SIMATS SCHOOL OF ENGINEERING

SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES

CHENNAI-602105

Hospital Management System

A CAPSTONE PROJECT REPORT

Submitted in the partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

Computer Science and Engineering

Submitted by

Madhumitha N (192211005)

Vishnu Priya B (192211004)

Under the Supervision of

Ms.B.Jeevashri

JULY 2024

DECLARATION

We, **Madhumitha N, Vishnu Priya B** students of **Bachelor of Engineering in CSE**, Department of Computer Science and Engineering, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, hereby declare that the work presented in this Capstone Project Work entitled **Hospital Management** is the outcome of our own bonafide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics.

1. **Madhumitha N (192211005)**
2. **Vishnu Priya B(192211004)**

Date: 31/07/2024

Place: Chennai

CERTIFICATE

This is to certify that the project entitled **“Hospital Management Application”** submitted by **Madhumitha N, Vishnu Priya B** ha**s** been carried out under my supervision. The project has been submitted as per the requirements in the current semester of B.E. Computer Science Engineering.

Teacher-in-charge

Ms.B.Jeevashri

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ABSTRACT

A “hospital management system” is a comprehensive software solution designed to streamline the administrative and clinical operations of healthcare facilities. It integrates various functions such as patient registration, appointment scheduling, billing, inventory management, and electronic medical records (EMR) into a unified platform. This system enhances efficiency by automating routine tasks, reducing paperwork, and minimizing errors, thereby allowing healthcare professionals to focus more on patient care. Additionally, it facilitates better communication and coordination among departments, ensures compliance with healthcare regulations, and provides robust data analytics capabilities for informed decision-making. Overall, a hospital management system is essential for improving the quality of healthcare services, optimizing resource utilization, and ensuring a seamless patient experience.

A hospital management system (HMS) is an essential tool that enhances the operational efficiency and quality of patient care in modern healthcare facilities. It streamlines various functions such as patient registration, appointment scheduling, billing, inventory management, and electronic medical records (EMR) into a unified platform. By automating routine tasks, reducing paperwork, and minimizing errors, the HMS allows healthcare professionals to focus more on patient care. It manages patient information, tracks appointments, and handles billing and financial management with precision, ensuring accurate invoices and efficient handling of insurance claims. The system also incorporates electronic medical records, replacing paper records with secure and easily accessible digital versions, facilitating better diagnosis and treatment planning.

1. INTRODUCTION

In the dynamic and complex environment of modern healthcare, the implementation of a Hospital Management System (HMS) has become crucial. An HMS is a comprehensive software solution designed to streamline the administrative, financial, and clinical operations of healthcare facilities. By integrating various functions into a single, unified platform, it addresses the multifaceted needs of hospitals, clinics, and other medical institutions. This system automates routine tasks, reduces paperwork, and minimizes errors, thereby freeing up healthcare professionals to focus more on patient care. It facilitates efficient patient registration, appointment scheduling, billing, inventory management, and the maintenance of electronic medical records (EMR).

Additionally, an HMS enhances interdepartmental coordination, ensures regulatory compliance, and provides robust data analytics for informed decision-making. The adoption of a hospital management system ultimately leads to improved operational efficiency, better resource utilization, enhanced patient experience, and superior healthcare outcomes. The system's capability to manage patient records digitally not only ensures quick and secure access to medical history but also significantly improves the quality and continuity of care. Inventory and supply chain management features prevent shortages and overstocking by closely monitoring the usage and procurement of medical supplies and pharmaceuticals.

The HMS also plays a vital role in human resource management by handling staff schedules, payroll, and performance evaluations, which helps in maintaining a motivated and efficient workforce. With its emphasis on data security, the HMS protects sensitive patient information, ensuring compliance with healthcare regulations such as HIPAA. Ultimately, the adoption of a hospital management system leads to improved operational efficiency, better resource utilization, enhanced patient experience, and superior healthcare outcomes, making it an indispensable tool in the quest for excellence in healthcare delivery.

2. Project Description

"Hospital Management System" is a comprehensive web application developed to streamline management. The application includes:

Proposed Method

- **Frontend Development**: Utilizing Visual Studio for designing responsive and intuitive user interfaces.
- **Backend Development**: Using XAMPP stack (Apache, MySQL, PHP) to handle server-side scripting, database management via phpMyAdmin, and ensuring secure data storage and retrieval.

2.1 About my project

Purpose and Scope

The primary purpose of a Hospital Management System (HMS) is to enhance the efficiency, accuracy, and quality of healthcare delivery by automating and integrating the administrative, financial, and clinical processes within a healthcare facility. This system aims to reduce the burden of manual tasks, minimize errors, and streamline operations, thereby allowing healthcare professionals to devote more time to patient care.

Features and Functionality

- **Patient Management:** Patient registration and admission, Maintenance of comprehensive patient records, Tracking patient visits and medical history, Discharge processing.

- **Appointment Scheduling:** Online appointment booking, Automated appointment reminders, Real-time scheduling updates, Efficient management of doctor availability.

- **Billing and Financial Management:** Automated billing and invoicing, Insurance claim processing**,** Payment tracking**,** Financial reporting and analytics.

- **Electronic Medical Records (EMR):** Digital storage of patient medical records**,** Easy access to patient history for healthcare providers**,** Secure sharing of records among authorized personnel**,** Integration with lab results and radiology reports

3. Problem Description

Existing Method

The existing methods of managing hospital operations typically involve a combination of manual processes and disparate digital systems, often resulting in inefficiencies and errors. Traditionally, patient information is recorded on paper forms and stored in physical files, making it time-consuming to access and prone to misplacement. Appointment scheduling is often handled manually or through basic electronic calendars, leading to double-bookings and extended wait times for patients. Billing and financial management are frequently managed using standalone accounting software, which can result in discrepancies and delays in processing insurance claims. Inventory management is often conducted through manual counts and spreadsheets, increasing the risk of stockouts or overstocking of medical supplies. Communication between departments, such as radiology, laboratory, and pharmacy, is typically fragmented, relying on phone calls, emails, or face-to-face interactions, which can delay critical information sharing and coordination. Furthermore, maintaining compliance with healthcare regulations and ensuring data security is challenging with manual processes and unintegrated systems, leaving sensitive patient information vulnerable to breaches. Overall, these existing methods are not only labor-intensive but also hinder the ability of healthcare providers to deliver timely and efficient patient care.

Appointment scheduling, often managed manually or through basic digital calendars, lacks integration with other hospital systems. This fragmentation can lead to double bookings, scheduling conflicts, and extended wait times, negatively impacting patient satisfaction and clinic workflow. Billing and financial management, typically handled using standalone accounting software or even manually, are prone to errors and inconsistencies. This can lead to delayed billing, incorrect invoices, and prolonged insurance claim processing, ultimately affecting the hospital’s financial health and patient experience. Inventory management in many healthcare facilities still relies on manual counts and basic spreadsheets. This method is not only time-consuming but also susceptible to human error, resulting in frequent stockouts of essential supplies or overstocking of non-essential items. Such inefficiencies can disrupt clinical operations and increase operational costs.

