Chronic Disease Wellness and Education Platform Proposal

Introduction

This project aims to develop a website specifically designed to support individuals with chronic conditions by offering personalized educational content and general wellness tips. Leveraging today's advancements in technology, including AI-powered tools like GPT-3 or GPT-4, the website will tailor resources to meet the unique needs of each user through effective prompt engineering. While it will not provide medical advice or diagnostics, my goal is to equip users with the knowledge they need to enhance their well-being and manage their conditions effectively. By prioritizing education and wellness, this platform seeks to help users feel informed and empowered in their health journeys.

Tech Stack

This project will be developed using the MERN (MongoDB, Express.js, React.js, Node.js) stack. By utilizing Javascript across the entire stack, the project is more manageable and it reduces context-switching between programming languages. The front-end will be built using React for a responsive, user-friendly interface. The backend will use Express for quick RESTful API development and Node to process real-time data to enhance user engagement. The database will be MongoDB, a NoSQL database designed to handle large volumes of data efficiently.

Focus of the Project

The project will be a full-stack application, with an even focus across the entire stack. By developing each part of the stack, I will be able to provide an engaging user experience with an equally robust backend to handle all the data processing needed to meet and exceed user expectations.

Target Users

While chronic conditions can affect a wide range of age groups, they are typically seen in older adults, often aged 65 and above. To ensure the website is usable for them, I will be implementing basic accessibility features, like color contrast, alt text for images, text resizing, and focus indicators to highlight the current interactive element.

Data Usage and Collection

For the purposes of this Capstone project, I will be using dummy data for testing instead of real health information. I will only gather the information necessary to showcase the app's features, and I will inform users that the app is for demonstration purposes only and that no real data should be entered.

In my app, I will collect essential user profile data, including basic information like age, gender, and chronic conditions, to tailor personalized educational content and recommendations. By leveraging external health educational content APIs, I will provide users with relevant articles

that align with their needs while minimizing data collection by only gathering necessary information and avoiding the storage of sensitive health data. I am committed to transparent privacy practices, ensuring that users are informed about data usage policies.

Project Plan

Database Schema

GitHub Gists

Sourcing Data

User profile data: user input / dummy data
Chronic conditions: user input / prefilled list of common conditions
Resources: Educational resource APIs (Mayo Clinic, MedlinePlus Connect, Healthline)
Tips: Educational and medical wellness APIs (BetterDoctor, Healthwise, MedlinePlus)

User Flows

Capstone - User Flows

Functionality

- No account usage
  - Users can use the website without registering
- User authentication and profile
  - Users can create an account to save information
  - Users can fill out their profile for a tailored experience
- Resource library
  - Users can browse a collection of resources based on the chronic conditions they entered
- Content recommendations
  - Users can receive recommended resources based on the conditions and interests from their profile
- Tip recommendations and library
  - Users can receive recommended tips based on their profile
  - Users can view a collection of tips related to their search

Tasks

Capstone - Tasks