

C R I S P E R

A MOBILE APP AND RESPONSIVE WEBSITE

Jamie Forbes

PROJECT OVERVIEW



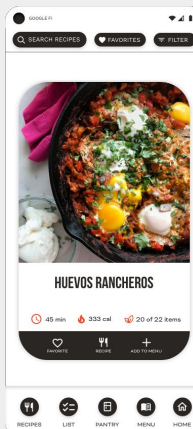
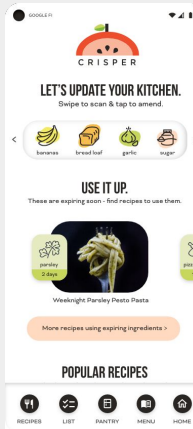
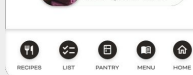
THE PRODUCT

An app with a companion responsive website that helps reduce food waste by allowing users to keep an inventory of the food they have and encourage them to eat it by suggesting recipes, creating a weekly menu as well as an easy-to-use grocery list.



PROJECT DURATION

January 2022 - March 2022



WE CAN END FOOD WASTE.
(and keep some money in your wallet)



FOOD WASTE IS A SERIOUS CRISIS.

Food fills more than half of our landfills and contributes to a significant portion of greenhouse gasses. If we can simply eat the food we buy, we can change the world—and rather than costing you a dime, it will actually save you money. So let's eat our lettuce and do something to change the world.

GET THE APP DESIGNED TO
REDUCE YOUR FOOD WASTE

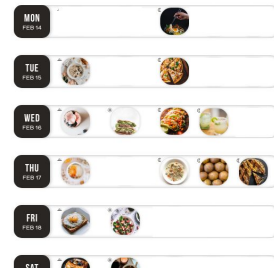


THE FACTS THE APP CONTACT

TERMS OF SERVICE | PRIVACY POLICY



FEB 14 - FEB 20 + ADD MEAL 51 DAY VIEW



PROJECT OVERVIEW



THE PROBLEM

Food waste accounts for half of what goes into our landfills and without the air it needs, it cannot decompose. It contributes to 11% of greenhouse gasses and removes the energy and water from the ecosystem. 45% of food waste comes from individuals who buy food that they end up tossing.



THE GOAL

Create a personal kitchen assistant that helps keep track of the food we have in our kitchens, when it will expire and suggest recipes and menus using food we already have before it goes bad.

PROJECT OVERVIEW



MY ROLE

UX researcher, UX designer, UI designer, UX writer



RESPONSIBILITIES

CRISPER was my sole project from conception, initial research, wireframing, hi-fi mockups and prototyping, user testing and iteration.



UNDERSTANDING THE USER

- User research
- Personas
- Problem statements
- Competitive audit
- Ideation

USER RESEARCH: SUMMARY



Initial research was conducted regarding the impact of food waste on the environment and the role that individuals play, as well as what kinds of resources are available to people to help them curb their food waste. This included a competitive audit and user interviews. Most participants were aware of the amount of food they throw away and felt they were unsuccessful in trying to reduce it on their own. They were very positive about taking advantage of resources to help them eat the food they purchase partly because of the environmental impact, but largely to stop wasting money.

PERSONA 1

EVANGALINE



"WE HAVE TO MAKE THE WORLD
A BETTER PLACE. THERE'S NO
ONE ELSE TO DO IT FOR US."

Evangelina is a young millennial who cares about the environment and needs to stop throwing away food to reduce food waste and protect the environment.

AGE: 24

FAMILY: Single

PRONOUNS: She/Her

OCCUPATION: Computer Programmer

EDUCATION: BA in Comp Science

HOMETOWN: Raleigh, NC

GOALS

- Eat the food she buys
- Reduce food waste

FRUSTRATIONS

- She ends up throwing away food every week which is bad for the environment
- She also hates how much she spends on food that ends up in the trash

Evangelina is a recent graduate from UNC and has taken a job with Red Hat in Raleigh, NC. She lives on her own downtown and shops 1/week where she tries to buy food for the week. She always ends up throwing away food, which she hates because it is bad for the environment and bad for her bank account.

PERSONA 2

ABAYOMI



"IT IS IN THE QUIET THAT WE
TRULY FIND OURSELVES.

Abayomi is an architect who needs help creating menus and a shopping list so he buys the right ingredients and cooks meals for himself and occasionally his boyfriend.

