MOGO

Mobility/Modification on the Go

Team Member

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PROBLEM AND SOLUTION OVERVIEW

For many people, leisure travel is an indispensable routine that helps them escape from a busy schedule and a way to reward themselves after working hard. It is supposed to refresh and revitalize the individual's body and soul. However, almost every individual experiences some level of travel stress during their planned trip, such as failing to deal with unexpected situations. Providing individuals with suitable recommendations presents to be another challenge. How to edit or adjust travel plans accordingly to alleviate people's travel stress and help travelers obtain better travel experience is worthy of consideration.

We are designing a smartwatch and smartphone paired application, MOGO, that takes an individual's travel itinerary as input, learns their personal preference along the way to provide helpful travel tips and replan individual's trips whenever needed.
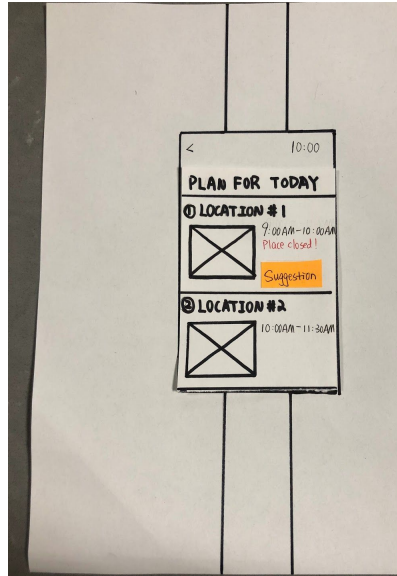
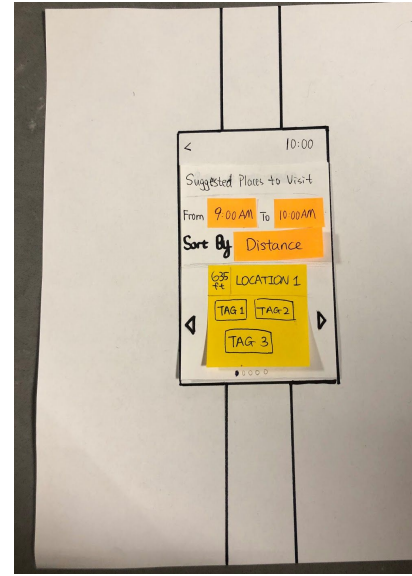# INITIAL PAPER PROTOTYPE

Overview of Initial Paper Prototype
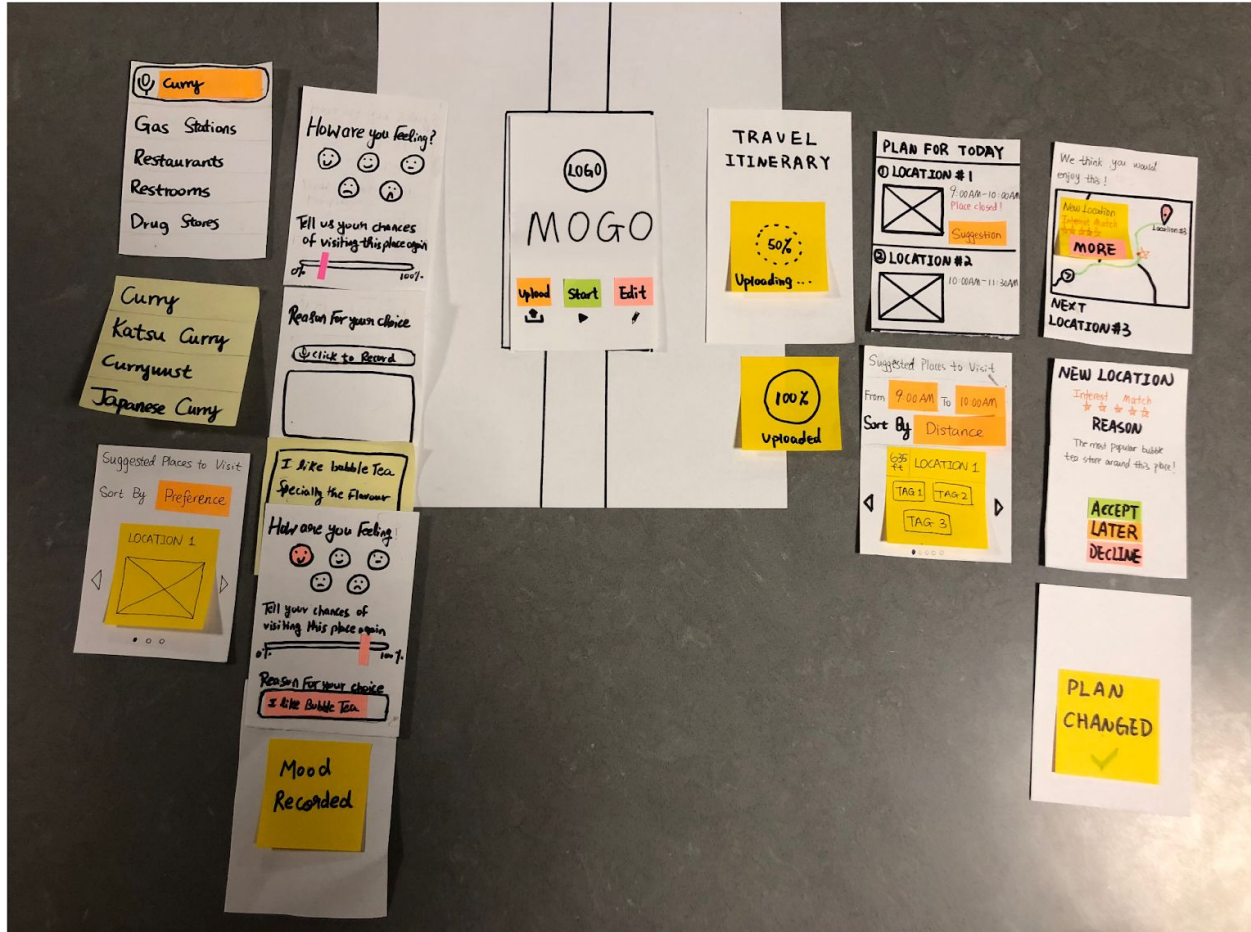
Task 1: Generating an alternative personalized plan
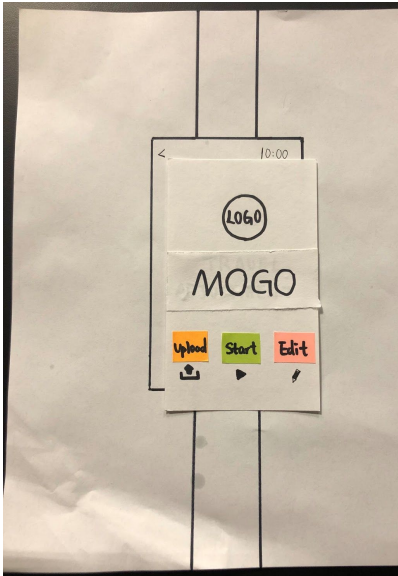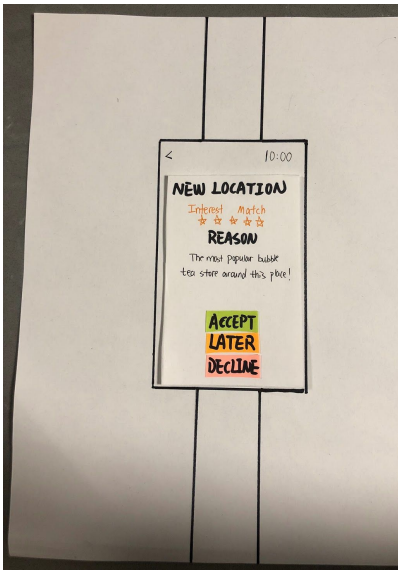

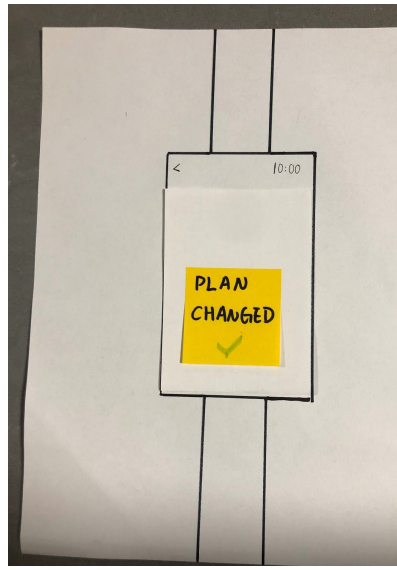**Figure 1.1.1:** Click "Start" on the Main Page.

