Virtual ai
Health Assistant

a **fundamentals of software engineering** project.

syed ukkashah ahmed - ibrahim johar farooqi

Virtual AI Health Assistant

Project Proposal

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Overview

Motivation: Many people suffer from common illnesses such as flu, infections, and rashes but lack immediate access to professional healthcare. A virtual AI health assistant can provide preliminary symptom assessments, enabling users to take timely action.

Customer: The target users include individuals seeking preliminary health advice before consulting a medical professional. This application aims to assist users with basic symptom assessments.

Project Deliverables: The project will develop a web-based AI-powered symptom checker capable of diagnosing common infections, flu, and rashes and providing useful medical advice.

Project Timeline: The estimated project duration is 9-10 weeks (Subject to change with respect to project requirements).

Dependencies: The system will require API integration for symptom analysis and may utilize existing medical databases.

Contributions from Other Projects: The project may integrate pre-existing AI models for medical diagnosis and symptom checking.

Project Detail

Project Goals

- **Functional Goals:**
    - Develop an AI chatbot for symptom checking.
    - Provide accurate and medically verified advice for common illnesses.
    - Enable a user-friendly web interface for accessibility.
- **Technological Goals:**
    - Utilize Python for AI model development.
    - Implement API integration for real-time symptom analysis.
    - Develop a web-based frontend using React, and JavaScript.
- **Quality Goals:**
    - Ensure high accuracy in symptom diagnosis.
    - Implement a secure and user-friendly interface.
    - Maintain data privacy and security standards.
- **Organizational Goals:**
    - Gain experience in AI model development and web-based applications.
    - Explore new methodologies in API integration and AI chatbot development.
- **Other Goals:**
    - Ensure system usability and scalability for future enhancements.
    - Develop a mobile-responsive interface.
- **Constraints:**

- Limited to diagnosing standard infections, flu, and rashes.
- Must comply with basic medical data privacy guidelines.

Project Scope

In Scope:

- AI-driven chatbot for symptom assessment.
- Web-based application for greater accessibility.
- Secure and private user interaction.
- Integration with publicly available medical resources.

Out of Scope:

- Complex disease diagnosis requiring professional medical intervention.
- Real-time patient monitoring or emergency medical assistance.
- Prescription of medications or treatment plans.

Project Team

Name	Availability	Comment
Syed Ukkashah	Full-Time	Team Leader
Ibrahim Johar	Full-Time	Team Member

Existing Work

Several AI-based health assistants exist, such as WebMD's Symptom Checker and Ada Health. However, our project will focus on an accessible, web-based AI model designed

specifically for diagnosing common infections, flu, and rashes with a user-friendly chatbot interface.

Uniqueness: Unlike existing platforms, our AI health assistant will prioritize ease of use, privacy, and accessibility while focusing on a specific range of common illnesses. Additionally, it will be developed as an open-source project, allowing future improvements and integrations.