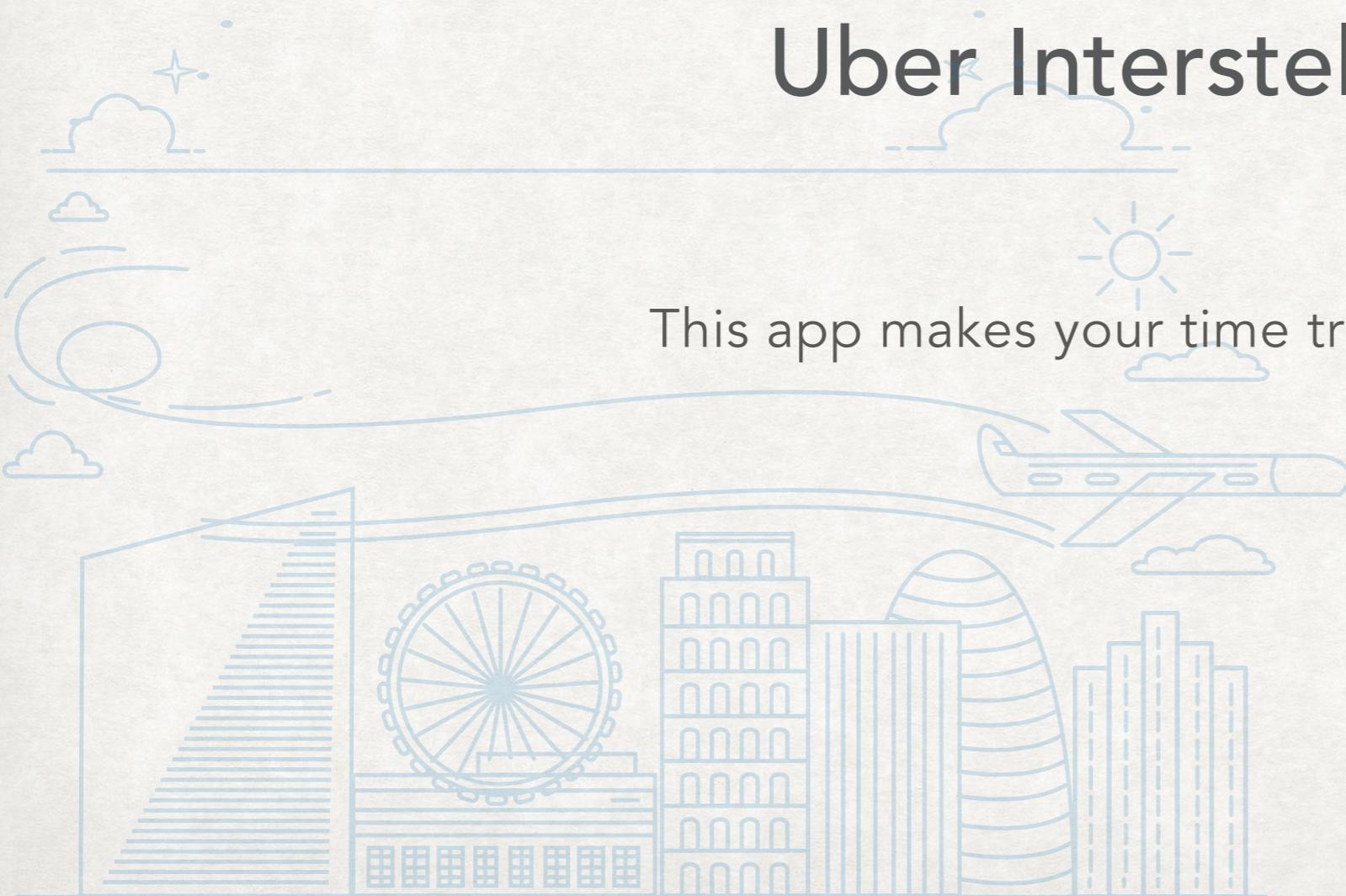


Uber Interstellar Inc.

This app makes your time travel care-free



1.

DON'T PANIC YOUR TRAVEL FOLLOWS PHYSICAL RULES

To understand the design requirement of this time travel app, the first thing I do is to conduct **background research on how time travel may work** - including subject matter in cosmology, Parallel Universe theory. This app follows one of the widely-accepted idea of Stephen Hawking's time theory that the world we live now and here is what it is after any time travel happens.

Apart from this, my goal of this design is to provide time traveler with a really easy and safe experience to set off and travel through time.

BACKGROUND RESEARCH & DESIGN ASSUMPTIONS

#1 The **interference of time traveller** only exists in a "Parallel Universe" - a hypothetical self-contained reality co-existing with one's own. Users will not be able to meaningfully interfere with what happened on that day in "THIS world".

#2 Time on "THIS world" elapses as it is as users go on Time Travels. The original time on earth that users experience(the original time zone they are in) will be used as the **reference time of the app**.

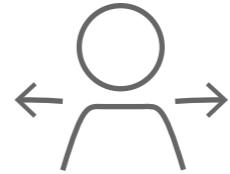
#3 Users can only **travel within time/space after time machine is invented** and that have already been known to humans, which is a subset of "cosmological horizon" and history of mankind.

2.

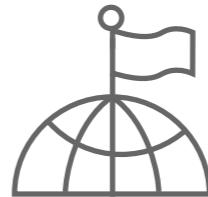
WHY A TIME TRAVELER?

USER NEED ASSESSMENT

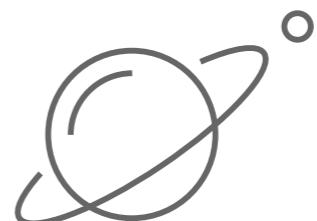
With the capability of this app and summarized from user interviews, this time travel app would mainly benefit three types of user needs —>



to visit personal
past and future



to witness important
events of earth/
human history



to explore
Interstellar space

I REALLY WANT TO GO BACK TO THE TIME IN
COLLEGE WHEN I CHOSE MY MAJOR.