AGE: 34

FAMILY: In a relationship

PRONOUNS: She/Her

OCCUPATION: Architect

EDUCATION: MFA

HOMETOWN: Seattle, Wa

GOALS

- Dinner ideas when his boyfriend stops by for dinner unexpectedly
- Know what he has to eat for dinner so he quits fast food

FRUSTRATIONS

- Cooking for one means he he cooks too much and ends up throwing away food

Abayomi is an introverted architect who buys ingredients haphazardly resulting in not having the right ingredients for a recipe and then throws them away.. When he does cook, there is too much food for just one. He also has trouble finding recipes when his partner stops by, so they end up with fast food.

PERSONA 3

CHARLOTTE



“WHAT ARE WE DOING HERE IF WE AREN'T CONTINUALLY LEARNING NEW THINGS?”

Charlotte is a busy professional who needs to know what she has when away from home to make lists and reduce food waste by buying food she already has.

AGE: 29

FAMILY: Partner

PRONOUNS: She/Her

OCCUPATION: Project Manager

EDUCATION: MBA

HOMETOWN: San Francisco, CA

GOALS

- Create shopping lists on her lunch break
- Know what she has without being at home to check

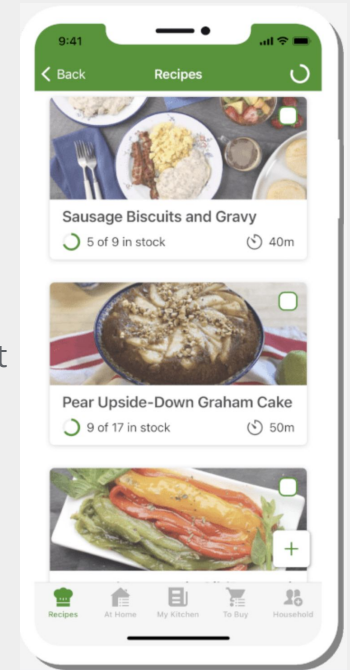
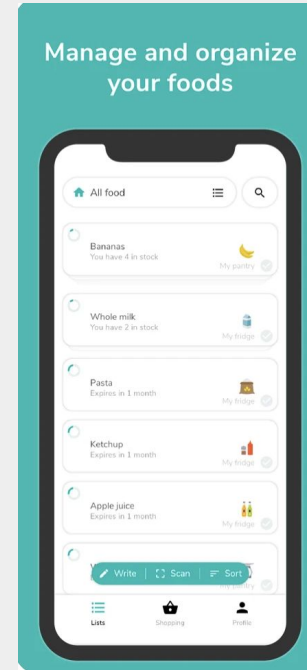
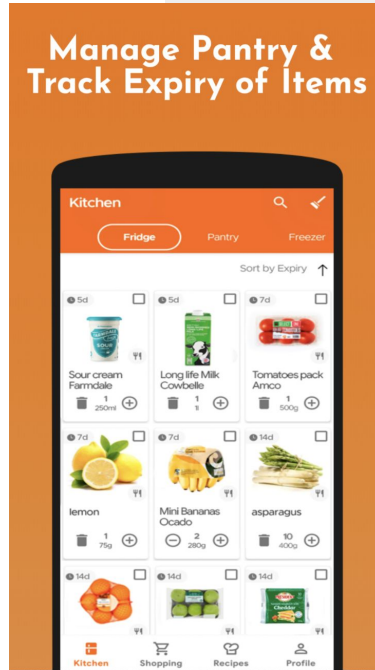
FRUSTRATIONS

- Keeps buying duplicates
- Hates throwing away food
- Bored with her recipes

Charlotte is a project manager in tech who doesn't have a lot of time to spend thinking about food.. She makes the grocery list at work, but can't remember if what they have, ends up buying more and throws out good food. She is also bored with the same old recipes, but doesn't have time to find new ones.

