AI-Powered Report Summary & Chat in Krsnaa App

Objective

To help patients easily understand their medical reports by providing simplified, human-friendly explanations and interactive chat support through an AI assistant.

Target User

End-users of the mobile healthcare application—primarily patients who receive diagnostic reports (e.g., X-ray, CT, or lab reports) and may struggle to interpret medical jargon.

Input & Output

- Input: Patient's diagnostic report in text format (via API).
- Output:
  - Simplified summary explaining report findings in layman's terms.
  - Interactive AI chat responses for user queries about the report.

Functionality

- Parses the uploaded report text.
- Identifies positive or negative findings.
- Translates complex medical language into clear, basic explanations.
- Enables follow-up question answering via integrated AI chat.

Workflow Integration

1. User receives a diagnostic report in the mobile app.
2. App calls backend API to send report to the AI engine (Ollama LLM).
3. AI analyzes and generates a simplified summary.
4. Summary is sent back via API and displayed in the app.
5. Optional: User chats with the AI for further clarity.

System Architecture Overview

- Frontend: Mobile App (UI for reports and chat)
- Backend APIs:
  - Report parser and handler
  - Communication with Ollama LLM
- LLM Engine: Ollama (deployed locally or via container)
- Data Flow: App → API → LLM → API → App

Benefits / Impact
- Enhances patient engagement and understanding.
- Reduces dependency on clinical staff for basic queries.
- Builds trust by making health information accessible and friendly.
- Scalable solution for multiple report types.

Summary
This project integrates an open-source language model (Ollama) with our mobile app to deliver clear, conversational explanations of medical reports. It bridges the communication gap between clinical data and patient understanding—supporting a more informed and empowered patient experience.