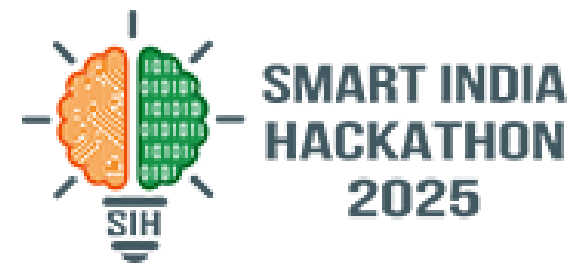


SMART INDIA HACKATHON 2025



Problem Statement ID - SIH25131

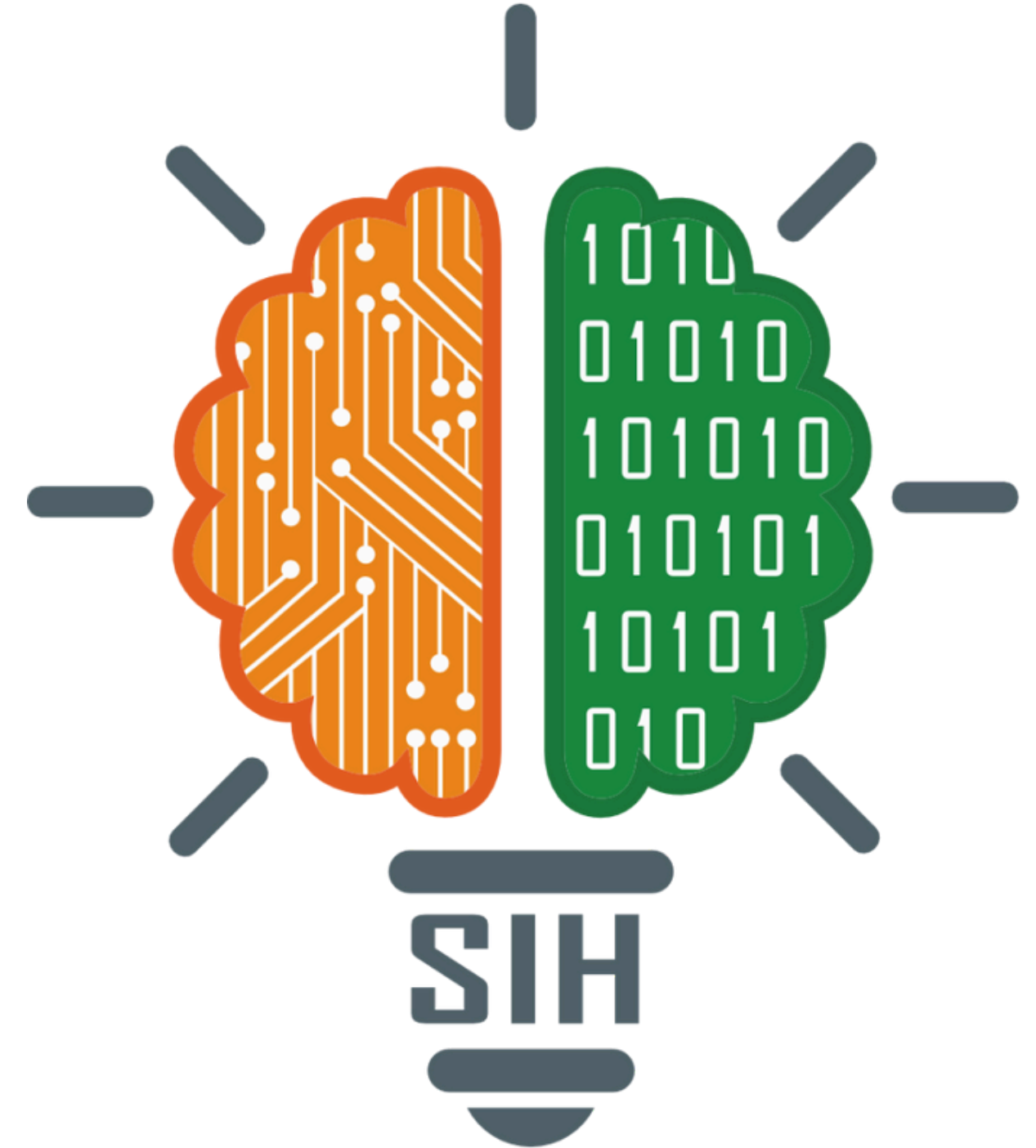
Problem Statement Title - Student Innovation

