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Welcome to DocMap, your one-stop solution for convenient and efficient healthcare management. This platform seamlessly bridges the gap between medical practitioners and patients, offering a range of features designed to enhance the healthcare experience for both parties. With a user-friendly interface and a commitment to prioritizing your well-being, we strive to make accessing medical care and maintaining your health easier than ever before.



1. Doctor/Patient Login Page:

Our secure login system provides doctors and patients with personalized accounts, ensuring privacy and confidentiality. Whether you're a medical professional looking to expand your practice or a patient seeking reliable medical attention, our platform offers a tailored experience for all users.



2. Doctor Qualifications and Specialization:

Doctors can showcase their expertise and qualifications by uploading their credentials and specifying their areas of specialization. This feature enables patients to make informed decisions when selecting a healthcare provider, based on their medical needs.



3. Clinic Location and Appointment Timings:

Doctors can mark the location of their clinics on an interactive map, making it effortless for patients to locate and plan their visit. Furthermore, doctors can set their appointment timings, allowing patients to schedule appointments at their convenience. This functionality streamlines the appointment booking process, minimizing wait times and ensuring efficient healthcare access.



4. Patient Appointment Scheduling:

Patients can easily browse through a list of doctors based on their specialties, view their available time slots, and schedule appointments with just a few clicks. Our user-friendly calendar system provides a hassle-free way to secure a consultation with the preferred healthcare professional.



5. Access to Prescriptions:

After a consultation, doctors can upload prescriptions directly to the patient's account. Patients can conveniently access their prescriptions through their profiles, eliminating the need for physical copies and ensuring that the prescribed treatments are easily accessible whenever needed.



Technology Stack

- JavaScript
- Node JS
- Express JS
- MongoDB
- React JS
- Tailwind CSS & Flowbite
- Passport JS for Authentication
- Cloudinary for Image Uploading
- OpenLayers JS Library for Map data



Implementation

Frontend Development: React JS and Tailwind CSS with Flowbite:

- Create different components for the doctor and patient login pages, doctor profiles, appointment scheduling, and prescription viewing.
- Utilize React Router for handling navigation between different pages.
- Use Tailwind CSS for responsive and modern UI design, and enhance it further with Flowbite components for a polished user experience.

Authentication: Passport JS:

- Implement Passport.js for authentication and session management.
- Set up local authentication strategy for both doctors and patients.
- Create login and registration forms with appropriate validation for secure user access.



Image Uploading: Cloudinary:

- Integrate Cloudinary for efficient image uploading and storage of prescription image and Doctor's PFP.
- Utilize Cloudinary's API to handle image uploads and retrieve URLs for the uploaded images.

Map Integration: OpenLayers JS Library:

- Incorporate the OpenLayers JS library to integrate interactive maps.
- Allow doctors to input their clinic location (latitude and longitude) during profile creation.
- Display the clinic location as a pinpoint on the map within the doctor's profile.
- Enable patients to view the doctor's clinic location on the map when booking appointments.

Database and Backend:

- Use a backend framework (Express.js) to handle routes and interactions with the database.
- Set up a database (MongoDB) to store doctor and patient information, appointments, and prescriptions.
- Store clinic locations (latitude and longitude) in the database for map integration.
- Define APIs for user registration, login, doctor specialization, appointment scheduling, and prescription uploading.



USER FLOW

Doctors will log in, upload qualifications and specialization, set clinic location, and specify appointment timings.

Patients will log in, search for doctors based on specialization, view available appointment slots, and book appointments.

After consultations, doctors can upload prescriptions to the patient's profile.