



ride**amigos**CORP.  
connecting people, one way or another

# The Quantified Commuter Project

## Design Proposal

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## Goal of Re-Design:

We aim to address the 3 primary goals of the challenge based on our understanding of Rideamigo's user needs and behavior as well as the current system to improve the logging experience.

## Design Research:

- We used the current websites to gain understanding of how it can be used.
- We read the FAQ section to obtain knowledge on the source of data the system is using, the recommended ways to log trips for a variety of scenarios.
- We looked into online resources related to trip chaining.
- We analyzed the needs and behavior of the 4 persona.
- We conducted user testing to 2 people and iterated the design over 4 versions.

## Clarification of concepts:

### - *Trip*

A trip is a single mode trip with a starting and an ending location. The plus sign on the trip line represents adding a new trip and each trip takes the form of an equal length capsule instead of a circle/dot. This is a design decision to prevent distorted visual proportion problems. If the plus sign represents adding a new location, the trip line becomes a location line, there is a tendency that users will expect two location points closer to each other or far away from each other depending on

the distance of two locations. Similarly, if the plus sign represents a new departure time, the trip line becomes a time line, users might expect two time points closer to each other or far away from each other depending on the logged time. In either case, the proportion creates misleading representations. The equal length capsule has no proportion problems, and each capsule represent a trip of equal importance, we believe they best describes the common mental model of a trip log.

### - *Trip chaining*

We found that people have different understanding of trip chaining, which might lead to incorrect trip logging data. To avoid such confusion, we decided to leave the question whether it should be counted as a trip chain or not to users. We believe by allowing users themselves to decide whether he/she adopted trip chaining is the most effective way to encourage trip chaining behavior in the long run. We do not recommend using a computer algorithms to calculate trip chaining saved miles, because it fails to inform users the real intention of encouraging trip chaining. We want our design to encourage users to become more mindful commuters who plan their trips ahead.

### **We addressed the 3 primary goals of the challenge:**

#### *- Improved trip logging experience*

One single trip logging platform for multiple trip logging scenarios, covering logging single trip, trip chaining and multi-modal trip logging.

#### *- Incorporated trip chaining logging*

Users can log trip chaining by inserting one or more stops on the trip line.

#### *- Enhanced editing of trip logs*

Users can edit of trip logs by clicking/tapping each trip of the day (edit & delete), and access other days using a calendar.

### **We also addressed incentives, location capture, and multi-modal trip logs in our design:**

#### *- Incentives*

We redesigned the dashboard to emphasis users' accomplishments to encourage more trip logging. In addition, we created a new measurements "green miles": non-SOV miles + trip chaining saved miles, to represent a user's achievement by using the trip logging feature.

#### *- Location capture*

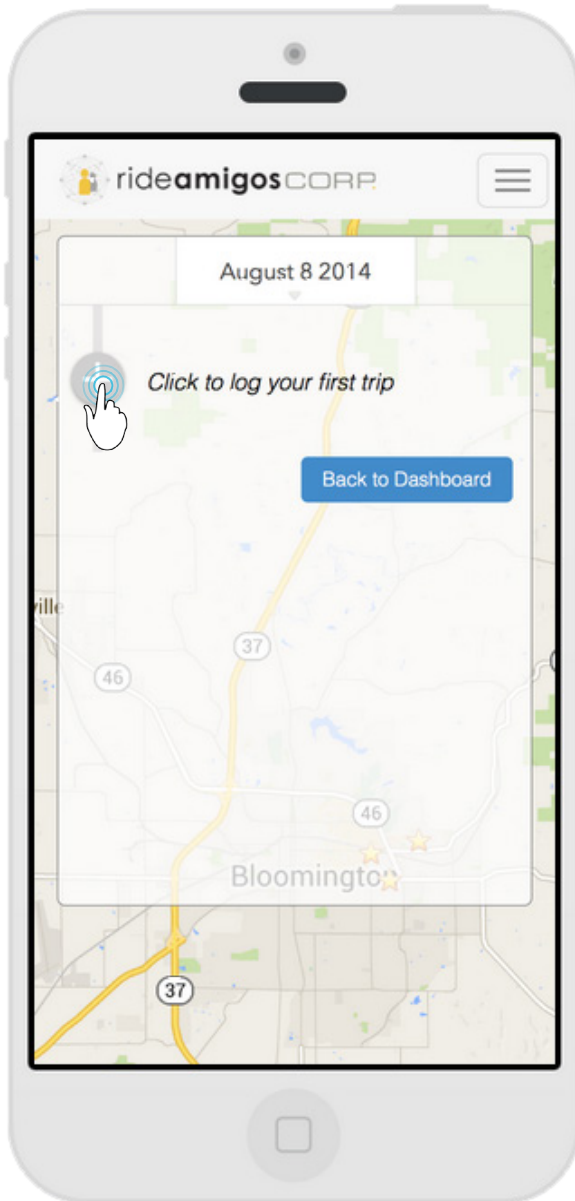
Users can choose to input either the locations of "from...to...", or the distance of a trip (they are mutually exclusive, e.g. we can calculate the distance if users input location data). Users are not required to input location info. After users type a location for the first time, they can save it right then and there for future use.

#### *- Multi-Modal trip logs*

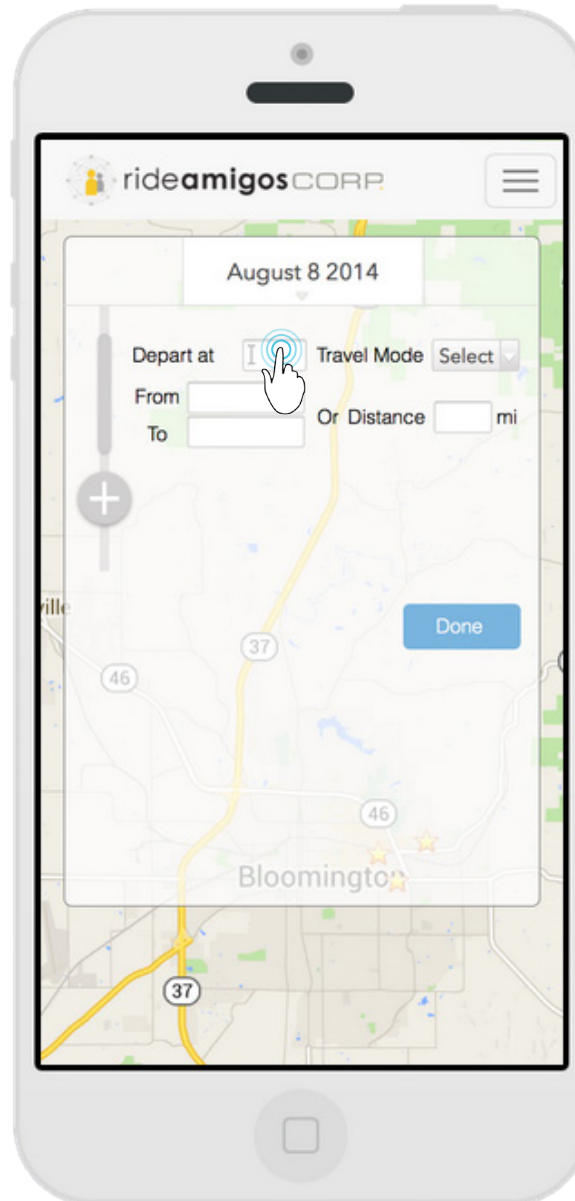
This problem depends on how we define a trip. A multi-modal trip happens when we define a trip as a single purpose trip with several stops. In our design, a trip is a single mode trip with no stops in between. When users think about logging a day's travel journey, they will not analyze the trip first (e.g., it is a round trip, it is multi-modal trip), from our interviews they start from thinking about the locations they stopped that can be counted as a starting or ending point of a trip, the duration and the mode of a trip. In our design, users do not need to think about multi-modal logging.

