

Baby Food Company User Interface (UI)

Group #22

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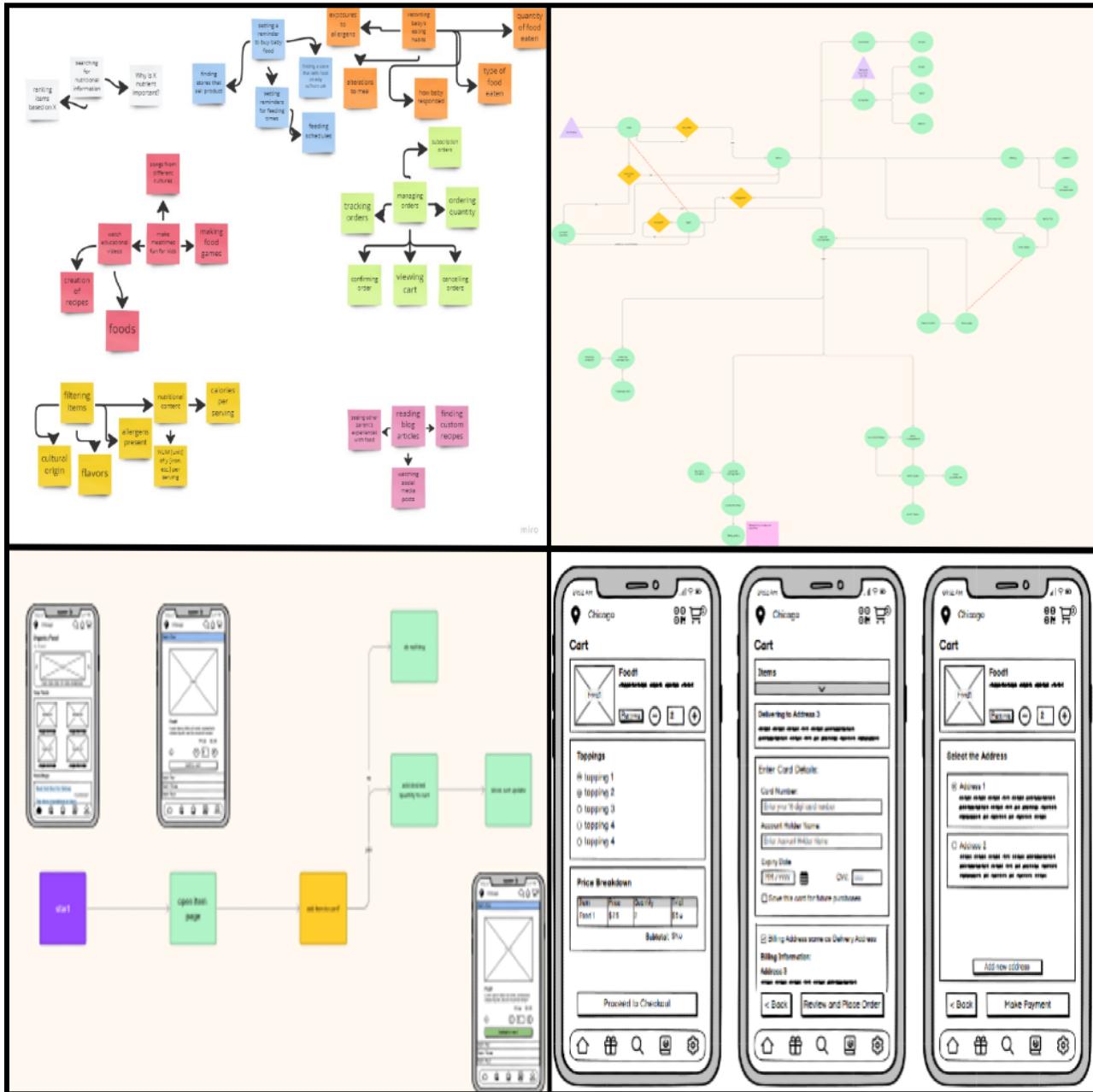


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1 Design Problem

1.1 Overview

Exposing children to different cultures during their formative years is essential from as early as six months old. Once children can eat solid foods they can experience countries and cultures through those country's dishes. This benefits children not just by expanding their worldview, but actually decreases their likelihood of becoming picky eaters in the future and even diminishes their chance of developing allergies through early exposure to ingredients that might not exist in more bland or "standard" baby food recipes. But bringing children to international restaurants or cooking new dishes at home can be expensive or even time-consuming for a busy parent. During the pandemic it became downright impossible due to restaurant closures. These struggles inspired the creation of Globowl, a

baby food startup that aspires to “[launch] families into a life-long journey of adventurous eating that reflects and respects the many cultures that make up our world”.

Besides focusing on organic ingredients, nutritional transparency, allergen-reduction, and internationally-inspired variety, Globowl’s products are unique in that each jar has a QR code on the bottom. When scanned, this QR code will direct the purchaser to kid-friendly educational content related to the culture represented by the product. Herein lies the primary need for a novel UI - specifically one that can support the Globowl brand’s mission while making it easy and enjoyable users to purchase Globowl product, and ideally even expand the Globowl brand’s function as a source of food to a source of family bonding, education, and better parenting.

1.2 Target Users

In order to elicit the needs of target users and thereby determine how to best meet those needs in our UI, we researched the Globowl brand and conducted focus group interviews with parents of newborns.

From this research we determined that the target users of our UI are parents or caretakers who are:

- Busy and willing to pay a premium for convenience and quality
- Desire organic and nutritionally dense food for their babies
- Are concerned and/or interested in allergen exposure
- Want their children to be less picky eaters and more globally assimilated

Ancillary users that are directly impacted include the purchasers of the baby food (perhaps other parents, baby sitters, etc.) and the babies who will be interacting alongside their parents with the educational portion of the app.

Ancillary users that are indirectly impacted include company employees of Globowl (given that the UI design will decide the format of content developed), local grocery store owners that want to learn more about the brand should they decide to stock it, and shipping companies that provide the information displayed for order tracking.

2 User Research Planning

A key aspect of User Experience Design (UXD) is that “the user is **not** like me”, where “me” describes the designer. Being just one person, or a collection of people, the design team is exposed to a small subset of all possible contexts, experiences, beliefs, or values held by potential users of the product. It accordingly behooves the design team to conduct user research to better understand these aspects of the target users. But before we could actually conduct research, we had to plan the goals of our research and how we would accomplish those goals. To this end we performed the following tasks in order:

Actions	Output
Identify research focus (i.e. the problem to be solved by our UI)	A focus group recruitment plan
Develop a focus setting	A focus setting statement
Develop discussion guide	An outline for the focus group interview consisting of key questions, themes, etc.

2.1 Focus Setting

The purpose of a focus setting is to define what the design group aims to learn through their research. This initial decision influences participant selection for focus groups or interviews, facilitates management of interview time, and generally prevents the focus groups from becoming too broad.

Our focus setting was as follows: “Understanding the experiences and problems faced by new parents with busy schedules who are concerned about the ingredients in their baby’s food and how they can purchase food that meets their needs. Identifying constraints and barriers that parents are facing to identify and obtain food they prefer.”

2.2 Discussion Guide Creation

A discussion guide is a tool design teams use during focus groups to facilitate the process and ensure that the focus setting is addressed. A discussion guide typically consists of a focus statement, an introduction, a description of key demographics, warm-up questions, main questions, and design probes. By including and following these components of a discussion guide, a focus group is much more likely to not only address the initial questions developed by the design team, but also gives the interview a structure and flow and thereby makes the experience more enjoyable for everyone involved. In order to better appreciate the utility of a discussion guide, we will further describe the components of a discussion guide and provide examples:

Introduction:

Although it seems like it may go without saying, an introduction is an important part of the focus group experience as it sets the tone for the interview and establishes the roles of those involved.

The introduction allows the design team to elucidate their predetermined roles of the design team, be they the moderator, the photographer/videographer, or the note-taker. It also allows the design team to reiterate the purpose of the focus group which helps keep conversation on-topic. Finally, the introduction can serve as a time to clarify logistical concerns like the duration of the focus group and confirming permission for recording of audio/video.

Demographic:

The demographics component of a focus group discussion guide allow the design team to collect key demographics of participants, such as name, gender, age, etc. For our discussion guide, here are some of the demographics we collected on top of basic identifiers:

- No. of children
- Primary caretaker?
- Only caretaker?

Warmup Questions:

This section allows a smooth and easy transition into the focus group by beginning with relatively “easy and non-threatening” questions. Beyond simple demographic questions, these could include questions about the interviewee’s general background like career, etc. in a way that relates to the focus setting. In our case, one of our warm up questions was to ask how long the participants had lived in Chicago, how old their children were, what their children liked, and plans they had for the rest of the weekend.

Main Questions:

In contrast to the warmup questions, the main questions are more pointed and are essentially the purpose of the focus group from the design team’s perspective. These questions directly address questions expressed in the focus setting and often require the focus group participants to consider their answer before replying. Participants may also have conflicting or opposing responses to such questions, as was the case in our focus group when asked “How do you ensure your child is getting enough vitamins and nutrients in their diet”.

Unlike the warmup questions, main questions require careful consideration. When developing our questions, we made sure to adhere to the following rules:

1. DON’T ask “yes or no” questions
2. DO ask participants to share stories, anecdotes, or experiences

Design Probe:

The purpose of a design probe a.k.a. cultural probes are materials used during a focus group in order to make the focus statement more concrete and easier to grasp for the focus group participants. These can include sample design artifacts from the design team, examples of applications or products which already address portions of the design team’s focus statement, or even user diaries relevant to the design problem. In our case, we used the Globowl website to not only better demonstrate the mission of the Globowl product but to also see what the participants liked or disliked about the UI for the website.

Our full discussion guide can be found in Appendix A.

3 User Research: Focus Groups/Interviews

The focus group was the primary source of user research for our design team. Whereas the previous section described the motivation for a focus group, this section outlines the logistics of the focus group process, including how we planned the focus groups, how they were actually conducted, challenges faced during the groups, and reflections on the general process. Once this phase was completed, the notes, audio, and transcripts were compiled and then analyzed during the affinity diagram development. The Focus Group phase involved the following actions:

Actions	Output
Recruit focus group participants	A focus group participant pool consisting of users who primarily met the focus statement's key demographics
Focus group scheduling	Mutually convenient and predetermined meeting times and locations
Focus group	Notes, interview audio, and transcripts

3.1 Recruitment Process

Multiple participants needed to be recruited for the focus group so that we could have as wide a range of backgrounds, viewpoints, and experiences from target users as possible. Again, our target users were busy parents who wanted organic, highly-nutritious, and culturally diverse baby-food which could also provide an opportunity to their children for cultural education and expansion.

In order to recruit members, the design team reached out to friends and family members to seek out new parents or parents who were with children between six to twenty-four months of age. Some of the design team's contacts were located in countries with vastly differing time zones, so it was impractical to seek participants from those avenues. As a result, the entirety of participants ended up being friends of one of the designer teams who all happened to be parents of babies or toddlers. Thankfully this process was relatively straightforward and was a simple matter of mass-sending texts to potential participants and responding to those who were interested in participating. We had a total of seven participants in our focus groups (five in one, two in the other - we split them due to scheduling constraints).

3.2 Participants

As previously stated, we had a total of seven participants. These participants were all selected because of their status as the parents of children between the age of six to twenty four months of age. This range was important as it is the age in which children are most likely to consume jarred baby foods. We've included a table of key demographic information for the participants below.

Age	Ethnicity	Profession	# Children	Children Age
24,26,29,33,35,40	White, Saudi-Arabian	Real estate agent, electrician, dog trainer, server, botanist	1-4	16 months to 7 years of age

3.3 Focus Groups/Interviews

Focus groups are a generative user research method and are used by a design team in order to come up with ideas for designing a product by uncovering user needs and wants instead of *assuming* a problem exists and attempting to tackle it from a feature-based approach. More specifically, a focus group is a group interview where people are asked to express their opinions, experiences, attitudes, and beliefs as they relate to a specific topic. In our design team's case, we sought to learn our participant's attitudes towards organic baby food, baby nutrition, allergen exposure, picky eating, and food as a window for cultural education.

We conducted two focus groups on February 4th, 2023. The first was conducted with four participants at Sawada Coffee in the West Loop. The second was conducted several hours later with two participants at Kopi Cafe in Andersonville. Both focus groups were roughly one hour in duration. During both focus groups, all design team members were present. Colin performed the role of facilitator, Raja served as the note taker, and Kay managed the audio recording as well as taking auxiliary notes. Notes and participant responses were taken both in an Excel sheet and using an iPad, while the focus group audio was recorded using Kay's cell phone and then later transcribed by Raja to text using open source transcription software.

In both focus groups, we used the aforementioned user discussion guide format, consisting of an introduction, demographic collection, warmup questions, main questions, and a design probe. As previously mentioned, we used the Globowl product website as our design probe. We chose this in order to see how informative the page was and how easy it was for curious parents (i.e. the focus group participants) to learn about the product.

Overall, the focus group was a success. Logistically speaking, it was a miracle that we were able to get as many participants in as short amount of time as we did, especially considering their primary demographic of "busy parent". All participants except for one also brought their babies with them, which was fun.

The most productive questions were those related to the struggles of time-management, the importance of nutritionally and ingredient transparency, and the differing hierarchy of values amongst participants. The most surface-level responses were produced by questions regarding logistics of food preparation.

In conclusion, were we to redo the focus groups, we would scout out our interview location before scheduling and arranging interviews. Both locations were loud, busy restaurants or coffee shops, which while suitable for the actual conversations, made audio recording difficult. Thankfully, some post-processing reduced background noise and improved transcription quality. The discussion guides and other output for the focus groups can be found in Appendix B.

4 User Research Data Analysis: Affinity Diagramming

Once user research has been conducted, the design team must analyze the research and produce actionable user needs and tasks which require design solutions. One method to accomplish this is known as affinity diagramming. Affinity diagramming describes a process of sorting large amounts of data (like the notes collected after a focus group) into logical groups. Ideally, a theme or structure will begin to emerge. Once this model of the data emerges, it can be scrutinized and refined during the following phase known as “walking the data” .

The affinity diagram phase consists of the following actions and outputs:

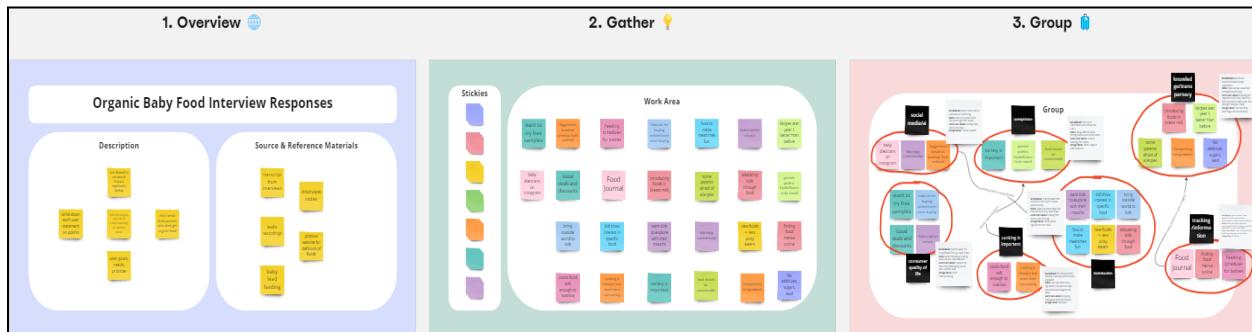
Action	Output
Write focus group notes/responses on sticky notes (real or virtual)	A collection of “items” for sorting or grouping
Cluster items by theme	A collection of similarly-themed groups of “items”

4.1 Affinity Diagram Process

Our group’s process for affinity diagramming was as follows:

1. Create a [Miro board](#)
2. Transfer interview notes and focus group participant responses to sticky notes (one per sticky)
3. Group sticky notes by topic or keyword
4. Apply themes to groups
 - a. determined through iteration (went from non-specific themes described in this section to more specific themes as described in the following Walking the Data section)
 - b. was important to AVOID using interview questions as motivation for group topics

4.2 Affinity Diagram Overview



Theme	Description
Social Media and AI	<ul style="list-style-type: none"> • how “recommendation” services from other large scale marketplaces could be utilized • how social media plays into baby nutrition knowledge and therefore purchases
Variety/Choice	<ul style="list-style-type: none"> • participant’s concerns about variety of recipes available for baby food
Knowledge/Transparency	<ul style="list-style-type: none"> • participant’s concerns regarding what is contained in baby food • how participants learn about baby food brands
Consumer Quality of Life (QoL)	<ul style="list-style-type: none"> • features participants expect or prefer when ordering items online
Importance of Cooking	<ul style="list-style-type: none"> • ways some participants prefer the act of cooking over serving jarred food
Fun/Education	<ul style="list-style-type: none"> • participant’s experiences with using food as an education tool • exploring through food
Tracking/Information	<ul style="list-style-type: none"> • tracking orders, tracking baby food intake, etc.

A full high-resolution version of the affinity diagram can be found in Appendix C.

5 User Research Data Analysis: Walking the Data

“Walking the data” refers to the phase following the affinity diagram generation wherein the design team “walks through” or analyzes the recently generated affinity diagram in order to determine the following:

1. User concerns (what the user cares about)
2. Issues users face (a.k.a. breakdowns)
3. Holes (further questions to be answered or researched)
4. Design ideas (a.k.a. opportunities)

Once generated, these aspects allow the design team to better appreciate the “bigger picture” of the data and thereby identify the most important problems to address during the actual design process.

The actions and outputs are as follows:

Action	Output
“Walk” the affinity diagram groups	Concerns, breakdowns, holes, and opportunities
Identification of the target users’ goals, priorities, preferences, and experiences	A list of 4-5 primary user needs
Compilation of all aforementioned aspects	A complete affinity diagram from notes -> primary user needs to address via design

5.1 “Walking the Data” Process

The steps our group took to “walk the data” are as follows:

1. Individually go through each pane of affinity diagram and identify the following for each theme:
 - a. user cares
 - b. breakdowns (user problems)
 - c. holes in the data
 - d. design opportunities
2. Repeat previous step as a group
3. Identify the top four to five user needs based on target user’s:
 - a. goals
 - b. priorities
 - c. preferences
 - d. experiences
4. Employ a voting technique to sort the needs by priority

5.2 “Walking the Data” Outcome: Overview

As can be seen in the affinity diagram in Appendix C, the following user cares, breakdowns, holes, and design opportunities were discovered:

Theme	Breakdown	Hole	User Cares	Design Opportunities
Social Media and AI	Social media can be unreliable or confusing	Where do social media influencers get their ideas? What are their sources?	Putting a face behind the food Being able to trust the validity of the information given	Globy chatbot Globowl brand forums
Variety/Choice	Too much info is overwhelming	How do companies optimize the number of products to display?	Having a variety of food options to choose from	Filtering products
Knowledge/Transparency	Parents are concerned about dangerous ingredients in popular baby food brands	What open sources of information are there for ingredients in foods?	Knowing the food is as trustworthy as if the parent made it themselves	Incorporating food blogs into the interface
Consumer Quality of Life (QoL)	Parents want the risk of trying a new brand to be worthwhile	What methods of sharing discounts are most effective? What incentives are necessary to bring a new customer?	Rewards for customer loyalty Being alerted about deals/sales	Newsletter generation Info subscription management Feedback & reviews
Importance of Cooking	Some parents actually prefer cooking and see it as “me time”	Is it possible to make baby food an ingredient in a dish? How can we make “adult” versions of Globowl recipes?	The enjoyment of making the food themselves	Making a kid-friendly “cooking instruction” aspect
Fun/Education	Parents want their children to be less	What incentivizes kids to try new	Making their parents	Story sections and gamification of

	picky and more open minded	things?	globally-minded and willing to explore	food culture origins
Tracking/Information	Parents want a convenient way to track their baby's food intake and nutrients	What information is most important to be tracked?	The exact exposure to certain allergens, nutrient intake, etc.	Nutrient/ingredient visualization food journals

5.3 “Walking the Data” Outcome: Detail

The table above is essentially just a neatly presented version of the relevant content from the affinity diagram in Appendix C. We will now describe the themes and their respective pain points, breakdowns, design opportunities, and holes in detail.

5.3.1 Social Media and AI

We were surprised to hear about the importance of social media in some focus group participant's process of gathering information regarding baby nutrition. One participant shared that they got almost all of their information about baby nutrition from Instagram, and that their feed was (to loosely quote) "almost entirely of baby stuff now". This focus group participant's experience demonstrated a concern with putting a face behind the knowledge, and this makes intuitive sense as child-rearing is a very shared and common experience, so many people have anecdotal experience to draw from. Such sources of information are perhaps somehow more reliable than WebMD articles and the like because they are, while anecdotal, are received face to face, and thereby have a personal weight to them, and thereby satisfy a need expressed in focus groups to "put a face behind the information". This also led to a hole in the research: how do the Instagram influencers, blog posters, etc. get the information themselves? Two potential ways to address these concerns include creating an AI chatbot which can assist users when seeking out information about products. We could also incorporate a simple barebones "social-media" in a forum-post style so that users of the Globowl product can share their experiences with baby nutrition.

