Smart Traffic App
Jamera

Take advantage of artificial intelligent to solve traffic congestion problem

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01

Main problem

Traffic congestion in modern city.

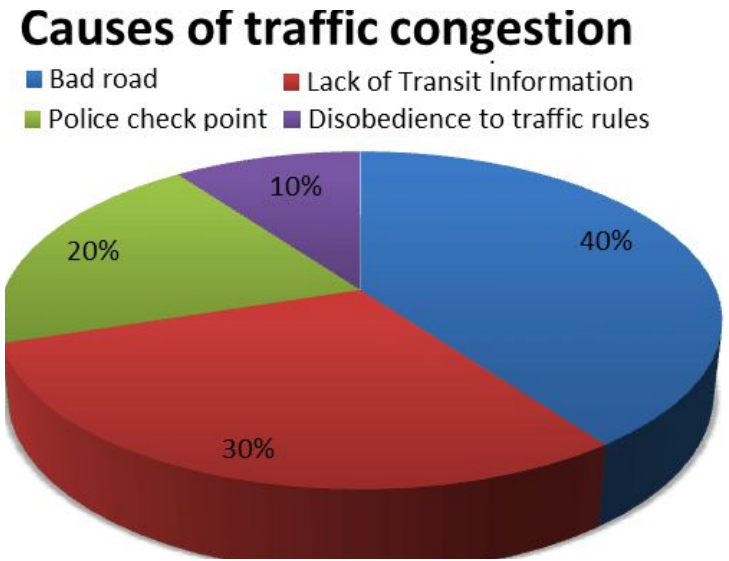
Main problem

Traffic congestion:

- Has become a persistent urban problem since the 1950s.
- Has had a significant impact on the climate, environment, and human health.

Consequences:

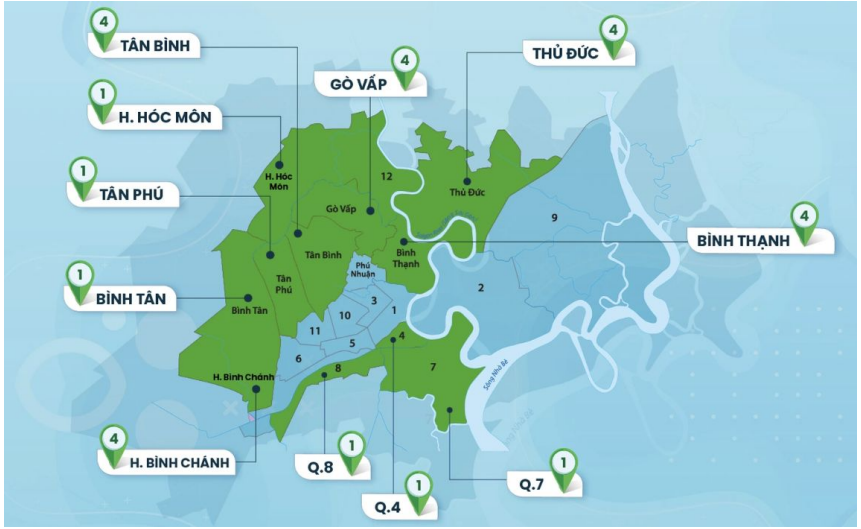
- Time-consuming and productivity reduction.
- Fuel-wasting and air pollution.



Paint point

01. The number of traffic congestion points is increasing steadily.

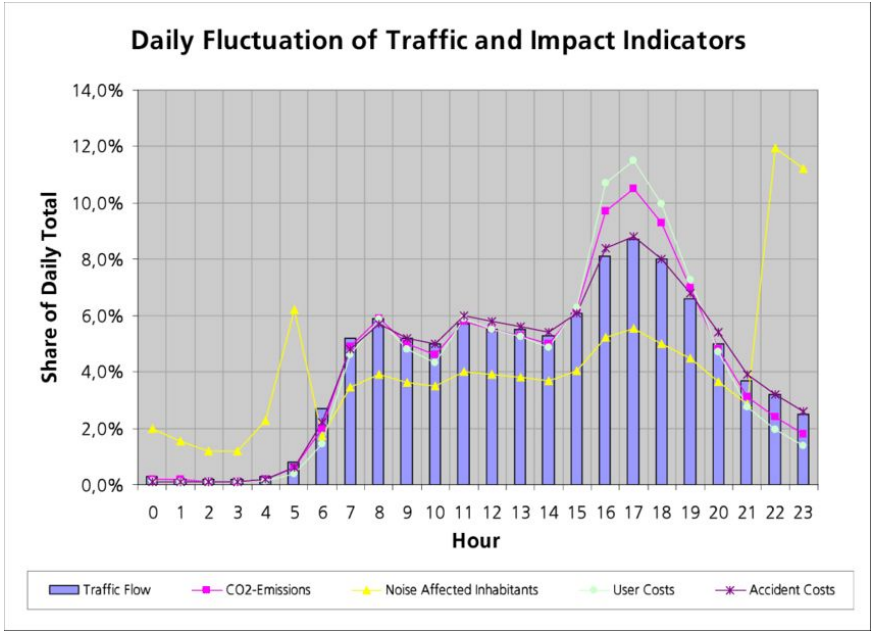
- **8** points have been present since **2022**
- **6** points emerged at the beginning of **2023**



Paint point

02. Congest hour during the day is becoming more frequent

- In potential point congestion occurs during peak hours almost **every day of week.**
- During peak hours, significant adverse effects on **individuals' experiences** arise as a consequence of traffic congestion.

