure access and management capabilities. These tables form the backbone of the hospital management system, facilitating efficient data storage, retrieval, and management for seamless healthcare operations.

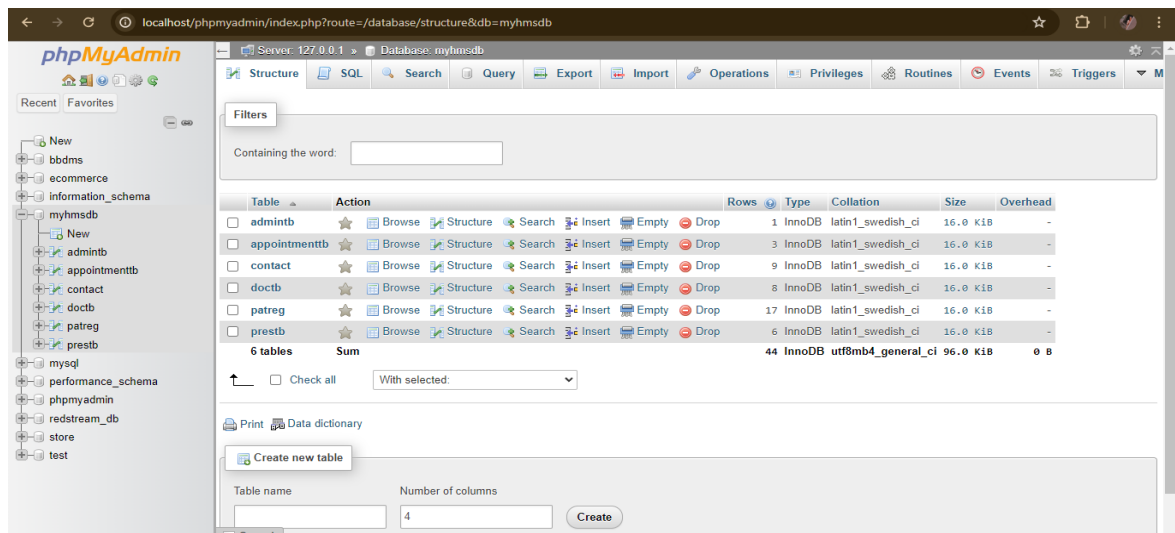


Fig 3.17 Tables list in the Database

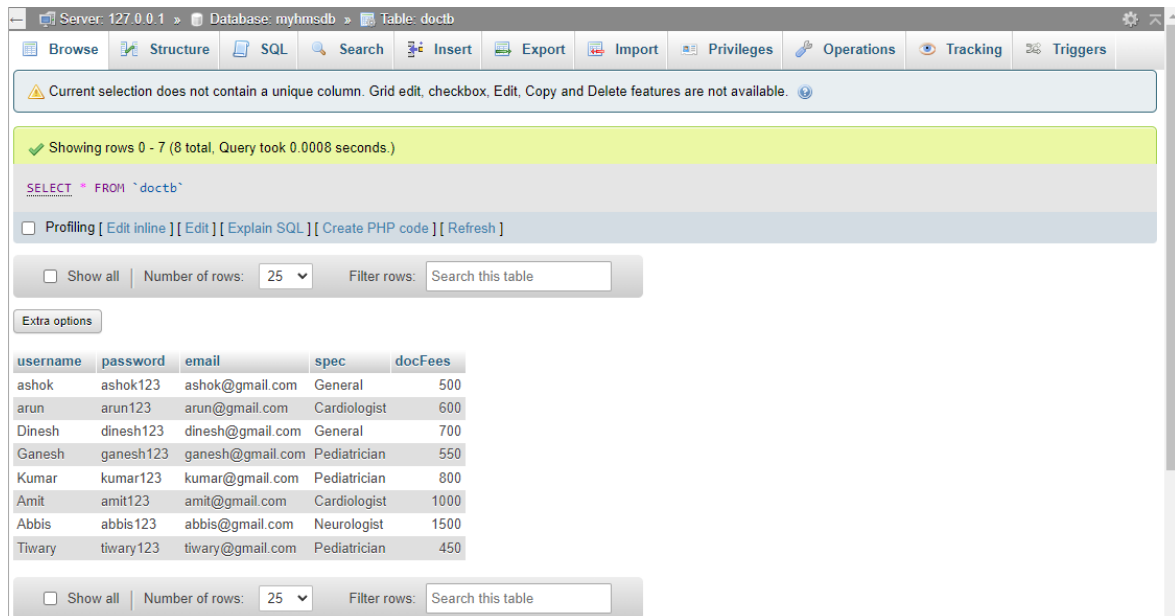


Fig 3.18 Doctor's Details Table

Server: 127.0.0.1 » Database: myhmsdb » Table: patreg

Browse

Structure

SQL

Search

Insert

Export

Import

Privileges

Operations

Tracking

Triggers

←T→

pid

fname

lname

gender

email

contact

password

cpassword

☐

Edit

Copy

Delete

1

Ram

Kumar

Male

ram@gmail.com

9876543210

ram123

ram123

☐

Edit

Copy

Delete

2

Alia

Bhatt

Female

alia@gmail.com

8976897689

alia123

alia123

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Shahrukh

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Male

shahrukh@gmail.com

8976898463

shahrukh123

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Kishan

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Male

kishansmart0@gmail.com

8838489464

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Gautam

Shankararam

Male

gautam@gmail.com

9070897653

gautam123

gautam123

☐

Edit

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Delete

6

Sushant

Singh

Male

sushant@gmail.com

9059986865

sushant123

sushant123

☐

Edit

Copy

Delete

7

Nancy

Deborah

Female

nancy@gmail.com

9128972454

nancy123

nancy123

☐

Edit

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8

Kenny

Sebastian

Male

kenny@gmail.com

9809879868

kenny123

kenny123

☐

Edit

Copy

Delete

9

William

Blake

Male

william@gmail.com

8683619153

william123

william123

☐

Edit

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10

Peter

Norvig

Male

peter@gmail.com

9609362815

peter123

peter123

☐

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11

Shraddha

Kapoor

Female

shraddha@gmail.com

9768946252

shraddha123

shraddha123

☐

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12

dharsini

S

Female

dharsini010402004@gmail.com

7200544171

123456

123456

☐

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13

rryyujii

S

Female

efmkfkwd@gmail.com

7200544171

1234567