5.3.2 Variety and Choice

Variety and choice were also expressed frequently by focus group participants as important when choosing which brands to interact with. One participant expressed that this not only helped make their children less picky eaters (one of the primary missions of the Globowl brand) but also made mealtime more interesting from the parent (or feeder's) perspective. Therefore, it was important for the brand to not only carry a range of products, but for it to be easy for the focus group participant to identify and obtain the range. Of course, the anecdotal concern of choice paralysis ought to be avoided, so it is important to determine how many options are *too* many, and if there are a wide range of options, how should they be presented to the consumer to avoid choice paralysis? To this end, a filtering or "search" feature in the UI would be essential.

5.3.3 Knowledge and Transparency

Multiple focus group participants brought up the recent [Gerber lead scandal](#) and highlighted the resulting concern in the trustworthiness and transparency of ingredients in the baby food they were buying. When asked where they would ensure their baby food was safe, most parents admitted all they could really do was try their best to buy foods with organic ingredients and check nutrition labels on jars before buying items. A quick glance at any label shows that the information can be difficult to fully grasp and appreciate. Thus it would be helpful to have a data visualization aspect for nutrition labels and ingredient compositions for products in our design. It would also be good to find out where trustworthy sources of nutrition data can be obtained and how they can be shared with consumers in an easily-digestible manner (no pun intended).

5.3.4 Consumer Quality of Life

When asked what it would take to try a new brand, focus group participants mentioned subscription discounts and reward programs or coupons. One group participant even mentioned that they enjoyed coupon-collecting and that it significantly impacted their weekly purchases. Considering the mass amount of promotional items we receive daily via mail or email, it is important to learn what forms of delivery for coupons or rewards are most-likely to convert into a future sale. This could encourage a coupon/rewards or “points” management aspect in the UI.

5.3.5 Importance of Cooking

One focus group user mentioned they prefer to cook almost all of their children’s meals. This was perhaps the most surprising because this was the user with the most children - while all other group participants had or shared one child, this user had four children between the ages of two and nine years old. This parent expressed the importance of cooking as “me-time”, and we think it could be valuable to respect that in our UI design through an added “adult recipe” version or “gamification” of cooking tutorials aimed for children to join-in with the help of their parents so they can create recipes similar to or pairable with the Globowl product.

5.3.6 Fun and Education

A primary aspect of the Globowl brand which separates it from other baby food products is its emphasis on educating children of other cultures through food. When hearing about this, many focus group participants were intrigued and shared their own anecdotal experience of the importance of expanding their children’s palette to prevent picky eating as well as their own desires to bring the world to their children through different recipes. Participants felt like it would be interesting and enjoyable to see videos of the cultures and locations where the recipes originated and to hear songs or other media they could share with their children during mealtime. What types of media would be most interesting and where the media could be obtained is yet to be determined and deserves further exploration.

5.3.7 Tracking and Information

The final theme that came up addressed a desire by the more “techie” of the group participants to be aware of and track the various aspects of interacting with a baby food brand, from order management and tracking, to being able to record how much food was eaten in a given meal. Although this was a minority opinion, we certainly think a food journal feature would be

beneficial for the app, particularly if it was centered around the Globowl brand specifically and servings in jar-increments. By allowing users to keep track of Globowl product intake, they could observe allergen exposure over time for their children among other nutrients and feel a sense of progression and accomplishment with regards to their baby's health. Of these aspects, it is important to determine which are worthy of displaying - after all, a user probably doesn't need to keep track of their baby's macros, but might be interested to know that their child reached their daily goal for a certain vitamin.

5.4 User Needs

After walking the data, we identified five user needs, which are as follows:

User Need #1: Educating children about other cultures through food in the hopes that it will make the children less picky eaters and more open-minded people

Although the Globowl brand has multiple goals, the one that focus group participants found most interesting and intriguing was the goal of teaching children about cultures through food. This highlights the target user's priority of using food as a window for cultural education for their children, as taste is a highly important sense for toddlers and babies. To achieve this goal, focus group users reported relying on Youtube-like content to entertain their children and provide brief small-form educational content during mealtimes. Focus group participants reported engaging in education through food as not only mutually fulfilling but also a reliable method of ensuring their child would be less picky of an eater in the future.

User Need #2: Feeling confident in one's ability to make educated decisions between different food items based on multiple bases including nutritional value, flavor profile, culture represented, etc.

Several focus group participants expressed a strict adherence to organic ingredients in their children's food, highlighting the target user's priority of the ability to select items which meet dietary restrictions such as veganism or vegetarianism. In a more general sense, focus group participants preferred the ability to be able to select items which varied in texture, taste, and ingredients in order to mix up their baby's diet for simple variety's sake (without nutritional or educational goals in mind). Interviewees shared that the more transparent and easy the information about the products was to obtain, the better they felt about buying the product.

User Need #3: Knowing the precise nutritional information as well as ingredients and allergens present in order to feel at ease about purchases

As previously mentioned, some focus group members were concerned with not just the nutritional quality of their purchases, but the overall safety of the ingredients. Every focus group participant with more than one child also shared the experience of being overly cautious with the first child, and being much more "relaxed" or relatively less cautious with later children. To this end, it is important that as many aspects of the product's creation are available as possible. This will address the target user's priority of knowing key nutritional facts like calories, fats, sugars, etc, as well as primary ingredients present. Interviewees preferred items with lower number of ingredients. Lower number of ingredients suggested simplicity and wholesomeness. It also made it easier for parents to intake the nutritional information, as most focus group members reported just quickly glancing at labels when buying baby food.

User Need #4: Enjoying the process of feeding children and preparing food

Another key aspect of the Globowl brand is gamification and enrichment of the mealtime experience. Our UI's target user is one who desires to take mealtime beyond a chore or necessity and turn it into a mutually beneficial experience for child and parent. Focus group members reported relying on Youtube videos or other forms of media to provide added stimulation during mealtimes, but upon learning about the Globowl brand's QR code, they expressed a desire for educational games or media that could be incorporated into the mealtime experience. This would assist the priority in User Need #1 of using food as a conduit for cultural exploration. More specifically, interviewees shared ideas for games like simple word development and the like. What makes this user need differ from User Need #1 is that it emphasizes the parent's enjoyment of the process as well, and expresses the focus group's desire of using mealtime as a way of bonding.

User Need #5: Making the purchasing process convenient

While some focus group members engaged in subscription services or bought their baby food online, others expressed that they enjoyed visiting the store in-person. To this end, it is important to respect both types of users and make the UI purchase experience of the utmost quality while also facilitating access to stores carrying the Globowl brand. This addresses the key attribute of our target user -the fact that they are *busy*. Sometimes going into a store is actually more convenient (or more fun) than buying online, so we should make this achievable and assist it as much as possible by providing easy access to a directory of stores nearby which carry Globowl. On the other hand, it's important to accommodate target users who prefer the "hands-off" approach that subscription-type services afford.

6 Design Artifacts: Personas, Scenarios, and Storyboards

Design artifacts help the design team communicate the intent of their design and better refine how their designs will address user needs which emerged from the affinity diagram. The design artifacts discussed in this section include personas, scenarios, and storyboards, and were developed in that order. The actions and output for this process were as follows:

Action	Output
Generate personas	2-3 user personas that fit the user types identified during data analysis (affinity diagramming)
Brainstorm user tasks and design ideas	3-5 key user tasks and design ideas which address the needs expressed in these tasks
Create scenarios	Scenarios describing how a given user persona might attempt aforementioned user tasks and complete these tasks through brainstormed design ideas
Create storyboards	Storyboards which provide a pictorial version of the scenarios

6.1 Persona

A persona is a fictional person created to help a design team understand their target audience. These are descriptions of a person beyond key demographics, including aspects like desires, goals, dislikes, etc. By focusing on a fictional person who embodies the design's target user, it helps the design team pay attention to the user's experience rather than the product.

6.1.1 Persona Generation Process

Our personas were created using the following steps:

1. List user characteristics
 - a. ability, background, attitude towards technology
 - b. system use (novice, expert, casual, frequent)
2. List user capabilities based on user research
 - a. size of hands
 - b. strength, height, motor ability
 - c. disabilities
3. Fill User Persona template

- a. identifying info like name, age, etc.
- b. key goals and needs
- c. a day in the life

6.1.2 User Personas



Key Qualities

- Keeps in touch with nutritionists and friends
- want to establish healthy eating habits.
- Frustrated by limited options available in the baby food market.
- The cost of organic food is very much higher than what she can afford.
- Lot of time for food preparation.

Julia, Assistant Professor

35, Educated, Married

Tagline: "Why can I find just limited options available in the baby market"

Key Goals

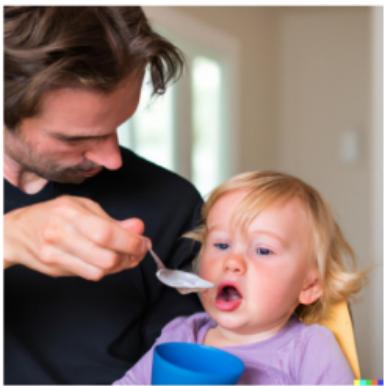
- Only buys organic produce, often goes on diets, reads social media posts about baby nutrition, her shelf is lined with books about child raising.
- she has friends who are parents that she asks for advice, very health conscious, takes extra care in preparing baby's food, using fresh ingredients and avoiding cross contamination of allergens.
- She avoids unhealthy foods. Most concerned on additives, sugars and preservatives. She prefers going out for grocery shopping.
- She feeds with one type of food every two days in order for their kid not to become picky eater.

A Day in Life: Julia wakes up at 6:00 AM in the morning and starts her day by changing the diapers of baby. After that, she spends some time preparing breakfast for her family, ensuring that it is nutritious and free from any allergens. She takes extra care to use fresh ingredients and avoids using any preservatives, additives or sugars in the food. Once the family has had breakfast, Julia gets ready for work. As an assistant professor, she has a busy schedule and has to juggle her work responsibilities with caring for her child. During her breaks, she often reads social media posts or articles about baby nutrition and checks in with her friends who are also parents to get advice or share tips.

In the evening, Julia goes grocery shopping for the family. She prefers going out to grocery shops as it allows her to select fresh and organic produce. She spends time looking for products that are free from common allergens and avoids buying products that have unhealthy additives or preservatives. After returning home, she spends time preparing a nutritious meal for the family, again using fresh and organic ingredients. She feeds her child one type of food every two days, in order to ensure that the baby doesn't become a picky eater.

Throughout the day, Julia takes extra care to avoid cross-contamination of allergens while preparing her child's food, and always ensures that the baby's meals are healthy and well-balanced. However, she can become frustrated by the limited options available in the baby food market and the high cost of organic foods. Food preparation can also take up a lot of her time, but she believes that the effort is worth it to provide her child with the best possible nutrition.

miro



Brian, Project Manager

40, Educated, Married

Tagline: "I love technology because it makes me more efficient and allows me to have more time to spend with my kid"

Key Goals

- feeding child top-quality food with minimal effort
- helping share burden of childcare with partner in most efficient way
- Getting as much enjoyment and value out of what little time he has with his child

Key Qualities

- Busy & stressed
- Likes to use technology to make life easier wherever possible
- Willing to pay for convenience & quality
- Unable to cook due to time or lack of experience
- Wants best available without having to spend the time to hunt for it

A Day in the Life: Brian wakes up at 5:30 AM in the morning to get ready for work, exhausted after his seven-month old son, Eric, kept him up most of the night. His wife Rachel is feeding Eric from a container of Gerber as Brian gulps down a cup of coffee before running out the door. As he walks out, Rachel calls and asks him to pick up more baby food on the way home, as they are almost out. Brian makes a mental note but since he suspects he will forget to, he pulls out his smartphone and opens the notepad to write down a note. Opening the phone, he sees that the weather forecast is blustery, and he wishes he didn't have to go out of his way to stop by the grocery store every time Eric needed new food. Then he remembers that he can just order on Amazon. Since it's early in the morning, it might even arrive that evening before he gets home from work. It's cold and windy and Brian's fingers are getting numb as he tries to flick through the Amazon catalog while remembering what flavors Eric seemed to like. When he clicks on one, then he needs to hit a small radio button to select a quantity, and then he has to put in his credit card information because he's not logged in for some reason. He gives up and decides he'll do it after work. Brian spends the day at work. He goes home exhausted but looking forward to seeing his son. Lately Brian's been swamped with work and he can only spend dinnertime with Eric before playing with him a little and then putting him to bed. As Brian walks in and kisses his wife, she asks him if he got the food. Ashamed and a little frustrated with himself, he says he forgot, but he promises to get more tomorrow. She sighs and hands him a container of mashed peas - the same flavor Eric was eating for breakfast - and leaves Brian to feed his son. Brian is bored as he feeds Eric and wonders how babies can eat the same mush day in and day out. "No wonder they cry so much", he thinks.

Both of these personas represent primary personas in the sense that they are the key or target users. Julia is more concerned with nutrition and food quality, whereas Brian is more concerned with convenience. Julia also prefers to go out to the grocery store, whereas Brian prefers to have orders delivered to his home if he can help it. Most importantly, these personas share the desire of wanting to make mealtime something *more* than just feeding their child, especially given their busy schedules.

6.2 Scenario

A scenario is a design artifact which is similar to the "day in the life" aspect of a persona, but is more detailed and pointed in how it addresses the areas where user needs can be addressed. If the "day in the life" section presents the problems, a scenario aims to address how a design team's ideas

could serve as a solution. These scenarios also further help the design team understand how their design concepts relate to the tasks the target user seeks to accomplish.

6.2.1 Key Tasks

When writing the scenarios, we considered the following key tasks:

1. Filtering items
2. Ordering products
3. Managing orders
4. Engaging in educational content through QR code
5. Researching baby nutrition

6.2.2 Scenarios Generated

Design Challenge:

An interface that helps busy parents buy baby food which they feel confident will expand their baby's palettes and increase their exposure to allergens while providing excellent nutritional value.

Scenario:

1. Learn how providing various nutrients, flavors, and allergens can help their child
2. Explore baby products and understand how they address a baby's needs
3. Filter through items and select most appealing ones
4. Using item catalog to develop a potential meal plan
5. Order items (removing, adding, reviewing cart)
6. Tracking, canceling, or subscribing to orders to avoid work of adding items to cart again
7. Using interface to find nearby stores which will allow parent to see item in-person

Karina is a manager of a bioinformatics lab and used to read research papers for fun, so when she finds out she is pregnant, **she spends the next nine months devouring all the information she can to be prepared for raising her child.** Her friends who are mothers all complain about their children being picky eaters, so she reads about how to make her child less picky. She learns about Globowl and seeing that they have an app which gives an extra free jar for downloading, she decides to download it and check it out. **As she waits for appointments for her maternity doctor, she enjoys watching the video from the CEO, the chefs, and other members of the company as they share their own knowledge of how they helped prevent their children from becoming picky eaters.** She also reads articles by professional nutritionists and obstetricians about the importance of certain nutrients for baby health. Because she got so much information from the Globowl app, it only makes sense to give the brand a try, but there are so many recipes that she isn't sure what to pick. **Since her husband is from Guatemala, she decides to filter by South and Central American cuisines, and adds a pack of the Bean Bowl to her cart.** She accidentally adds it twice, then removes one order. She also wants to improve her child's exposure to shellfish and peanuts, so she filters by allergens and adds a pack of the Pad Thai to her cart. **She adds her payment method and purchases the items.** She is then prompted to go to the tracking page, where she can see that the estimated delivery for her items is five days from now. She's impatient and excited to

see the product in person, so she goes to the “near me” tab and looks up the nearest store carrying Globowl. The next day she and her son Alex take a field trip to the store and pick up a few jars of the Yaya Medi-bowl to carry them over until the other food arrives.

Design Challenge:

An interface that makes mealtimes fun for both a child and their parent while also providing the parent with a sense of satisfaction for having expanded their child’s worldview through food

Scenario:

1. Make games out of mealtime involving:
 - a. counting
 - b. word-picture association
 - c. motor control (drawing, tapping, swiping, shaking device)
2. Incorporating songs and dances native to cultures of a given recipe
3. Watching educational videos regarding:
 - a. slice-of-life clips of families eating food represented in recipe
 - b. source of ingredients unique to various locations/cultures
 - c. preparation of foods
4. Providing information tailored to adults but with child-centric visuals regarding:
 - a. histories of recipes
 - b. geographic information about origins of recipes and cuisines

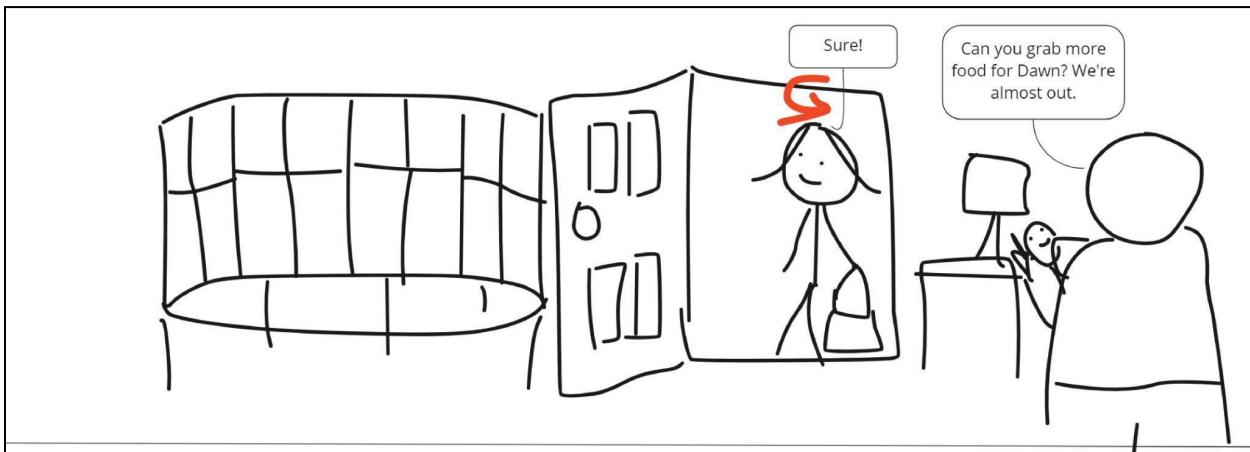
Don gets home from work early every weekday so he can have dinner with his six-month old daughter, Shannon. When he opens the door, he’s met by the smell of his favorite - eggplant parmesan. His daughter squeals and wriggles in her highchair as he walks into the kitchen. “I waited for you to get home so you could do her dinner”, his wife says. “I know it’s your favorite part of the day.” “Thanks, hon,” he says as he kisses her cheek and reaches past her to grab a jar of Globowl from the pantry. “Coconut shrimp curry or chow mein?”, he asks his daughter, holding the jars in front of her. She reaches for the left one and he smiles. “Alright, chow mein it is.” He takes out his phone and scans the QR code. The Glowbowl app opens to a video of a child from China eating a bowl of Chow mein that looks similar to the food in the jar. In the background, a traditional Chinese nursery rhyme plays. His daughter is captivated and he lays the phone down in front of her to watch while he prepares the food. When it’s ready, he pushes the phone to the side and feeds his daughter one spoonful at a time. Now the video is of the Chinese countryside as a voiceover describes the local climate and how it is well situated for growing the vegetables unique to chow mein like bamboo shoots. An image appears of a bamboo shoot. “Bamboo”, he says to his daughter. “Can you say bamboo?” “Bababa”, his daughter mumbles with a mouthful of food, and he laughs.

6.3 Storyboard

The final design artifact generated following our affinity diagramming process was the storyboard. Like scenarios, storyboards are a narrative tool. However, where scenarios illustrate design concepts as they relate to user tasks, storyboards illustrate the *context* in which those design concepts

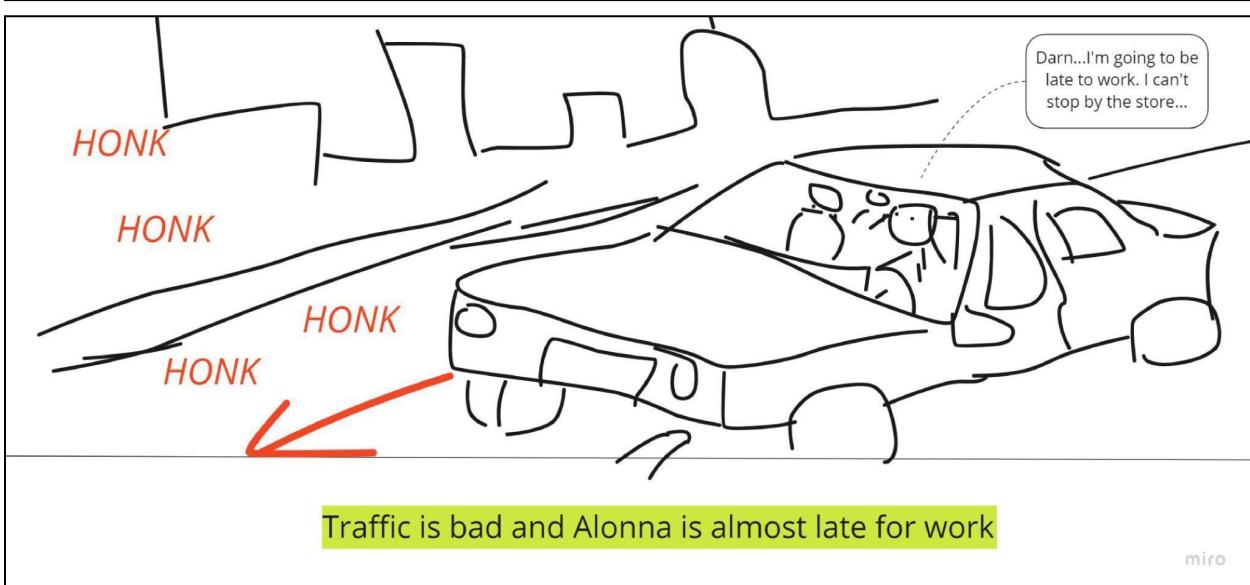
are applied. it is therefore especially important to emphasize the scenes in which the events occur, rather than the UI screens utilized when the fictional target user attempts to accomplish a task.

