

System Proposal of MedMinder

Submitted by -

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System purpose

A small-scale healthcare management system allowing users to interact with an AI chatbot to schedule appointments, summarize notes, review medications, and visualize health metrics.

Expected users

- Patients
- Doctors

Core functionality (high-level)

- **Account Registration:** Create a patient account (login & sign up) with authorization and authentication
- **Appointment Scheduler:** Schedule or cancel an appointment
- **Note Synthesizer:** Summarize notes from doctor visits or patient information
- **Health Metrics Visualization:** Visualize health metrics like weight, height, or water intake using graphs
- **Review Medications:** Show list of the medications as patients want to.

Where and how AI will be used

- Requirement Generation
- Data Generation
- Coding (Frontend and Backend)
- Conversational Chatbot
- Writing Test
- Analyzing Test (Visualization and Report Generation)
- CI/CD pipeline

Anticipated AI-related trust risks

- **Data Privacy and HIPAA compliance:** This is the most important point of a healthcare system. A healthcare system must have multiple layers of security for patient-sensitive data and maintain HIPAA compliance.
- **Appointment confirmation and scheduling:** Complex situations, such as appointment conflicts, should be handled, and there should be proper documentation to confirm that an appointment is actually booked.
- **Data update for the patient:** If a patient requests a data update, it should be properly reflected in both the database and the UI. No other patient data should be changed.
- **Test Coverage:** Keeping in mind that reliability is the main thing here.
- **Hallucination and medical accuracy:** Knowing that AI can hallucinate medical information and advice, we must check if it gives accurate information.