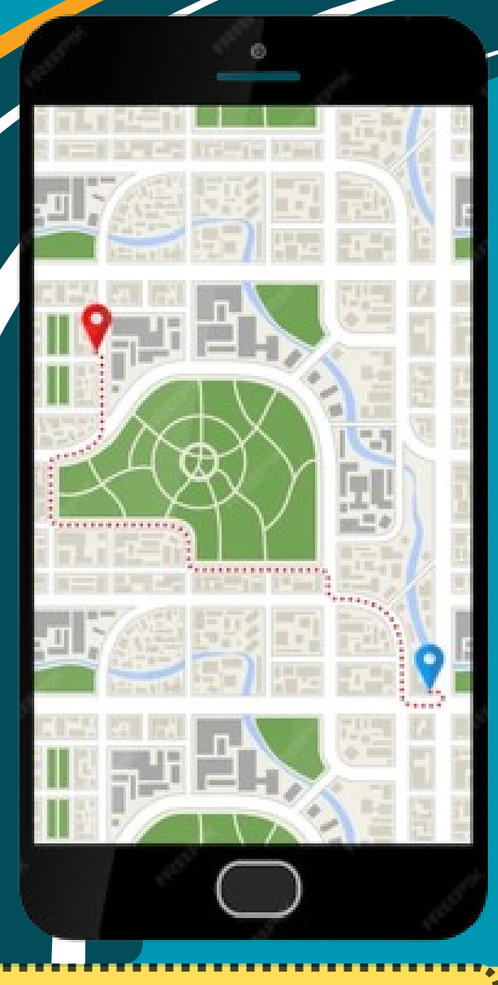
Problem Statement

Sustainable Food Delivery Optimization: Build a solution (website or mobile app) that optimizes food delivery routes for local restaurants using HERE Routing APIs and Mobile SDKs while minimizing environmental impact.



1 OPTIMIZATION ALGORITHM

The app will utilize HERE Routing APIs to calculate optimal delivery routes for food delivery personnel. The algorithm will consider various factors such as:

- Traffic Conditions: Real-time traffic updates will be incorporated to avoid congested routes and minimize delivery times.
- Delivery Time Windows: The app will optimize routes based on specified delivery time windows to ensure timely deliveries.
- Vehicle Types: Different vehicle types (e.g., cars, bikes) will be taken into account to optimize routes based on vehicle capabilities and restrictions.

2 REAL-TIME TRAFFIC UPDATES

The app will provide delivery personnel with real-time traffic updates to help them navigate through traffic congestion and avoid delays. This feature will be essential for optimizing routes on the go and ensuring timely deliveries.

3 ENVIRONMENTAL IMPACT

- By optimizing delivery routes, the app will help reduce fuel consumption and greenhouse gas emissions. This will contribute to a more sustainable environment by promoting eco-friendly delivery practices.
- By optimizing delivery clusters, the app will help reduce the number of trips needed to complete deliveries, leading to significant fuel savings

4 IMPLEMENTATION

- Technologies Used:
  - Flutter: Flutter will be used for cross-platform mobile app development, ensuring the app is compatible with both iOS and Android devices.
  - HERE Routing APIs: The app will leverage HERE Routing APIs to calculate optimal delivery routes and incorporate real-time traffic updates.
  - HERE Mobile SDKs: The app will integrate HERE Mobile SDKs to provide interactive maps, navigation features, and seamless user experience.
- Integration:
  - The app will integrate HERE Routing APIs and Mobile SDKs to provide route optimization, real-time traffic updates, and navigation features.
  - Integration will be done using standard API integration practices and SDK usage guidelines provided by HERE Technologies.