4. TOOL DESCRIPTION

Hardware and Software Tools

To develop and deploy the Hospital Management web application, the following hardware and software tools were utilized:

Hardware Specifications

- **Laptop Model**: ASUS ROG Strix
- **Graphics Card**: NVIDIA GeForce RTX 3060, 4GB
- **Storage**: 1TB SSD
- **RAM**: 16GB
- **Processor**: AMD Ryzen 7 6800H

The ASUS ROG Strix laptop with its high-performance specifications provided an excellent environment for developing and testing the web application. The NVIDIA GeForce RTX 3060 graphics card ensured smooth rendering of graphics and multimedia content, enhancing the development experience, especially when dealing with high-resolution recipe images and user interface design. The 1TB SSD facilitated fast data read/write operations, significantly reducing load times for development tools and ensuring rapid access to project files. With 16GB of RAM, the laptop efficiently handled multiple development tools running concurrently, supporting a seamless multitasking environment. The AMD Ryzen 7 6800H processor, known for its powerful performance and energy efficiency, enabled quick compilation and execution of code, speeding up the development cycle.

Software Tools

- **Visual Studio Code**: An integrated development environment (IDE) used for writing and debugging code. Its extensions and integrated terminal enhanced the coding experience.
- **XAMPP**: A free and open-source cross-platform web server solution stack package developed by Apache Friends. It provided the necessary Apache, MySQL, PHP, and Perl support for local development and testing.
- **phpMyAdmin**: A free software tool written in PHP, intended to handle the administration of MySQL over the web. phpMyAdmin was used for database management, allowing for easy handling of the MySQL database used in the application.
- **GitHub**: Used for version control and collaborative development. The repository hosted the project's source code, enabling team collaboration and version tracking.
- **Google Chrome**: The primary web browser used for testing and debugging the web application. Developer tools in Chrome facilitated real-time inspection and modification of the front-end code.

5. Operations

The Hospital Management Application provides various operations for both administrators and users to manage hospial effectively and ensure a smooth user experience. Below are the detailed operations based on the provided code and functionalities of the application:

5.1 Administrator Operations

Human Resource Management:

- **Staff Recruitment and Onboarding:** Administrators oversee the hiring process, ensuring that qualified personnel are recruited and properly onboarded.
- **Scheduling and Shift Management:** They manage staff schedules, ensuring adequate coverage across all departments and shifts.
- **Payroll and Benefits Administration:** Administrators handle payroll processing and manage employee benefits, ensuring timely and accurate compensation.
- **Performance Evaluation:** Regular performance reviews and evaluations are conducted to maintain high standards of care and staff productivity.

Financial Management:

- **Budgeting and Financial Planning:** Administrators develop and manage the hospital's budget, ensuring financial resources are allocated efficiently**.**
- **Billing and Revenue Cycle Management:** They oversee the billing process, manage patient accounts, and ensure timely processing of insurance claims to maintain cash flow.
- **Financial Reporting:** Regular financial reports are generated to monitor the hospital's financial health and guide strategic decisions**.**

Compliance and Regulation:

- **Regulatory Compliance:** Administrators ensure that the hospital adheres to all relevant healthcare regulations and standards, such as HIPAA, OSHA, and Joint Commission requirements.
- **Policy Development:** They develop and implement policies and procedures to ensure compliance and promote best practices within the hospital.
- **Quality Assurance:** Continuous quality improvement initiatives are managed to enhance patient care and operational efficiency.

Patient Management:

- **Patient Admissions and Discharges:** Administrators oversee the processes of patient admission, transfer, and discharge, ensuring smooth transitions and proper documentation.

5.2 User Operations

Interacting with Doctor

- **Patient Records:** Access patient medical history, treatment plans, lab results, and radiology reports, Update and document diagnoses, treatment plans, and progress notes.
- **Appointment Management:** View daily schedules and upcoming appointments, Reschedule or cancel appointments as needed.
- **Order Entry:** Request lab tests, radiology imaging, and other diagnostic procedures, Prescribe medications electronically.
- **Communication:** Send and receive messages from other healthcare professionals, Set up alerts for critical patient information.

User Authentication

- **Register:** New users can create an account by providing their username, email, and password.
- **Login:** Registered users can log into their accounts using their credentials.
- **Logout:** Users can log out of their accounts to secure their sessions.

Managing User Profile

- **View Profile:** Users can view their profile information, including username, email, and liked recipes.
- **Edit Profile:** Users can update their profile information, such as username, email, and password.

Taking Actions on Doctor

- **Diagnosing and Treating Patients:** Access patient medical records to review history and current conditions, Order diagnostic tests and review results, Develop and update treatment plans based on patient progress.
- **Prescribing Medications:** Write electronic prescriptions for patients, Check for potential drug interactions using the HMS.
- **Scheduling Surgeries and Procedures:** Schedule surgical procedures and coordinate with relevant departments, Monitor patient recovery and follow-up care.

6. Approach / Module Description / Functionalities

To develop the Hospital Management Application, we will divide the project into distinct modules, each responsible for specific functionalities. By creating individual functions for every operation and unifying them, we can ensure modularity, maintainability, and scalability.

Modules and Functionalities

6.1 User Authentication Module

Function: Register User

- **Description:** Allows new users to create an account.
- **Functionalities:**
    - Collect user information (username, email, password).
    - Validate and store user information in the database.

Function: Login User

- **Description:** Authenticates existing users.
- **Functionalities:**
    - Verify user credentials (email and password).
    - Start a session for the authenticated user.

6.2 Hospital Management Module (Administrator)

Function: Human Resource

- **Description:** Allows administrators to add employee records.
- **Functionalities:** Maintain detailed records of all staff, including qualifications, certifications, roles, and contact information.

Function: Financial Management

- **Description:** Enable administrator to budgeting and financial planning.
- **Functionalities:** Develop and monitor the hospital's budget, allocate resources, and track expenditures.

Function: Inventory and Supply Chain Management

- **Description:** Permits administrators inventory tracking.
- **Functionalities:** Monitor inventory levels of medical supplies, pharmaceuticals, and equipment.

Function: Patient Management

- **Description:** Patient Admissions and Discharges.
- **Functionalities:** Streamline the admission and discharge processes, ensuring all necessary documentation is completed.

6.3 Hospital Interaction Module (User)

Function: View Hospital

- **Description:** Allows users to browse and view detailed information about hospital.
- **Functionalities:**
    - Display hospital details (name, category, image).
    - Implement smooth scrolling for navigating through hospital.

Function: Search Hospital

- **Description:** Enables users to search for hospital by name .
- **Functionalities:**
    - Filter hospital based on search input.
    - Display search results dynamically.

Function: Like Hospital

- **Description:** Users can like their maintenance of hospital.
- **Functionalities:**
    - Store likes in the database.
    - Update like count for hospital.

