
CS 446/646 Project Proposal: CarLOOP

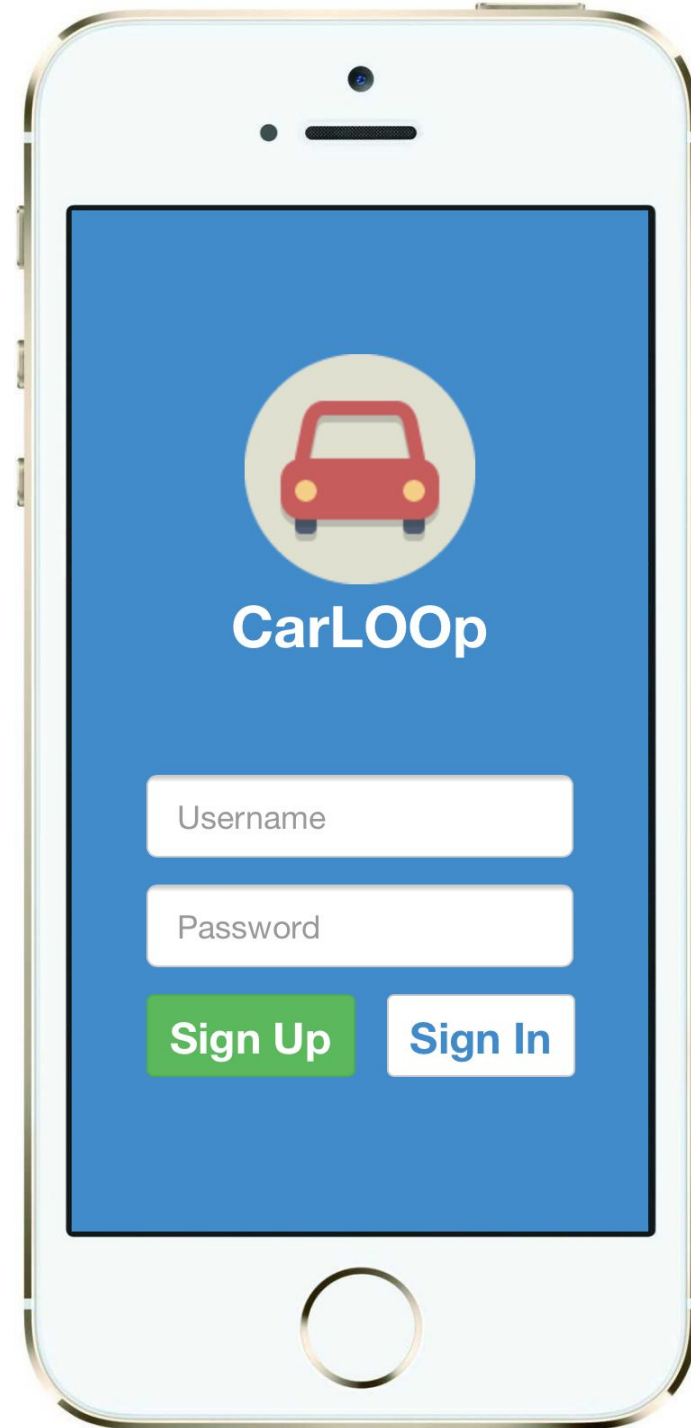
— BUF: Yongqi An, Xin Jin, Lingyun Li, Zijin Li —

CarLOOp

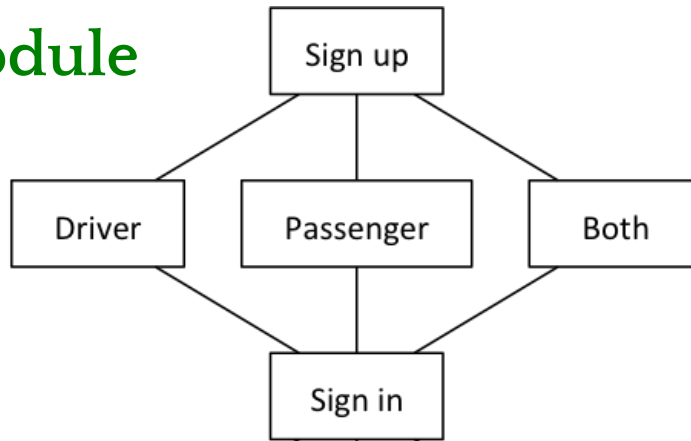
- Purpose?