# **Mobile Experience Walkthrough**

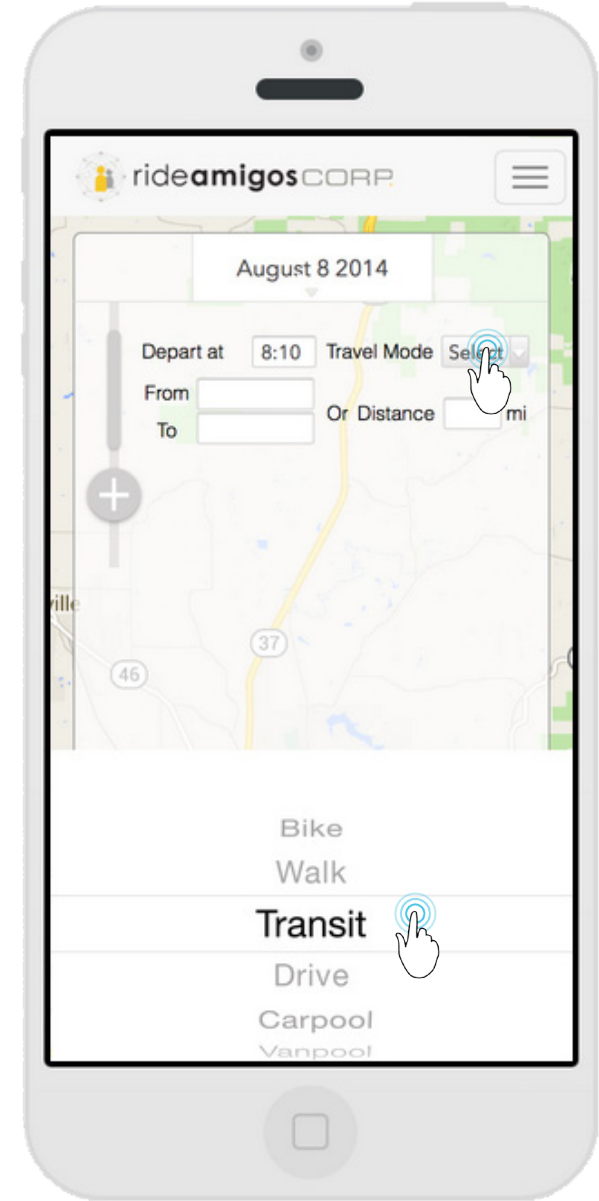
Jason starts to log in today's trips, he first sees a blank page with hint asks he click the plus button.



Once he clicks the plus button, a blank logging section appears. He types in his departure time in "Depart at" box.



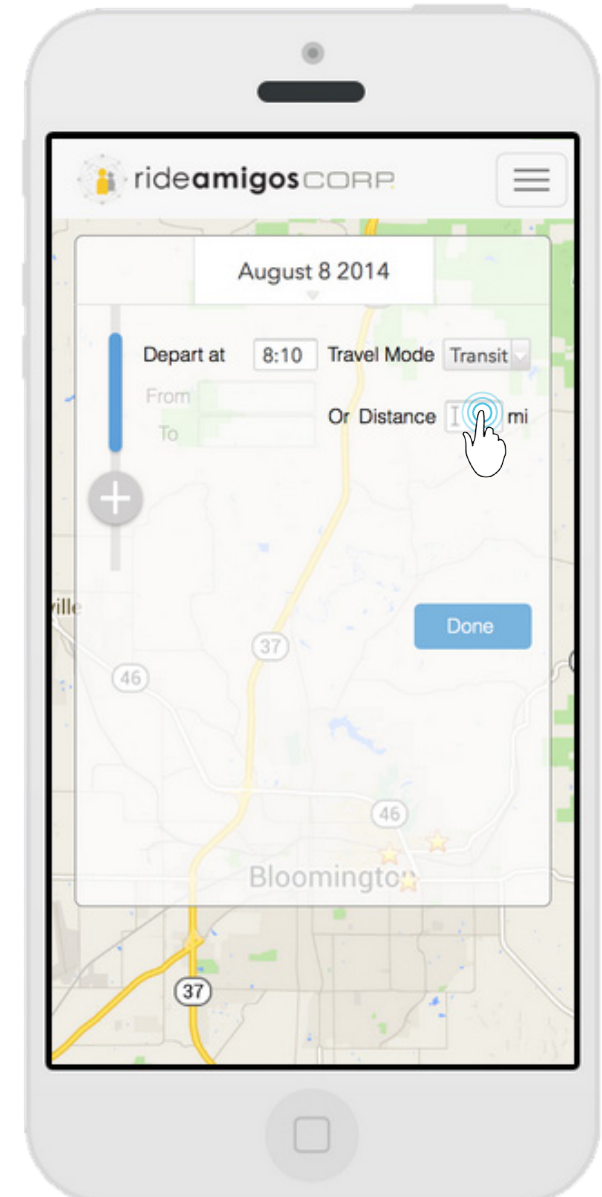
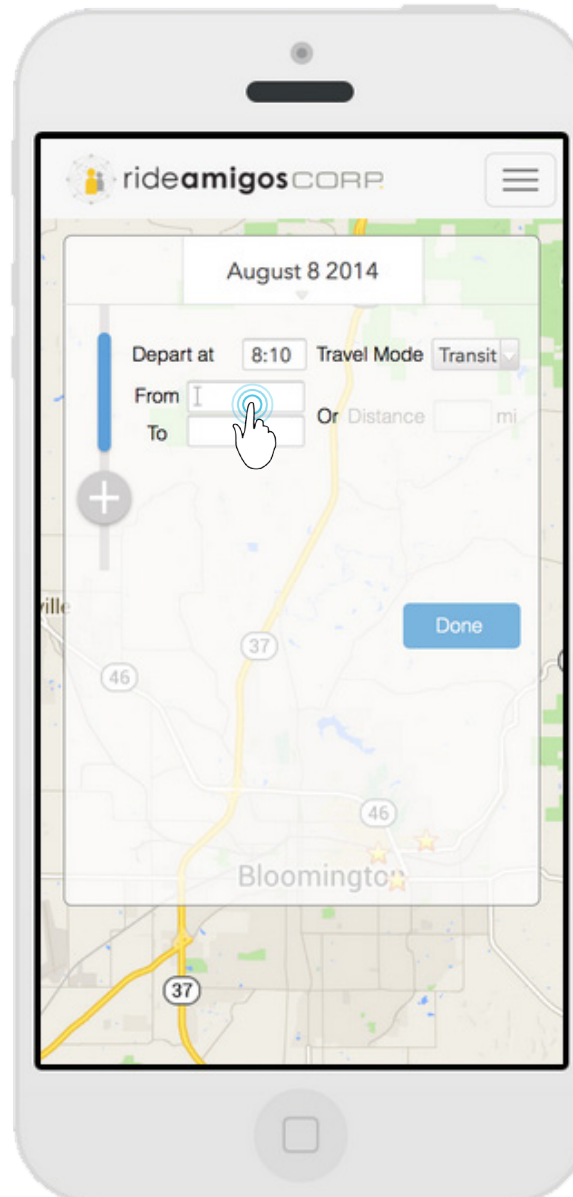
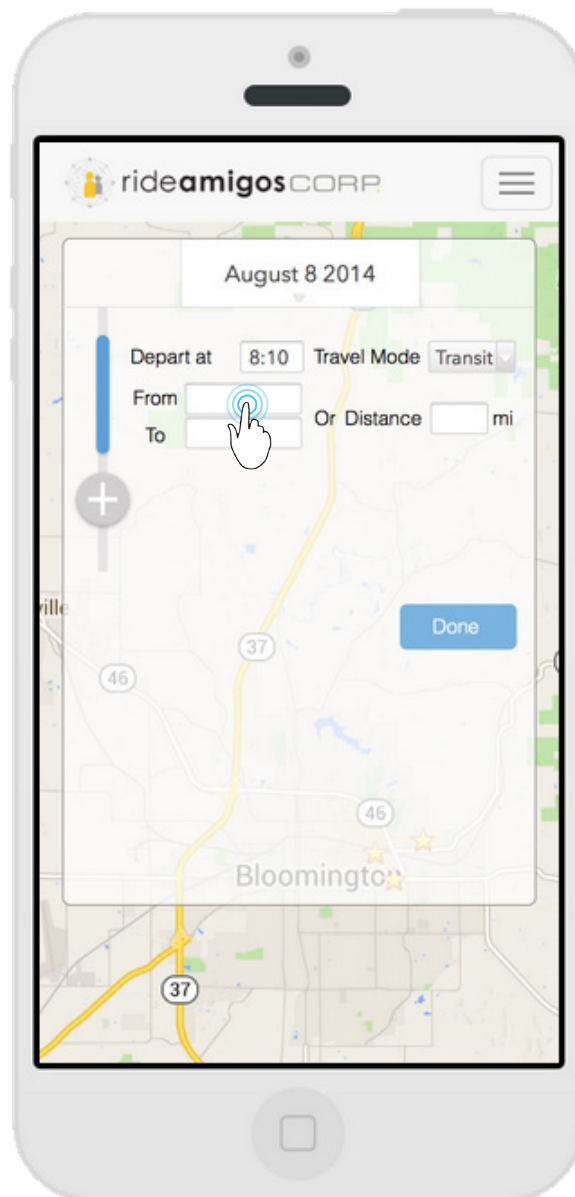
Then he clicks the drop-down menu to select "Transit" as the trip mode.



