

A4 Group

Assignment Background

The preferred future:

People can visit virtual restaurants to eat over video chat while fostering a comfortable eating environment.

Target user group:

Comfortable small group, uncomfortable big group

Based on our interviews, this type of user is most common among college-aged students. This user feels comfortable eating in a small video chat with 1-3 other people, mostly friends or family, and does so often. They love to eat on FaceTime and hate to eat on a large Zoom call. This user is considerate of others and feels self-conscious easily. As a result, they avoid eating on large group video calls. If they must eat, they prefer to be anonymous and turn off their sound and camera. They believe that eating muted/off camera is least disruptive to the video call.

Functional goal(s):

1. Reduce awkwardness while eating
2. Simulate realistic eating environment
3. Create real-time no-delay eating experience with minimal distraction or interference due to external factors
4. Allow restaurants to create a unique atmosphere that could set them apart from other restaurants in the virtual eating experience.
5. Allow users to tailor their virtual eating experience to their own needs (group size, familiarity with other participants, environment).

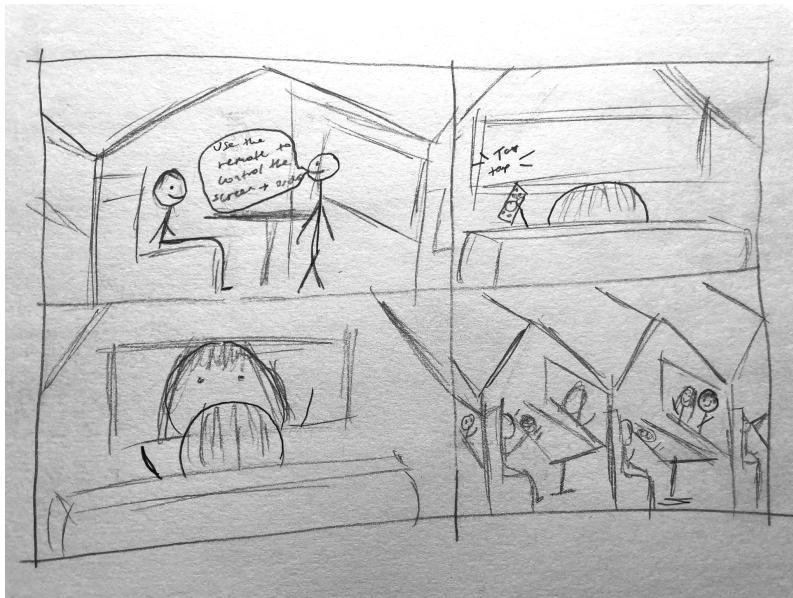
Contextual factors:

1. People who don't know how/ unable to use electronic devices (smart phones, laptop, etc.) very well, such as some elderly people or disabled people.
2. People who have limited access to the internet or have unstable internet connection.
3. People from different time zones.
4. People who have an extremely busy schedule (uber driver, flight attendant, soldier, businessman, scientific researcher, etc.) so that they rarely have time to sit down and have a proper meal with their friends.
5. People with social anxiety disorder.
6. The technological limitation of the user's device. (Screen size, display resolution, audio quality, memory capacity, etc.)
7. Internet connection latency due to the user's physical location.

8. People who are immunocompromised during a global pandemic and cannot eat in person due to social distancing.
9. The hardware limitations of the user's device for AR/VR use. Some older devices may work with AR and it is a minority of the population that has access to sufficient VR equipment.

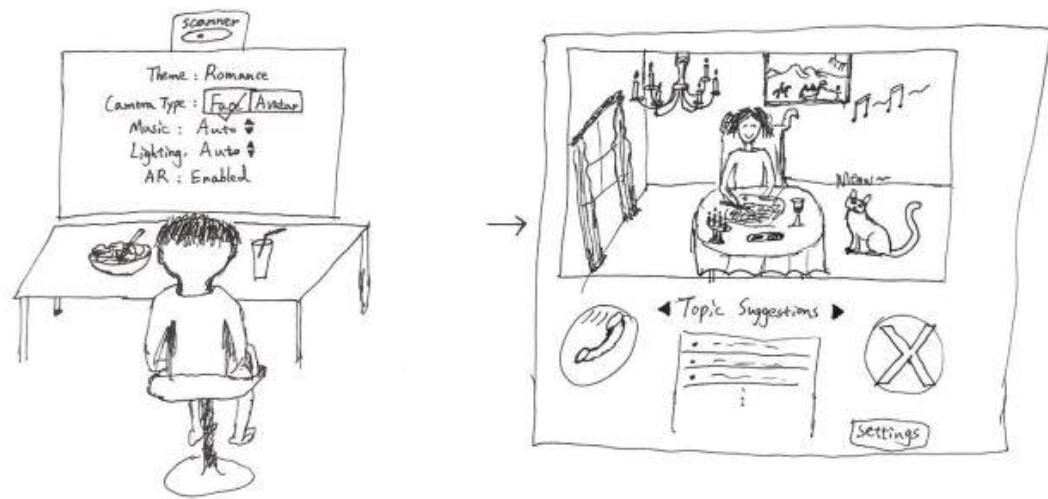
The design idea that the group has chosen to pursue:

The final idea is a traditional chain restaurant setting which provides semi-private booths to video chat your friends while eating at other locations.



Finally, the previous storyboard captures the ability to interact with friends in semi-private booth-like seating. The screen will be placed in the exact spot where a person would normally sit across from you. This way it visually looks as if the person is actually in the same space as you. A main interview take away that will be carried out in the design is that the closer to a “real life meal”, the better.





