



JAKAA CARPOOL APP

A black and white photograph of a vintage Westfalia van driving away from the viewer on a dirt road. The van is kicking up dust. The background features a vast, flat landscape leading to a range of mountains under a cloudy sky.

A CARPOOL APP FOR THOSE
WHO SEEK FOR A RELIABLE,
SAFE, AND INEXPENSIVE
WAY TO COMMUTE IN
COMMUNITIES.

WHAT'S IN A NAME

JAKAA [‘jaka:]

“JAKAA” IN FINNISH MEANS TO
SHARE AND TO DISTRIBUTE.



LOGO DESIGN

GREEN IS A SYMBOLIC COLOR OF ECOLIFE. CARPOOLING HELPS REDUCE EMISSION AND SAVE FUEL*. THE LOGO CAN BE VIEWED AS THE “J” IN “JAKAA”, AS WELL AS A LEAF THAT IS CUT BY HALF.

* Source: U.S. Environmental Protection Agency, 2008 Sample Calculation of Emission Reductions and Fuel Savings from a Carpool Program.

PROBLEM STATEMENT





ALL ACROSS AMERICA, CAR RIDES ARE BEING TAKEN
EVERY SECOND. 76.5% OF WORKERS CHOOSE
TO DRIVE ALONE TO WORK*. MANY WHO OPT TO DRIVE THEIR
CARS OFTEN FACE AN ISSUE WITH PARKING AVAILABILITY AND
PARKING FEES. THOSE WHO CHOOSE PUBLIC TRANSPORTATION
ARE RESTRICTED ON TIME AND RUN A RISK OF BEING LATE.

* Source: U.S. Census Bureau, 2014 American Community Survey, Table S0801.

USER RESEARCH



INTERVIEW QUESTIONS

- 1.** How old are you?
- 2.** What is your occupation?
- 3.** What kind of transportation do you use to go to work or school?
- 4.** In what situation carpooling would be your option of transportation? Why?
 - Someone you are comfortable with
 - Strangers
- 5.** Which type of people would you like to carpool with? Is carpooling restricted to just one type of people? Why?
 - Someone you are comfortable with
 - Strangers
- 6.** What is your biggest concern regarding carpooling?
- 7.** If you were able to pick one key feature for a carpool app, what would it be and why?
- 7.** What would affect your choice of drivers? Why?
- 8.** How ratings and reviews would sway your opinion on allowing a driver to give you a ride?
- 9.** What do you think about a tracking system that is able to track your location and send the information to your friend, family or the police while carpooling?
- 10.** What do you think about a carpool app served as a networking platform for you to make connections with drivers who you trust and those who are regularly on routes that you often use?
- 11.** If you own a car, what would motivate you to be a driver for the carpool app?
- 12.** Did you ever use a carpool app? If so, what do you think about it?

PERSONA





MARY C.

Age: 21

Occupation: Student

Transportation: Bus/Walk

Location: East Lansing, MI

IMPORTANT FACTORS

Time-efficient



Cost



Safety



Networking



BIO

Mary is a full-time college student who lives off-campus. She has classes on Monday through Friday every week, and volunteers for a non-profit organization in the downtown area during the weekends. She takes buses to the classrooms every weekday. However, the buses are not always on time. She has ever waited for a bus for over 20 minutes. The bus service is limited during weekends, so usually she has to wait about 40 minutes for a bus to go home from the downtown. She just moved in a new community hoping make new friends nearby. She never used a carpool app before.

GOALS AND NEEDS

- Wants to find an alternative transportation that is time-efficient, cheap and safe
- Wants to have a platform providing the opportunity of making friends with the people in the same community

FRUSTRATIONS

- Mary struggles with the inflexibility of taking buses
- She is tired of taking late buses again and again
- She feels insecure when carpooling with strangers, especially males



JAKE K.

Age: 24

Occupation: Web Designer

Transportation: Auto

Location: Detroit, MI

BIO

Jake is a professional graphic designer living in the city. He works 8 a.m. to 5 p.m. and drives 20 minutes to work every weekday, but it usually takes him more time to drive back home due to traffic congestion. He often car pools with his friends to take side trips during the weekends. He likes communicating with other people during the trips.

GOALS AND NEEDS

- Wants to make friends with locals through carpooling
- Wants to carpool with people who live nearby