6.3.1 Storyboards



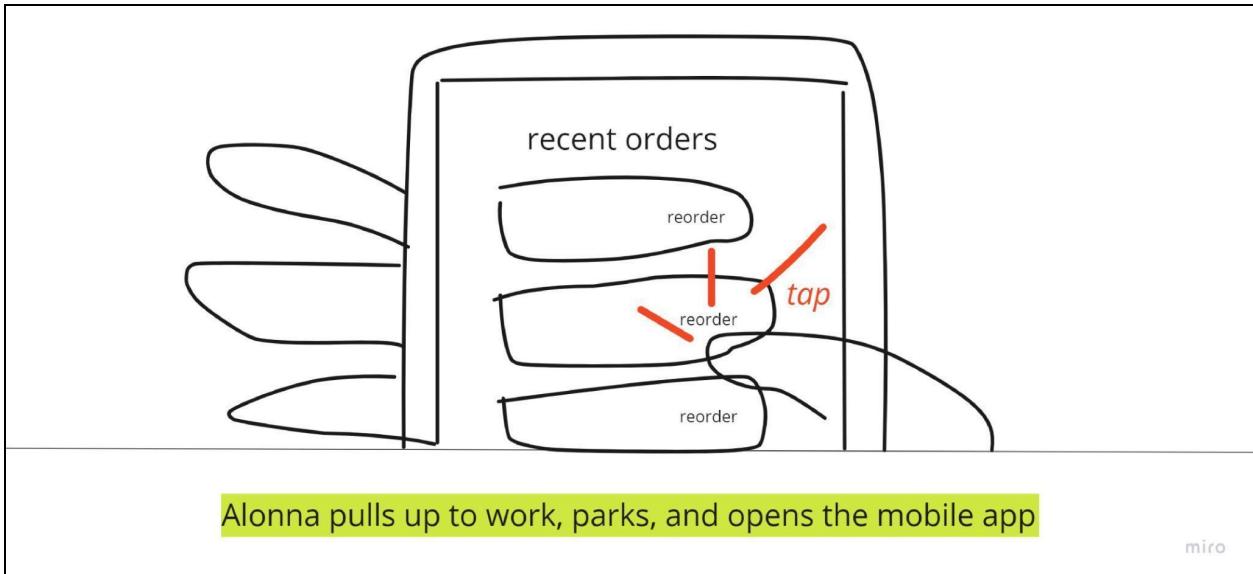
Alonna is about to leave for work when her husband asks her to grab more baby food

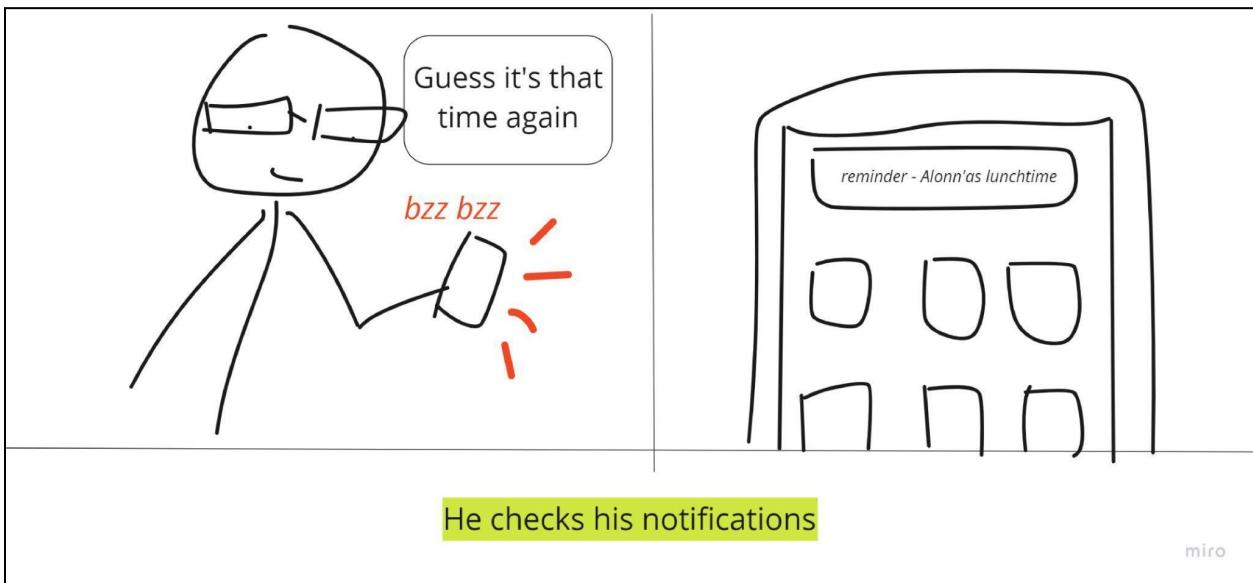
miro

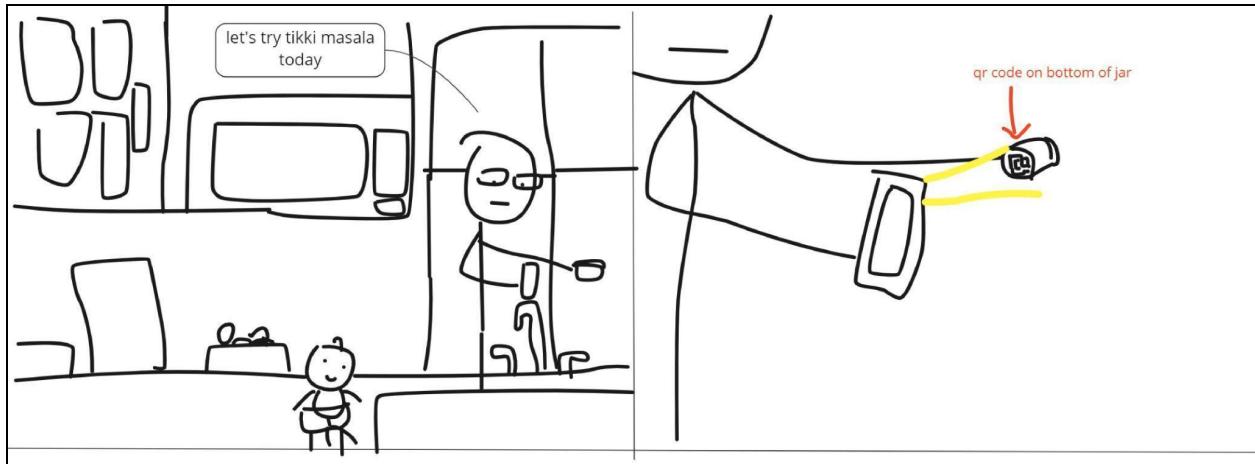


Traffic is bad and Alonna is almost late for work

miro







Eric puts Alonna in her high chair and grabs a container of Globowl from the pantry

miro



Alonna and Eric have fun watching a video together while the food is microwaved

miro

7 Task Analysis and Task Flow Diagram

Once key tasks have been identified by the design team, they are then analyzed in order to create a better conceptual model of the system being constructed. The more the designer's conceptual model matches the target user's mental model (i.e. the user's natural thought process when interacting with the UI), the better. One way to accomplish this is to create a list of activities the UI will need to support. Each item in this list represents a task. For each task, the design team should consider the function (how the task is literally achieved), the inputs/outputs, the relevant personas, and level of access required to accomplish the task. For example, in order for a baby to engage with the education aspect of our UI, they will need a parent to operate the UI for them. Little details like this can be overlooked but have a significant role in the outcome of the UI, so they are important to explore in detail before actually beginning the wireframe process. The better the design team's conceptual model, the better the resulting design.

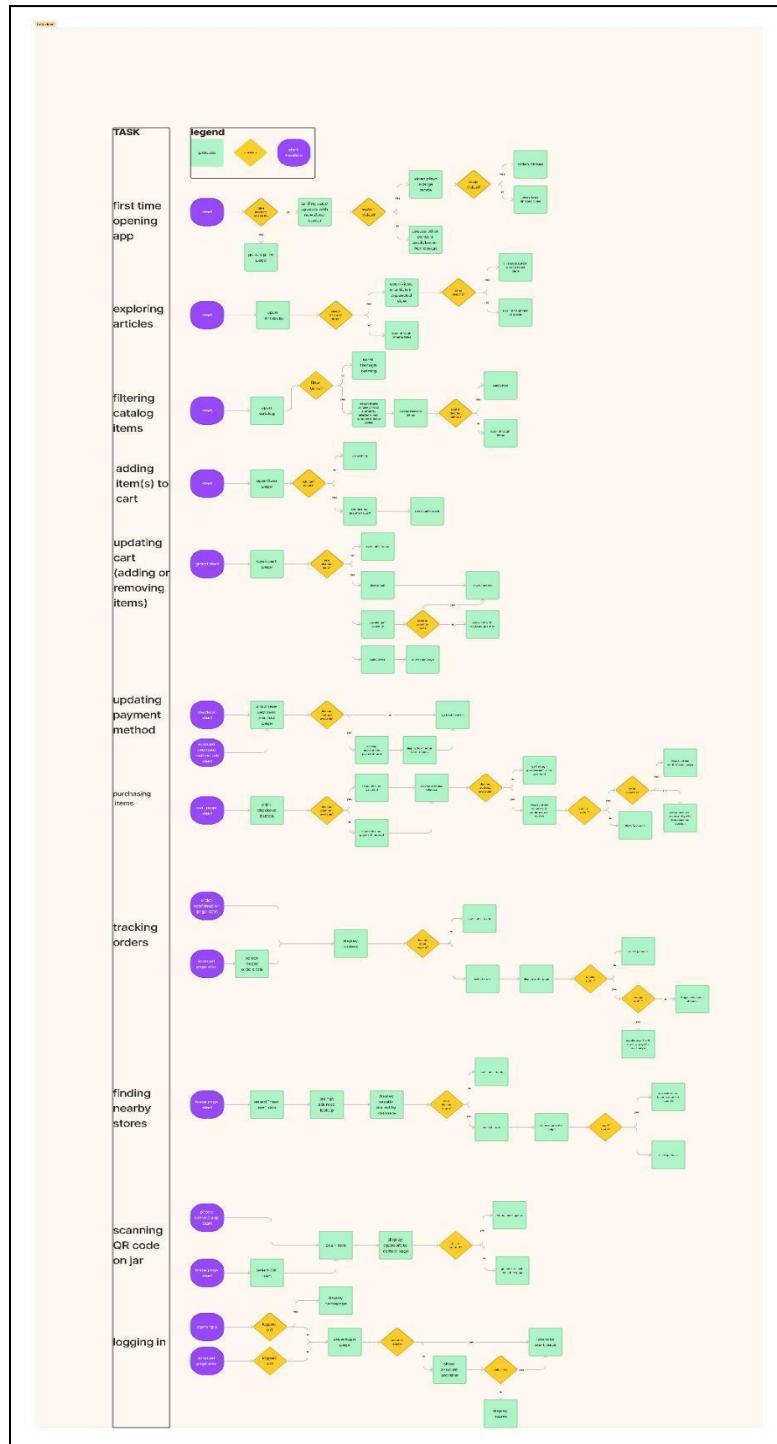
Once tasks are analyzed, the stepwise instructions for tasks can be converted into task flow diagrams. These diagrams show how tasks are ordered and demonstrate how a user's decisions naturally flow from one point to the next in accordance with the design team's constructed mental model. The task flow diagrams form the guideline for the ensuing wireframes.

The actions our design team took and the output of those actions for this phase are as follows:

Action	Output
Flesh out key tasks step by step	List of detailed step-by-step actions taken by user to accomplish task
Draft task flow	Flow charts for key tasks
Construct global screen layout	Global relational diagram of screens for entire UI

7.1 Task Flow Diagrams

Below is a low-resolution overview of our task flow diagrams. Higher-resolution versions can be found online at [this link](#).



8 Wireframe Flow Diagram

Once task analysis and task flow diagramming is completed, task flow diagrams are used to construct wireframes that address the steps required to accomplish key user tasks. Wireframes are abstracted views of the design for each screen which ideally represent each planned function or feature described by the task flow diagrams. These wireframes are built and placed back into the task flow diagram next to their respective task function.

Unlike the task flow diagram, the wireframe flow diagram places emphasis on the UI within the context of the conceptual model, rather than the conceptual model of the user itself. The wireframes for each task action are inserted alongside their relevant task steps in the task flow diagram to help the design team demonstrate how aspects of the UI actually address the given task steps.

The actions our design team took during this phase and their outcomes are as follows:

Action	Output
Create a set of wireframes	Wireframes for screens related to key tasks in various display contexts (mobile, tablet, desktop)
Construct alternative designs and iterate	Improved wireframes

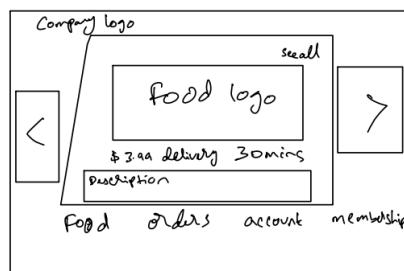
8.1 Wireframing Process

Wireframes were constructed using UX/UI industry standard [Balsamiq](#). Our design team constructed the wireframes using the following steps:

1. Build wireframes for mobile format which address task flow actions
2. Put wireframes next to respective actions in task flow diagram
3. Generate alternative design sketches after reviewing newly created wireflow diagram
4. Improve wireframes and iterate

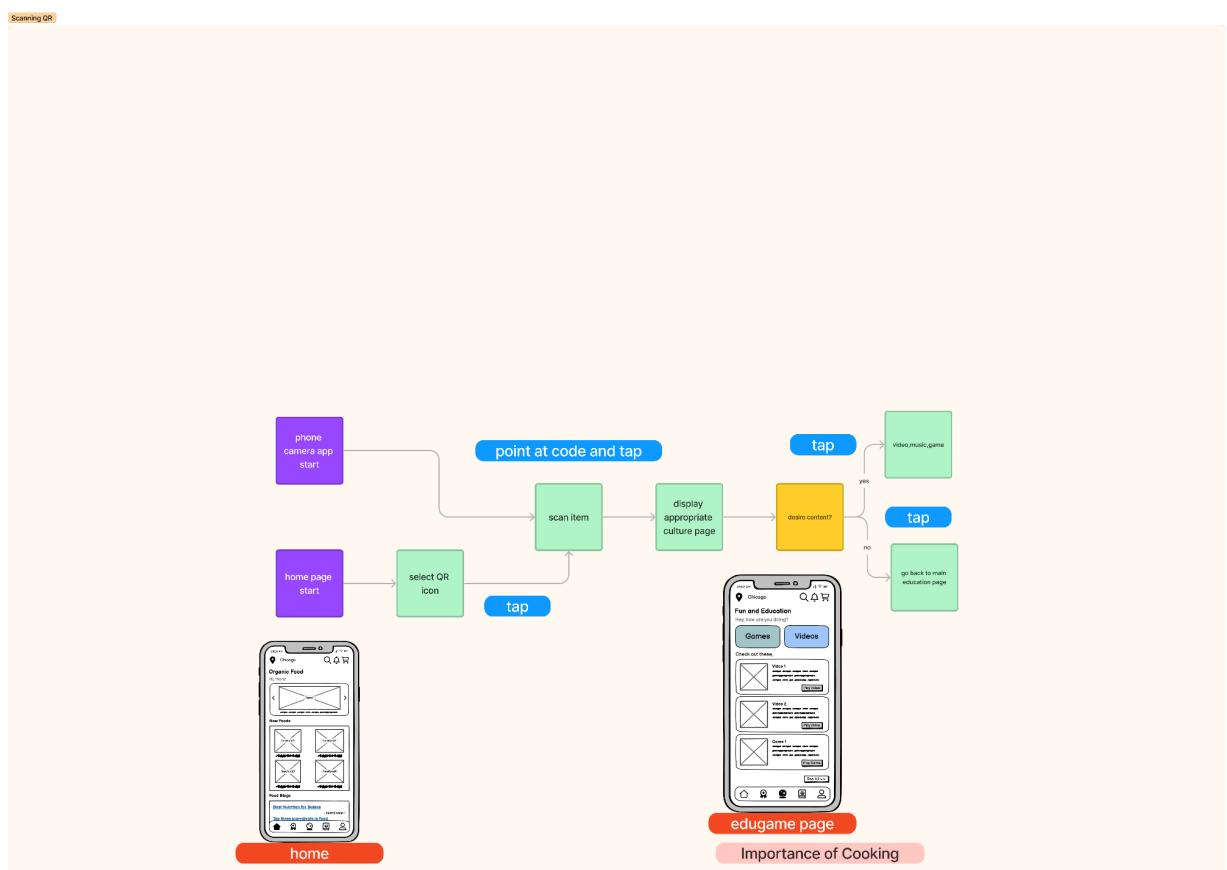
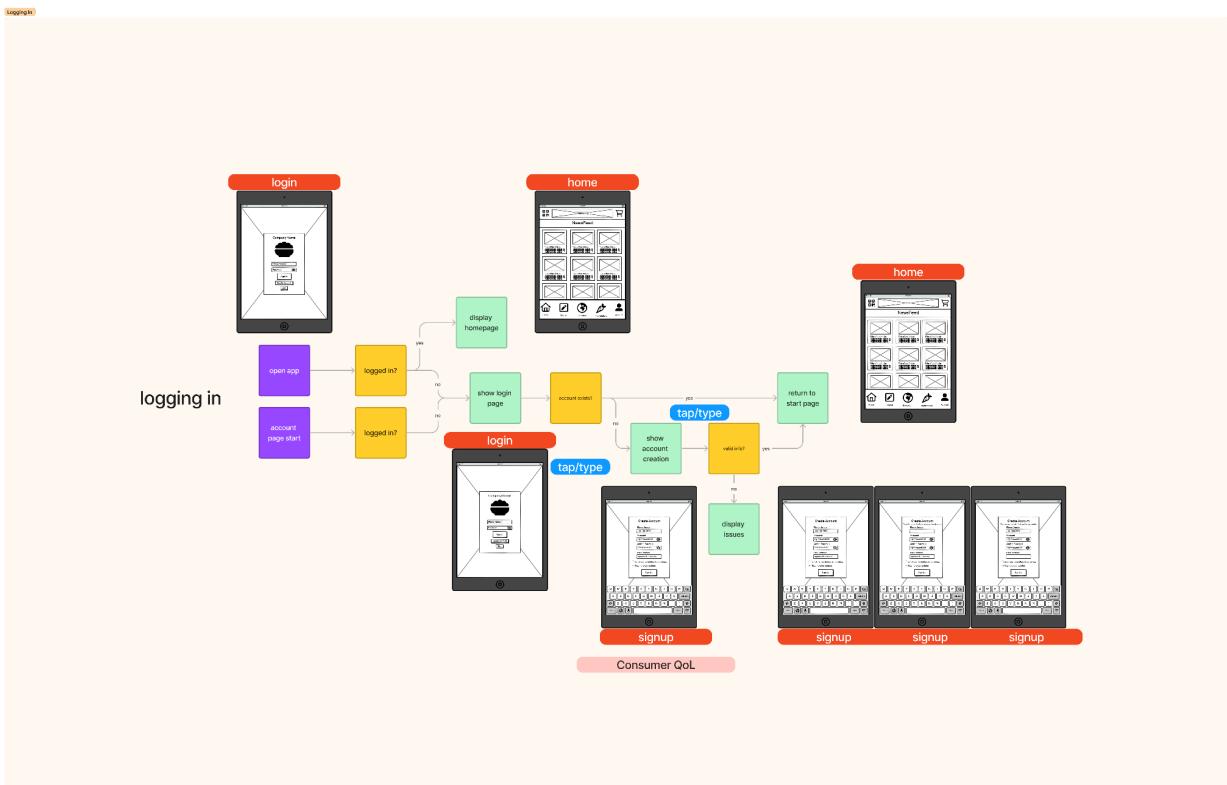
8.2 Alternative Diagrams