For those who have experience in carpool, they might find it's difficult to find carpool information. Even though they have found one, the **negotiation** between drivers and passengers on pick-up time and location becomes a serious problem.

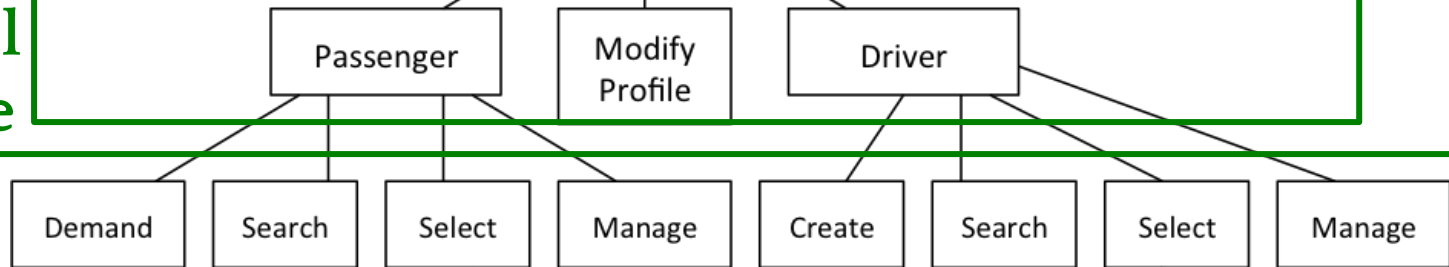
Therefore, a well-developed application for carpool is necessary and significant.