IMPORTANT FACTORS

Time-efficient



Cost



Networking

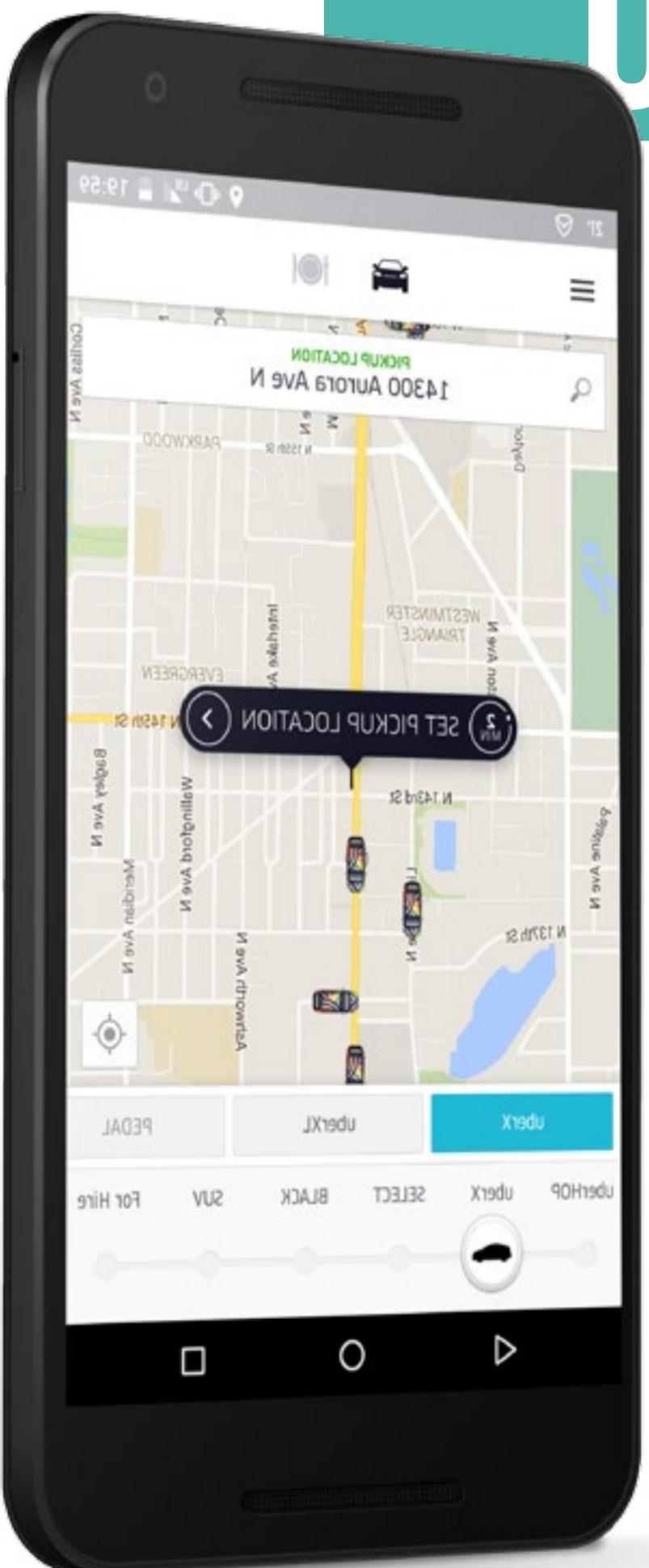


FRUSTRATIONS

- Jake doesn't want to spend too much time on waiting for a ride
- He feels impatient if he needs to accommodate more than two people's routes in one trip



COMPETITIVE ANALYSIS



UBER

PROS:

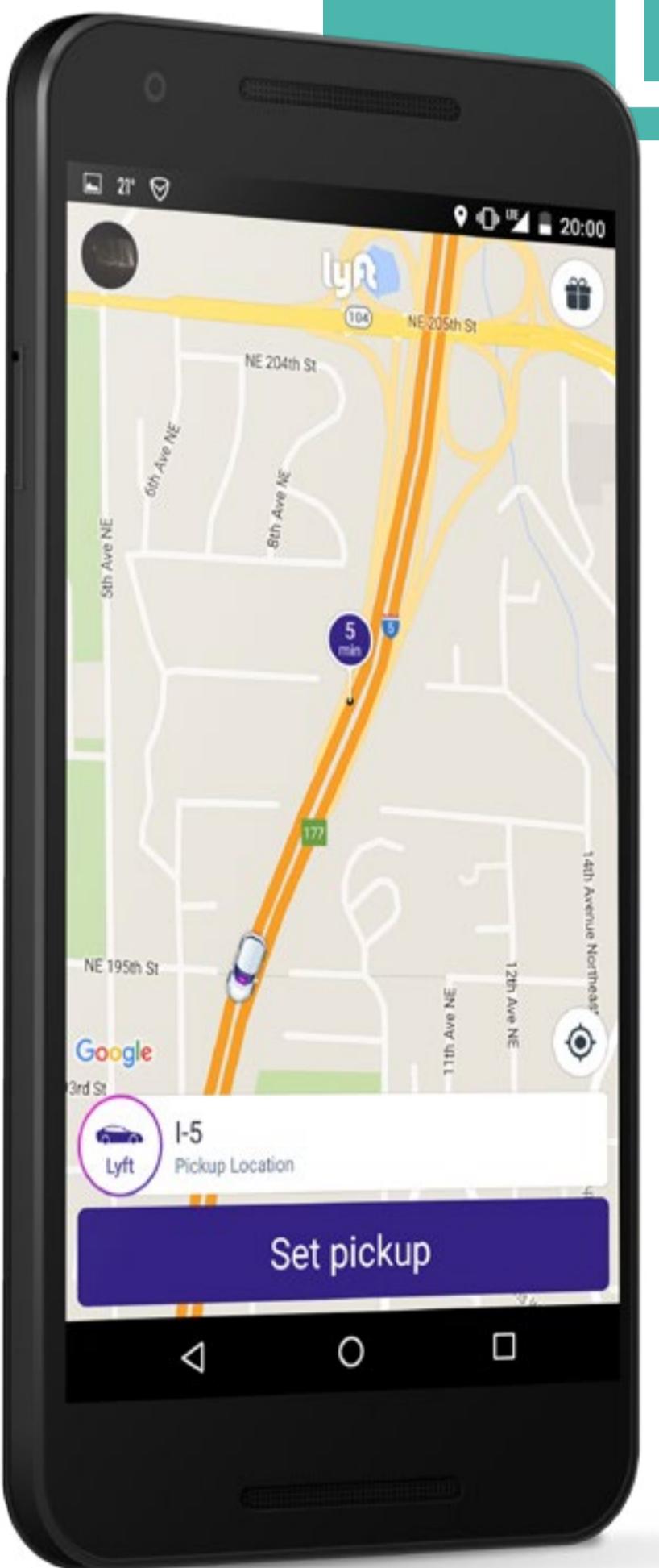
- Recognizable
- UI is clean and easy to use
- Can choose types of cars
- Accurate driver arrival indicator
- Display of total estimated expenses