Theme - MedTech / BioTech / HealthTech

PS Category - Software

Team ID -

Team Name - SIxH Pointers



आयुलिंक

PROBLEM

- Repeated paperwork on every visit.
- Doctors face scattered records.
- Emergencies need instant info.

SOLUTION

- AI Health Record Platform- AayuLink
- Aligned with ABDM Linked with
- ABHA Id of all citizens

KEY FEATURES :

Seamless Data Access

Fetches history via ABHA, eliminating paperwork.

AI Powered Summaries

AI engine summarizes records in seconds.

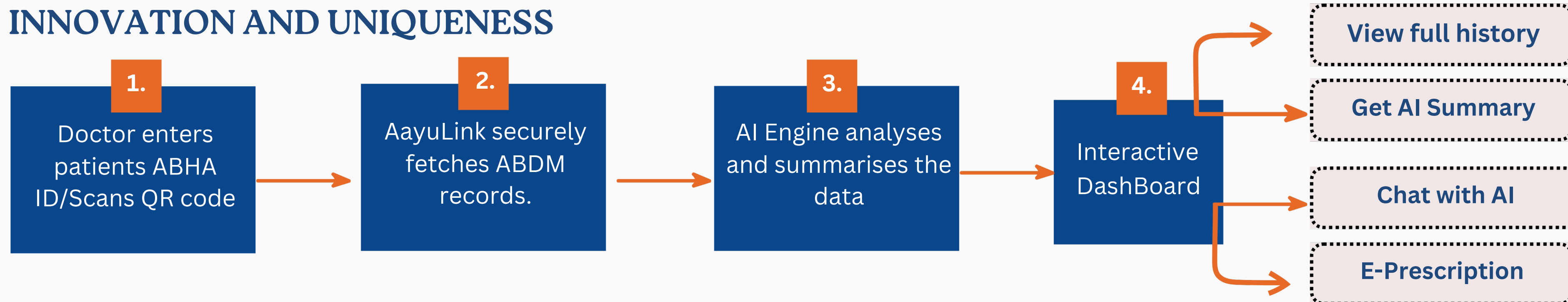
Conversational Chatbot

AI answers doctors' queries instantly.

Patient-centric control





DPDP-compliant: Patients give time-based consent for data access, ensuring privacy.

INNOVATION AND UNIQUENESS






TECHNOLOGY STACK



FRONTEND

-  **React .js** :For building dynamic and responsive UI
-  **Tailwind CSS** : For UI styling & utility first development
-  **Lucide-React** : For clean and consistent iconography
-  **Axios** : For handling all REST APIs

BACKEND

-  **Node.js and Express.js** : For Scalable REST API Server
-  **Mongo DB** : NoSQL database for storing user data
-  **JSON Webtokens JWT** : For Securing API endpoints