Then he sees there are two ways he can record the path: entering actual locations or just the distance.

When he clicks "From" box, there is a cursor appears, and the "Distance" box dim down.

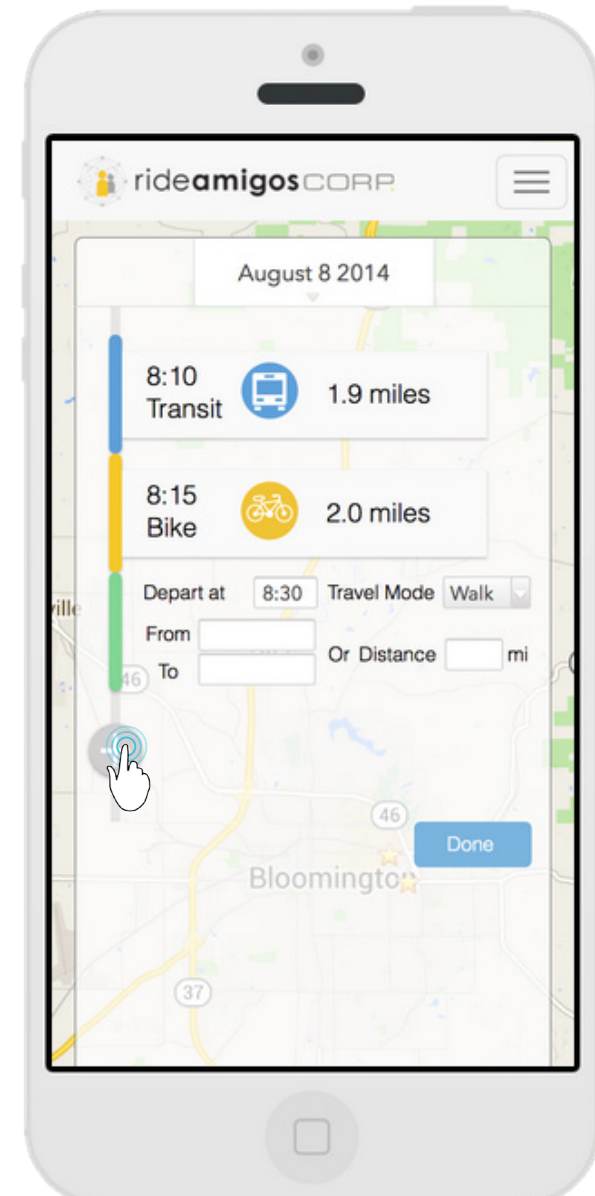
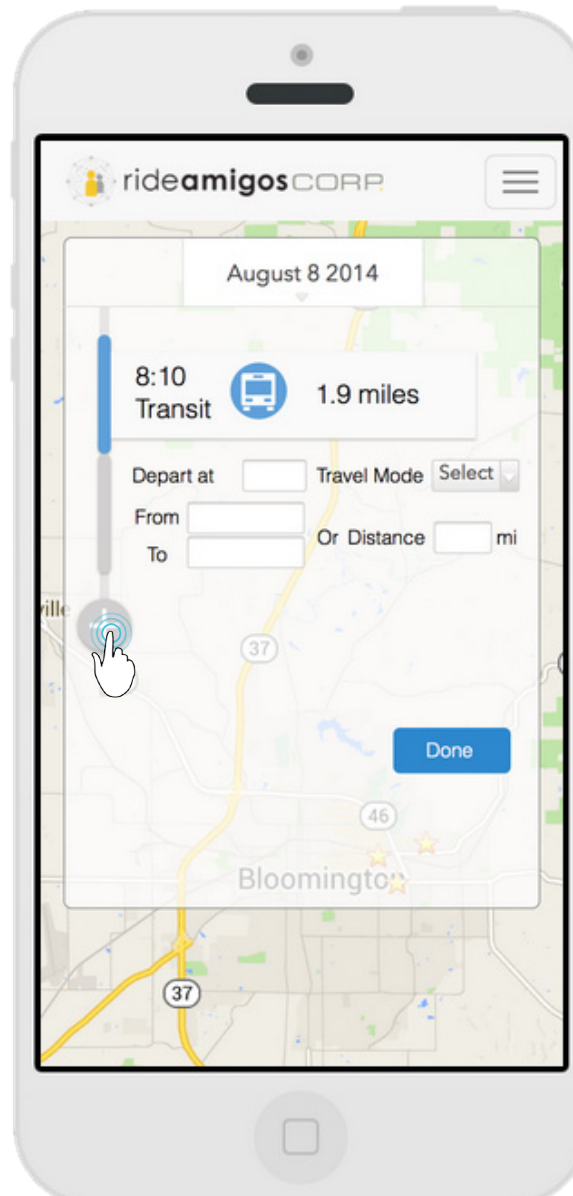
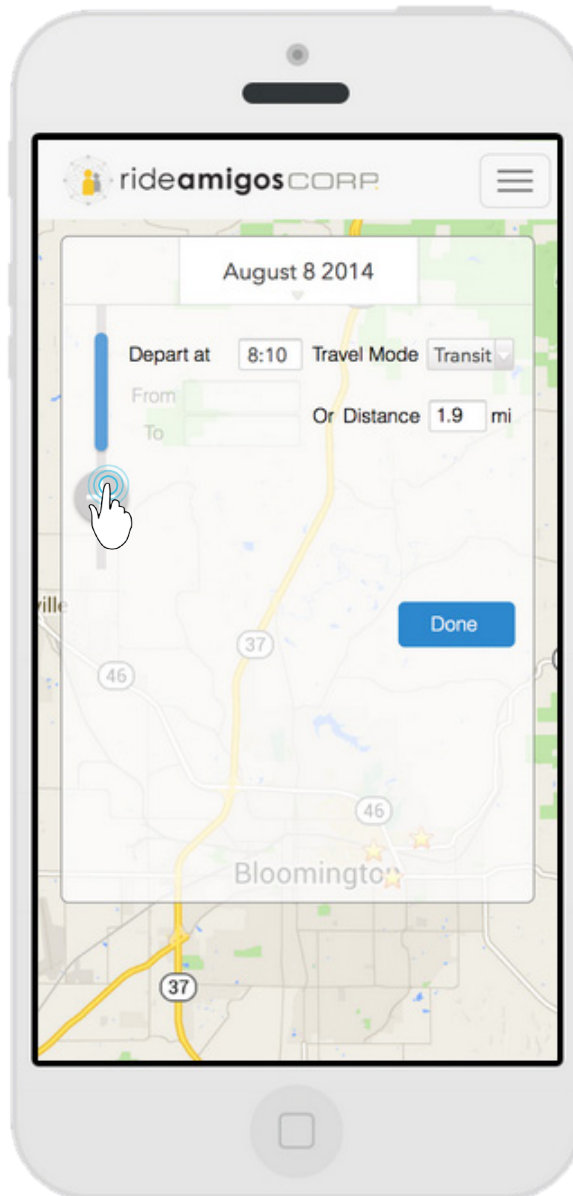
Similarly, when he clicks the "Distance" box, the "From/To" boxes dim down.