CONS:

- No additional networking opportunities
- No detailed driver profiles and reviews
- Can not select drivers

	YES OR NO?
NEED ACCOUNT?	YES
DRIVER PROFILES?	NO
DRIVER REVIEWS?	NO
RATING SYSTEM?	YES
SELECT DRIVERS?	NO
TRACKING SYSTEM?	YES
NETWORKING SYSTEM?	NO
TIPS FOR DRIVERS?	NO
RIDE HISTORY?	YES
FREE RIDES?	YES*
VIEW CURRENT PASSENGERS?	NO

*CONDITIONS APPLY



LYFT

PROS:

- Trustworthy
- Customized profiles
- Larger images of drivers and their vehicles
- Informative display of estimated expenses
- Tips for drivers

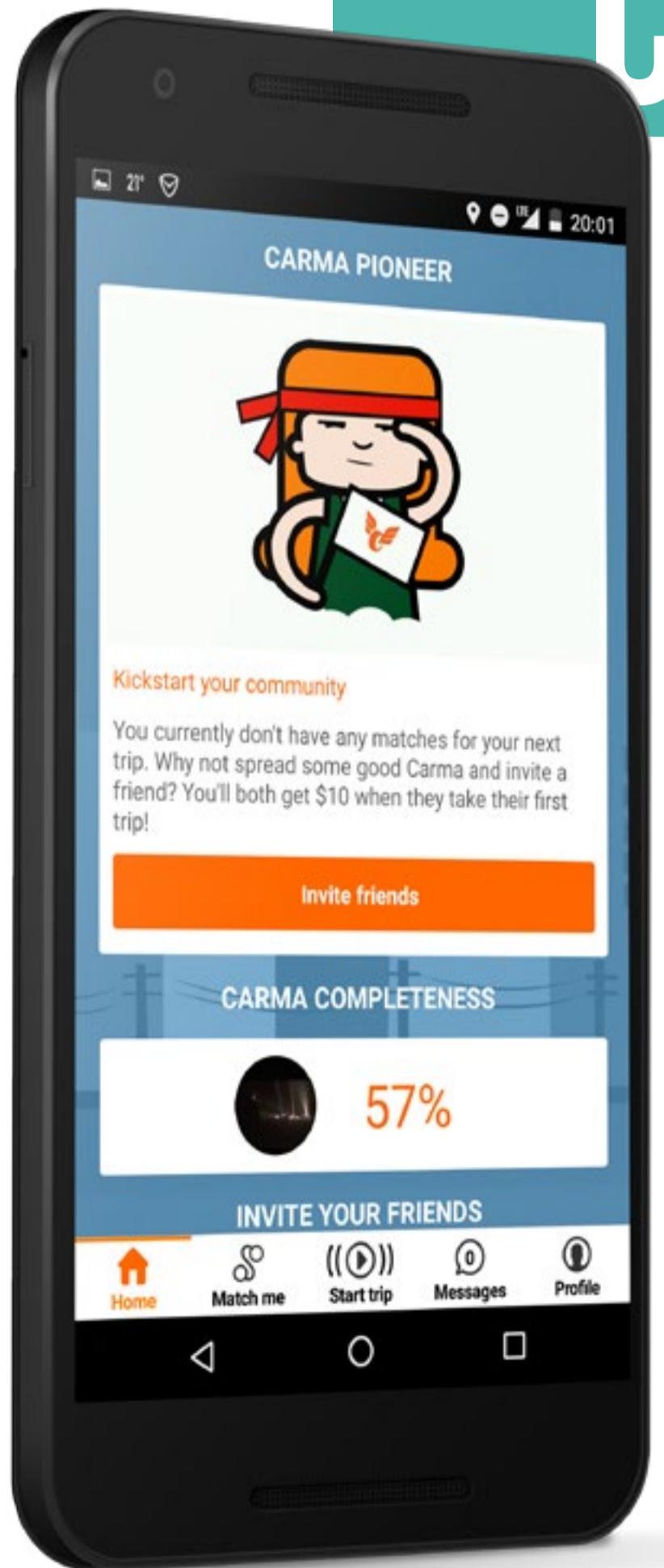
CONS:

- Inaccurate GPS pin placement
- Limited choice of types of cars
- No additional networking opportunities
- Can not select drivers

	YES OR NO?
NEED ACCOUNT?	YES
DRIVER PROFILES?	YES
DRIVER REVIEWS?	NO
RATING SYSTEM?	YES
SELECT DRIVERS?	NO
TRACKING SYSTEM?	YES
NETWORKING SYSTEM?	NO
TIPS FOR DRIVERS?	YES
RIDE HISTORY?	YES
FREE RIDES?	YES*
VIEW CURRENT PASSENGERS?	NO

*CONDITIONS APPLY

CARMA CARPOOLING



PROS:

- Schedule management
- Cheap
- Commute preferences
- Can join and create groups

CONS:

- Limited services in some areas
- Clunky UI, hard to navigate
- Relatively Small user base

	YES OR NO?
NEED ACCOUNT?	YES
DRIVER PROFILES?	YES
DRIVER REVIEWS?	NO
RATING SYSTEM?	YES
SELECT DRIVERS?	YES
TRACKING SYSTEM?	YES
NETWORKING SYSTEM?	YES
TIPS FOR DRIVERS?	NO
RIDE HISTORY?	YES
FREE RIDES?	YES*
VIEW CURRENT PASSENGERS?	YES

*CONDITIONS APPLY

RESEARCH FINDINGS & PROPOSED FEATURES



We interviewed 10 individuals, took pictures, and recorded our conversations. Our findings shed light on what our users want. Security is the primary concern of most of the interviewees. They also sought for groups sharing destinations and routes for carpooling. Additionally, they suggested having tipping systems for easy money exchange.

★ RELIABLE

RATING SYSTEM

Hold people accountable for their actions and to give users a sense of the security with good rated people.

NETWORKING SYSTEM

By forming community groups people will have an easier time finding other people who share same routes and destinations.

📍 SAFE

TRACKING SYSTEM

Help users feel more secure and is convenient to see where possible rides are.

WINDSHIELD STICKERS

Help users easily recognize the car that is picking them up, as well as other users of the app.

💰 INEXPENSIVE

TIPPING SYSTEM

It is optional for users to pay for drivers*. User can choose to send tips to drivers.

* Drivers will get coupons of selected stores and compensation from sponsors and Jakaa. Jakaa aims to make the carpool service affordable for a wide range of users.