”

I WANNA SEE WHERE MYSELF AT IN 30 YEARS FROM
NOW.

I WOULD PAY ANY AMOUNT OF MONEY TO GO BACK TO MY 5 AND
TELL HER NOT TO EAT THAT MUCH, IT WILL MAKE YOU CHUBBY.

”

I WANT TO VISIT THE MOON SO SEE ARMSTRONG
LANDED ON IT.

”

I WANT TO GO BACK TO THE TIME OF QIN DYNASTY AND
SHOW THEM THE MODERN TECHNOLOGIES, LIKE A CELL PHONE.

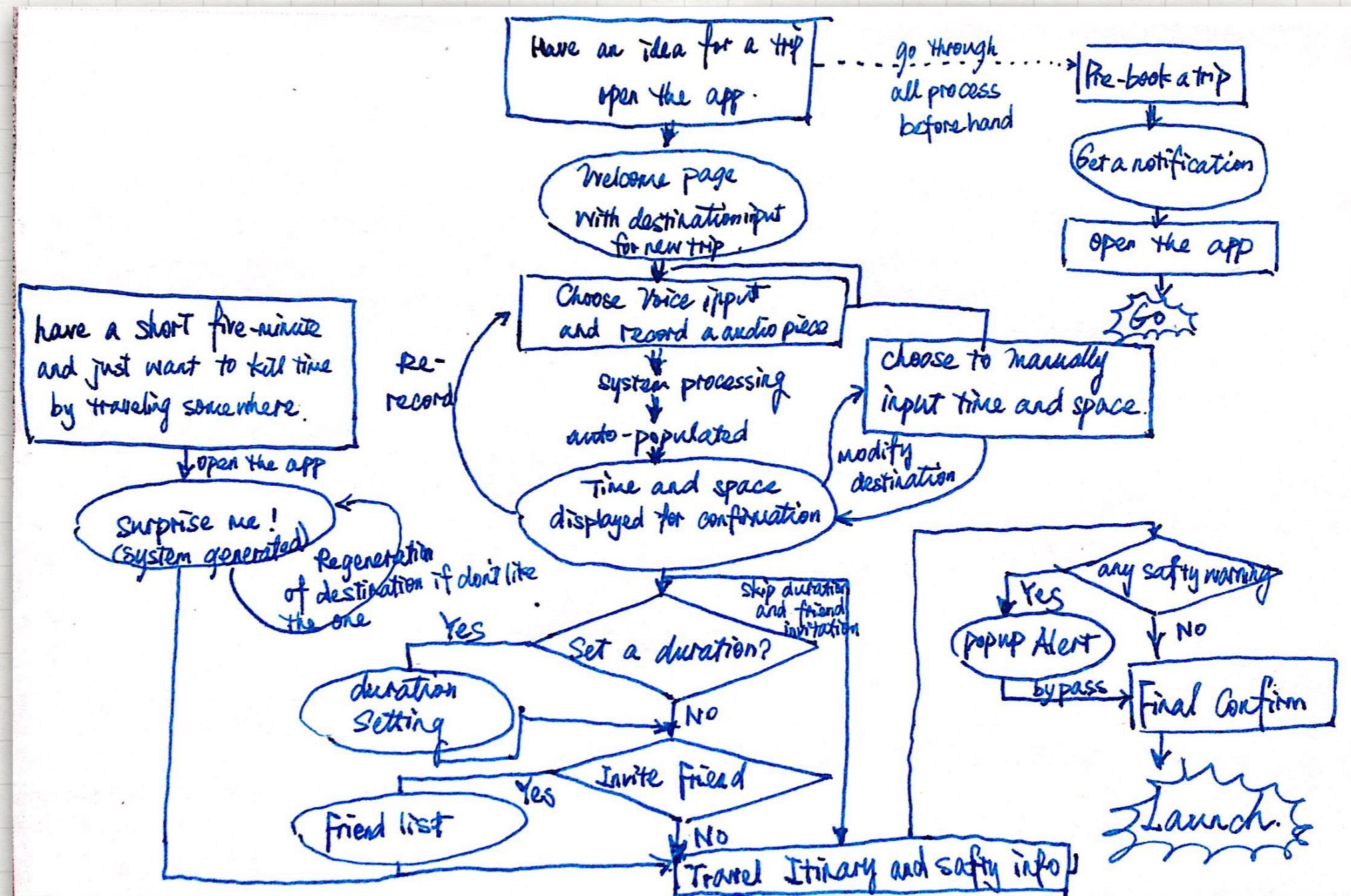
”