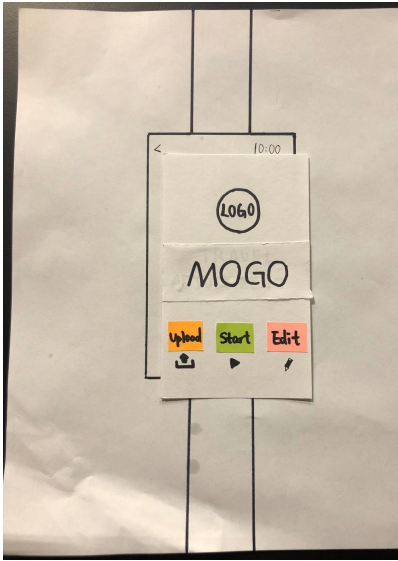**Figure 1.1.2:** Click "Suggestion"

Figure 1.1.3: Present the options

Figure 1.1.4: Finalize new location

Figure 1.1.5: Plan successfully altered

Figure 1.2.1: Click "Edit" on the Main Page.
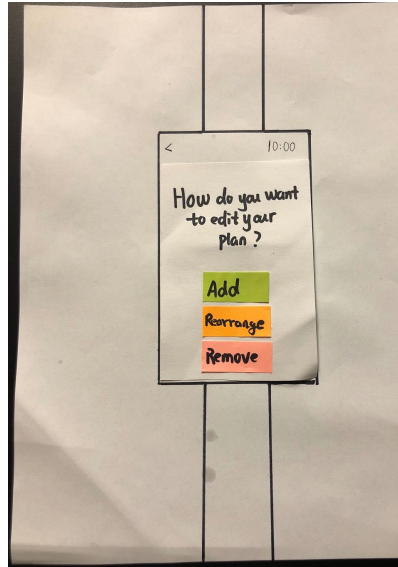
Figure 1.2.2: Voice searching for locations or activities
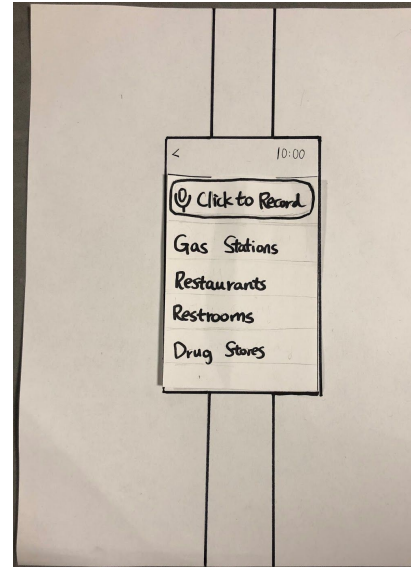
Figure 1.2.3: Voice searching for locations or activities
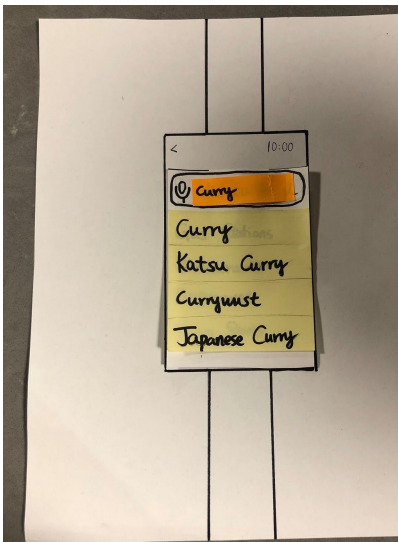
Figure 1.2.4: Recording "curry" from the user
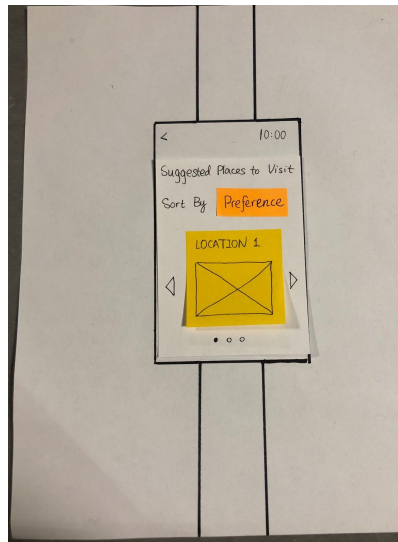
Figure 1.2.5: Presenting the suggestions by preferences
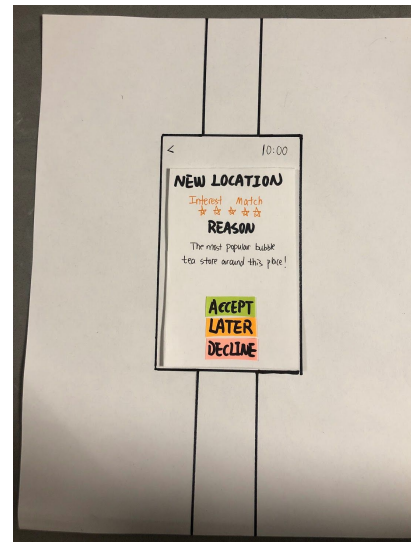
Figure 1.2.6: Prompting to take an action, and the user clicks "ACCEPT".
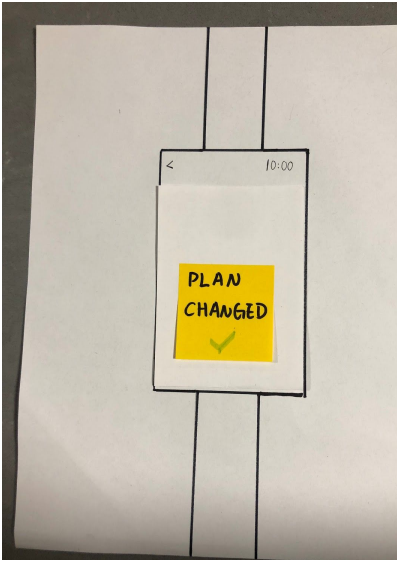
Figure 1.2.7: The user is informed that the plan now is changed.

Task 2: Learning personal preference and providing better recommendations
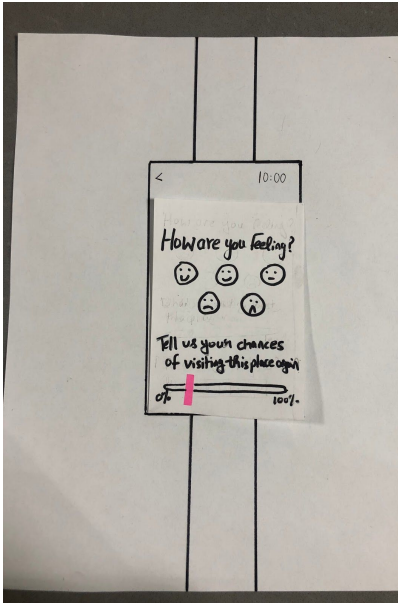
Figure 2.1: Input User Mood
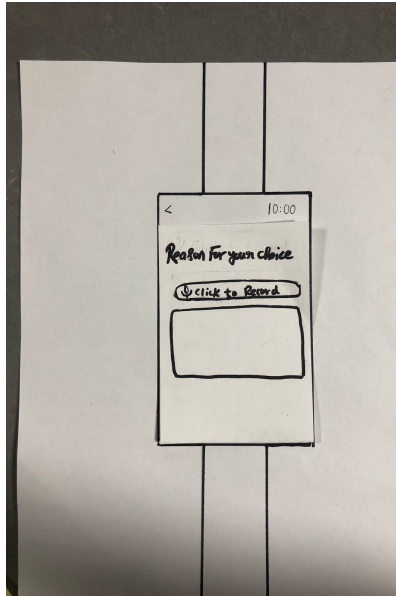
Figure 2.2: Input the "reason" for the user's mood
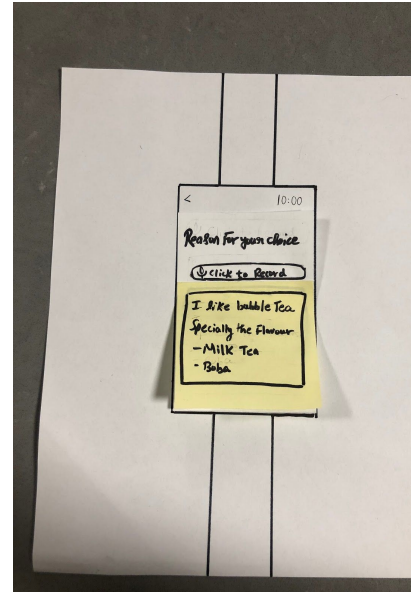
Figure 2.3: Display Recorded Input
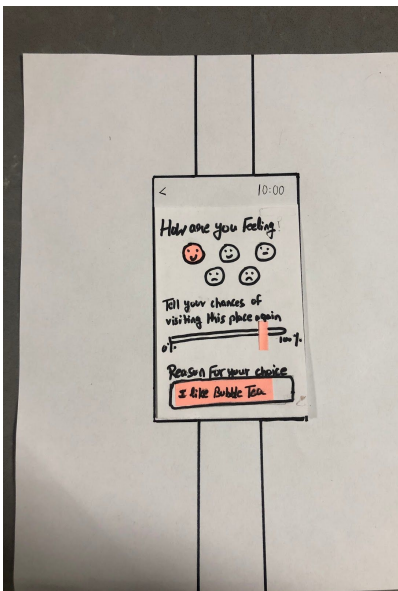
Figure 2.4: Selected options
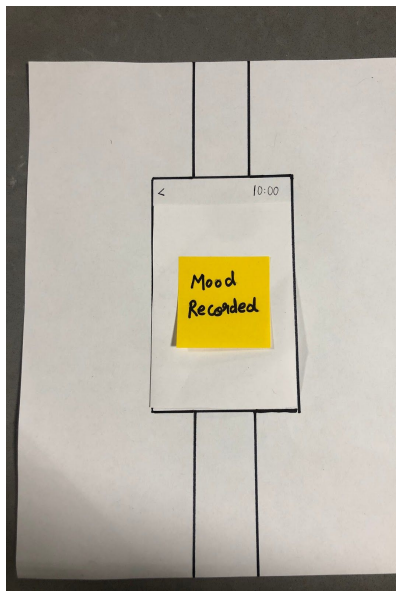
Figure 2.5: Mood Recorded Screen
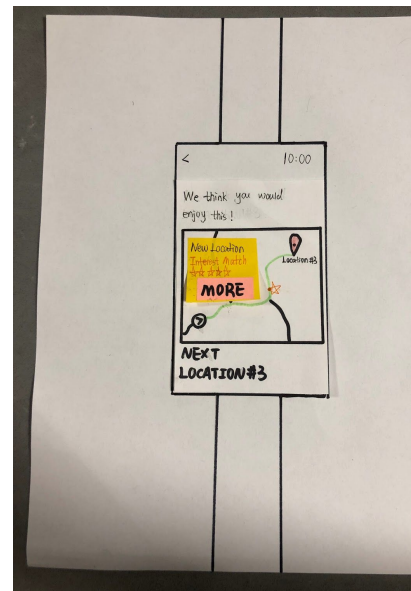
Figure 2.6: Suggesting places to visit
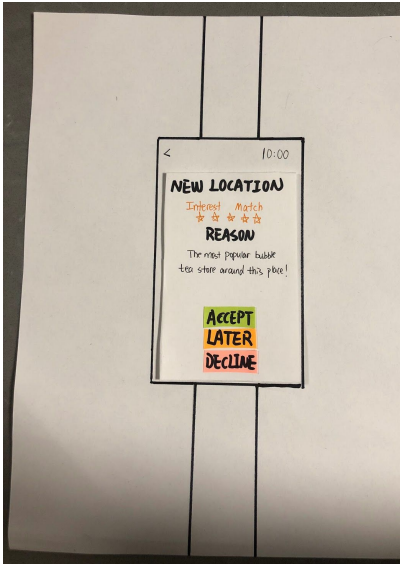
Figure 2.7: Finalize new location
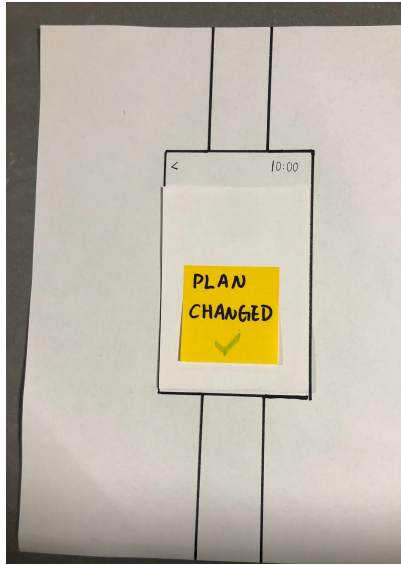
Figure 2.8: Plan successfully altered

