SwasthiyaLink

"SwasthiyaLink – Connecting You to a Healthier Tomorrow"

Ninjas200

Domain: Healthcare Technology

Problem Statement

Current healthcare systems are fragmented, inefficient, and often not user-friendly for either doctors or patients.

- Patients lack a unified platform to securely store and access their medical records across providers.
- Doctors are burdened with manual tracking, disconnected systems, and information overload.
- There is no well-designed application tailored for doctors to effectively manage patient data and consultations.
- Existing platforms fail to convert scanned medical documents into structured, actionable insights, delaying diagnosis and reducing care efficiency.

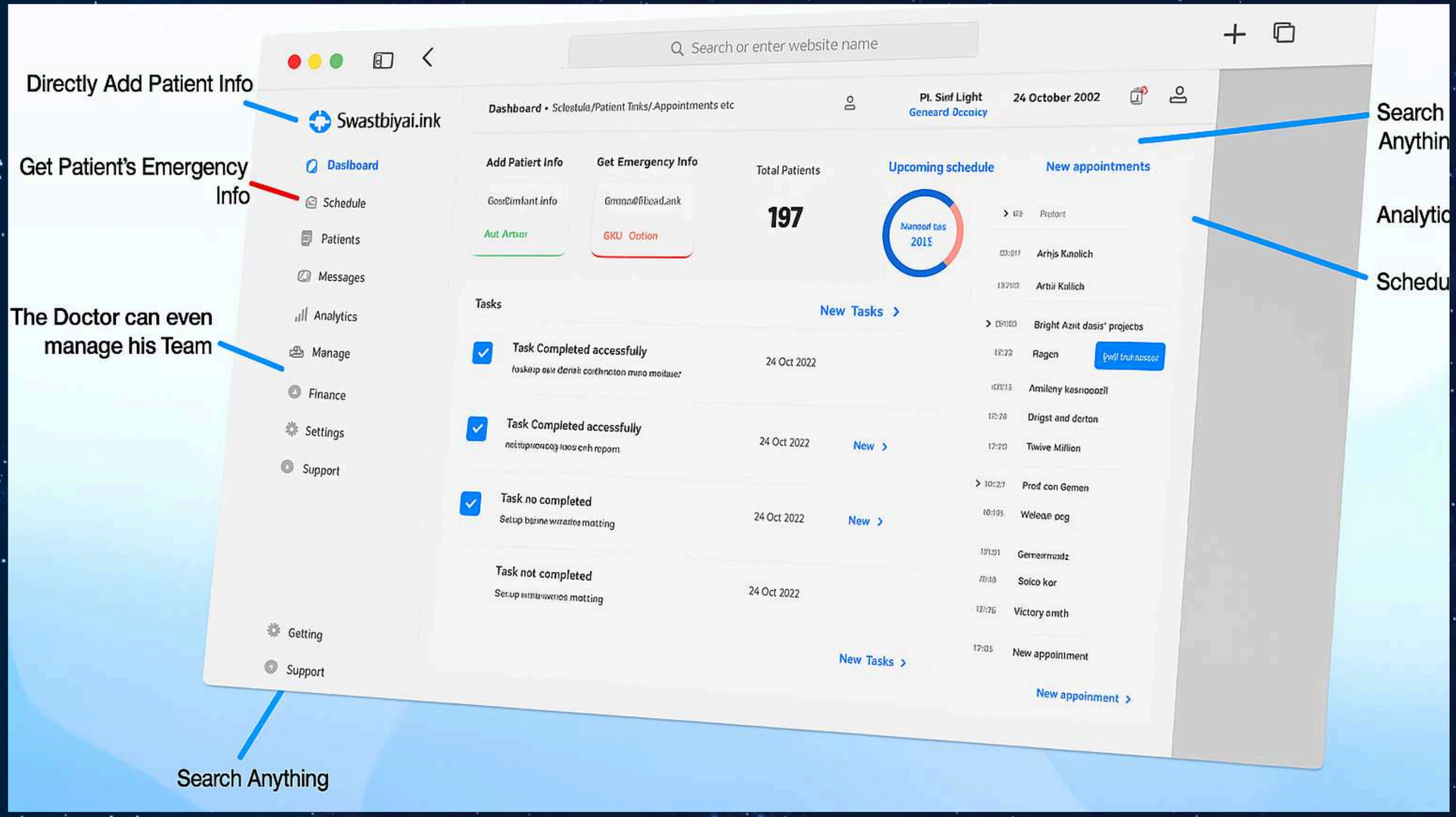
Proposed Solution

SwasthiyaLink is a dual-platform application designed for both patients and doctors. It integrates digital medical record storage, appointment booking, health data visualization, and care coordination into a single, secure ecosystem.