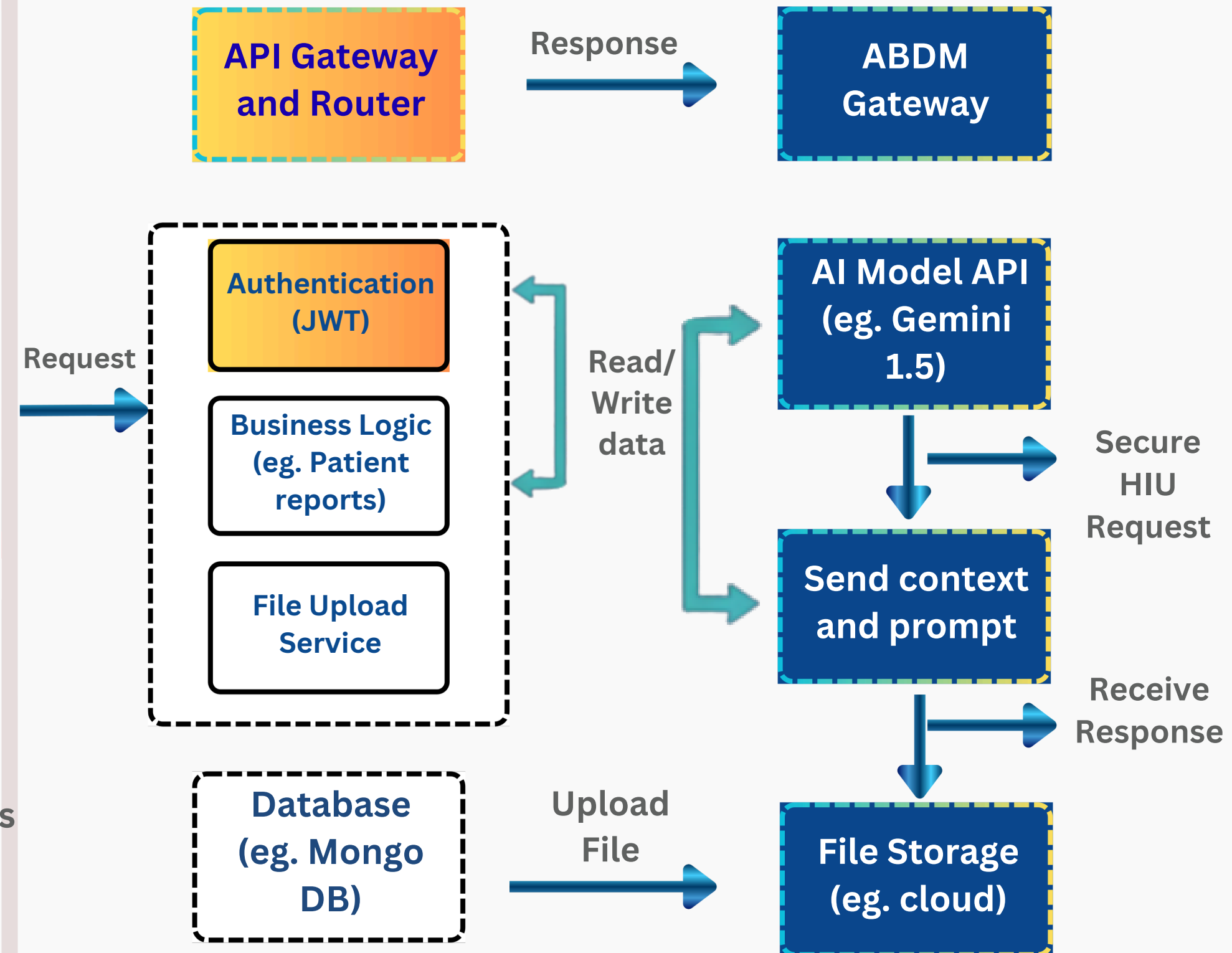
AI INTEGRATION

-  **ABDM sandbox API** : For securely :f etching user records
-  **Gemini** : Core AI model for summarizing and powering our Chatbot

SYSTEM ARCHITECTURE

LAYER 2: SERVER SIDE

LAYER 1: EXTERNAL SERVICES





✓ FEASIBILITY

- Aligned with **Ayushman Bharat Digital Mission (ABDM)** policies.
- **Sandbox APIs** already available for integration and testing.
- **AI summarization** possible using structured + unstructured medical records.

⚠ CHALLENGES

- Balancing quick **emergency access** vs patient privacy.
- Risk of **AI Hallucinations** in summaries or chatbot responses.
- **Prescription Interoperability** across different pharmacies.

💡 STRATEGIES

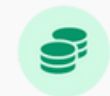
- **Emergency window** shows only critical data (allergies, meds etc.)
- **RAG Pipeline** ensures AI answers only from verified records.
- **QR based e-prescription** for pharmacy verification → auto status update.

IMPACT AND BENEFITS



SOCIAL IMPACT

- Improve Healthcare **Access**
- Better Patient **Outcomes**
- **Reduced** Medical Errors
- **Enhanced** Care Coordination



ECONOMIC IMPACT

- **Cost saving** for Healthcare Providers
- **Increased Efficiency**
- **Optimized** Resource Utilisation.