Part 1. User Interface Design

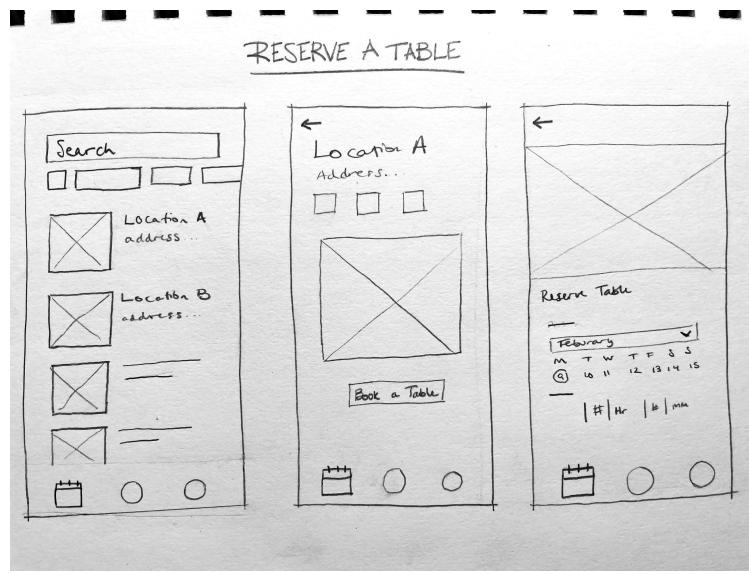
Q1.1: UI Wireframing

1. Step 1: Define the set of screens

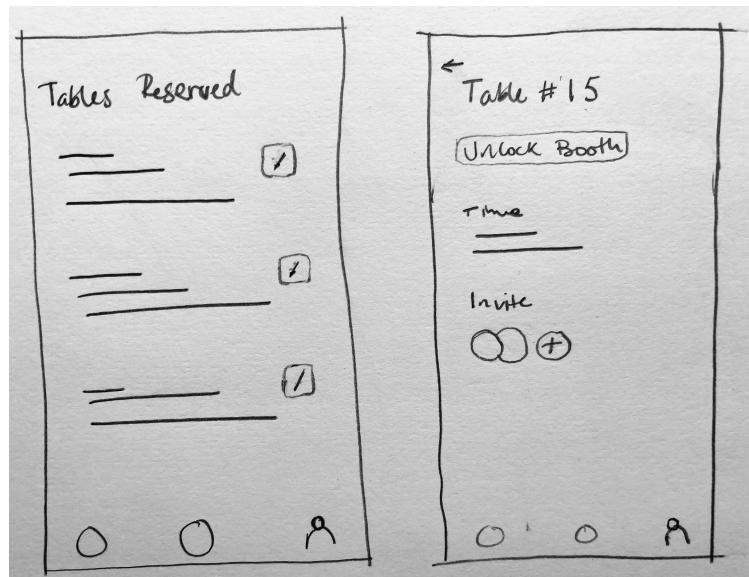
| |
|--|
| Tasks: The wireframes will help users... |
| (a) Reserve Table and Order Food |
| (b) Invite Friends and Connect Video |

(c) Control Pod Screen and Customize Settings

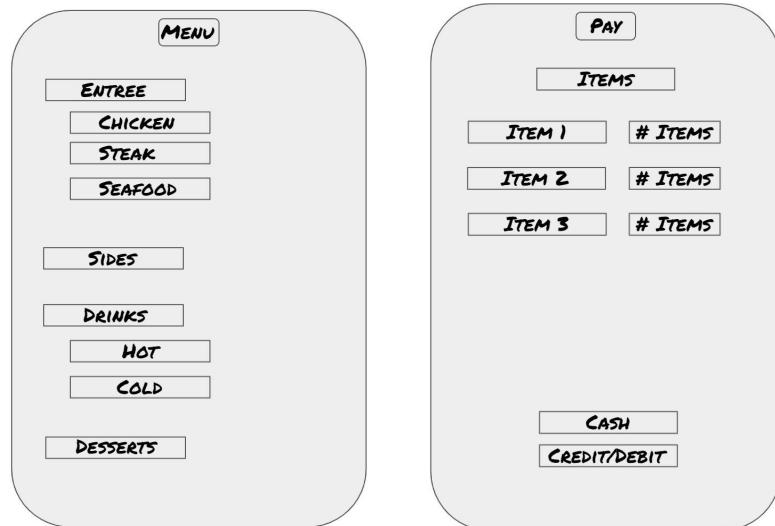
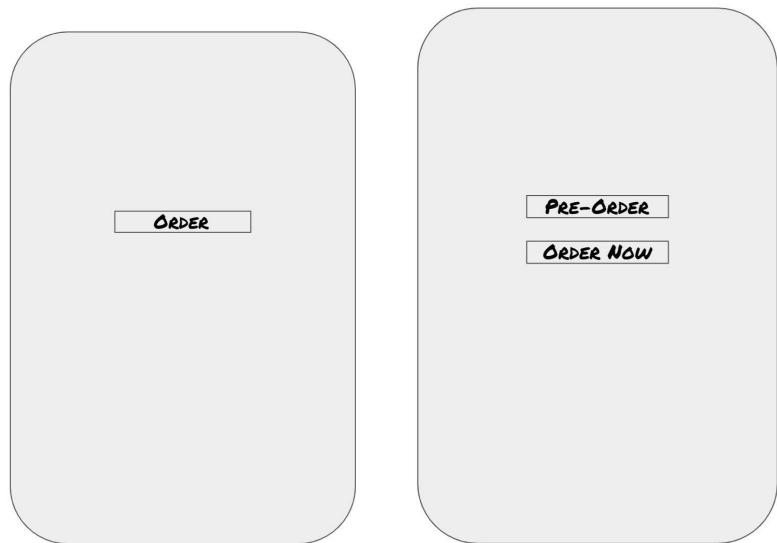
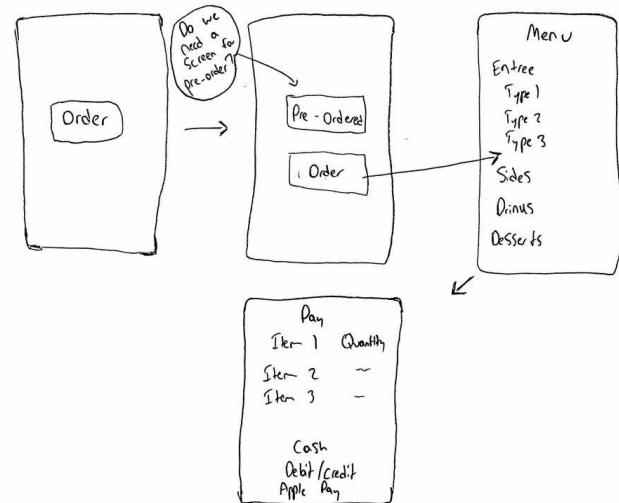
2. Step 2: Evolution of Sketches