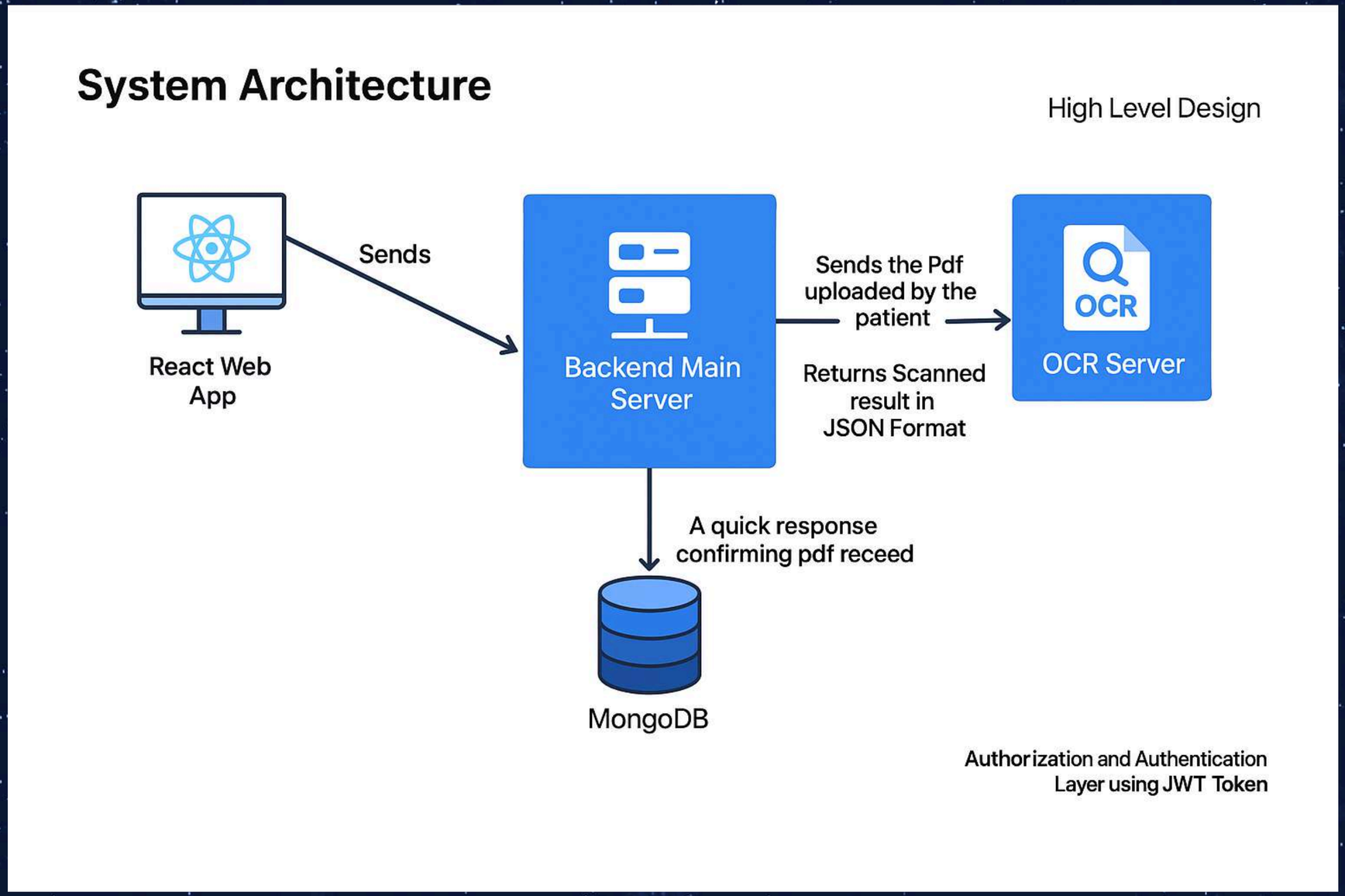
Key Highlights:

- Store and share digital health records securely
- Book hospitals and clinics based on real-time availability, facilities, estimated time of arrival, and consultation fees
- Doctors can instantly access medical history using Health ID (ABHA)
- Seamless integration from prescription generation to pharmacy fulfillment
- Built with access to the ABDM (Ayushman Bharat Digital Mission) sandbox, supporting national healthcare interoperability standards

