



# HealingHand

HealingHand is a web platform designed to streamline healthcare access by allowing patients to book appointments with doctors at their convenience. Developed using ReactJS, JavaScript, MongoDB, and NodeJS, the site provides a user-friendly interface where patients can schedule appointments in specific time slots, ensuring efficient care delivery.

# Team Members

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# Tech Stack

## React JS

React JS is a JavaScript library for building user interfaces.

## Express

Express is a Node.js web application framework.

## Node.js

Node.js is a JavaScript runtime environment.

## MongoDB

MongoDB is a NoSQL database.





# Authentication

## Secure Authentication System

The application includes a secure authentication system to ensure that only authorized users can access certain features. This system handles user login, logout, and session management.

## Role-Based Access

Different roles (Patient, Doctor, Admin) have different levels of access, enforced through the authentication system.

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## JWT (JSON Web Token)

JWT (JSON Web Token) is used for secure authentication in the application. Upon login, a JWT is generated and sent to the client, which is then included in the header of subsequent requests. The server verifies this token to authenticate the user and grant access to protected routes, ensuring secure and efficient session management without needing server-side storage.

# Home Page



## Users

Users can select doctors, viewable by users, doctors, and admins, aiding in appointment bookings and overall platform management.



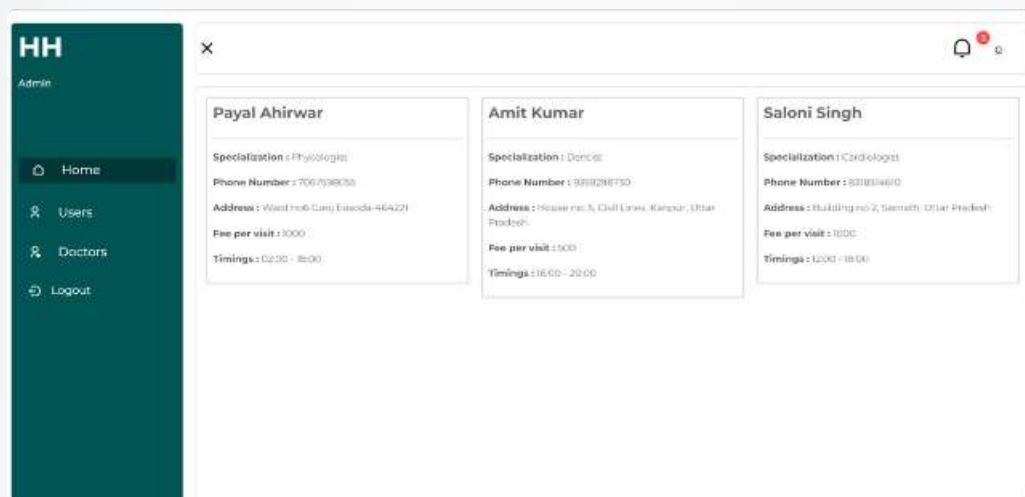
## Doctors

Doctors can view their own profiles, viewable by users, doctors, and admins, aiding in appointment bookings and overall platform management.



## Admins

Admins can manage all profiles, viewable by users, doctors, and admins, aiding in appointment bookings and overall platform management.



# Home Page

The Home Page shows a list of available doctors, viewable by users, doctors, and admins. Users can select doctors, doctors can view their own profiles, and admins can manage all profiles, aiding in appointment bookings and overall platform management.

# Admin Page: A Central Hub for Platform Management

The Admin Page provides a central control panel for managing the application. Admins can review and approve or reject doctor applications, manage user accounts, and oversee overall platform activities. This page features a dashboard with tools for monitoring appointments, user registrations, and system performance. It ensures that the admin can efficiently handle administrative tasks and maintain the integrity and smooth operation of the application.