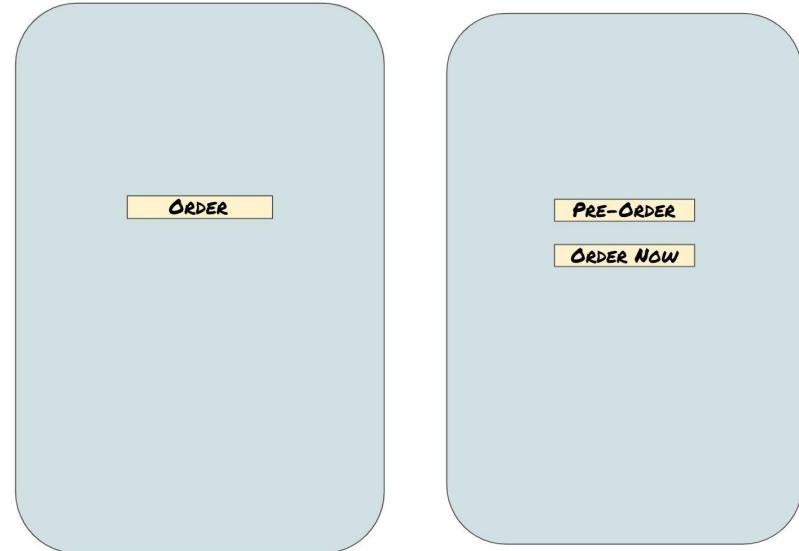


a.



Task: Order Food (on phone app)





The image shows a large light blue rounded rectangular screen. At the top center, it says "MENU". Below that is a grid of categories and items:

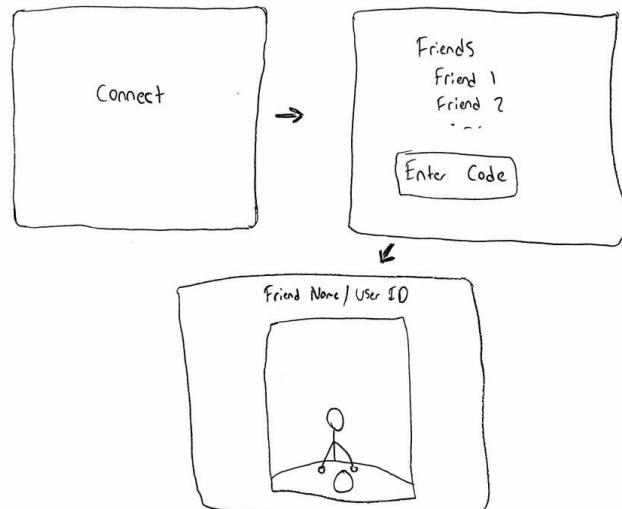
- ENTREE**: CHICKEN, STEAK, SEAFOOD
- SIDES**
- DRINKS**: HOT, COLD
- DESSERTS**

Next to the "ENTREE" section is a small image of a roasted turkey on a plate. Next to the "DRINKS" section is a small image of a red cup with a straw.