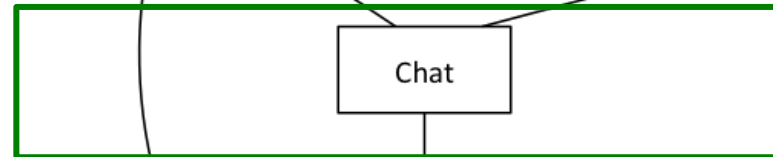
User Module



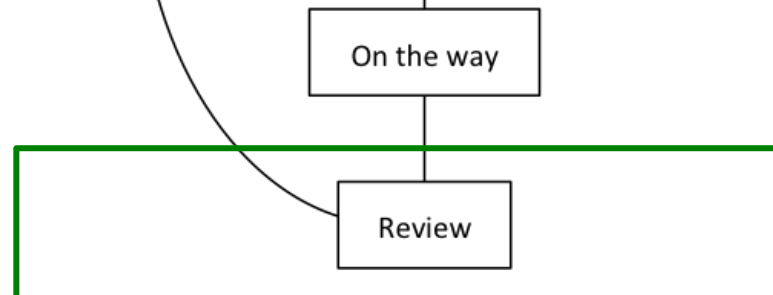
Carpool Module



Chat Module

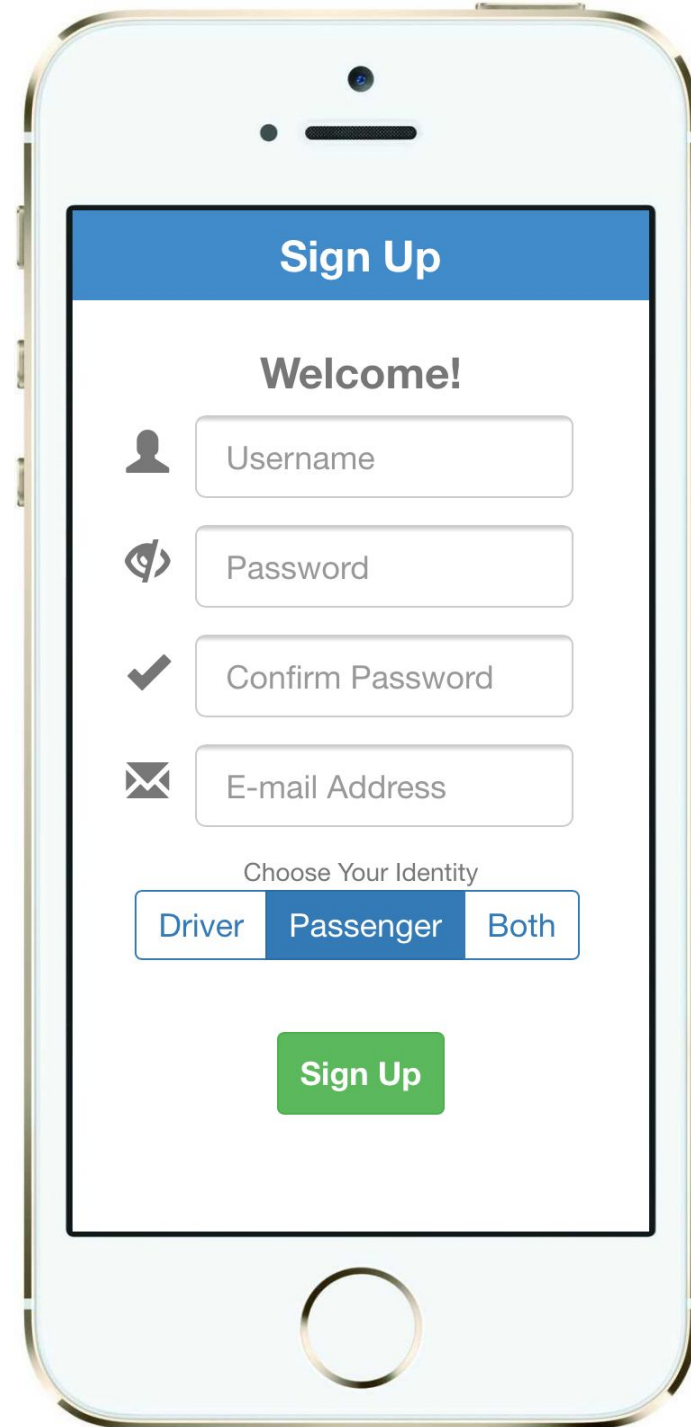


Review Module




User Module


- **Sign Up**
 - First-time users of CarLOOp need to sign up for an account.
 - Users need to provide their basic information.
 - Choose their identity as a driver, passenger or both.





Sign Up

Welcome!

 Username

 Password

 Confirm Password

 E-mail Address

Choose Your Identity

Driver Passenger Both

Sign Up

User Module

- **Sign In**
 - CarLOOp will remember the input information once the user login in for the first time.
 - This app will have **two sets of UI** designed for passengers and drivers to access different functions.
 - For users signed up as both identities, the app will display the UI for drivers as default and will allow users to switch their identity in the app.

User Module

- **Manage Profile**
 - Users can add and edit personal information to their profile.
 - Users can also reset and retrieve their passwords.