Since he doesn't want to disclose his home address at this time, he chooses to enter the distance.

Once he finishes logging first trip, he clicks the plus button again, and a second logging section appears.

He keeps logging two other new trips in similar way. While for the third trip he wants to enter accurate locations.

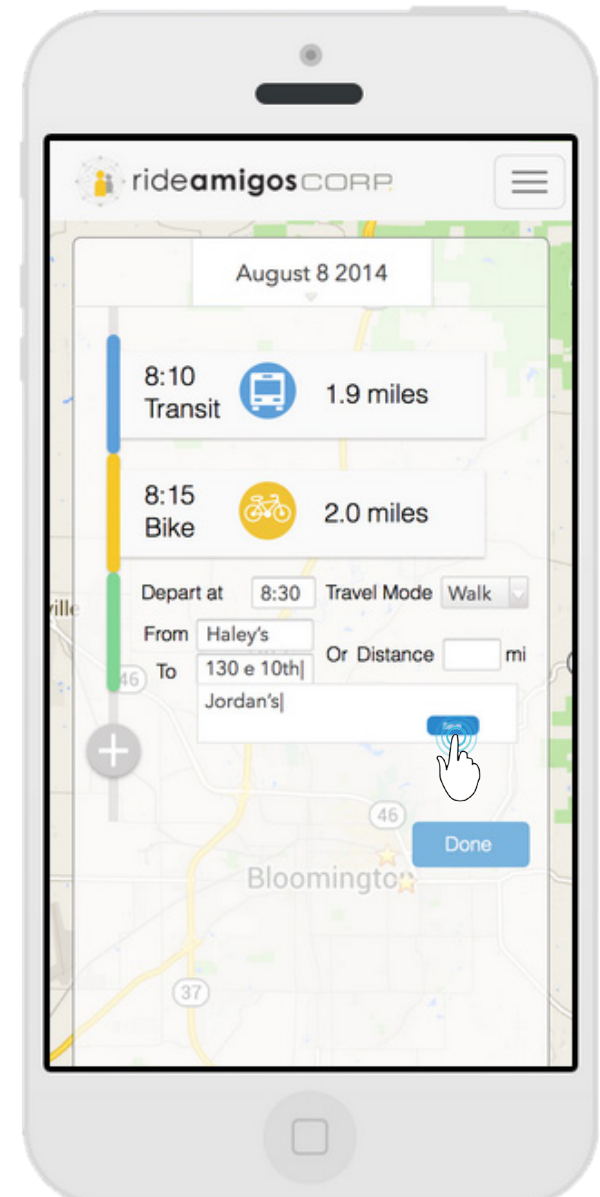
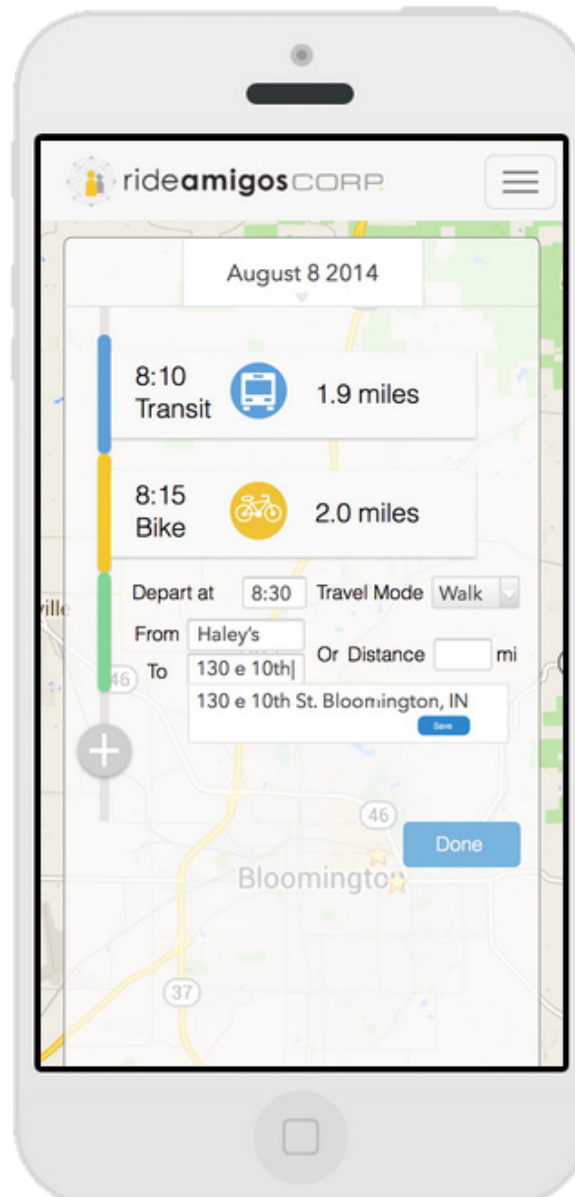
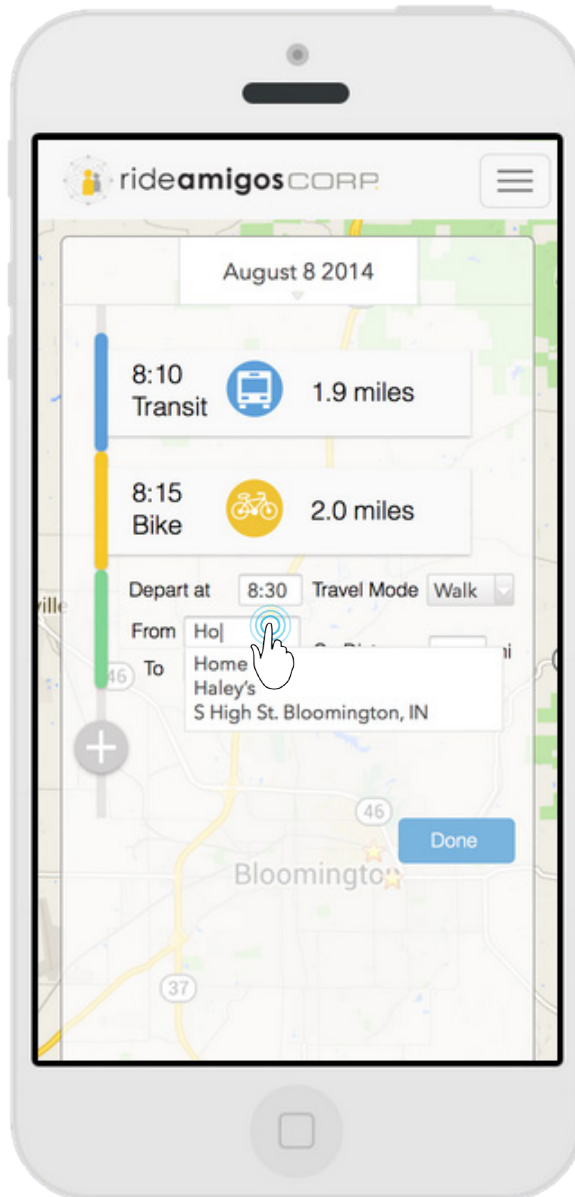




