

## **User Feedback and Updated App Plans**

### **Purpose:**

Before the app design becomes too finalized, we would like to get user feedback to check that the interpretation of the app aligns with its intended purpose. Additionally, we would like to address any major concerns with the layout or the data that users would like to see early on, so we don't have to make as many revisions later in the process.

### **Method:**

We do not have a digital version of the app that users can interact with at this time. To judge the design, they will be shown our low fidelity prototypes and asked to give their feedback and respond to some questions. The low fidelity prototypes are ideal for this because users are more likely to give honest feedback about major issues when they perceive the app to be less complete.

### **Users:**

To reach a variety of people in our intended audience, each team member will speak to 2-3 people to get feedback. One of these people will be a college student/young adult because that is who we can most easily access, and the other will fall into one of our other types of users or an expert in food waste or food systems.

### **Questions to ask:**

- How often does food go bad for you?
  - What types of food most often go bad?
  - (It could also be useful to ask how people mentally categorize their food, to know what categories we should include in the app)
- What is your overall impression of the current app design?
  - Based on the design of the app, what do you think the purpose of it is?
- How much food do you think you waste every year?
  - What would help you throw out less?
- How often would you use an app like this?
  - What features would you use most often?
- Are there any additional features you'd like to see in a product like this?
- (Could also ask people to describe what they think the features of the app are, this could be either based on the design or just a description of the app)
  - This would give us a better understanding of what people want to see, from what they imagine we're doing

### **Feedback:**

1. **Liz Brent (58), Recently remarried and is learning to shop/cook for two**
  - Food goes bad every week, often lettuce
    - Feels like she wastes a lot of food every year, wants to be more diligent about using stuff up

- Categories of produce: Salad stuff, vegetable side dishes, fruit/dessert stuff, herbs
- Other categories: dairy/eggs, vegetables (pretty similar to grocery store categories)
- First impressions of app homepage ("My Fridge")
  - Wants to be able to organize the page to match where stuff is located in the fridge (ex. Crisper drawer for vegetables at the bottom)
    - People's brains work in many different ways, should be able to organize it how it best works for them
  - Wants to be able to sort/filter by how long things last
- Wants information about the best way to store vegetables
  - Maybe also how to extend the life of it?
- Adding food to the fridge - manual vs automated
  - Loves the idea of scanning receipt
  - Would it distinguish between pre-prepared fruit/veg vs. whole/fresh? Is there a way to add that?
  - Would want the option to edit details before adding the items (ex. If something has a longer shelf life than chatGPT predicted)
- Item details page:
  - Likes the ways to eat, would want to add a ways to store it feature (to make it last longer)
    - Wants an option of suggested use specifically for as things start to get older (e.g. mushy bananas)
    - Interested in how to use the combinations of ingredients in the fridge
  - Confusion on "how much you've used" aspect
    - Default option should be slider
    - Would be nice to have an option to be more precise (different units) – especially when trying to plan for a recipe
- Additional: Optional push notifications to remind you to use up the rest of something, or if something is about to go bad (time to make banana bread, vegetable stock, etc.)
  - People could choose to turn it on for specific items/categories
  - Could be an addition to the "ways to eat" → "what should I do with my leftovers?"
- Impression of the purpose of the app: "Help me monitor the foods I have on hand and shop smarter"
  - "Inventory management system"
- Priority: Needs it to be convenient
- Current issue: there's a knowledge/awareness barrier for how to use stuff as it gets old
- If people meal prep/batch cook, it may inform how they use the app (could be worth looking into)