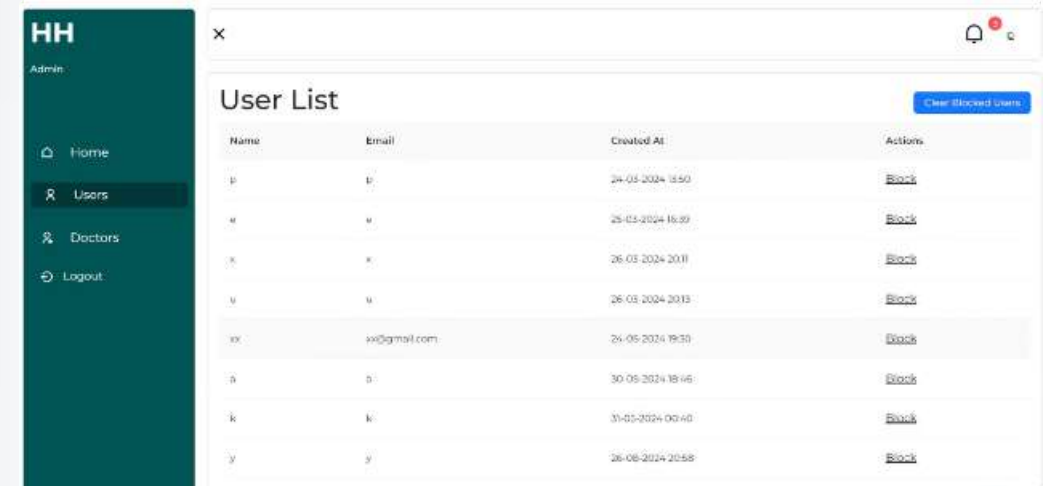
# User List: Managing User Accounts

## User List

The Admin Page displays a list of users, allowing admins to manage user accounts and oversee platform activities.

## User Management

Admins can access and modify user information, including account details, permissions, and activity logs. This ensures that user data is secure and that the platform operates smoothly.



The screenshot shows a web application interface for user management. On the left is a dark teal sidebar with the logo 'HH' and the word 'Admin.' below it. The sidebar contains a menu with 'Home', 'Users' (highlighted), 'Doctors', and 'Logout'. The main content area has a title 'User List' and a 'Clear Blocked Users' button. Below this is a table with columns for Name, Email, Created At, and Actions. The table lists eight users, each with a 'Block' button in the Actions column.

Name	Email	Created At	Actions
p	p	24-05-2024 18:50	<a href="#">Block</a>
w	w	25-05-2024 18:39	<a href="#">Block</a>
k	k	26-05-2024 20:01	<a href="#">Block</a>
v	v	26-05-2024 20:13	<a href="#">Block</a>
xx	xx@gmail.com	26-05-2024 19:30	<a href="#">Block</a>
b	b	30-05-2024 18:46	<a href="#">Block</a>
k	k	31-05-2024 09:48	<a href="#">Block</a>
y	y	26-06-2024 20:58	<a href="#">Block</a>



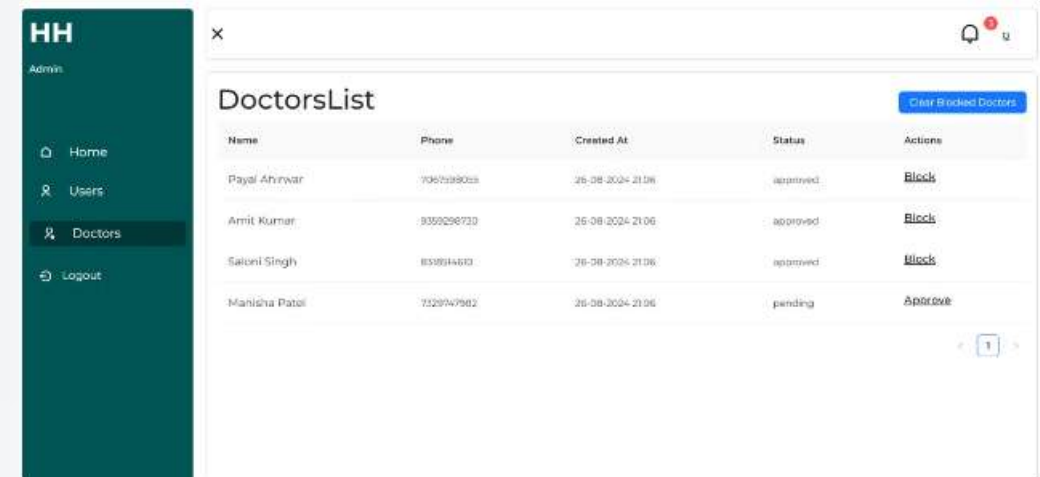
# Doctors List: Overseeing Doctor Accounts

## Doctor List

The Admin Page displays a list of doctors, allowing admins to manage doctor accounts and oversee platform activities.