PROPOSED FEATURES

ESSENTIAL

LOW
EFFORT

HIGH
EFFORT

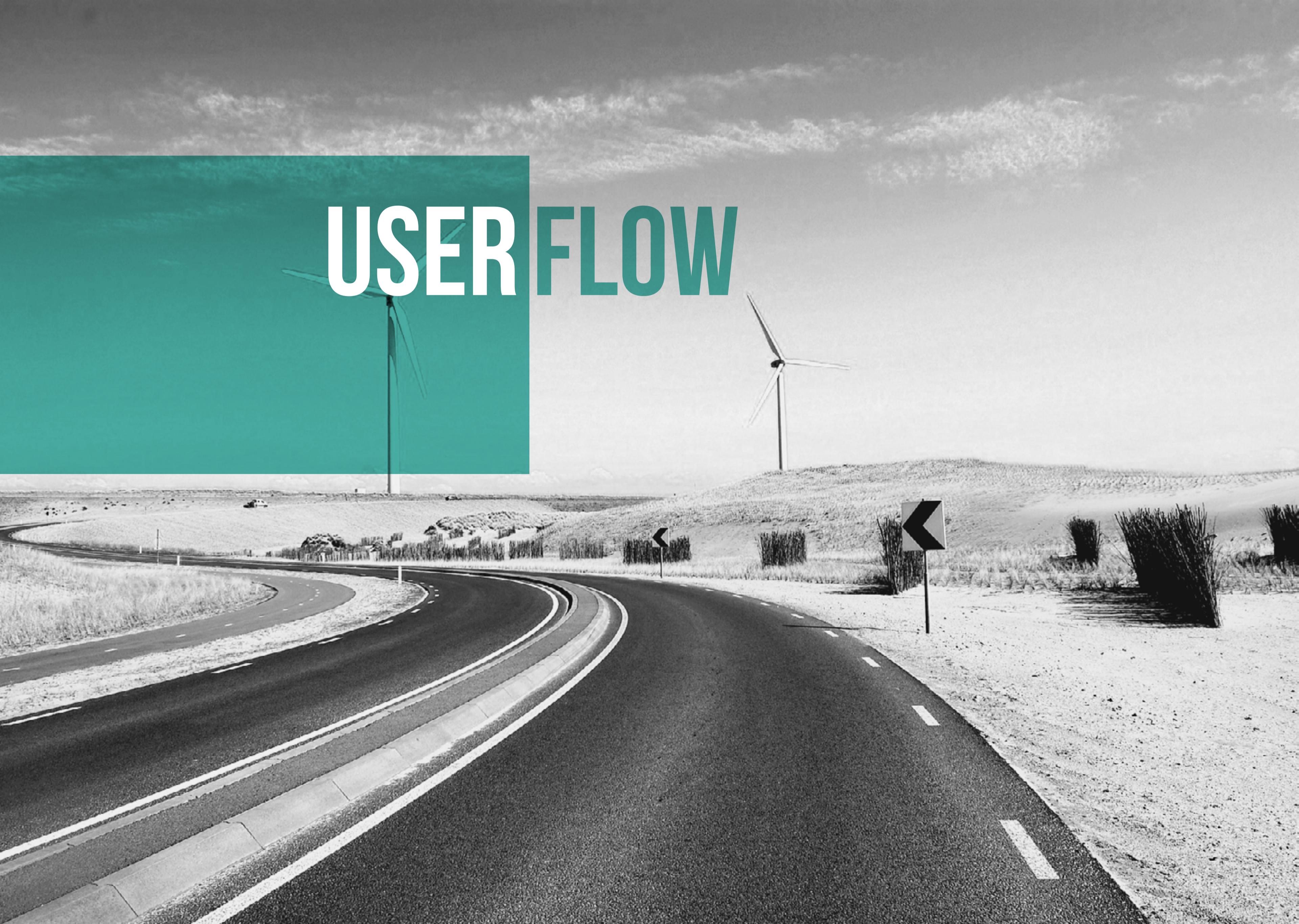
NICE TO HAVE

- Request a ride on the map
- Select a driver
- Contact a driver
- View driver profiles and reviews
- View car models and plate numbers
- View current passengers in a car
- Rate drivers
- Cancel a ride
- Enable location
- Track location
- Login
- Create an account
- Write reviews for drivers

- Send location
- Send tips to drivers
- Search and add communities/friends
- Request a ride through communities/friends
- My account (my photos, payment, history, and feedback)

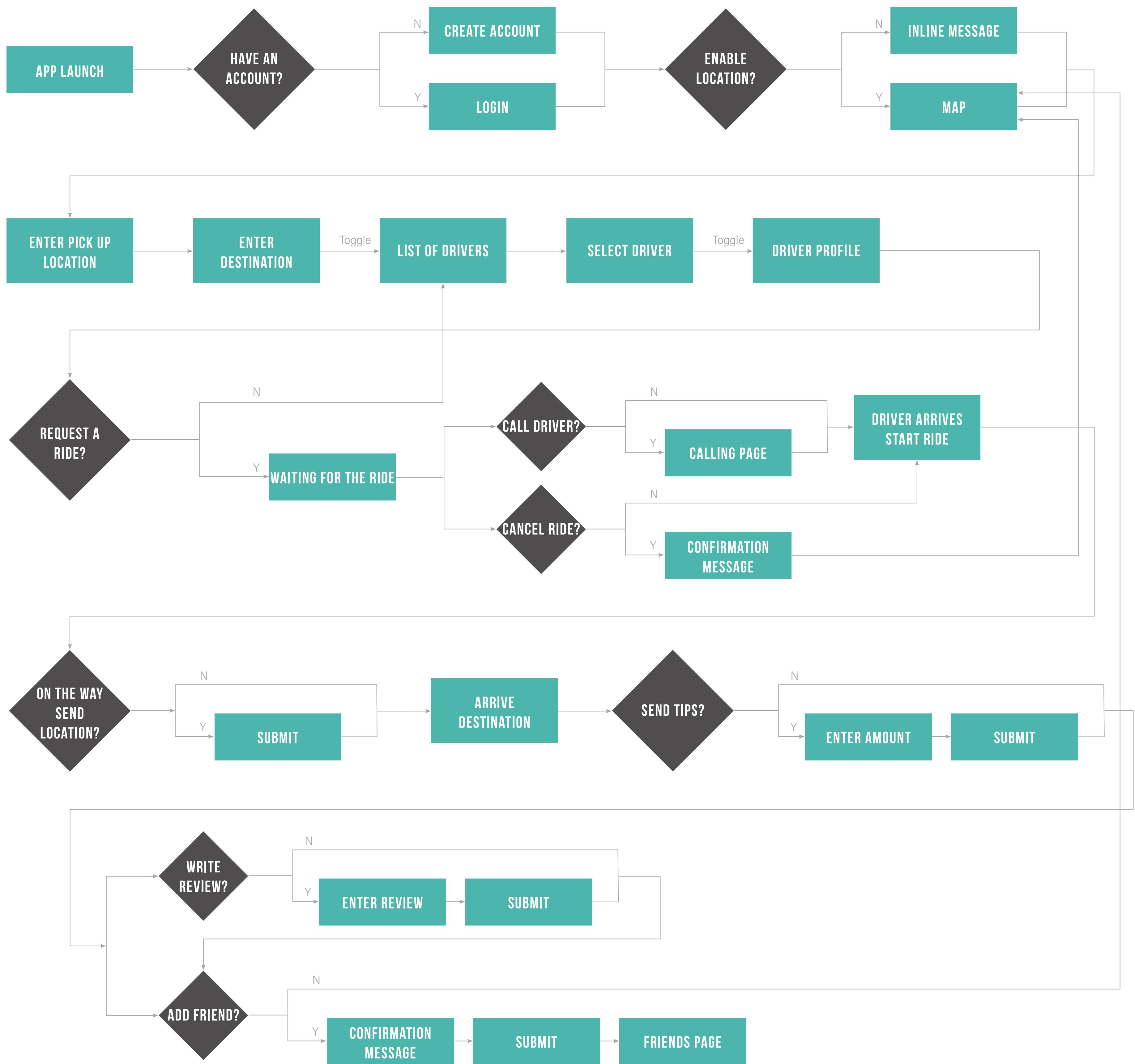
- View communities that a driver joins
- Add awards for good rated drivers
- Invite friends
- Redeem coupons
- Logout
- Self-started guide
- Add drivers as friends
- Block or delete communities/friends