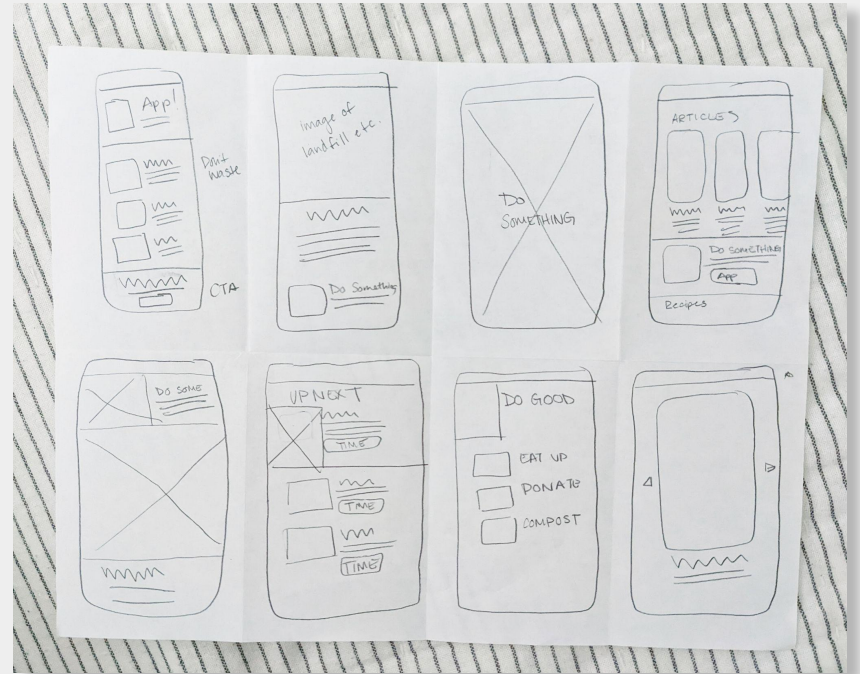
COMPETITIVE AUDIT

The competitive audit revealed that there are loads of people trying to tackle this same problem, but no one has managed to get it just right. Generally, the apps neglect the website/app integration and most of their UI is rudimentary.



IDEATION

For ideation we held brainstorming sessions and performed crazy eights to come up with ways to differentiate CRISPER from the competition and address the pain points in our personas' lives.





STARTING THE DESIGN

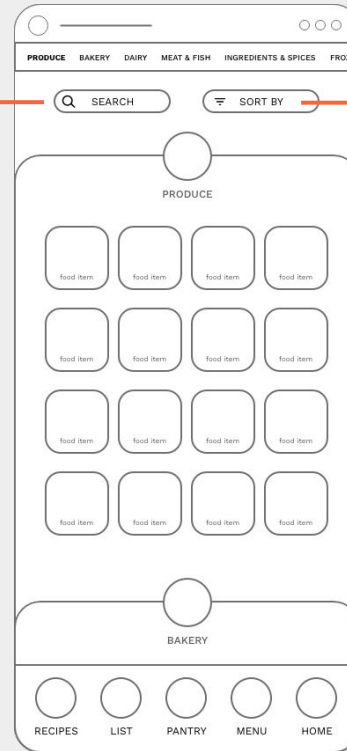
- Digital wireframes
- Low-fidelity prototype
- Usability studies

DIGITAL WIREFRAMES

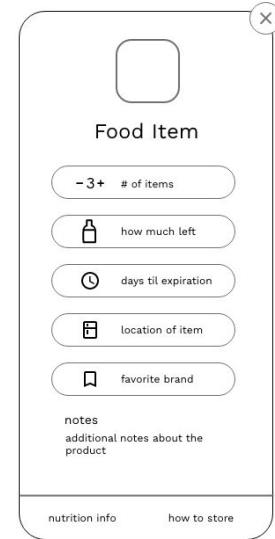
INVENTORY

To tackle the problem of keeping an updated inventory, we have it set up to be able to sort and filter your list and easily update each item through an overlay. We also have options to add items via barcode, voice search and text search

Search by barcode, voice search or text search



Easily sort and filter your list by category, alphabetical, expiration date, or location



Easily update each item with qty, amount left, expiration, location and info. Also learn how to store

DIGITAL WIREFRAMES

RECIPES

The best way to eliminate food waste is to eat the food we buy. Recipes are shown with your inventory in mind to encourage you to eat the food you already have, reducing food waste and saving money.

Swipe through recipes to view, swipe up to save to your menu or swipe down to delete this recipe from your feed



Search for specific recipes, show only favorites, or filter by a large number of options