USER INTERVIEW INSIGHTS

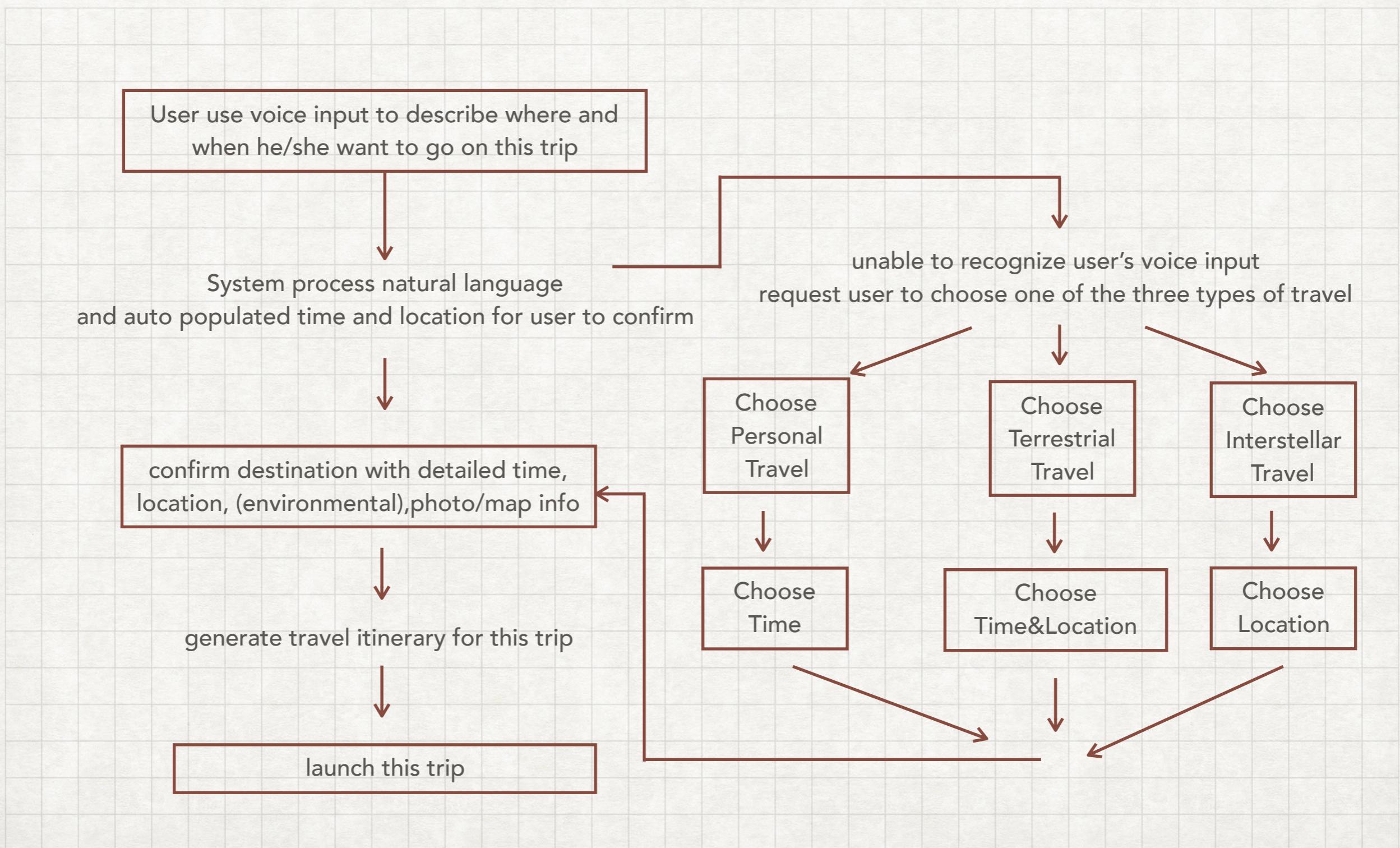
#1 **People remember things by Events.** When I asked them "if given a time machine... when and where would you go", no one think in the way of specific time point or location. All the responses I received are in **descriptive form**. Even followed-up with the question as for more accurate answers, it is so unnatural for them to give one except the case like "I wanna see myself in 30 years from now"(This could be interpreted as same hours and minute but in the year of 2047, and location - where I will be then).

#2 People's **major concern of the app are safety**. They are not sure about how it works, would it take them back to the same time? Would they survive in outer space? Would time traveler interfere with the world during travel. A lot of answers stays in the future, so I just made assumptions that technology won't pose major issue and would support the functionality of the app.

3. TOUCHPOINT MODEL SET OFF A TRIP - BROADER VIEW



3. TOUCHPOINT MODEL TO SET DESTINATION - CLOSEUP VIEW



DESIGN ALTERNATIVES - Ways To Input Time&Space

WHY VOICE INPUT + MANUAL INPUT

Alternative #1

Two separate standard for time and location

Alternative #3

One natural language input for both time and location

Alternative #2

Two separate TypeForms using conversational language for time and location



Alternative #4

Natural language input via voice



DESIGN DECISION

WHY VOICE INPUT + MANUAL INPUT

Alternatives	Pros	Cons
Standard Forms	the standard UI are familiar to user	not applicable to some use cases in this app
Two TypeForms for time and space	focus on one question at a time sleek interaction natural language make it more friendly	cannot change order of time and space
One descriptive question for destination (both time and space)	easy for user to answer	Need natural language processing technique
Voice Input for both time and space	easy for user to answer simple way to input	Need natural language processing and voice recognition techniques