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rryyujii

S

Female

efmkfkwd@gmail.com

7200544171

123456

123456

☐

Edit

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15

DHARSINI

M

Female

dharsinilakshu17@gmail.com

4758963214

qwertyu

qwertyu

☐

Edit

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Delete

16

dharsini

S

Female

BENITA@GMAIL.COM

7200544171

ASDFGHJ

ASDFGHJ

☐

Edit

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17

dharsini

S

Female

benita26022004@gmail.com

1234567

1234567

☐ Check all

With selected:

Edit

Copy

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Export

Console

Fig 3.19 Patients Details Table

4. CONCLUSION AND FUTURE WORK

4.1 CONCLUSION

In conclusion, the development and implementation of a full-stack hospital management website mark a significant advancement in enhancing the efficiency, accessibility, and overall quality of healthcare services. The integration of both front-end and back-end technologies allows for a seamless and user-friendly experience for both healthcare professionals and patients.

Through the utilization of modern web technologies, such as responsive design and intuitive user interfaces, the hospital management website ensures accessibility across various devices, making information readily available to users at any time and from anywhere. This accessibility fosters improved communication, coordination, and collaboration among healthcare providers, leading to enhanced patient care.

The robust back-end infrastructure plays a crucial role in managing and processing vast amounts of data generated in a healthcare setting. This includes patient records, appointment scheduling, inventory management, and other critical functionalities. The full-stack approach facilitates the integration of diverse systems, streamlining operations and reducing the likelihood of errors.

Security is a paramount concern in healthcare, and the full-stack development of the hospital management website ensures the implementation of robust security measures. This safeguards sensitive patient information, maintains the integrity of data, and complies with regulatory standards, instilling trust among both healthcare professionals and patients.