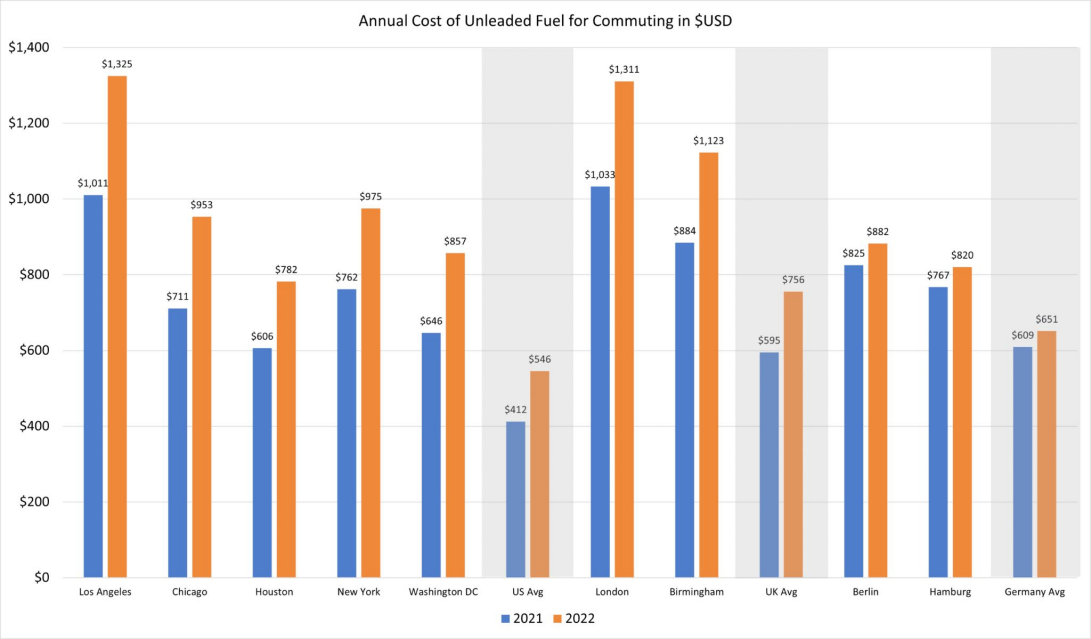


https://www.sciencedirect.com/science/article/abs/pii/S0160412017318263

Consequence

Economic damages

01 Traffic jams result in significant **financial losses** due to **wasted time**, **fuel**, and **delayed deliveries**.

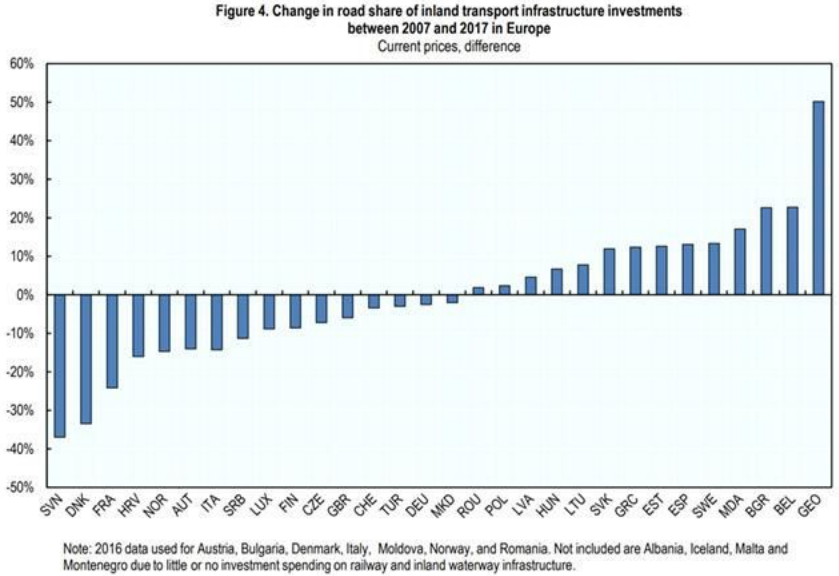


https://inrix.com/blog/2022-traffic-scorecard/

Consequence

Economic damages

02 The issue of traffic congestion has been and continues to have **significant impacts** on the **local development**

