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- **Problem Statement ID – 25219**
- **Problem Statement Title- Mobile-based EHR Companion for ASHA Workers in Low-Internet Areas**
- **Theme- MedTech/Biotech/HealthTech**
- **PS Category- Software**
- **Team ID- 86239**
- **Team Name – The Hacksters**

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Mobile-based EHR Companion for ASHA Workers in Low-Internet Areas

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PROPOSED SOLUTION

1. **Multilingual Interface**
   Optimized for patients in low-bandwidth areas.
2. **AI Symptom Checker**
   An AI-powered assistant helps identify possible health conditions.
3. **Digital Health Records**
   Offline-capable patient records that sync with the cloud when network is available.
4. **Scalable WhatsApp Integration**
   Easy access for rural users via familiar messaging platform.
5. **Vicinity Medicine Availability**
   Updates on local availabilities to transform unnecessary travel into efficient travel.
6. **Bandwidth accessibility**
   Integrating a system bearing a potential to be easily accessed in areas with low-bandwidth.
7. **Offline + Online Sync**
   Ensures uninterrupted access even in poor connectivity zones.
8. **Local Data Storage**
   Stores patient data locally. Auto-syncs when internet is restored.
9. **Reminders & Check-ups**
   Provides reminders for vaccination/ANC check-ups. Supports regional languages.
10. **Offline-First Design**
    Offline-first capability, intuitive UI, multilingual support, role-based dashboards.
11. **Lightweight Application**
    Works in low/no internet zones, stores data securely offline, and syncs automatically when connectivity is available.
12. **Inclusive Features**
    Support local languages, voice-based inputs, and integration with national health programs.
13. **Simple Interfaces**
    Simple interfaces empower them to collect, store, and sync data seamlessly.