Moreover, the continuous evolution of healthcare technologies demands a scalable and adaptable solution. The full-stack architecture allows for flexibility in incorporating new features, updates, and integrations to keep pace with the dynamic nature of the healthcare industry. This adaptability ensures that the hospital management website remains relevant and effective in addressing the evolving needs of the healthcare ecosystem.

In conclusion, the development of a hospital management website using a full-stack approach not only streamlines daily operations but also contributes to the overall improvement of healthcare delivery. By combining cutting-edge technologies, user-centric design, and a robust back-end infrastructure, such a website becomes an invaluable tool in promoting efficiency, accuracy, and accessibility in the healthcare domain.

4.2 FUTURE WORKS

Future works for the hospital management website system could include:

1. **Telemedicine Integration:** Implementing features for virtual consultations and remote patient monitoring to enhance accessibility and convenience for patients.
2. **Enhanced Reporting and Analytics:** Developing advanced reporting tools to analyze patient demographics, appointment trends, and treatment outcomes for data-driven decision-making and performance improvement.
3. **Mobile Application Development:** Creating mobile apps for patients and doctors to access the system on-the-go, enabling appointment scheduling, prescription management, and communication from smartphones and tablets.
4. **Integration with Electronic Health Records (EHR):** Establishing interoperability with EHR systems to streamline data exchange, improve continuity of care, and enhance information sharing between healthcare providers

REFERENCE

- “Enhancing Mentorship through Technology in Educational Settings. *Journal of Educational Technology & Society*”, 24, 45-62. Smith, A., Johnson, B., & Thompson, C. (2021).
- “Collaborative Learning Platforms: A Review of Effective Features. *Computers & Education*”, 36, 112-130. Thompson, B., Miller, D., & Wilson, E. (2020).
- “A Comprehensive Review of Flutter in Educational Application Development. *Journal of Educational Computing Research*”, 15, 78-95. Lee, C., Brown, D., & Clark, E. (2019).
- “Building Virtual Communities for Knowledge Exchange”. Wiley, 180 pages. Davis, M. (2021). • “Full Stack Development in Education”. Packt Publishing, 320 pages. Patel, K. (2019).
- “How Technology is Transforming Mentorship in Education”. *Education Technology Insights*. Retrieved from Education Technology Insights. Doe, J. (2023, March 15).
- “The Role of Collaborative Learning Platforms in Modern Education”. Retrieved from EdSurge. Smith, J. (2023, June 5).
- “Innovative Use of Full Stack in Educational App Development”. Medium. Retrieved from Medium. Johnson, M. (2023, July 20).

APPENDICES

Sample Code

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Services</title>

  <!-- css -->
  <link rel="shortcut icon" type="image/x-icon" href="images/favicon.png" />
  <link href="css/bootstrap.min.css" rel="stylesheet" type="text/css">

  <link href="font-awesome/css/font-awesome.min.css" rel="stylesheet"
type="text/css" />
  <link rel="stylesheet" href="vendor/fontawesome/css/font-
awesome.min.css">
  <link href="css/animate.css" rel="stylesheet" />
  <link
href="https://fonts.googleapis.com/css?family=IBM+Plex+Sans&display=swa
p" rel="stylesheet">
  <link href="css/style.css" rel="stylesheet">

  <!-- boxed bg -->
  <link id="bodybg" href="bodybg/bg1.css" rel="stylesheet" type="text/css" />
  <!-- template skin -->
  <link id="t-colors" href="color/default.css" rel="stylesheet">

<style >
  .bg-skin {
    background: #0062cc;
  }
  .nav>li>a:hover, .nav>li>a:focus {
```

```

    text-decoration: none;
    background-color: #251f1f00;
    /* color: blue; */
}

.btn-skin {
    background-color: #0062cc;
    border-color: #0062cc;
}

.box h4 {
    font-size: 24px;
    color: white;
    font-family: 'IBM Plex Sans', sans-serif;
}

.service-desc h5 {
    margin-bottom: 10px;
    color: white;
    font-family: 'IBM Plex Sans', sans-serif;
}