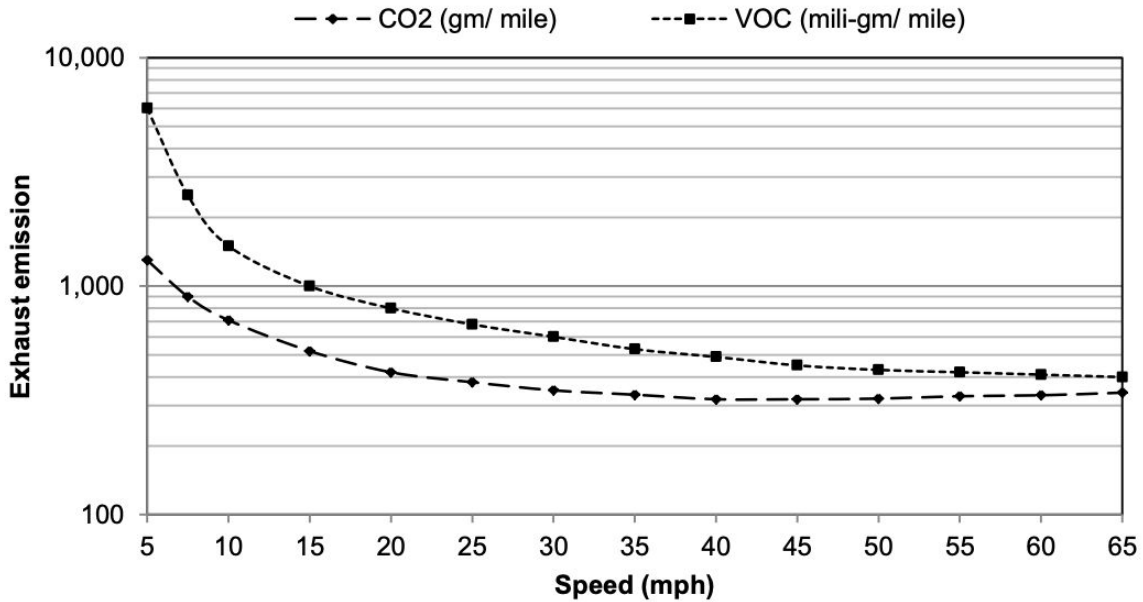


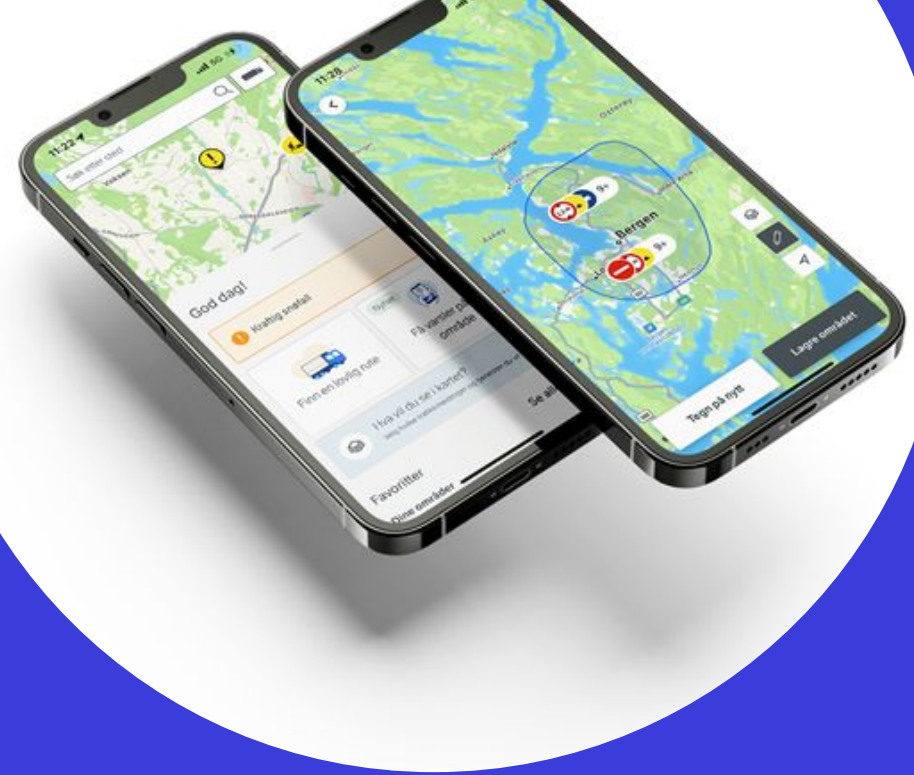
https://www.itf-oecd.org/evolution-transport-infrastructure-investments-financial-crisis

Consequence

Health damages

01 Under normal circumstances, the **CO2** in HCM City reach **alarming levels**. In congested areas, the CO2 **increases by several times** the normal level.





02

About our app

Quick view about our application.