Function: Comment on Hospital

- **Description:** Users can leave comments on hospital.
- **Functionalities:**
    - Input comment text.
    - Save comments to the database.
    - Display comments under the respective hospital.

6.4 Profile Management Module (User)

Function: View Profile

- **Description:** Displays user profile information.
- **Functionalities:**
    - Retrieve and show user details (username, email, liked recipes).

Function: Edit Profile

- **Description:** Allows users to update their profile information.
- **Functionalities:**
    - Input new user information.
    - Validate and save updates to the database.

6.5 Hospital View and Update Module (User & Admin)

Function: View Hospital Details

- **Description:** Allows users to view detailed hospital information.
- **Functionalities:**
    - Fetch and display hospital details in a modal.

Function: Update Hospital Details

- **Description:** Enables administrators to update hospital information.
- **Functionalities:**
    - Fetch hospital details for editing.
    - Save updates to the database.

6.6 Admin Module (Administrator)

Function: Manage Users

- **Description:** Enables administrators to manage user accounts.
- **Functionalities:**
    - View user list.
    - Edit or delete user accounts.

Function: Manage Categories

- **Description:** Allows administrators to manage hospital categories.
- **Functionalities:**
    - Add, edit, or delete categories.

Integration of Functions:

By developing these modules and their respective functions independently, we can then unify them to form the complete software. Each module can interact with others through defined interfaces, ensuring smooth data flow and cohesive operation.

Example: Unifying Functions

1. **User Login:**
    - User logs in using the Login User function from the User Authentication Module.
    - Based on the role (user/admin), the user is redirected to their respective dashboard.
2. **Admin Dashboard:**
    - Administrators can access Hospital Management Module functions (Add , Edit, etc.) from their dashboard.
    - They can also use the Admin Module to manage users and categories.
3. **User Dashboard:**
    - Users can view and interact with recipes using the Hospital Interaction Module.
    - Users can also manage their profiles using functions from the Profile Management Module.
4. **Profile Management:**
    - Both administrators and users can manage their profiles using functions from the Profile Management Module.

By structuring the operations and functionalities around these modules, the Hospital Management Application ensures a seamless and efficient user experience for both administrators and users.