TESTING PROCESS

Heuristic Evaluation Results and Changes

We did 2 heuristic evaluations with the Online Account security team and the Digital Eye Strain team from the class. During the evaluation, we also accounted for the severity of the violation, and came up with the following results and changes.

Usability Tests

We completed all our usability tests in different settings. We also invited people with different genders, age groups, education levels, and cultural backgrounds to get diverse feedbacks. We had two main tasks prepared for them:
- Generate an alternative personalized plan based on the given alerts and suggestions.
- Fill out the feedback system and accept the recommendation along the way.

We followed multiple testing techniques like co-discovery, think aloud during our usability testing with the users. Our participants provided valuable feedback while performing the tasks. Our last group of participants from Usability Testing 3 gave us design suggestions and also shared additional expected features.

First we introduced the usability testing process and the tasks to the users while emphasizing that we were testing the design not them. Then we moved on to the testing process, during which we encouraged users to think out loud.

During the debriefing stage, we discussed problems with our participants that stood out during the testing phase. After asking participants what they expect, we seek more opportunities in our design. These discussions helped us make clear decisions and come up with better design.

Usability Test 1 (Before the Checkpoint)

We invited Ashley to be the very first tester of MOGO. Except being a full-time student, Astrid is a part-time photographer, solo traveler, and itinerary designer. She likes to strictly follow her plan all the way on her traveling. She is not very familiar with using a smartwatch but interested in trying new technology that can assist her trips. Clearly, she is our targeted users, so we invited her to participate in our usability tests. We completed this usability test at the study lounge in Nano Science building. Yuqi was the facilitator, Sejal was the computer, and Jessica was taking notes.

Usability Test 2

Our second tester is Monica, one of the TAs of CSE440 course. She loves traveling in her spare time and is very experienced in HCI. We chose her as one of our testers because she is knowledgeable in the HCI field that we would like to gain better feedback on the design and more critique about the flow. We completed this usability test in the quiz section in a regular classroom setting. Jessica was the facilitator, Yuqi was taking notes and Sejal played the role of "computer".

Usability Test 3

In our third usability test, we invited Michael and Steven, who are male junior students studying Computer Science at UW and are friends for a long time. They both like traveling but have never traveled together before. We invited them to do our usability test mainly because we want to gain more perspective from male travelers. We completed this test in the CSE2 laboratory area, the place they usually study. Jessica was the facilitator, Yuqi plays the role of "computer" and Sejal took notes.

Usability Test 4

In our last usability Test, our participants are Catherine and Emma. Catherine is double majoring in Informatics and Psychology, while Emma is studying Computer Science with interests in HCI and machine learning. They did not know each other before this usability test, but what the two girls have in common is that they are the plan-driven type of people who love taking the control over their schedule and have things lined up orderly. We invited them because they are detailed oriented people, and we would like to get more specific feedbacks and discuss potential changes with them. We completed this usability test at a round table in CSE 006 laboratory, where was a little bit noisy. Sejal was the facilitator, Yuqi was the "computer", and Jessica was the notes taker.

Design Critique

Critique from classmates were included in the above heuristic evaluation. The TA gave her feedback during the usability test 2 we mentioned above.

TESTING RESULTS

Heuristic Evaluation Results and Changes

Doing the heuristic evaluation as the first test enables us to get an overall idea of revision before presenting to our potential users. The heuristic evaluations highlighted the severe consistency issue that our design has. We had different capitalization throughout all of our prototypes, so we chose a standard that only capitalize the initial character and basically rewrote every sentence. The flexibility and efficiency of our design is not ideal as well. There were unnecessary buttons that we deleted laely. We also added drop-down buttons to give the user more control on the sorting method when they choose the suggested locations. As for the flexibility of controlling their privacy, we added the "Skip" button to allow them to protect their personal information during surveys process.

Usability Test Results and Changes

Usability Test 1 Changes -- Dual Platform

We have changed our pure smartwatch design to a dual platform design, which is having smartwatch and smartphone cooperating together. Doing so allows more information to be displayed on the screen and provide more convenience to the user. We mainly distributed all functions which require complex user interactions to the smartphone and the notification/alert functions that need instant reactions to the smartwatch by taking the advantage from its wearable feature.

Usability Test 2 Changes -- Navigation Bar

Since we are designing for dual platforms, we have incorporated some new design patterns for our mobile app. We are using a fixed navigation menu pattern, which facilitates user flow and easy navigation. We have 3 navigation flows which include the Current Plan, Trips and Me. "Current Plan" screen displays the information that travelers need to check often during their travel journey to be aware of what situation they are at and are going to face. "Trips" screen contains all the past, current, and upcoming itinerary people have and also allows them to upload new itineraries. "Me" screen displays personal information. In this screen, the user would get access to his or her activity reports, notification settings, and user profile.

Usability Test 3 Changes -- Providing More User Control

In our initial design, after the users add/remove/rearrange activities, we assume MOGO will automatically generate the optimal plan accordingly. However, most of our test participants reported that they would like to have more control about their travel plans over MOGO. They preferred to see the changed schedule after they selected the activity and before confirming the changes. Considering the nature of traveling should be personalized and the hardship for a machine to understand one's preference thoroughly, we agree on giving users more freedom and power to change and control their plans.

Usability Test 4 Changes -- Display

In this usability test, the major change we did is to polish our display. We first changed the layout of "Current Plan" plan page. Our participants reflected that as a traveler in an unfamiliar place, they would always pay attention to the weather. Thus we displayed the weather condition on the top section of the screen instead of in the alert page. We also changed the schedule display to a timeline setting instead of listing out the events with their duration time. We have learned that showing the strict duration time would increase the stress level of people. In order to meet our ultimate goal of decreasing the stress on the way of traveling, we decided to remove the duration time.
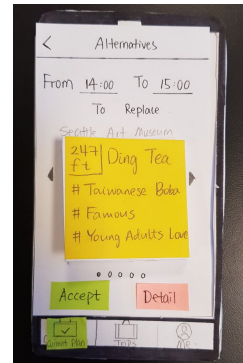
Overview of Final Paper Prototype

Task 1: Generating an alternative personalized plan
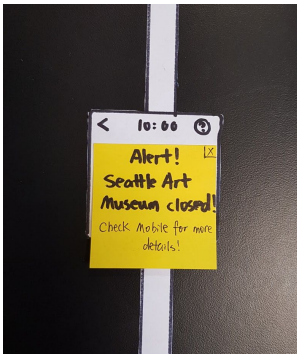
Figure 1.1
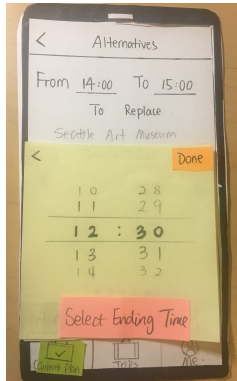Smartwatch vibrates - Alerts about the closed destination

Figure 1.2
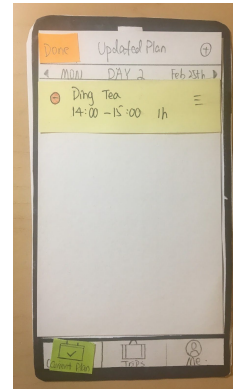Smartphone displays an option to find alternatives

Figure 1.3
Alternatives are suggested to the same duration time
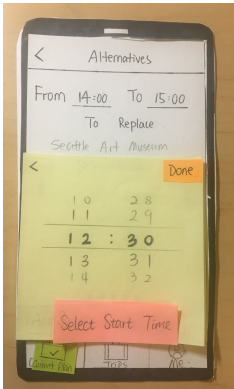
Figure 1.4
The user can select the start time for their visit

Figure 1.5
User can select the expected end time for their visit

Figure 1.7
The plan is updated
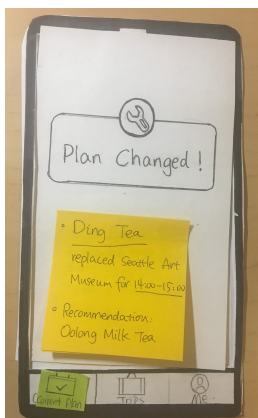
Figure 1.6
Details of the changed plan are displayed