DESIGN DECISION

WHY VOICE INPUT + MANUAL INPUT

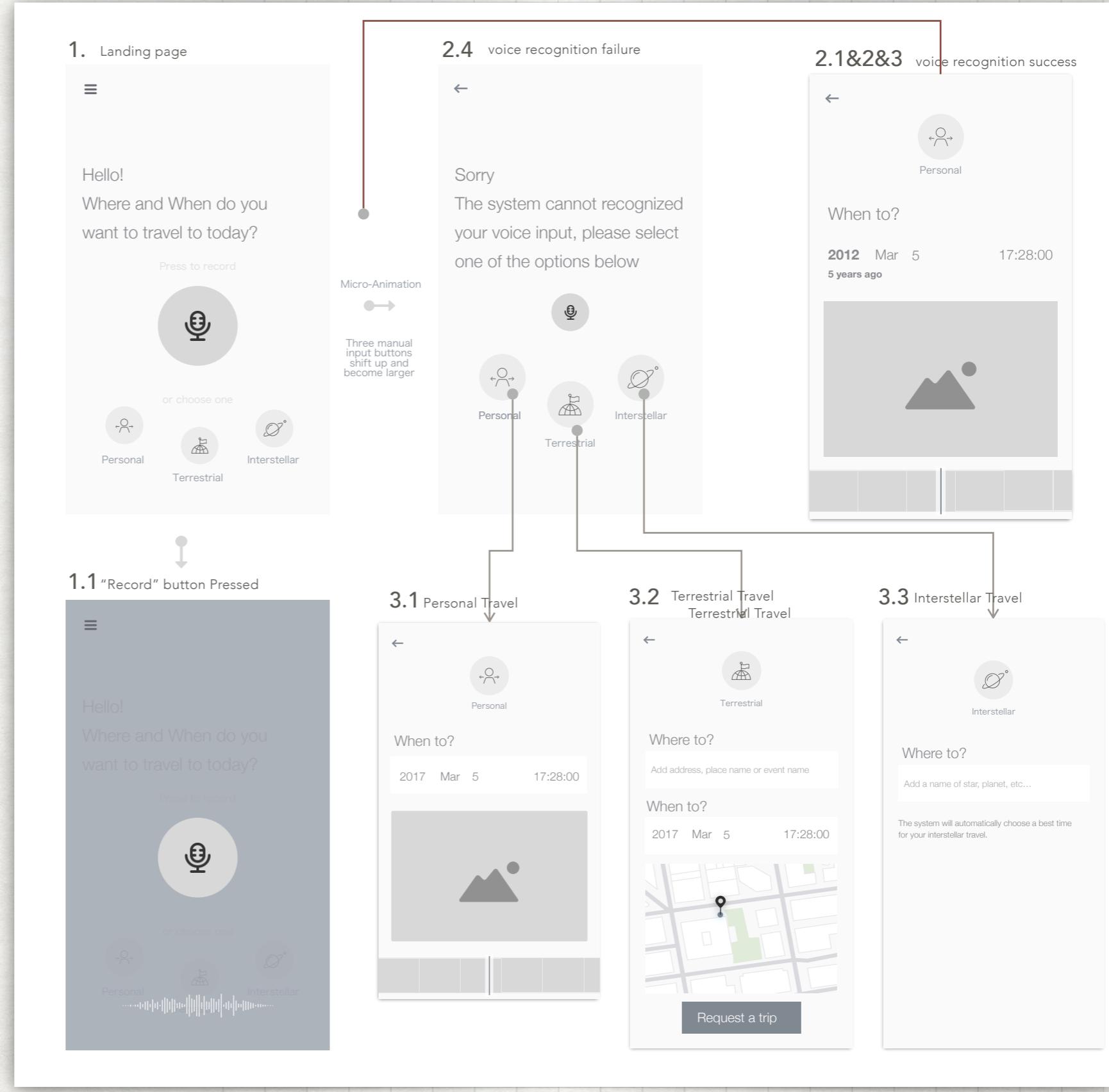
From user interviews insights, people tend to describe their destination by **events** using **descriptive language**. Because natural language involves a lot of complexity to regularize the input in form-style input and the destination setting are expected to be simple and easy, the app uses voice as its major input together with an alternative to manually set it.

However, we should also think of cases that voice recognition fails. After close analysis, I realized that three major types of use cases would require very type-specific input. So, I separated the input forms for the three cases, which would ensure more accurate and less tedious user input (see wireframes for details).

4.

WIREFRAMES

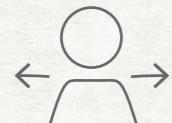
SET DESTINATION



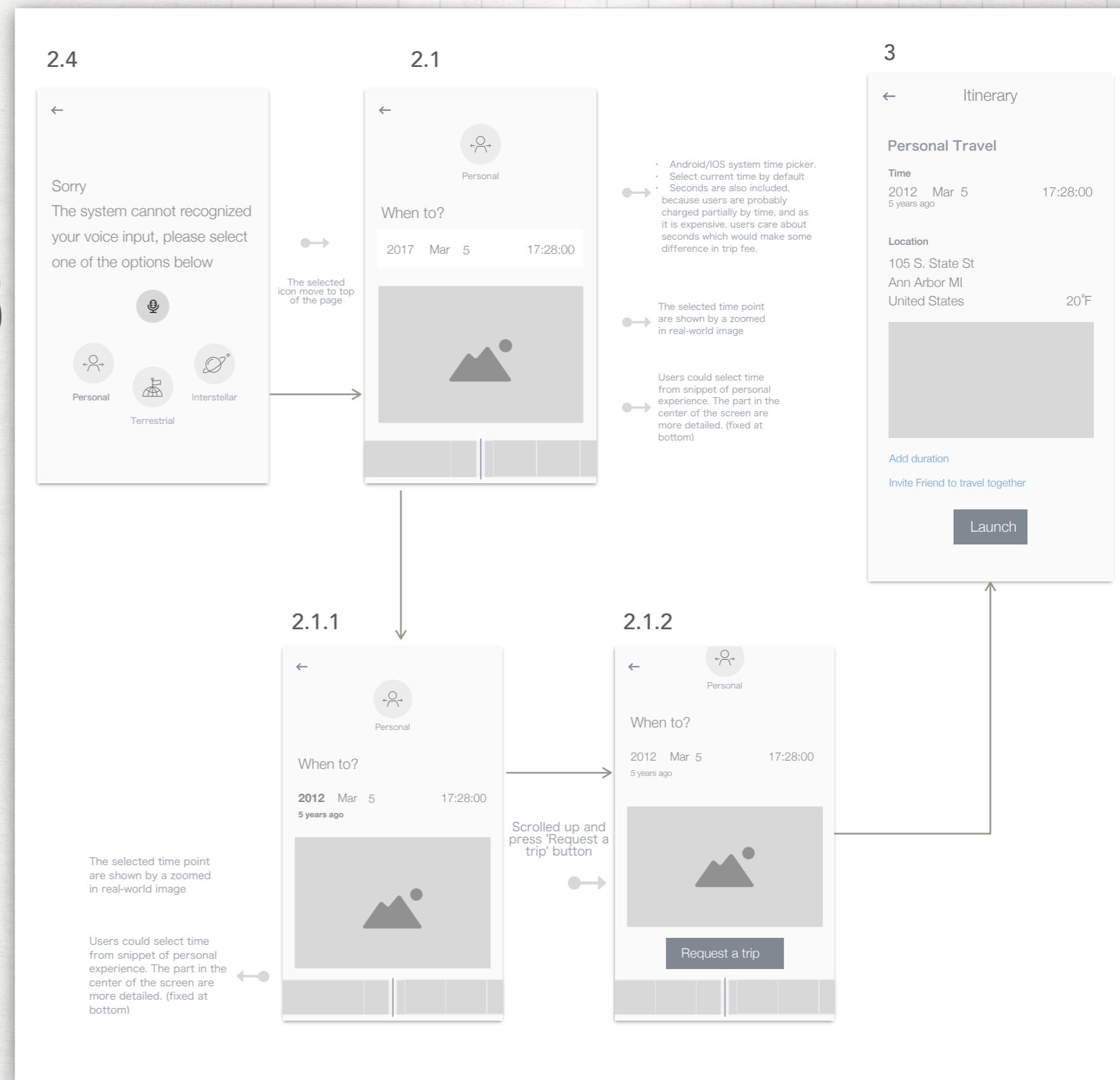
4.