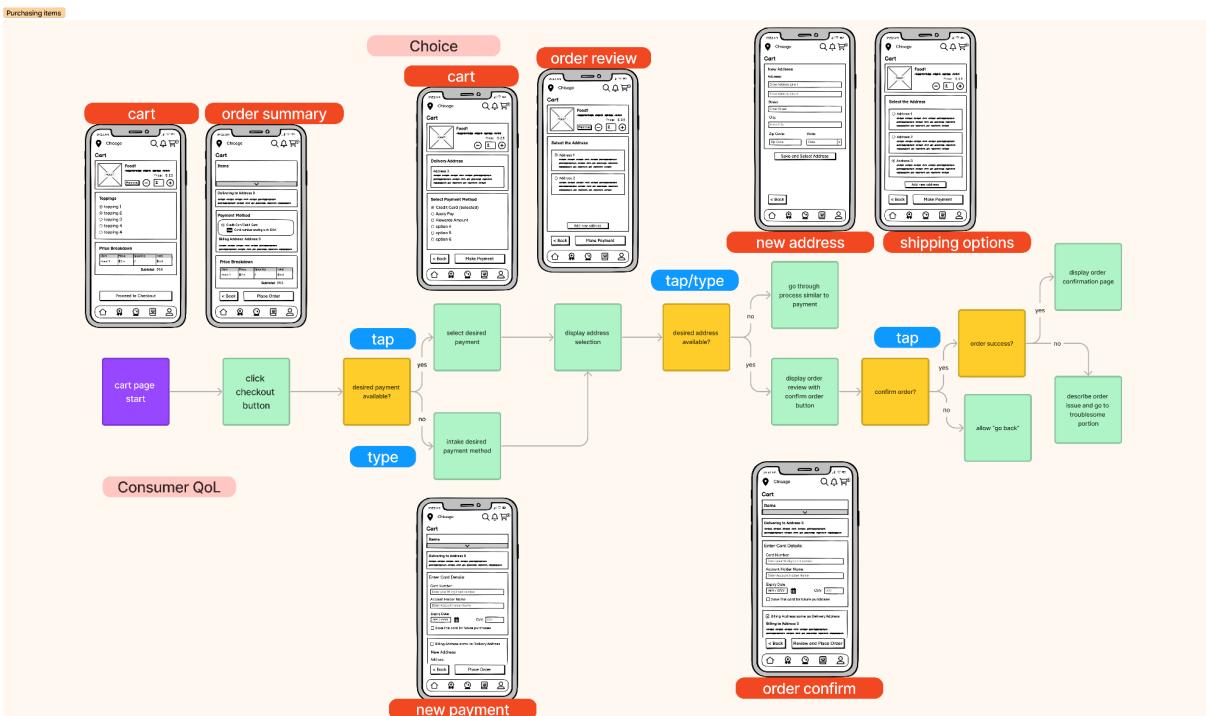
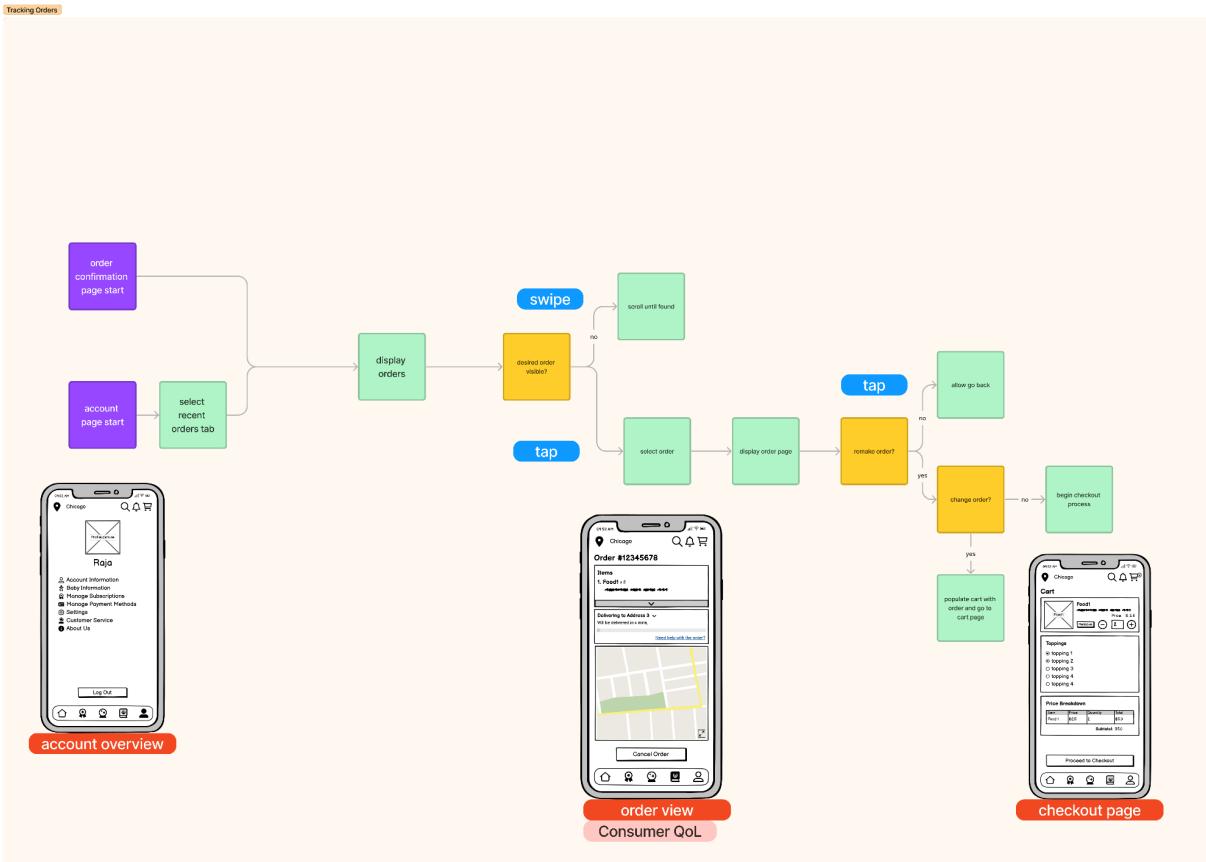
Our team constructed some quick sketches for alternative diagrams after building our initial wireframes. We decided to discard these and proceed with initial designs. One example of an alternative design is shown below. While it does a good job of highlighting products, it lacks navigability and appears more like an image slideshow than a dashboard with the navigability required of an app of our scope.

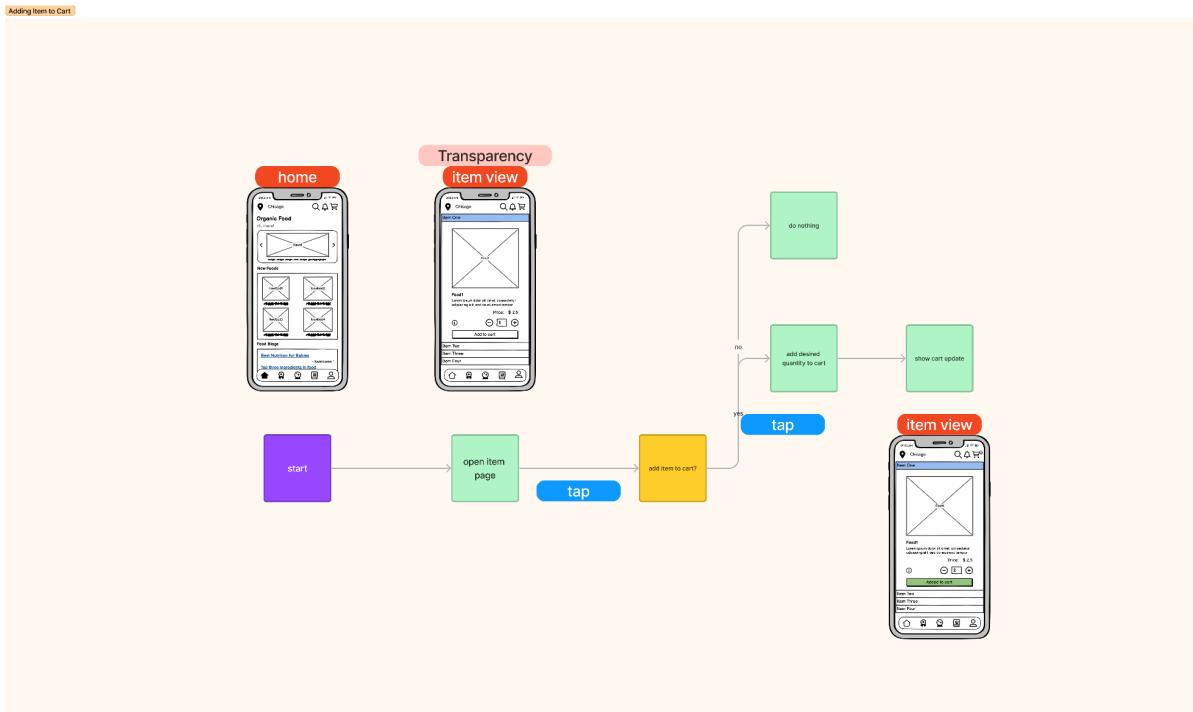
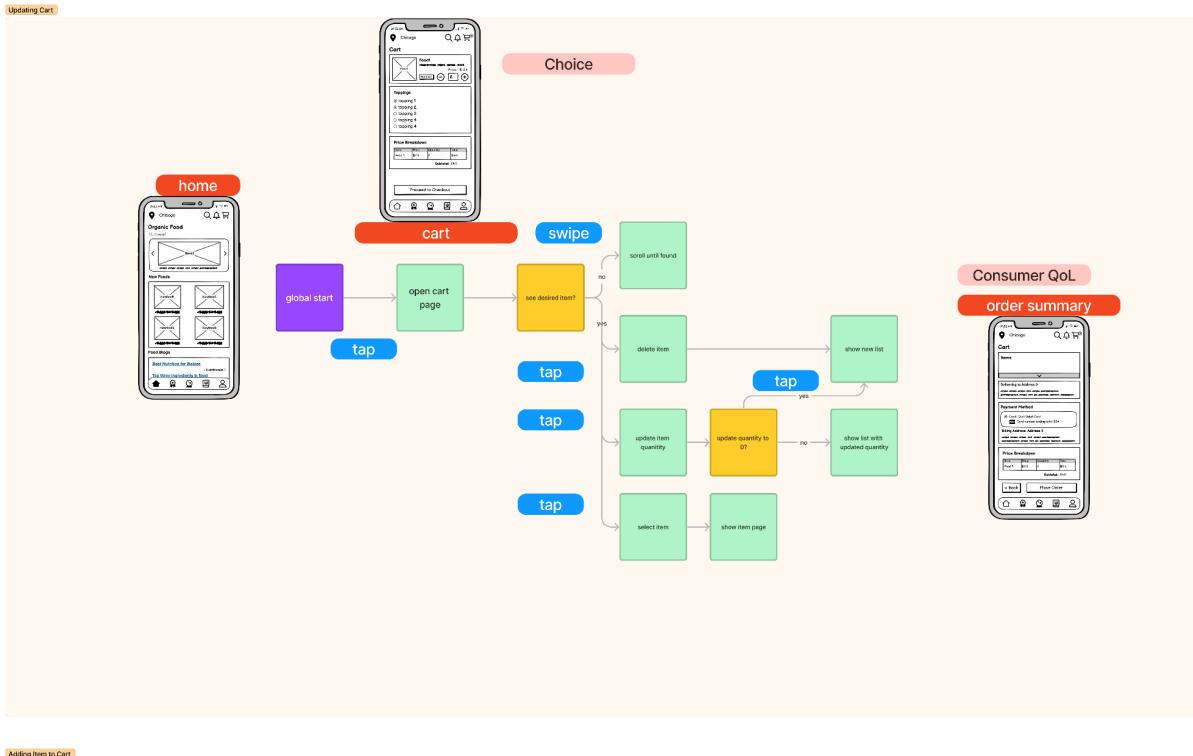


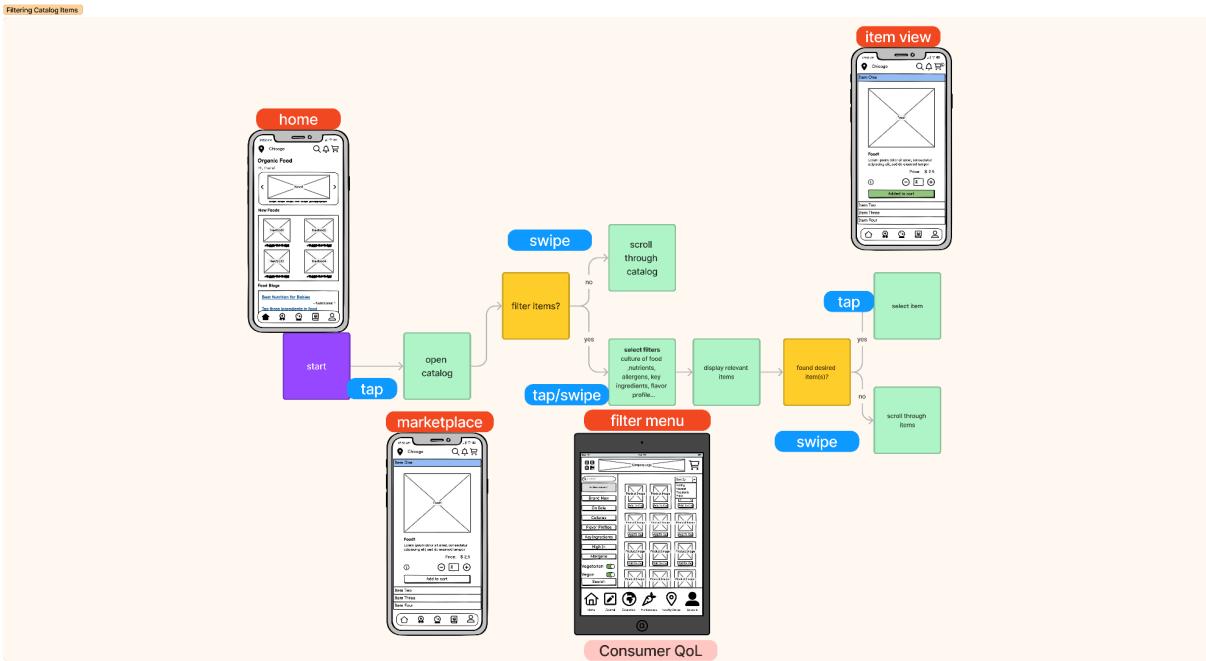
8.3 Wireflow Diagrams

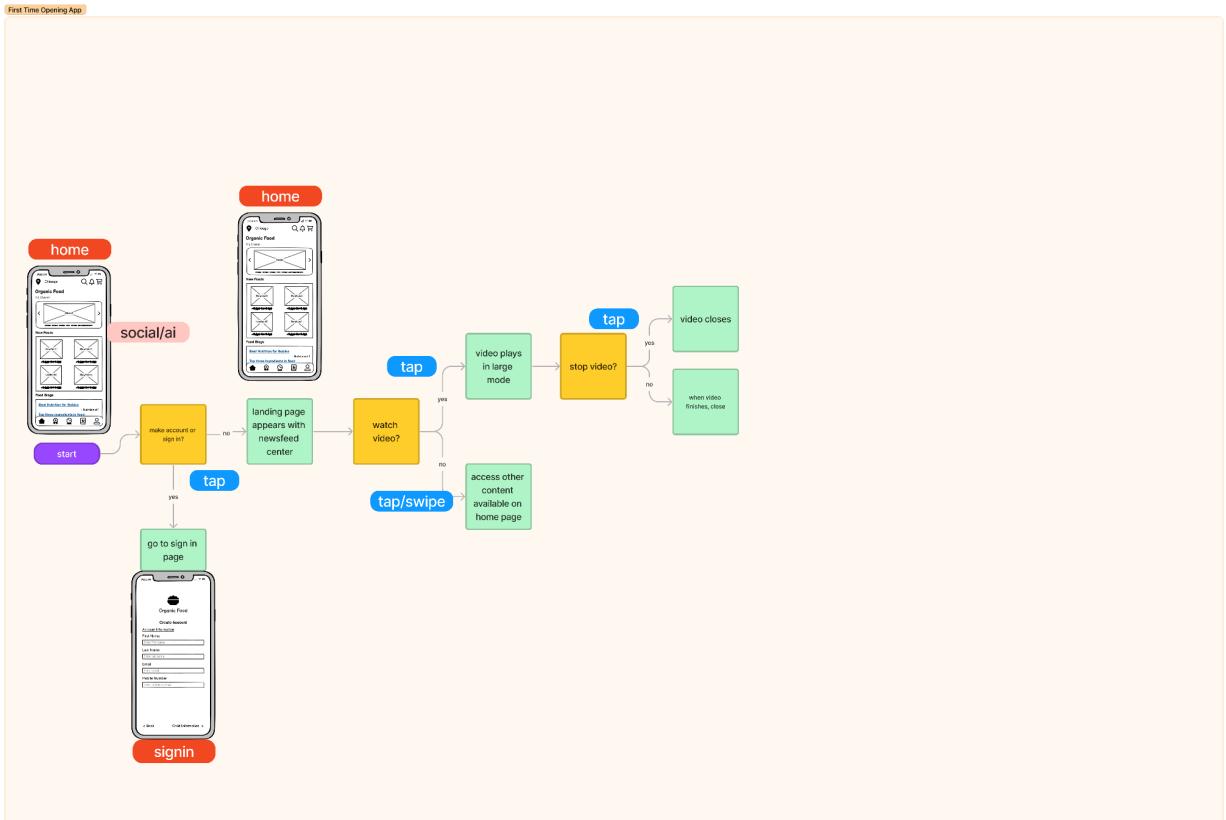
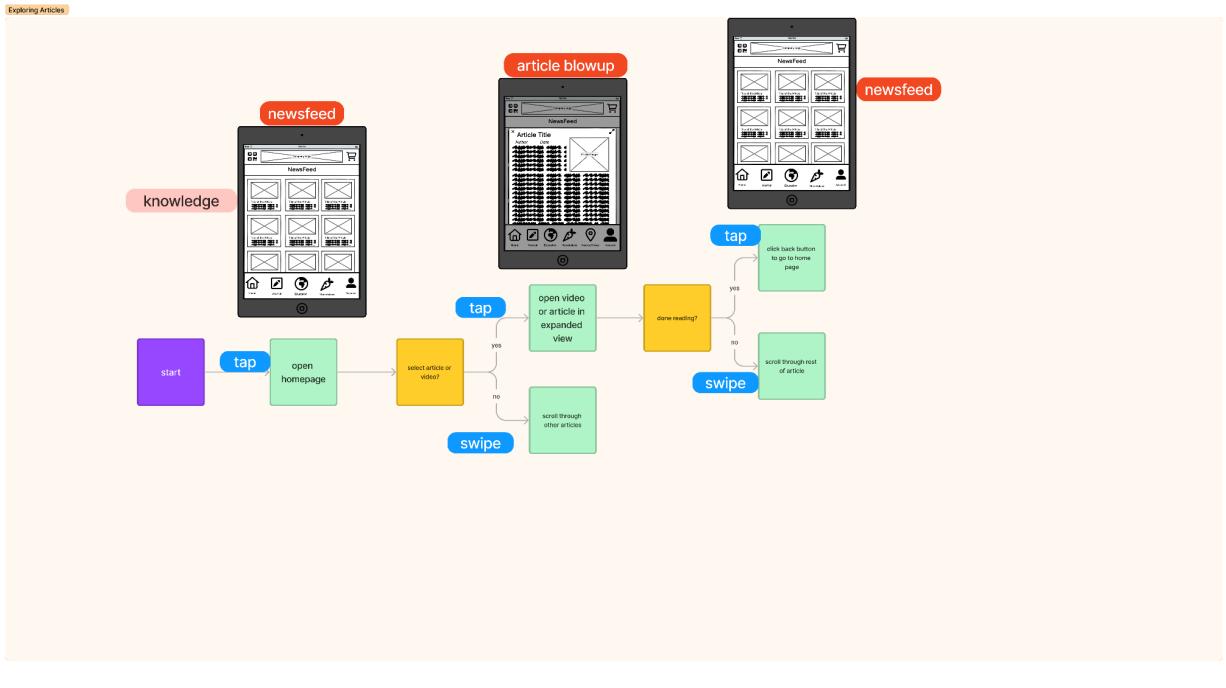
Similarly to the task flow diagrams, we only show a low-resolution overview here and leave high-resolution versions at [this link](#). The latest wireframes can be downloaded there.







