CS147 - MicroAdventure Studio

Assignment 5

Low Fidelity Prototyping and Pilot Usability Testing

TripIt

Team Members:

- Adam A - Software Engineering
- Ryan H - Design
- Seth H - Usability Testing
- Eric P - Team Manager

Introduction

Mission Statement/Value Proposition:

Seamlessly plan and book group travel

Problem/Solution Overview:

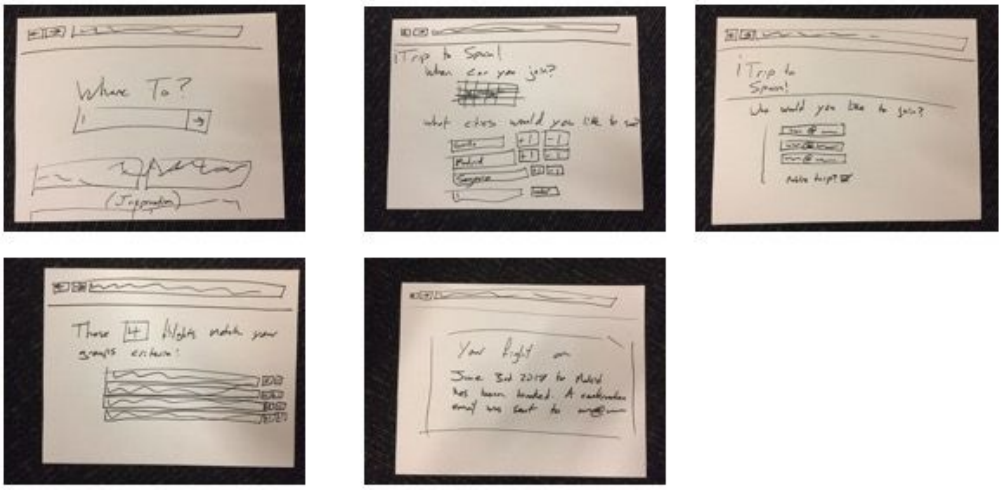
Group travel is time consuming and challenging to coordinate even amongst the closest of friends. It is often a logistical nightmare to decide when and where to travel, as friends rarely reach unanimous decision when it comes to travel decisions. TripIt helps friends coordinate the logistics of group travel with minimal time and hassle.

Sketches

Overview of Sketches

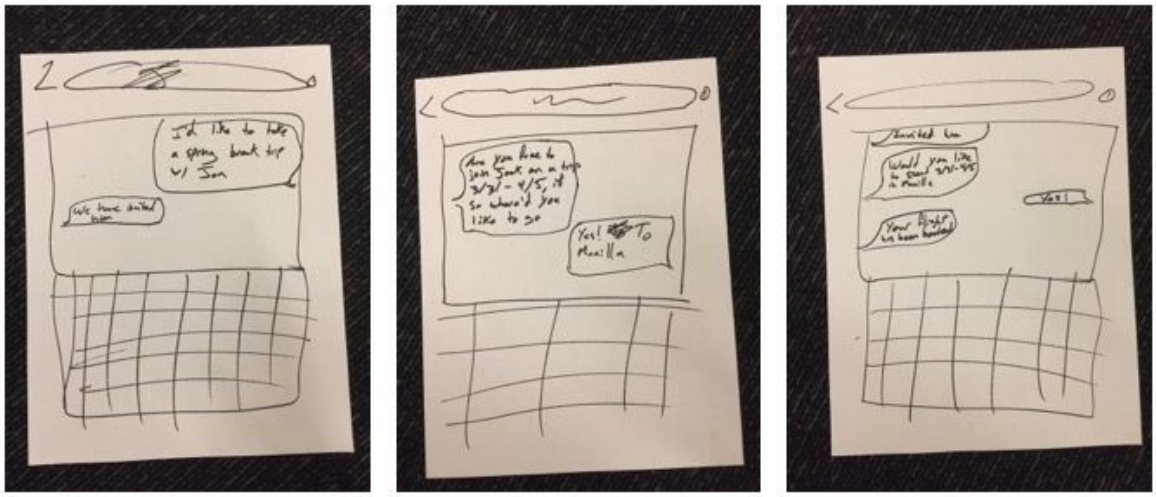
The next few pages contain pictures of our rough sketches and outline briefly what each was designed with in mind. Instead of writing arrows directly on the design, we designed each sketch as a series of screens, from top left to bottom right.

Web app



Here we storyboard a basic web app progress through our tasks of creating/sharing a trip, voting on features and booking flights. The driving concept here is to match the user experience with their current mode of purchasing flights and thereby ease their transition into our disruptive mode of travel booking.

Text based interface



This was a simple text based interface. The idea was to handle all logistics through a intermediate “travel agent” that you would text. This interface captures all fundamental features and stips away much of the unnecesary cruft. We believe this design concept pushes the boundary of simplicity.

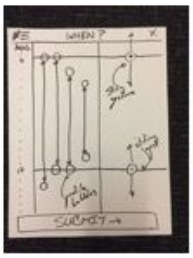
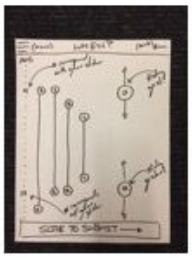
Heads up display

This was a heads up display interface. We envisioned this as quite futuristic, sort of like Jarvis from Iron Man. Everything would be controlled via gestures to this screen projected onto the air. This concept pushes the user out of his/her comfort zone and advances the limit of our (the design team’s) concept of feasibility.

Mobile app

This is a mobile app interface where we roughly sketched a few screens going through the trip creation, voting, and booking process. Here we try to shoot the gap between usability and disruptiveness in a basic mobile app.

