A Doctor Appointment Booking System

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Abstract: *This Online Doctor Appointment Booking System is a web application that provides an interface for patients to book their doctor appointment online. The main aim of this application is to remove the hardships that are available in the manual appointment booking system. Everyone has become so busy getting their doctor appointment in person and maintaining proper health care. The main advantage of this application is that patients can choose the doctor they wish on suitable dates and times based on their health issues. Admin will maintain the details of doctors and patients. Admin can add a new doctor or remove a doctor. Patients can also cancel their appointment which is available in this application. It saves a lot of time for patients. This application is fast and error-free.*

Keywords: Online Appointment, Web Application, Healthcare, Scheduling

I. INTRODUCTION

Under the manual appointment booking system, patients have to wait in line to take an appointment and wait until their time comes to discuss their health problems with their concerned doctor. Patients need someone to assist them. Patients have to provide their information and health reports at multiple places such as medical stores which is again a burden of carrying documents. Doctors may cancel appointments for some reason, but the patient cannot know about the appointment's cancellation unless or until the patient visits the hospital. Patients may need to visit the hospital on another day to take their medical reports.

II. PROPOSED SYSTEMS

The Idea of this online doctor appointment booking system is to book doctor appointments online to save both doctors' and patients' time. Patients have to fill out the form by choosing the doctor they wish to book their appointment. They can also check whether the doctor is available at a particular time before booking the appointment. Patients can register once and use the same username and password for later bookings. Doctors who wish to serve patients through this website can register by filling out the form and using the username and password for logging in to the website each time he/she uses it. Both patients and doctors can cancel their appointments at any time. Admins can add a new doctor or remove a doctor. It provides high security because doctors, patients, and admins can access their portal only through their unique IDs.

III. TECHNOLOGIES USED

- **Visual Studio Code:** Visual studio code is a code editor used for building web applications. It provides all extensions for programming languages in one place to install and use them.
- **HTML:** HTML (Hyper Text Markup Language) is used to build the user interface for web pages. It tells the browser how to display the content. It contains different tags. It is easy to learn and understand.
- **CSS:** CSS (Cascading style sheet) is used to style web pages. It has many different properties to add styles to the HTML content. Its main purpose is to separate document content from document presentation. We can add CSS styles to the content either externally, internally, or inline. Inline styles are added using style attributes. Internal styles are added in style tags within the same file. External style sheets are added to the HTML file using the link tag. Properties and property values are separated by a colon(:).
- **PHP:** PHP(Hypertext Preprocessor) is a general-purpose scripting language used for web development. It is a server-side scripting language and it is very easy to learn compared to other backend programming languages. Its syntax is similar to the C programming language. It provides methods to connect to the database and use

the data within the database. We can include PHP easily in HTML. Errors in the code are clearly shown in the browser after running.

- **XAMPP:** XAMPP is an open-source cross-platform web server solution developed by apache friends. X stands for Xampp, A stands for Apache HTTP Server, M stands for MariaDB database, P stands for PHP, and P stands for Perl programming languages. XAMPP server contains an integrated MySQL database which is PHPMyAdmin to store data. It can be freely downloaded on any operating system.