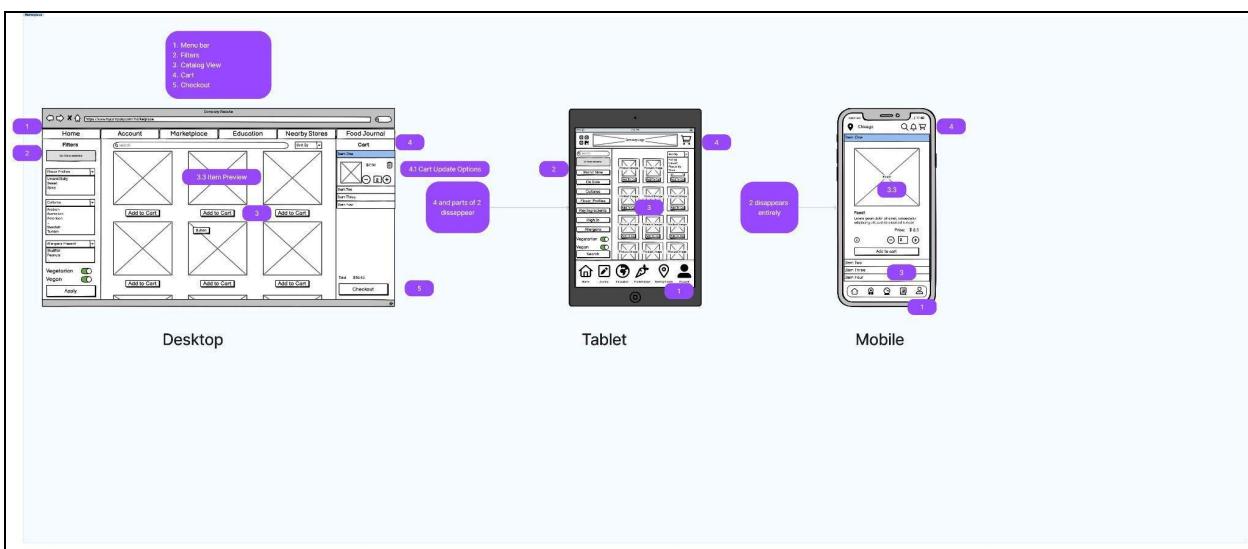
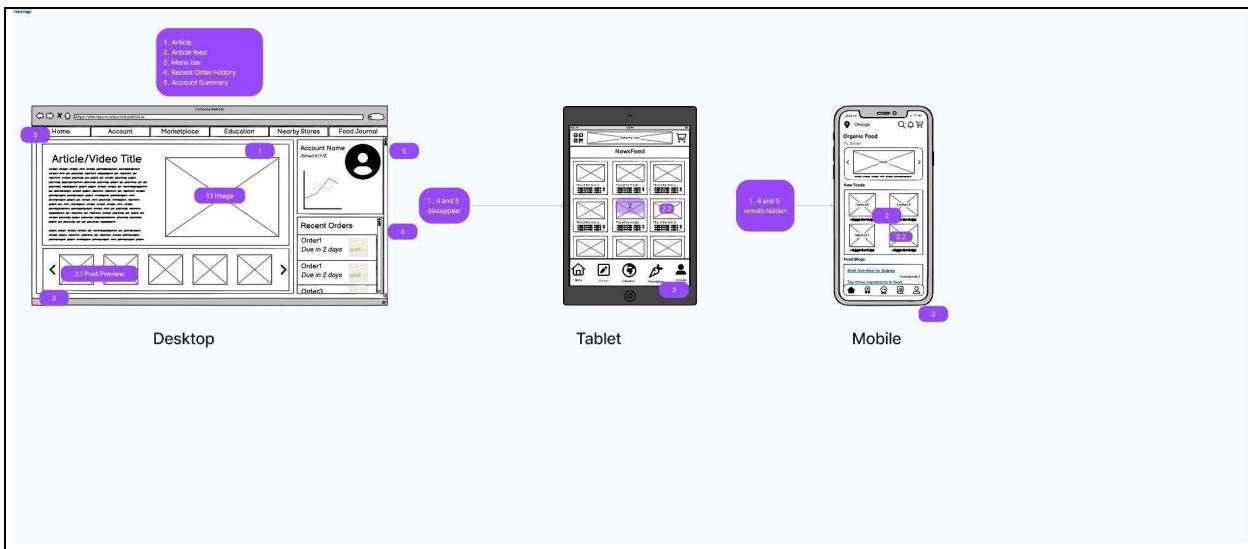




9 Responsive Wireframes

Once wireframes are generated, the design team's next task is to create responsive wireframes. These wireframe diagrams demonstrate how the layout for key screens will alter from platform to platform. This is especially important for content like websites which can be accessed from multiple types of devices. As screen size shifts, it's important for the design to accommodate shifts in such a way that the design is still effective and enjoyable to use.

Below are the annotated responsive wireframe designs for our UI - namely the home screen and marketplace screens in that order.



10 Early Design Feedback

Once the initial wireframes are constructed and altered with responsiveness in mind, it is important for the design team to receive feedback from others outside of the design team in order to get objective feedback and improve the design direction. To this end, our UI course held in-class critiques between groups.

10.1 In-Class Critiques

On March 2nd, 2023 we participated in two in-class critiques with two other design teams. They had never seen our design and were working on vastly different projects, so their insights were valuable and unmotivated by any conflicting experience or influence.

One team consisted of three members and the other team consisted of five members. The feedback we received was overall highly positive. Members were especially impressed with the quality of the mobile wireframes and how expansive their features were. That being said, two key criticisms were made:

1. The goal of the overall project is somewhat unclear, and it seems like the application might be trying to do too much. Is it a marketplace app? A food journal? An educational app?
2. Simplification and decluttering of pages, especially with the sign-in process. It's unnecessary for a new user to enter in so much information when onboarding if they simply want to access the educational content.

10.2 Next Steps

In order to address the feedback we received, we have two tasks ahead of us. The first (decluttering) is relatively simple. But we also need to scale down the scope of our UI and focus on the core tasks - purchasing food and engaging in educational content. This means extreme simplification of the UI which leads to a further challenge - making the UI interesting and enjoyable in spite of (or hopefully because of) its simplicity and sparsity.

11 Low-Fidelity Prototyping and Testing

In order to create wireframes for testing the low-fidelity prototypes, we used a combination of Balsamiq and Invision's Prototype feature. The former allows easy creation of wireframes as discussed in previous sections; the latter allows easy application of interactive "zones" to sections of a wireframe. These zones can be assigned to respond to specific types of input (tap vs click and hold, swipe, scroll, etc) which mimic a real-life interface. Our low fidelity prototype can be accessed [here](#).

11.1 User Feedback on Low-Fidelity Prototypes

To gather user feedback we held several feedback sessions with a total of 5 users. During these sessions, we asked users to perform three key tasks, making sure not to help them or provide any guidance. We asked the users to think out loud as they attempted to complete the tasks and we recorded their comments and took special care to note where users got confused, stuck, or had questions, or was stuck. This feedback was then used to guide the creation of our high-fidelity wireframes.

The three tasks we asked our users to accomplish were:

1. Explore the food journal feature
2. Add a food item to the shopping cart
3. Manage food subscriptions
4. Sign In/Sign-Up

It was particularly important that we asked users to explore the food journal as this feature received the most criticism from our users. This was surprising as it was initially the focus of our application. However, some users felt that it not only was inapplicable for the target user (babies), but was also poorly designed. One user described the UI as "cluttered". Another common feedback we got was questioning the utility of "toppings" in the food item when the food items were jars and wouldn't actually have toppings. These all lead to a concerted effort to simplify the UI while maintaining easy access to information within the colloquial "three-click" rule (that any information in a UI should be accessible within three clicks or gestures).

User feedback for the low and high-fidelity prototypes can be found in Appendix D.

11.2 Resulting Design Changes

1. Removal of food journal feature

Reason for change: Was the largest "tripping" point in user tests and received unanimous criticism in not only UI design but over all utility given the app context

User Need Addressed: Consumer QoL

2. Removal of all of top nav bar except for hamburger menu on certain screens and cart on others

Reason for change: Took up a lot of space on the pages and users felt it overwhelming, redundant, and distracting rather than helpful.

User Need Addressed: Transparency

3. Removal of points feature and map feature with subscriptions

Reason for change: The justification wasn't clear as there was no backing in Globowl business plan for a rewards system and there was no planned functionality for actually using points gathered from purchases. We also removed the map feature from subscriptions because users often asked why we didn't plan on outsourcing tracking like many other companies do for their orders.

User Need Addressed: Ease of use

12 High-Fidelity Prototyping and Testing

This section discusses the high-fidelity prototype, or the iteration on the low-fidelity prototype based on the feedback received from users described in the previous section. This prototype was built in Figma and was built with the intention of replicating the final product's appearance as closely as possible. Then Invision's Prototype application was used to make the High-fidelity Figma images interactive.

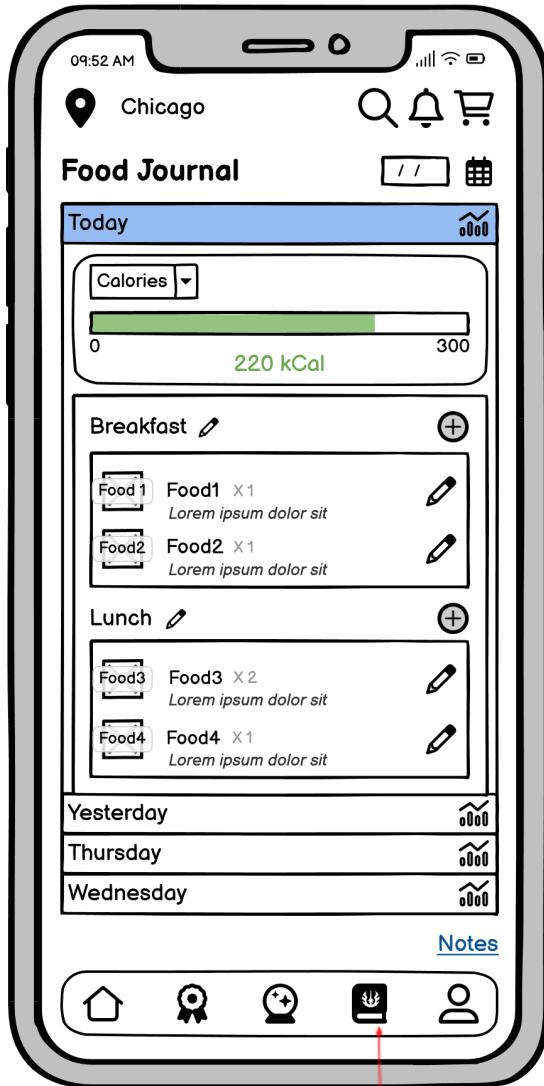
12.1 High-Fidelity Prototype

The high-fidelity prototype can be accessed [at this link](#). Appendix E contains the three key screens from the high-fidelity prototype with labels and transition annotations. They are bordered to clearly mark the size/contents of each screen.

12.2 Implementing Design Changes Based on User Feedback

Design Change 1: Removal of food journal feature

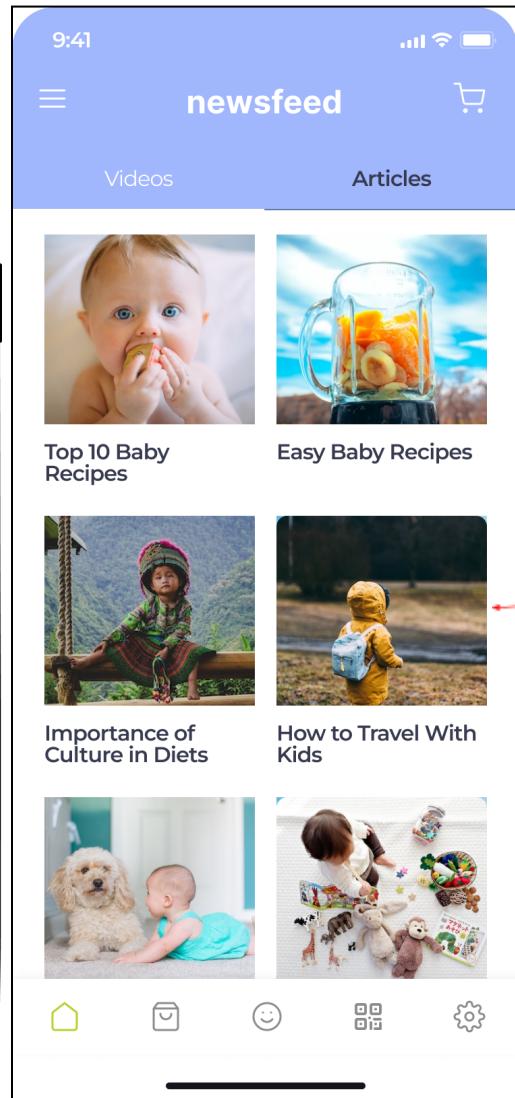
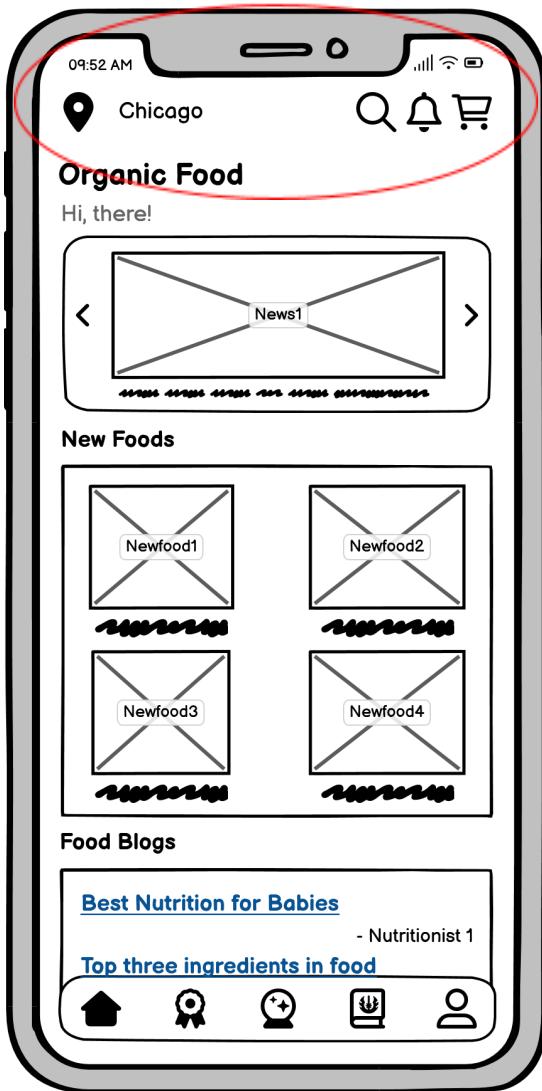
We removed the food journal feature and replaced its spot in the bottom navbar with QR code icon. This helped with Design Change 2 as well. This will help users focus on the most beneficial and highly-used feature of the app (the QR code scanning).



Design Change 2: Decluttering of the UI

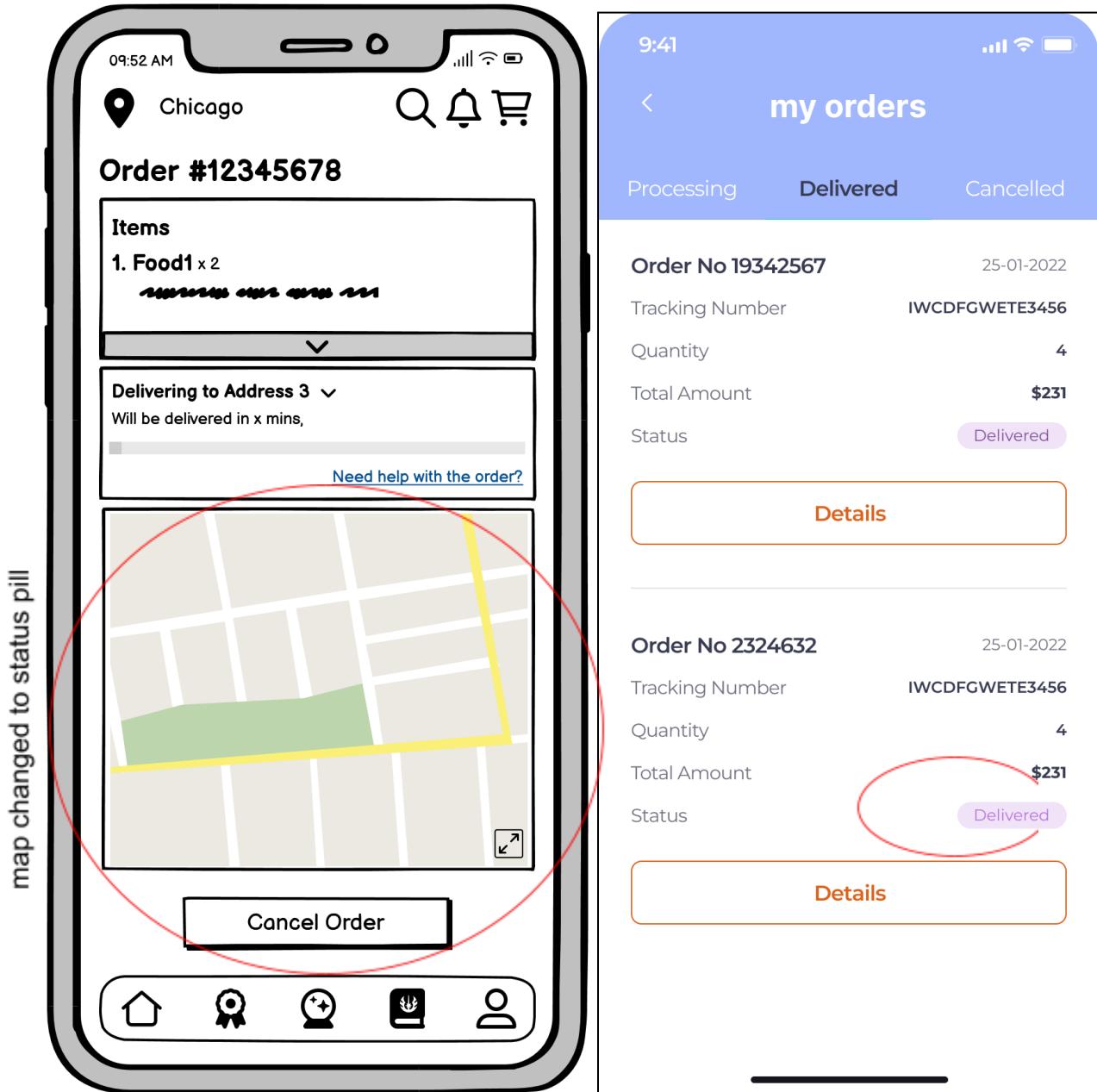
We cleaned up the top navigation bar, leaving only the vital buttons and allowing other information to be accessed elsewhere in the application. This will help users navigate in more intuitive fashions.

busy/redundant info



Design Change 3: Removal of points feature and map feature with order tracking

We simplified the map interface in order tracking as this was unlikely to actually be implemented into the application and merely cluttered the UI screen. This will help users see key information quickly.



13 User Testing

User testing is the process whereby users are asked to complete a variety of tasks in order to evaluate a UI. Each task has a success criteria to be met. Whether the task is completed “successfully” depends on how easily the user can accomplish the task, including how many “mistakes” they make - asking questions, clicking on the wrong button, etc. We conducted both standard testing with our high-fidelity prototype and A/B testing. We used this feedback in order to determine what final changes to make to our UI before we began actual implementation.

13.1 Participants

Our participants were six people between the ages of 25 and 27. Five were men and one was a woman.

13.2 Method

For each user, we described several tasks we wanted them to accomplish. Each task was designated a success threshold (# failures allowed). We then recorded user’s actions and their “out-loud thinking” as they attempted each task. Once the tasks were completed, the users were asked to fill out a questionnaire to capture their overall impressions of the UI. When conducting the testing, we followed a script which can be found in Appendix F.

We also logged data during our tests. The metrics we tracked were:

- Amount of time (in seconds)
- Behaviors
- Intention
- Error #

The completed data log as well as the questionnaire responses can be found in Appendix F. The questionnaire itself can be found [at this link](#).

13.3 Findings

13.3.1 Datalog Summary

	Task 1 Error	Task 1 Time	Task 2 Errors	Task 2 Time	Task 3 Errors	Task 3 Time	Task 4 Errors	Task 4 Time
	0	40	1	50	7	100	2	20
	0	30	0	40	0	10	0	30
	2	45	3	40	1	15	0	15
	2	60	3	55	0	15	1	5

	0	60	4	80	5	70	2	50
	0	20	0	30	3	70	0	15
Avg	0.67	42.50	1.83	49.17	2.67	46.67	0.83	22.50
Std Dev	1.03	16.05	1.72	17.44	2.88	38.17	0.98	15.73

After collecting data, it is clear that task 3 (finding subscriptions) is the most problematic task we've given users. The average error rate was almost 1 error higher than the second closest (marketplace purchase) and the standard deviation for errors was significantly higher. Although the process is relatively simple (two clicks, one to get to settings, then one to click on subscription bar), we believe that user's intuitive sense sometimes leads them to believe that subscriptions should be found in the marketplace.

13.3.2 Questionnaire Summary

Question (response values range from 1-5)	I think that I would like to use this system frequently.	I found the system unnecessarily complex.	I thought the system was easy to use.	I think that I would need the support of a technical person to be able to use this system.	I like the color scheme of the UI.	I think a toddler could use the education portion of this application on their own.	
Mean	3.83	1.83	4.17	1.00	4.17		1.17
Std Dev	0.98	0.75	0.75	0.00	0.75		0.41

We noted from our questionnaire responses that while the overall experience was positive, the education portion (which wasn't tested, just explored) was deemed too complex for a toddler to use. Whether toddlers are even in our target user base is yet to be determined, but we may consider somehow incorporating an autoplay card so parents can just open the section and put the device in front of their child with as little touching as possible.

13.4 Design Changes

Upon analyzing the collected data, it became evident that task 3, which involves finding subscriptions, was the most problematic task for our users. Based on this knowledge and our observations regarding the difficulties users face while making purchases via the marketplace, we plan to conduct an A/B test using a simplified marketplace and a button that can directly access subscription management. This change would address the “Consumer QoL” user need.

13.5 A/B Testing

A/B testing is an altered version of user testing where some users test an original version (A) and an altered version (B) of a UI. Then metrics of success (time to accomplish a task, # of errors, etc) are compared to determine which version is superior. For version A, we kept the marketplace unaltered. For version B, we added a “manage subscriptions” button in the center of the marketplace screen.

Null Hypothesis: Our null hypothesis H0 was that designs A and B would have a similar error rate (within 1 error), number of clicks (within two clicks), and that the amount of time to complete would be within 5 seconds.

Alternate Hypothesis: Our alternate hypothesis H1 was that the time to complete, number of errors, and the number of taps/clicks on version A would be higher than B because the marketplace UI had been decluttered and a navigation option to reach the subscription page from the marketplace had been added.

