

# Carpool application using geolocation

## End of term status

Jorge Vasquez  
Tomas Basden  
Group 6

# Problem

- Many people who drive to school or work are spending too much on fuel costs especially if they live far.



# Solution

- Implement a Carpool application in order to lower fuel costs using geolocation to locate a person's position using their device, then find other users with similar routes.



# APIs used

- Google Maps API- shows map on screen.
- Directions API- calculates directions between locations.



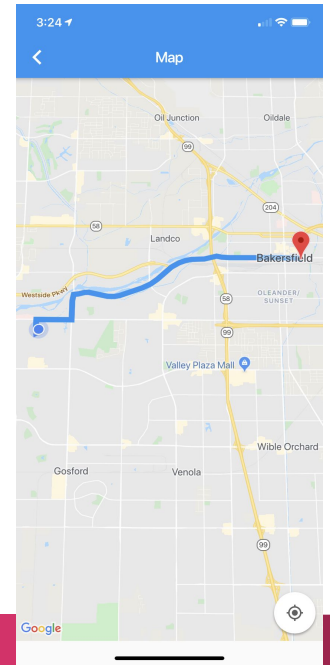
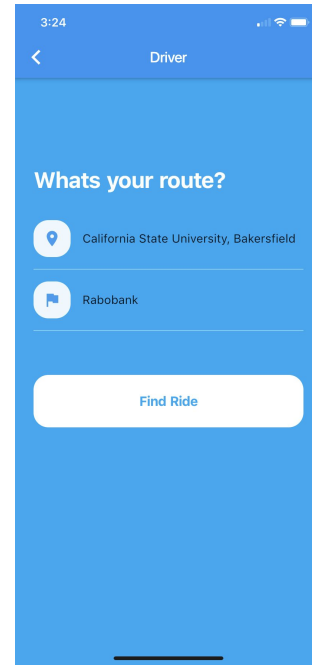
# Features

- login/sign up
  - User logs in with email and password or the user has to sign up.
- Home screen
  - Tells user if he or she is a driver or a rider, then takes them to next page to put his starting point and destination.
- Route implementation
  - Make a route to the starting point and destination.



# Creating a route

- Fetch data from URL  
**<https://maps.googleapis.com/maps/api/directions/outputFormat?parameters>**
- Get user location using geolocator plugin.
- Function to Add polyline with the points being the latitude and longitude directions from URL.
- Pass into function the starting point and destination user puts.



# Future Features

- Work with the server and client app to find similar routes to that of the user by using an algorithm that compares the points of the route.
- Work with websockets which allows bidirectional communication between the server and client in order to include real time capabilities into the app
- User profiles