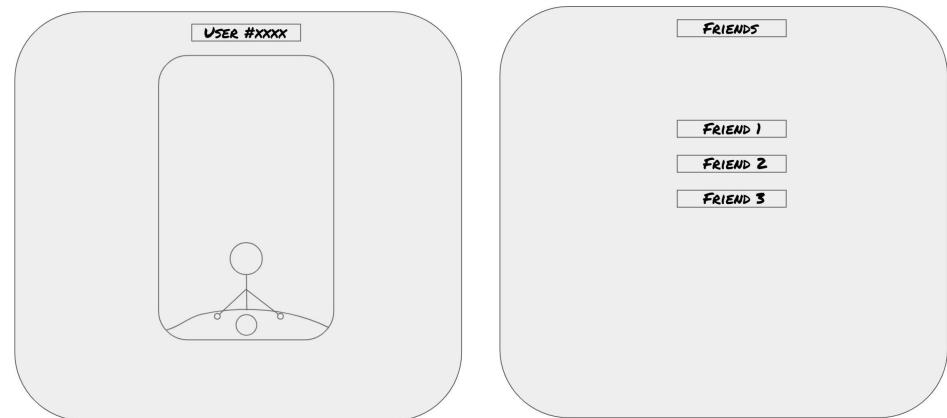
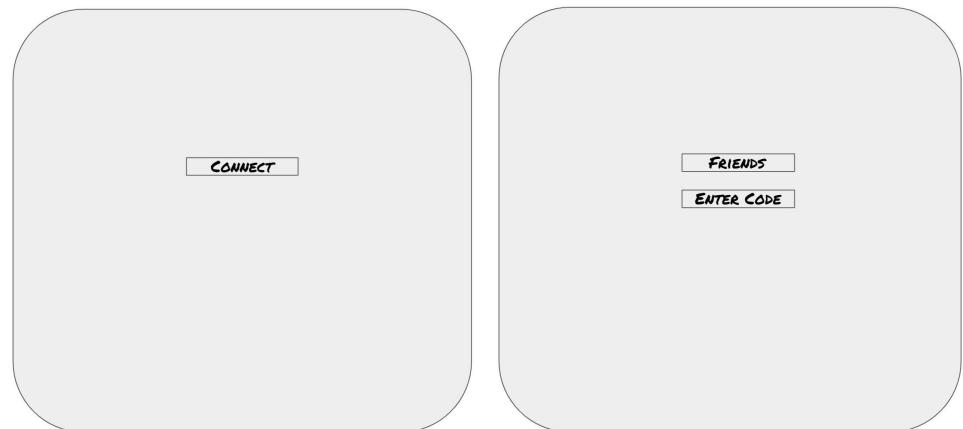
At the bottom center is a yellow rectangular button labeled "PAY".

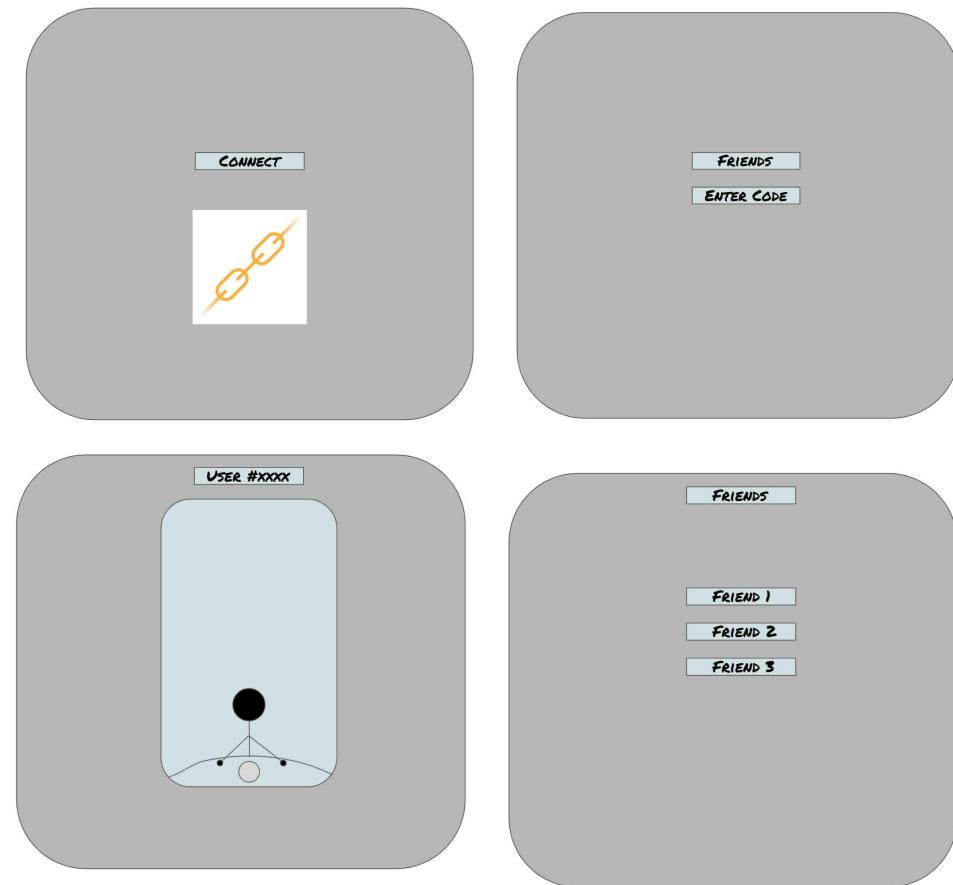
To the right of the main screen is a smaller rounded rectangular panel with the word "PAY" at the top. It contains three yellow rectangular buttons labeled "ITEM 1", "ITEM 2", and "ITEM 3", each followed by "# ITEMS". At the bottom of this panel are two more buttons labeled "CASH" and "CREDIT/DEBIT".