TECHNICAL APPROACH

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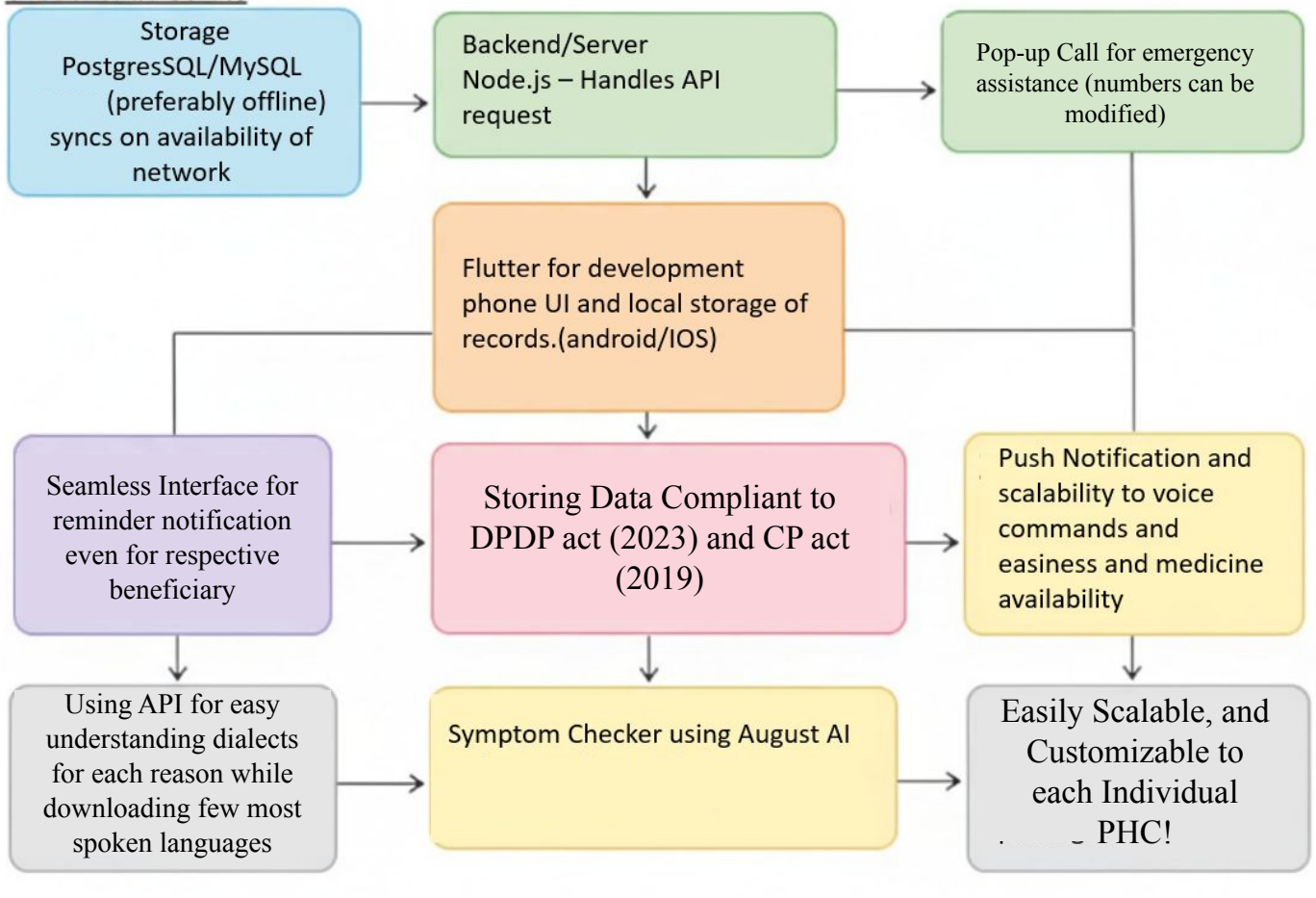
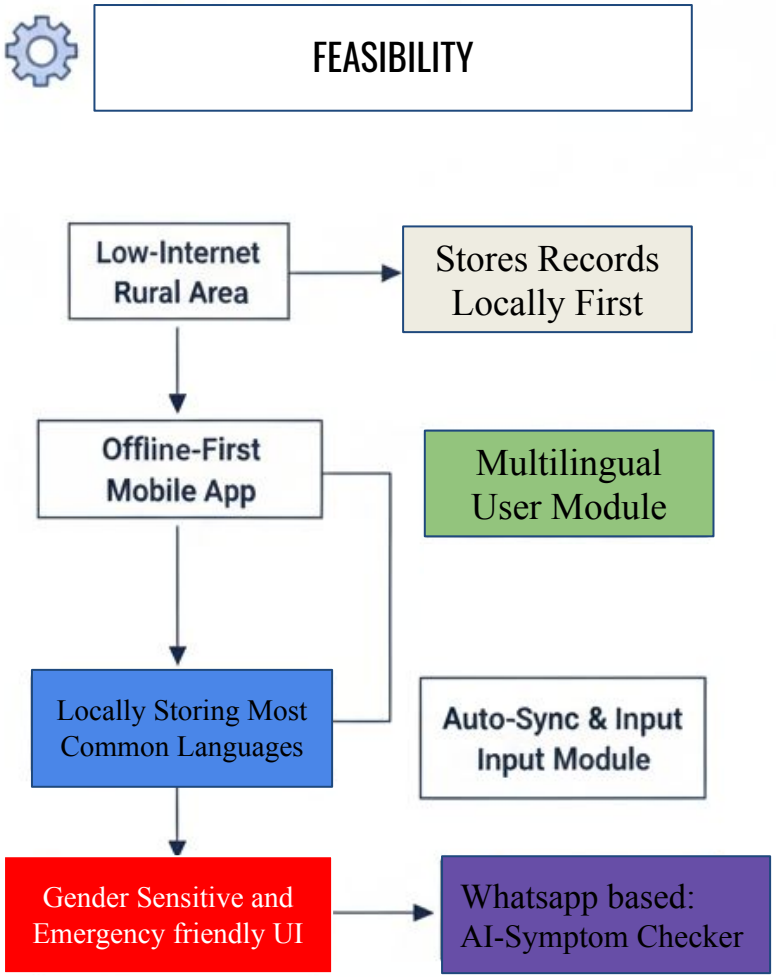
2. Database / Storage