Shows how many of the items needed for the recipe are in your kitchen already

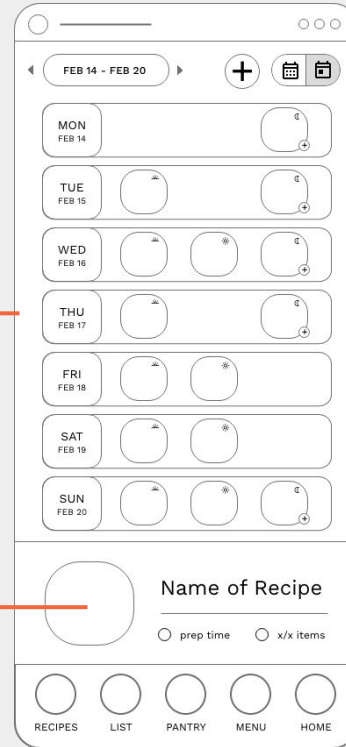
DIGITAL WIREFRAMES

MENU

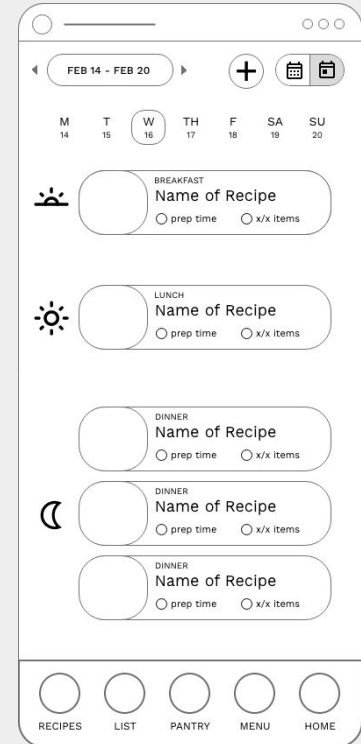
By creating a menu for the week, we are less likely to purchase food we think we might need that ends up in the trash. Meals can be dragged around to rearrange, or can be easily deleted.

See thumbnails of the recipes in your menu sorted by breakfast, lunch and dinner. Tap to see details.

What meal is coming up next



Toggle between week view and day view



DIGITAL WIREFRAMES

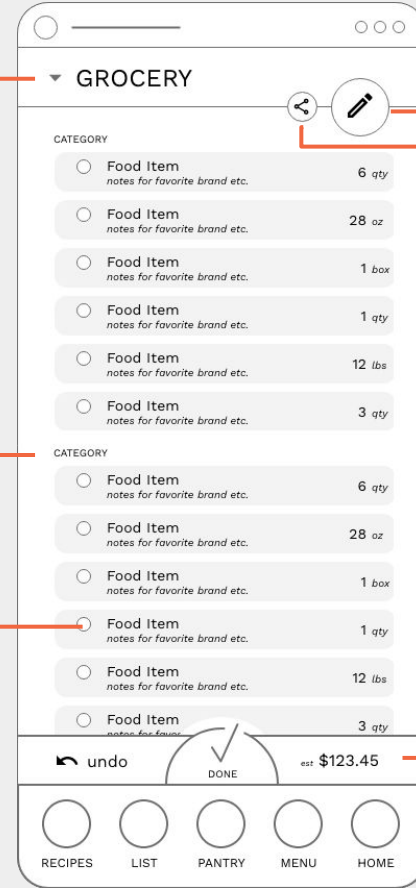
GROCERY LIST

By creating a menu for the week, we are less likely to purchase food we think we might need that ends up in the trash. Meals can be dragged around to rearrange, or can be easily deleted.

Create multiple lists and scroll between them

Items are categorized to reduce time scanning your list

Easily remove items as you are shopping



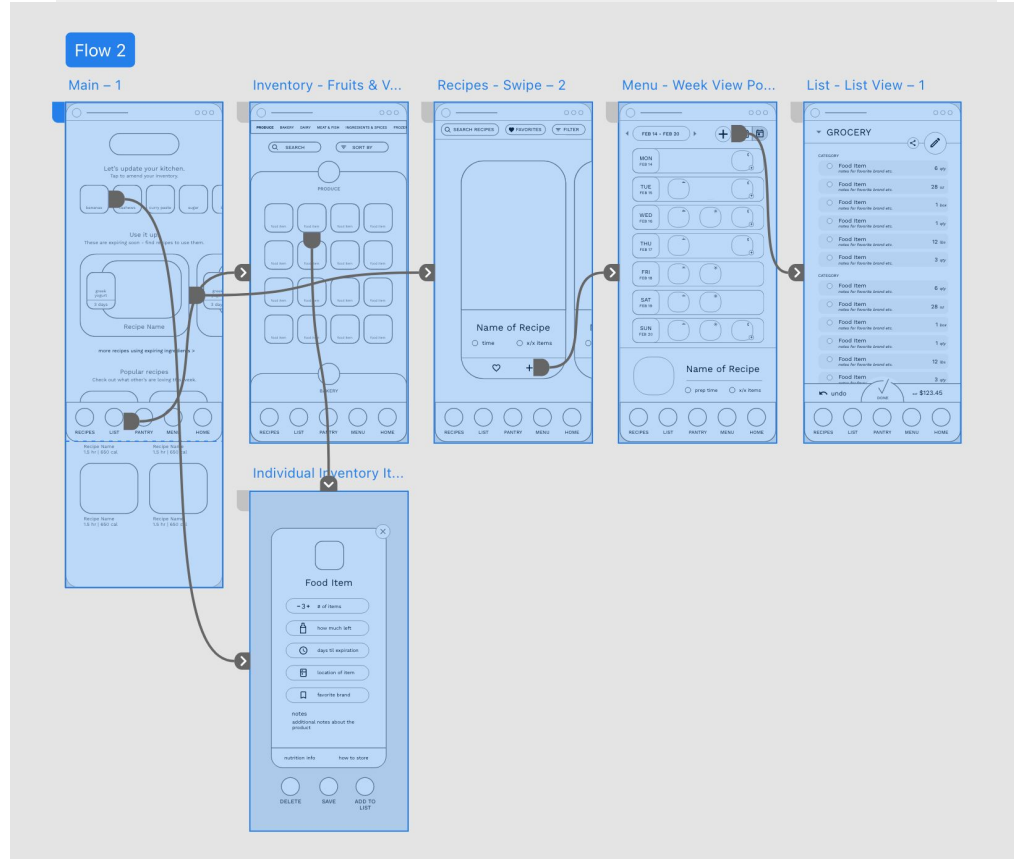
Separate edit/shopping mode reduces accidental deletion