7. **Implementation/Coding**

```
<!—PATIENT REGISTRATION-->
<html>
<HEAD>
<link rel="stylesheet" href="style.css">
</HEAD>
<BODY>
<h1>patient registration</h1>
<div class="container">
<div class="section" id="patient-registration">
<h2>Patient Registration</h2>
<form name="login" action="patientdetails.html" method="post">
<div class="form-group">
<label for="patient-name">Patient Name:</label>
<input type="text" id="patient-name" name="patient-name" required>
</div>
<div class="form-group">
<label for="patient-age">Age:</label>
<input type="number" id="patient-age" name="patient-age" required>
</div>
<div class="form-group">
<label for="patient-gender">Gender:</label>
<select id="patient-gender" name="patient-gender">
<option value="male">Male</option>
<option value="female">Female</option>
<option value="other">Other</option>
</select>
</div>
<div class="form-group">
<label for="patient-contact">Contact Number:</label>
```

```
<input type="text" id="patient-contact" name="patient-contact" required>
</div>
<div class="form-group">
<button type="submit">Register Patient</button>
</div>
</form>
</div>
</BODY>
</html>


<!—APPOINTMENT SCHEDULING -->
<html>
<head>
<link rel="stylesheet" href="style.css">
</head>
<body>
<h1>appointment scheduling</h1>
<div class="section" id="appointment-scheduling">
<h2>Appointment Scheduling</h2>
<form name="appointment details" action="doctormanagement.html" method="post">
<div class="form-group">
<label for="appointment-patient">Patient Name:</label>
<input type="text" id="appointment-patient" name="appointment-patient" required>
</div>
<div class="form-group">
<label for="appointment-doctor">Doctor:</label>
<select id="appointment-doctor" name="appointment-doctor">
<option value="dr-smith">Dr. Smith</option>
<option value="dr-jones">Dr. Jones</option>
```

```
<option value="dr-brown">Dr. Brown</option>
</select>
</div>
<div class="form-group">
<label for="appointment-date">Date:</label>
<input type="date" id="appointment-date" name="appointment-date" required>
</div>
<div class="form-group">
<label for="appointment-time">Time:</label>
<input type="time" id="appointment-time" name="appointment-time" required>
</div>
<div class="form-group">
<button type="submit">Schedule Appointment</button>
</div>
</form>
</div>
</body>
</html>

<!—DOCTOR MANAGEMENT -->
<html>
<head>
<link rel="stylesheet" href="style.css">
</head>
<body>
<h1>doctor management</h1>
<div class="section" id="doctor-management">
<h2>Doctor Management</h2>
<form name="doctor details" action="accountmedicalrecords.html" method="post">
<div class="form-group">
```

```
<label for="doctor-name">Doctor Name:</label>
<input type="text" id="doctor-name" name="doctor-name" required>
</div>
<div class="form-group">
<label for="doctor-specialization">Specialization:</label>
<input type="text" id="doctor-specialization" name="doctor-specialization" required>
</div>
<div class="form-group">
<label for="doctor-contact">Contact Number:</label>
<input type="text" id="doctor-contact" name="doctor-contact" required>
</div>
<div class="form-group">
<button type="submit">Add Doctor</button>
</div>
</form>
</div>
</body>
</html>
<!—ACCOUNT MEDICAL RECORD -->
<html>
<head>
<link rel="stylesheet" href="style.css">
</head>
<body>
<h1>account medical records</h1>
<div class="section" id="account-medical-records">
<h2>Account/Medical Records Management</h2>
<form name="account details" action="reportmanagement.html" method="post">
<div class="form-group">
<label for="record-patient-id">Patient ID:</label>
```

```
<input type="text" id="record-patient-id" name="record-patient-id" required>
</div>
<div class="form-group">
<label for="record-details">Record Details:</label>
<textarea id="record-details" name="record-details" rows="4" required></textarea>
</div>
<div class="form-group">
<label for="record-date">Date:</label>
<input type="date" id="record-date" name="record-date" required>
</div>
<div class="form-group">
<button type="submit">Save Record</button>
</div>
</form>
</div>
</body>
</html>

<!—HOSPITAL MANAGEMENT -->

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Hospital Management System</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
```

```
padding: 0;
background-color: #f0f0f0;
background-image: url(C:\Users\Madhu\Downloads\photo.jpg); /* Background image for the entire page */
background-size: cover;
background-position: center;
}
header {
background-color: #4CAF50;
color: white;
text-align: center;
padding: 1em 0;
border-bottom: 5px solid #388E3C;
}
nav {
display: flex;
justify-content: center;
background-color: rgba(51, 51, 51, 0.9);
flex-wrap: wrap;
padding: 10px 0;
border-bottom: 5px solid #2C2C2C;
}
nav a {
color: white;
padding: 14px 20px;
text-decoration: none;
text-align: center;
margin: 2px;
border-radius: 5px;
}
nav a:hover {
```

```
background-color: #ddd;
color: black;
}
.container {
margin: 20px;
}
.section {
background-color: rgba(255, 255, 255, 0.9);
padding: 20px;
margin-bottom: 20px;
border-radius: 10px;
box-shadow: 0 0 15px rgba(0,0,0,0.2);
}
.section h2 {
margin-top: 0;
border-bottom: 2px solid #4CAF50;
padding-bottom: 10px;
}
.form-group {
margin-bottom: 15px;
}
.form-group label {
display: block;
margin-bottom: 5px;
font-weight: bold;
}
.form-group input, .form-group select, .form-group textarea {
width: 100%;
padding: 10px;
box-sizing: border-box;
```

```
border: 1px solid #ccc;
border-radius: 5px;
margin-top: 5px;
}
.form-group button {
background-color: #4CAF50;
color: white;
border: none;
padding: 12px 20px;
cursor: pointer;
border-radius: 5px;
}
.form-group button:hover {
background-color: #45a049;
}
.login-container {
display: flex;
justify-content: center;
align-items: center;
height: 100vh;
background-color: rgba(0, 0, 0, 0.5); /* Overlay for readability */
}
.login-form {
background-color: white;
padding: 30px;
border-radius: 10px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
width: 300px;
}
.login-form h2 {
```

```
text-align: center;
margin-bottom: 20px;
}
</style>
</head>
<body>

<div class="login-container" id="login-container">
<div class="login-form">
<h2>Login</h2>
<form id="loginForm">
<div class="form-group">
<label for="username">Username:</label>
<input type="text" id="username" name="username" required>
</div>
<div class="form-group">
<label for="password">Password:</label>
<input type="password" id="password" name="password" required>
</div>
<div class="form-group">
<button type="submit">Login</button>
</div>
</form>
</div>
</div>

<div id="main-container" style="display: none;">
<header>
<h1>Hospital Management System</h1>
</header>
```

```
<nav>
<a href="#patient-registration">Patient Registration</a>
<a href="#patient-details">Patient Details</a>
<a href="#appointment-scheduling">Appointment Scheduling</a>
<a href="#doctor-management">Doctor Management</a>
<a href="#account-medical-records">Account/Medical Records Management</a>
<a href="#report-management">Report Management</a>
</nav>

<div class="container">
<div class="section" id="patient-registration">
<h2>Patient Registration</h2>
<form>
<div class="form-group">
<label for="patient-name">Patient Name:</label>
<input type="text" id="patient-name" name="patient-name" required>
</div>
<div class="form-group">
<label for="patient-age">Age:</label>
<input type="number" id="patient-age" name="patient-age" required>
</div>
<div class="form-group">
<label for="patient-gender">Gender:</label>
<select id="patient-gender" name="patient-gender">
<option value="male">Male</option>
<option value="female">Female</option>
<option value="other">Other</option>
</select>
</div>
```

```
<div class="form-group">
<label for="patient-contact">Contact Number:</label>
<input type="text" id="patient-contact" name="patient-contact" required>
</div>
<div class="form-group">
<button type="submit">Register Patient</button>
</div>
</form>
</div>

<div class="section" id="patient-details">
<h2>Patient Details</h2>
<form>
<div class="form-group">
<label for="patient-id">Patient ID:</label>
<input type="text" id="patient-id" name="patient-id" required>
</div>
<div class="form-group">
<label for="patient-history">Medical History:</label>
<textarea id="patient-history" name="patient-history" rows="4" required></textarea>
</div>
<div class="form-group">
<button type="submit">Retrieve Details</button>
</div>
</form>
</div>

<div class="section" id="appointment-scheduling">
<h2>Appointment Scheduling</h2>
<form>
```

```
<div class="form-group">
<label for="appointment-patient">Patient Name:</label>
<input type="text" id="appointment-patient" name="appointment-patient" required>
</div>
<div class="form-group">
<label for="appointment-doctor">Doctor:</label>
<select id="appointment-doctor" name="appointment-doctor">
<option value="dr-smith">Dr. Smith</option>
<option value="dr-jones">Dr. Jones</option>
<option value="dr-brown">Dr. Brown</option>
</select>
</div>
<div class="form-group">
<label for="appointment-date">Date:</label>
<input type="date" id="appointment-date" name="appointment-date" required>
</div>
<div class="form-group">
<label for="appointment-time">Time:</label>
<input type="time" id="appointment-time" name="appointment-time" required>
</div>
<div class="form-group">
<button type="submit">Schedule Appointment</button>
</div>
</form>
</div>

<div class="section" id="doctor-management">
<h2>Doctor Management</h2>
<form>
<div class="form-group">
```

```
<label for="doctor-name">Doctor Name:</label>
<input type="text" id="doctor-name" name="doctor-name" required>
</div>
<div class="form-group">
<label for="doctor-specialization">Specialization:</label>
<input type="text" id="doctor-specialization" name="doctor-specialization" required>
</div>
<div class="form-group">
<label for="doctor-contact">Contact Number:</label>
<input type="text" id="doctor-contact" name="doctor-contact" required>
</div>
<div class="form-group">
<button type="submit">Add Doctor</button>
</div>
</form>
</div>

<div class="section" id="account-medical-records">
<h2>Account/Medical Records Management</h2>