Task: Connect to Friend's VC on Screen

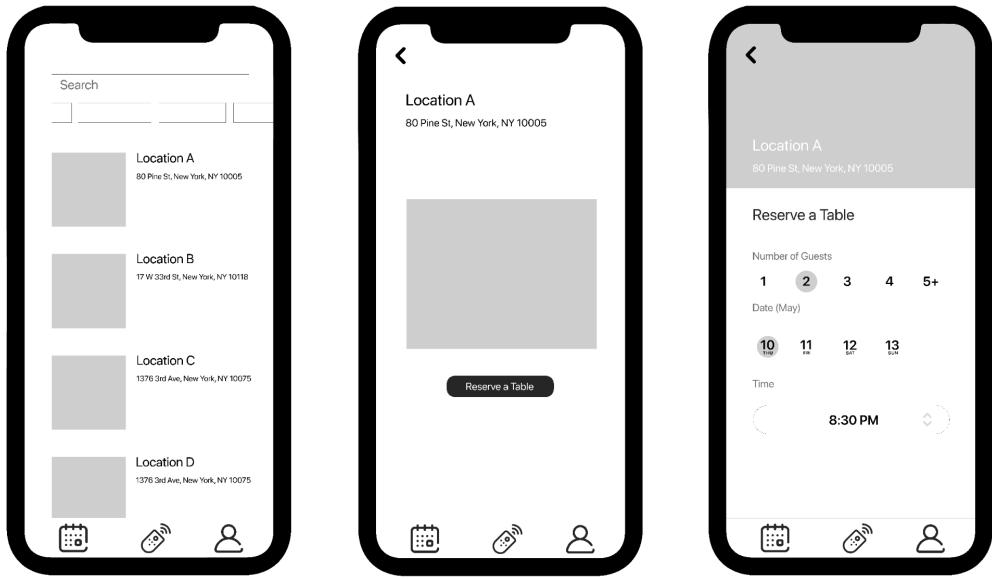


b.



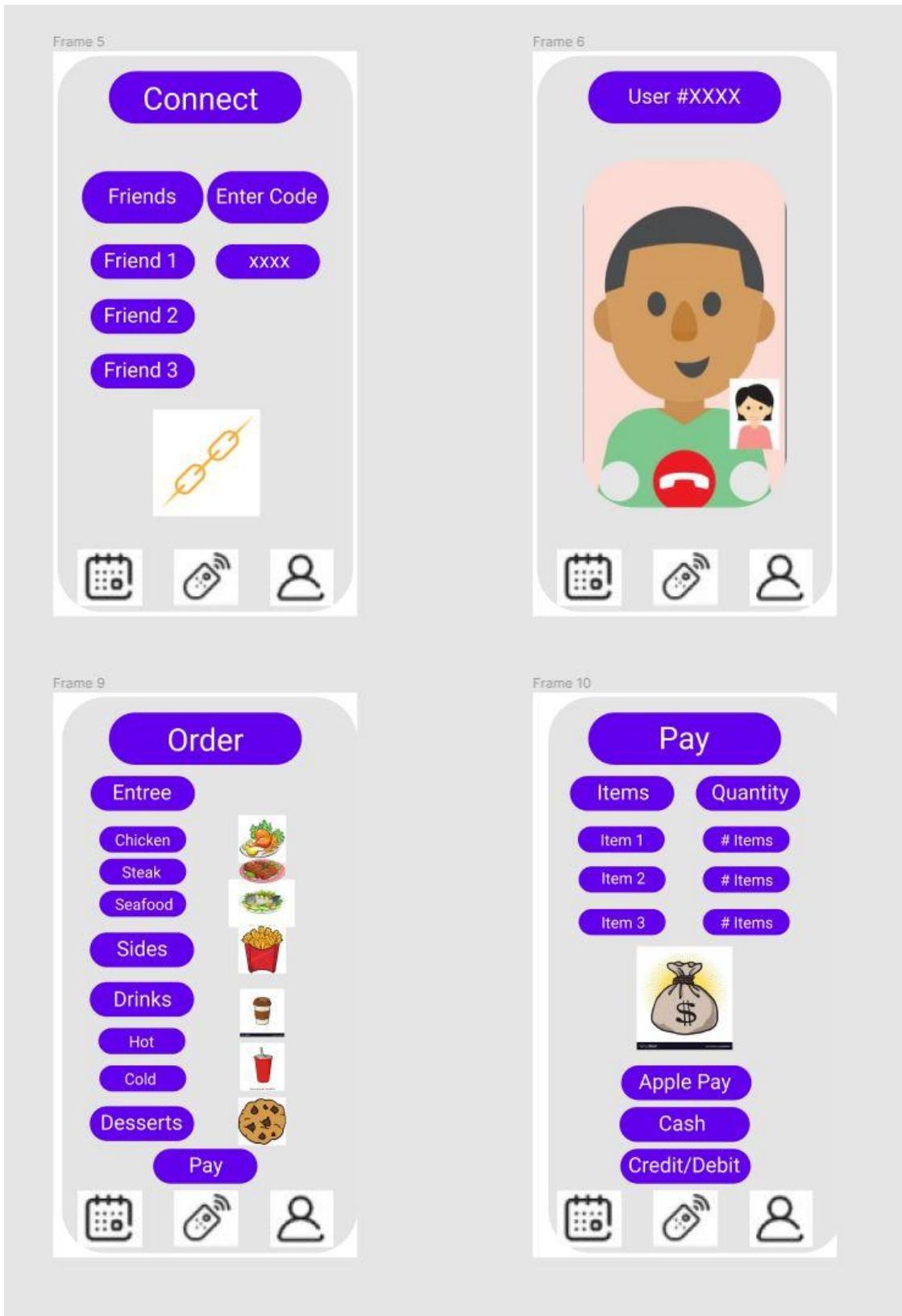


Q1.2: UI Design



A.