Once he starts to type, some saved addresses he used pops up.

When he enters a new destination, the system asks him if he wants to save it.

So he names it as "Jordan's" and clicks "Save", which he can use it next time.

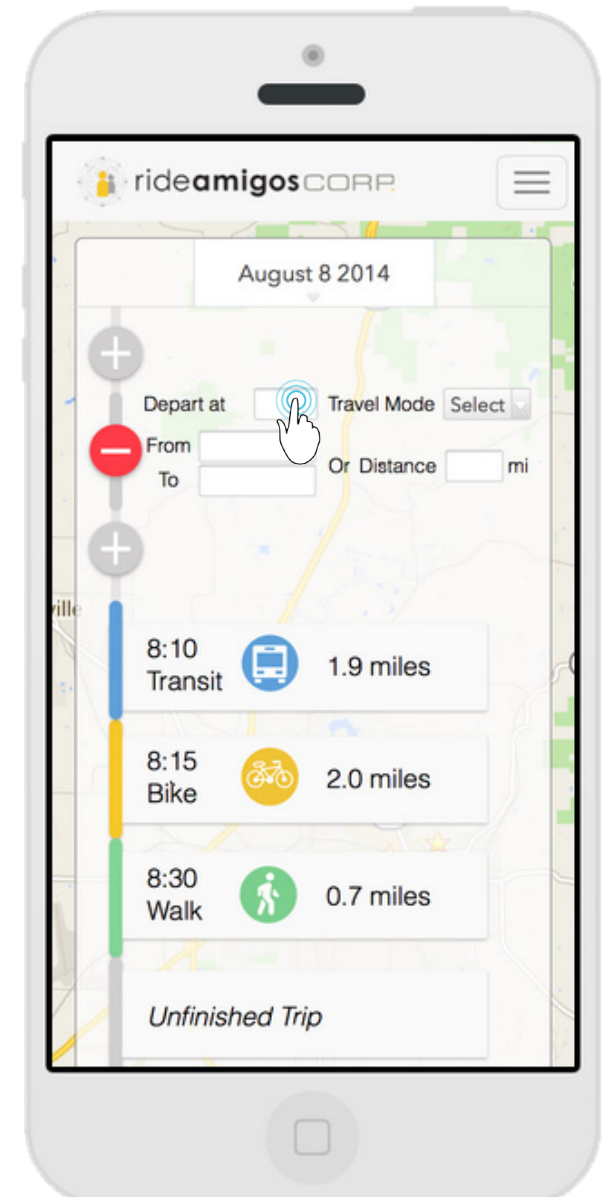
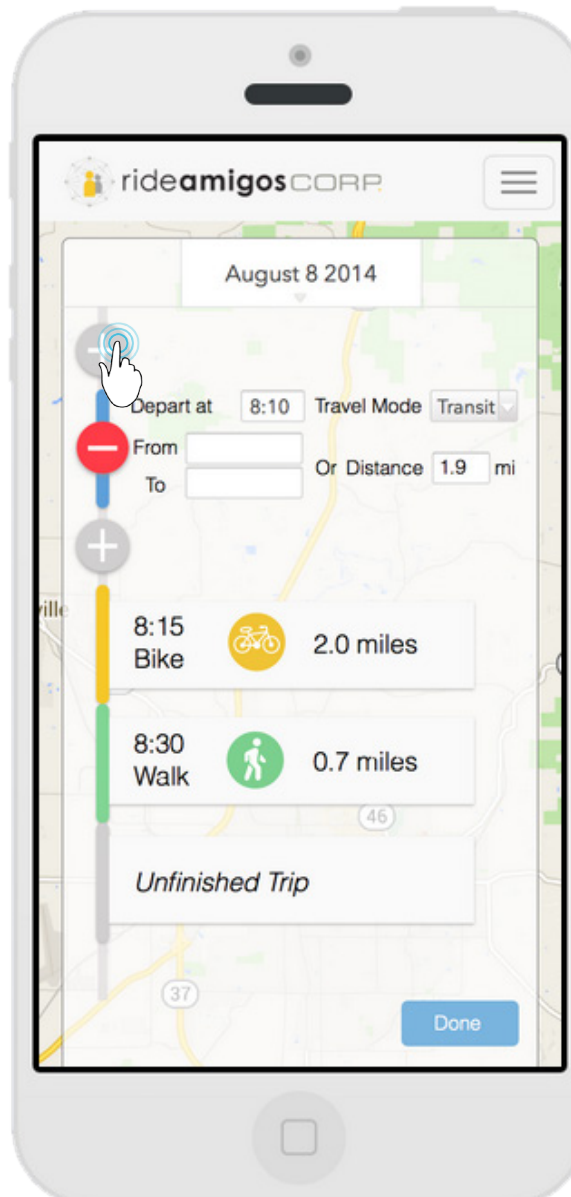
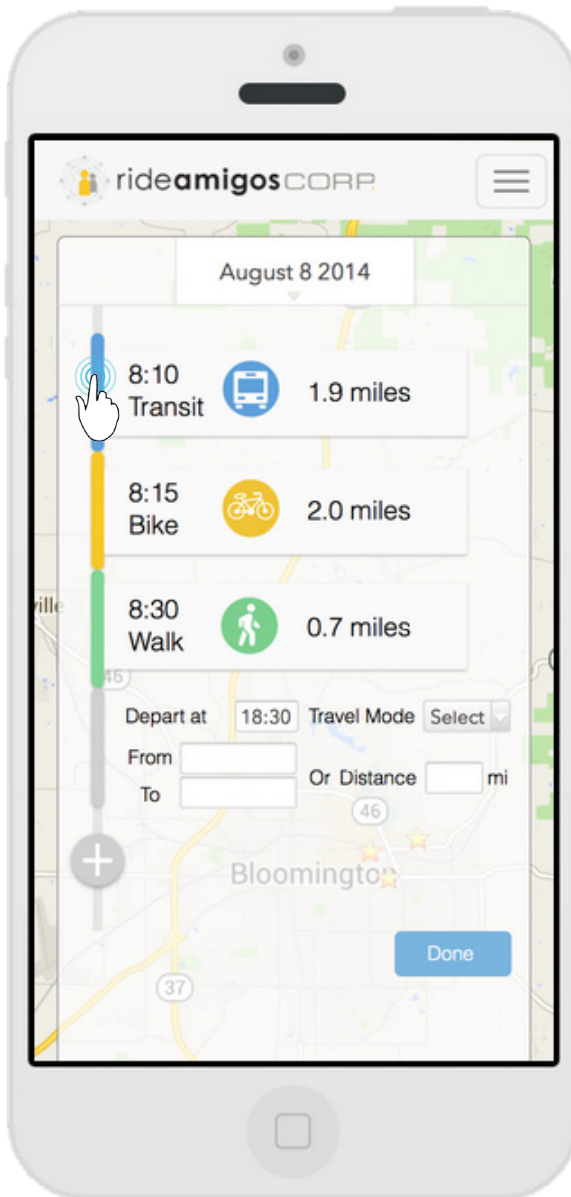




Once he starts to log the 4th trip, he wants to insert a trip before the first "Transit" trip, so he clicks the blue bar.