<form>
<div class="form-group">
<label for="record-patient-id">Patient ID:</label>
<input type="text" id="record-patient-id" name="record-patient-id" required>
</div>
<div class="form-group">
<label for="record-details">Record Details:</label>
<textarea id="record-details" name="record-details" rows="4" required></textarea>
</div>
<div class="form-group">
<label for="record-date">Date:</label>
```

```
<input type="date" id="record-date" name="record-date" required>
</div>
<div class="form-group">
<button type="submit">Save Record</button>
</div>
</form>
</div>

<div class="section" id="report-management">
<h2>Report Management</h2>
<form>
<div class="form-group">
<label for="report-type">Report Type:</label>
<select id="report-type" name="report-type">
<option value="daily">Daily</option>
<option value="weekly">Weekly</option>
<option value="monthly">Monthly</option>
</select>
</div>
<div class="form-group">
<label for="report-date-range">Date Range:</label>
<input type="text" id="report-date-range" name="report-date-range" placeholder="YYYY-MM-DD to YYYY-MM-DD" required>
</div>
<div class="form-group">
<button type="submit">Generate Report</button>
</div>
</form>
</div>
</div>
</div>
```

```
<script>
document.getElementById('loginForm').addEventListener('submit', function(event) {
event.preventDefault();
document.getElementById('login-container').style.display = 'none';
document.getElementById('main-container').style.display = 'block';
});
</script>

</body>
</html>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Hospital Management System</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
background-color: #f0f0f0;
background-image: url(C:\Users\Madhu\Downloads\photo.jpg); /* Background image for the entire page */
background-size: cover;
background-position: center;
}
header {
background-color: #4CAF50;
color: white;
```

```
text-align: center;
padding: 1em 0;
border-bottom: 5px solid #388E3C;
}
nav {
display: flex;
justify-content: center;
background-color: rgba(51, 51, 51, 0.9);
flex-wrap: wrap;
padding: 10px 0;
border-bottom: 5px solid #2C2C2C;
}
nav a {
color: white;
padding: 14px 20px;
text-decoration: none;
text-align: center;
margin: 2px;
border-radius: 5px;
}
nav a:hover {
background-color: #ddd;
color: black;
}
.container {
margin: 20px;
}
.section {
background-color: rgba(255, 255, 255, 0.9);
padding: 20px;
```

```
margin-bottom: 20px;
border-radius: 10px;
box-shadow: 0 0 15px rgba(0,0,0,0.2);
}
.section h2 {
margin-top: 0;
border-bottom: 2px solid #4CAF50;
padding-bottom: 10px;
}
.form-group {
margin-bottom: 15px;
}
.form-group label {
display: block;
margin-bottom: 5px;
font-weight: bold;
}
.form-group input, .form-group select, .form-group textarea {
width: 100%;
padding: 10px;
box-sizing: border-box;
border: 1px solid #ccc;
border-radius: 5px;
margin-top: 5px;
}
.form-group button {
background-color: #4CAF50;
color: white;
border: none;
padding: 12px 20px;
```

```
cursor: pointer;
border-radius: 5px;
}
.form-group button:hover {
background-color: #45a049;
}
.login-container {
display: flex;
justify-content: center;
align-items: center;
height: 100vh;
background-color: rgba(0, 0, 0, 0.5); /* Overlay for readability */
}
.login-form {
background-color: white;
padding: 30px;
border-radius: 10px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
width: 300px;
}
.login-form h2 {
text-align: center;
margin-bottom: 20px;
}
</style>
</head>
<body>

<div class="login-container" id="login-container">
<div class="login-form">
```

```
<h2>Login</h2>
<form id="loginForm">
<div class="form-group">
<label for="username">Username:</label>
<input type="text" id="username" name="username" required>
</div>
<div class="form-group">
<label for="password">Password:</label>
<input type="password" id="password" name="password" required>
</div>
<div class="form-group">
<button type="submit">Login</button>
</div>
</form>
</div>
</div>

<div id="main-container" style="display: none;">
<header>
<h1>Hospital Management System</h1>
</header>

<nav>
<a href="#patient-registration">Patient Registration</a>
<a href="#patient-details">Patient Details</a>
<a href="#appointment-scheduling">Appointment Scheduling</a>
<a href="#doctor-management">Doctor Management</a>
<a href="#account-medical-records">Account/Medical Records Management</a>
<a href="#report-management">Report Management</a>
</nav>
```

```
<div class="container">
<div class="section" id="patient-registration">
<h2>Patient Registration</h2>
<form name="login" action="patient details" method="post">


<div class="section" id="appointment-scheduling">
<h2>Appointment Scheduling</h2>
<form>
<div class="form-group">
<label for="appointment-patient">Patient Name:</label>
<input type="text" id="appointment-patient" name="appointment-patient" required>
</div>
<div class="form-group">
<label for="appointment-doctor">Doctor:</label>
<select id="appointment-doctor" name="appointment-doctor">
<option value="dr-smith">Dr. Smith</option>
<option value="dr-jones">Dr. Jones</option>
<option value="dr-brown">Dr. Brown</option>
</select>
</div>
<div class="form-group">
<label for="appointment-date">Date:</label>
<input type="date" id="appointment-date" name="appointment-date" required>
</div>
<div class="form-group">
<label for="appointment-time">Time:</label>
<input type="time" id="appointment-time" name="appointment-time" required>
</div>
```

```
<div class="form-group">
<button type="submit">Schedule Appointment</button>
</div>
</form>
</div>

<div class="section" id="doctor-management">
<h2>Doctor Management</h2>
<form>
<div class="form-group">
<label for="doctor-name">Doctor Name:</label>
<input type="text" id="doctor-name" name="doctor-name" required>
</div>
<div class="form-group">
<label for="doctor-specialization">Specialization:</label>
<input type="text" id="doctor-specialization" name="doctor-specialization" required>
</div>
<div class="form-group">
<label for="doctor-contact">Contact Number:</label>
<input type="text" id="doctor-contact" name="doctor-contact" required>
</div>
<div class="form-group">
<button type="submit">Add Doctor</button>
</div>
</form>
</div>

<div class="section" id="account-medical-records">
<h2>Account/Medical Records Management</h2>
<form>
```

```
<div class="form-group">
<label for="record-patient-id">Patient ID:</label>
<input type="text" id="record-patient-id" name="record-patient-id" required>
</div>
<div class="form-group">
<label for="record-details">Record Details:</label>
<textarea id="record-details" name="record-details" rows="4" required></textarea>
</div>
<div class="form-group">
<label for="record-date">Date:</label>
<input type="date" id="record-date" name="record-date" required>
</div>
<div class="form-group">
<button type="submit">Save Record</button>
</div>
</form>
</div>
</body>
</html>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Hospital Management System</title>
<style>
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
```

```
background-color: #f0f0f0;
background-image: url(C:\Users\Madhu\Downloads\photo.jpg); /* Background image for the entire page */
background-size: cover;
background-position: center;
}
header {
background-color: #4CAF50;
color: white;
text-align: center;
padding: 1em 0;
border-bottom: 5px solid #388E3C;
}
nav {
display: flex;
justify-content: center;
background-color: rgba(51, 51, 51, 0.9);
flex-wrap: wrap;
padding: 10px 0;
border-bottom: 5px solid #2C2C2C;
}
nav a {
color: white;
padding: 14px 20px;
text-decoration: none;
text-align: center;
margin: 2px;
border-radius: 5px;
}
nav a:hover {
background-color: #ddd;
```

```
color: black;
}
.container {
margin: 20px;
}
.section {
background-color: rgba(255, 255, 255, 0.9);
padding: 20px;
margin-bottom: 20px;
border-radius: 10px;
box-shadow: 0 0 15px rgba(0,0,0,0.2);
}
.section h2 {
margin-top: 0;
border-bottom: 2px solid #4CAF50;
padding-bottom: 10px;
}
.form-group {
margin-bottom: 15px;
}
.form-group label {
display: block;
margin-bottom: 5px;
font-weight: bold;
}
.form-group input, .form-group select, .form-group textarea {
width: 100%;
padding: 10px;
box-sizing: border-box;
border: 1px solid #ccc;
```

```
border-radius: 5px;
margin-top: 5px;
}
.form-group button {
background-color: #4CAF50;
color: white;
border: none;
padding: 12px 20px;
cursor: pointer;
border-radius: 5px;
}
.form-group button:hover {
background-color: #45a049;
}
.login-container {
display: flex;
justify-content: center;
align-items: center;
height: 100vh;
background-color: rgba(0, 0, 0, 0.5); /* Overlay for readability */
}
.login-form {
background-color: white;
padding: 30px;
border-radius: 10px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
width: 300px;
}
.login-form h2 {
text-align: center;
```

```
margin-bottom: 20px;
}
</style>
</head>
<body>

<div class="login-container" id="login-container">
<div class="login-form">
<h2>Login</h2>
<form id="loginForm">
<div class="form-group">
<label for="username">Username:</label>
<input type="text" id="username" name="username" required>
</div>
<div class="form-group">
<label for="password">Password:</label>
<input type="password" id="password" name="password" required>
</div>
<div class="form-group">
<button type="submit">Login</button>
</div>
</form>
</div>
</div>

<div id="main-container" style="display: none;">
<header>
<h1>Hospital Management System</h1>
</header>
```

```
<nav>
<a href="#patient-registration">Patient Registration</a>
<a href="#patient-details">Patient Details</a>
<a href="#appointment-scheduling">Appointment Scheduling</a>
<a href="#doctor-management">Doctor Management</a>
<a href="#account-medical-records">Account/Medical Records Management</a>
<a href="#report-management">Report Management</a>
</nav>

<div class="container">
document.getElementById('loginForm').addEventListener('submit', function(event) {
event.preventDefault();
document.getElementById('login-container').style.display = 'none';
document.getElementById('main-container').style.display = 'block';
});
</script>

</body>
</html>
```