IV. RESULTS
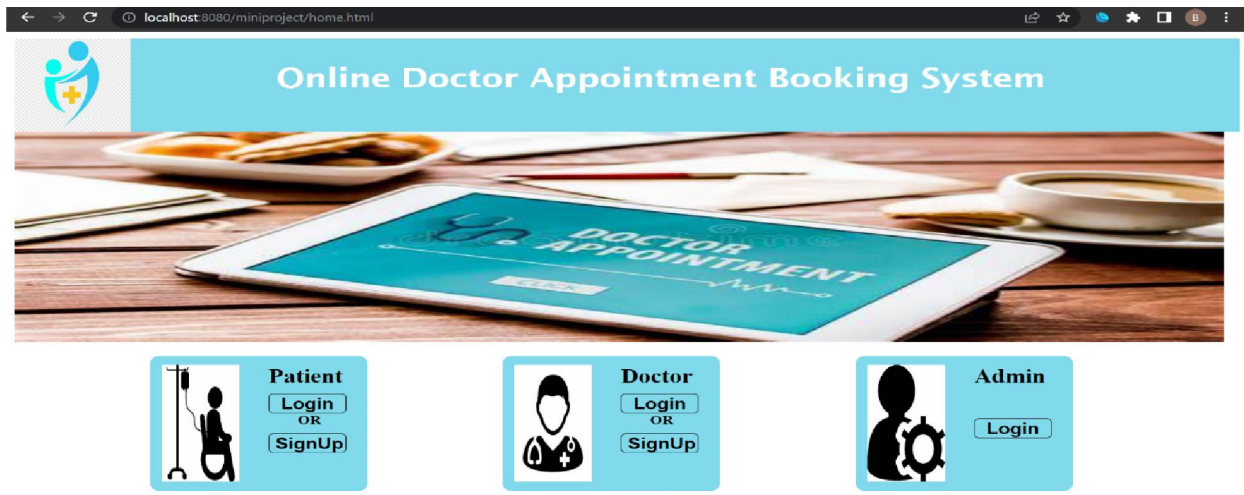
Figure 1: Main page

The front-end design of this application is very simple. Figure 1 is the main page of the website. Users must log in to use the website. If the user is new to the website, he can register or sign up. Admins can directly log in to the website. Doctors should also register and log in to use the website. This page is the standard page for all types of users.
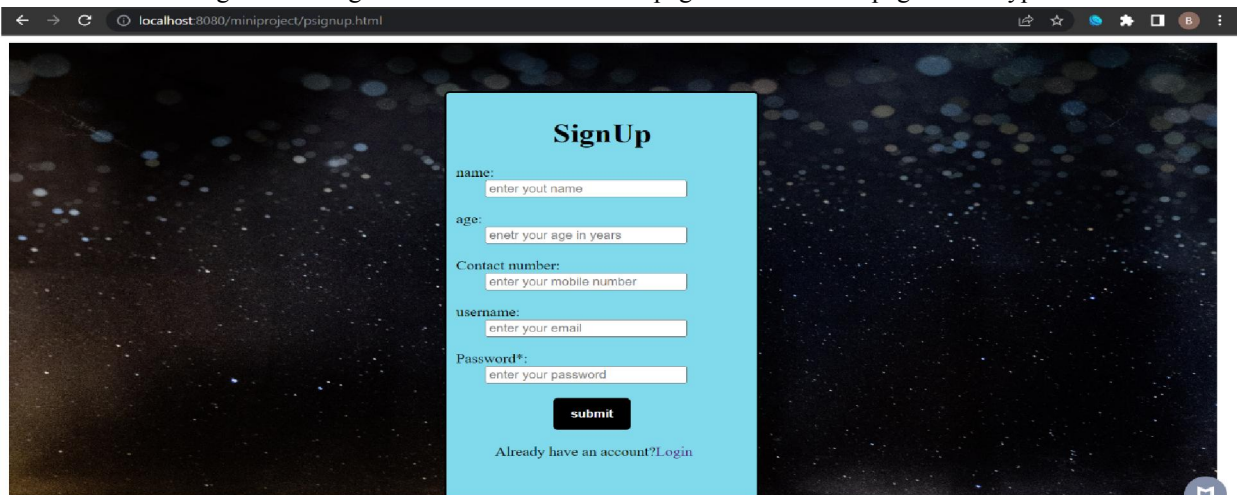

Figure 2: Patient Registration form

Patients have to register by filling out the form. The patient has to enter their name, age, contact number, username, or email and create a unique password for security. After registration patients have to use the same username and password to log in and use the website. If the patient has already registered he can directly jump to the login page and log in to the website.
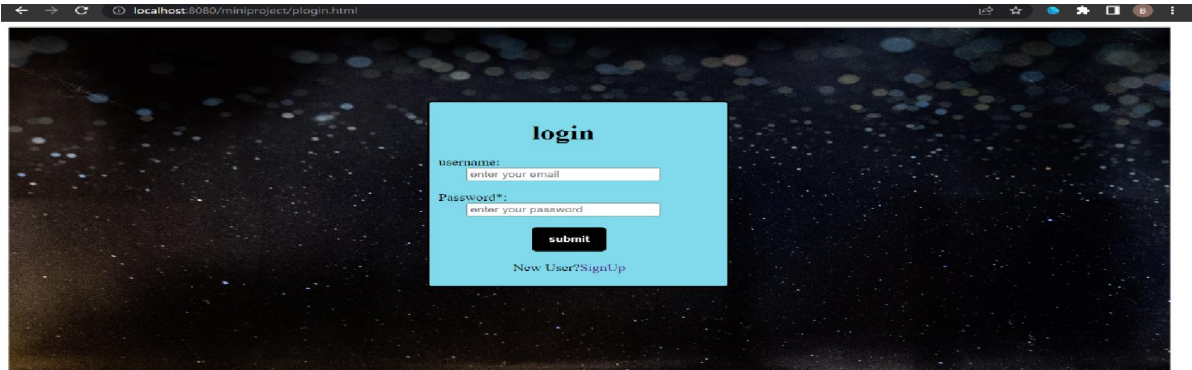
Figure 3: Patient Login form