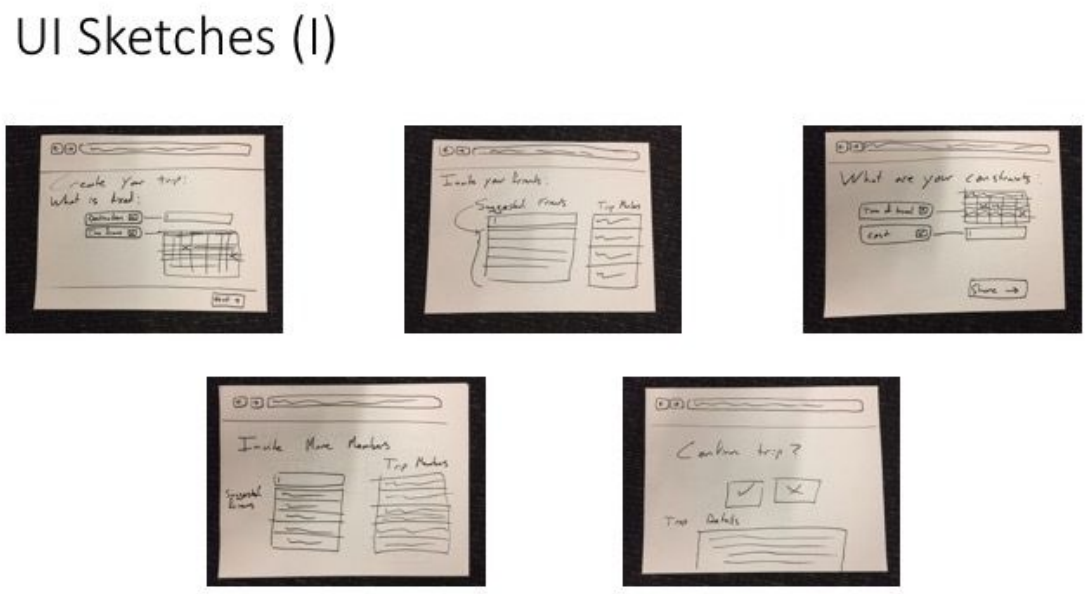
Voting on when / where

Here we storyboard the a mobile app for the specific task of voting on the features of a

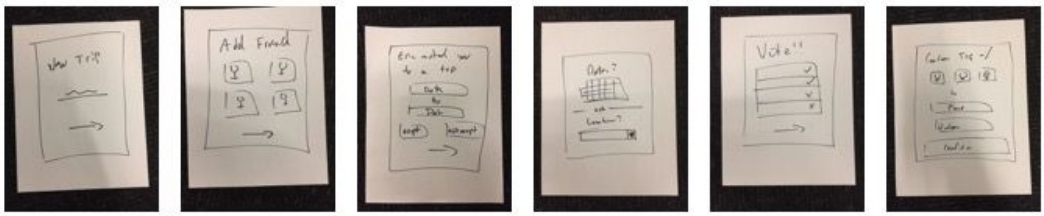
trip (when and where). This storyboard takes a deep dive into a specific moment of use (what we consider to be the most complex) within the mobile app concept.

Top 2 Design Storyboards



We selected the web app idea for further storyboarding. It provides a feasible solution counterpoint to the mobile concept story board (also selected). This storyboard shows basic progress through the application from creating a trip (top right) though to confirming a fully fleshed out trip (lower right). Our web app concept has a dramatically different feel from the mobile app: it is designed to mirror the mental model we heard from users of spending time carefully booking flights using their desktop.

UI Sketches (II)



We selected the mobile app as one of the two we would storyboard further mostly because of the interviews we had done in the previous few weeks. We got a lot of questions about how our idea would manifest itself, and people generally responded well to the idea of a mobile interface since they would be able to respond to updates to the trip while on the go. Although our initial hypothesis was that users were more likely to book large travel trips via their laptop/desktop, users did respond well to mobile interfaces in early testing. Therefore we selected this to storyboard further explore a more casual, dynamic trip booking experience that came through as an underlying need.