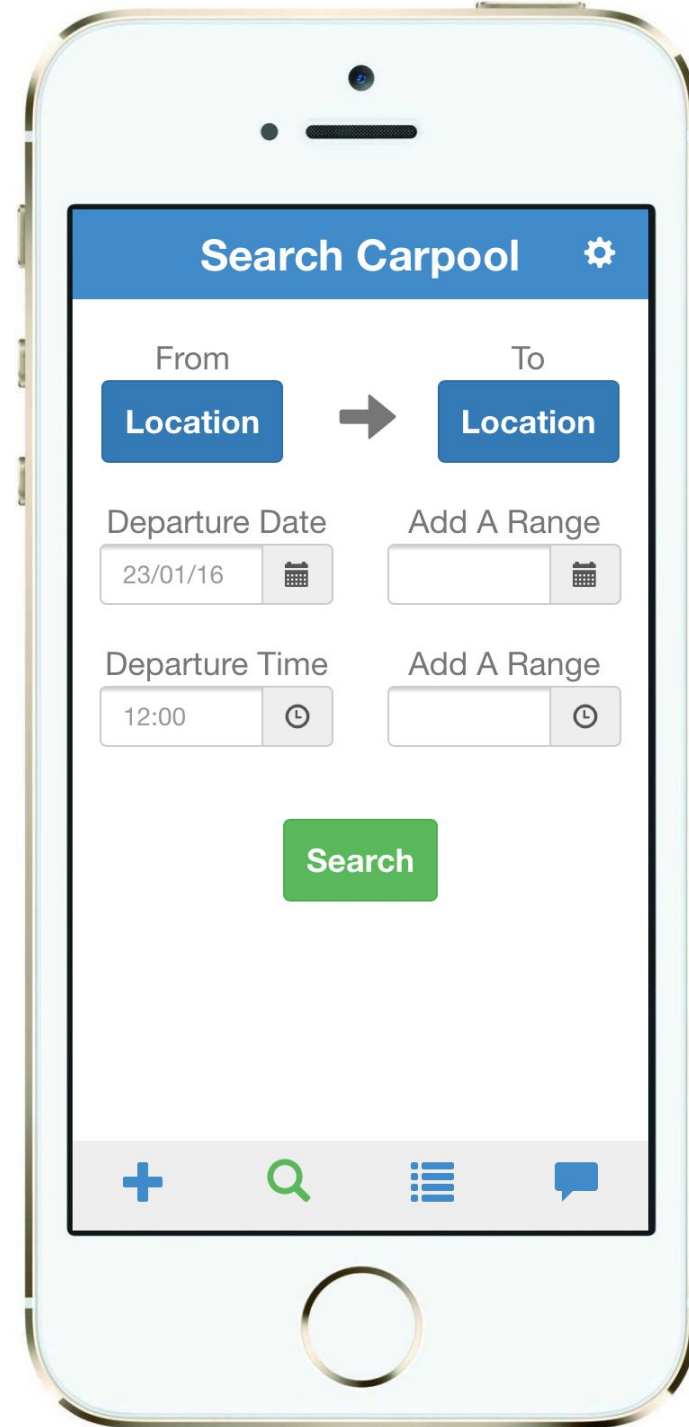
Carpool Module

- **Create Carpool** (drivers)
- **Demand Carpool** (passengers)
- Carpool Info:
 - Departure & arrival location (set through Google Map API)
 - Departure date & time
 - Ideal price
 - Max passenger (drivers)
 - Other comments

The image shows a smartphone screen with the 'Create Carpool' app. The app has a blue header with the title 'Create Carpool' and a settings gear icon. Below the header, there are two columns of input fields. The first column is for the 'From' location, with a 'Location' button. The second column is for the 'To' location, with a 'Location' button. An arrow points from the 'From' location to the 'To' location. Below these are fields for 'Departure Date' (23/01/16) and 'Departure Time' (12:00). To the right of these are 'Add A Range' buttons for both date and time. Below these are 'Max Passenger' and 'Price' input fields. A green 'Create' button is at the bottom. The app has a bottom navigation bar with icons for home, search, list, and chat.

