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TITLE PAGE

- **Project Name** - Smart Ambulance Booking
- **Project Description** -A mobile-based AI-powered platform designed to instantly connect patients with the nearest available ambulance. The system uses real-time GPS tracking and intelligent dispatch algorithms to assign the best-suited ambulance based on proximity, traffic, and equipment type. It enables one-tap emergency booking, live tracking, secure payments, and automated hospital coordination — ensuring faster response times and saving critical minutes during medical emergencies.
- **Theme**- AI
- **PS Category**- Software



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Member Details

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➤ Ambulance Delays Endanger Lives

Critical delays in emergency response often result from inefficient systems, leading to preventable fatalities. A unified platform is urgently needed for faster, smarter coordination.

➤ Fragmented Booking Processes

Current systems rely on disparate phone lines and manual dispatching across providers, causing confusion and wasted time during emergencies.

➤ Barriers for Patients and Families

Language challenges, unclear location details, and slow response times exacerbate stress and hinder effective communication in high-stakes situations.

➤ Lack of Advanced Features

Traditional solutions miss AI-driven routing, personalized hospital suggestions, and real-time chat, leaving gaps in comprehensive emergency support.



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Solution Overview

➤ **One-liner pitch:**

“Uber for Ambulances – 24x7 smart booking, tracking, and hospital coordination in one app.”

➤ **Key Features :**

✓  **Instant/Scheduled Ambulance Booking**

Users can quickly request ambulances via app, with options for immediate dispatch or pre-scheduled services, ensuring availability when seconds count.

✓  **Real-time GPS tracking & live updates**

Live updates on ambulance location, ETA, and route changes provide transparency and reduce anxiety for patients and families.

✓  **AI-powered smart dispatch & traffic-based routing**

Machine learning optimizes assignments based on proximity, traffic patterns, and vehicle capabilities for the fastest response times.

✓  **Intelligent hospital recommendations & SOS alerts**

AI suggests optimal facilities by condition severity, with automated alerts to prepare beds and teams upon approach.



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Tech Stack & Architecture

1. Technologies:

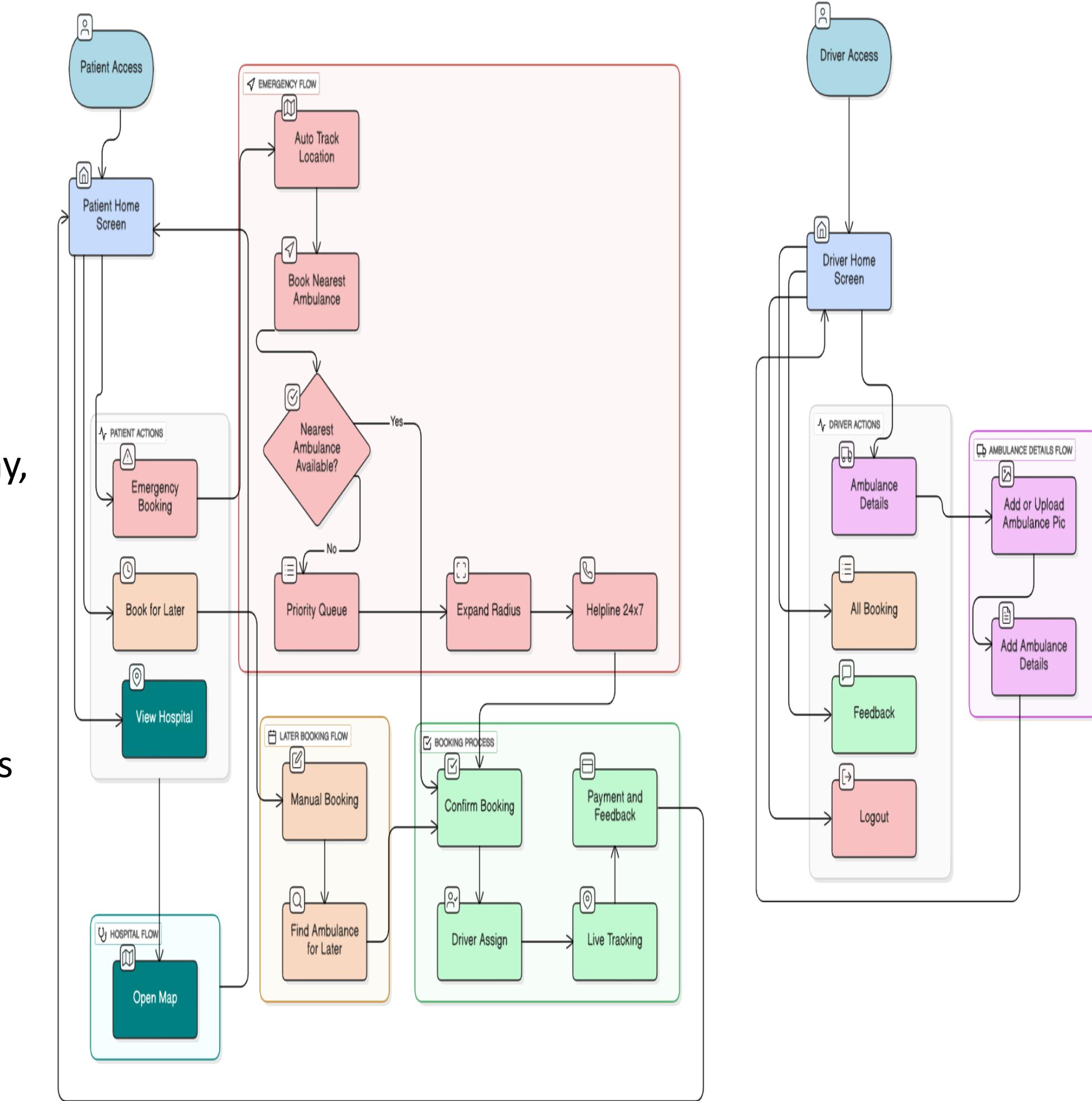
- a. **Frontend:** Flutter (cross-platform mobile)
- b. **Backend:** Node.js / Express
- c. **Database:** Firebase / MongoDB
- d. **APIs:** Google Maps API (GPS), Payment Gateway, AI Routing API
- e. **Cloud:** AWS / GCP for scalability

2. Innovative Tech:

- a. AI for dispatch & traffic prediction
- b. Voice-assisted booking
- c. Analytics dashboards for hospitals & admins

3. Innovative Elements:

AI-driven dispatch predicts traffic; voice-assisted booking via natural language processing; customizable analytics dashboards for stakeholders



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Future Scope

➤ Enhanced Features

- ▶ AI-based patient triage & priority dispatch (The app uses artificial intelligence to analyse patient symptoms or emergency details (like accident, heart attack, bleeding, etc.) to decide how serious the situation is.)
- ▶ Wearable & IoT integration for auto SOS
- ▶ Drone-assisted first-aid delivery
- ▶ Voice and multilingual upgrades

➤ Scaling Strategy

- ▶ City-wise onboarding of ambulance partners
- ▶ Tie-ups with hospitals, NGOs & government bodies
- ▶ Subscription model for hospitals & analytics dashboards

➤ Key Integrations

- ▶ Google Maps & traffic APIs for routing
- ▶ Payment gateways (UPI/PAYTM/GOOGLE PAY)
- ▶ Telemedicine & insurance APIs for seamless care