WIREFRAMES

SET DESTINATION (CONTINUED)



PERSONAL TRAVEL



4.

WIREFRAMES

SET DESTINATION (CONTINUED)



TERRESTRIAL TRAVEL

For travel to other time and location on earth, apart from voice input using descriptive natural language, the manual input page just follows the standard location search bar and time picker, with a pin on the map view which allow users to tweak by dragging it onto the desired location.

2.2 Set Destination - Terrestrial

Where to?

Add address, place name or event name

When to?

2017 Mar 5 17:28:00

Request a trip

3 Itinerary



Itinerary

Personal Travel

Time

2012 Mar 5
5 years ago

17:28:00

Location

105 S. State St
Ann Arbor MI
United States

20°F

Add duration

Invite Friend to travel together

Launch

4.

WIREFRAMES

SET DESTINATION (CONTINUED)



INTERSTELLAR TRAVEL

For interstellar traveler, their goal is to explore other stars/planets in the space.

The location picker is a form with a dropdown providing possible stars/planets. In this case, they care much less about the time point they want to travel to, but they want to experience that peculiar environment, so here, users do not need to input time, instead, the system would pick a proper time for them to best view the other star.

2.3 Set Destination - Interstellar

Where to?

The system will automatically choose a best time for your interstellar travel.

Where to?

Add stellar name
Star Name 1
Star Name 2
Planet Name 1

3 Itinerary



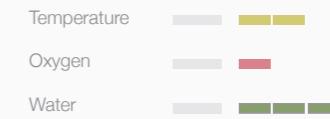
Interstellar

Where to?

Mars (Planet)

The system will automatically choose a best time for your interstellar travel.

Environment Info



For safety concern, show a list of environmental factors and substances on selected star



Request a trip

safety level, color coded by red, yellow, green

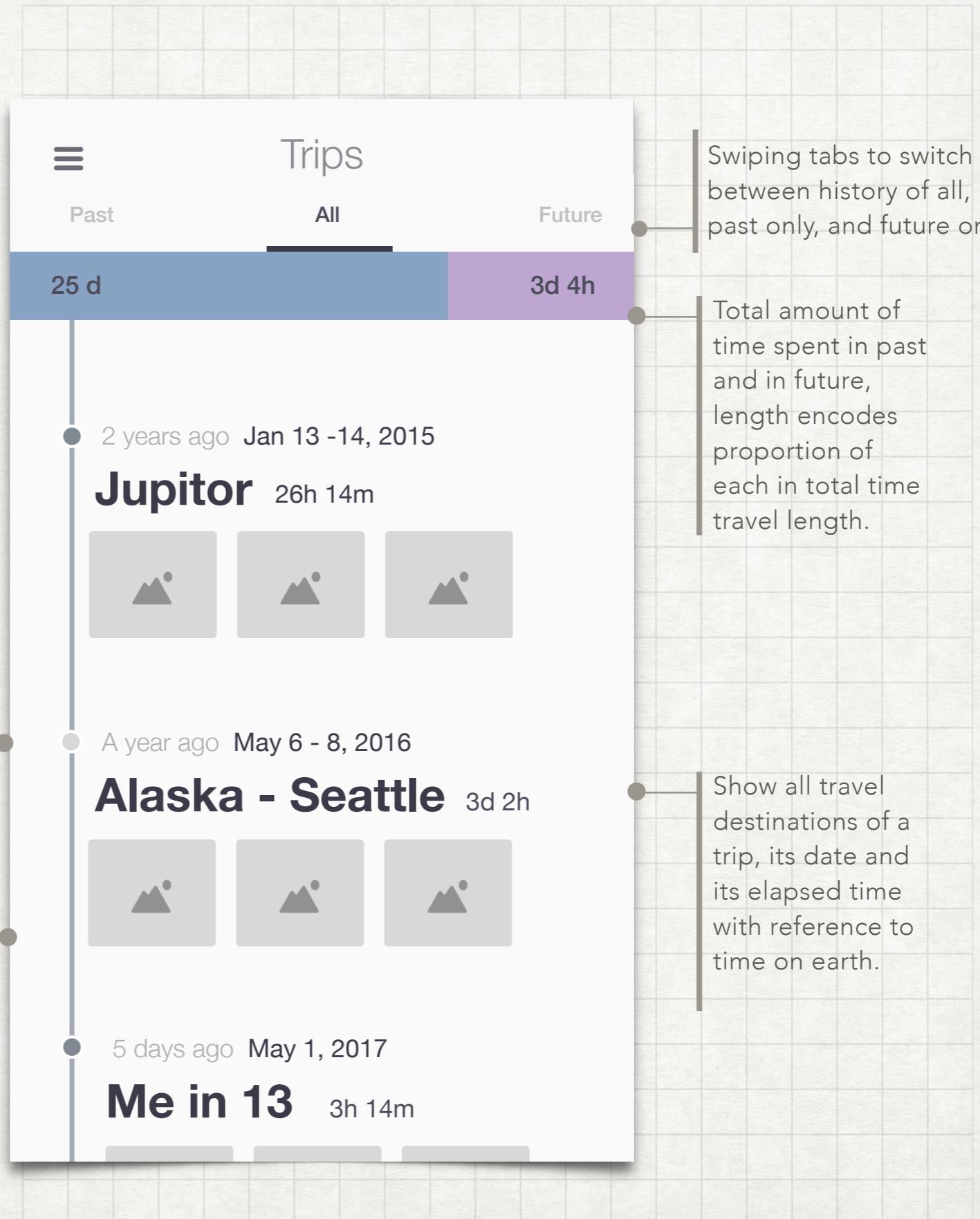
4.