Task 2: Learning personal preference and providing a better recommendation
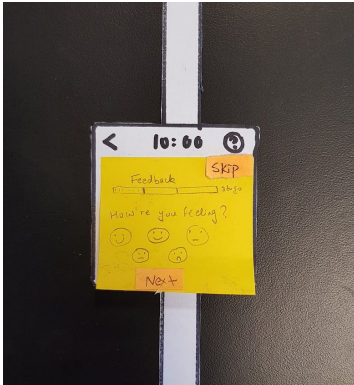
Figure 2.1
Feedback Form - Ask the user to input their feelings
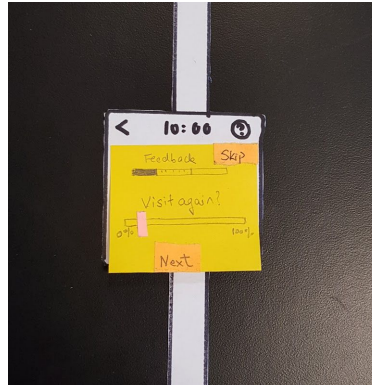
Figure 2.2
Feedback Form - Ask if the user would like to visit the place again
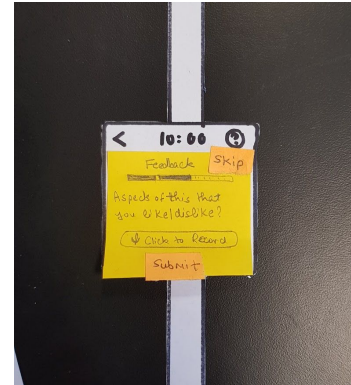
Figure 2.3
The user is asked to input additional details about their response
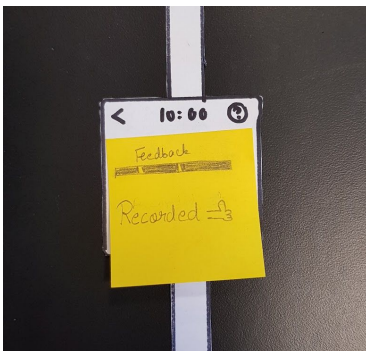
Figure 2.4
Feedback Recorded screen
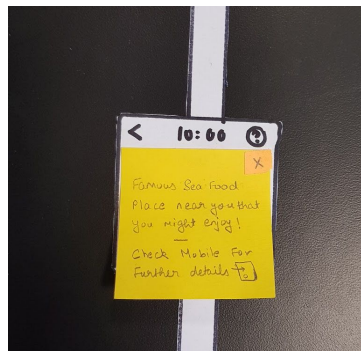
Figure 2.5
The user is notified of a new place to check out based on their preferences

Figure 2.6
The new place is displayed enroute to the main destination

Figure 2.8
The plan is updated

Figure 2.7
Details of the changed
Are displayed

DIGITAL MOCKUP
Overview - Smartphone screens

MOGO Page

MOGO

Mobility
Modification

on the Go

Trips

Trips ⊕

Upcoming | Past

Seattle Trip
2 days | Feb 24th - Feb 25th

View Plan | Delete Plan

Current Plan Day 1

Edit | Current Plan

Bring Your Umbrella!
2 °C/°F

< SUN   DAY 1   FEB 24 >

09 : 00 ● Starbucks at Pike Place
10 : 15 ○ Space Needle
13 : 15 ○ Chihuly Garden and Glass

Current Plan Day 2

Edit | Current Plan

Bring Your Umbrella!
3 °C/°F

< MON   DAY 2   FEB 25 >

14 : 00 ● Seattle Art Museum

Edit Plan

Done | Current Plan ⊕

< SUN   DAY 1   FEB 24 >

● Starbucks at Pike Place
09 : 00 — 10 : 00   1 h

● Space Needle
10 : 15 — 11 : 30   1 h 15 min

● Chihuly Garden and Glass
13 : 15 — 11 : 30   1 h 15 min

Updated Plan DAY...

Done | Current Plan ⊕

< SUN   DAY 1   FEB 24 >

● Starbucks at Pike Place
09 : 00 — 10 : 00   1 h

● Space Needle
10 : 15 — 11 : 30   1 h 15 min

● Crab Pot Restaurant
12 : 00 — 13 : 00   1 h

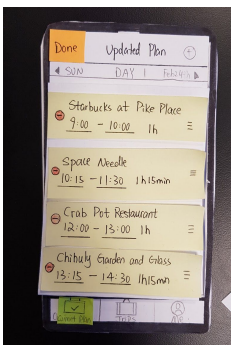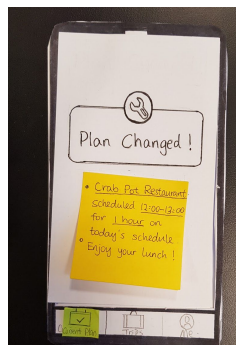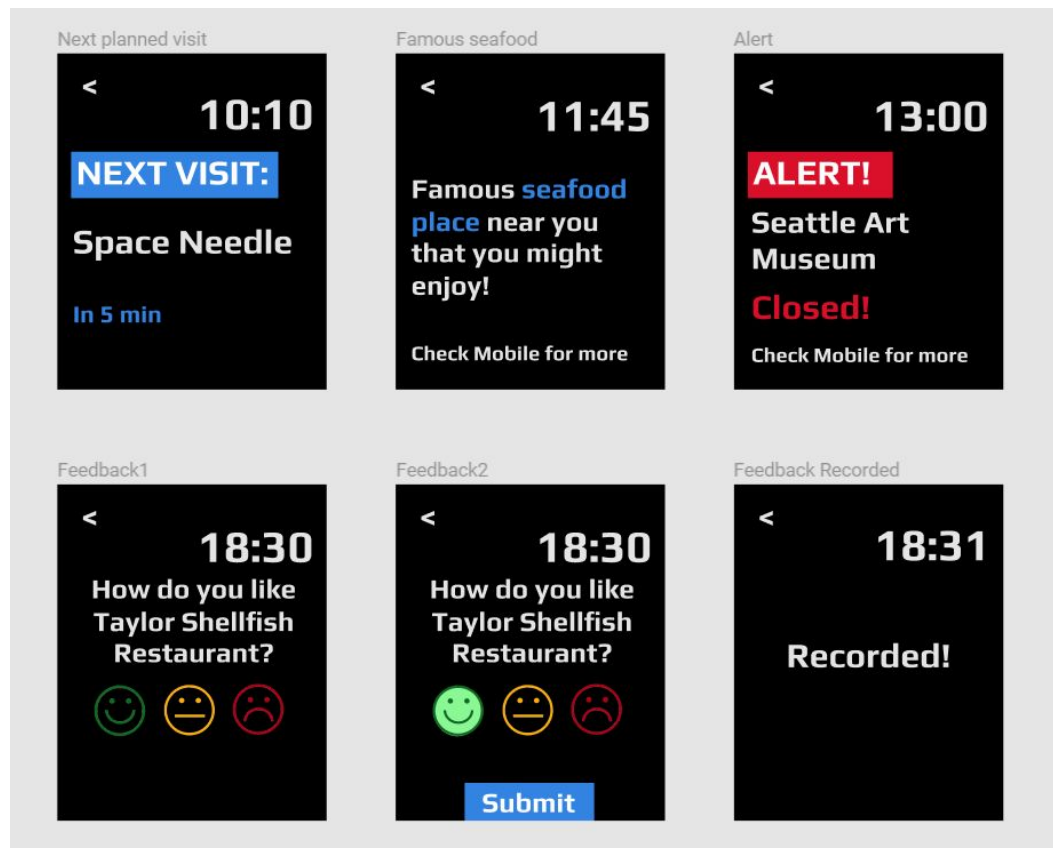● Chihuly Garden and Glass
13 : 15 — 11 : 30   1 h 15 min

Suggestion Page

< Suggestion

We found a place you might enjoy!

Based on your feedback on **Taylor Shellfish Restaurant**

Crab Pot Restaurant
Preference | Seafood
★★★★

Accept | Detail

Details Crab Pot

< Detail

Crab Pot Restaurant
★★★★☆

Address: 1301 Alaskan Way Pier 57 Seattle, WA 98101
Phone: (206) 624-1890

Explore the **menu**

Reviews:
"They also have golden boba which I had never tried before - and they were the perfect bouncy texture and sweetness."

Accept | Decline

Select Start Time ...

< Select Time

Crab Pot Restaurant
★★★★☆

Suggest time
12 : 00 - 13 : 00

< Select Start Time

10   58
11   59
12 : 00
13   01
14   02

Next

Select End Time f...

< Select Time

Crab Pot Restaurant
★★★★☆

Suggest time
12 : 00 - 13 : 00

< Select End Time

13   58
14   59
15 : 00
16   01
17   02

Done

Confirmation pag...

Plan Changed!

Crab Pot Restaurant is added to today's schedule from **12:00** to **13:00**.

Enjoy your meal!

Current Plan with ...

Edit | Current Plan

Bring Your Umbrella!
2 °C/°F

< SUN   DAY 1   FEB 24 >

09 : 00 ● Starbucks at Pike Place
10 : 15 ○ Space Needle
12 : 00 ● Crab Pot Restaurant
13 : 15 ○ Chihuly Garden and Glass

ALERT PAGE

< Alert

Location Closed !

Seattle Art Museum
was planned for 14:00 - 15:00

Closes early at 13:00

This place closes early today because of private reservation

See Alternatives

Alternatives ding t...

< Alternatives

From **14 : 00** To **15 : 00**
To Replace
Seattle Art Museum

247 Ft   **Ding Tea**

< >

Taiwanese Boba
Famous in Asia
Young Adults love

Accept | Detail

Alternatives share...

< Alternatives

From **14 : 00** To **15 : 00**
To Replace
Seattle Art Museum

635 Ft   **ShareTea**

< >

Coffee & Tea
Authentic flavors
To-Go

Accept | Detail

Details Ding Tea

< Detail

Ding Tea
★★★★☆

Address: 4725 University Way NE Seattle, WA 98105
Phone: (206) 456-7192

Explore the **menu**

Reviews:
"They also have golden boba which I had never tried before - and they were the perfect bouncy texture and sweetness."