## Doctor Management

Admins can review doctor profiles, manage their availability, and ensure that they meet the platform's standards. This helps maintain the quality of healthcare services offered.



The screenshot displays the 'DoctorsList' admin page. It features a teal sidebar with navigation links: Home, Users, Doctors (selected), and Logout. The main content area shows a table of doctor accounts. A 'Clear Blocked Doctors' button is located in the top right corner of the table. The table has five columns: Name, Phone, Created At, Status, and Actions. There are four rows of data, each with a 'Block' button in the Actions column. The last row has a 'Pending' status and an 'Approve' button.

Name	Phone	Created At	Status	Actions
Payal Ahirwar	9067298008	25-08-2024 21:06	approved	<a href="#">Block</a>
Armit Kumar	93520298733	25-08-2024 21:06	approved	<a href="#">Block</a>
Saloni Singh	8538944613	26-08-2024 21:06	approved	<a href="#">Block</a>
Manisha Patel	7329747982	26-08-2024 21:06	pending	<a href="#">Approve</a>

# Doctor Page: Managing Appointments and Profiles

## Appointment Management

In this project, doctors have the ability to manage appointments by approving or rejecting bookings made by patients.

## Doctor Profile

Additionally, each doctor has their own profile page, allowing them to update their information, view their schedule, and manage patient interactions efficiently.

# Appointments List: Approving and Rejecting Bookings

## 1 Appointment Overview

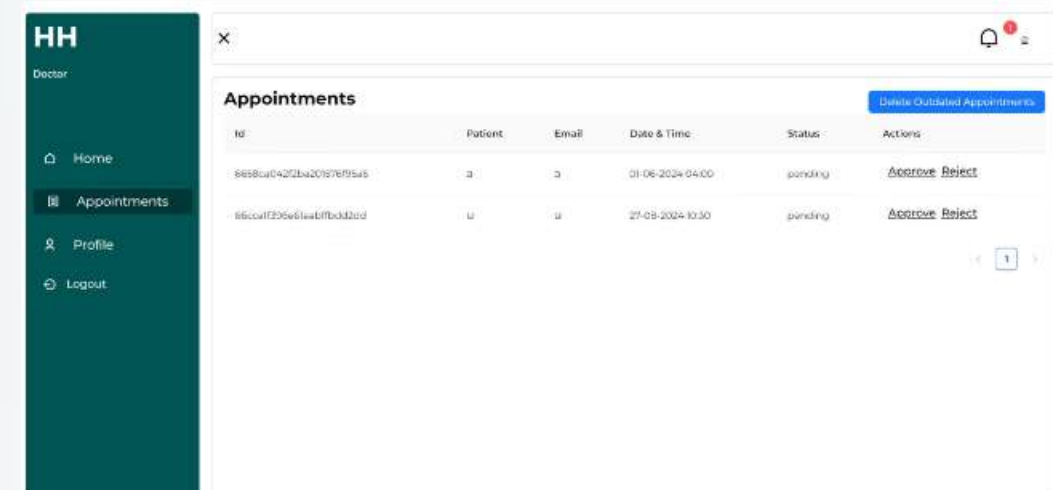
The Appointment Page for doctors allows them to view user appointments and approve or reject them as needed.

## 2 Appointment Details

Doctors can access detailed information about each appointment, including the patient's name, date, time, and reason for the appointment.

## 3 Appointment Management

Doctors can approve or reject appointments based on their availability and the patient's needs.



# Doctor Profile: Displaying Doctor Information

## Doctor Information

The Doctor's Profile Page displays all relevant details about the doctor, including their qualifications, specialties, and availability.

## Profile Management

Doctors can also update their profile information as needed, ensuring that their details remain current and accurate.