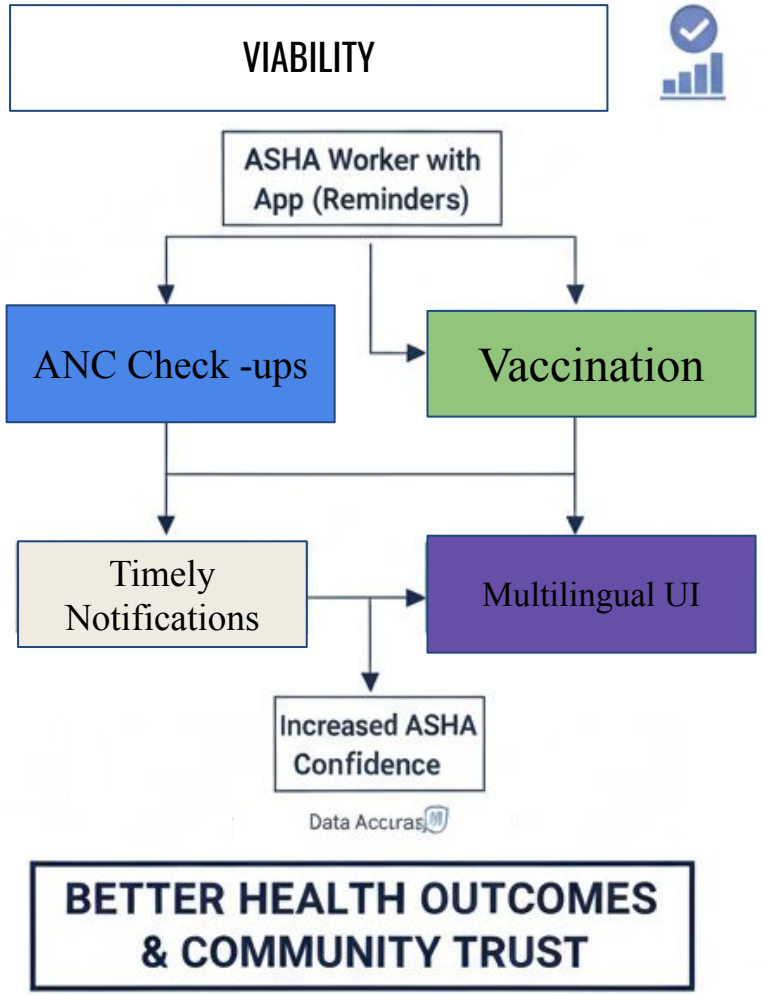
- SQLite- Handles API requests, authentication, and cloud sync
- Sync Engine/API Layer- Handles offline data handling and syncing on availability of network

3. Backend / Server



FEASIBILITY AND VIABILITY





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IMPACT AND BENEFITS

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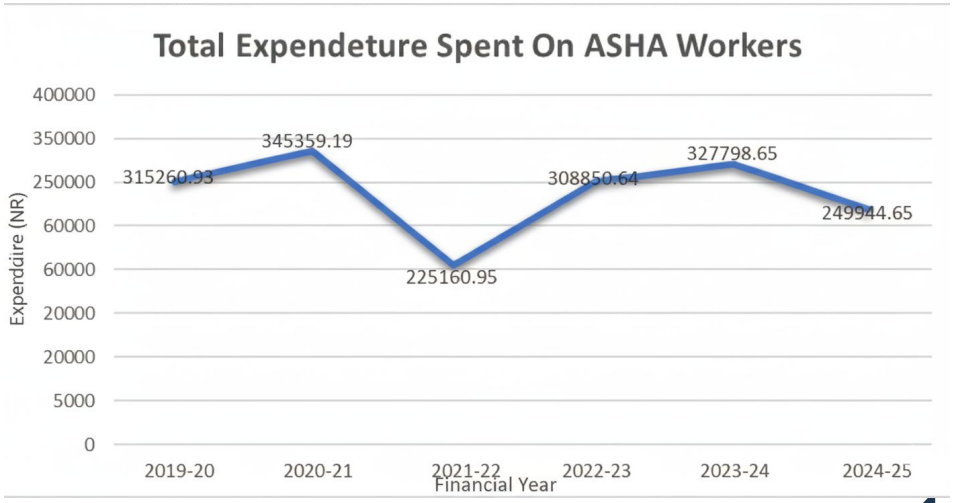