Accept | Decline

Select Start Time ...

< Select Time

Ding Tea
★★★★☆

From **14 : 00** To **15 : 00**
To Replace
Seattle Art Museum

< Select Start Time

12   58
14   59
14 : 00
15   01
16   02

Next

Select End Time f...

< Select Time

Ding Tea
★★★★☆

From **14 : 00** To **15 : 00**
To Replace
Seattle Art Museum

< Select End Time

13   58
14   59
15 : 00
16   01
17   02

Done

Updated Plan DAY...

Done | Updated Plan ⊕

< MON   DAY 2   FEB 25 >

● **Ding Tea**
14 : 00 — 15 : 00   1 h

Confirmation page

Plan Changed!

Ding Tea replaced Seattle Art Museum from **14:00** to **15:00**

Current Plan with ...

Edit | Current Plan

Bring Your Umbrella!
3 °C/°F

< MON   DAY 2   FEB 25 >

14 : 00 ● Ding TEA

Current Plan | Trips | Profile

*Overview - Smartwatch screens*

Online Digital Prototypes

Smartphone:
https://www.figma.com/proto/R0dEUJi0bTxWSSG0R78chavp/Mockup?node-id=25%3A6&scaling=scale-down
Smartwatch:
https://www.figma.com/proto/R0dEUJi0bTxWSSG0R78chavp/Mockup?node-id=63%3A131&scaling=scale-down
(Due to the limitation of Figma, it is impossible for us to show the connection between smartwatch and smartphone so that a few connections are missing)

Task 1: Generating an alternative plan due to the unexpected closure of a location
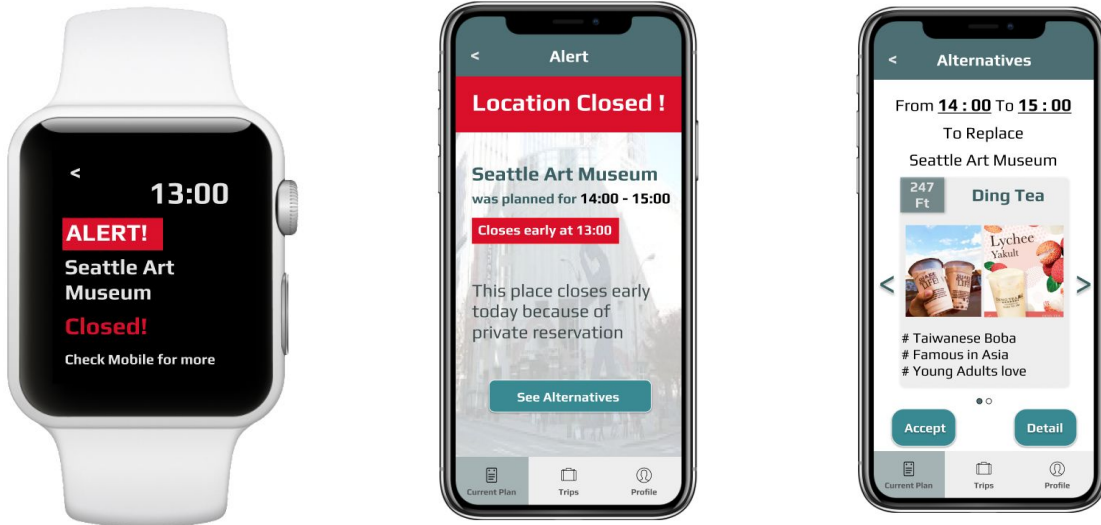
The smartwatch vibrates to alert the user that the planned "Seattle Art Museum" is closed unanticipatedly. When the user checks smartphones for more details, he/she can find alternatives MOGO provides to replace the original plan. The user can choose to see details if he/she wants.
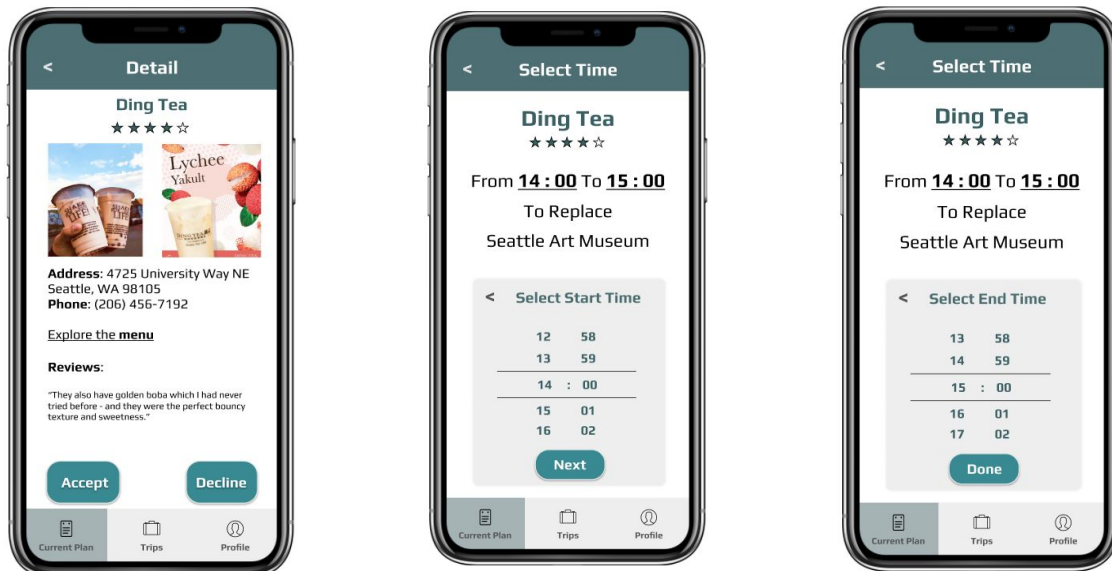
As the user taps "Accept", MOGO allows them to select the start and end time manually.

After selecting the time, the user will see the updated plan and have a double check. A "Plan Changed" screen will show up for a couple seconds to reaffirm the modification and it will later jump back to the current plan.

Task 2: Filling out the feedback and Getting better recommendation during the trip

The smartwatch vibrates around the time when the user waits for the dinner, and it asks the user to fill out the feedback for the Taylor Shellfish Restaurant MOGO recommends earlier. The user taps the emoji to record his/her feeling and the feedback enables MOGO to learn more about the user's preference.
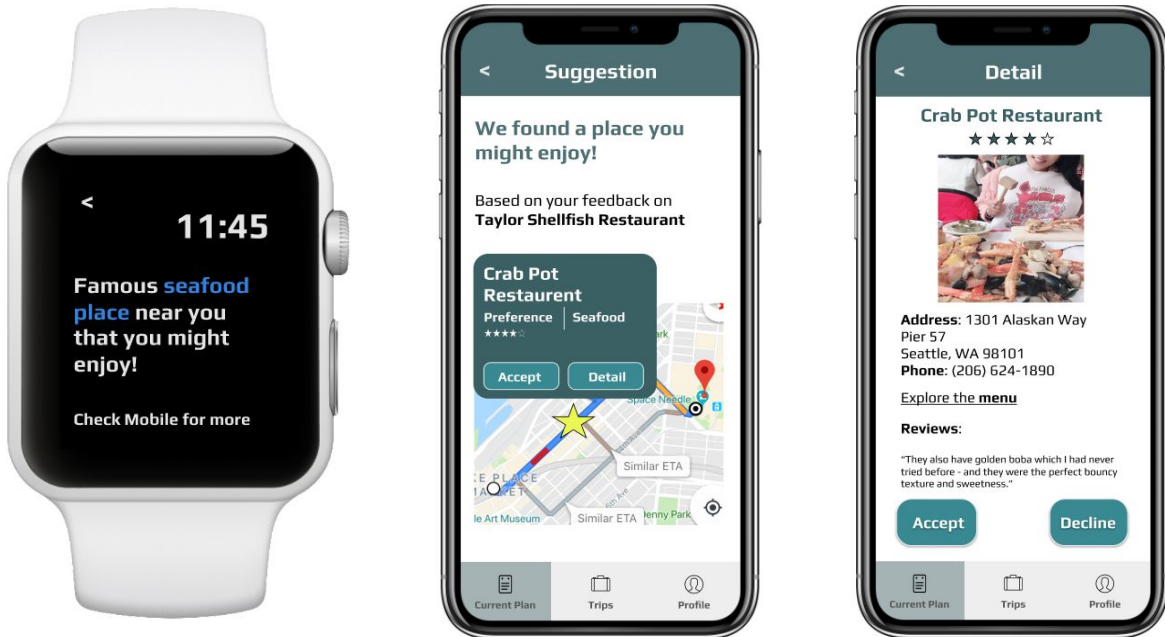
During the user's trip to Seattle, MOGO detects a place that might interest so the smartwatch vibrates again. The user is able to see more details if he/she wants on the smartphone.
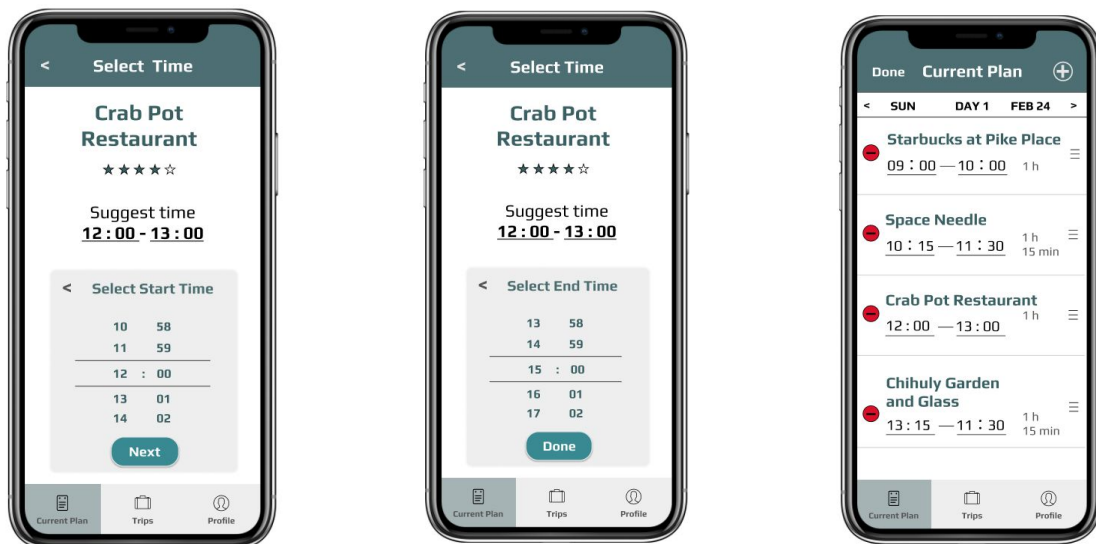
As the user accepts the suggestion, MOGO allows them to select the start and end time manually while providing a suggested time as a reference. After selecting the time, the user will see the updated plan and have a double check.
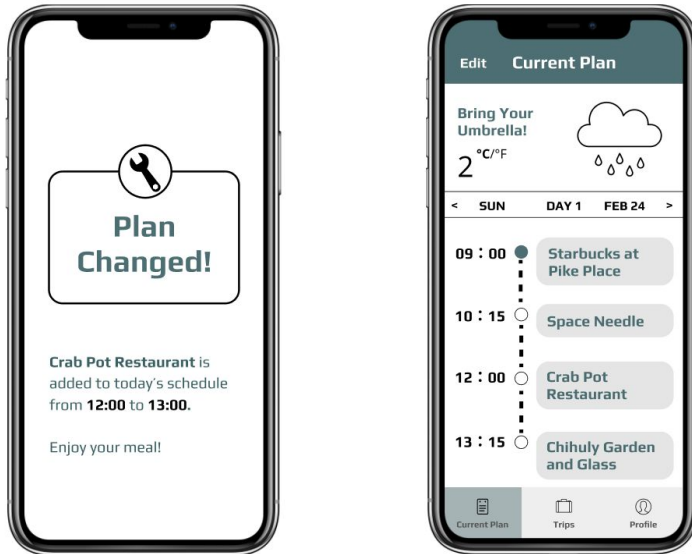
A "Plan Changed" screen will show up for a couple seconds to reaffirm the modification and it will later jump back to the current plan.

