



Dishcovery

Med-Fi Prototype

Culture through Cuisine

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Our PotLuck



Defne

Potluck
item: 



Kyla

Potluck
item: 



Janet

Potluck
item: 



Amrita

Potluck
item: 



Dishcovery
your cultural culinary companion.

Problem

Learning about and creating food with ingredients from other cultures can be an intimidating experience.

Our Solution

Dishcovery helps you recognize, learn about, and cook with foods from around the world. We use image recognition to identify new ingredients and enable you to delve into their cultural context and authentic recipes using them, providing a **cultural culinary companion** from the grocery store to your kitchen.

Dishcovery Core Values

Inclusivity

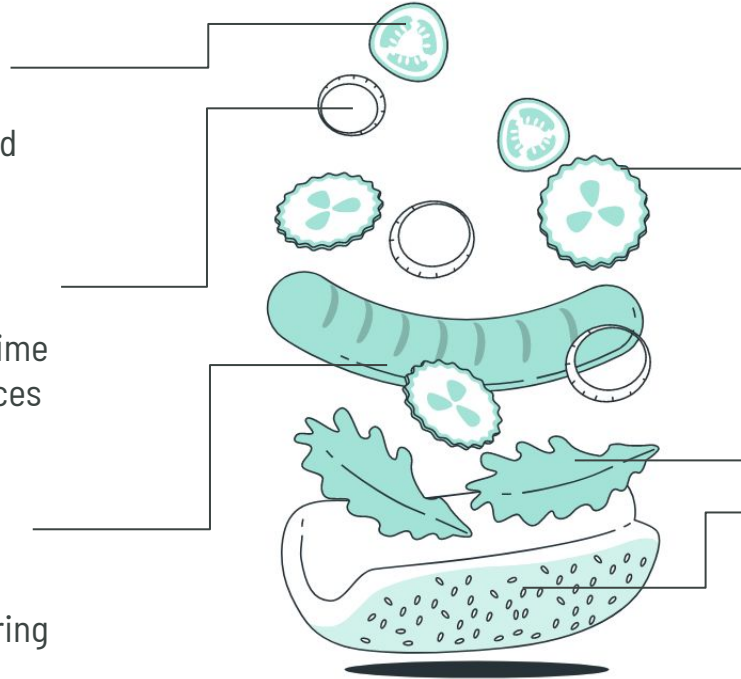
Inclusive of all cultures and food norms

Utility

Allows people to save time and make healthy choices

Explorative & Novelty

Simulate feelings of adventuring into new cultures



Encouraging

Mitigate intimidation of exploring new cultures / cooking

Homey

Make you feel connected to your own culture or new ones

Educational

Informative, reducing language or information barriers

How will these values be implemented?

Embedded in Design

Potential conflicts

Inclusivity

- Explaining everything that's unfamiliar (dishes, ingredients, language) in a friendly way. Help features or instructional videos
- Ways for users to provide feedback if cultural context is inaccurate or missing
- Diversity of recipes included in results

- How to cater for expert users
- Risk of highlighting one culture over others
- Risk of wording sounding "lecture-y" vs. **encouraging**

Utility

- Quick, accurate results after scanning
- Personalized to user's dietary restrictions
- Effective sort features when looking up recipes
- Saved lists for grocery shopping, etc.

- Useful features can make an app feel less "fun" or game-like.
 - May take away from the **exploratory** part of the app
-

How will these values be implemented?

Embedded in Design

Potential conflicts

Explorative

- Suggesting new recipes they haven't explored before
- Recipe generator, lucky ingredient generator/surprise me feature

- There is a trade-off to newness and being able to feel **homey**/ familiarity

Encouraging

- Detailed tutorials and recipe lists
- Personalization for difficulty of recipe
- Stories of people succeeding with the dish or user feedback

- Still want to encourage users to try new things and feel **adventurous**, while giving them enough guidance
-

How will these values be implemented?

