

# SMART INDIA HACKATHON 2025

- **Problem Statement ID – 25018**
- **Problem Statement Title-** Telemedicine access for Rural Healthcare in Nabha
- **Theme-** HealthTech / BioTech
- **PS Category-** Software
- **Team ID-** 60675
- **Team Name -** VUCA



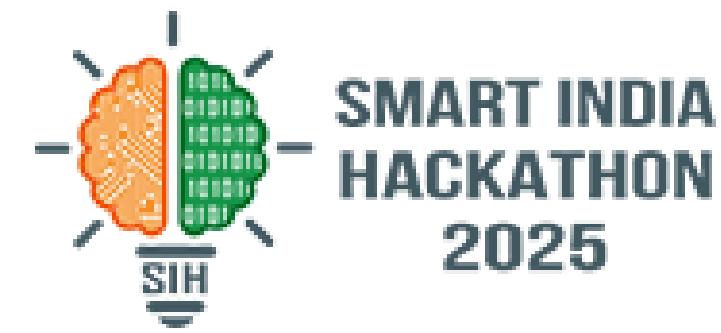
## PROBLEM

- Severe doctor shortage
- Lack timely medical care
- Poor connectivity/infrastructure
- Undetected early illnesses
- Missed routine follow-ups

## SOLUTION

- Offline-first, multilingual access
- Secure offline health records (EHR)
- Real-time medicine availability
- AI-based symptom triage
- Emergency and appointment SMS alerts

# TECHNICAL APPROACH



## Android:

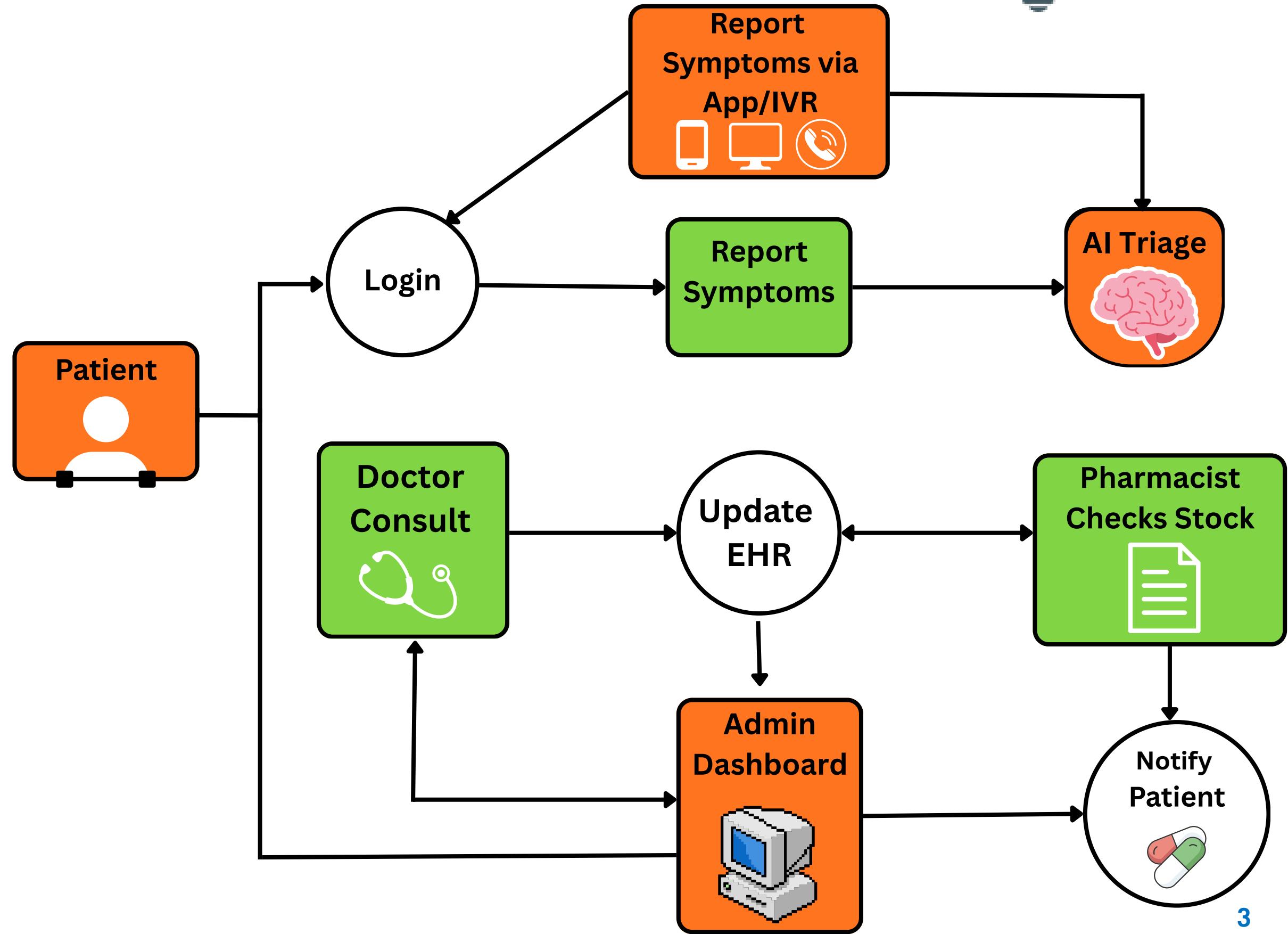
- Kotlin-based app
- Multilingual UI
- Encrypted offline storage
- Adaptive video/voice/SMS