Major Changes from Paper Prototype to Digital Prototype

Color for UI

We use the #3b6064 (■), a mixture of green and blue as our theme color for the smartphone. As green brings health and happiness and blue brings stability, we believe that combining the two can provide positive effects on travelers' minds so that can release their stress during the travel and help them obtain better spiritual experience. We also use a dark red as our contrasting color. Instead of using this theme color on smartwatch for external consistency, we chose lighter colors since smartwatch usually has a black background.

Feedback System on the Smartwatch

Before	After
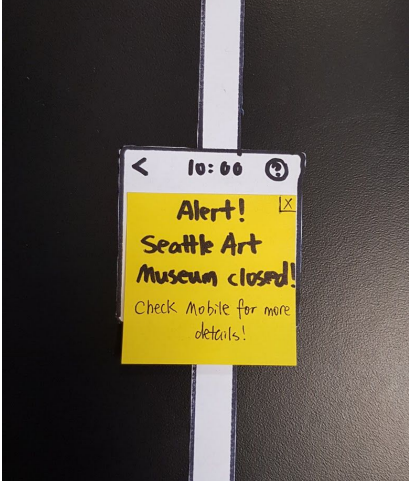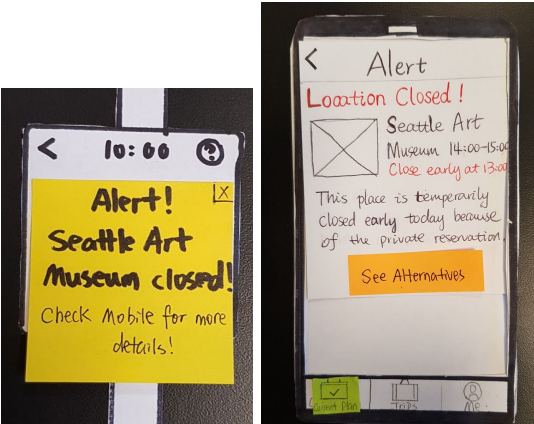
With our discussion with TA during the last quiz section, we found out that our design of feedback system was flawed as people tend to skip it. To make the design better, we reached out to more targeted users and asked their opinions about in what situation they are more likely to fill out the feedback system.

It turned out that they would like to answer as few questions as possible. Therefore, instead of having people answer three different questions, we kept the core one - "how do you like XXX" and allowed users to input the answer by tapping on one specific emoji. Instead of having people choose among 5 emojis, we narrowed down to 3 for more convenience. We also noticed that we should not mention the word "feedback" on our screen as people have the inclination to skip whenever they see this word.

Besides, the time and frequency to ask for feedback matter. Initially, we let the user fill out a feedback after each visit, however, this became quite annoying after couple repetitions. Therefore, we limited its frequency to be once a day. Assuming the smartwatch is smart enough to detect human activities and locations, we will have the feedback system popped up during the time users are waiting for their dinner. As this would be a good time to review the experience on that day, it will be more likely for users to fill out the feedback.

Moreover, rather than asking the user's feeling about all the locations he/she has visited, we will only ask those suggested by MOGO, as our ultimate goal is to optimize MOGO's performance on recommendation.

Attracting Alert Notification

Before	After

While making the Alert pages digitally, we noticed that the layout on our paper prototype is not attracting enough when it becomes digital, especially on the black background in smartwatch. Therefore, we used the color contrasting to use the red and white to help the alert stand out. To keep the consistency, we also used left align on the smartwatch as other notification pages. On the mobile device, we used the same red and white combo to be aligned to the smartwatch. We discussed to put the location photo as the background to help the participants stay focus on the text information. The photo just plays the role of reminding them the location.

Clean Display on Watch

Before	After
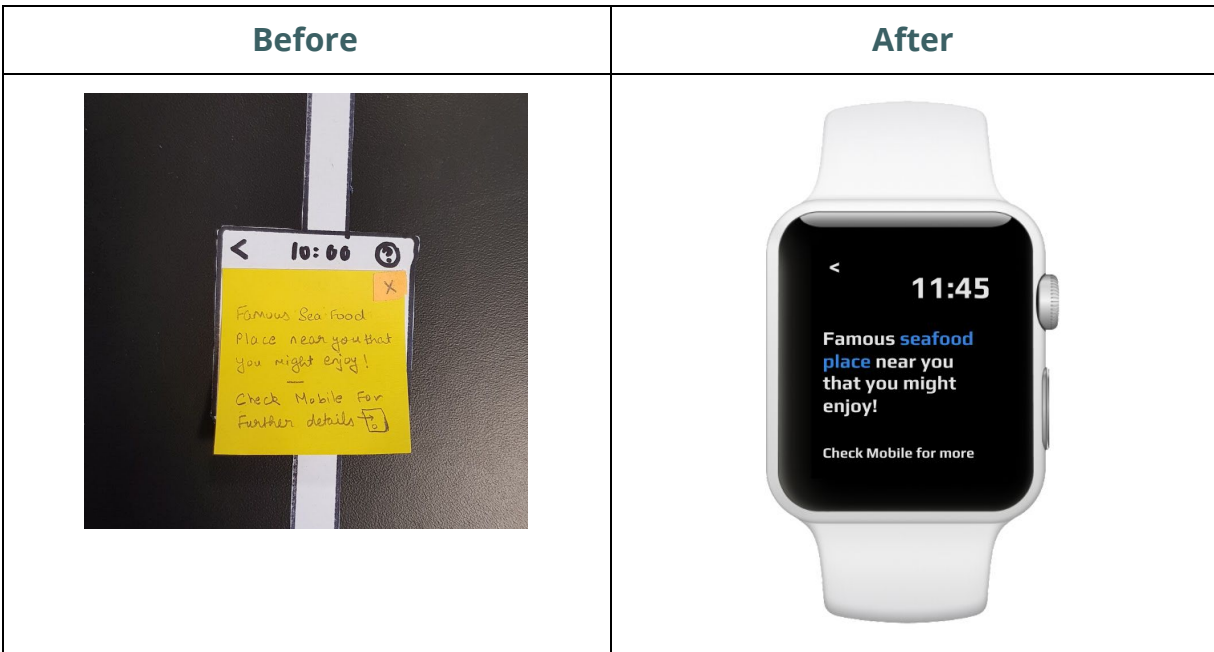
We cut down the sentence on the smartwatch display for reading convenience. Due to the space limitation on the smartwatch, we tried to shorten our message for a neater screen. We also colored the keyword to highlight it. Since there is always a back button on the upper left corner, we eliminated the "X" button to not be redundant. To be consistent with current existing smartwatch in the market, we moved the time to the upper right corner and enlarged the size to make it more straightforward to users.

DISCUSSION

What did you learn from the process of iterative design?

From the process of iterative design, we learned that a good design requires significant time, user feedback and careful adjustments. The real-time feedbacks from our participants helped us diagnose the problems in a straightforward manner. We were able to see some common problems in each iteration which helped us evaluated the severity and revise out design more concisely.

How did the process shape your final design?

The process of iterative design helped us better learn the relationship between our design and users and further upgrade our design. We were able to make small changes step by step to make our design more efficient and user friendly. We learned that even though people would like to gain help from new technology, they strongly prefer to have more user control over MOGO's automatic adjustment on travel schedules. The iteration design shaped our final design to assisting more instead of dominating the trip.

How have your tasks changed as a result of your usability tests?