## 2. Amy Shneyderman (21), college student

- Feels like she throws out 10-15% of fruits and vegetables that she buys
  - Feels bad about wasting food
  - Doesn't like wasting money and the time spent meal prepping
- Categories: fruits, veggies, dairy/eggs, frozen, protein, pantry
- Current issue: Bought both raspberries and blueberries, but forgot about the raspberries because she was focused on the blueberries
  - Would like to be reminded to use them simultaneously
  - If there's leftover ingredients from meal prepping, doesn't know what to do with them
  - Grocery store packages stuff in too large amounts
- What she thinks the app should do:
  - Categorize food so she can see what's in each
  - Push notifications to say if stuff hasn't been used
- Thoughts on the app design:
  - Wants the filters to be across the top of the app screen instead of down the side
    - Confused about the 4 smaller items at the top - what makes them special?
  - Is the percentage the percent used or the percent left?
    - Likes it better as amount left because it's hard to think of food in the context of how much you've already eaten
  - The images don't feel like they add that much value for how much of the design they take up
    - Would the user be inputting the image or would it be a generic one?
  - Likes being able to look up recipes
  - Wants the "ways to use" to be a manual entry, not necessarily reliant on recipes she's searched for in the past
  - For adding how much of a product has been used, would like to either drag the slider or just type the number in directly
  - Rename "bought" to "date bought"
- Dream features:
  - Would like recipes based on multiple items in their fridge/only using ingredients they already have
  - Would want to be able to "share" a fridge with roommates
    - Would have to add accounts/central server
  - Achievement badges/metrics:
    - How much food you've saved
    - Carbon emissions saved, compared to trees, cows, etc. (everyday item)
    - Star system (get a little reward every time you successfully use something completely)

- a. If they had accounts, could use the stars to get hats/accessories to some sort of avatar
- b. Compete against friends to save the most food

### **3. Chloe Minas (22), college athlete**

- Food goes bad every week, she freezes her food so it last longer, often produce and fruit.
  - Mostly produce goes bad and things that you put in the fridge
- My fridge layout is a bit too much, a little overwhelming, she like that it is simple and easy to navigate. The percentage is her faavorite part.
- She waste a lot of food a year, about 30 pounds of food maybe??
  - A reminder that food is going bad would help her thow out less
  - Tries to buy more frozen food to not waist alot of food
- She would use this app very often
  - Could we combine it with instacart? like a feature to where you can add groceries to your list.
  - Produce and pantry feature would be used the most
- Added features:
  - Notifications for when food is about to go bad
  - Get sales from other stores
  - Reward system

### **4. Candice Phiri (40), busy stay at home and work from home mom**

- Food goes bad weekly, mainly her produce.
  - Categories: meat, produce, dairy, frozen
  - Also buys groceries based on her meal prep for the week
- Thinks app is really organized, helps her with her HDHD
  - Will help her not over buy with groceries
- Waste about \$3000 worth of groceries a years
  - All because of produce
  - The app will help will help throw out less, will help keep track
- The app:
  - Will use it 2 times a week when getting groceries and to stay updated on her groceries
  - Will use the percentage, and recipes feature more
- Added features:
  - Would like a coupon system with other stores
  - Notifications when running out of items
  - Have a grocery list feature where you can tap a button when item is running out so it can add it to your grocery list.

**5. SY (23), a remote college student who's doing his master but is also working full-time in the tech field. He currently lives by the farm for his job, hence most of his produce came from there. [I told my interviewers that it can be anonymous, so I'll just put initial]**

- Food doesn't go bad often for him, but he buys
- His diet is on the limited side, mainly buying rice, some vegetables and eggs.
- He thinks that the app is a recipe generator and keeping track of grocery
- He's not sure about the exact number about the amount of food wasted, but he knows that food waste is a big problem in America
- Buy keeping mindful of what he buys
- He personally is very mindful about the things he buys, so it's not necessary for him. However, he do think that it would be for bigger families
- He likes the idea mainly of organizing fridge and knowing what you buy
- The wireframes are a bit confusing to him, so help making each page distinct would have helped (ex: he doesn't understand the difference between my fridge and my produce until explained)
- Notification system would help

#### **6. AW (23), a mom who has two kids and works at a restaurant**

- Fruits and vegetables always go bad for her, and she has seen a lot of food waste in her restaurant work.
- She tries to buy a lot of groceries so her kids can try different foods. She also is able to get groceries from her restaurant as they come in bulk and is allowed to buy directly from the owner.
- She guessed the app is to organize groceries items in the fridge after buying groceries from the store.
- She said everyone has accidentally wasted food once in their lifetime, so the number must be big.
- Since it's important for her to save as much money as possible, an app that helps her know what to buy or not buy would be very helpful for budgeting.
- She enjoys knowing the good intent behind the app design. She also said a recipe generator would be a great idea and the trend idea seems interesting.
- The wireframes are also confusing to her, but she can tell it is related to items brought to the fridge.
- She also mentioned the notification, as well as easy to add automation and translation since she isn't great with technology.

