

Team: 13 Khansaar

Vaidya AI - Intelligent Healthcare Workflow Platform

The Problem :

Despite the availability of health-tech apps, the healthcare ecosystem remains **fragmented and inefficient**. Patients face an **interpretation gap** with complex lab reports they cannot easily understand. Doctors suffer **clinician burnout** from manually reviewing unstructured reports. The system also has a **disconnected supply chain**, making it hard to find prescribed medicines, and lacks **post-care support**, leaving patients without reliable guidance after consultations.

Target Users :

Vaidya AI is designed for patients seeking a unified digital healthcare experience, medical professionals requiring AI-assisted diagnostic workflows, and clinic administrators overseeing operations.

Features to be Implemented:

Phase 1 – Features

- **RBAC Dashboards:** Separate views for patients and doctors.
- **Smart Booking:** Appointment booking with medical report uploads.
- **Cloud Storage:** Secure PDF storage using Cloudinary.
- **EHR Workflow:** Doctors can view patient history instantly.
- **Vision AI X-Ray Scanner:** AI-based probabilistic diagnosis.
- **Patient Results Portal:** Verified results shown clearly to patients.

Phase 2 – Planned Features

- **Post-Care AI (GraphRAG):** Personalized follow-up guidance.
- **Lab Report Parser:** Convert PDF reports to structured insights.
- **Super Admin Hub:** Platform monitoring and analytics dashboard.
- **Digital Pharmacy:** Order medicines directly from prescriptions.

Tech Stack:

Frontend: React.js, Tailwind CSS

Backend: Node.js, Express.js, Multer

Database & Cloud: MongoDB, Mongoose, Cloudinary

AI Microservice: FastAPI , PyTorch , Torchvision (EfficientNet-B0), Apple MPS / NVIDIA CUDA

FlowChart:

Patient → Book & Upload → AI Analysis/OCR → Doctor Consultation/RAG Chatbot → Pharmacy & Fulfillment.