The patient has to enter the username and password that he/she gave while filling out the form. Only after successful login patients can enter the website and book appointments. If the patient is a new user, he can directly jump to the signup page from this login page and register.
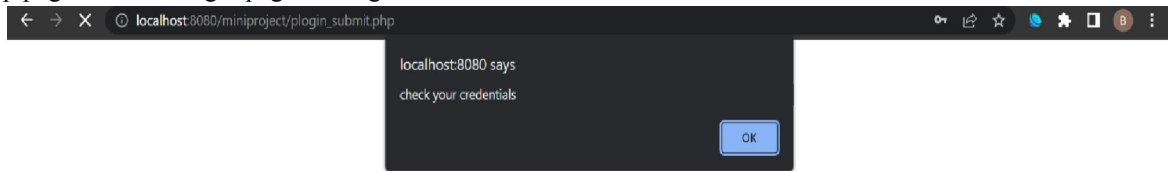

Figure 4: Login failed

If the credentials entered by the patient are incorrect, he/she will be redirected to the login page again with an alert box showing "check your credentials".
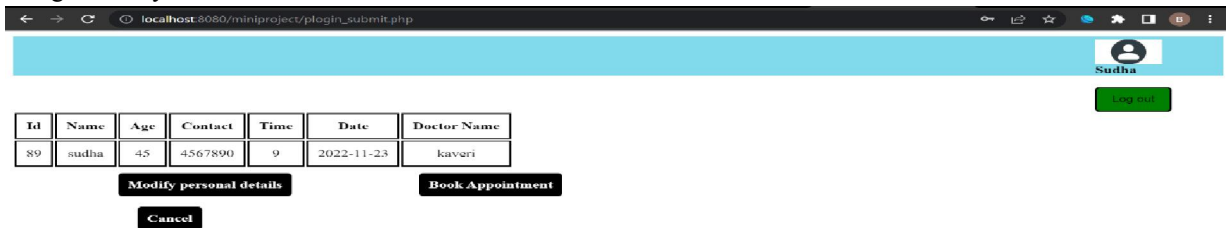

Figure 5: Patient portal

Patients will be redirected to this page after successful login. The patient's name is displayed at the top of the page. He/She can also log out from this page, It will take the user back to the home page. He/She can see the previous bookings. Patients can modify their details or cancel the previous appointments or book a new appointment.
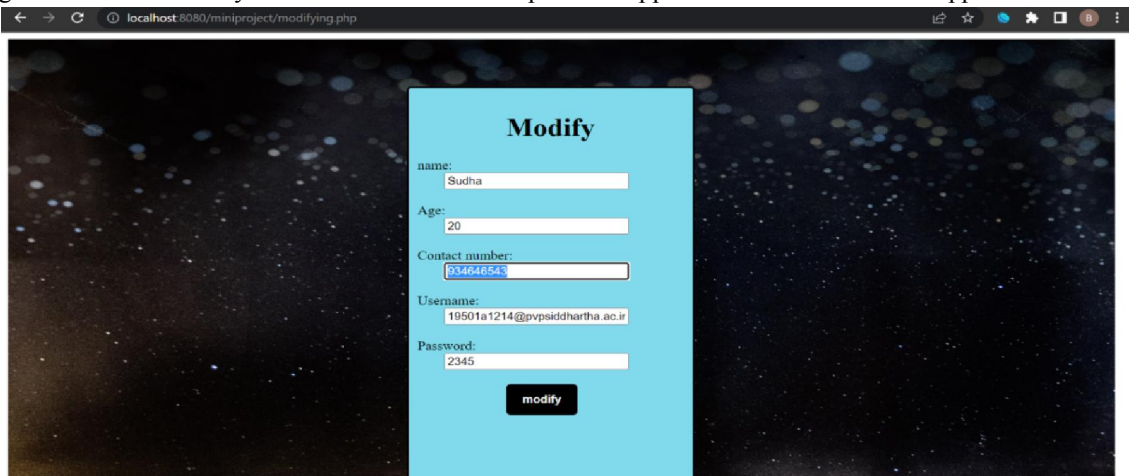