WIREFRAMES

DASHBOARD

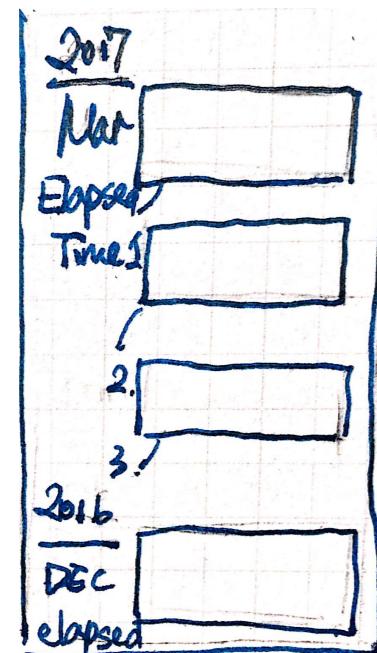
the info of how long in the past from now is comparatively more pre-attentive for human, especially recent times.

Images are highly pre-attentive materials. Thus displaying three pics from the travel would help user recall past experience during a trip.



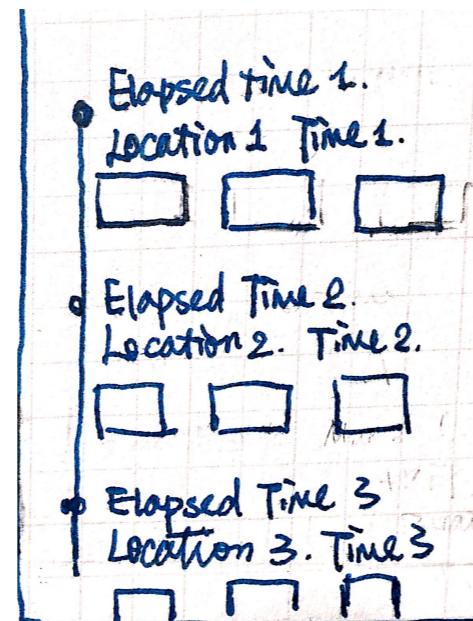
DESIGN DECISIONS - Ways To View History

WIREFRAMES DASHBOARD



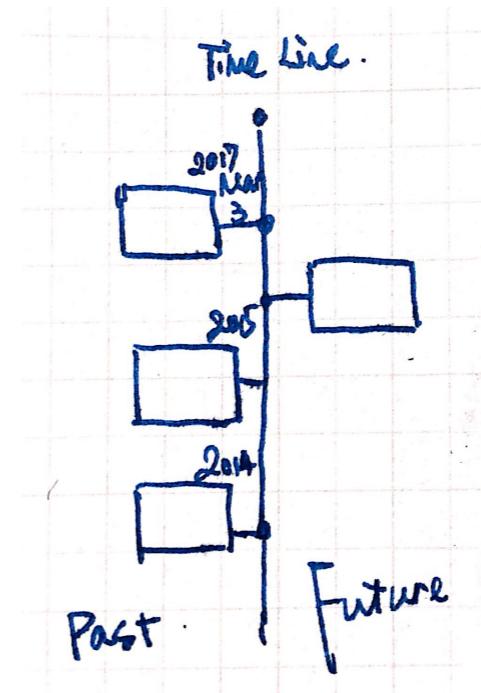
Time + elapsed time emphasis

(IOS Photo App)



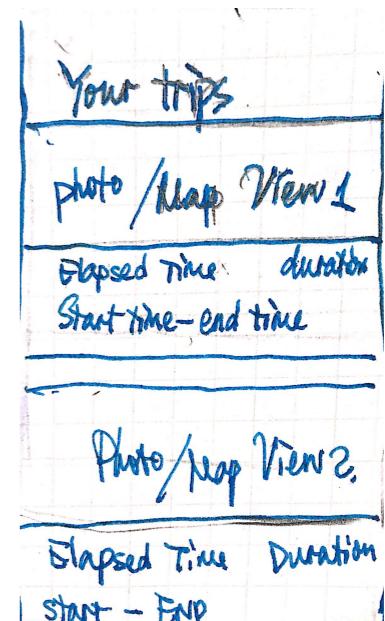
Time + location emphasis

(Airbnb - Trip History)



Time + past/future emphasis

(Dataviz Timeline model)



Instance emphasis

(uber - your trip)

As the requirement for Dashboard page includes ability to view past travel destinations history and elapsed time spent in the past or future, I compared all design alternatives for dashboard. As a result the one with a highlight on elapsed time and location turns out to best meet the RFP requirement. To further improve its representativeness, I use color to differentiate past and future travel.

5.

OTHER FEATURE HIGHLIGHTS

- Return to present - anywhere and anytime
- Travel with others - Only via invitation
- Set Destination - 3 for basic plan, unlimited for premium plan
- Surprise me - a chance to explore the world you don't know

5.1 Always Be Able To Get Back To “The World” Anytime Anywhere

EXPERIENCE DURING TRAVEL

To ensure the safety of our time traveler and protect them from emergencies, the function to go back to present - “The World” where they exist when originally setting off is always visible and salient during the trip.

The time on earth (the present) is always visible to the user so that wherever they travel, they don't lose the reference time they have when returning.

This screen serves as the lock screen during travel, the action to return should always be easily accessible, but should not be so easy that users could mistakenly trigger it. A sliding interaction like the old iOS unlock screen action serves this purpose well.