As a result of our usability tests, we simplified our tasks significantly. We initially wanted our participants to experience the process uploading their itinerary to MOGO before moving on to main tasks. However, our participants started to become curious about how the uploading works on MOGO, which discouraged them to move on to the main tasks later. As our design focuses on the travel phase rather than the plan phase, we cut down this uploading task and explained to users that they could assume an itinerary was uploaded already.

We also decided to narrow down the focus of our tasks to "Generating an alternative plan based on the given alerts and suggestions by MOGO" and "Filling out the feedback and accepting the suggestion along the way". Initially, we also included a subtask - "Manually adding a place to the current plan". However, we later noticed that this task does not align with the main focus of MOGO, thus distracting participants' attention. As we wanted to focus more on how MOGO can provide alternatives and suggestions rather than allowing users to add a new place to the current plan, we decided to cut down this subtask.

Do you think you could have used more, or fewer, iterations upon your design?

We think we could use more iterations upon our current design to test if users are having a seamless experience with our app. As discussed above, we simplified some of our tasks to make the design more intuitive and stay under the focus of our design space. But due to time constraints, we did not get a chance to actually test the design iterations.

Appendix

Script for Usability Testing

Hello, thanks for taking our usability test! We are here to present you "MOGO", "mobility and modification on the go". This is a pair application for both smartwatches and smartphones. We aim to have this solution for leisure travelers to help them reduce stress from unexpected situations and gain better traveling experiences. We're here to test this design, not you, so anything that goes wrong is our fault, not yours. Note that we will not provide a direct answer to your questions during the test, because the goal is to see where people have difficulties, so we can make it easier. But please do ask questions if you are stuck, we will answer them once the test is over.

Today, we would like you to simulate two main tasks. One is to update your planned trip in terms of unanticipated situation and the other one is to provide feedback about your travel experience to receive more personalized recommendations. We will provide scenarios for you to assist you in the tests. Before we start, do you have any questions or concerns?

Background about the plan: Assume you have planned a trip to Seattle, and you have planned a itenary for that trip. Now you want an app which assists you to follow your plan in the best efficient way and also provide a personalized experience. So, assume you have already installed MOGO and uploaded your itenary.

TASK 1.1 -- Detect problems in the plan and generate an alternative plan
Your watch is vibrating and alerts you about a change in tomorrow's plan.
What do u see?
What will you do to avoid the problem in your plan?
-- suppose to click "See Alternatives"
Let's say you want to add Ding Tea to replace the previous plan, how will you proceed?

TASK 1.2 -- Fill out the feedback system
Now you have already visited Ding Tea. Your smartwatch just vibrates. What did you see and how would you interact with it?

TASK 1.3 -- Add suggested destination on your plan
Now imagine you are on your way to Chihuly Garden and Glass. Your smartwatch vibrates again. How would you interact with it?
-- supposed to look at the smartphone for more detail
Let's say you want to add this suggested restaurant on your plan. What will you do?
-- Suppose to click on "Accept" or go to "Details" and then click "Accept"
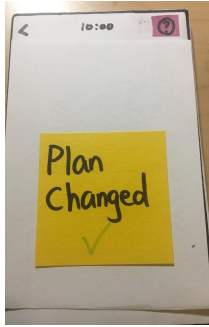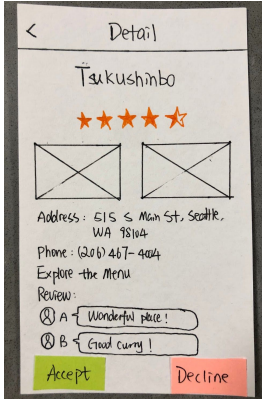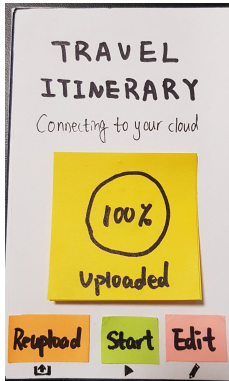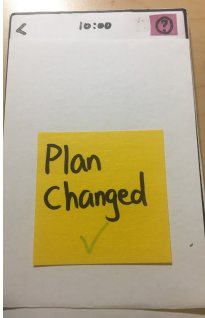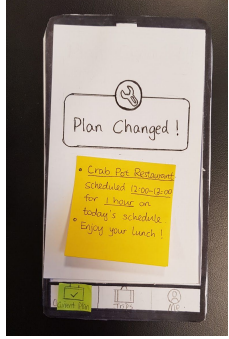
Usability Test Critical Incidents
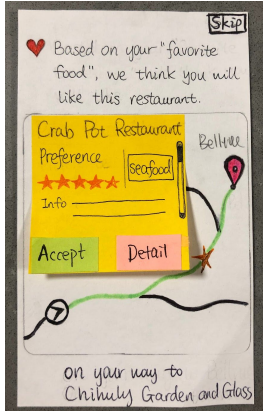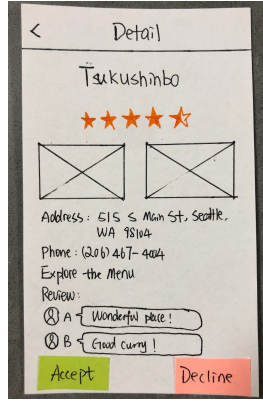
Usability Test 1 Issues & Revisions

Before	After	Issue & Revision
		User control and freedom (severity 4): Instead of jumping back to the Travel Itinerary page after the user modifies the plan, a navigation bar at the bottom is needed for the user to switch between pages easily and conveniently.
		Visibility of system status (severity 3): After the plan has changed, MOGO should show users what exactly has been modified instead of just showing "Plan Changed".
		Flexibility and efficiency of use (severity 2): It should provide the user with the option to directly add the location to the plan.

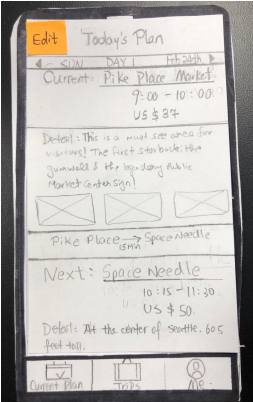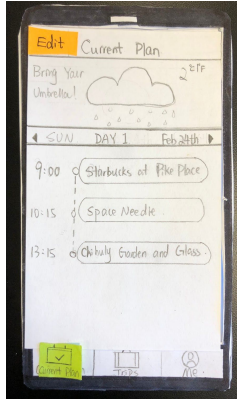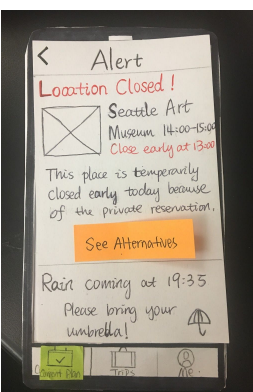| Before	After	Issue & Revision
		Flexibility and efficiency of use (severity 2): Instead of just showing the reason, we should provide more details such as photos, address, phone number, and reviews from others. Doing so helps users obtain enough information so that they don't need to look for other information on other websites.

Usability Test 2 Issues & Revisions

Before	After	Issue & Revision
		User control and freedom (severity 4): Instead of jumping back to the Travel Itinerary page after the user modifies the plan, a navigation bar at the bottom is needed for the user to switch between pages easily and conveniently.
		Visibility of system status (severity 3): After the plan has changed, MOGO should show users what exactly has been modified instead of just showing "Plan Changed".

		Flexibility and efficiency of use (severity 2): It should provide the user with the option to directly add the location to the plan.
		Flexibility and efficiency of use (severity 2): Instead of just showing the reason, we should provide more details such as photos, address, phone number, and reviews from others. Doing so helps users obtain enough information so that they don't need to look for other information on other websites.

Usability Test 3 Issues & Revisions

Before	After	Issue & Revision
None		**User Control and freedom (severity 3):** Participants mentioned that they want to double check if the generated plan is the one they want. They want more control over their plan over the MOGO.
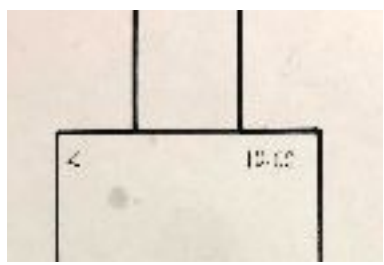
Before	After	Issue & Revision
		Consistency and Standards (severity 1): Changing "Suggestion" to "See Alternatives" to clarify the meaning.
		Error Prevention (severity 1): Instead of allowing users to tap on the "Alert" button and showing an error message when there is no alert, we remove the button to prevent the error in the first place.
		User control and freedom (severity 2): Instead of only showing "Today's plan", we should allow users to switch between dates based on their needs. Therefore, we provide

Usability Test 4 Issues & Revisions

Before	**After**	**Issue & Revision**
		Aesthetic and minimalist design (severity 1): "On your way to Chihuly Garden and Glass" is not necessary here because it will distract users attention from focusing on the newly suggested location.

		Aesthetic and Minimalist design (severity 2): Instead of displaying the duration time on the current plan to put more pressure on travelers, we change it to just show the starting time of each activity and let smartwatch to vibrate to remind people to move on. Also, Instead of displaying details on the page, we can expect users to tab on the location name and see more details if they want.
		Aesthetic and minimal severity(severity 1): The "Alert" Page should report things serious. In this page, we eliminated friendly reminders about bad weather to help participants not get distracted. Instead, we move the weather forecast to the main page of "current plan" so that users will be notified about the weather all the time.

