Heaven's Light is Our Guide

RAJSHAHI UNIVERSITY OF ENGINEERING AND TECHNOLOGY

CSE-2100

SOFTWARE DEVELOPMENT PROJECT 1

CureConnect: Doctor Directory Website Proposal

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Background Analysis

The healthcare sector is increasingly reliant on digital platforms to connect patients with healthcare providers. Doctor directory websites play a crucial role in helping patients find qualified doctors, make informed decisions, and facilitate appointment bookings.

However, existing platforms often face challenges such as outdated information, lack of user-friendly interfaces, and insufficient filtering options. Many patients struggle to find reliable information about healthcare professionals, leading to confusion and potential delays in receiving care.

There is a significant gap in the market for a comprehensive and user-friendly doctor directory website that caters specifically to the Bangladeshi patients, providing accurate and up-to-date information about healthcare professionals along with proper disease prediction feature to consult with the right doctor. This platform will not only enhance patient access to healthcare services but also improve the overall patient experience.

Overview

I propose the development of CureConnect, a modern and user-friendly doctor directory website that enables users to search for doctors based on specialty, location, and hospital affiliation. The platform will feature secure user login and an intuitive interface to help patients find the right medical professionals with ease. A standout feature of CureConnect is its symptom-based disease prediction system, allowing users to input their symptoms and receive potential diagnoses, guiding them to the appropriate specialists. This intelligent integration ensures a seamless, efficient, and informed healthcare experience for users seeking timely and accurate medical care.

Objectives:

I. **User Registration and Authentication**

- Allow users to create accounts and log in securely.
- Implement user authentication to ensure data privacy.

II. **Doctor Database Integration**

- Integrate a comprehensive list of doctors with details such as name, specialty, hospital and contact information.

III. **Search and Filtering**

- Develop search functionality for users to find specific doctors easily.
- Implement option so that patient find doctor based on their disease easily.

IV. **Doctor Profiles**

- Create detailed profiles for each doctor, including qualifications, experience.

V. **User Reviews and Ratings**

- Enable users to leave reviews and ratings for doctors to enhance the decision-making process for other users.

VI. **Appointment Booking System**

- Implement a feature that allows patients to book appointments directly by getting the doctor contact information from the website.

VII. **Disease Prediction for Patient**

- The application of NLP to create a dataset export system (i.e. CSV file) to classify patient disease based on their symptoms.

Technologies

- **Frontend**
  - HTML, CSS, JavaScript for the user interface.
  - Frameworks like React.js for a dynamic experience.
- **Backend**
  - Django for server-side logic.
  - Database like MongoDB or MySQL for storing doctor and user information.

Datasets and Models

- **Doctor Dataset**
  - A comprehensive doctor list containing information about doctors[1], specialties, and hospitals sourced from reliable healthcare databases.
- **Symptoms to Disease Dataset**
  - Symptoms to disease dataset from Kaggle[2]. This dataset contains 24 unique disease reviews based on symptoms.

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https://www.doctorbangladesh.com/

https://www.kaggle.com/datasets/niyarrbarman/symptom2disease