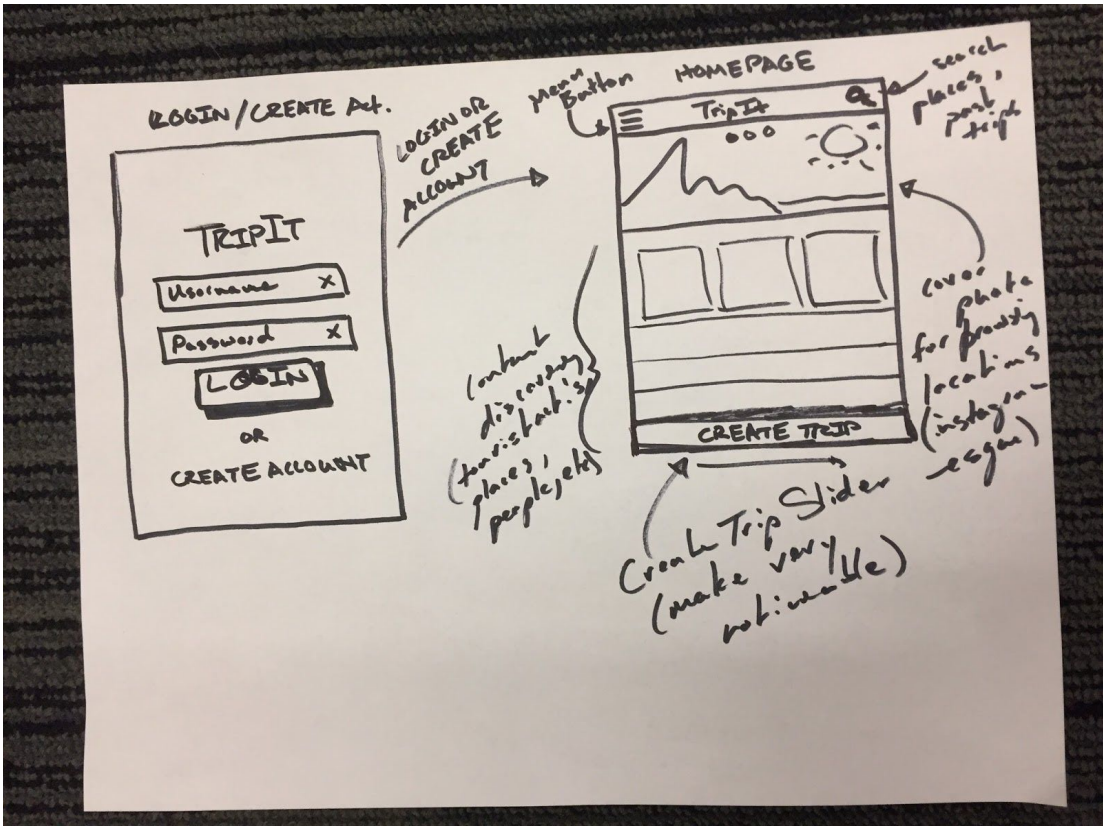
Selected Interface Design

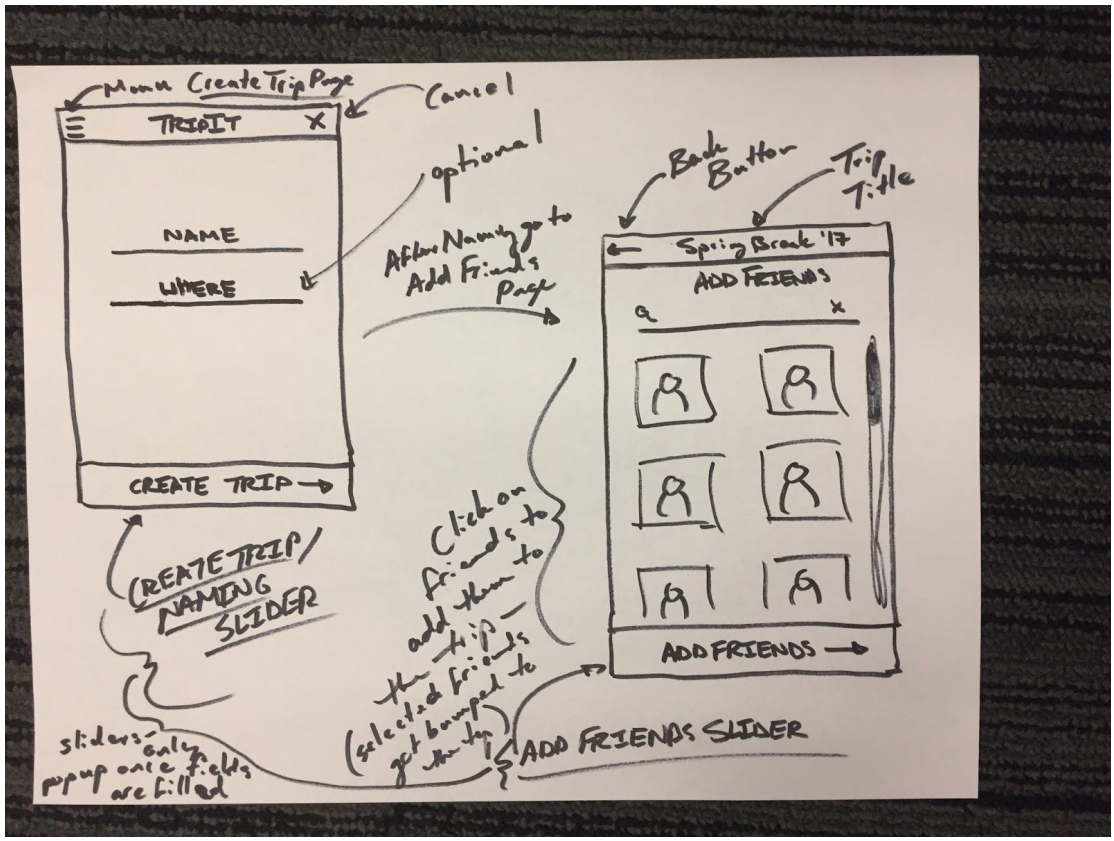
We have selected the our mobile app concept for further development. This interface takes the form of a mobile app with several “modal” views through which the user is lead through the journey of creating, sharing, communally selecting features, and finally booking their trip. We settled on the mobile app “lead journey” design for several reasons:

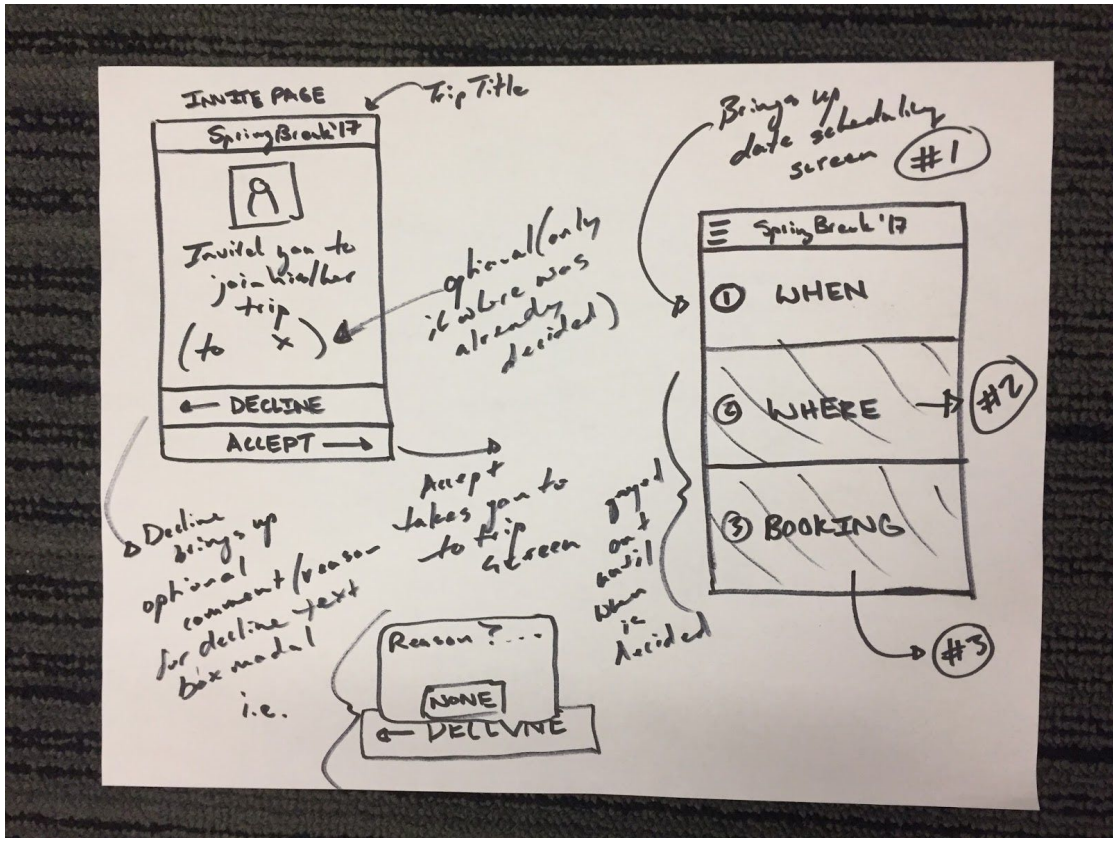
1. The journey we are leading the user on is contingent on input from multiple parties and therefore will require each user to repeatedly start and stop the process of building their trip. Users told us they felt that stepping in and out of a mobile app is faster and easier than stepping in and out of a web app.
2. Users told us that they wanted the whole planning and booking process to be simple enough that they could do it from a mobile device.

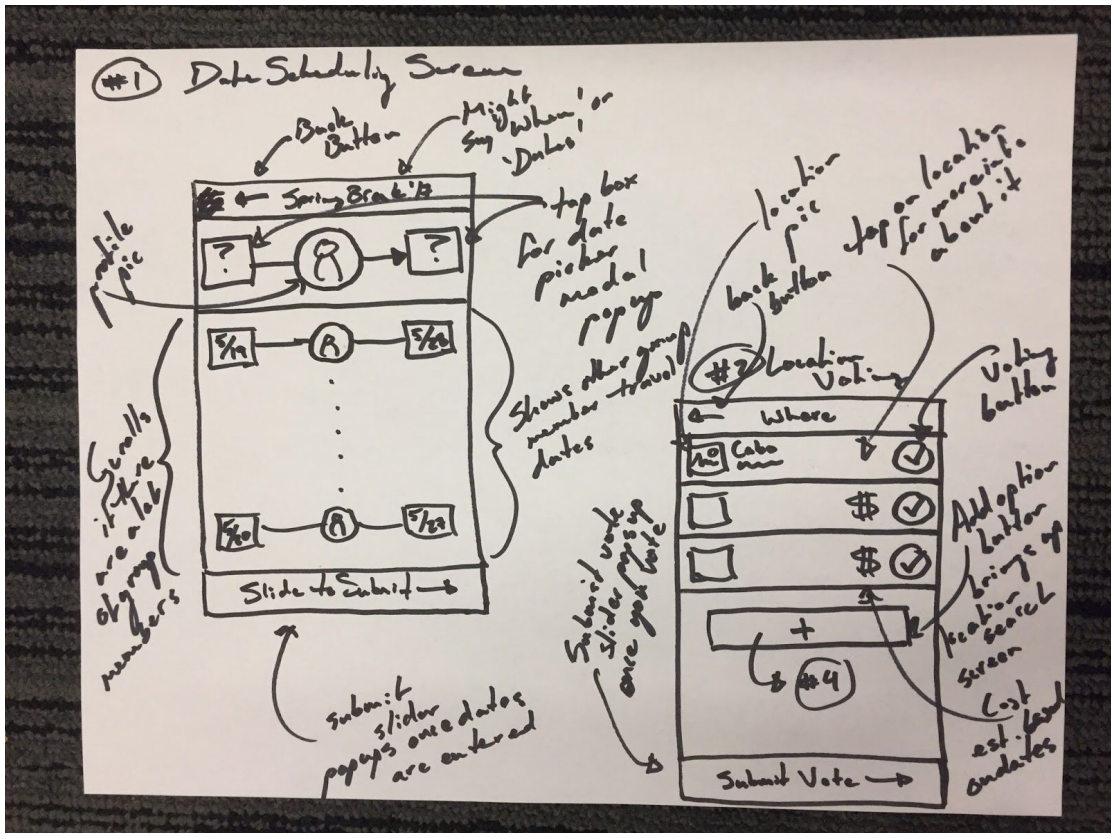
3. Tactically, the screen real estate required for our interface is relatively low (great for a small screen)
4. We would like to catch onto a ground shift in the way the people interact computers. As more and more ideas are being built mobile first, we would like to join and lead the trend toward mobile computing.