Main feature

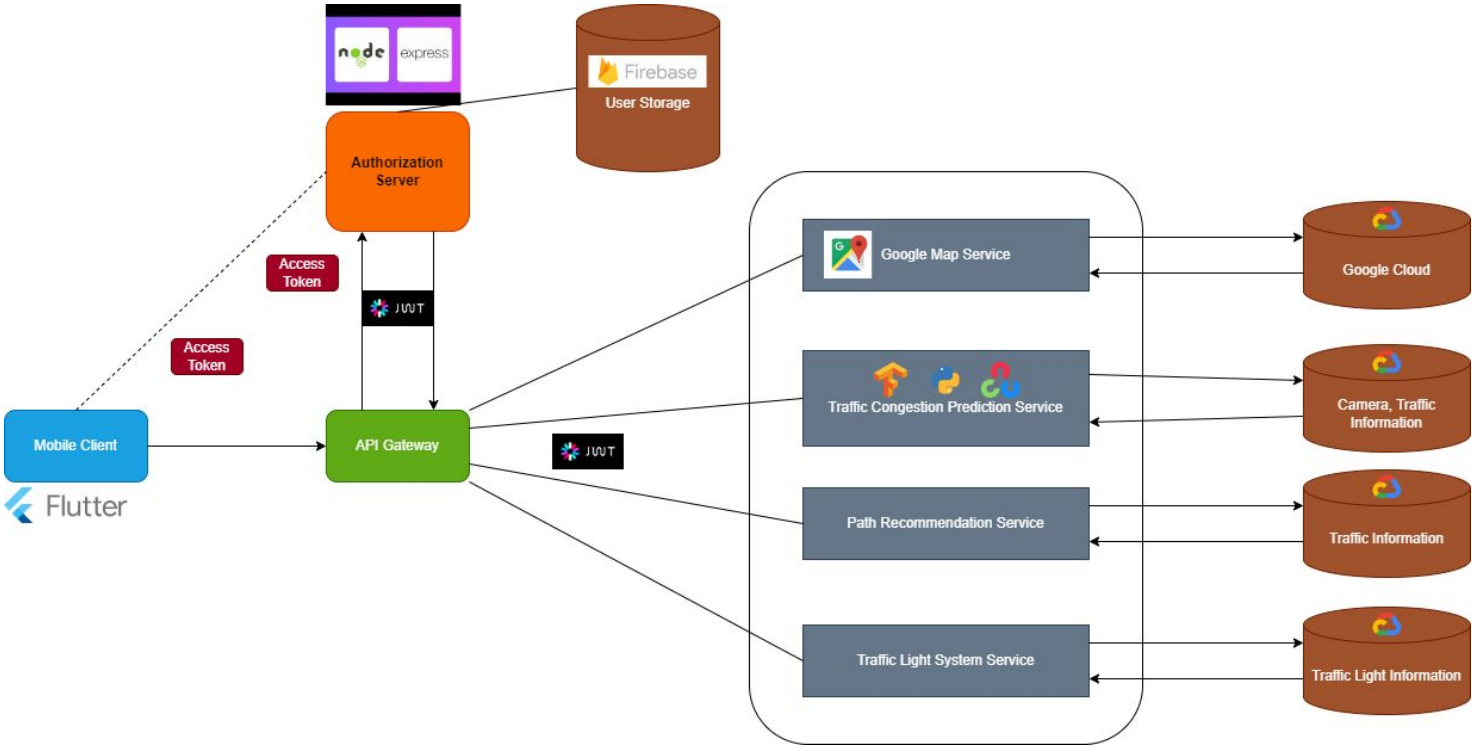
Predict Traffic Congestion

Real-time information from the camera system is used to train model predicting traffic flow density.

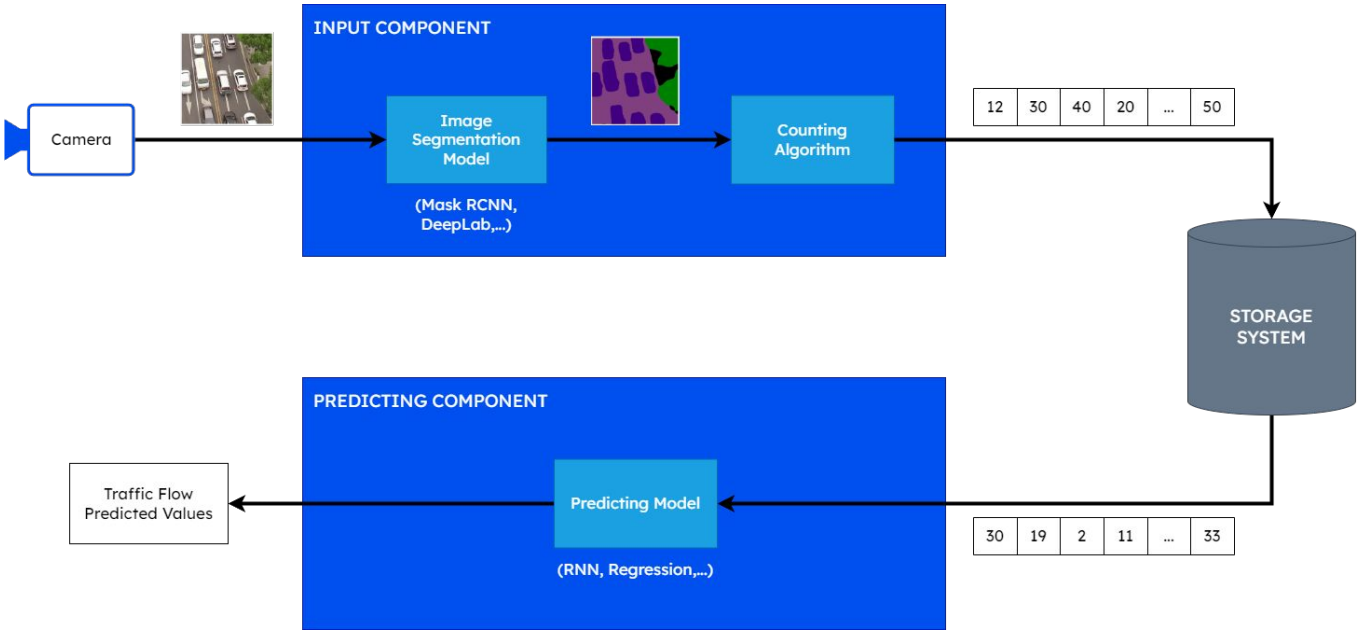
Solve traffic problems remotely

- Special algorithm is used to regulate traffic light timings automatically.
- Traffic polices can directly adjust the timing through the app and make breaking-law punishment.