Easily share your list with others

Estimated cost when creating your list and shopping

LOW-FIDELITY PROTOTYPE

While this is a very simple version of the prototype, it shows the general movement of the user from the home screen to updating their inventory and checking expirations, finding recipes for the week, updating their menu, and using the grocery list to shop.



USABILITY STUDY: PARAMETERS



STUDY TYPE

Moderated Usability Study



LOCATION

United States, Remote



PARTICIPANTS

6 participants



LENGTH

20-30 minutes

USABILITY STUDY: FINDINGS

Insert a one to two sentence introduction to the findings shared below.

1

LABELS

Users were confused by some menu labels and terminology throughout the prototype.

2

ONBOARDING

Users were unaware that swiping would provide a better experience and make the recipe section easier to use

3

MENU

Users felt frustrated that they would need to have a meal planned for every spot on the menu because they often eat meals away from home



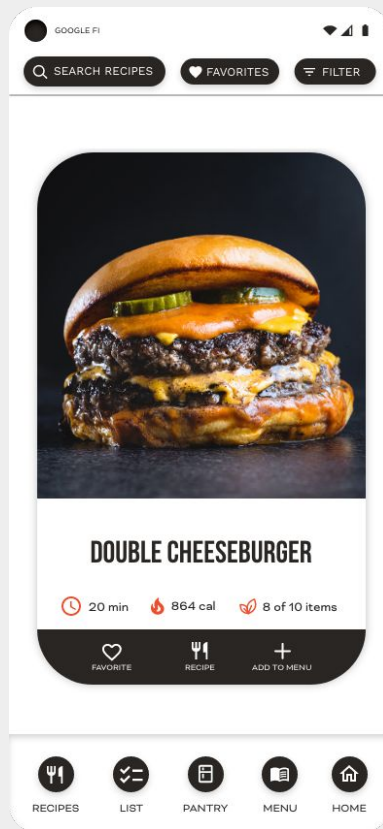
REFINING THE DESIGN

- Mockups
- High-fidelity prototype
- Accessibility

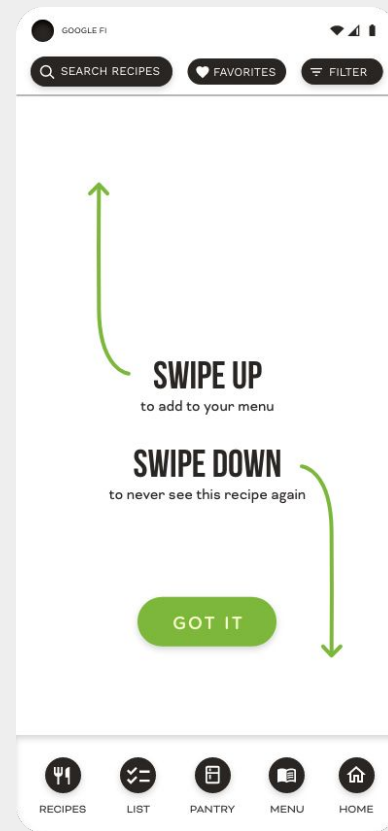
MOCKUPS

Based on the findings that people were unaware of the capabilities of the app to swipe for both the recipe finding and individual recipe section, I added onboarding screens to help educate users.