- Create communities
- Import contacts from personal phone book and social media account
- Set up a pick up time when requesting a ride through communities/friends

A black and white photograph of a winding road through a coastal landscape. The road curves from the bottom left towards the center of the frame. In the background, there are several wind turbines on hills. The sky is filled with clouds. A large, semi-transparent teal rectangle is positioned in the upper left corner of the image, containing the text "USER FLOW".

USER FLOW

USER FLOW



SITE MAP



APP LAUNCH

LOGIN

SIGN UP

MAP

COMMUNITIES

FRIENDS

REWARDS

SETTINGS

SEARCH
COMMUNITIES

SEARCH
FRIENDS

INVITE
FRIENDS

ACCOUNT

ADD
COMMUNITIES

ADD
FRIENDS

REDEEM
COUPONS

PAYMENT

REQUEST RIDES

REQUEST RIDES

HISTORY

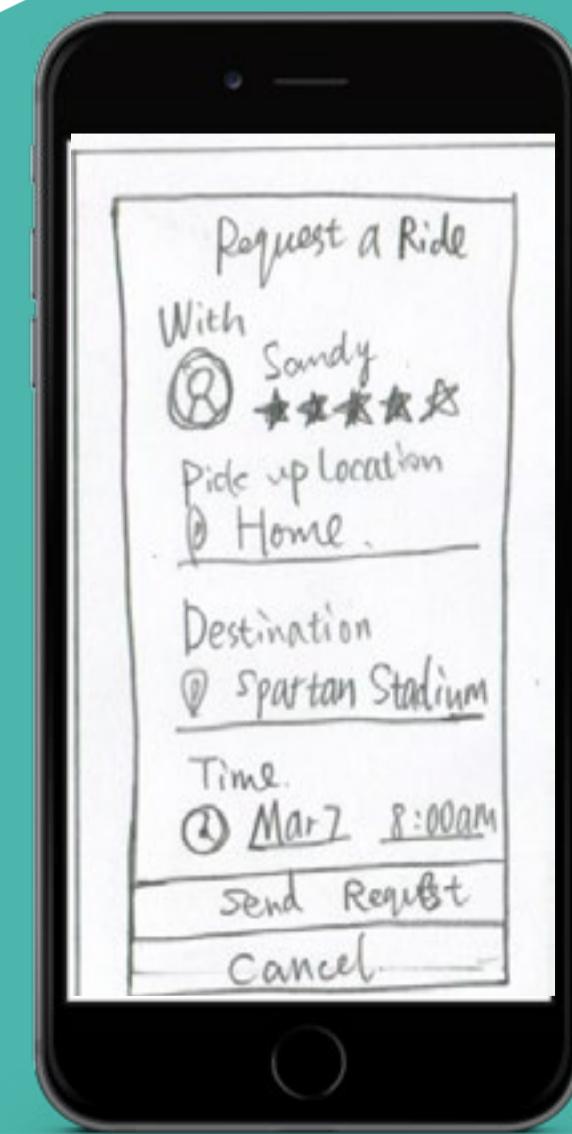
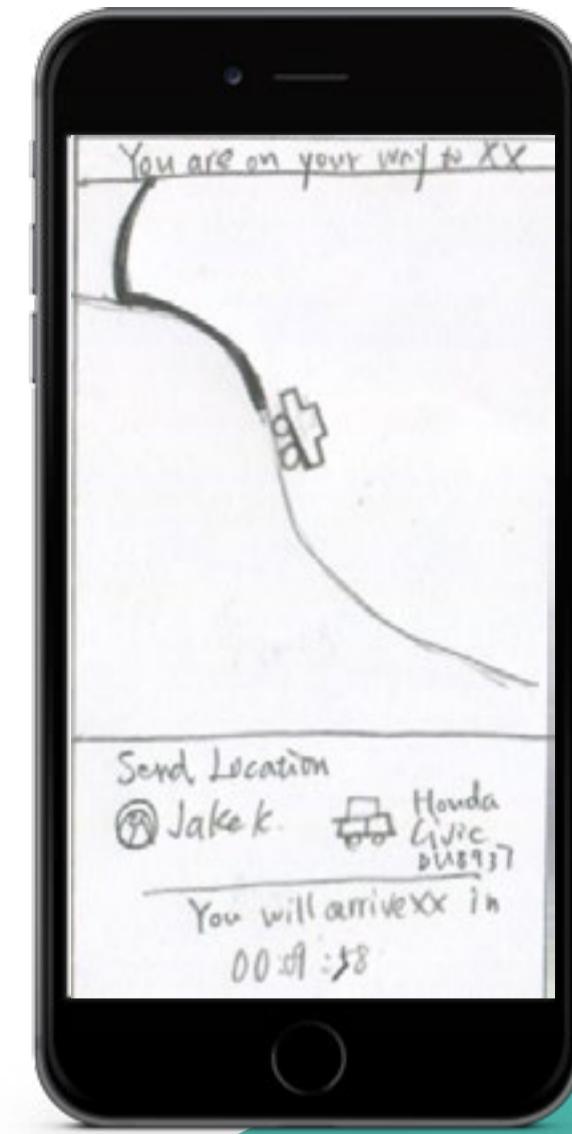
HELP