System Architecture



AI model architecture



Sustainable Development Goals.

SDG 9: Industry, innovation and infrastructure

SDG 11: Sustainable cities and communities

User persona

Police officer

- Remote traffic monitoring and enforcement capabilities
- Live data access for accurate observation of violations.

Normal user

- Real-time route recommendations.
- Updates on road conditions (floods, accidents).

03

What we provide

Highlighting our offered services and solutions

User impacts

Real-time traffic information

Provide recent traffic status for users from real-time data

Traffic jam predictions

AI based approach used in predicting solution

Suitable path recommendation

Traffic jam as well as other features in consideration

User impacts

Survey breaking traffic laws

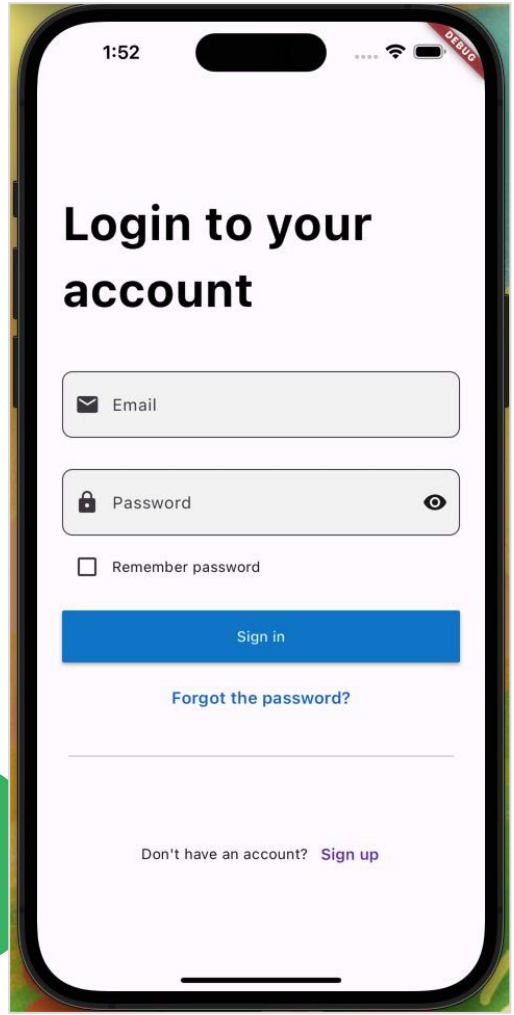
Provide disobeying cases from real-time data

Adjust traffic light remotely

Manually change traffic light settings in special traffic cases

Auto-adjusted traffic light

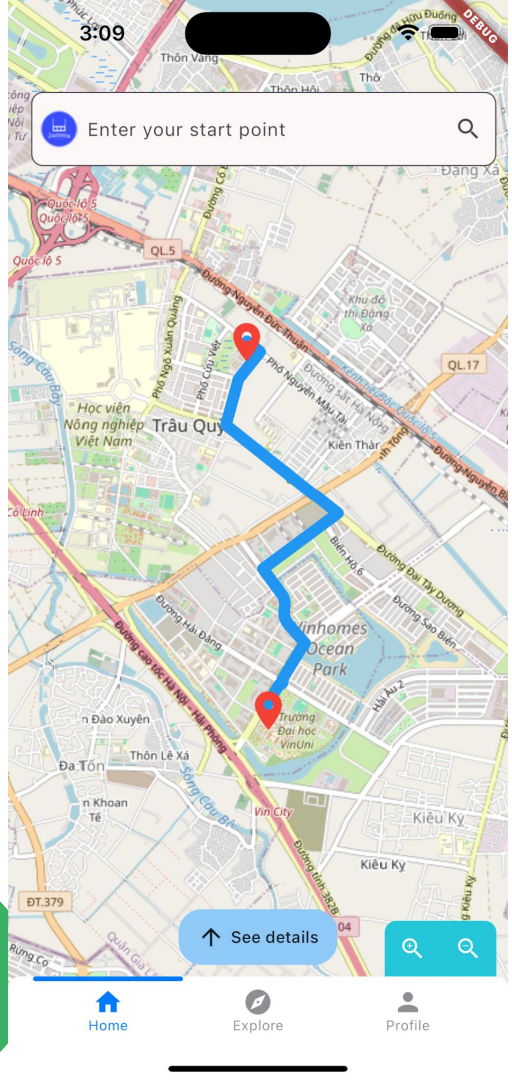
Change traffic light settings using optimal algorithm.