Figure 6: Patient details modifying page

The patient will enter this page by clicking on the "modify personal details" button. He/She has to enter new details to modify old details. He/She can see the details that are previously filled in and edit the details that he/she wants to edit and save the new details by clicking on the button "modify".
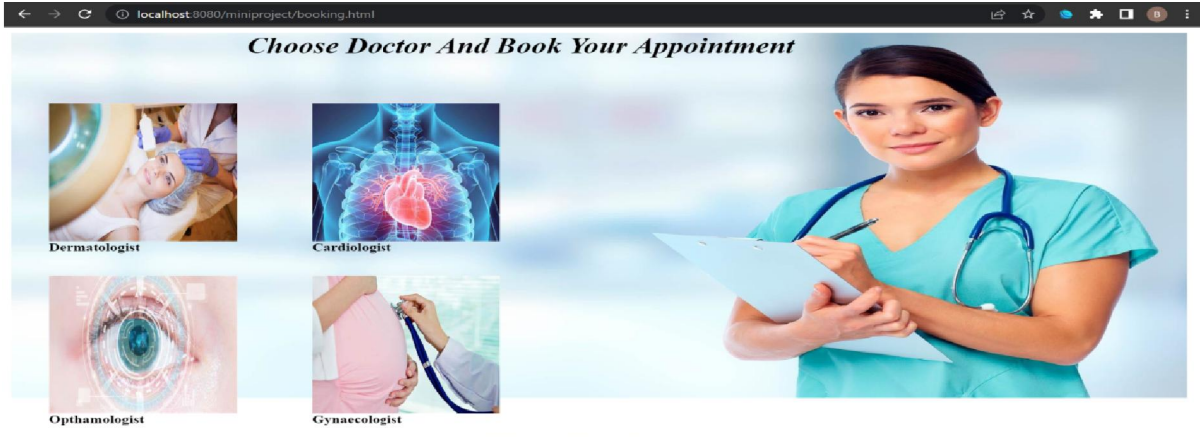

Figure 7: Choosing a doctor

The patient can reach this page by clicking on the "book appointment" button. All the specialists are available on this page like dermatologists, ophthalmologists, and cardiologists. Here, the patient can choose a specialist based on their disease. The patient can choose the doctor based on their health issue and book their appointment.
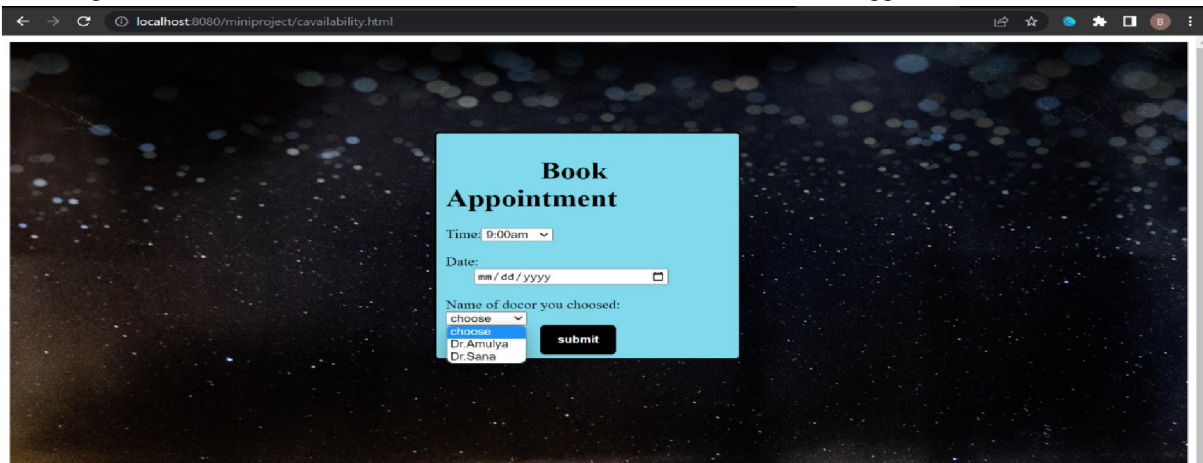

Figure 8: Checking Availability

After choosing the specialist, the patient has to enter the time and date and check whether the doctor is available at a particular time or not. The patient can book the doctor's appointment at that time and date only if the doctor is available. If the doctor is unavailable, he will be redirected to the same page to choose a different time and date. If the doctor is available he will reach the next page of the booking.

Name	Age	Contact	Time	Date	Doctor Name
sudha	45	4567890	9	2022-11-23	kaveri

Figure 9: Doctor portal

After successful login, the doctor will be redirected to this page. The doctor's name will be displayed on top of the screen. The doctor can check his/her appointments. The doctor can view a few details of the patient who booked the appointment. The doctor can also log out by clicking on the button "log out". The logout button will take the user to the home page.

V. SCOPE OF FUTURE USE

This application can be developed further to include payment or little amount that may be charged to the patients to avoid unethical users. Some more future work can be done in the patient module like setting reminders for appointments so patients can save the appointment date to the calendar. This application can be developed as an app so that it is easy to use.

VI. CONCLUSION

The online doctor appointment system was developed using HTML and PHP. The tasks involved in this work are divided into modules i.e patient module, doctor module, and admin module. The proposed system is efficient and has a friendly user interface.

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