Itinerary

Head to next stop

Invite Friend

15: 10: 50

March 5, 2017

Slide right to Return to the present

5.1 Always Be Able To Get Back To “The World” Anytime Anywhere

EXPERIENCE DURING TRAVEL



Your life in the present is less than a year
please return home before it ends

User will receive an alert when their life on earth is less than certain length. Also, If the application detects that the destination lack basic substance or condition to maintain life, user will receive an alarm.



Itinerary

Head to next stop

Invite Friend

15: 10: 50

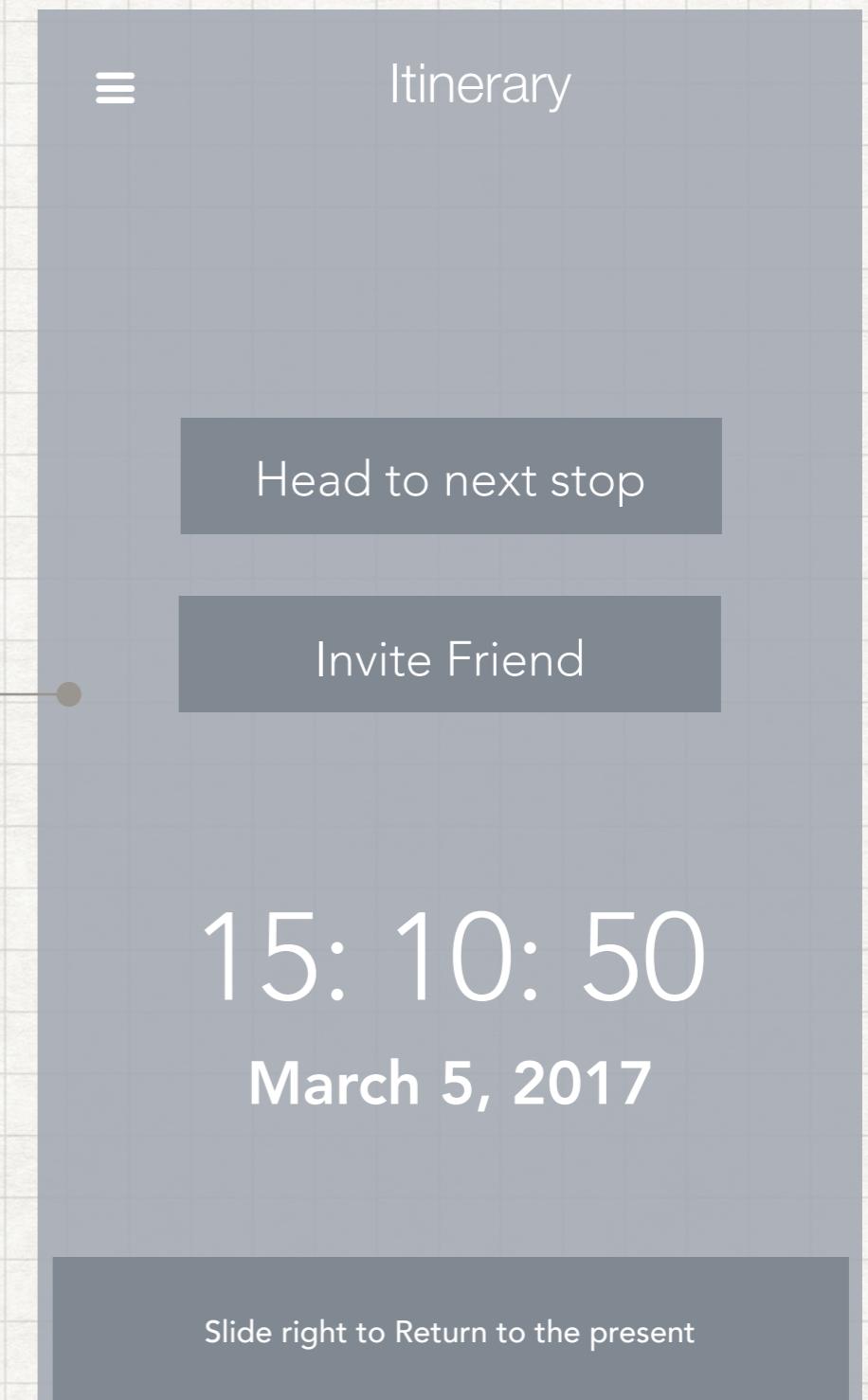
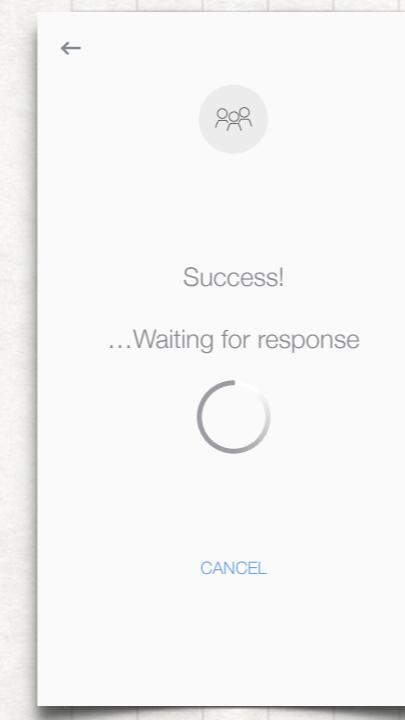
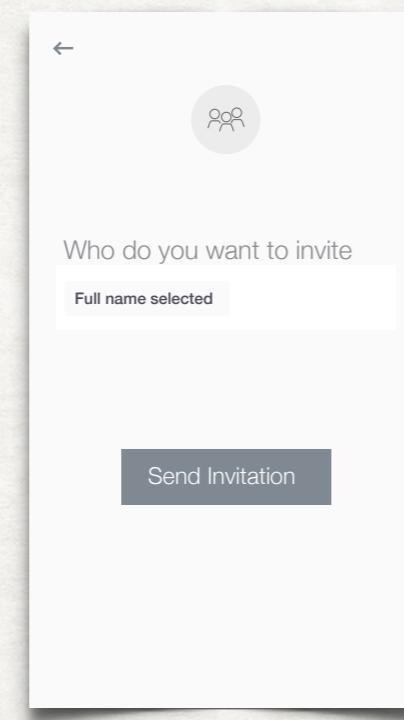
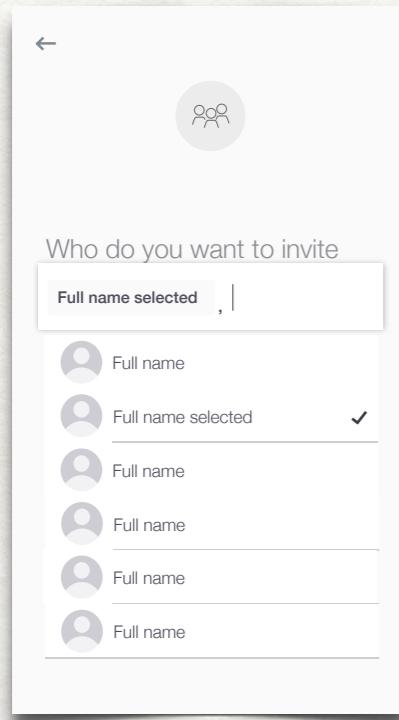
March 5, 2017