To test these hypothesis, we conducted A/B testing with 4 new users and measured:

- Number of taps: Number of actions user applies to interface. Ideally this number is as low as possible given the user interface.
- Number of seconds: Number of seconds to complete action. Ideally this is as low as possible.
- Number of errors: Number of times user either had to back track, or mistakenly clicked on a button, or did anything which resulted in an outcome beyond their expressed intention

User ID	Version	Tap/Click #	Amount of time (in seconds)	Error #
U5	A	14	65	6
U6	A	4	40	3
U7	B	2	10	0
U8	B	3	15	1

The results proved the alternate hypothesis to be true. Version A (with the more cluttered marketplace UI and the lack of a “manage subscriptions” button made it more difficult for users to find the subscription button, as their gut reaction was to go to the marketplace instead of the settings menu to

look at their subscriptions. However, in the case of Version B, even when U8 went to the marketplace (which was considered an “error”), they were quickly able to correct that error by going to the “manage subscription” button. This allows greater flexibility for users and de-nests the hierarchy in our information architecture, thereby improving user experience and making the app feel more open and forgiving to use.

It should be acknowledged that our A/B testing was only with four users and only tested a small feature, so ideally further testing would be conducted before doing large UI changes in the future.

14 Implementation

The UI was implemented using React, HTML, and CSS. The original goal was to implement it in Kotlin using Android Studio and Jetpack Compose, but our limited experience with mobile programming forced us to implement the UI prototype on the web. One benefit of this was that we were able to easily use our Figma prototypes as reference points and thereby produce an almost identical representation in terms of style and placement.

We used a MVC architecture standard to web-app development, relying on the flexbox grid structure to handle much of the dynamic structuring of items and the backend React to handle how the UI would respond to user interaction. Unfortunately, the scope of our project was so wide-ranging (an entire mobile application with e-commerce AND media navigation) that it was impossible to make all aspects reactive, particularly the swipe-able scroll-menus and marketplace options. That being said, we are proud of our work and think it serves as an excellent blueprint for development in Kotlin or Swift.

Appendix A: Discussion Guide

Discussion Guide Template

Colin MacRae, Raja Kandadi, Balaji V Kashyap

Focus Statement (include research context and target users)	Understanding the experiences and problems faced by new parents with busy schedules who are concerned about the ingredients in their baby's food and how they can purchase food that meets their needs. Identifying constraints and barriers that parents are facing to identify and obtain food they prefer.
Discussion Guide	<p>- Introduction</p> <p>Hello, we are a group of 3 team members, Colin McRae, Rajasharathchandra Reddy Kandadi, and Balaji V Kashyap. Today we're here to do a focus group for our User Interface Design class project. This focus group is here to discuss your experiences on shopping for baby food and challenges on finding out what you want.</p> <p>I will lead the conversation about your experiences on researching baby food and using that information to choose products and brands, while other team members record your answers.</p> <p>If it is okay with all of you, we will also be audio recording this focus group so that we can refer to it later. The audio recording will be kept confidential.</p> <p>This focus group will be about 50 minutes long. Please share your experiences and thoughts, and feel free to add on to others' thoughts as well. Also, share your experiences and thoughts.</p> <p>Do you have any questions before we get started?</p>
- Key demographic questions	1. Can you introduce yourself? (Name, Gender, Age) 2. How many children do you have? 3. What is the age of your children? 3. Who takes care of your baby? 4. Do you live with your parents? 5. What do you do for a living?
- Warm-up questions (factual answers)	1. How long have you been a parent? 2. While doing grocery shopping, will you buy organic foods or regular foods? 3. Do you make the food for your baby or do you buy it? 4. If you buy, do you prefer online or grocery stores? 5. Is your baby a picky eater?

	<p>6. What are some of your child's favorite foods?</p> <p>7. What are some healthy food options that you make sure to include in your child's diet?</p> <p>8. How much time do you spend buying or preparing baby food?</p>
- Main questions (open-ended discussions)	<p>1. How do you ensure your child is getting enough vitamins and nutrients in their diet?</p> <p>2. Can you tell me about a time when you had to handle a food allergy or dietary restriction for your child?</p> <p>3. Can you walk me through grocery shopping for your child and what you consider when choosing food?</p> <p>4. Can you describe how you handle mealtime at home and what routines or rules you have in place?</p> <p>6. How do you determine which products are the best for your baby?</p> <p>7. How do you ensure that your baby's food is fresh and safe to eat?</p> <p>8. How do you save money on products you buy? Are there any rewards programs?</p> <p>9. What kind of information is most important to you when buying baby food?</p>
Design Probe(s)	<p>Have you ever used websites like helloyumi, babyfoode, or wholesomebabyfood? What is your experience on using these websites?</p> <p>Did you find difficulties while using these websites?</p> <p>Have you ever tried to buy baby food on your phone?</p>

Appendix B: Transcripts and Signature Sheet

Transcript

Yeah. I dunno about being a doctor. I, I think so. Okay. That would be sick if she was on tracking. Okay. That'd be really cool. Um, but yeah. So we're gonna go ahead. Oh, before we get started, do you guys have any questions about what we're doing or anything? No. Okay. There's just a question, right? Yeah, yeah, yeah.

I like, I, I just have some like, Questions that I'm filling out and like, okay. So the first thing, uh, real quick is like, um, basic stuff like you guys name, age, like what you do for a living so we can get like a demographic of what you guys, you guys are, I'm gonna go ahead, start with uh, or actually you got it.

Okay. John, actually, uh, month name, age, where. Oh, or what? What you do here,

Tabitha 29. I work in the service industry.

Name, name, name. A B I T H a, Tabitha

Vernon, 35. I'm an electrician. Okay, nice. Cool. Yeah, I know. Okay. And how many uh, kids do you guys have? One, four. Four, one. Okay. So we got 1, 1, 4. One. And how old is Jimmy? Uh, seven half months. Seven and a half and your kid's 18 months and Yeah. Seven. So she's almost gonna be two. So 7, 6, 4, 2. Okay. 7, 6, 4 and two.

What, how old you, uh, 16 months. And who's, who are the primary caretakers of the baby. Okay. Well, and, and your, your grandpa a little bit too. Oh yeah. Actually, Oh, really? Okay. It's not my grandpa, that's his grandpa. It's my dad. Oh, true. Yeah. Yeah. . Yeah. And her, she is you, you're the pri you're the primary caretaker, like doing it most of the time.

Okay. And what about you? Me? Yeah. So you can just put parents, um, and do, and you guys live at, at any point when you guys were like taking care. For you, this doesn't really apply, but like when you were taking care of any of your kids, were you living with your parents at any of that time or like, were you living with anyone else who would be helping?

No. Okay. And we already went over what you guys did for a living. Um, so when you guys are doing grocery shopping, shopping for baby food, what are you guys thinking about? Like, what are you looking for? How do you. Side on you? Uh, I'm personally just looking to make sure it's organic. Has no additives in it, um, has no sugar, add sugars, especially.

Um, and it's actually, uh, like, like just pure, like if it's an ingredient. Um, but we wanna make sure that doesn't have like added water, added like lemon juice, any other ingredient except that

first one and only ingredient. Like if we're giving him sweet piece, we wanna just make. Sweet Peas. Okay. Uh, well, like no lead, that's a big thing.

No lead. Yeah, that's like a big, you have to check for that in baby food. Well, there's like a lot of like, uh, lead in Gerber product. Product. Oh. So we do on the parade. It's not like, it won't like say lead, but Yeah. Okay. We have to do the research to make sure that, uh, they're not known for anything. Like, no, like, so we don't buy Gerba, for example, cause of that.

Cause they had. Of it. Okay. Um, we'll only brought brands that don't have any kind of history of a negative, like media or anything like that. Once they fix it or not, just don't want, take their risks. Okay. What were you doing a lot of research in like the foods that you're buying or just like, uh, grabbed out really.

I mean, I did, uh, not the same lead, but I did lead weaning, which was just, I introduced her the foods really early. So at about five, six months old, I was already feeding the baby like whole foods. Okay. And so I did that. So they got lots of fruit and vegetables and fish and everything very early. Okay. So my kids were eating salmon and sushi before they moved on.

Oh, okay. So I did that. Um, but when looking for like jarred food or baby food by the brand, I pretty much only would be concerned with the sugars. I just wouldn't look for things high sugar with the patient sugar. Okay. And so like when you, when you're doing that, like, did you do any of that? Online, or would you just straight up take the jar and like turn it around?

You know, it's like grabbing all these jars off the shelf at the grocery store. I mean, I pretty much sold, um, for the allergy wise. Uh, when I had my first two kids, what I did was I would take, you know, sweet potato, banana, strawberry, and I would have them try the sweet potato for two days, banana for two days, and shopping for two days.

And I would make sure they didn't get an allergic reaction from any of those things. Oh, okay. Cause that's what I did with all the foods and I didn't really do that with the. Two children. Cause I figured if my first two weren't allergic, the rest would be allergic. Okay. So right. When I had the other kids, I just kinda introduced them to everything.

Yeah. And they've never had an allergy and she had anything. So I'm concerned about that. Okay. No, it's, I, I want to come back to the like two, two days. Two days things. That's interesting. But, um, what about you? Uh, are you a Guberman? ? Hell yeah.

Whatever like. Uhhuh. I try to get her, like I get her like every flavor cause she, and then I just what she likes. Okay. And how do you, this might sound like a silly question, but how do you know what she likes? You know, we still get excited for like flavors and others. She like doesn't really like, oh, okay.

Is it, is it the point, like can she tell if you're like, I'm imagining like a cat, you like open the can and they like come running, can you like show her the jar and she's like, Hell yeah. Like

strawberry fruit or whatever. Yeah. Like he really likes like the blueberry oatmeal one. Like okay. He's not as big a man as like, like pale and carrot.

I bet. Yeah. Me neither. We, uh, yeah, I forgot to mention that. Yeah. We did the same exact thing, but we're, uh, because we just started eating solid foods about what, a month ago? A month and a half ago. I think six. We started. So that's what we were doing. Like, uh, uh, right now the, we can't only introduce him to like, uh, non-AI and non, uh, protein, like meat products.

Okay? So we were just going every three days doing the same exact thing, like one, one degree avocado, uh, first the first three days, then for three days to make sure that he wasn't allergic to anything. Um, and then once we confirmed that there was no rashes, no uh uh, like physical something with it, then.

To like mix, mix and match those same vegetables that we've tried. So I think at, uh, h eight months is what we're supposed to introduce in to beans. Okay. Like fish, uh, berry eggs, things like that. Okay. And that's when we're gonna start like doing the same thing. Try, try, uh, try for three days, see if you dollar drink, then start fixing the match.

Right. So how, so like tab you mentioned, you know, like trying things for two, three days. Guys keep track of this stuff. Cause it sounds like, so we, we, we have an app called, uh, uh, baby Connect and it's hooked up with my home. Like you heard it, . So anytime I'm doing anything with the baby diaper changes, food bottle feedings, I just say, Hey, Google, uh, log in, whatever, whatever.

Um, okay. Like, okay, Google log in, uh, four ounces of, uh, formula and then logs it in. Or I'll say, okay, Google. Get 20 teaspoons of a babe, uh, solid foods of sweet piece and it logs it in. So it just fills out a graph for us. That's the way I use it. And other people just probably write it down for something.

But for me that's really convenient cause it just integrates with everything on my cell phone, on the home, no matter what bedroom I'm in, no matter if I'm the car, my watch. Yeah. So I like that. That's how we keep track. Okay. Okay. What, and you, you were saying for. Like also use the, the Google, I don't use that.

It's just too annoying for me. Um, she just sells me to do it. literally, well, no, like with the jars, I just started writing on the, on the actual jar. Like, oh, okay. Usually it's only good for like two to three days and my memory's not good, so I just started writing the day and the time. Okay. But, um, we were doing the introducing every few days, but then he started getting sick of the same thing over and over, so then we.

Adding one that we already knew that he had had before. Yeah. So like just interchanging them out. Okay. Yeah. What, what about you? You said like you do it every two days and you swap through different foods or, yeah, so I would grab like two jars of pairs or two jars of strawberries or something like that, and I would just use one, one day.

I use one the second day. Typically, if they're gonna have an allergic reaction or a rash of some sort, it's gonna happen in 24 to 48 hours. So after those two jars were done and there was no. I would just move on to the next jar, please. Um, okay. But I would typically grab jars that were high in, you know, allergic reaction, like strawberries, things with nuts just like, you know, seafood.

And I would grab those kind of jars or I would feed them personally myself. I would like make salmon, I would give them salmon for two days, and that's just how I did it. Okay. What do you remember? Like, what did it, it must have been overwhelming with the first kid, like. To figure all this stuff out. It always is, but you know, kids are resilient and, you know, okay, so they're, you know, anything that's going to come from food or an allergic reaction can be resolved pretty quickly unless like, you know, I mean, unless some kid is just like deathly allergic to nuts and strawberries, which you're not, you're supposed to even give them them technically under eight months old.

Oh, you're not even supposed to give them, well, you're not supposed. . That's why you have to be careful with the lead weaning, which is what I did. But, sorry, I've heard you say that twice. What? What is that? So it's just when you introduce a baby to pull like solid foods early, between like five and six months.

So people say, you know, you do formulas for a certain amount of time and then you're supposed to do rice cereal, and then you're supposed to do like soft foods. But I skipped the rice cereal. I went from straight from formula and I just started chopping up. You know, I would cook the. So it was soft enough.

Okay. But, you know, I would boil the vegetables. So they were, you know, mushy enough she could grab 'em, but then when she put 'em in her mouth, they would, you know, soften in her mouth. Okay. And it's just lead weaning. So, um, it's just healthier for them. You don't have to worry about any other additives getting into the food.

Um, it teaches them, you know, with the grabbing and everything better. It helps them, you know, choking hazard just teaches them to chew faster. So between, you know, five and eight months old, my. Already eating like whole shoes. Okay. So, and that's not a common thing. Not a lot of parents are willing to try it.

I actually didn't try it until my second child. Okay. And I found that it just worked a whole lot better. I was able to give them more of a variety of food. Cuz you can't, you know, buy salmon and fish and certain meats in, you know, the jars. You know, they don't make everything. So I wanted to, like you said, you know, introduce them to all these things that they could possibly be allergic to or not like early.

So I just started cooking. Myself and giving it to them under one. So you do have to be careful. Cause if there is an allergic reaction, it can be worse under the age of one. But, you know, I, I

personally don't have any allergies. The dad doesn't, so I wasn't concerned with any of my kids having one to begin with.

Um, but after the age of one, if they're gonna have an allergic reaction, it's most likely gonna be mild enough that you can get to a hospital in time. Oh, geez. Yeah. So I wasn't too concerned introducing them to anything. Recently. Okay. So you can be a little more loosey-goosey with the, the like scheduling and stuff.

Yeah. Okay. You have to be careful. I mean, you know, if you're gonna introduce two or three foods in the day. There were some days where, you know, I, for the first time I gave her strawberries the morning for the first time ever. And then I also introduced, you know, like avocado and I also introduced some meat all the same day.

And it's like, oh, if she has an allergic reaction, how do I know which one it is? Right. So then the. I would only give her like one or two of the things and find out. Okay. But I never really had an issue with allergies, so I didn't come across that issue. Okay. But that's just how I would handle it. Okay.

And usually with food, you're either gonna tell if they have an allergic reaction cause they'll start coughing right away. Their throat will get sore and itchy. Or like, they'll get like hives on their back or their face. Okay. So that's how I knew if there was gonna be an issue. But, so if there, you mentioned, uh, salmon, I can't remember one other food.

If there was like, you know, Example global would be, you know, a brand, if there was a brand that, you know, for a higher price could introduce these like sort of niche ingredients in food, would you be, is that something you would be interested in or, oh, of course. Yeah. Okay. I mean, I would have to, you know, you have to be careful cause well my kids like, you know, season everything.

I do a lot of flavors with my kids. I season everything. They like garlic, my kids like spicy food. Okay. So parents would probably want. You know, if the fish or the meats are being seasoned, extra or anything. So everything would've to come pretty plain, but I would be interested in that. Okay. Or something.

It sounds like, like he spends a lot of time cooking. Do you spend a lot of time cooking your baby food?

So like what, what, what has been your like eating allergy regimen? Or is this just like all chill, good eating? Pretty much just like all chill , not anything. So I just assume she's not

She seems like she's doing good. She's great's Trooper . Yeah. I figure something I would, would notice.

Yeah. Yeah. That's, guess that's

didn't think about it. Wait, wait. Say, Hey, tell me more about that. What? What do you. A lot of kids days have like allergies Uhhuh. Yeah. And it's like, oh, uh, yeah, before I

I'm too, yeah. Yeah. It, it's back there. Oh, perfect. Yeah. Yeah. I've heard that like the reason that people are actually getting those allergies is because they weren't introduced. That's what they're a lot of research. Research has shown Okay. That a lot of the kids like that have these. They weren't introduced to these foods at a young age.

Yeah. So that's what I've heard. Yeah. Something I'm so, it, it's just like kind of interesting because, uh, we unintentionally have like assertive spectrum, um, on the table of like, at least it seems to me, you know, like we've got the Gerber guy over here and then we got, you know, like I've seen you guys like, like every device in your house is like somehow connected to Yeah.

You know, which is like, it. Nice because you get to, uh, like quantify and like crack everything. Yeah. What, um, would you say like, it just sort of suits your personality, like being able to like, you know, keep logs of things? Like, I think it suits him cause he's very like tucky. Yeah. So for me, I mean, I leave it up to him to kind of do that.

Cause I'm just like not good at writing, like remembering mm-hmm. . So I'm like, I. General idea, like I can tell when he is hungry. So it's like I don't need to keep every track of everything. Mm-hmm. , you know, I know he is getting fed. Yeah. Yeah. So do you, do you feel like, do you feel like you invest more energy and like effort in like your baby's nutrition and like tracking it then?

You know, like for me, I've tried to track calories before and macros and stuff, and I always do it like a day or two, and then I, you know, Um,

what was the question again? Like, how much time would you say you end up spending across the week? You know, like keeping track, you know, like riding on the lids and all that stuff? Um, not that much. I mean, for me it's like, you know, two seconds to write it on the lid. Yeah. You know, so, and him, I mean, it's pretty quick, so probably like 10 minutes through.

Like, you know, just a few seconds when he's jogging. So, so it's really like, like a lot pretty, it's pretty easy. Yeah. Is what it sounds like. Okay. What about you? How much time, how much time would you say you spend, like, you know, like planning all these meals out and everything, if you have like put an hour time on it?

Um, well now with poor kids, everything, you know, I'm on the go, I'm moving really quickly, you know, it's a lot to do and I don't. Like, you know, for breakfast, you know, when it comes to meal planning, I kind of have, my kids would eat, you know, eggs, bacon, fruit, you know, four or five times a week. And then another day I would let them have cereal another day.

We do like a big french toast breakfast and so my, those breakfasts were kind of planned, you know, lunches, I don't have to worry too much about for the older two cuz they're in school. So I would either, you know, throw something together, we'll click for them in the morning, or they'd get to school at lunch.

The other two, they would either, you know, snack at home. Quickly chop up, you know, some vegetables, fruit, granola bar, just give them a quick variety, mix of lunch. It pay me, take me five, 10 minutes. Uh, dinner wise, that's the biggest preparation. Um, you know, for a family that size, it usually takes me, you know, about an hour for dinner, depending what I'm doing.

Um, I try to, every night make sure they have like at least three things with their cos. So either you know, a main dish, whether it's, you know, a meat or a pasta or something, and then two side dishes with it. And you know, if I'm throwing in the crack pot, that's an easy dinner for me. Otherwise, it's about like a 45 minute process for dinner.

Okay. Um, that's not that long. No, no. I mean, we switch it up. I try to do salmon once a week for the kids. We do chicken twice a week. Uh, pasta another night pork. I switch it up for them. So they're getting all their food groups. Uh, I switch up the two sides, a different vegetable every night, and then either like salad, beans, rice, something like that.

Okay. Um, but my kids are, Thankfully, not too bad of picky eaters. They eat everything. I also, you know, don't really, after everyone's different, after the first kid, you learn to just kind of like, Nope, this is how it's gonna be. You know, you're really more, you know, attentive to the first kid and you're more protective of the first kid.

You're just on it more. But you know, now it's like, this is what's for dinner. You're hungry, you're going to eat this. Yeah. And they've just kind of learned like, you know, this is what they're eating. Not hungry. They're not gonna, you know, get their dinner. They're not gonna get a treat after dinner. So they pretty much just eat everything now.

I mean, my kids love Brussels scraps. They love everything up to the moon and, you know, I'm happy about that. But preparation time, you know, it doesn't really take too long. Okay. So is, is Jimmy a picky eater? Not really. He really likes vegetables. Okay. More fruit. Yeah, like your, your dog too. Yeah, the dog loves the cure, so I got three dogs too.

Oh yeah? Yeah. A big dog. He likes corn. Jerry, we've been having trouble with like the snacks right now, like putting a snack in his mouth. Cause he's used to like puree. So having that in his mouth, he just like, just doesn't want it. So we're trying to like, it's actually a really funny face. . Yeah. So we're, we're working.

But you think said snacks? Yeah. You don't like C and Oh, it doesn't even matter the flavor, huh? No, it doesn't matter if you put anything hard in there. That's flavorless to me. Oh man.