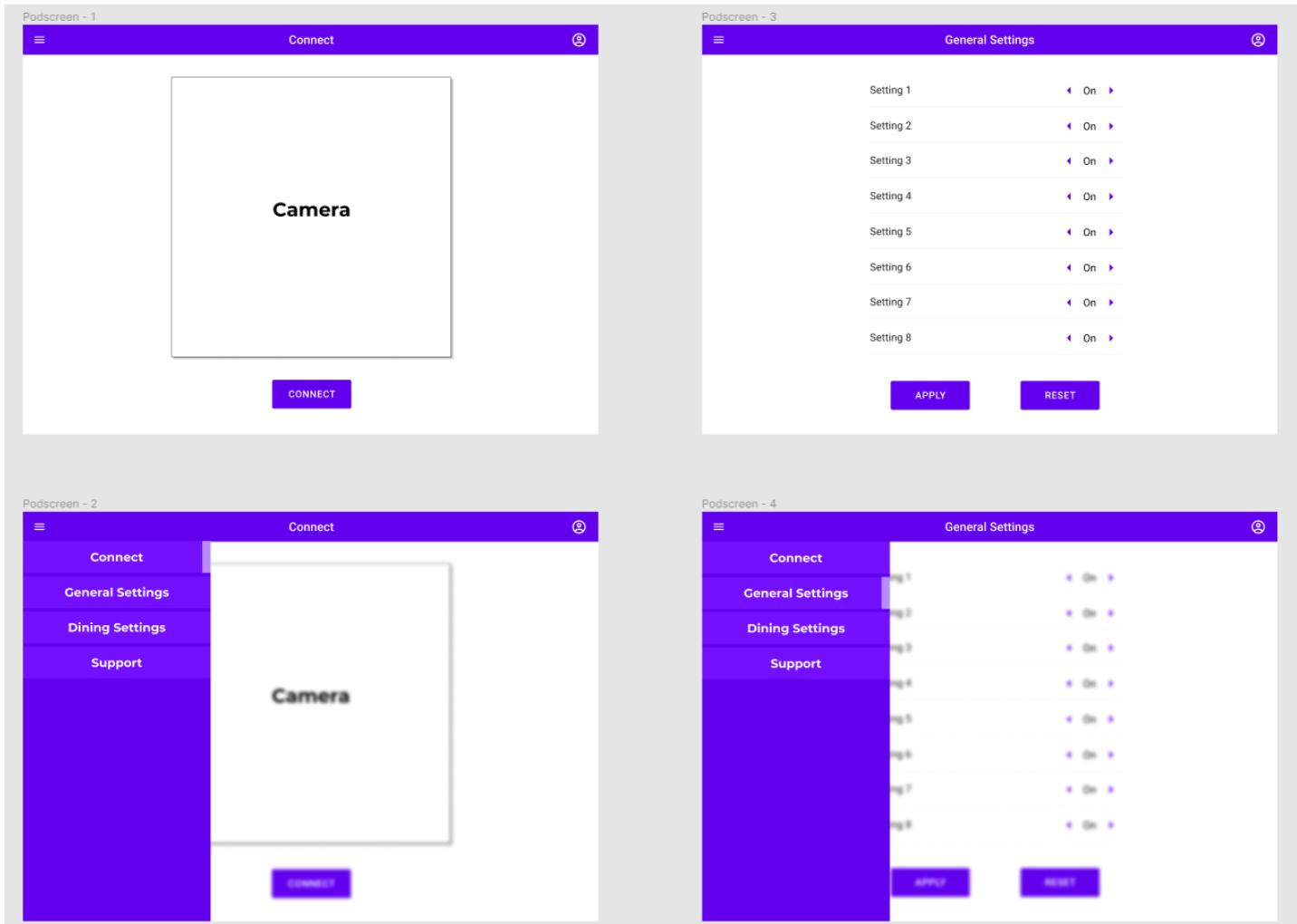
- a. Left Screen: Searching Restaurant Locations
 - i. This screen allows users to easily identify their nearest locations at which they can make a reservation.
- b. Middle Screen: Highlights One Specific Location
 - i. This screen allows the user to see details on one location to decide if they would like to make a reservation.
- c. Right Screen: Reserving a Table
 - i. This screen allows users to make a reservation for a specific date and time.



B.

- a. Top-Left Screen: Connect with Friends

- i. This screen allows the user to either choose someone from their friends list to start a video chat with, or add a new friend via a code and video chat with them. When they have made their selection, another connection screen will appear on the pod screen.
- b. Top-Right Screen: Video Chat Connection
 - i. This is the video chat screen. It will be displayed on the pod screen before the users actually connect with their friend.
- c. Bottom-Left Screen: Order Food
 - i. This is the part of the app where users can order their food either in advance, or at the restaurant. After choosing the food items that they want, the user will be taken to a screen to pay for the food.
- d. Bottom-Right Screen: Pay for Food
 - i. The user can see which food items they have selected and the quantity for each, as it is important they check their order again to avoid any mistakes. They are shown a multitude of options for payment.