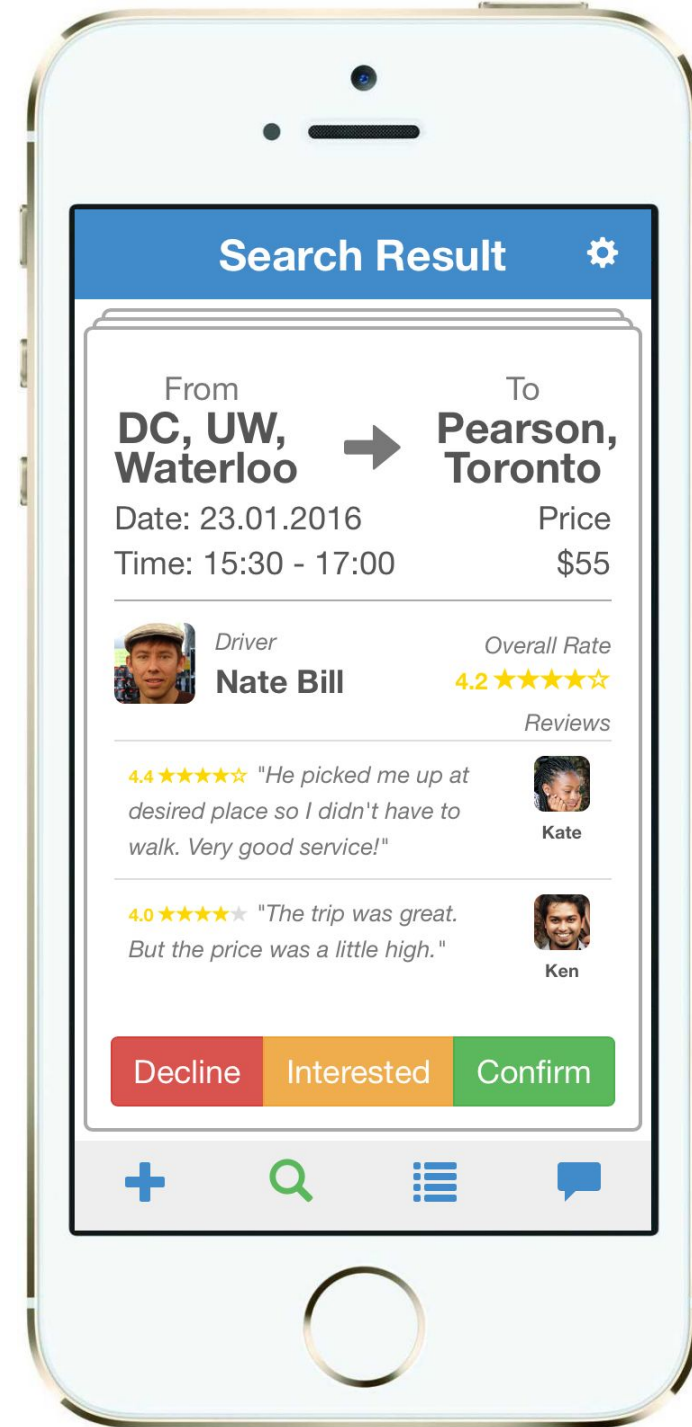
Carpool Module

- **Search Carpool**
- Search Algorithm:
 - Valid date and time
 - Shortest walking distance
- Search Result:
 - A list of top-matched carpools



