CarPool.in

CarPool.in is a carpooling or ridesharing based social networking application that allows registered and verified users to be drivers or riders. Any body could be a rider or a driver this is what sets it apart from cab hailing companies like Uber or Lyft. Carpooling is an activity deemed towards protecting the environment. Users heading in the same direction can pair up with each other and drive each other to a mutual location thereby saving natural resources like gas and reducing air pollution.

The process is fairly simple. The app will only have one module that works as both driver and rider. For somebody who will be driving that day:
- He/she enters his starting location.
- He/she enters their destination.
- He/she enters time of departure.
- A record for this ride is created in the database and is shown to all users.
- Once a ride has been established, the driver and rider can chat from within the app and when the ride is done they can provide a rating for each other.

For somebody who needs a ride:
- He/she scans through the list of available carpools.
- Can sort based on time, leaving nearest from his/her current location, or to a specific destination.
- On selecting a carpool, a confirmation message is sent out to the driver.
- Once a ride has been established, the driver and rider can chat from within the app and when the ride is done they can provide a rating for each other.

Utilizing the Cloud:
This app will move away from the traditional REST based web services to a more robust cloud based solution called Firebase provided by Google. The advantage of using the cloud is that it is scalable and and provides a NoSQL based infrastructure for storing data. As a result, no backend team is required and app developers can build full scale apps without the knowledge of how databases and web requests work.

Sample apps in the market:
1. https://pogorides.com
2. https://poolmyride.com
3. https://www.side.cr

Login/Sign up Screen:
This screen will allow the user to login/sign up using their first name, last name, age, email address and password. On successful sign up, a verification email should be sent out to the user to confirm their registration. The user should also be allowed to login/ sign up using Facebook and Google. APIs are provided by Firebase to integrate a smooth log in process.

Carpool list:
The main screen of this app is a list that displays all the posted car pools for that day in a table view. There should be a mechanism for the user to sort by date/time, based on user's current location. On this screen, there should be a mechanism for the user to either post a carpool or request a carpool.

Posting a carpool:
A user posting a carpool must fill up a form with the following info: starting location (select from a map), destination(select from a map), starting time, car model and car color. Once a carpool has been posted, a table of requested rides that match the parameters should be displayed. On selecting a passenger, a request to the passenger should be sent to approve the driver.

Requesting a ride:
A user requesting a ride must fill up a form with the following info: starting location (select from a map), destination(select from a map), starting time. Once a ride has been requested, a table of available of carpools matching the parameters should be displayed. On selecting a driver, a request should be sent to the driver to approve the passenger.

Technologies Used:
1. Firebase Cloud for backend
2. UIKit
3. Storyboards
4. Autolayout
5. MapKit / Google Maps SDK
6. Social Media Integration
7. Foundation
8. Keychain