BEFORE USABILITY STUDY



AFTER USABILITY STUDY



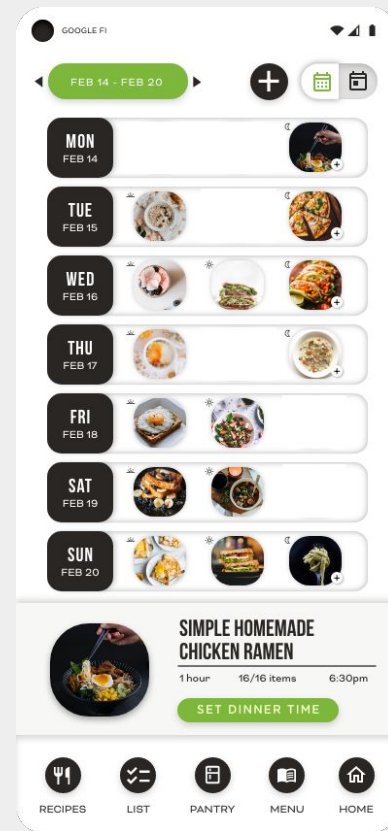
MOCKUPS

This iteration allows users to skip meals on their menu to allow for eating out etc. It also allowed ups to update so that users can drag and drop menu items to more easily rearrange, duplicate or delete items.

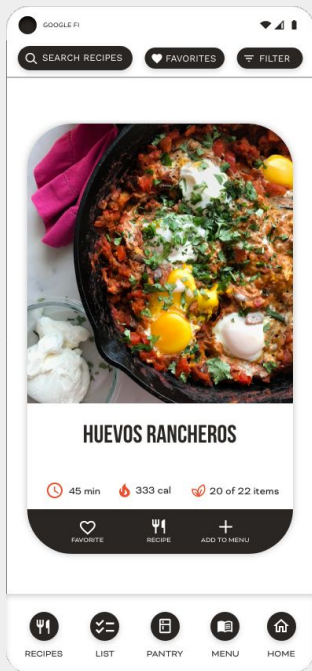
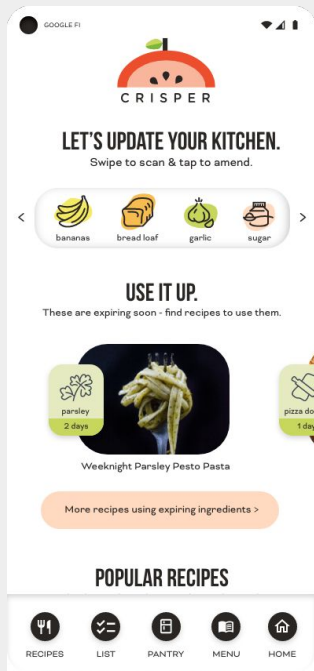
BEFORE USABILITY STUDY