Proposed Solution



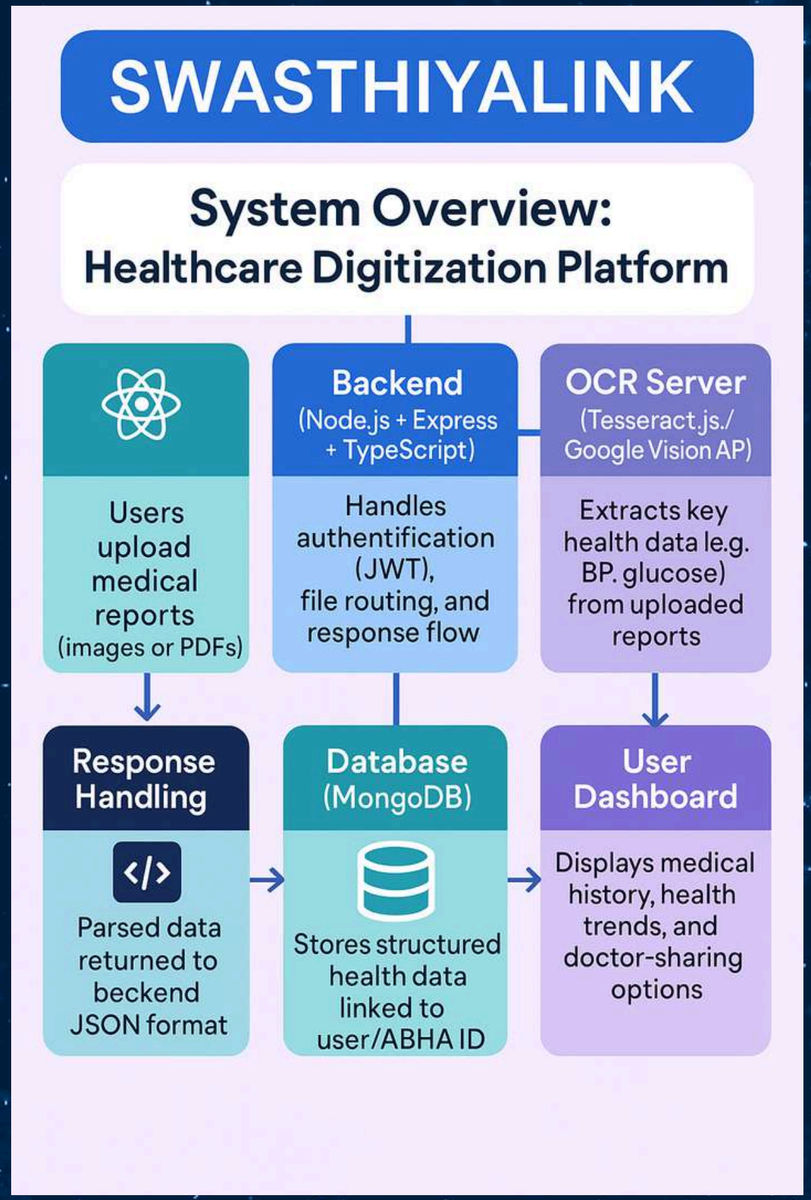
FLOWCHART / DIAGRAM



FLOWCHART / DIAGRAM

System Overview: Healthcare Digitization Platform

- **Frontend React**
  Users upload medical reports (images or PDFs).
- **Backend (Node.js + Express + TypeScript)**
  Handles authentication (JWT), file routing, and response flow.
- **OCR Server (Tesseract.js / Google Vision API)**
  Extracts key health data (e.g., BP, glucose) from uploaded reports.
- **Response Handling**
  Parsed data returned to backend in JSON format.
- **Database (MongoDB)**
  Stores structured health data linked to user/ABHA ID.
- **User Dashboard**
  Displays medical history, health trends, and doctor-sharing options



FEATURES AND NOVELTY

1. ABHA & UHI Integration

- **Feature:** SwasthiyaLink connects with India's Universal Health Interface (UHI) using ABHA IDs.
- **Innovation:** Enables secure, standardized health data exchange across healthcare providers.

2. OCR-Powered Medical Record Extraction

- **Feature:** Utilizes PaddleOCR to extract structured data from medical reports (PDFs or images).
- **Innovation:** Automates data entry, improves accuracy, and enables instant interpretation of lab results.