Implementation through design

Potential conflicts

Homey

- Nailing the cultural touches/ insight that only people from the culture will know
- Including stories “from the kitchen” that bring the ingredients and culture close to home.

- Could compete with **exploring** new cultures and adventurous values

Educational

- Enriching results screen upon scanning, filled with content that is relevant and cultural.
- Translation services to accommodate for all types of users
- Cultural stories “from the kitchen”

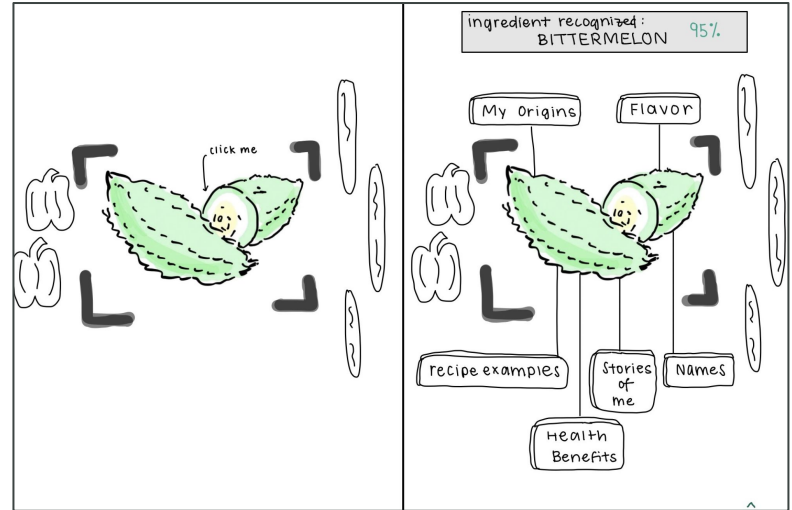
- We still want to make the app have **high utility and spark a sense of adventure**, while delivering information.
-

Tasks

Task 1: Identification

Description: I want to automatically identify an unfamiliar food item

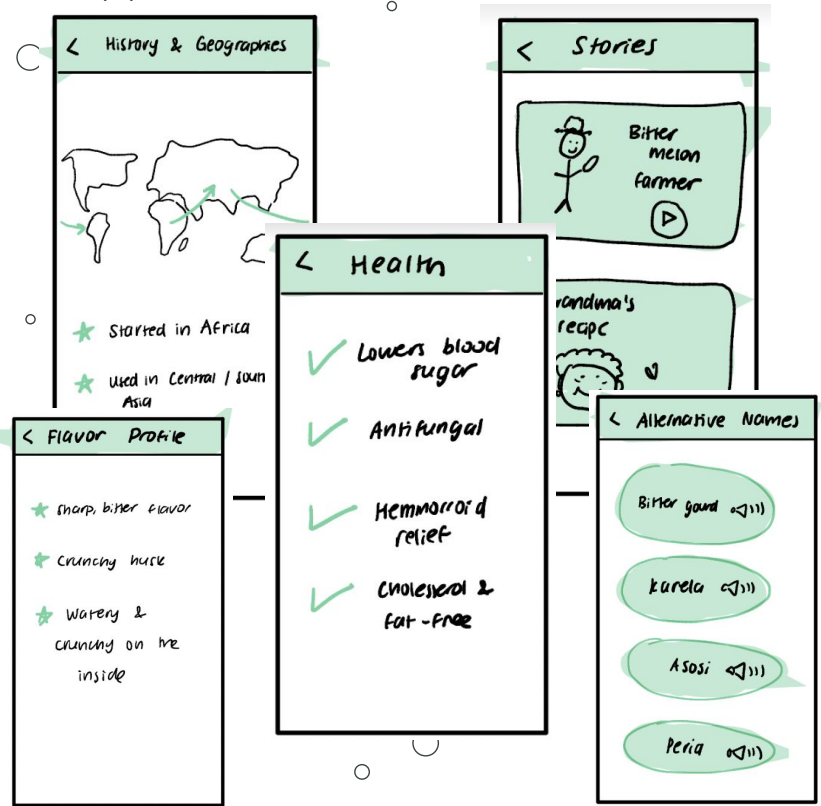
Category: Simple



Task 2: Contextualization

Description: I want to learn more about the cultural context behind a food item and its uses in recipes