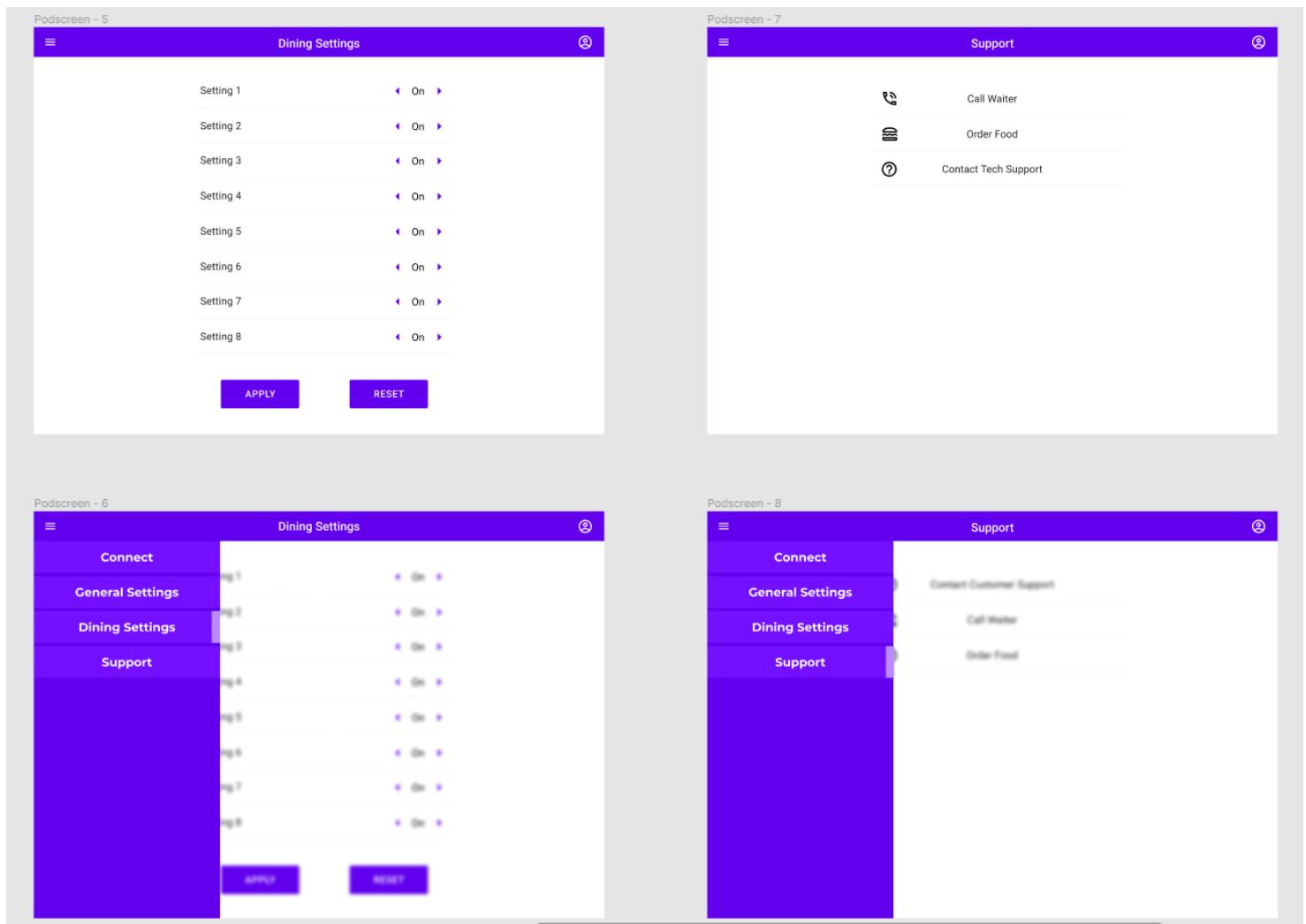
C_1:

Podscreen - 1 is the first screen that greets the user. It allows the user to see how they appear on the camera. Thus the user is given the option to adjust their appearance before going into a call.

Podscreen - 2 is when the user clicks on the menu icon on the top left corner. This will blur the background, presenting the user with multiple destinations they could navigate to, and highlighting which screen the user is currently viewing.

Podscreen - 3 is the general settings screen which allows the user to adjust some system settings such as screen brightness, master volume, display languages, etc.

Podscreen - 4 is the screen when the user opens up the menu from Podscreen - 3.