## Web:

- Node/Javamicroservices
- OpenMRS-compatible EHR backend
- Pharmacy CSV/API uploader

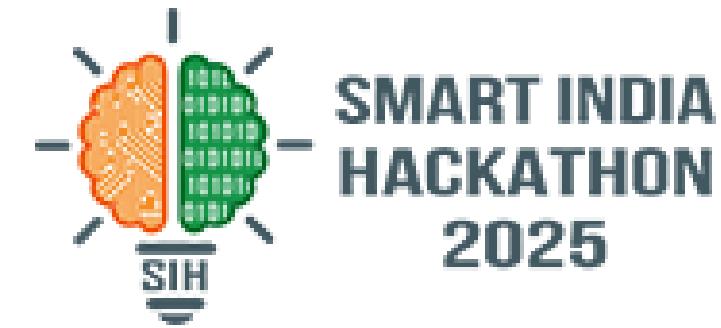
## Machine Learning:

- On-device AI rules
- Symptom triage ML models
- Cloud AI augmentation



VUCA

# FEASIBILITY AND VIABILITY



## Open-Source Foundation

Utilizes proven, community-supported open-source platforms, ensuring flexibility, transparency, and continuous improvement.



## Offline-First Design

Designed to work efficiently without internet, enabling uninterrupted service in remote and connectivity-challenged regions.



## Minimal Training

Easy-to-use interfaces with straightforward workflows mean staff and partners can start quickly with little training.



## Highly Affordable

Operates at a low cost per user and easily scales across rural areas, maximizing healthcare impact with minimal investment.

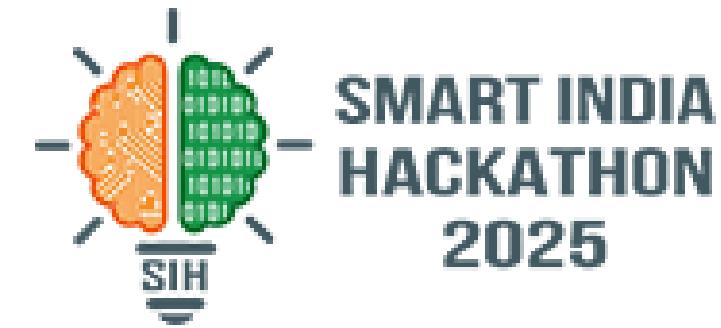


## USP

### IVR System - For non-smartphone users

Our Unique Selling Point is the IVR System which is basically for the non-smartphone users providing easy accessibility using STD codes. The users can schedule appointment, look up for medicine availability , in short all the features in the application

# IMPACT AND BENEFITS



## Early Illness Detection & Intervention

Utilizes proven, community-supported open-source platforms, ensuring flexibility, transparency, and continuous improvement.

## Reduced Patient Travel

Patients receive medical advice and access medicines locally, eliminating long and costly journeys for consultations and refills.

## Timely, Data-Powered Decisions

Real-time data dashboards help health authorities prioritize interventions and resources, driving effective public health management.

## Multilingual, Inclusive Healthcare

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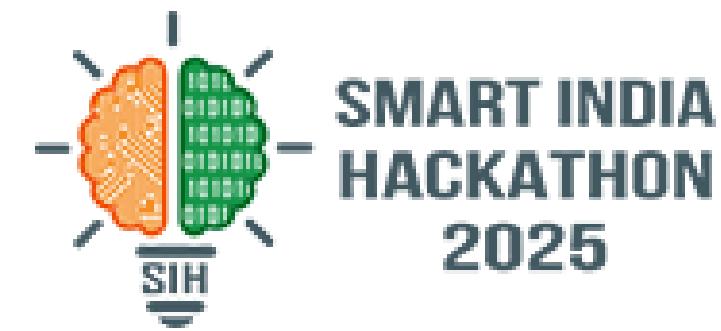
## Wage Protection for Workers

Minimizes work absences and wage losses for patients and their families, important in rural, daily wage-dependent communities.

## Lowered Healthcare Costs

Digital-first workflows make processes efficient and sustainable, reducing operational costs and environmental impact.

# RESEARCH AND REFERENCES



Docs -

- <https://PMC7278514/>
- <https://www.digitalhealthnews.com/rethinking-rural-health-india-s-digital-revolution-takes-root>
- Research Papers -
  - <https://drive.google.com/drive/folders/1qgDLnJldCgARnCuLMSTbZk2Ogyb-pIFJ?usp=sharing>
  - <https://PMC7278514/>
  - <https://www.digitalhealthnews.com/rethinking-rural-health-india-s->
- **National Telemedicine Guidelines (India)**
- **OpenMRS, Intelehealth, OpenSRP “India**
- **Telemedicine Market 2025” (EY/IBEF) Data:**
- **Punjab Health Dept, Nabha Civil Hospital**
- **Telemedicine pilots: WHO, BMGF**

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**Sector:** HealthTech / BioTech