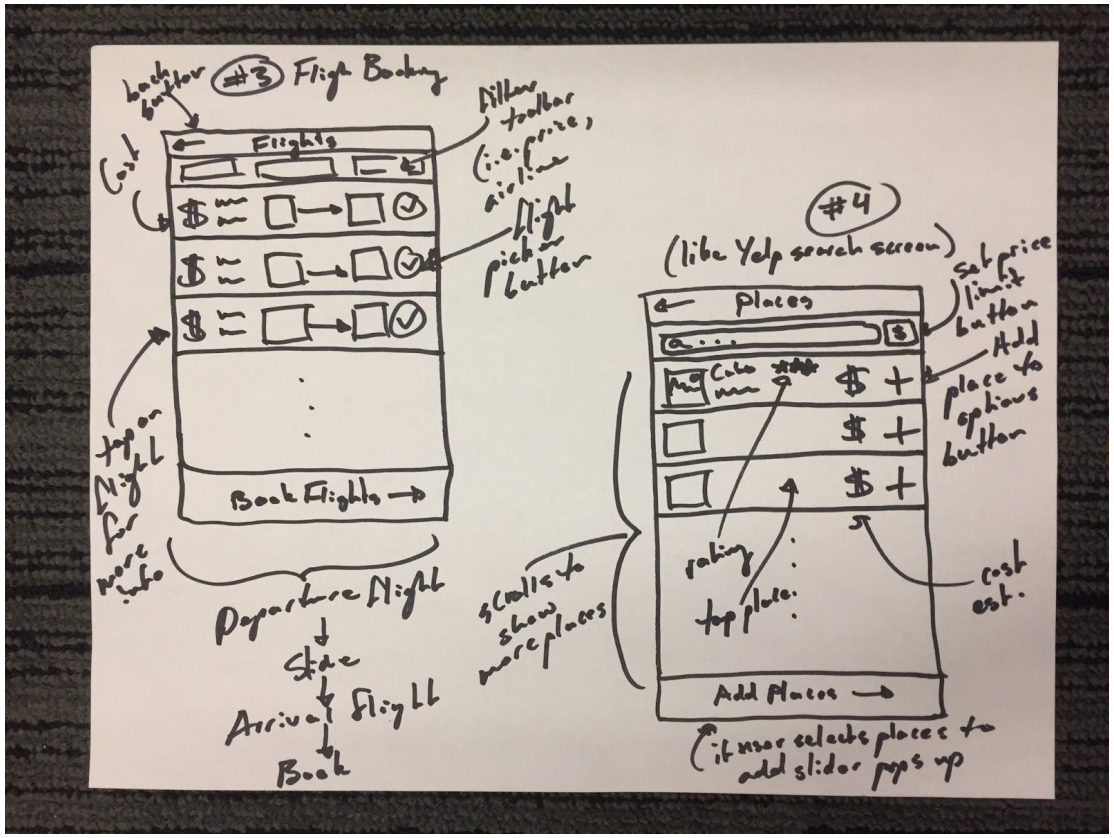
UI Storyboard

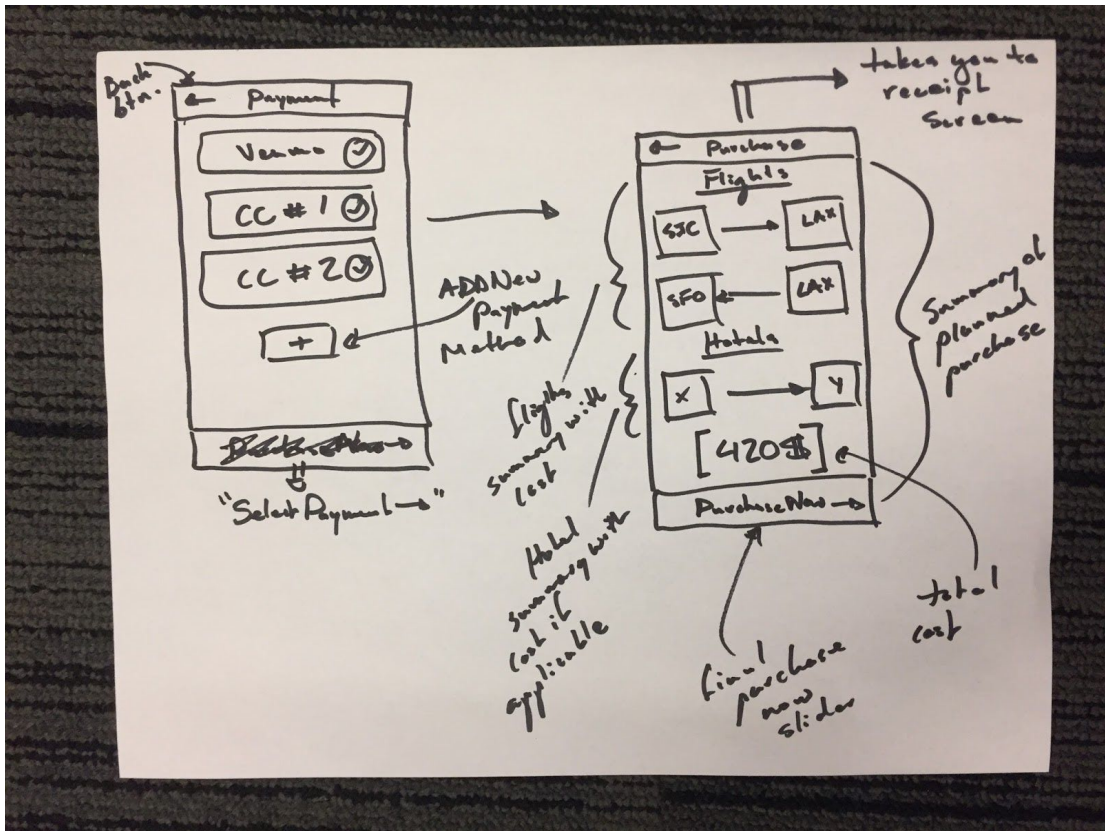


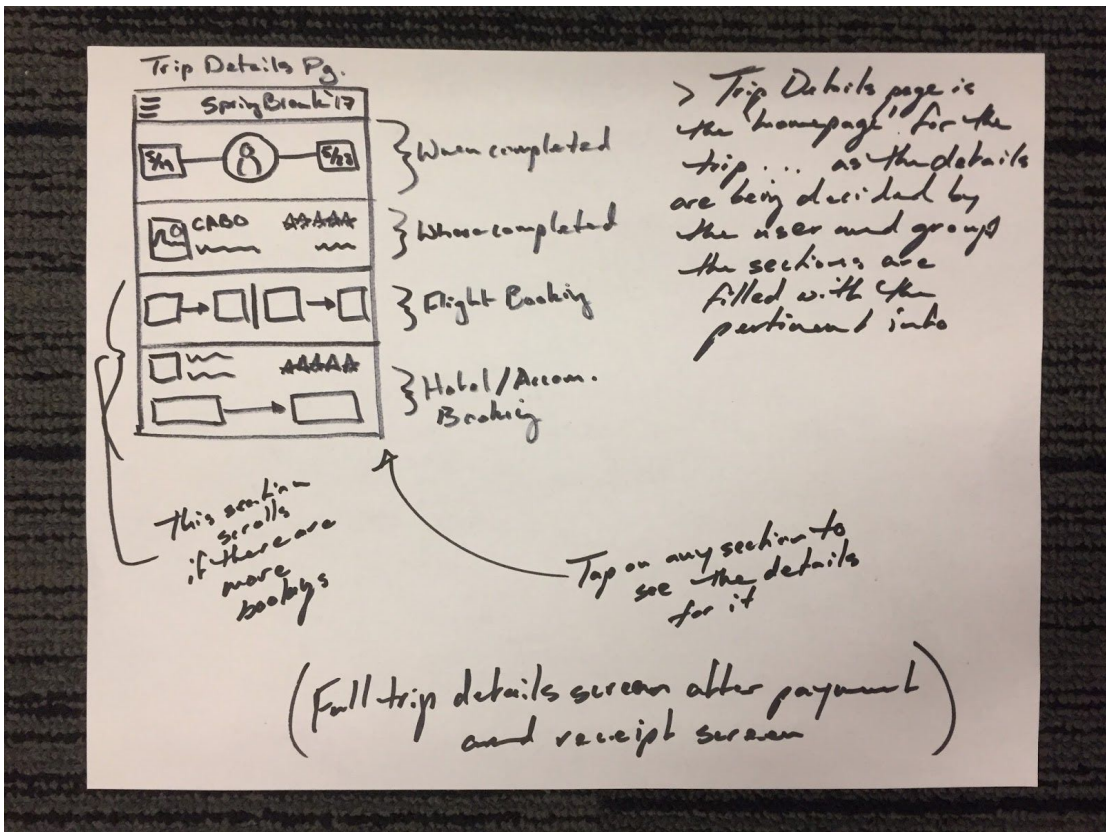

Menu Create Trip Page
TRIPIT
Cancel
optional
NAME
WHERE
CREATE TRIP
After Naming go to Add Friends page
Back Button
Trip Title
Spring Break '17
ADD FRIENDS
ADD FRIENDS
CREATE TRIP/ NAMING SLIDER
Click on friends to add them to trip — the selected friends get bumped to the top
ADD FRIENDS SLIDER
sliders pop up once fields are filled


INVITE PAGE
Trip Title
Spring Break '17
Invited you to join him/her trip
(to x)
DECLINE
ACCEPT
optional (only if where was already decided)
Brings up date scheduling screen #1
Spring Break '17
① WHEN
② WHERE
#2
③ BOOKING
#3
Accept takes you to trip screen
Decline brings up optional comment/reason for decline text box modal i.e.
Reason?...
NONE
DECLINE
greyed out until when is decided


#1 Date Scheduling Screen
Back Button
Might say 'When' or 'Dates'
Spring Break '17
top box for date picker modal popup
profile pic
Shows other group member travel dates
Scrolls if there are a lot of group members
Slide to Submit
submit slider popups once dates are entered
location pic
back button
top on location for more info about it
#2 Location Voting
Voting button
Where
Cabo
Add option button brings up location search screen
Submit vote slider pops up once you vote
#4
Cost est. based on dates
Submit Vote