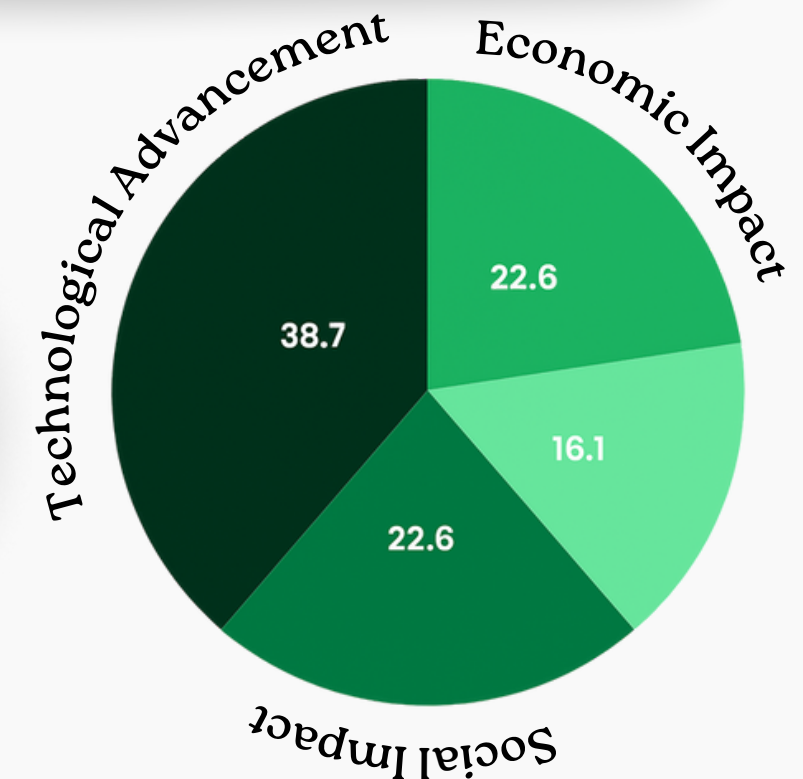
ENVIRONMENTAL IMPACT

- **Reduces reliance** on paper prescriptions & reports.
- Promotes a fully **digital, sustainable** healthcare ecosystem.



TECHNOLOGICAL ADVANCEMENT

- **Streamlined** Health Data Management
- **Interoperability** with Other Systems
- **Scalable and Flexible** Infrastructure
- Improved Patient **Privacy**
- **Real-Time** Data Access
- **Secure Storage** of Health Records
- **Reduced Risk** of Data Breaches



Our Four Pillars of Compliance & Innovation



ABDM Integration

Deeply aligned with ABDM's federated architecture working as a compliant **Health Information User (HIU)**



Patient Data Sovereignty

Built on the principles of **DPDP act, 2023** for patient controlled consent management



Clinical AI & Safety

Leveraging state-of-the-art AI for summarisation and Q&A engineered with the **'safety first' Retrieval Augmented Generation (RAG)**



Emergency Access Protocol

A secure **'break-glass'** system using QR technology balancing immediate access with full auditability

Key References

National Digital Health Policy

- [Click](#) - Ayushman Bharat Digital Mission (ABDM) - Core Components & Federated Architecture
- [Click](#) - FHIR Implementation Guide for ABDM v6.5.0 - National Resource Centre for eHealth Standards
- [Click](#) - National Strategy for Artificial Intelligence - NITI Aayog

Data Protection & Privacy Mandates

- [Click](#) - The Digital Personal Data Protection (DPDP) Act, 2023 - Ministry of Electronics and Information Technology
- [Click](#) - The ABDM's Decentralized and Patient-Centric Consent Management Architecture

AI in Healthcare: Ethics and Best Practices

- [Click](#) - Framework to Assess Clinical Safety and Hallucination Rates of LLMs
- [Click](#) - Ethical Guidelines for Application of AI in Biomedical Research and Healthcare - ICMR.