The "Transit" trip is now editable. He can either edit it, delete it, or adding trips before and after it.

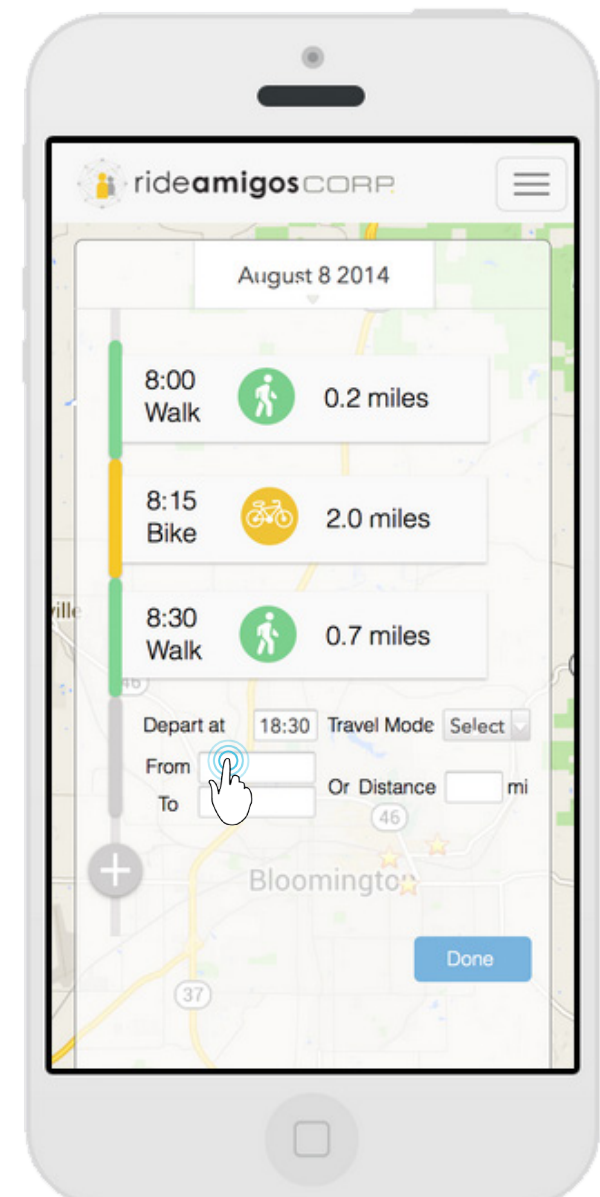
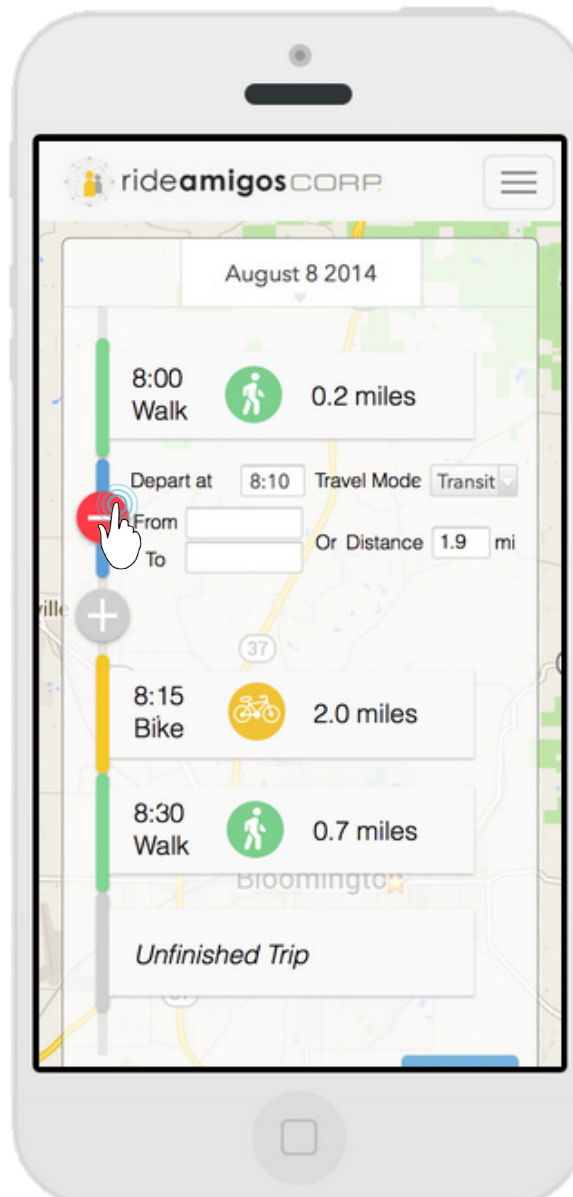
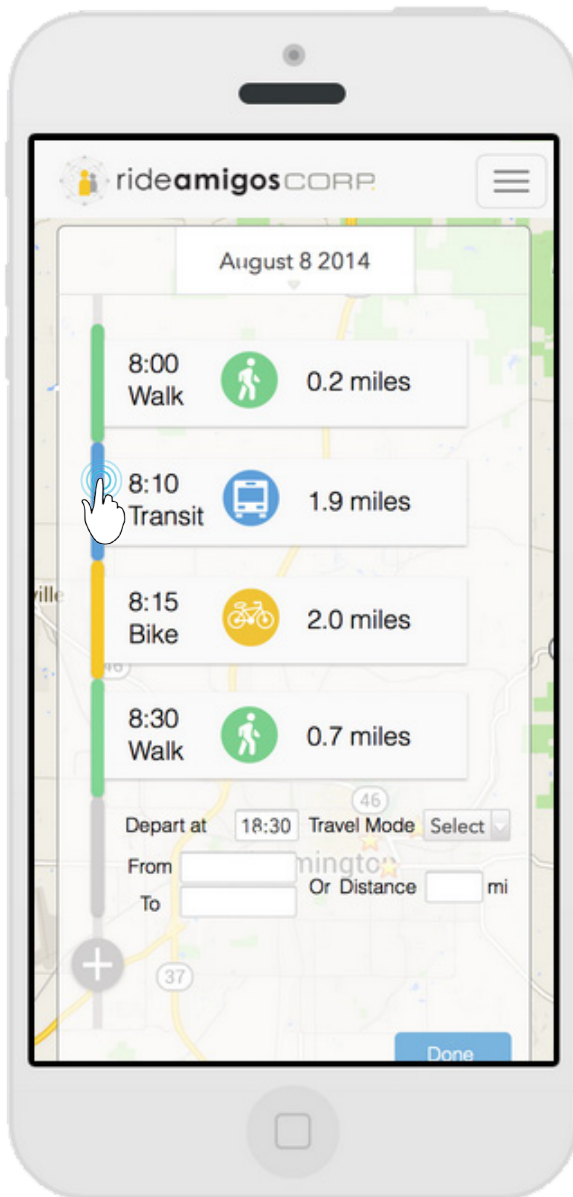
He clicks the upper plus button, a new section appears. Once he finishes, he click "Unfinished Trup" to go back button.