Slide right to Return to the present

5.2 Travel With Friends

EXPERIENCE DURING TRAVEL

Travel with friends is possible in this app. But users do need to keep in mind that the feature in this version of the app is invite-only, which means that you can only travel with a friend if you invite them and they accept your invitation. This aims to prevent awkward occurrence of your friend out of blue.



5.3 Up To 3 Stops For A Trip

EXPERIENCE DURING TRAVEL

In this version of the app, users can only set 3 destination during the trip in total. This is for the idea of extendability and storage concerns. As user travel to more places during a trip, the parallel universe become more embedded, also I assume it would take up much more data storage resources. Thus with basic plan user, they could only set 3 times of destination during one trip.

Potentially for business purpose, we could provide few users with premium plan, so that they can travel with unlimited stops.



Itinerary

Head to next stop

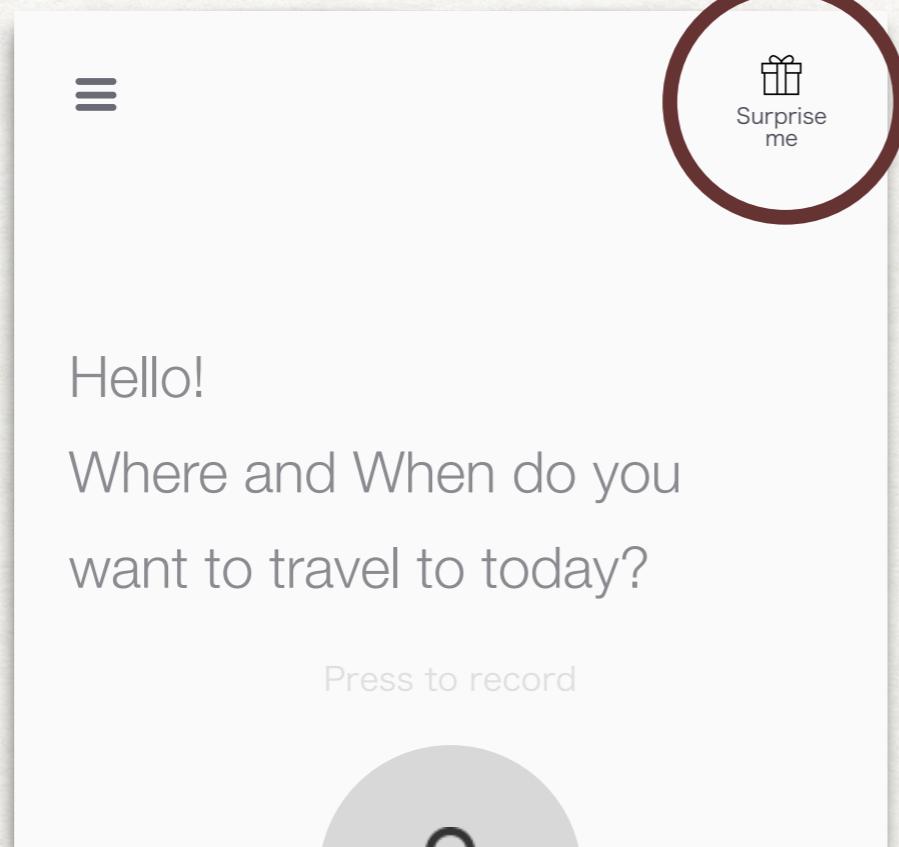
Invite Friend

15: 10: 50

March 5, 2017

Slide right to Return to the present

5.4 SURPRISE ME



If you are have a dull five minutes waiting in the long line of Jimmy Johns... This feature might be fun for you!

It is specifically design for users who have no specific idea of where/when they want to travel. Click on "Surprise me" would bring them to itinerary page with pre-populated location and time. They can set the duration of the trip to 5 minute, once it ends, users will be sent back to present world.

6. MY APPROACH OVERVIEW



7. REFLECTION

On receiving this short design exercise, I was immediately lit up by this futuristic topic. The biggest challenge for me is to review the idea of the theory of relativity and other cosmology theories. Though it might not relate to the nitty gritty of the design, to understand how might time travel helps me know the constraints of that this product might face, and also avoid potential physical mistakes.

the four-hour design exercise is an intense but rewarding one. I spent a lot of the time thinking about how to set destination with the continuum of time and space, which is a familiar notion from my undergrad study of information theories. Voice input is really a natural interaction for user in this case, as people's idea of where they want to go mostly are descriptive and not specific. Though I cannot finish and get to iterations and high fidelity, I was able to design a for the safety concerns that users have inferred from the user research.