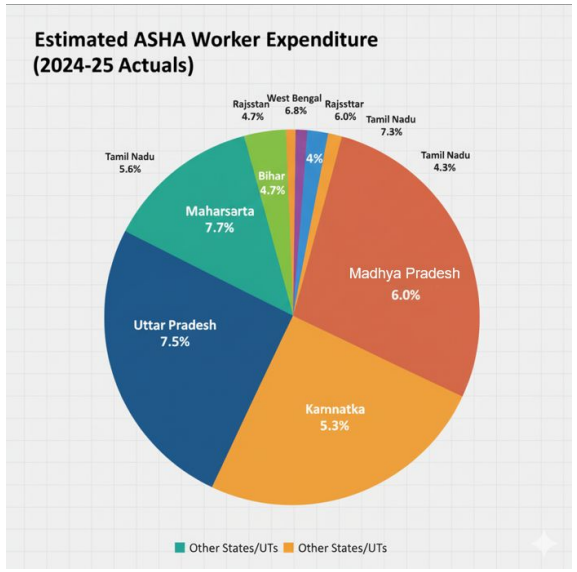

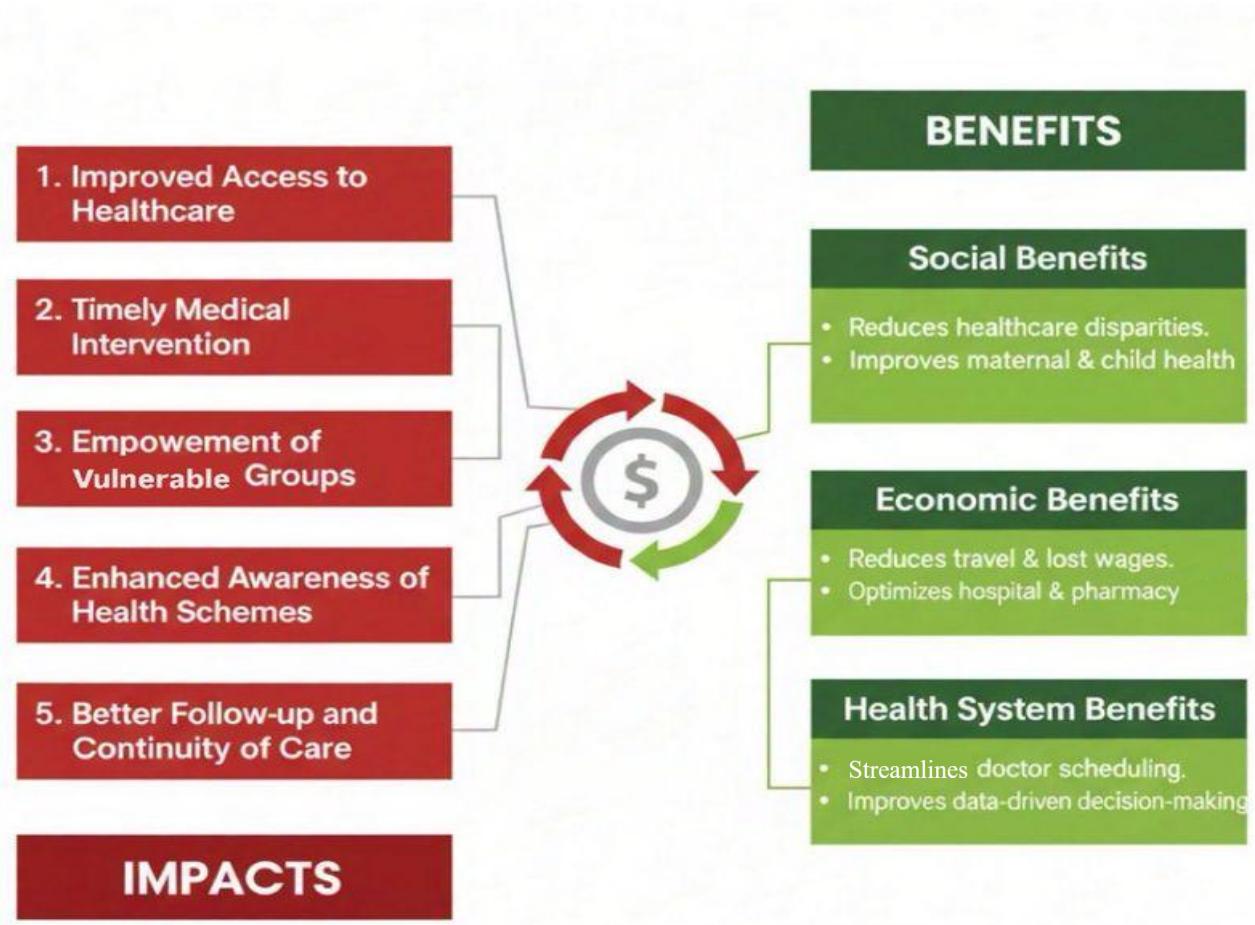

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RESEARCH AND REFERENCES

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Link	Objective	Key Findings	Relevance to the Topic
PubMed 32985439	Adoption of mobile app by CHWs	High engagement, improved reporting & patient tracking	Feasibility of mobile EHR in rural areas
ResearchGate 380041870	Empowering ASHA workers	Enhanced data collection, patient follow-ups, health education	Shows impact of mobile tools for ASHAs
ScienceDirect S2949856225000765	Barriers for PHC workers	Connectivity issues, device literacy; recommends offline support	Guides app design for low-internet areas
PubMed 35847763	Readiness for telemedicine	Training and local-language support critical	Importance of offline & multilingual features
ResearchGate 395321921	ICT tools in maternal & child health	ASHAs act as bridges for digital health delivery	Confirms ASHA workers as primary users
LWW 2025/01000	Digital literacy	Digital literacy critical for telemedicine	Underlines need for user-friendly EHR apps
PubMed 32371467	CHW training & support	Improved efficiency, knowledge retention	Relevant for ASHA training through EHR app
PubMed 31573936	Clinical decision support	Enhances diagnostic accuracy & compliance	Could be integrated as AI/symptom checker in app
ScienceDirect S2211883722000437	Systematic review of mHealth	Successes and barriers like connectivity	Confirms design considerations for rural EHR systems
SAGE 10.1177/20552076211067680	Mobile tech for CHWs	Improved maternal & child health outcomes	Reinforces impact of mobile EHR/telemedicine apps