FEEDBACK

LOGOUT

LO-FI WIREFRAMS







PROTOTYPING

LO-FI PROTOTYPE



USABILITY TESTING



I used the lo-fi prototype I created on proto.io to conduct a usability testing on our HCI Experience Design class. The test included user tasks and brief interviews.

USER TASKS

- Request a ride using the map
- Write a review for the driver
- Add the driver as friend
- Join a community and request a ride from one group member

QUESTIONS

- What did you find frustrating when using the prototype?
- What do you like about the prototype?
- Is anything missing?
- What other functions that you'd like to add?

FEEDBACK

"It's kinda easy to request a ride, but what should I do after sending tips?"

"I like how clean the interface is. I think it would be better if I could send my location to my friends or family."

"It's nice to have the communities, which makes it easy to connect with people who live in the same neighborhood. It would be nice if I could schedule a ride with someone that I have connections with."



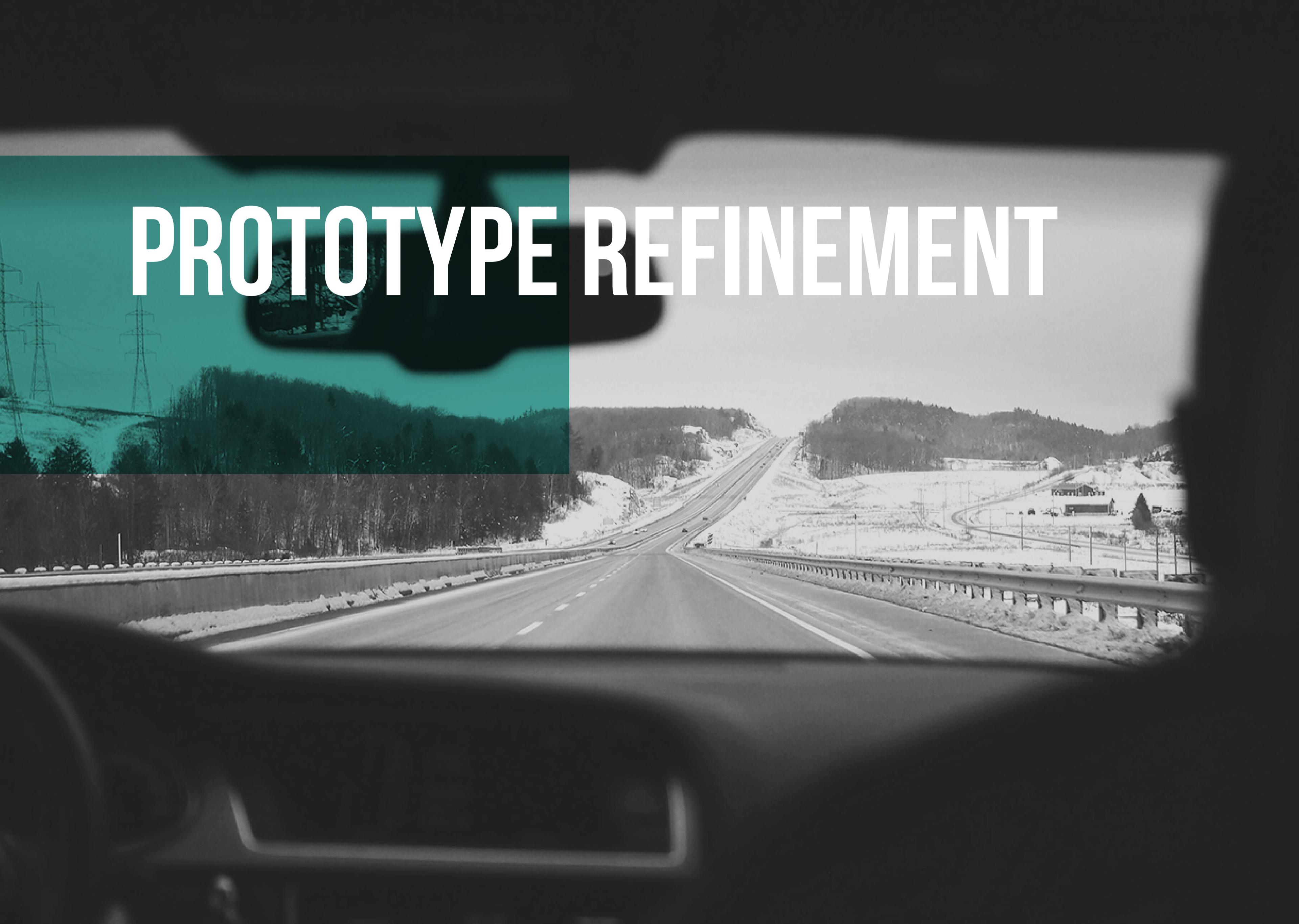
PROBLEM

This lo-fi prototype is not intuitive enough. There is no back button if users want to add the driver as friend after writing a review. A confirmation button and message are missing when users send tips. Several screens are also missing.

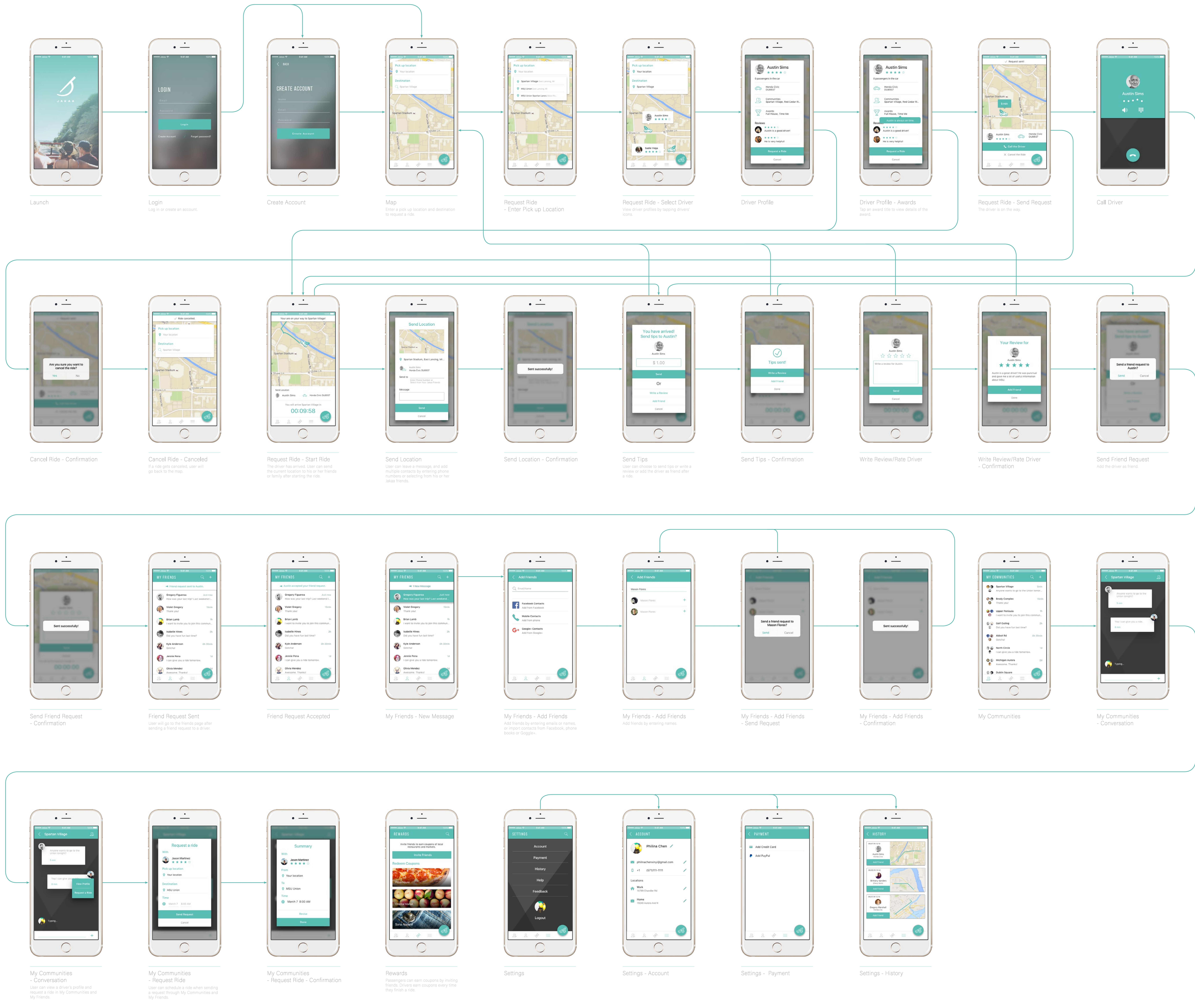
SOLUTION

Add missing buttons and screens. Introduce the function of sending locations to users' friends or family, and scheduling rides through the pages of My Communities and My Friends.

PROTOTYPE REFINEMENT



VISUAL FLOWCHART





VIEW INTERACTIVE PROTOTYPE AT
[HTTPS://INVIS.IO/R66Y7PSZ5](https://invis.io/R66Y7PSZ5)



THANK YOU.