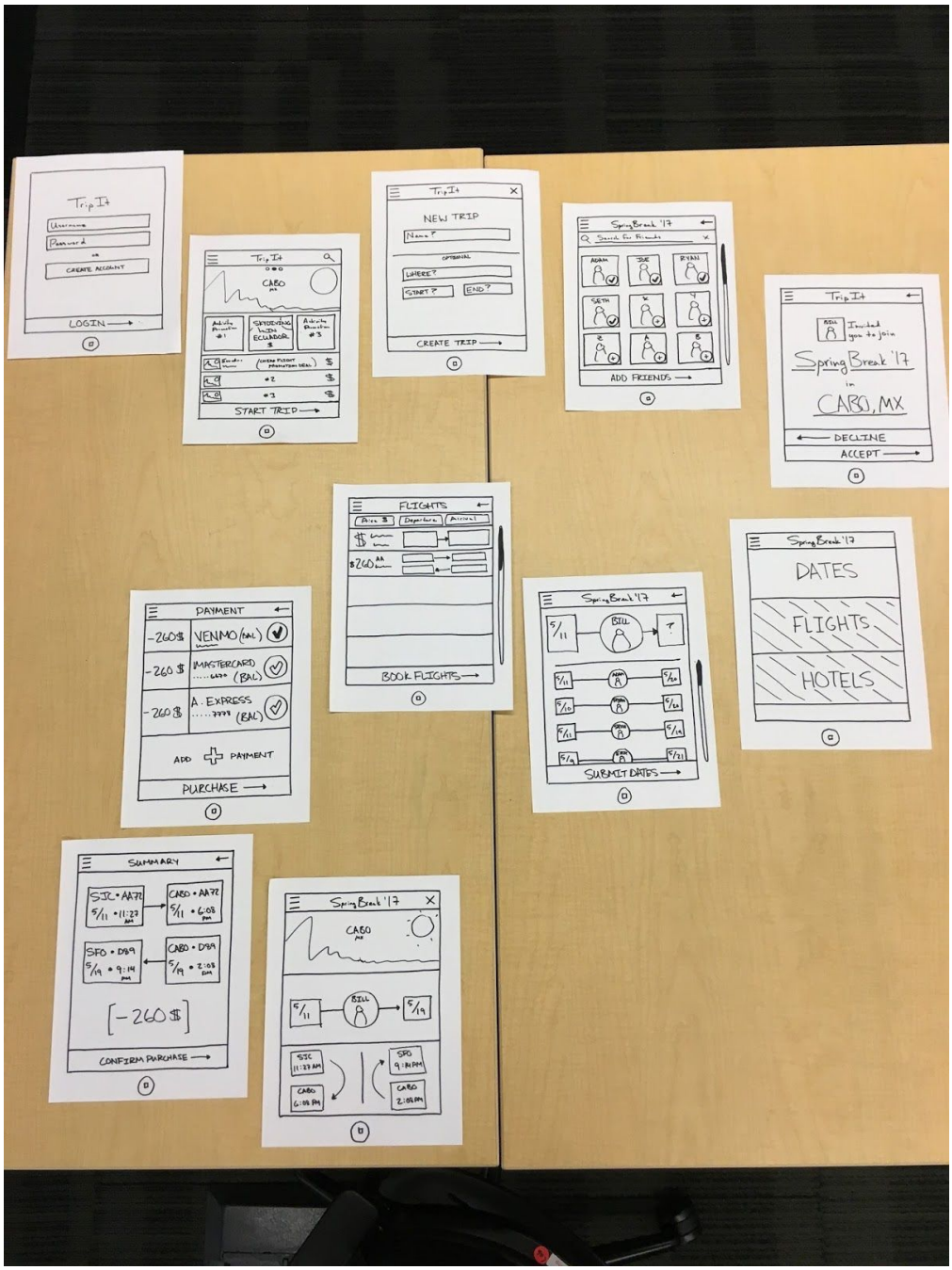

#3 Flight Booking
back button
Flights
Cost
filter toolbar (i.e. price, airline
flight picker button
top on flight for more info
Book Flights
Departure flight
Slide
Arrival flight
Book
#4
(like Yelp search screen)
Places
set price limit button
Add place to options button
Cabo
rating
top place
cost est.
scrolls to show more places
Add Places
if user selects places to add slider pops up


Back Btn.
Payment
Venmo
CC #1
CC #2
+
"Select Payment"
ADD New Payment Method
Purchase
Flights
SJC
LAX
SFO
LAX
Hotels
X
Y
[420$]
Purchase Now
takes you to receipt screen
Summary of planned purchase
Flights summary with cost
Hotel summary with cost if applicable
total cost
final purchase now slider


Trip Details Pg.
SpringBreak'17
5/11
5/13
When completed
CABO
When completed
Flight Booking
Hotel/Accom. Booking
> Trip Details page is the "homepage" for the trip... as the details are being decided by the user and groups the sections are filled with the pertinent info
this section scrolls if there are more bookings
Tap on any section to see the details for it
(Full trip details screen after payment and receipt screen

Prototype

The main functionality of our prototype is allow a user to create a trip, add their friends to the trip, vote on dates for the trip, and then to book the trip. As seen in the image below, the user advances using a touch interface on an iPhone. The key interaction idea in the prototype is to have a series of screens, which we felt was a very familiar iOS design methodology.



Method

Participants:

We interviewed a total of 3 participants. We wanted to find to find participants who had recently done or had significant group travel coming up. Our first participant is a GSB student in his mid 20's. He is from the east coast but has been in the bay area for almost two years for school. He travels a lot for both school and recreation, and said he has definitely felt the pain we are trying to solve for. Our second participant is a grade school teacher in Sunnyvale. She travels frequently in the summer since she has the time off, but doesn't travel much during the school year. Our third participant is a male in his early 30's who works in the tech industry at Box, walking distance from his apartment. He is not quite the power user like the GSB student we tested with, as he only travels occasionally. Nonetheless, it was good to have a diverse set of opinions when testing this out.