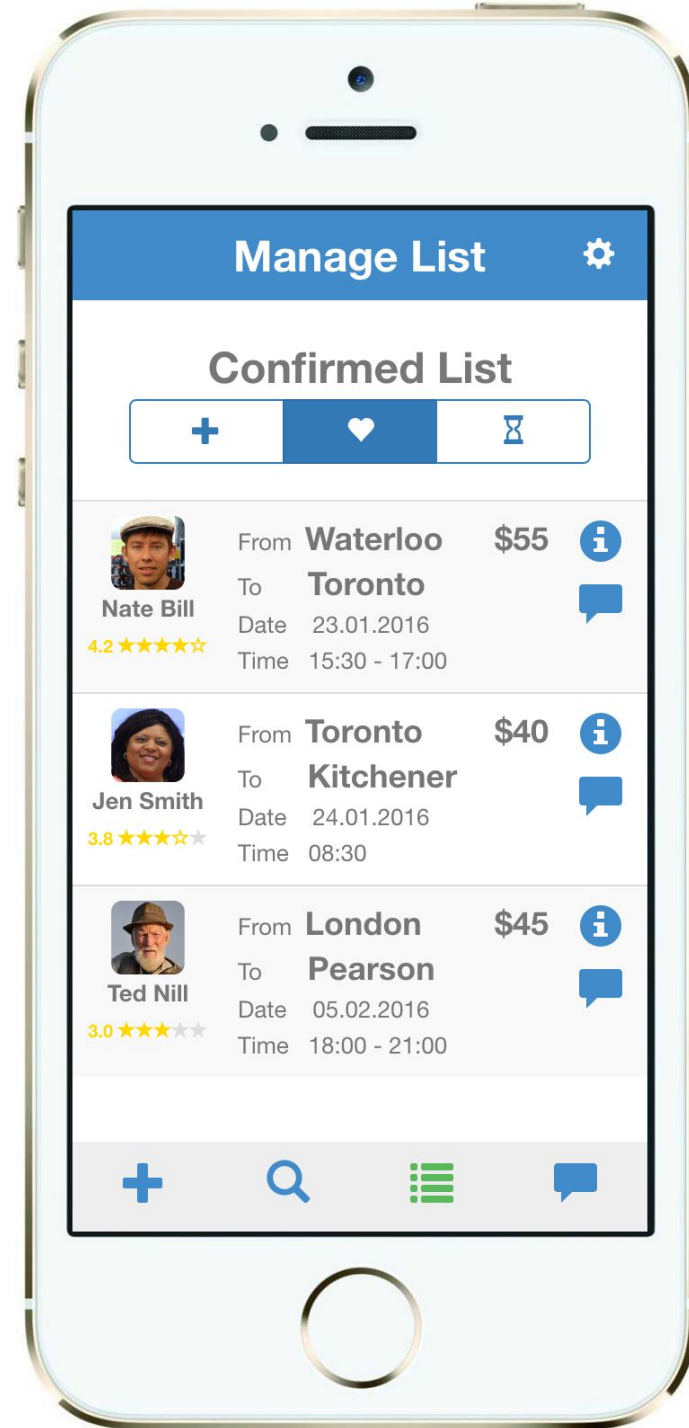
Carpool Module

- Select Carpool
 - Select from search result
 - Carpool info
 - Driver's rating & reviews
 - Decline: bad match
 - Interested: check later
 - Confirm: perfect match
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- Drivers can search & select among demanded carpools



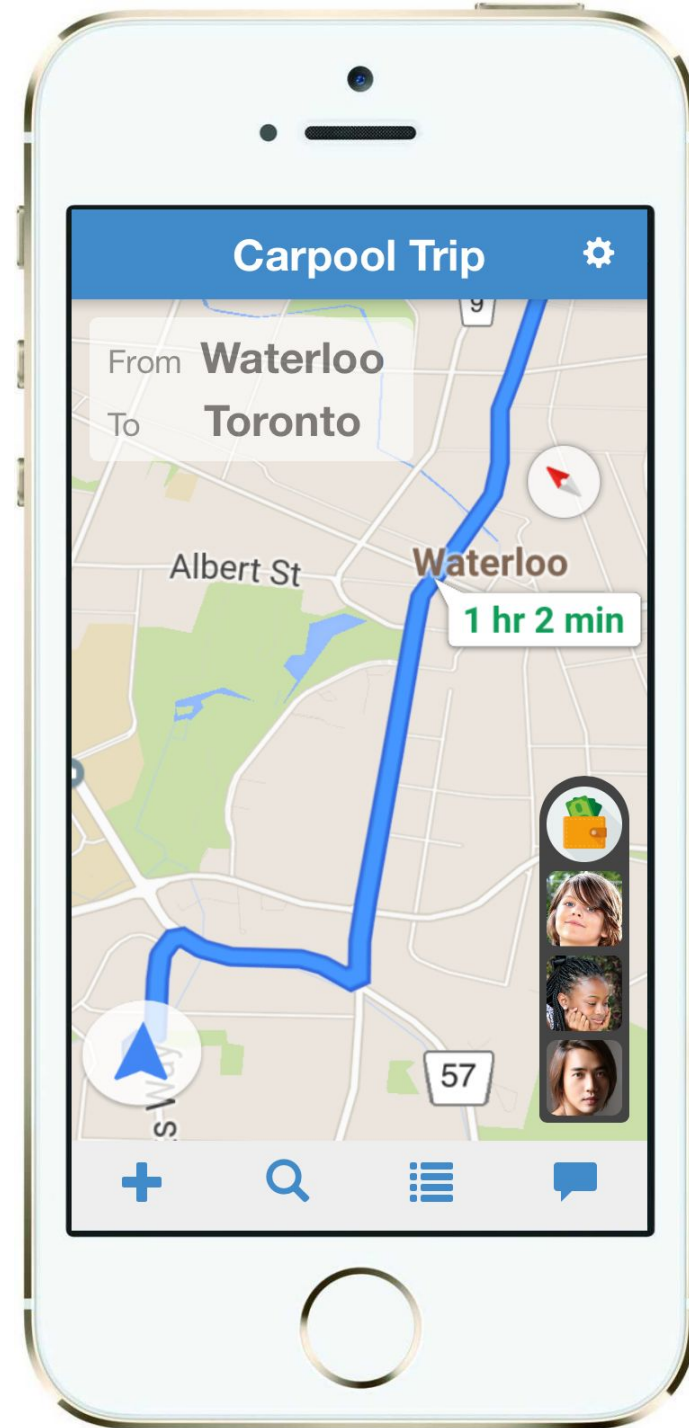
Carpool Module

- **Manage Carpool List**
- Demand List:
 - Edit demand post
 - Receive notifications
- Interested List:
 - Check, compare carpools
 - Discuss carpool details
- Confirmed List:
 - Check schedule
 - Complete carpool trip
- Drivers: Created List