STYLE.CSS

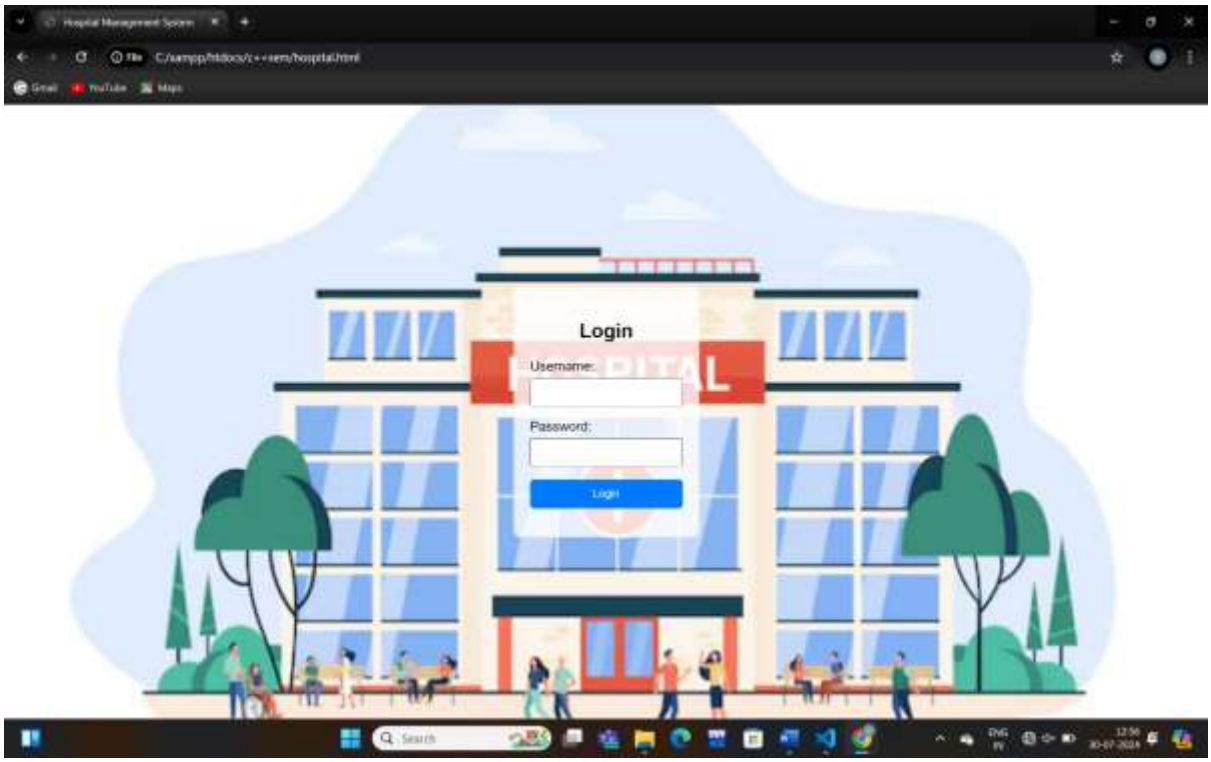
```
body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;
background-color: #f0f0f0;
background-image: url(C:\Users\Madhu\Downloads\photo.jpg); /* Background image for the entire page */
background-size: cover;
```

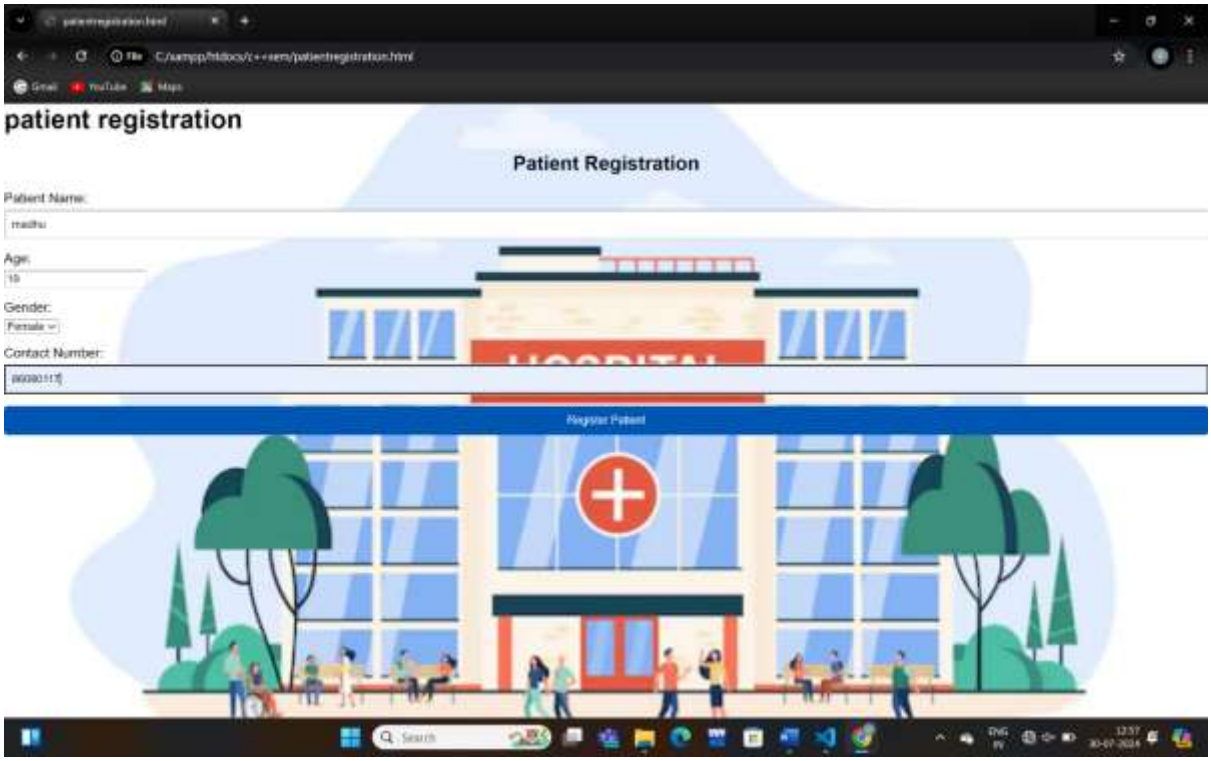
```
background-position: center;
}
header {
background-color: #4CAF50;
color: white;
text-align: center;
padding: 1em 0;
border-bottom: 5px solid #388E3C;
}
nav {
display: flex;
justify-content: center;
background-color: rgba(51, 51, 51, 0.9);
flex-wrap: wrap;
padding: 10px 0;
border-bottom: 5px solid #2C2C2C;
}
nav a {
color: white;
padding: 14px 20px;
text-decoration: none;
text-align: center;
margin: 2px;
border-radius: 5px;
}
nav a:hover {
background-color: #ddd;
color: black;
}
.container {
```