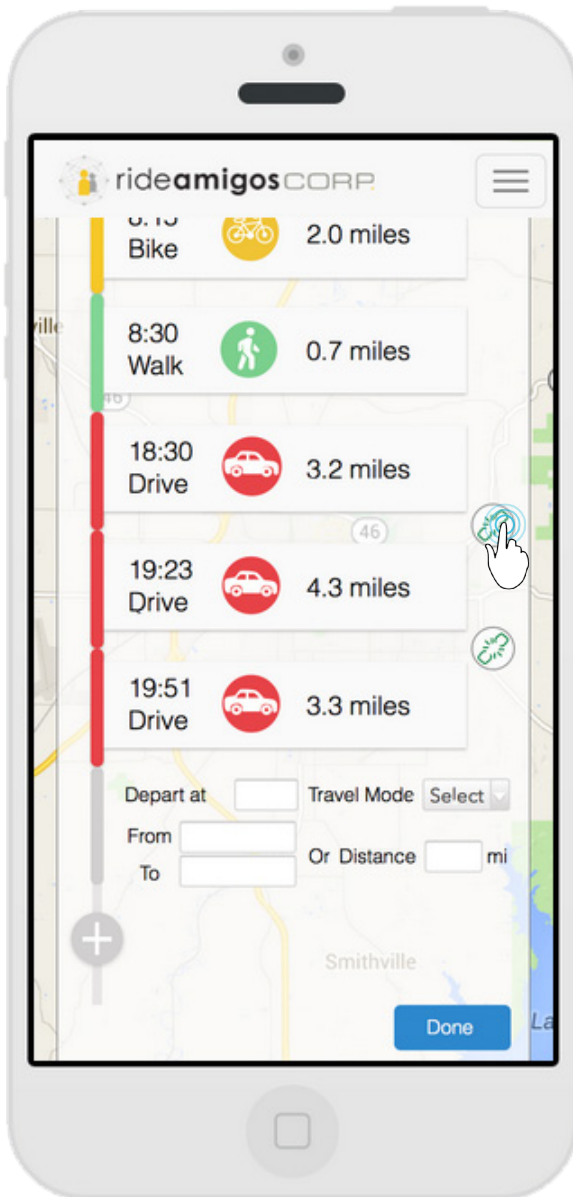
Once he go back to the bottom, he can continue to edit the unfinished trip.

Now he recalls the bus was out of service, so he wants to delete the "Transit". By clicking the bar, the icons show up.

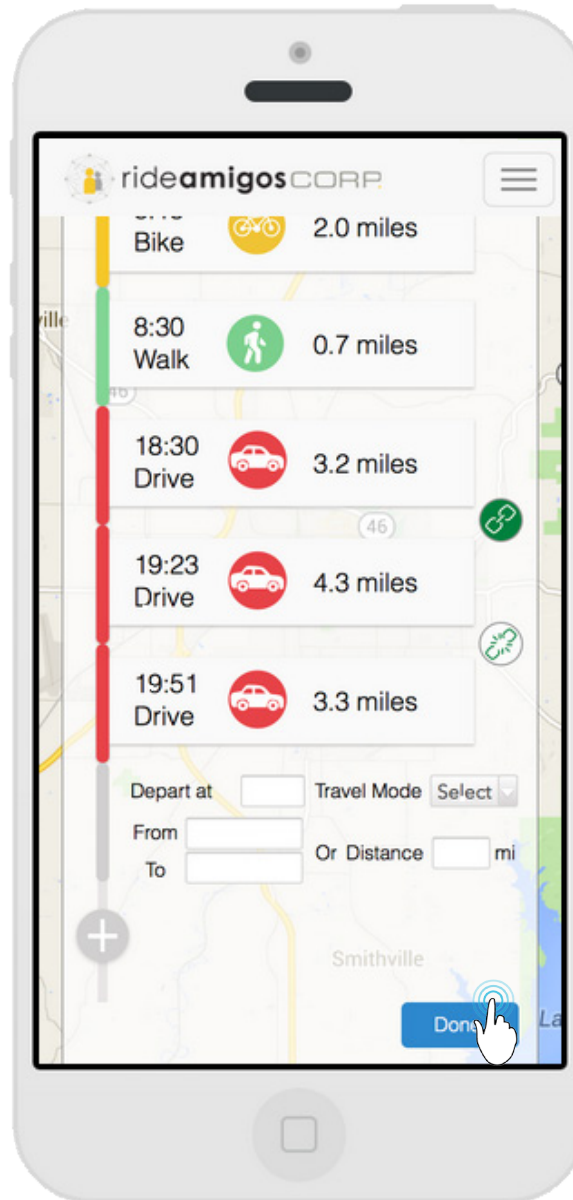
Jason successfully deletes the trip and automatically go back to the unfinished trip at the bottom.



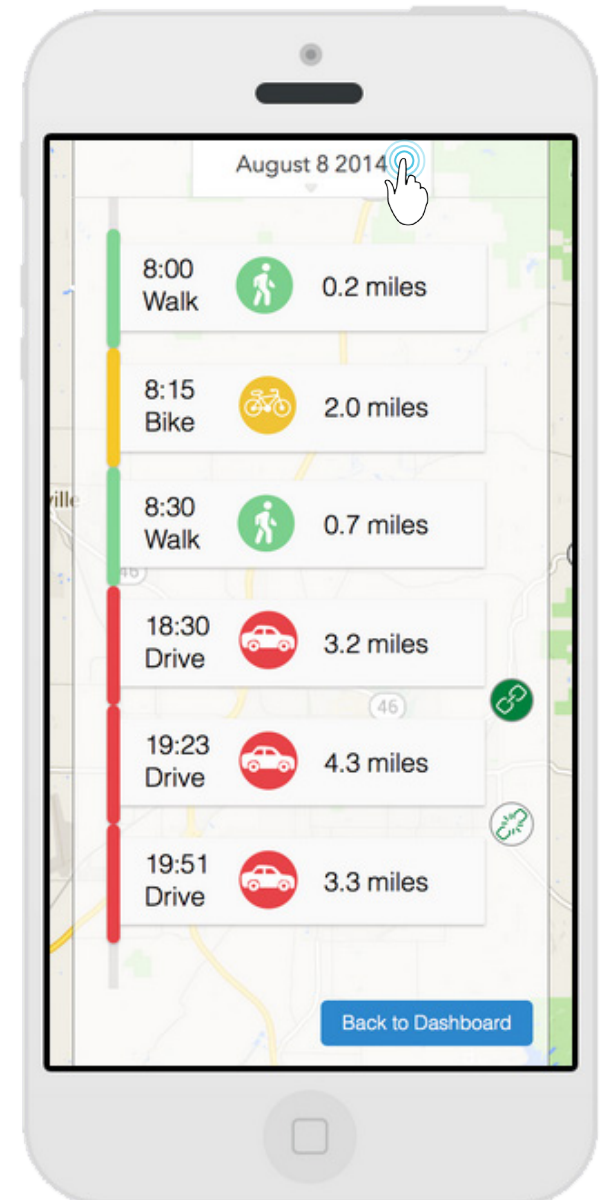
Afterwards, he enters three extra SOV trips. Between each two trips, there is a broken trip chaining icon appears.



Since only the first two SOV trips are intentional trip chaining, Jason clicks on the first broken icon, then it highlighted.



Jason finishes today's logging, and clicks "Done", he can now access the calendar by pressing the date on the top.