Spit it out. The dog ends up eating it doesn't get wasted. I guess. So, um, I'm gonna get into more like specific questions. How do you, like, I think you guys kind of already went over this, um, but how do you make sure that you're, that Jimmy is getting enough, like vitamins and nutrients, like, because it's one thing to like track like food groups.

Like, I, I can wrap that around my head, but like those more specific things I don't know. Uh, well in his like milk and his formula, I know that's got like everything covered. So basically all the right now we're not worried about, yeah, all the extra food is. Added like bonus for him to eat. So he, he's, he's supposed to be drinking like 30 to 35 ounces of, of formula a day, uh, or milk, whatever.

So, and in addition to that, we should eat two ounces of puree three times a day. So that's another six ounces of puree of whatever it is. So, um, right now I know that eventually we're supposed to increase that over. Supposedly increase that the number of ounces in, in each meal. So, uh, so we just started to see seventh month, so seven and a half, but we started like six and a half months.

Uh, so we know he is getting all the vitamins right now. Right. Um, I think eventually we're, is getting like additional vitamins for the baby was a drop or something to put that in the puree. That's what I'm thinking. But we haven't had much thought of it. We haven't thought about it. Cause he's so young right now.

Have to really worry about it until it totally transitioned to. Okay. And then what, what do you guys think you'll do at that point? Uh, probably have to just do some googling, some googling some research. Oh, okay. Okay. Or we might actually like that, that diet thing that she gave us, your friend who paid you the menu, we might start using that.

So we've got this like paid menu for, uh, that her friend who's a mom gave to us, it. All the foods. It's like 80 pages. I'm like, this is too much . But it's like a menu that's like totally balanced and that's super healthy. Wow. I thought they were probably gonna have to follow some sort of that menu at something.

And this is your friend who's nutritionist? Is that right? Or No, she's just like, uh, she's not in that industry at all, but makeup, sorry. Her, her first. Oh, okay. Her first kid. Like, she didn't do the, the lad weaning. She just, and her kid, her first kid is like super picky. The second kid, she did that, so she recommended us to do that.

Um, because like five, I think it's six to eight months is when they, they're supposed to have the most like hand like coordination to actually, um, grab the food. So it gets harder apparently the older they get to like, have that like, um, reflex to grab. Oh. So during that time when they're, when they're grabbing for the food, I guess it makes it easier and it also, They're, they, she said her second kid is like eating hot sauce, like eating sauerkraut.

Like Wow. Wow. And her kid is like, like not even two years old. Like, that's crazy. Yeah. So it's like night and I don't even know. Night and day. Yeah. With the difference of the, uh, the food that the second one's eating. Yes. Okay. What about you? Was it, uh, when your kids were transitioning to more like solid foods?

Yeah. Was it hard to like track the. The nutrients in the booth or I, I didn't really track anything. I wasn't too concerned about that. I was just more concerned that, you know, they were trying the booth to begin with and, you know, finding out what they liked or not, I wasn't just too big on tracking if they were getting enough of something, you know, you know, as long as the doctors are saying, you know, they were in a certain percentile and healthy and looking good and growing fine, I wasn't really concerned.

Yeah. Um, you know, you're gonna know if the baby's getting everything. If they're fussy or not. Like, cause the baby's gonna tell you if they're hungry or not hungry. But I wasn't tracking anything. I never did. I've never stayed on top of that. I just, you know, fed 'em. If they were hungry, they would eat. If they weren't hungry, they wouldn't.

And that's pretty much about it. Okay. I mean, I kept it simple. Yeah. Gotta keep it simple or it's just yourself out. Yeah. Yeah. And it sounds more and more like everyone here is more concerned about like their kid enjoying the food. Liking the flavors as opposed to like, oh, does it have like 20 grams of protein or something?

I dunno. Yeah, no, I mean, you want them to like everything and it's definitely, you know, good to make them try everything early. If they don't like things sometimes, you know, if, like, I know some of the kids, two of the kids didn't really like peas and broccolis and kale. Okay. So instead of just giving it to them separately, I would mix like kale with banana or kale with some, I would like mix.

And then I would slowly add out with a banana slowly, and they would like fail more and more and more to the point where they started liking it. Okay. So I would do things like that and now my kids eat everything. Okay, no problem. So, um, what, tell me about like how you guys, or like, walk me through how you guys like go through the process of buying the food.

Like are you, are you buying it or for you, like where? Willing to buy your food. And what is that like? Is there like a chore? Is it a pain, is it easy for you? What Uh, it's pretty easy. I just go like grocery.

Okay. You just start to like slide your arm. Then I was wearing,

Okay. Nice. Well, what about you guys? Do you guys Uh, I, I, I, I do my stuff on Amazon. Okay. Um, she likes to do well, you do it online too, but Target? Yeah. Yeah. Just like I do, like pickup orders could convenient because taking the baby into any stores, it's just like a whole long day. Mm-hmm. . So it's a lot faster when we can just go order it online and just do it.

I don't like doing pickup. I like doing delivery. Funny thing I do. The pick, I end up doing the pickup against the . Would it make you feel like, what if there was like, uh, do you think it would make a difference to you if you picked up your baby food from like acute boutique like market? Um, as opposed to like, just like a target?

You know, I mean, I think price also is important for any parent. Like, you know, we're always trying to make sure we're not spending so much money. Going to like a boutique? That sounds like something I would not do. Yeah. I think, I think for me, the boutique sounds nice, but totally convenient. Not realistic though.

Or like a tree, if you would go there like once in a while for a boutique, for anything, for me is super inconvenient. Okay. As much as I like it. Uh, for example, I love video games, but I almost never go to GameStop because it's, it's a boutique store and it's super inconvenient for me to go there. Yeah. Uh, I go, Box stores like Best Buy for my video games, same thing.

Apply for the, uh, for the baby and stuff too. As much as I like to have the luxury, the baby, diapers, clothes, whatever, going to a boutique store to get anything from the baby is almost like too, too, because tins, you don't have parking. Uh, going there is gonna be difficult with the baby. Then you might not even get what you're looking for.

So I'd rather go to a, a retailer. Encompasses everything like Amazon. Cause that's so convenient. Yeah. Or target for her. Uh, and I think those are the only two big box stores that have like, that are nice stuff that sell nice baby things. Or ba uh, what's the other one? Uh, byebye Baby too. Okay. But Byebye Baby, not so much because again, they're too boutiquey, so they wanna have everything that you want.

Yeah. So where is that Bob? I feel like I've blocked. Is that a, uh, there's a bye-Bye baby. On cardboard. Yeah. It is. Oh, well that was the one we used to go to. Okay. It's right by the, uh, uh, best Buy isn. It's, it's right by our doctor's office. Children, whole Foods. What, what do you think the,

everything you guys are saying to me makes sense. You know, it's like, why I'm not gonna spend, like, not that the global products are this expensive, but like, I'm not gonna spend like \$10 for a jar. Maybe. Right. But who do you think is the kind of parent that would be interested in, uh, rich people ? Hell yeah.

But like, people with one kid maybe. Okay. Not with multiple kids, that's for sure. Okay. Yeah, I mean, \$10 for Jar. I literally just made up that. Oh, okay. Yeah. So what I, I was saying that I wouldn't mind buying like, nice, uh, like, like more high end stuff. It was, if it was more convenient. Yeah. Like we had a subscription service of some sort.

Thought get mailed to our house. For us, not only is it price, but also for me as a huge thing as comedians. Yeah. If it, if I could have something that's subscribed and it'll get mailed, like, hello

fresher babies. I don't think that exists. Yeah. You know, if has something like that, I'd consider doing that.

Yeah. You know? So Tabby, since you like, um, it sounds like cooking for like your whole family, but also, you know, like making meals for your babies is like, that's a cool idea. Hello Fresh for. Babies, like, would you, would you be interested in a subscription service? No, because even Haf Fresh is still more expensive than just going to the store and cooking meals.

I can go to the store, I can spend, you know, 200, 2 50 for the whole week and buy multiple meals, breakfast, lunch, and dinner. And it's gonna be way cheaper than buying any of those prescriptions. I've looked into it, uh, feeding form outs myself. It's just not, it's not form. Okay. It's too piy. What, what? Just, uh, getting a like regular old ingredients for whatever is sent to your door from like Amazon or like subscriptions that way.

Have you ever done that or, um, I haven't, but I prefer going out, you know, shopping's kind of like my free time. I typically get to do it without the kids. Even when I do it with the kids. I enjoy going out to the store and grabbing stuff and seeing what's on sale and getting things at a renew, usable price.

Um, I like walking through the store and if there's anything, you know, once in a while I'll be like, you know, my kids. Tried that yet. I'm gonna grab that. Just throw that in the cart. Okay. And you can have that when you're shopping yourself, when you order, you just don't, it's just more like, Hey, this the usual this, that.

So I enjoy shopping, going to the store and getting things at a way cheaper price. Okay. Okay. So it's like, it's like the thrill of the hunt a little bit. . I think that's a girl thing. What's our, what's that saying? I think that's totally a girl thing. Dude. No, mine is, I, I, I did, what were you gonna say? I said.

I have a friend who, uh, he, he like buys, used guitars, uh, fixes 'em up and flips them. He's always on Craig's list looking for the next guitar. Yeah, well, I mean that, that makes sense. But for like, uh, uh, for something like what she just said, what's her name? Tab. Tab Tabby said that's almost identical. Go to kv.

She loves going into the stores and getting deals and all of that. Me opposite. I hate going to the stores. It's. Convenient. Well, you don't know where anything is. It takes, I just guys are like, I dunno. I mean, even if I was shopping for myself, he's like, what is cilantro? What does it look like? I'm like, what?

I Google it. I have to Google a picture of cilantro. I'm like, are you serious? But you know what, even even for my shopping style, so different, I'm going, uh, uh, shopping even for suits. If I know what kind of suit I want, I'm not gonna go to the store. So look it up online, call up a shopper and have them know my size and do it that way.

Cause I don't wanna be. You know, for me it's about time. Okay. For her it's about the deals. Right. I think for guys it's more about time and a convenience. Alright. So I think it's more of like a grow guy think or, or maybe not so much the, the deal, but would you, how, how important is it to you to have a, uh, selection and a spread of items to choose from?

That it's important? Yeah. Like would you, like, what am I trying to say? Do you ever feel overwhelmed? No. I just feel. It could be more of a selection. Like there's really only like two brands I think at Target and it's like Gerber or uh, what's the one we use? What the brand of the poop? Beecher Beach. Beach.

Beach Nut. Beach Nut. That's okay. So it's like, it's only two brands and um, it's kinda limited, I think in the baby section area. Yeah, definitely. It's limited cause there's. It's one bread or two bread, just the two Gerber. And we're not using Gerber. And then there's only, so there's only bk that by default we have to go with Bre.

There's nothing else that we know Is if there was a thing, like a sample pack per Oh, that would, would, is that something? Yeah, I think that would be good. Yeah. Okay. I think that's how we got into like all the luxury stuff for the kids. Cause uh, for the baby is when we, we didn't know any of this so the first time here, but like when we went to the gift registry and all this other stuff, all.

It sent us, like all these sample packs of stuff, that's how we learn about a lot. The good stuff. Yeah. Okay. All lot more high end stuff. Like even the diapers I didn't know about, really new diapers. Produce luxury, like super soft that we wouldn't have known about that there wasn't for samples. Yeah. I think like, well just putting samples in like baby registry, like at Target and stuff, I really hope, I think that's a good way to like build the brand out.

Yeah, because sometimes people don't wanna. Try it out. They wanna try it out. So if it's free, they might be like, oh, okay. And then they might enjoy it and then they might want version it later on. Okay. That's exactly what happened with the baby lotion. Like a bunch of our products, diapers, lotions, clothes, so many things that we, we just didn't know about.

We got in like the same free samples, like we got mailed to US registry and whatever. Like, oh wow, this is really nice. That's always switched over well, people always wanna feel like they're getting a deal or discount so that. Mm. Okay. Um, at least I do . I I never looked at prices until I met her in my life.

I never looked at prices until I met her. She's like, oh my God. What are you spending? Um, so our, our time's almost up. Uh, I'm gonna like end with like the more just like pointed questions about like the actual design. So first off, have you guys ever cry buying baby food online on. Yeah. Yeah. Um, buy baby food online on your phone.

Oh, yeah, yeah, of course. Yeah. I mean, you guys are all, what are you doing it through or what, what are you doing it through? Like what, like what app? Um, I buy bulk through Amazon.

I've gone off of like the Gerber site or other, you know, the, the beach, not baby sites or other off brand sites to try things.

Okay. Um, I don't really have a set site. I've only done it a couple times. Okay. Well, like I said, I don't typically do it. Okay, and you, you Amazon targets. Okay. Would you, do you ever feel like frustrated with the Amazon app or what are any challenges that come up? Not usually, no. No, really, not really. Yeah.

I like Amazon because Amazon's easy to use. I've and using it for succeed at half, so yeah. Okay. Like I said, I usually shoot for either variety of options for food or something. Cost. Okay. Value and variety is what I search for. Value variety. Okay.

And, uh, kind of the same question, but like, do you guys, so you said you go to, you go to the off brand sites themselves too? Yeah. I check out everything just to see where everything's priced and you know, where what's at and you know, has, you know, the better options and stuff. But like I said, typically I.

End up going with some of them. Cause I just find it better to go this learn. Yeah, yeah, yeah. Yeah. Do you feel like, like buying it online, it sort of like takes away, it defeats the whole purpose of like your me time for it or maybe a little bit of that, but I just still can't find, you know, a site that has a variety of foods that I want with, you know, the a with the little amount of sugars I need in the food.

Yeah. So, Have to go into the store and know everything's there that I can get. Yeah. Yeah. Okay. I guess

if I told you that Benu has a app that, you know, like it had things like it making extremely easy to look at the nutrition facts, um, or it had all of these, like all this information that you typically have to like take the jar off to look at it, is that something you would bother to go out? To download and look at, or would you guys just as soon go to the store anyway?

I think I would prefer an app like that I would download and look at it and try it out. Right. Yeah. I'm always willing to try anything out and if it's worth it and easy and simple and yeah, value wise, reasonable. I would be like a heartbeat. You think like using incentive, like at some sort of like coupon part of using or something?

Yeah. I know if there's, you know, rewards of purchasing from the site all the time, you know, if they're like, oh, you know, if you buy this. From us. You get this, you do that. She's excited about that too. She gets super psyched about that too. Yeah, I just got, I just got part of the Pampers Rewards Club, so that's like cool.

Cause they give you like free gift cards and it's like, I'm already buying the diaper. Okay, you spent \$40. I just got 60 cents. I'm like, and looks and, and when you, um, buy, like, does it tell

you in an email that you got the coupon points? Or like, how do you find out about that? Uh, so it's on an app, a Pampers app, so Oh, okay.

Basical. When you open up the box diaper, there's like little QR codes on the actual, like packages. You scan it and that's how you get your, um, reward. Okay. So I don't know how they would do that, like on a jar, but I think just getting people, um, basically if you're purchasing on their website, um, you know, and getting any sort of award, people probably would be interested.

Okay. Versus, you know, cause sometimes like. That are busy. It's like if there's no incentive, then what's stopping them from just going on Target or ju, you know? Right. Or just gonna the store. You know? You need to give them a reason to want to use the app. Yeah. That's good. Okay. All right. I think even ready to go inside.

He's ready to bounce out. Jimmy's been chilling though. Jimmy's always chilling. He's always sleeping. Or just seven a half. Um, do you guys have any questions from us about everything? Okay. What is the app coming out? , I probably never . Uh, we're gonna do the UI first and we'll see what happens with that.

Yeah, we, we got, I, I don't know.

CS422 User Interface Design and Programming
Participant Signature Sheet

Submitted by:

Group 22: Colin MacRae, Raja Kandadi, Balaji V Kashyap

Participants: By signing this form, you acknowledge that you have participated in a focus group or user test for the above group related to the above course on the date indicated below.

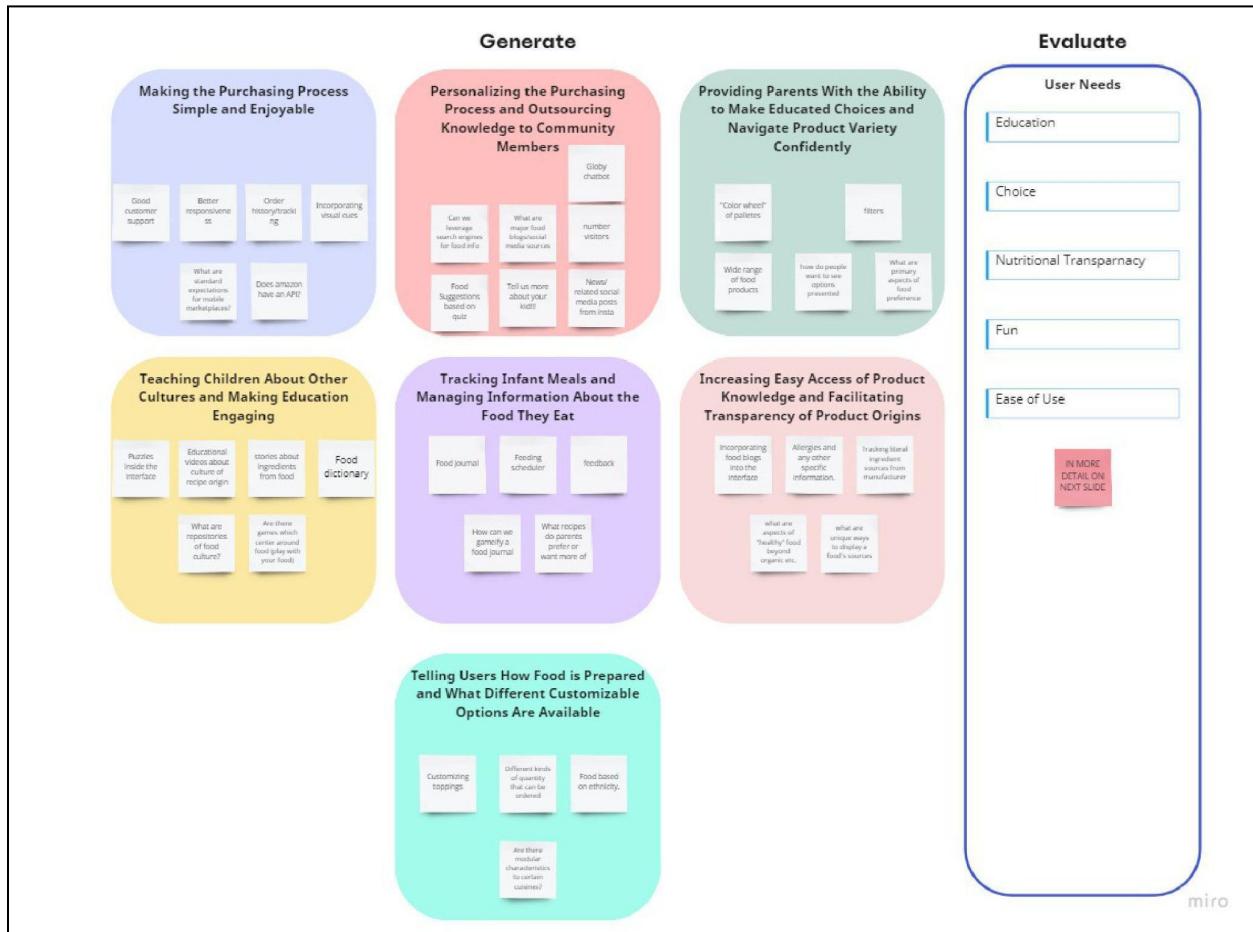
Printed Name of Participant	Signature of Participant	Date of Participation	Printed Name of Participant	Signature of Participant	Date of Participation
Vernon		02/04/23	Kat		02/04/23
Tabitha		02/04/23	Connor		02/04/23
Kaitlin	KB	02/04/23			
		02/04/23			