Mobile App

Login interface

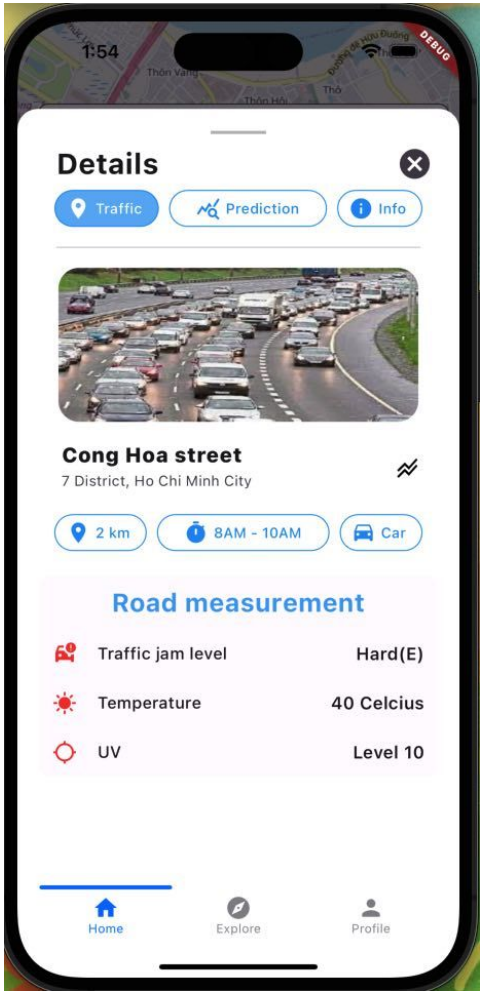
- Access point for forgotten credentials.
- Ensures privacy, prevents unauthorized entry.



Mobile App

Home page

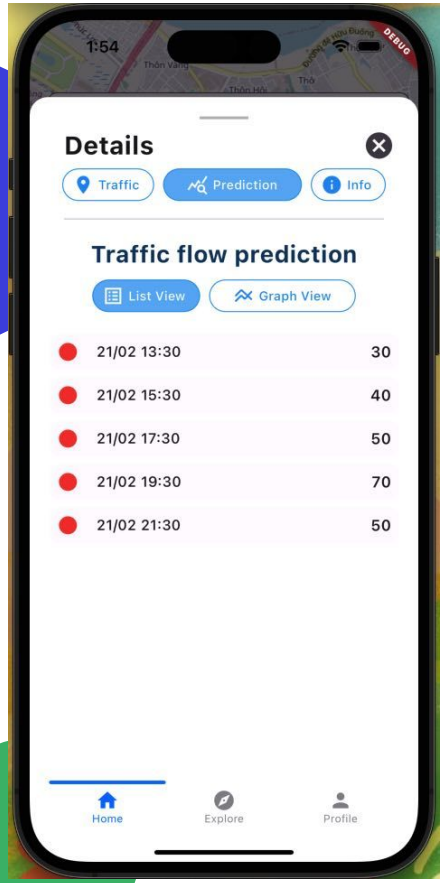
- Visualize map for routing.
- Help to find the route between two endpoints.

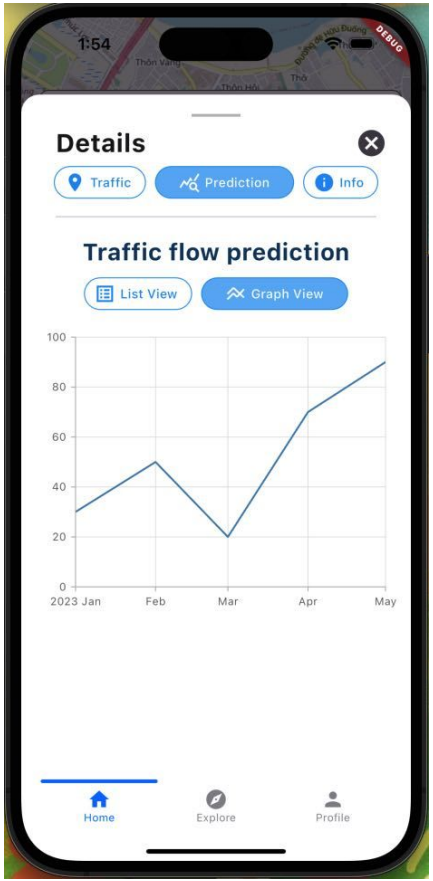


Mobile App

Details information about the route

- Show useful information for user.
- Image from camera allow user to know the real situation in the road.





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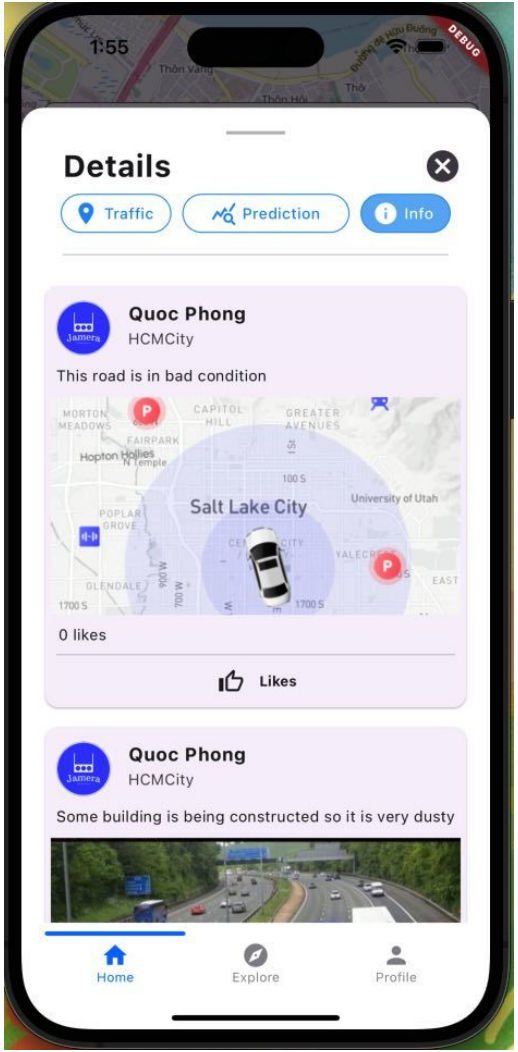