AFTER USABILITY STUDY

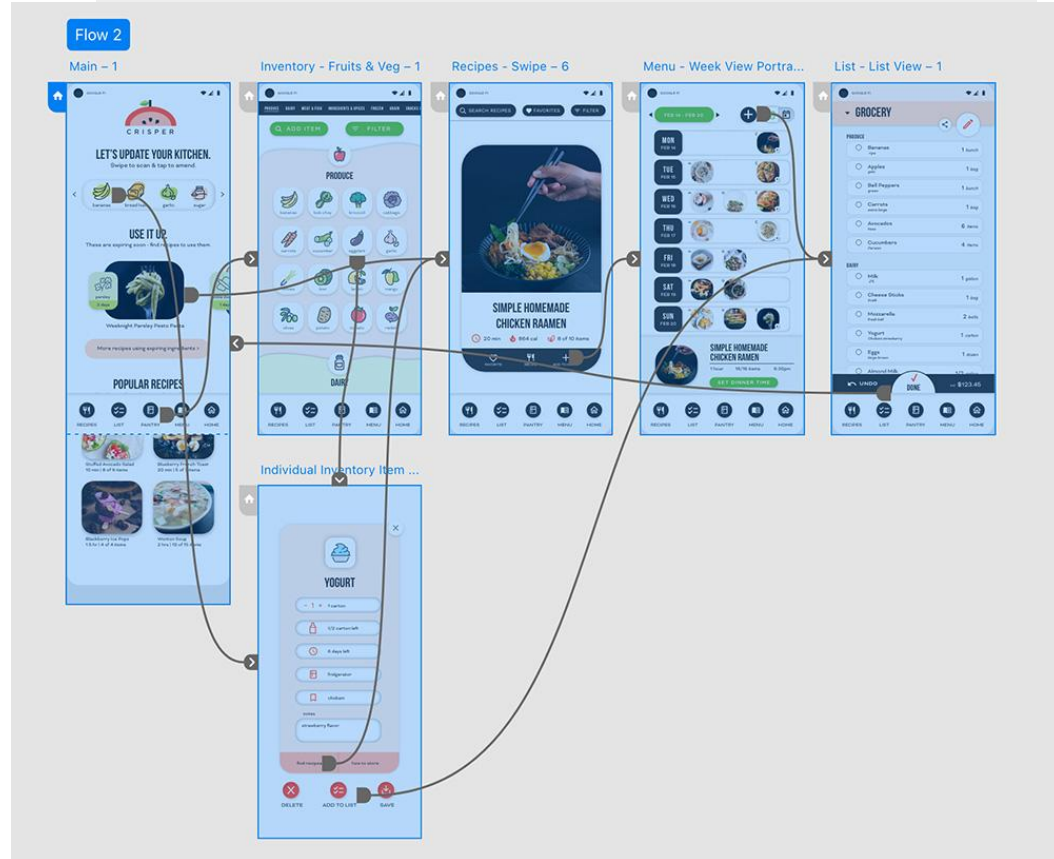


MOCKUPS



HIGH-FIDELITY PROTOTYPE

Again, this is a very simplified version of the prototype flow, but you can see the same process of moving from the main screen through the Pantry (inventory), choosing recipes for the week's menu, updating the menu and finalizing the grocery list



ACCESSIBILITY CONSIDERATIONS

1

CONTRAST

Using a very high contrast ratio for all text allows the app to be easier to read which makes glancing at recipes while trying to cook much easier

2

GESTURES AND VOICE

Using voice to search for items and recipes, creating large targets for buttons and implementing swipe makes takes anyone with limited hand mobility or difficulty with motor skills into consideration but also makes the app easier for anyone while cooking

3

DIETARY RESTRICTIONS

A large number of filters and sorting of the recipes allows people who follow very different dietary guidelines to narrow their search and find recipes that fit their lifestyle