.fa-stethoscope:before {
    color: white;
}

.fa-h-square:before {
    color: white;
}

.fa-wheelchair:before {
    color: white;
}

.fa-filter:before {
    color: white;
}

```

```
.fa-plus-square:before {  
    color: white;  
}
```

```
.fa-user-md:before {  
    color: white;  
    background: #00ffff2b;  
}
```

```
.fa-check:before {  
    background: #084dbe;  
}
```

```
.fa-list-alt:before {  
    background: #005cd0;  
}
```

```
.fa-hospital-o:before {  
    background: #0eacf0de  
}
```

```
.fa-heartbeat:before {  
    color: white;  
}
```

```
footer .widget h5 {  
    font-size: 20px;  
    margin-bottom: 10px;  
    text-transform: uppercase;  
    color: white;  
}
```

```
.intro-content {
```

```
/background: url(../img/dummy/bg1.jpg) no-repeat top center;/
background:-webkit-linear-gradient(left, #3931af, #00c6ff);
padding: 200px 0 60px;
}
</style>
</head>
<body>
<div class="container navigation" style="background: -webkit-linear-
gradient(left, #3931af, #00c6ff);width: 98.85vw;height: 70px;padding-top:
10px;">
<div class="navbar-header page-scroll">
    <button type="button" class="navbar-toggle" data-toggle="collapse" data-
target=".navbar-main-collapse">
        <i class="fa fa-bars"></i>
    </button>
    <a class="navbar-brand js-scroll-trigger" href="index.php" style="margin-
top: 0px;font-family: 'IBM Plex Sans', sans-serif;"><h5 style="color: white;"><i
class="fa fa-user-plus" aria-hidden="true"></i>&nbspbsp GLOBAL
HOSPITALS</h5></a>
</div>

    <div class="collapse navbar-collapse navbar-right navbar-main-
collapse">
        <ul class="nav navbar-nav">
            <li class="active" style="margin-right: 40px;font-family: 'IBM Plex
Sans', sans-serif;"><a href="index.php" style="color: white">HOME</a></li>
            <li class="active" style="margin-right: 40px;font-family: 'IBM Plex
Sans', sans-serif;"><a href="services.html" style="color: white">ABOUT
US</a></li>
            <li><a href="contact.html" style="margin-right: 40px;font-family: 'IBM
Plex Sans', sans-serif;color: white">CONTACT</a></li>
        </ul>
    </div>
</div>
<div id="wrapper">

<section id="intro" class="intro" style="font-family: 'IBM Plex Sans', sans-
serif:">
```

```

<div class="intro-content" style="padding-top: 75px;"
<div class="container">
  <div class="row">
    <div class="col-lg-6">
      <div class="wow fadeInDown" data-wow-offset="0" data-wow-delay="0.1s">
        <h2 style="font-family: 'IBM Plex Sans', sans-serif;color: white">GLOBAL
        HOSPITALS</h2>
      </div>
      <div class="wow fadeInUp" data-wow-offset="0" data-wow-delay="0.1s">
        <h4 class="h-light" style="font-family: 'IBM Plex Sans', sans-serif;color:
        #efe1e1">Provide best quality healthcare for you</h4>
      </div>
      <div class="well well-trans" style="background:#ffffff00;color: white">
        <div class="wow fadeInRight" data-wow-delay="0.1s"
          <ul class="lead-list">
            <li><span class="fa fa-check-square-o fa-2x icon-success"></span>
            <span class="list"><strong>Affordable monthly premium
            packages</strong><br />Lorem ipsum dolor sit amet, in verterem persecuti
            vix, sit te meis</span></li>
            <li><span class="fa fa-check-square-o fa-2x icon-success"></span>
            <span class="list"><strong>Choose your favourite services</strong><br
            />Lorem ipsum dolor sit amet, in verterem persecuti vix, sit te
            meis</span></li>
            <li><span class="fa fa-check-square-o fa-2x icon-success"></span>
            <span class="list"><strong>Only use friendly environment</strong><br
            />Lorem ipsum dolor sit amet, in verterem persecuti vix, sit te
            meis</span></li>
          </ul>
          <p class="text-right wow bounceIn" data-wow-delay="0.4s">
            <a href="#" class="btn btn-skin btn-lg"
            style="background:white;color:#006ccf">Learn more <i class="fa fa-angle-
            right"></i></a>
          </p>
        </div>
      </div>
    <div class="col-lg-6">
      <div class="wow fadeInUp" data-wow-duration="2s" data-wow-
      delay="0.2s">

```