#### **7. Maggie L (32), Stay-at-home mother of three**

- Food goes bad nearly weekly, she throws out a lot of fruits.
  - Buys a lot of the same foods that she knows her kids will eat: Dairy (buys milk at least twice a week), fruits, vegetables, meat, bread, snacks
- Thinks the app is well-organized, and understands the app aims to digitally organize food and keep track of it.
- Will see a lot of produce go bad because her kids are picky and change their minds often. It is also hard to make meals and not reach for frozen.
  - Something to help meal prep for the adults to reduce time. Kids sometimes don't eat the same meals as their parents.

- Already use different productivity apps, and they could see themselves using this if it also helped keep their grocery list.
- Their biggest issue would be remembering to update the amount they used. Might need reminders

#### **8. Mia T (22), Full-time worker, part-time college student**

- Food goes bad weekly, she throws out mostly prepackaged foods like salads as well as cheese
  - Produce, dairy, meat, bread
- Understands the design concepts, categorizing food purchases into ways to help you.
- At least one item a week gets thrown out. She thinks buying less food would help.
- She doesn't think she would use the app often, but she would probably track her produce more than anything else.
- She wants to see everything she has on one page, not separated by fridge and pantry.
- She mentioned she liked the ways to eat
  - She feels that there should be a way to save recipes that groups the ingredients that you have together
  - She thinks there should be an easier way to access saved recipes, won't remember what recipes were found through which foods.

#### **Summary of Feedback**

- Popular categories were pretty much what was expected:
  - Produce (maybe separate into fruit/veggie), dairy/eggs, protein/meat, frozen
- Most people mentioned that getting notifications to remind them to use their food (when something will be going bad soon, if they haven't used it at all, etc.)
- Multiple users commented on the Fridge page being confusing – I think part of this is due to people not being familiar with wireframes, but we should probably think about simplifying the design a little
- The recipe/ways to eat feature was pretty popular, seemed like people would be interested in expanding that
  - Being able to add in their own recipes
  - Having a centralized place to keep track of recipes
- Some people mentioned that they would rather just have all their food in one place – combining the fridge and pantry
  - Because the pantry option is more of a stretch goal for us, we can revisit this in the future
- People liked the idea to use the app to help them when grocery shopping – maybe adding in a grocery list feature
- Because we don't have a wireframe covering the metrics/trends yet, there was less specific feedback on these, but people seemed to be interested in having some sort of reward system

## Plans for Change (app design, data structure, data storage, etc)

- Recipes:
  - Right now I don't know if we've figured out how we're going to search for recipes, unless we can also use ChatGPT for that? → Otherwise it may be best to plan for that to be a manual entry (If we can use ChatGPT, maybe we can have both manual and automated)
    - Users can input a recipe name and a list of ingredients
    - May need to update how this data is stored because I could see this list getting really big, especially since this is a popular feature
- Fridge/homepage:
  - Expand on the filtering/sorting options – I think giving people more options here can help the homepage feel less overwhelming if they're able to decide how they view stuff
  - Maybe make the list items bigger? Less on the page
  - Create icons to use in place of images, probably make them smaller in the next iteration
- Metrics/trends
  - Probably can't do something with carbon emissions because we aren't keeping track of exactly how much people save, but we can keep track of the percentage of waste over time
    - Have a graph – probably a line graph
  - List of potential achievement badges:
    - Weeks since you've thrown anything out
    - Percentages of how much you've used every month
- Adding food
  - Consider adding a way to review the information before adding it to the fridge
  - Scan receipt → get a draft list of the items to be added, have option to make edits to items (handles errors if ChatGPT gets something wrong) → submit, adds to DB and Fridge
- Food details page
  - Stretch goal could be to add info about the best ways to store an item, how to make it last longer