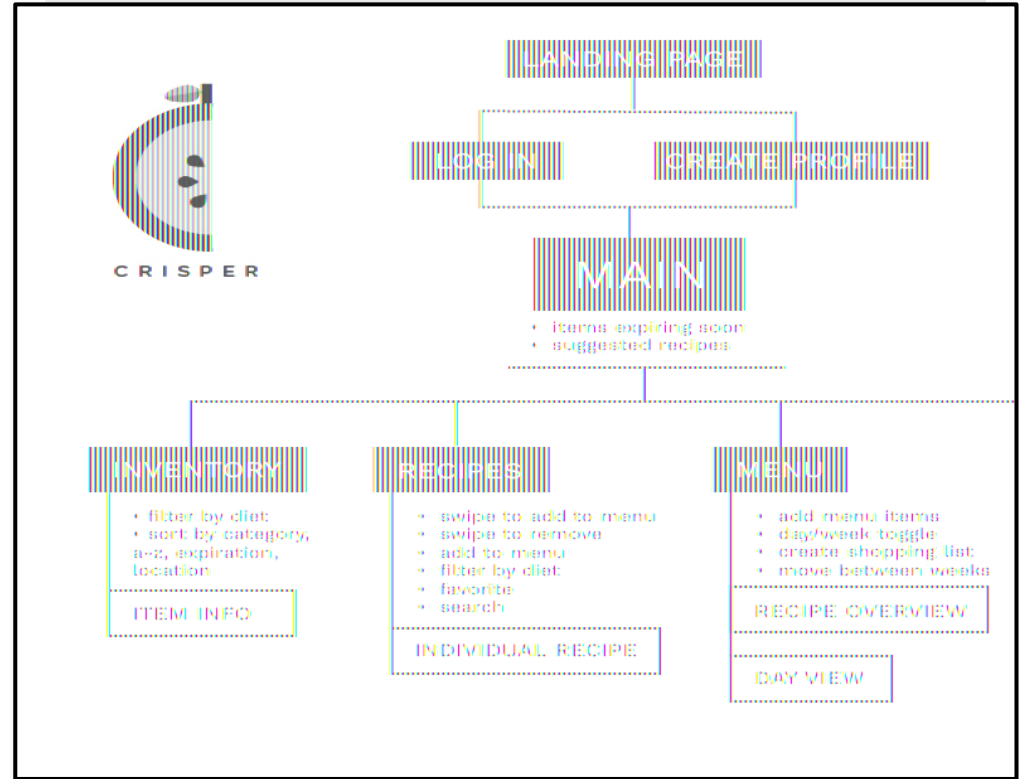
RESPONSIVE DESIGN

- Information architecture
- Responsive design



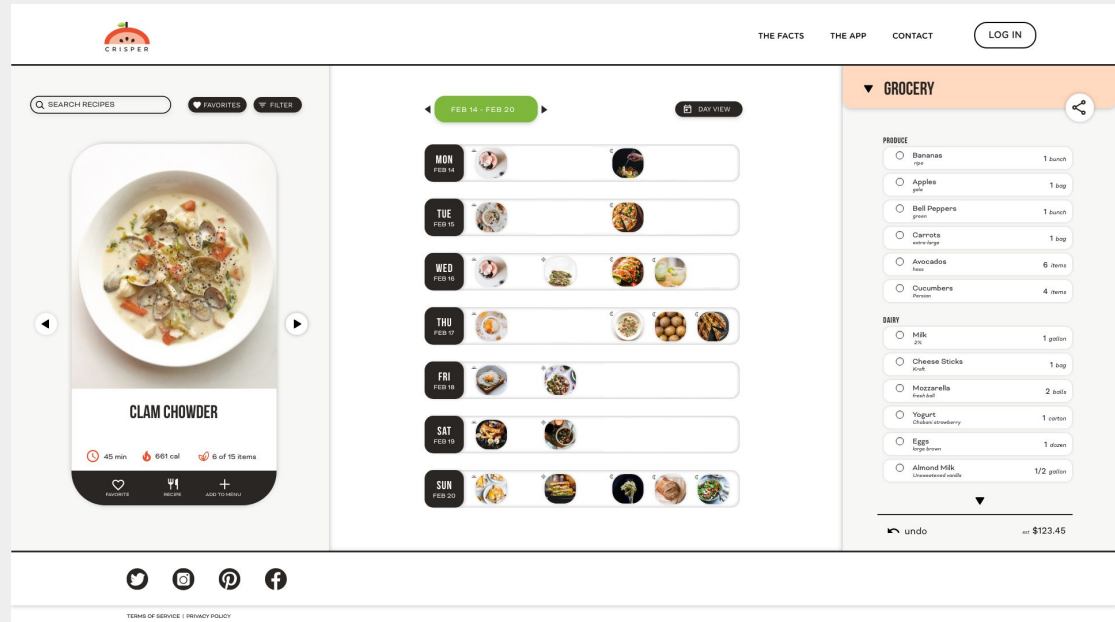
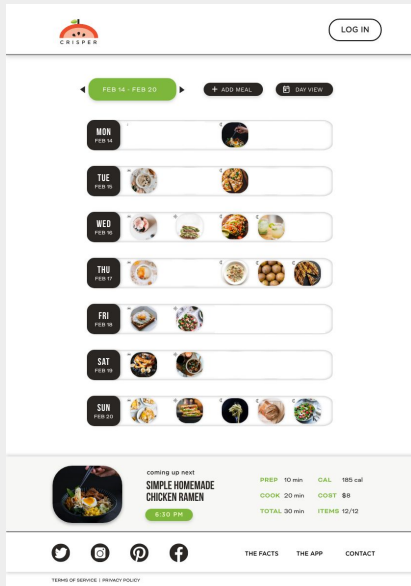
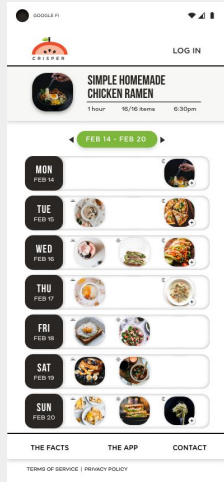
SITEMAP

The corresponding responsive website allows for an opportunity to educate users on the environmental impact of food waste and also give users the option to search recipes and create grocery lists on larger screens and while at the office.



RESPONSIVE DESIGNS

The responsive website screen space is utilized on desktops by allowing recipes, menu and list to be viewed side-by-side.





Going forward

- Takeaways
- Next steps

TAKEAWAYS



IMPACT

“I would absolutely use this in my everyday life. Being able to choose recipes based on items I already have and create smart shopping lists would save me time, money and would be good for the environment. It is a win, win, win!”

-Study Participant



WHAT I LEARNED

In this project I was able to work directly with a client who had a vision for the project at the very beginning stages of design so it was educational and interesting to design in collaboration. I learned a lot about food waste, communication, and considering how to best take advantage of the strengths of web and apps.

NEXT STEPS

1

NUTRITIONAL INFORMATION

Based on feedback from participants, they would also like to see dietary and nutritional information integrated into the app and website

2

INTEGRATE WITH OTHER DATA

The most difficult part of the concept is maintaining the inventory. If we could integrate data from the user's grocery store and pull shopping information directly into the app it would save users time

3

ARTIFICIAL INTELLIGENCE

Utilizing artificial intelligence to understand the user and pull recipes and suggested shopping lists based on their previous usage would improve the experience and help them minimize food waste

LET'S CONNECT!



Hello! I'm a user experience designer with more than ten years of design experience. I am fascinated by people and endlessly curious about what makes them tick. My natural empathy allows me to work out what users want and need while my technical skills give me the tools to design intuitive and beautiful experiences. Want to know more? Let's chat!

Jamie Forbes
www.jamielforbes.com