Mobile App

Details information about the route

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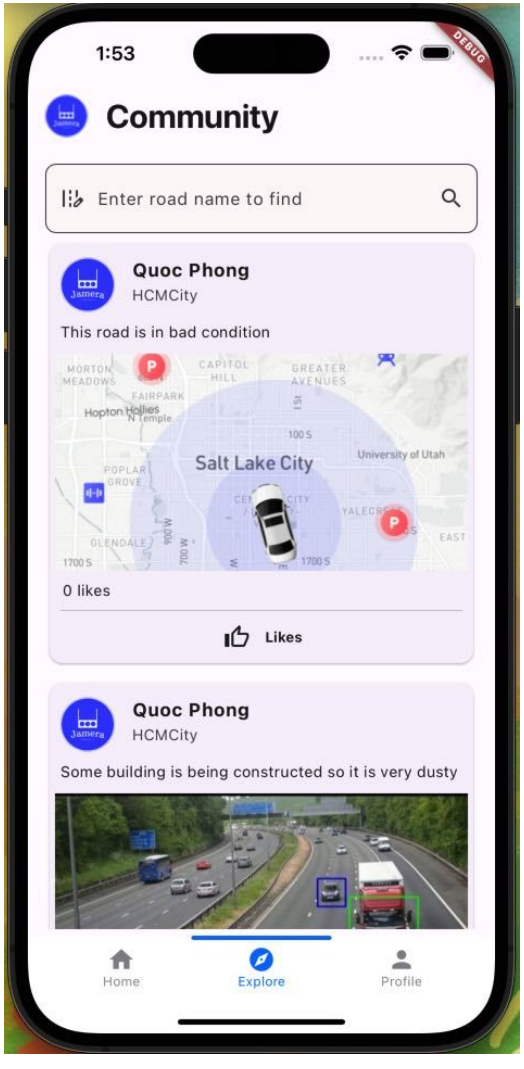
Mobile App

Exclusive feature for police

- Real-time update traffic situation.
- Auto record traffic breaking-law.



Mobile App

User community

- Users share current traffic situations and road statuses.
- Updates provide constant assistance to others.

Competitive advantages

AI based solution

- Applying recent AI approaches for data processing and **traffic status predictions**.
- Gives **better result and performance**.

Leading technologies

- Using the state-of-the-art tools and frameworks leads to the capability of developing globally.

Available facilities

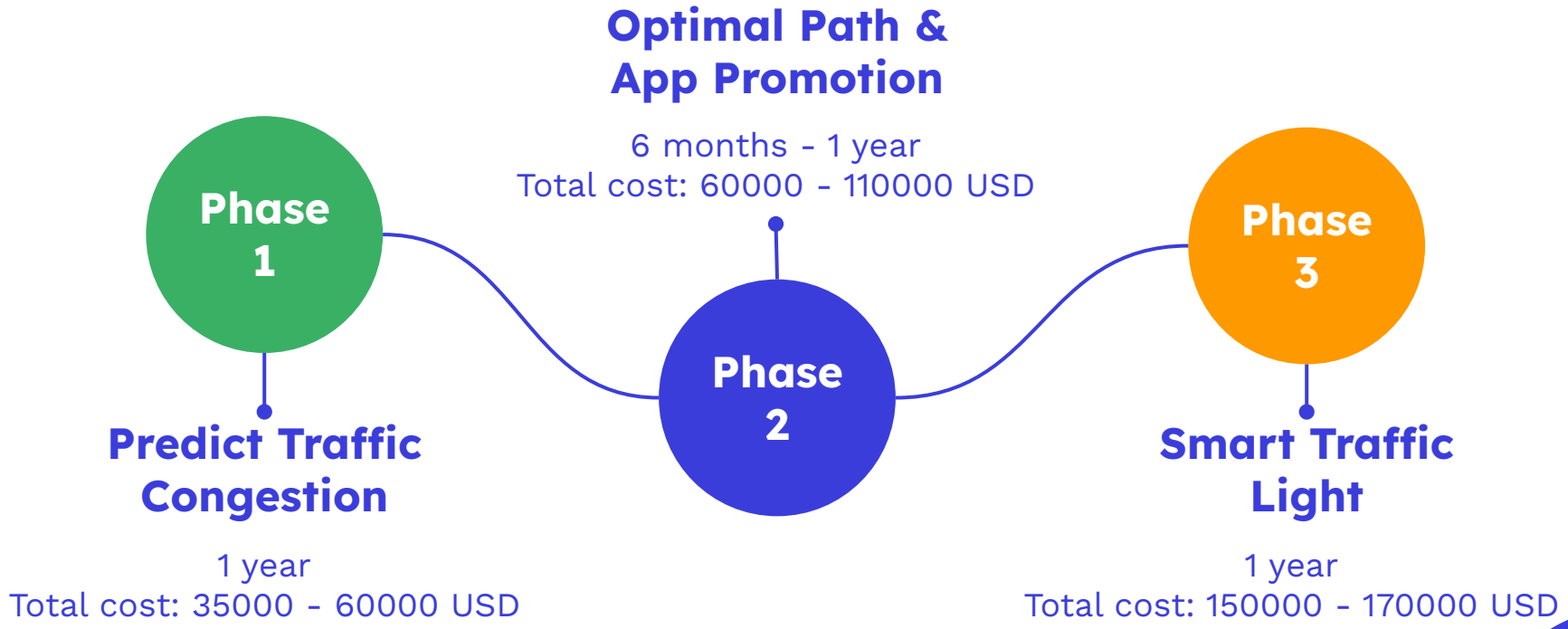
- Taking advantages of **large existing camera system.**
- Accessible data providing resources helps reduce system's total cost