Heuristic Evaluation Result & Revisions

Before	After	Issue & Revision
		Help and documentation (severity 2) - To provide help when needed, we add a help button on the top right corner so that users have access to it at all stages. (We put it at top right for error prevention purpose)
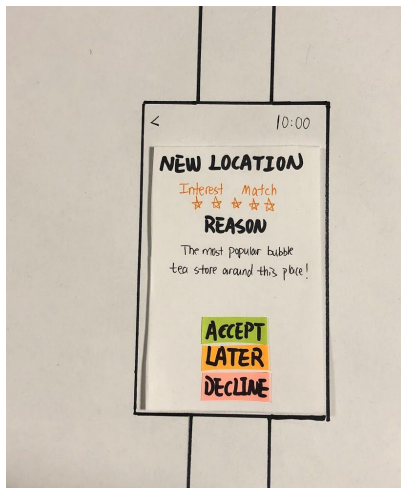
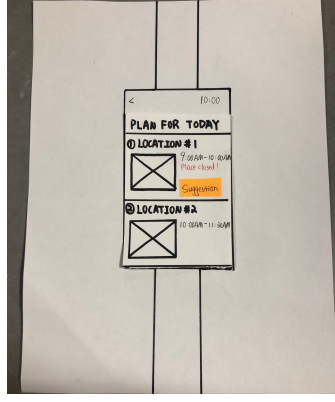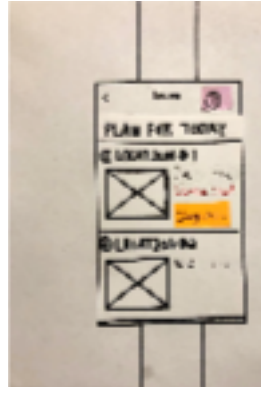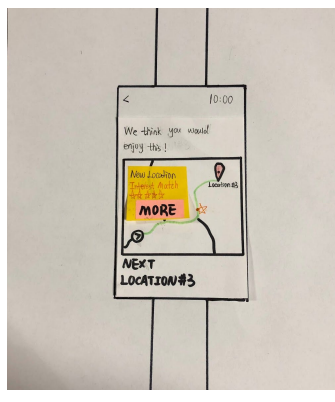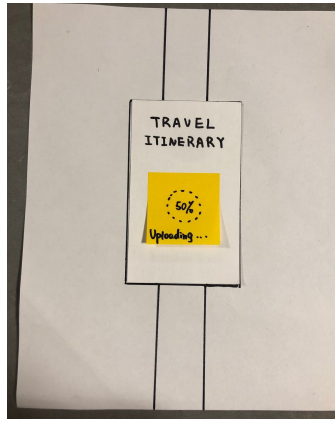|		
		Consistency and standards (severity 2) - To keep consistency, capitalize only the first letter for the buttons. - To eliminate unnecessary function, we delete the "Later" button because the user does not know where "Later" directs them to. - To prevent confusion, we changed "interest match" to "preference". - To show scale, we fill the stars with color.
		Consistency and standards (severity 2) - To eliminate confusing functions and keep the functions feasible, we delete the "Rearrange" button. (Rearrange locations on a smartwatch is not easy to do)
		Error prevention (severity 1) - we change the time system to 24 hrs. **Flexibility and efficiency of use (severity 2)** - we add a drop-down button to give more user control (use triangle for the convention). **Consistency and Standards (severity 2)** - To specify what "Distance" stands for, we add "from you"
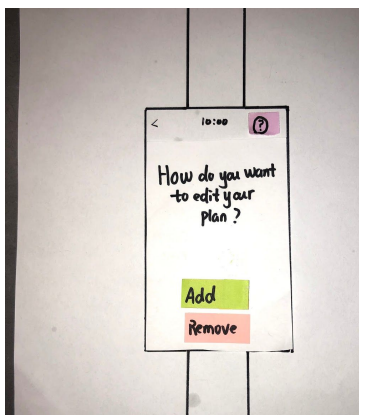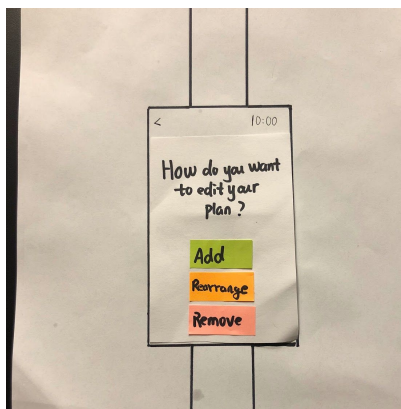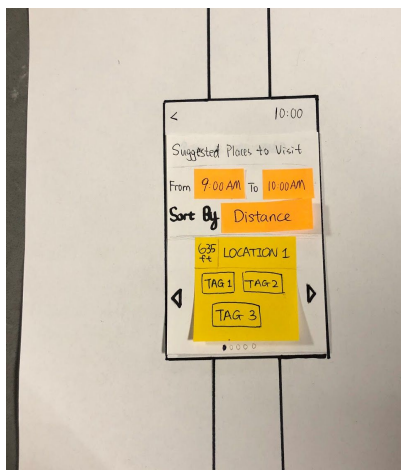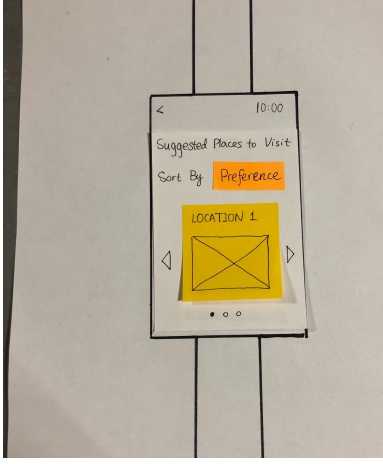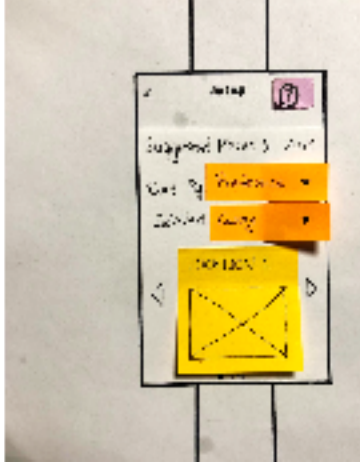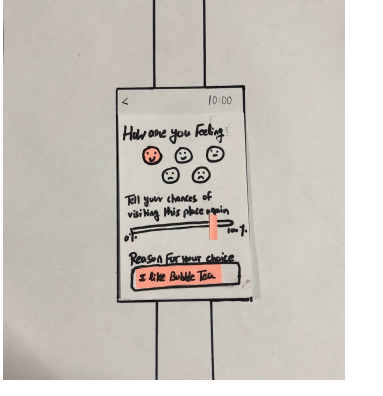
		as the reference. - We add the "Detail" button to show it is clickable.
		Recognition rather than recall (severity 2) - we add the "selected" bar to show the choice they made from the previous step. **Flexibility and efficiency of use (severity 2)** - To make the sorting more flexible, we add a drop-down button to give more user control (use triangle for the convention).
NONE		**Help users recognize, diagnose, and recover from errors (severity 2)** - We create a new screen to show the error message. It is popped up when the user clicks "start" or "edit" before uploading an itinerary.
		Flexibility and efficiency of use (severity 1) - To give users more flexibility and more control over their privacy, we add the "Skip" button for not forcing them to input their feedbacks to the app.

		Consistency and standards (severity 2) - To be consistent and preventing the error, we change the time system to 24 hrs. - To keep consistency, we changed "place" to "location"
		Consistency and standards (severity 3) - To eliminate arbitrary meanings, we changed "Next" to "On your way to", "Interest match" to "Preference", and "More" to "Detail".
		Visibility of system status (severity 1) - we display the source from which Itinerary is being uploaded.
A traditional smartwatch design	An advanced projector smartwatch that can display screens on the user's arm.	**Aesthetic and minimalist design (severity 3)** - One evaluator suggested us to eliminate the information shown on each screen due to the small screen size. Instead of minimizing information, we decide to change our design to a more advanced projector smartwatch. In this case, the

		user would have better user experience with larger displays and still enjoys the convenience a watch would bring him/ her.

Information Architecture
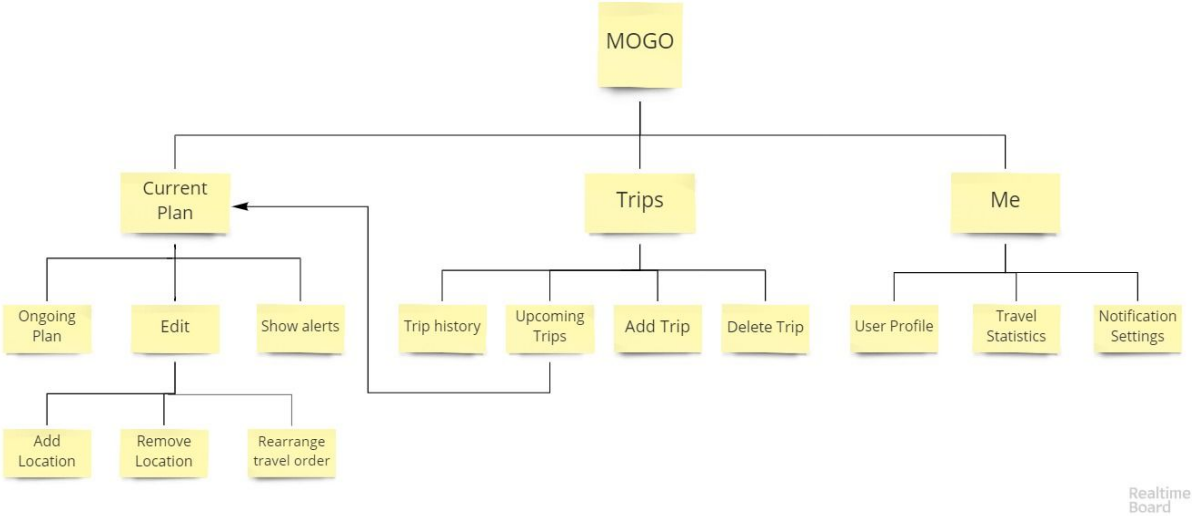
Contribution Statement

Name	% of contribution	Tasks are done
Jessica	33.33%	Write this document
Sejal	33.33%	Write this document
Yuqi	33.33%	Write this document