

Smart Campus Entry & Security Insight System using ANPR Cameras

P R E S E N T A T I O N

Aditya Jaiswal

adityacjaiswal@gmail.com

Sejal Wadibhasme

sejalwadi2005@gmail.com

3 Key Entities & Their Roles

01

Vehicle Owners (Students/Faculty/ Staff)

Register vehicles via portal, get digital college sticker (QR/code), and enter campus with valid registration.

02

Security Guards

Cross-check vehicle stickers if system alerts, monitor unknown entries, manually approve exceptions.

03

Our System

Collects ANPR data, logs entries/exits, generates insights, monitors unknown vehicle trends, and displays dashboards.

Key Features

Vehicle Registration Portal

For staff, students, workers- with role-based approval.

Auto Log In/Out Time

Based on ANPR detections; calculates session duration.

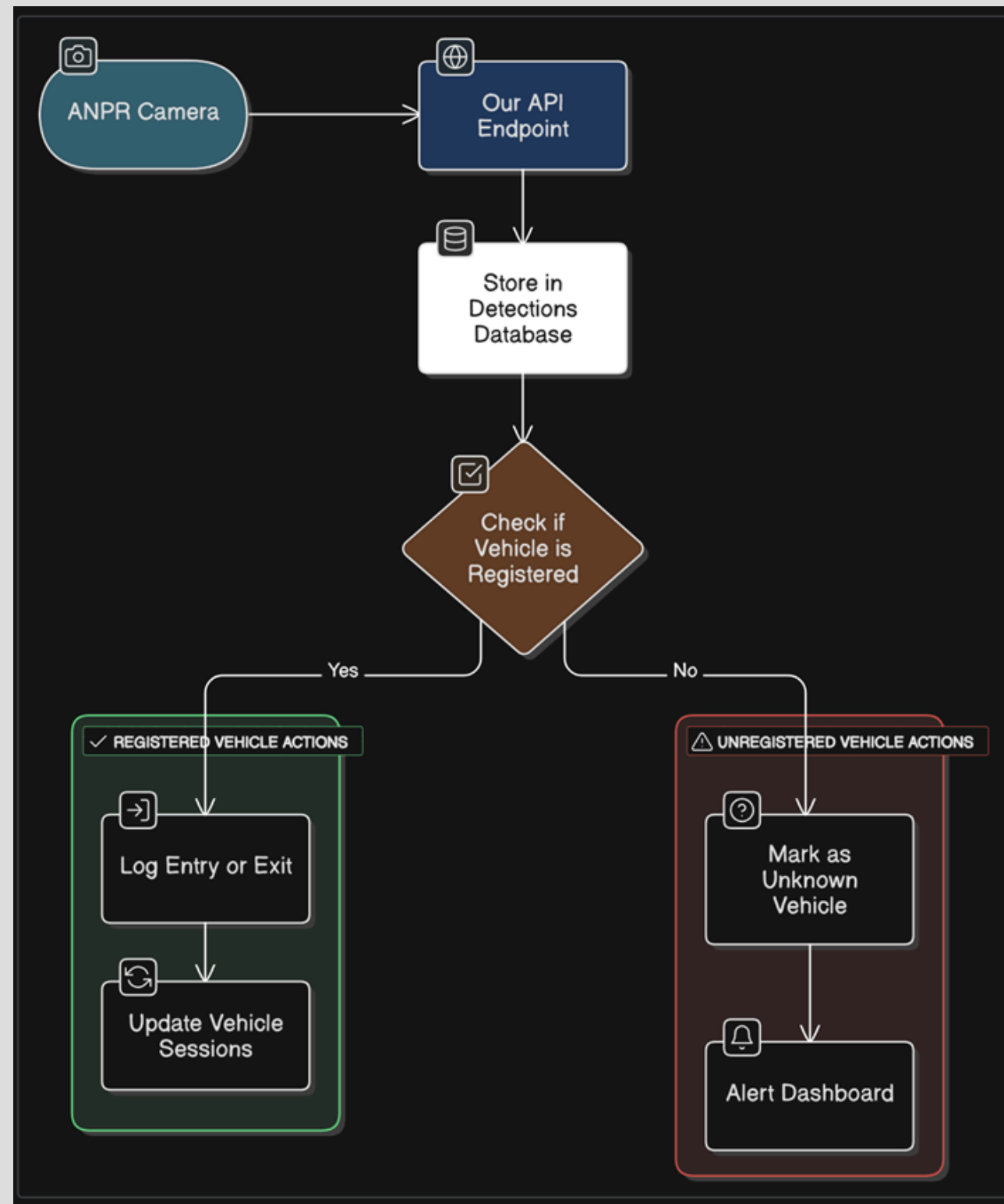
Unknown Vehicle Alert System

Tracks non-registered vehicle entries; generates alerts and logs

Dashboard & Analytics

Real-time vehicle presence, entry logs, peak hours, unknown count, guard-wise stats.

Code Flow



Tech Stack	
Layers	Tools
ANPR Input	Direct camera API / webhook
Backend	Node.js (Express) or Python (FastAPI)
Frontend	React + Tailwind CSS
Database	PostgreSQL / MongoDB
Dashboard Charts	Recharts / Chart.js
Deployment	Railway / Render / Docker
Auth	JWT or Admin-only

UI and Dashboard

01

Registration Portal

- Name, vehicle no., role, department, ID proof
- Admin approval → generate sticker

02

Entry Logs Table

| Vehicle No | Time In | Time Out | Status (Known/Unknown) |

03

Dashboard



Charts:

- Vehicle entries per hour
- Known vs Unknown ratio
- Top frequent vehicles



Alerts:

- Unknown vehicle alerts
- Guard performance flags

Thank You

FOR YOUR TIME