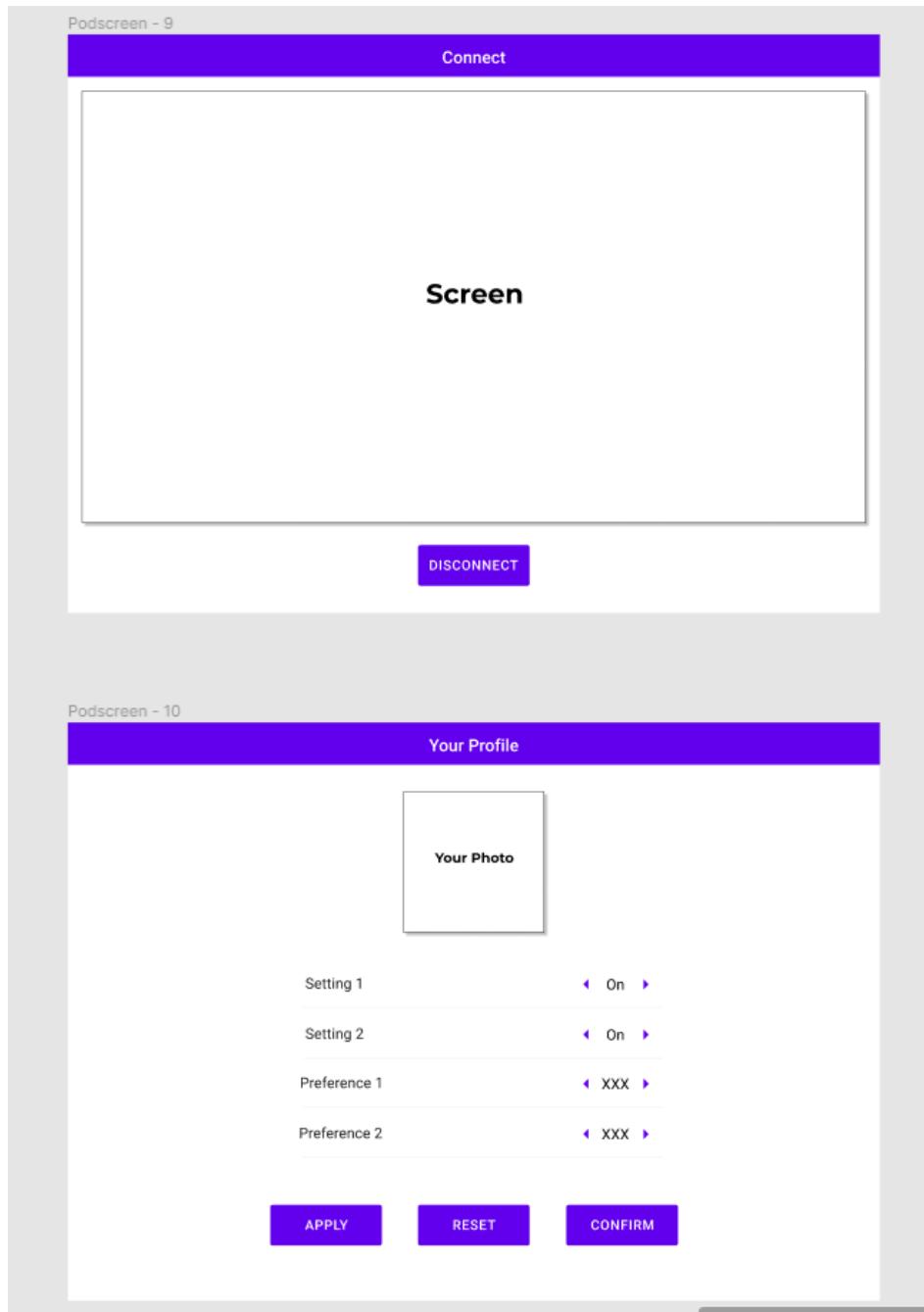


C_2:

Podscreen - 5 is the dining settings screen which allows the user to adjust their preferred virtual dining environment such as theme, lighting, music, background decoration level, etc.

Podscreen - 6 is the screen when the user opens up the menu from Podscreen - 5.

Podscreen - 7 is the screen where the user could find help regarding technical issues, re-ordering food, or contacting customer supports on some other problems.
Podscreen - 8 is the screen when the user opens up the menu from Podscreen - 7.



C_3:

Podscreen - 9 is the UI when the user has established a call with another user. This UI design aims to maximize screen size and minimize other options/buttons on the UI to avoid distractions and provide the user with an experience as immersive as possible.

Podscreen - 10 is the user profile screen which allows the user to examine/change some of their profile settings and preferences just in case they forgot to do so on the mobile app.

Part 2. Heuristic Evaluation

Heuristic Evaluation Combined Worksheet:

<https://docs.google.com/spreadsheets/d/1e86WiYEnMdzN4-2Us26x-JAiC98qHyH1aGLcIhxZ4Og/edit?usp=sharing>

Part 3. UI Prototyping with Figma

Link to App (Sketech):

<https://sketch.cloud/s/ef260518-c22b-4fb2-b533-0ad245545a7c>

Link to Pod Screen (Figma):

<https://www.figma.com/file/KxZV96PqKuUTcgA2lP1l6q/Group-15-A4?node-id=0%3A1>

Part 4. Think-Aloud User Evaluation

THINK-ALOUD INTERVIEW ZOOM LINK:

<https://youtu.be/4zwI4w9ckO8>

Reflection:

Task #1: Reserve Table and Order Food

The first flow which the user easily followed was Reserving a Table. As she spoke out loud guiding us through her decisions, it seemed clear that she felt it was obvious which buttons to click in order to reserve a table. She followed the happy path exactly as we intended. The only sign of confusion in this part arose at the very end in which she was unsure how to get out of the reservation screen. This is because our interactivity was not fully expanded. We have since directed users back to their profile with confirmation of reservation. Ordering Food also came very easy to the user. As she “ordered” she noted how comfortable the actions were. Again, however, there was a lack of confirmation at the end and this caused some confusion.

Task #2: Invite Friends and Connect Video

The next task the user faces is inviting their friends in another location to connect virtually, over video chat on the pod screen, in order to share the eating experience. Our participant

intuitively went to their profile on the app in order to find friends. They were able to scroll through their friends and choose who they wanted to video chat with. Once on the pod screen, the participant commented that it was a good idea to give people a moment to get ready before they connect the video. The participant went through the steps to connect without issue. Feedback from the think-aloud interview participant was that they understood the use of both an app and a pod screen and they enjoyed the simplistic design of the pod screen so they could focus on their conversation.

Task #3: Control Pod Screen and Customize Settings

The user had no trouble finding the menu icon and navigating through each button on the menu before going into a call. The user also immediately recognized the “user profile” icon at the top right corner when asked to take a look at their own profile. The user successfully traced back to the main screen each time as well. However, the user seemed to be a little confused about the difference between “general settings” and “dining settings”. Maybe the app or the pod screen could give more visual hints or text hints on when the user wants to change dining settings vs. in what situations they want to change the general settings. Overall, there was very little hesitation and confusion when the user was interacting with the pod screen, and the user seemed to be satisfied with the color scheme and layout of the UI.

Part 5. Team Members' Contributions

Arleigh Parr:

1. Initial Iterative Sketches
2. Prototyped Restaurant App in Sketch
3. Heuristic Evaluation
4. Interviewed Think-Aloud Participant on how she would use our App
5. Reflection on Task #1

Willem Fargo:

1. Iterative Sketches/UI Wireframing (Pencil on paper, basic digital, colored digital, figma sketches for ordering, paying, connecting tasks)
2. Heuristic Evaluation
3. Asked Think-Aloud Interview Participant questions at the end of interview
4. Reflection on Task #2

Yihao Zhu:

1. Initial sketches, UI sketches, and Figma prototyping design on the pod screen.
2. Heuristic Evaluation.
3. Interviewed the user on interacting with the pod screen.
4. Reflection on Task #3.