Healtha App

Healthcare recommendation system and lab analysis application

- **Problem statement**

Many people find it difficult to understand their lab analysis results. The results are often written in technical language that is difficult for the average person to understand. This can lead to people feeling anxious or confused about their health.

Additionally, many people with disabilities may have difficulty accessing and understanding their lab analysis results.

- **Obtained Solution**

The proposed solution is a development of an app that uses AI models to help users understand their lab analysis, such as CBC.

The app will provide users with clear and concise explanations of each test in plain language, as well as visualizations that help to illustrate the results. The app will also be accessible to users with special needs.

The app will use a variety of AI models to interpret lab results. These models will be trained on a large dataset of lab results and patient data. The app will then use these models to generate personalized explanations for each user.

- **System features**

1. Lab test results interpretation: Clear and concise explanations confirmed by specialized doctors of lab results. Visualizations that help to illustrate the data, and help users to identify trends in their data and to understand the significance of their results.
2. Recommendation System:
    a. Recommend the needed medical analysis.
    b. Recommend the nearest 3 doctors or Hospitals for the user's location.
    c. Optional: recommend and list diseases that share these lab analysis symptoms.
3. Nearest Doctor Location: Collect the doctors' locations to recommend the nearest doctors' locations for the users.
4. Chatbot: This project supports you to know all the information needed about a distinct disease, related symptoms, or its treatments via a Chabot feature implemented through the app.

5. Medical lab tests encyclopedias: A comprehensive encyclopedia for all medical lab tests, which includes the following items for each test: The test overview, why and when to get tested, the required sample and how it is collected for testing, the needed test preparations, what is being tested, and other information.
6. Diseases encyclopedias: A comprehensive encyclopedia for all diseases which includes the following items for each disease: The disease overview, Common signs and symptoms, Possible causes, Possible complications if treatment is neglected, medical tests needed for investigation, Treatment procedures.
7. Accessibility: Accessibility features for users with special needs:
   a. Lab reader support.
   b. Text size and font customization
   c. High contrast mode.
   d. Gesture support.