3. Comprehensive Diabetes Care Tools

- **Feature:** Tracks food intake, glucose levels, insulin doses, medication schedules, and health trends.
- **Innovation:** Consolidates key diabetes management functions into a single, integrated application.

4. Timeline-Based Health Records

- **Feature:** Displays a chronological view of health records, including lab reports, prescriptions, and clinical interactions.
- **Innovation:** Enhances decision-making by visualizing health progression and identifying trends over time.

DRAWBACK AND SHOWSTOPPERS

1. Limited Accessibility and Reach
The app's impact is limited to users with smartphones and internet connectivity, potentially excluding rural and low-income populations.

2. Language and Cultural Barriers
While multilingual support exists, adapting the app to diverse linguistic and culturally specific healthcare practices remains a significant challenge.

3. Data Privacy and Security Concerns
Despite strong security protocols, risks related to data breaches and ongoing regulatory compliance remain a persistent concern.

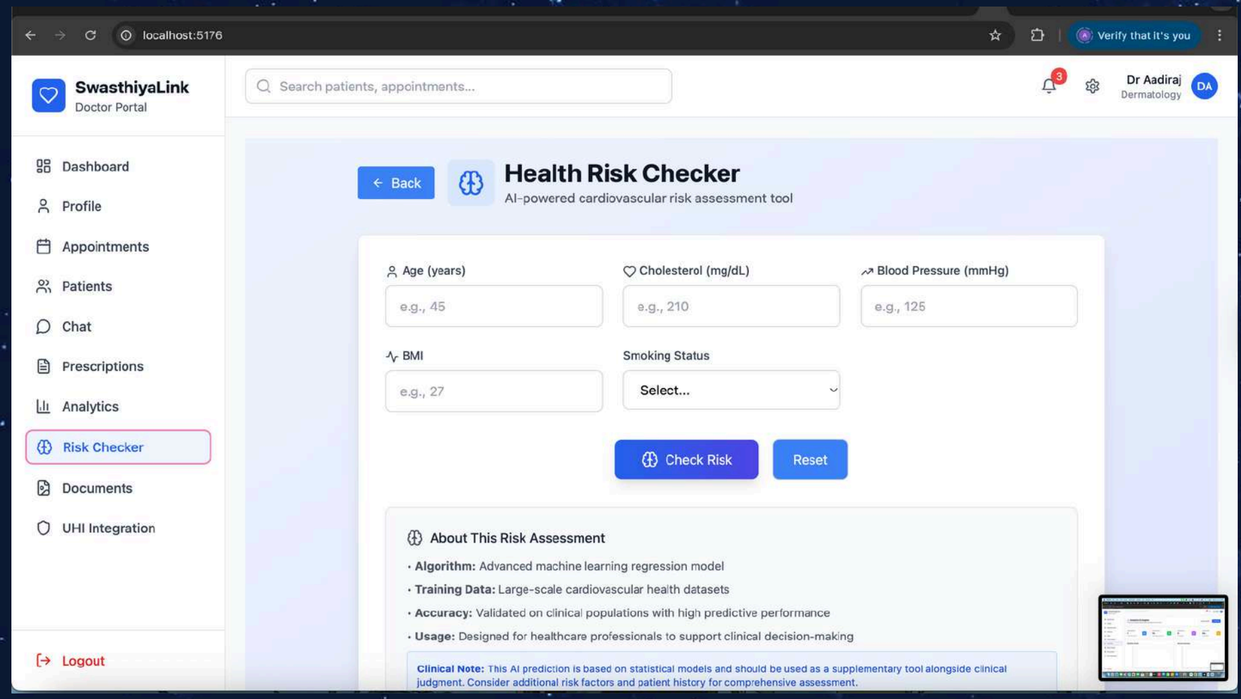
4. Reliance on Accurate User Input
The app depends on manual data entry from users, which may introduce errors or inconsistencies due to human oversight.

5. Integration and Maintenance Challenges
Integrating with existing systems such as electronic medical records (EMRs) and ensuring regular maintenance can impact scalability and long-term reliability.

Ninjas200

Demo Video Link

https://drive.google.com/drive/folders/1mhzRX9AyDH7KddCmbexKX33EuGxpHDmM?usp=sharing



Ninjas200

Aadiraj Singh Chauhan
Phone no.- 85301 80928
Email ID- chauhanaadirajsingh@gmail.com
Github Profile - https://github.com/Ninja3031

Anusha Singh
Phone no.- 9109621769
Email ID - anusha.singh.stem@gmail.com
Github profile-
https://github.com/Enchantreeess

Thank you