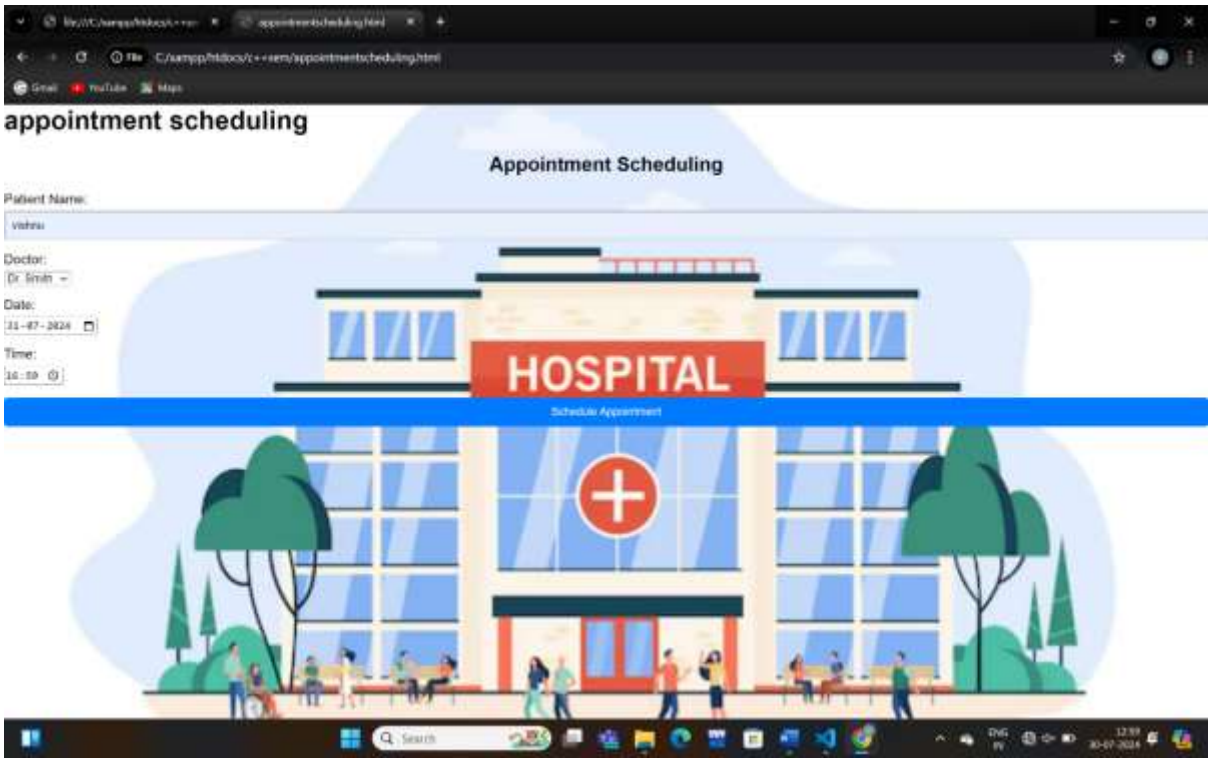
```
margin: 20px;
}
.section {
background-color: rgba(255, 255, 255, 0.9);
padding: 20px;
margin-bottom: 20px;
border-radius: 10px;
box-shadow: 0 0 15px rgba(0,0,0,0.2);
}
.section h2 {
margin-top: 0;
border-bottom: 2px solid #4CAF50;
padding-bottom: 10px;
}
.form-group {
margin-bottom: 15px;
}
.form-group label {
display: block;
margin-bottom: 5px;
font-weight: bold;
}
.form-group input, .form-group select, .form-group textarea {
width: 100%;
padding: 10px;
box-sizing: border-box;
border: 1px solid #ccc;
border-radius: 5px;
margin-top: 5px;
}
```