The screenshot shows a web application interface for managing a doctor's profile. On the left is a dark teal sidebar with the logo 'HH' and the text 'Doctor:'. Below the logo are four menu items: 'Home', 'Appointments', 'Profile' (which is highlighted), and 'Logout'. The main content area is white and titled 'Doctor Profile'. It contains two sections: 'Personal Information' and 'Professional Information'. The 'Personal Information' section has three rows of input fields: 'First Name' (containing 'Saloni'), 'Last Name' (containing 'Singh'), and 'Phone Number' (containing '9885146193'). The second row also includes a 'Website' field (containing 'www.salonisingh.com') and an 'Address' field (containing 'Building no 2, Sarathi, Uttam Pradesh'). The 'Professional Information' section has three rows: 'Specialization' (containing 'Cardiologist'), 'Experience' (containing '1'), and 'Fee Per Consultancy' (containing '1000'). The 'Timings' field is a range selector showing '12:00' to '18:00'. A 'SUBMIT' button is located at the bottom right of the form.

Personal Information		
First Name	Last Name	Phone Number
Saloni	Singh	9885146193
Website	Address	
www.salonisingh.com	Building no 2, Sarathi, Uttam Pradesh	

Professional Information		
Specialization	Experience	Fee Per Consultancy
Cardiologist	1	1000
Timings		
12:00 - 18:00		

SUBMIT

# User Page: Applying for Doctor Roles and Booking Appointments

1

## Doctor Application

This project is a web platform where users can apply to become doctors and book appointments seamlessly. The site provides a streamlined interface for users to submit applications for doctor roles, which are subject to admin approval.

2

## Appointment Booking

Additionally, patients can easily schedule appointments with available doctors, ensuring accessible and efficient healthcare services.

# Apply for Doctor: Submitting Doctor Applications

1

## Application Form

The Apply for Doctor Page allows users to submit applications for doctor positions.

2

## Qualifications and Experience

Users can fill out a form with their qualifications and experience, which is then reviewed by the admin for approval.

3

## Application Submission

This page facilitates the application process for users seeking to join as doctors.

The screenshot shows a web application interface for submitting a doctor application. On the left is a dark green sidebar with the logo 'HH' and a 'User' label. The sidebar menu includes 'Home', 'Appointments', 'Apply Doctor' (which is highlighted), 'Profile', and 'Logout'. The main content area is titled 'Apply Doctor' and contains two sections: 'Personal Information' and 'Professional Information'. The 'Personal Information' section has fields for 'First Name', 'Last Name', 'Phone Number', 'Website', and 'Address'. The 'Professional Information' section has fields for 'Specialization', 'Experience', 'Fee Per Consultancy', and 'Timings'. A 'SUBMIT' button is located at the bottom right of the form.

# Book Appointment: Scheduling Appointments with Doctors



## Doctor Selection

The Book Appointment Page lets users select a doctor and book an appointment directly.



## Schedule Availability

Users can check the doctor's schedule for availability and book an appointment within the available time slots.



## Appointment Confirmation

If the doctor is free during the selected time, the appointment can be confirmed.

A screenshot of a web application interface for booking an appointment. On the left is a dark teal sidebar with the logo 'HH' and the word 'User' below it. The sidebar contains a vertical list of menu items: 'Home', 'Appointments', 'Apply Doctor', 'Profile', and 'Logout', each with a small icon. The main content area is white and displays the profile of 'Payal Ahirwar'. It includes fields for 'Timings : 02:00 - 18:00', 'Specialization : Physiclogist', 'Phone Number : 9067580055', 'Address : Ward no6 Canj baspedu-464231', and 'Fee per visit : 1000'. Below these fields is a date and time selector showing '27-08-2024' and '09:00'. At the bottom of the main area are two dark teal buttons: 'Check Availability' and 'Book Now'. In the top right corner of the main area, there is a close button 'X' and a notification bell icon with a red dot.



# Challenges Faced

Developing a complex MERN stack application for a healthcare platform presented several challenges. Managing states across different components was a key issue. To address this, I implemented Redux for centralized state management, providing a single source of truth for the application's state. This approach ensured efficient state management and updates across the application, improving consistency and performance. Another critical aspect was ensuring the security and privacy of sensitive patient and doctor information. I utilized JWT (JSON Web Tokens) for authentication and implemented role-based access control to restrict access to sensitive information to authorized users only.

# Future Scope

## 1 Telemedicine Integration

Adding a video consultation feature to enable remote appointments would be a valuable addition. This would be particularly beneficial in situations where in-person visits are not feasible.

## 2 Prescription Management

Enabling doctors to issue digital prescriptions directly through the platform would streamline the process. These prescriptions could be sent electronically to pharmacies or patients, enhancing efficiency and convenience.