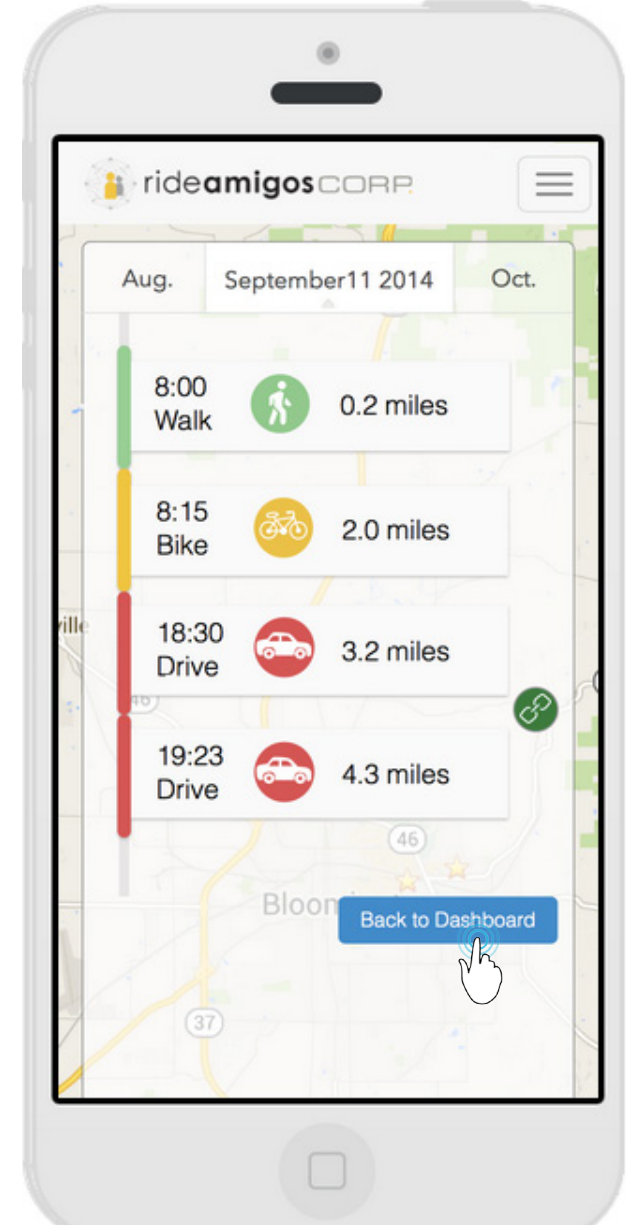
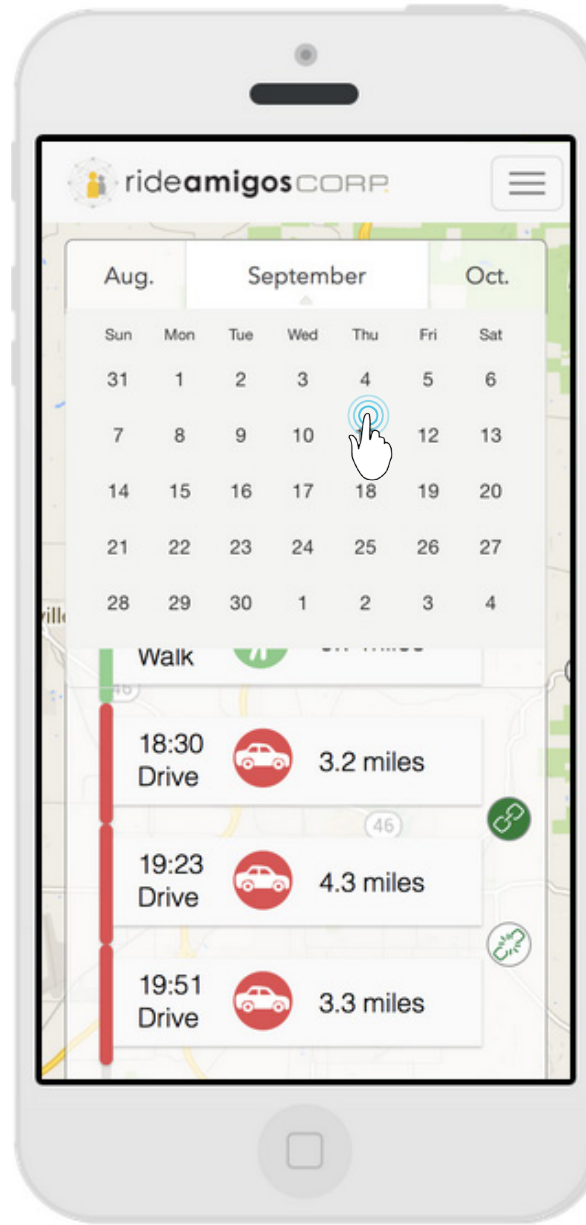
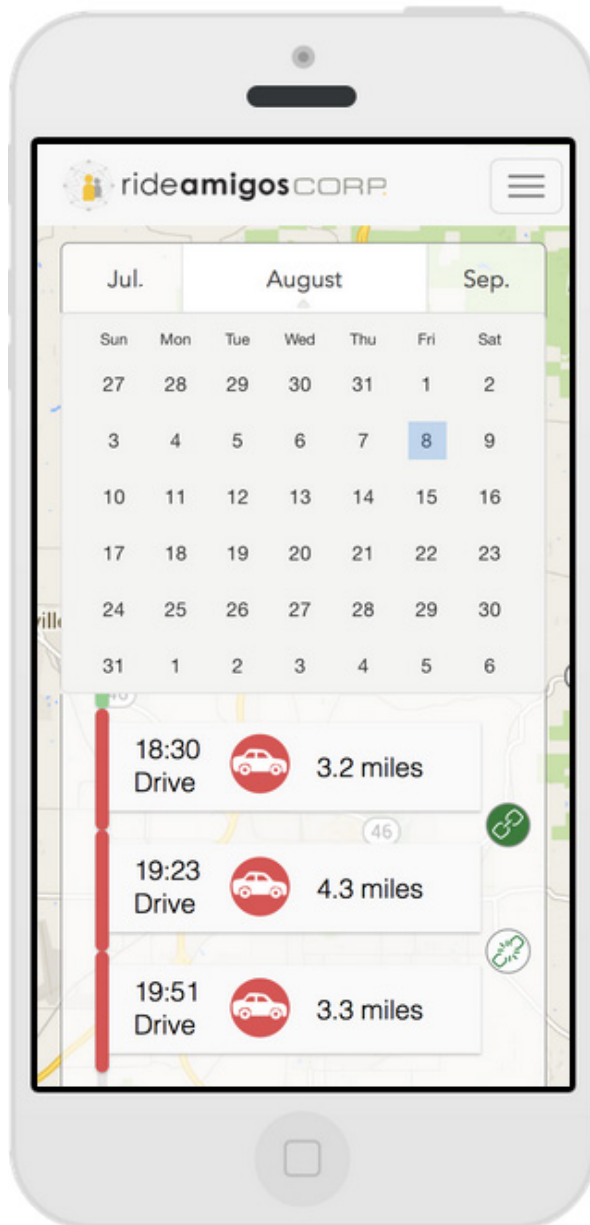




Now he sees a calendar pops up which he can pick any date to edit.

Now he selects September 11th to edit.

He can always go back to dashboard once he finishes editing.



# Desktop Key Frame

We rearranged the dashboard view. We prioritized the trip-logging function by putting trip logging section to the top left corner of screen. Also we introduced the incentives (Green Miles, Money Saved, CO2 Reduction, Calories Burned) with the badges. Ranking now will be based on the Green Miles (Non-SOV miledge + miledge saved by trip-chaining) of users or network.