04

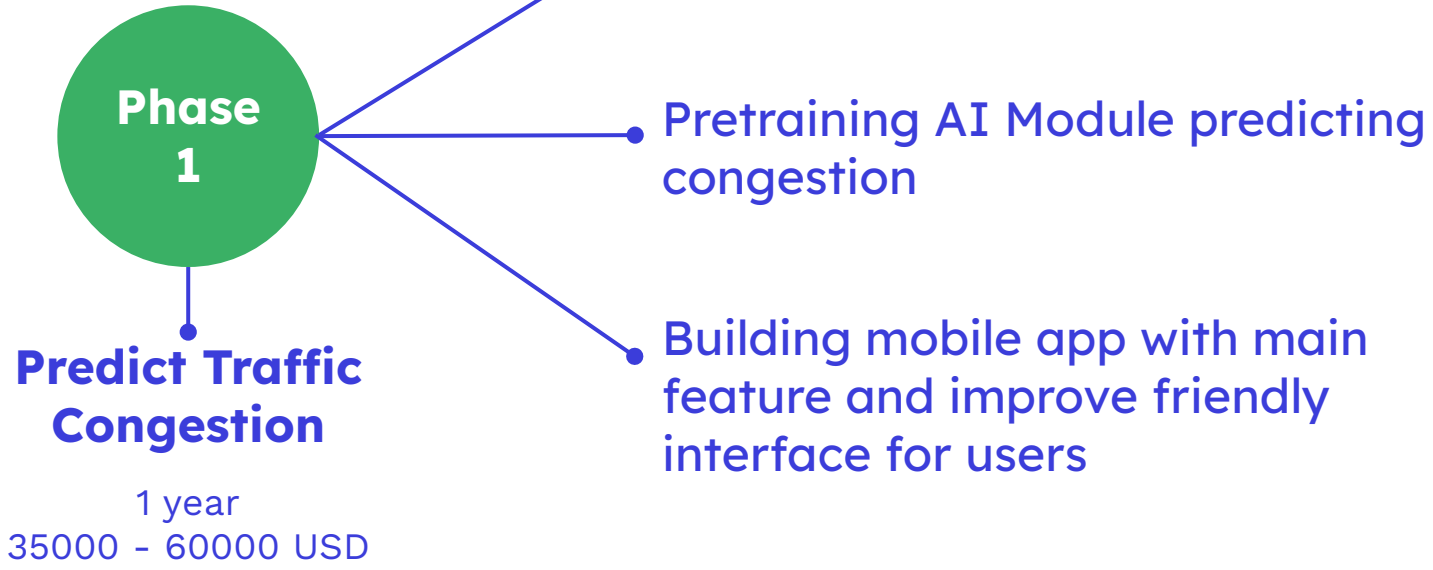
Our future plan

Previewing our strategic vision and forthcoming initiatives

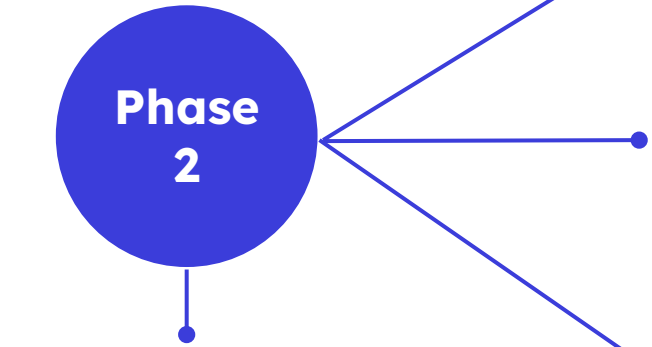
Our future plan



Our future plan



Our future plan



Developing the feature of suggesting suitable routes

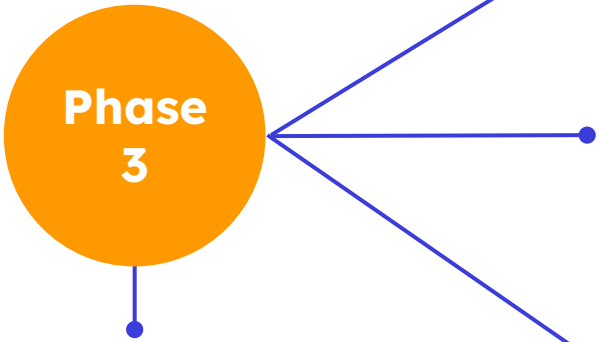
Marketing to attract additional users. collaborating with other organizing companies

Completing all feature on our app

Optimal Path & App Promotion

6 months - 1 year
60000 - 110000 USD

Our future plan



Smart Traffic Light

1 year
150000 - 170000 USD

- Developing the IOT system for smart traffic light
- Developing additional new features
- Expand the application to several neighboring countries