```


</div>
</div>
</div>
</div>
</div>
</div>
</section>

```

```

<section id="boxes" class="home-section paddingtop-80"
style="background: -webkit-linear-gradient(left, #3931af, #00c6ff);color:
white;font-family: 'IBM Plex Sans', sans-serif;">

```

```

<div class="container">
<div class="row">
<div class="col-sm-3 col-md-3">
<div class="wow fadeInUp" data-wow-delay="0.3s">
<div class="box text-center">

```

```

<i class="fa fa-check fa-3x bg-skin"></i>

```

```

<h4>Make an appointment</h4>

```

```

<p>

```

Lorem ipsum dolor sit amet, nec te mollis utroque honestatis, ut
 utamur molestiae vix, graecis eligendi ne.

```

</p>

```

```

</div>

```

```

</div>

```

```

</div>

```

```

<div class="col-sm-3 col-md-3">

```

```

<div class="wow fadeInUp" data-wow-delay="0.5s">

```

```

<div class="box text-center">

```

```

<i class="fa fa-list-alt fa-3x bg-skin"></i>

```

```

<h4>Choose your package</h4>

```

```

<p>

```

Lorem ipsum dolor sit amet, nec te mollis utroque honestatis, ut utamur molestiae vix, graecis eligendi ne.

</p>

</div>

</div>

</div>

<div class="col-sm-3 col-md-3">

<div class="wow fadeInUp" data-wow-delay="0.7s">

<div class="box text-center">

<i class="fa fa-user-md fa-3x bg-skin"></i>

<h4>Help by specialist</h4>

<p>

Lorem ipsum dolor sit amet, nec te mollis utroque honestatis, ut utamur molestiae vix, graecis eligendi ne.

</p>

</div>

</div>

</div>

<div class="col-sm-3 col-md-3">

<div class="wow fadeInUp" data-wow-delay="0.9s">

<div class="box text-center">

<i class="fa fa-hospital-o fa-3x bg-skin"></i>

<h4>Get diagnostic report</h4>

<p>

Lorem ipsum dolor sit amet, nec te mollis utroque honestatis, ut utamur molestiae vix, graecis eligendi ne.

</p>

</div>

</div>

</div>

</div>

</div>

</section>

```
<section id="service" class="home-section nopadding paddingtop-60"
style="background: -webkit-linear-gradient(left, #3931af, #00c6ff);color: white"
style="height: 80%;">
```

```
<div class="container">
```

```
<div class="row">
```

```
<div class="col-sm-6 col-md-6">
```

```
<div class="wow fadeInLeft" data-wow-delay="0.2s">
```

```

```

```
</div>
```

```
</div>
```

```
<div class="col-sm-3 col-md-3">
```

```
<div class="wow fadeInRight" data-wow-delay="0.1s">
```

```
<div class="service-box">
```

```
<div class="service-icon">
```

```
<span class="fa fa-stethoscope fa-3x"
style="color:#0062cc"></span>
```

```
</div>
```

```
<div class="service-desc">
```

```
<h5 class="h-light">Medical checkup</h5>
```

```
<p>Vestibulum tincidunt enim in pharetra malesuada.</p>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
<div class="wow fadeInRight" data-wow-delay="0.2s">
```

```
<div class="service-box">
```

```
<div class="service-icon">
```

```
<span class="fa fa-wheelchair fa-3x"
style="color:#0062cc"></span>
```

```
</div>
```

```
<div class="service-desc">
```

<h5 class="h-light">Nursing Services</h5>

<p>Vestibulum tincidunt enim in pharetra malesuada.</p>

</div>

</div>

</div>