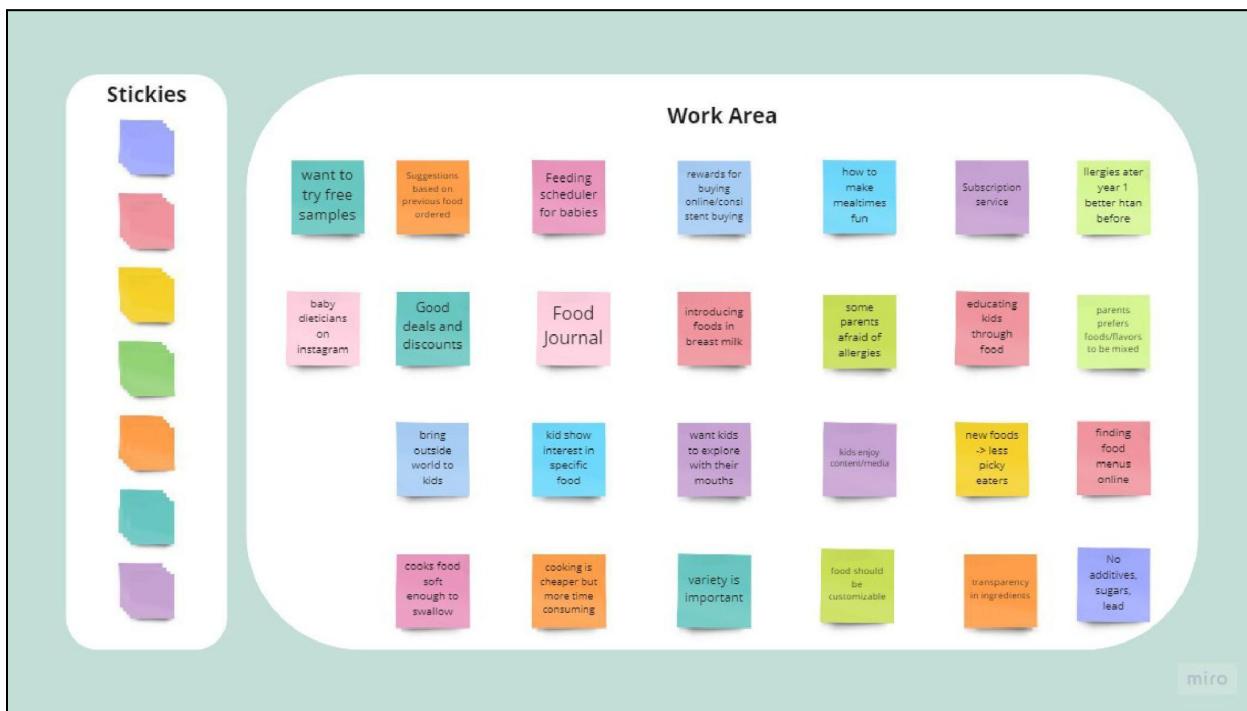
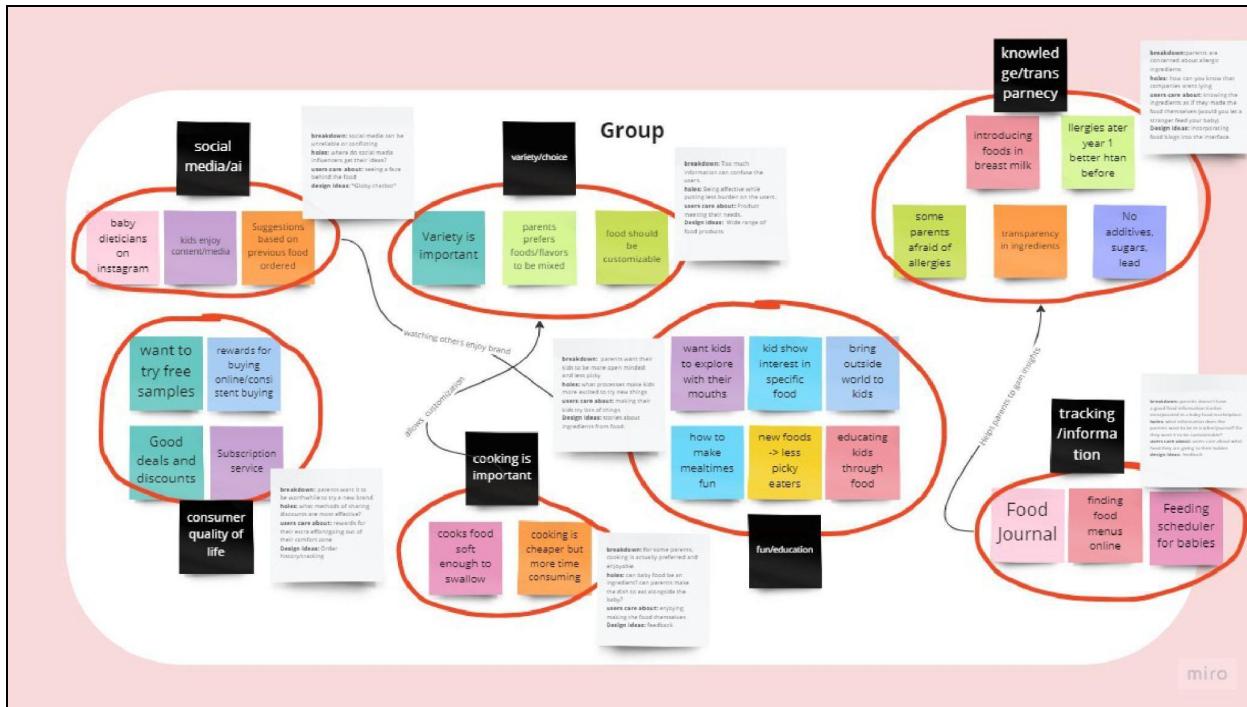
Printed Name of Participant	Signature of Participant	Date of Participation	Printed Name of Participant	Signature of Participant	Date of Participation
Vernon		02/04/23	Kat		02/04/23
Tabitha		02/04/23	Connor		02/04/23
John					

Group Members: please initial below to indicate that your group members acknowledge that you are aware that you are bound by UIC's honor policy in letting participants sign this form only if they have actually participated in a focus group or user test for the class as required.

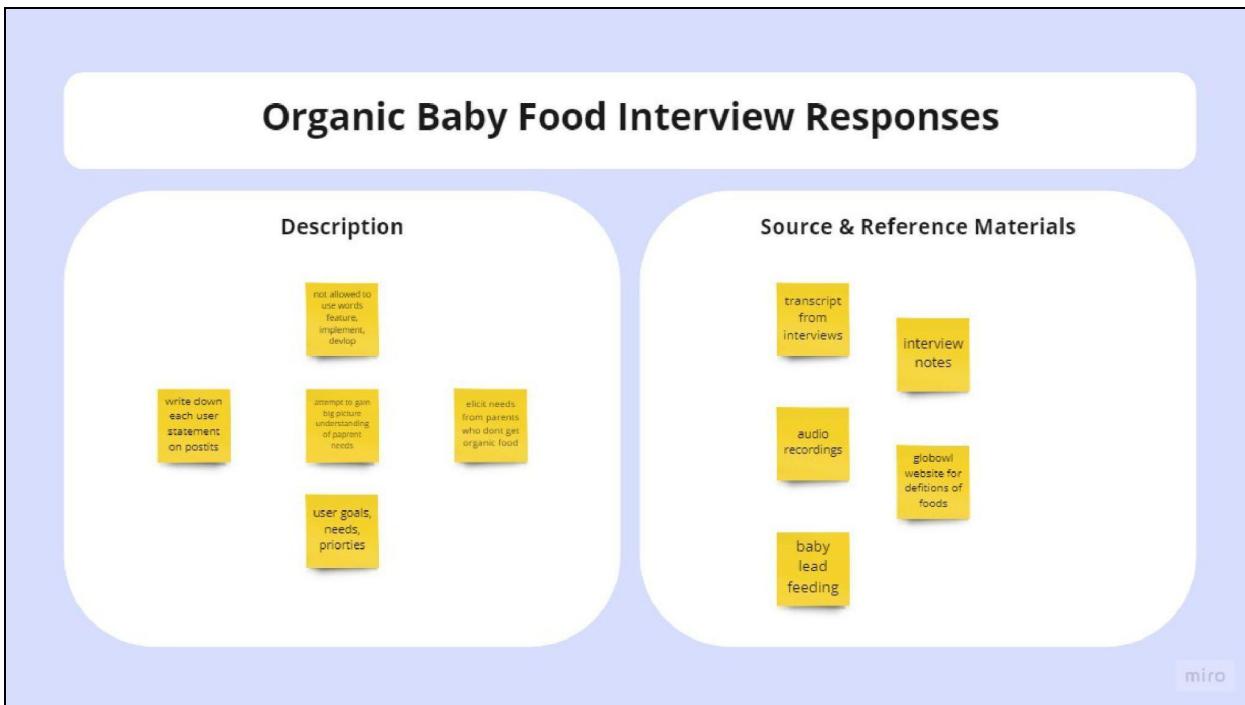
(group members' initials)	CCM	RK	BVK		
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Appendix C: Affinity Diagram





Organic Baby Food Interview Responses



User Needs

User Need: Educating children about other cultures through the recipes and the people who invent those recipes in the hopes that the children will be less picky eaters and more open-minded citizens
Goals: Teach kids about cultures through food
Priorities: Make children appreciate food as a cultural window
Preferences: YouTube-like content
Experiences: Kids who try things earlier are easier to work with in the future

User Need: Feeling confident in one's ability to make educated decisions between different food items on multiple bases including nutritional value, flavor, variety, etc
Goals: Customizability
Priorities: Options that cater to specific dietary needs, such as organic or vegan options
Preferences: Different flavors, textures, and ingredients.
Experiences: Better customer service or more transparent information about the products.

User Need: Knowing the precise nutritional information as well as ingredients & allergens present in order to feel more at ease about what is being fed to their children
Goals: Make every nutritional aspect available easily
Priorities: Parents want to know key nutritional facts
Preferences: foods with simple ingredients
Experiences: parents just look at back of labels quickly and glance

User Need: Enjoyment of the process of feeding children and preparing food in order to make an otherwise tedious and mundane task more engaging for both parent and child
Goals: Incorporate games into education to encourage kids to participate
Priorities: make games a conduit for food information and cultural exploration
Preferences: simple word-play or games that have educational aspect (not just a video game)
Experience: Education is increasingly gamified

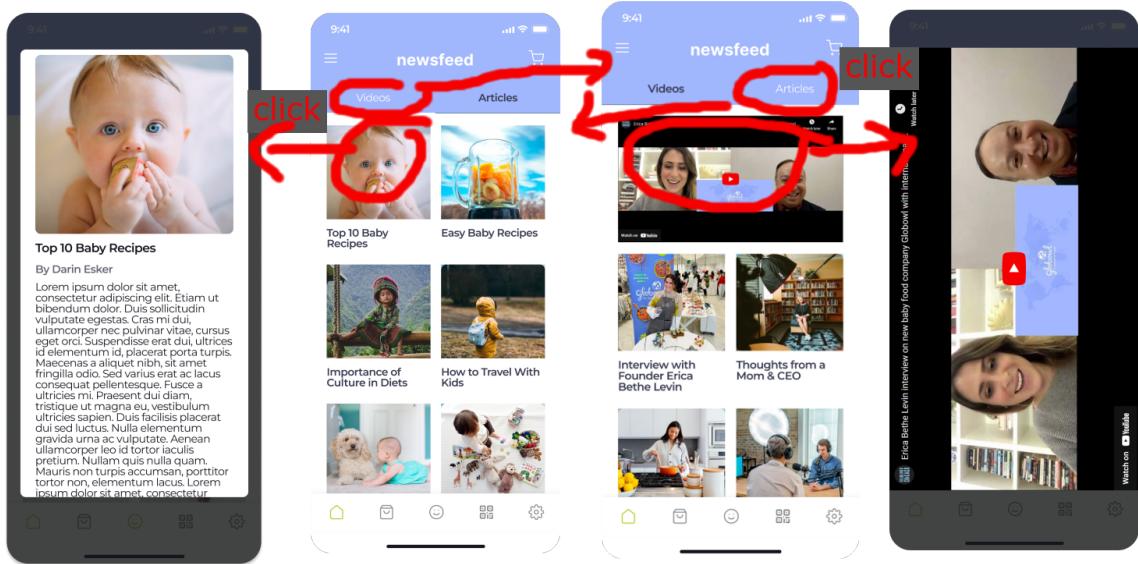
User Need: Having a convenient and simple process for making and managing purchases which makes it more efficient and pain-free than going to the store physically and choosing from brands on shelf
Goals: Users want an interface that is easy and intuitive to use, without complicated features.
Priorities: Users want to track their food quickly and easily, without taking up too much time or effort.
Preferences: Users may have preferences for certain types of foods, such as vegan or gluten-free options, which the app should be able to accommodate and for certain types of tracking, such as using voice commands to input data.
Experiences: Users may have had negative experiences with other interfaces that were difficult to use, overly complicated, or did not provide useful information.

miro

Appendix D: Low-Fidelity User Feedback

Explore food journal	Charl otte	Not very much applicable	trying filters		
Order the food	Charl otte	Everything is good/ new tab	finding marketplace on nav bar		
Manage Subscription	Charl otte	Manage subscriptions should be in different page or account page not in home screen	going between account and subscription		
Sign In/Sign Up	Charl otte	Add complete prototye for all icons		Intro about the app?	Work on all ways to naviugate
Explore food journal	Hina	Where is filter selection		What is this used for?	
Order the food	Hina		finding filter options		too many buttons
Manage Subscription	Hina				
Sign In/Sign Up	Hina	Why do we need child informatoin			
Explore food journal	Brock				UI is cluttered with lots of options
Order the food	Brock	What is point of toppings			
Manage Subscription	Brock		Where to add subscription	How do points work?	
Sign In/Sign Up	Brock				
Explore food journal	Andre w				The graphs are cool
Order the food	Andre w	How to select from different items			The marketplace layout and cart layout are too similar
Manage Subscription	Andre w	Accoutn and subscription pages should be separate			
Sign In/Sign Up	Andre w	Lots of stuff ot enter in for a simple signup			

Appendix E: High-Fidelity User Prototype Annotation



click

cart

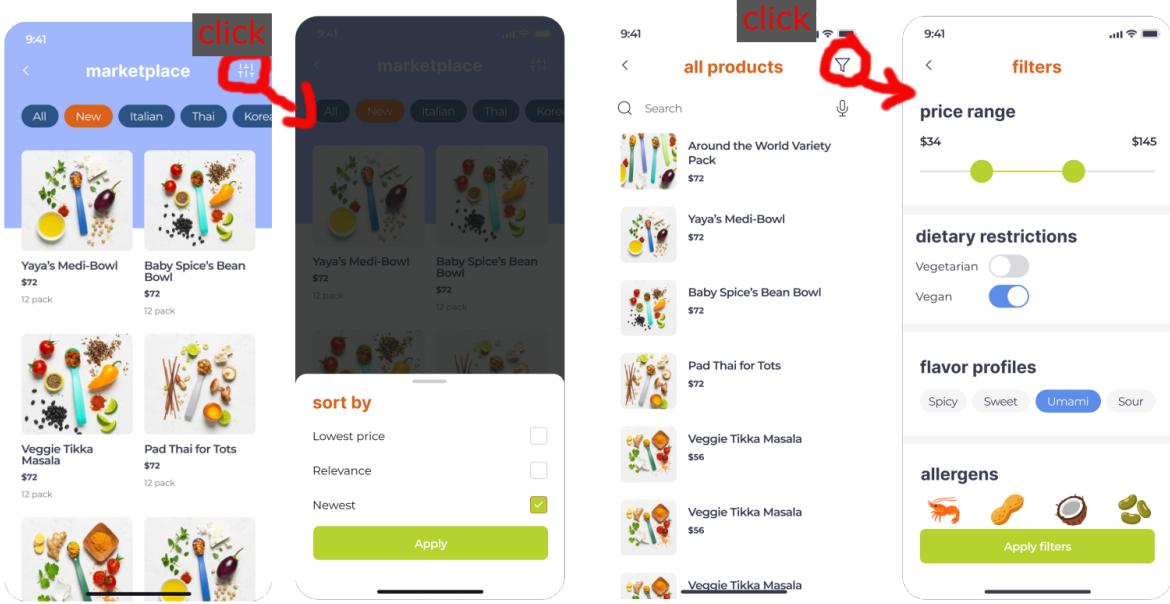
click

click

click

click

click



Appendix F: User Testing Script, Datalogs, and Questionnaire Responses

CS422: User Interface Design and Programming

Globowl User Testing Script

Globowl User Testing Script	
- Introduction	<p>Hello, I'm Colin. Today we are going to test Glowbowl, which is focused on providing culturally educational and nutritious food to toddlers and infants. We will also be recording or taking notes of this user test to refer to later. All the records will be kept confidential. This user test will be no more than 3 minutes long.</p> <p>This app is an early prototype of a design concept. You're helping us by trying out this product in its early stages. We're looking for places where the product may be difficult to use. If you have trouble with some of the tasks, it's the product's fault, not yours. Don't feel bad, that's exactly what we're looking for. If we can locate the trouble spots, then we can go back and improve the product. Remember, we're testing the product, not you. Do you have any questions for me before we get started?</p>
- Task 1: Sign Up/ Sign-In as Guest	<p>. Task description: I would like you to start the application and create an account. Then, once you've reached the home screen, restart the application and sign in as a guest.</p> <p>Task deemed completed:</p> <ul style="list-style-type: none">• The sign-in process is completed in the former case in less than 30 seconds• The sign-in process is completed in the latter case in less than 20 seconds.• No questions are asked or significant hesitation is observed.
- Task 2: Purchase Food	<p>Task description: Starting from the home screen, please go to the marketplace, add an item to the cart, then checkout and purchase the food.</p> <p>Task deemed completed:</p> <ul style="list-style-type: none">• The marketplace is reached• An item is added to the cart• Checkout is reached• Payment and shipping options are successfully navigated• The successful purchase page is reached.• The entire process takes 60 seconds or less• No questions are asked or significant hesitation is observed.

<p>- Task 3: Manage Subscription</p>	<p>Task description: Starting from the home page, please find the subscriptions management page and view your subscriptions.</p> <p>Task deemed completed:</p> <ul style="list-style-type: none"> ● The subscriptions page is successfully reached ● Page is reached in under 60 seconds without significant hesitation or difficulty ● Page is reached without using brute-force navigation of all possible navigation tabs or abuse of invision app features
<p>- Task 4: Scan a QR code</p>	<p>Task description: Imagine you are holding your device in one hand, and a jar of baby food with a QR code on the bottom in the other. Starting from the home screen, find the QR code scanner portion of the app and “scan” the QR code.</p> <p>Task deemed completed:</p> <ul style="list-style-type: none"> ● QR code portion reached from navigation tab on first try ● User intuitively taps camera button ● Task is accomplished in 10 seconds or less
<p>Reminders and Prompts:</p>	<ul style="list-style-type: none"> - if user stops talking for more than 10 seconds, prompt them: “Please remember to think aloud.” - if user can’t figure out what to do and seems unable to make progress for more than 30 seconds, prompt them: “Can you tell me what you are trying to do?” - if user can’t figure out what to do and seems unable to make progress for more than 90 seconds, end the task and move on to the next one: “Ok, thanks for giving this a try. Let’s move on to the next task.”

Adapted from the UXD class taught by Dr. Lisa Anthony, University of Florida.

User ID	Task ID	Success	Failure	Amount of time (in seconds)	Behaviors	Intention	Error Description	Error #
U1	1	x		40	- basic entry form, wanted to get it over with and was used to having options like Google sign in. Went for the skip sign-in on reflex			0
U1	2	x		50	used the top bar to filter, not the actual filter button	clicking on the tile with expectation that it will show up	tried to swipe scroll - not implemented yet	1
U1	3		x	100	looked for subscription in nav bar	trying to find subscription as easy button, not nested within menu	simply couldnt find subscription button	7
U1	4	x		20	almost did a brute force search	looked at top right for qr code, then looked at nav bar.	hesitated looking at camera icon for qr code button - should	2

						difficult to tell which	change it	
U2	1	x		30	after skipped first then did full signon	didnt want to deal with signin, plus invision app limitin	None	0
U2	2	x		40	type filtered item by cuisine	wanted a pop out bar to still see items real time		0
U2	3	x		10	camer saw qr code, clicked it, clicked on	thought that the symbols made sense with task requested		0
U2	4	x		30	ce went to profile then went to subscription after going to marketplace	has an android which has google play so is used to seeing subscriptions nested as part of profile		0
U3	1	x		45	at went to sign in, then hesitated	was confused about having to entire		2

					payment option		payment in first	
U3	2	x		40	clicked on shopping bag, then explored filter options, went to checkout then back to marketplace and tried to add some items.	wanted to see how extensive invision app implementation was. limited due to platform	caught up in invision app loop	3
U3	3	x		15	went to marketplace first, then profile, then saw subscription bar	thought subscription could be something added to shopping cart	went to marketplace first instead of profile	1
U3	4	x		15	qr code -> camera symbol			0
U4	1	x		60	entered items in normally	was confused by payment section like failure	combined time went over limit, not considered failure	2
U4	2	x		55	clicked on items did things normally	u3 though	clicked on an invalid item not linked in	3

						invision app	
U4	3	x		15	went straight to profile suprisingly	saw previous page had subscriptpio n on it	0
U4	4		x	5		didnt recognize qr code symbol	1
U5	1	x		60			0
U5	2		x	80	didnt add item succesfully due to invision issue		4
U5	3		x	70	couldn't find subscriptio n		5
U5	4		x	50	couldn't find qr code symbol on nav bar		2
U6	1	x		20	skipped sign in immediat ely	wanted quick signin option	0
U6	2	x		30	wanted to click all button	likes to see everything laid out first	0
U6	3		x	70	was clicking every	expected it to be in marketpla	3

					button to find it	ce		
U6	4	x		15				0

Timestamp	Unique User ID (e.g. U1, U2)	Name	I think that I would like to use this system frequently.	I found the system unnecessarily complex.	I thought the system was easy to use.	I think that I would need the support of a technical person to be able to use this system.	I like the color scheme of the UI.	I think a toddler could use the education portion of this application on their own.
4/7/2023 18:11:28	U1	Ben	4	1	5	1	4	2
4/8/2023 13:05:19	U2	Mason	4	2	4	1	3	1
4/8/2023 13:38:49	not sure	Tristan	4	2	4	1	4	1
4/9/2023 10:57:02	U3	Andrew	5	1	4	1	5	1
4/9/2023 20:29:33	idk	Cameron	2	3	3	1	5	1
4/10/2023 19:10:07	U6	Sapna	4	2	5	1	4	1