Environment:

We tested with our different participants in three different locations. The GSB student we tested on the GSB campus. The grade school teacher we tested at a coffee shop in Palo Alto, and finally we tested the tech worker in Adam's apartment complex where he lives. We worked in pairs of 2 to test the prototype, with one person designated to be the primary point of communication and the other person designated to manage the prototype. We felt this was best so the user wouldn't have to worry about talking to two different people.

Tasks:

We asked our participants to complete 3 different tasks, which are outlined below.

1. The first task was to create a share a trip. We wanted to test this task because every user who uses this application will have to go through this process. We wanted to test if the information that we were requesting of the user at this point made sense or if they expected to be asked additional questions to start their trip planning process.
2. The second task was to vote on undecided features. After speaking with several users in previous weeks, we realized that choosing the dates would be the

priority of our target users - without dates, our users wouldn't be able to have a true conversation about the trip at hand. Therefore, we focused our tasks on the process of syncing up what dates would work for all members of the trip. This was our complex task, as we wanted to try out an interface that would allow dynamic collaboration.

3. Our third task was to plan and book flights. From previous user interviews, we understood this to be a rather painful task, so we wanted to test if we could simplify the process but still maintain the user's trust that they were getting the best flight for them. Thus, we designed a very simple interface.

Procedure: We conducted these tests using paper prototypes of our application. We created interface elements so a member of our team could dynamically switch elements in and out. Our prototypes were shaped to look like an iPhone and we informed the participants they should imagine it as a real iPhone.

Test Measures: In conducting these tests, we wanted to see primarily if users would be able to figure out how to accomplish the given tasks without the need for intervention on our part. We decided on this as the key metric to monitor since the biggest pain point we were trying to solve for was the amount of time that group travel booking takes. Additionally, we also wanted to monitor for sticking points throughout the process, particularly around the booking process. We heard from users in the earlier interviews past that booking was a task where it would take a lot of trust (since the result is either the right or wrong flights).

Results

There were definitely many insights to gain from watching our testers play around and navigate their way through our prototype. We'll describe these here, separated by the three different tasks that were being performed.

Task 1 - Create and share a trip:

All three of our participants were a little bit confused by the screen immediately after the login screen. They weren't quite sure why there were other trips that seemed to be the main choices. They all felt a little confused as to how to create a trip from scratch, or whether that was actually possible. We stayed quiet to see what their behavior would be. They hesitated a little, but all three (with different amounts of doubt) ended up pressing the "Start Trip" button, and once they had done this they realized

here is where you create a trip of your own. Participant 2 was also questioning the next screen and feared that once she hit create she would not be able to change anything about the trip or invite people to join. She searched backwards a bit for a way to add friends and eventually gave up and hit create. Only then did she realize this was the intention, as the next screen is the invite screen. This is definitely an indicator that we could be more clear about the wording and/or flow of this portion.

Task 2 - Vote on trip features:

Participant three felt that once he pressed “Accept” to join the trip that he would be locked into anything the owner wanted. He was wary and wanted to make sure he could still back out if need be. The example he gave was if it ended up being too expensive for his liking, would he have the option to say no later. He was worried that this would be binding, and that the owner had full control over the trip and everything about it. There was generally good feedback from all of the users on the screen where you enter dates. They liked the simple interface and intuitive understanding of where to click to enter your preferred dates.

Task 3 - Plan and book flights:

Task three raised some confusions again. The initial screen where the user is searching flights raised some questions. This seemed to be just a prototyping issue since we left all the boxes blank and text ambiguous. The general sentiment was that if we had put in example information it would have been more clear what they were selecting/performing on that screen. The filters on top received good positive feedback. Although our prototype didn’t have the corresponding functionality to actually filter anything, they all felt it was sort of standard in most apps where you need to search, and assumed ours would behave similarly. There was also a little bit of confusion on the booking flights portion. The general thought was that “Book Flights” would actually buy them, as opposed to direct them towards the screen that would buy the corresponding flights. The next two screens received positive feedback. Participant one had a good suggestion, and noted it seemed a little extraneous to include the price next to every payment option. He also suggested removing the negative signs from all of our prices, as it might deter users from wanting to spend the money and actually book the flights. Once the “Summary” screen came up, it was then clear what everything had been doing previously. Participant three likened it to Amazon’s checkout process, and he said this was the final screen where you confirm. He even predicted correctly that the next screen would be a confirmation and visual summary of the trip he had just booked. The

fact that one of our participants was able to correctly predict the future behavior was a great sign, since there is clearly some intuition that matches.

Discussion:

Overall, the application was a little bit confusing in certain places to some of our users. We tried to remain quiet and have them solve the issue without prompts from us, and there seemed to be questions over what the action items seemed to do. For example: “Book”, “Confirm”, “Create”, “Buy,” etc. All of these words seemed to carry standard meaning that our app might have overlooked or misused. Despite the confusion here and there about certain screens, not all was bad. There were many positive reactions about how intuitive certain screens felt or how they liked different graphics or flows.

The sentiment seemed overall similar between the three participants. There seems to be a lot of potential in the application and the functionality it provides, we just need to change the UI in certain places and clean up some of the screens. We were really happy with this because people seemed excited about a future version, as opposed to struggling to see how it would be useful in the first place. This reflects well on the needfinding we did, and indicates that we need to spend a little bit more time refining the UI in the simplest, clearest, and most intuitive way possible.

However, one thing our testing could not reveal is if users would be willing to trust the flights that we selected for them. In future testing, we need to think through how to test building trust with our users.

Word count: Approx 2400 including section headers.