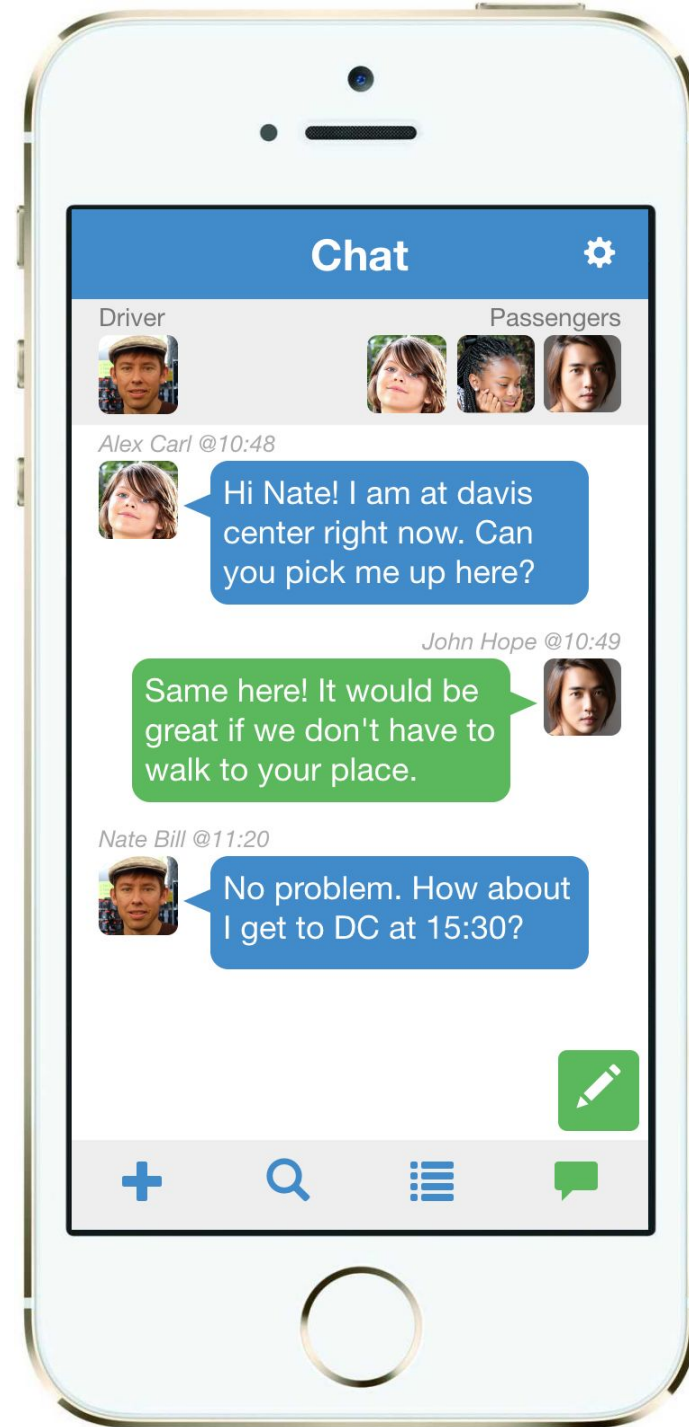
Carpool Module

- **Carpool Trip**
- Before:
 - Passengers confirm they get in the car
- During:
 - Navigate driver to destination (Google Map API)
- After:
 - Driver confirm payment
 - Passengers rate & review



Chat Module

- Automatically join real-time group chat for interested carpool postings
- Discuss details, departure time, price, pickup location, etc.
- Keep activated for attending passengers when confirmation number reaches maximum
- Optional notifications



Review Module

- Rate driver and write reviews after trips
- Serve as reference for other passengers

Thank you! 😊

— CarLOOp —