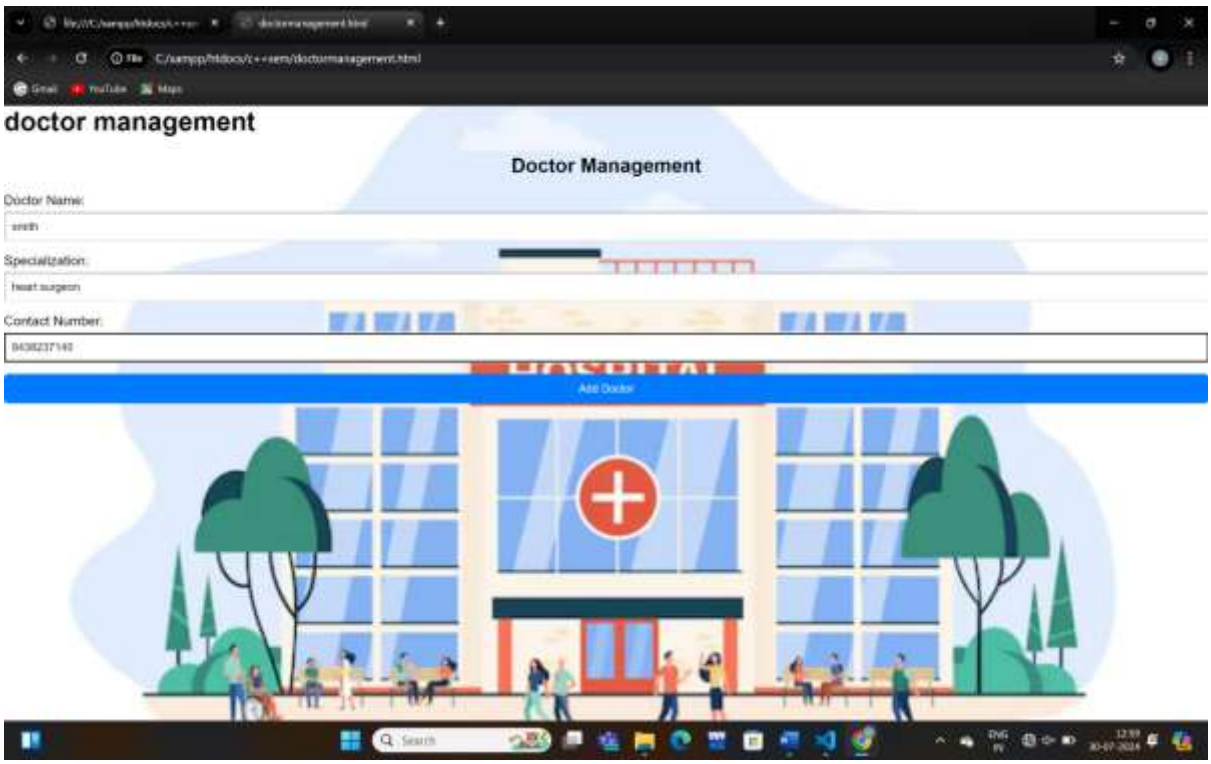
```
.form-group button {
background-color: #4CAF50;
color: white;
border: none;
padding: 12px 20px;
cursor: pointer;
border-radius: 5px;
}
.form-group button:hover {
background-color: #45a049;
}
.login-container {
display: flex;
justify-content: center;
align-items: center;
height: 100vh;
background-color: rgba(0, 0, 0, 0.5); /* Overlay for readability */
}
.login-form {
background-color: white;
padding: 30px;
border-radius: 10px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
width: 300px;
}
.login-form h2 {
text-align: center;
margin-bottom: 20px;
}
```

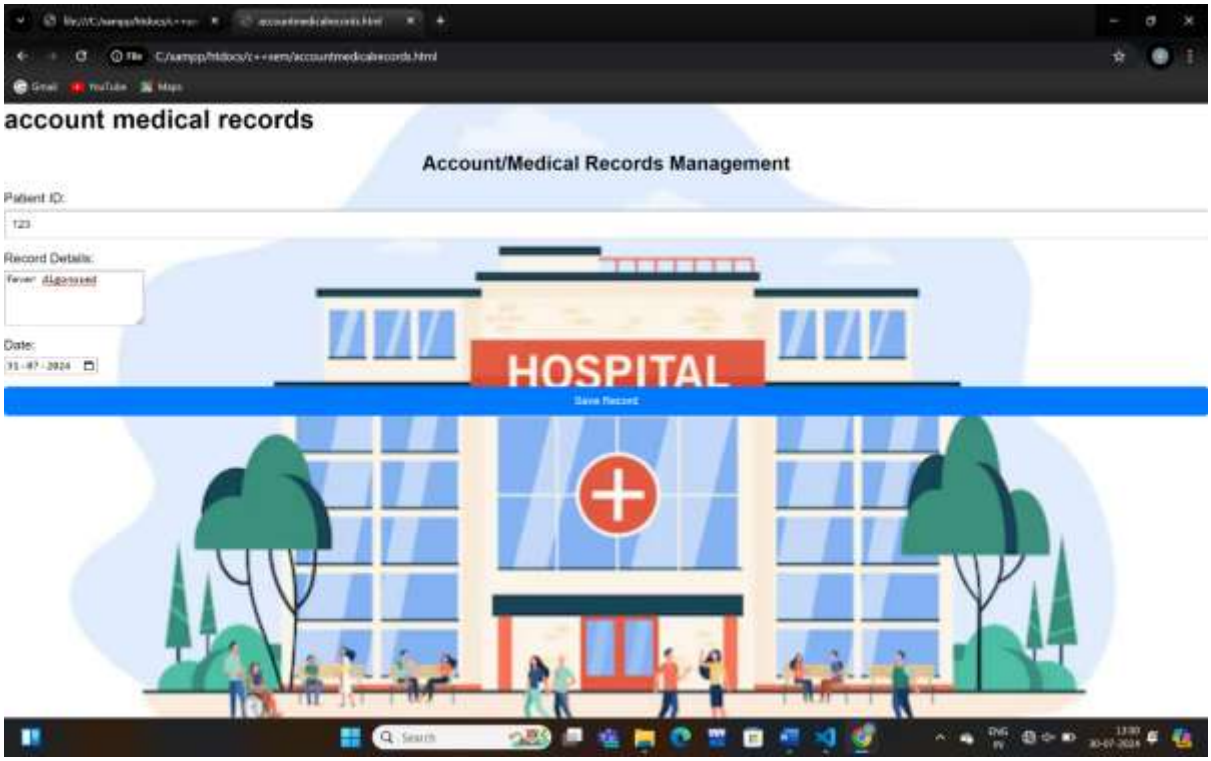
8. Result


Login
Username:
Password:
Login


patient registration
Patient Registration
Patient Name:
Age:
Gender:
Contact Number:
Register Patient


appointment scheduling
Appointment Scheduling
Patient Name:
vishnu
Doctor:
Dr. Smith
Date:
31-07-2024
Time:
16:59
HOSPITAL
Schedule Appointment


doctor management
Doctor Management
Doctor Name:
smith
Specialization:
heart surgeon
Contact Number:
9438237143
Add Doctor


account medical records
Account/Medical Records Management
Patient ID:
123
Record Details:
Fever: Aggressed
Date:
31-07-2024
HOSPITAL
Save Record

9. Conclusion

"Hospital Management System" is a comprehensive web application designed to simplify recipe management through a centralized platform. Developed with a user-friendly interface using Visual Studio and supported by XAMPP, it offers robust features for creating, organizing, and sharing. Users can securely log in, manage their effortlessly, and explore a wide array of ideas, making it an essential tool for culinary enthusiasts looking to enhance their experience and share with others easily.

9.1 Future Enhancements

Future enhancements to the Hospital Management System (HMS) aim to further streamline operations, improve patient care, and enhance overall hospital efficiency. Key areas of focus include the integration of artificial intelligence (AI) and machine learning (ML) to predict patient outcomes, optimize resource allocation, and personalize treatment plans. Enhanced telemedicine capabilities will facilitate remote consultations, expanding access to care and reducing the need for in-person visits. Interoperability with other healthcare systems will be improved, ensuring seamless data exchange and better coordination of care across different providers. Advanced data analytics will provide deeper insights into patient populations and hospital performance, enabling more informed decision-making. Additionally, mobile app development will empower patients with easier access to their medical records, appointment scheduling, and direct communication with healthcare providers. Enhanced cybersecurity measures will be implemented to protect patient data from evolving threats.

References

1. Keller, T., & Jones, M. (2018). "The Complete Guide to Hospital Management." *Culinary Journal*, 12(3), 145-158.
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