Category: Moderate



Task 3: Authentic Cooking

Description: I want to cook a cultural authentic dish with a new ingredient

Category: Moderate/ Hard

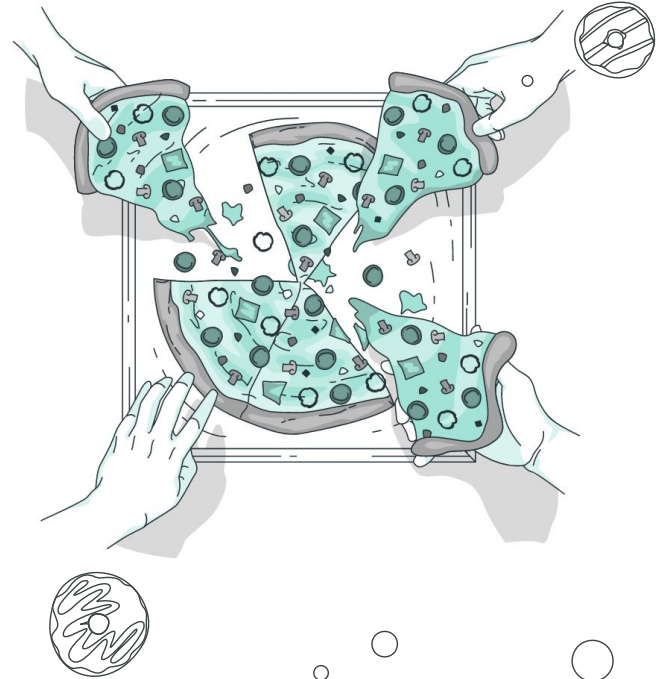


explore
gallery
home
shopping list
saved



Bonus tasks

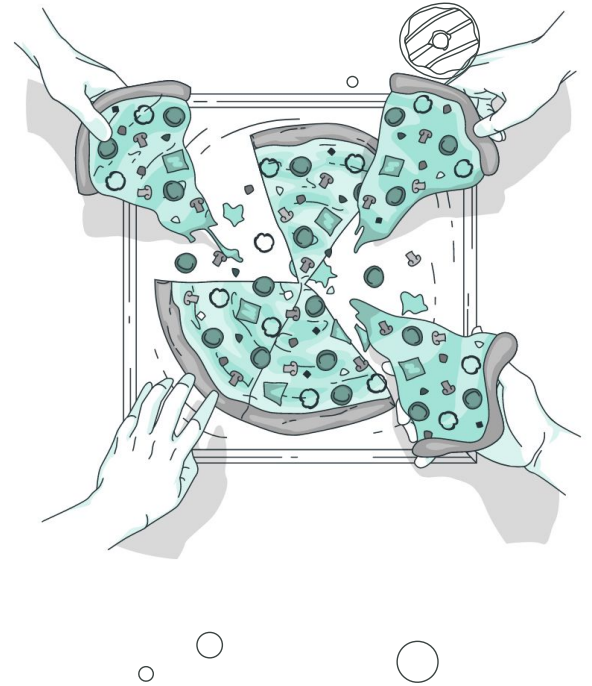
- **Sharing with friends** - cooking or eating together or sharing recipes with friends
- **Habit planning** - making exploring cultural dishes into a long term habit rather than a one-off thing



Usability Goals and Key Measurements

Usability Goals

- **Efficient** - users should be able to quickly find recipes associated with an ingredient they are seeking to explore
 - **Key Measurement:** time needed to find a recipe given an ingredient and filtered by preferences
- **Learnable** - Users should be able to easily identify and access contextual information about an ingredient with less than 2 errors.
 - **Key Measurement:** number of errors between first scanning an ingredient and exploring all cultural context pages, facts that stuck out to them most



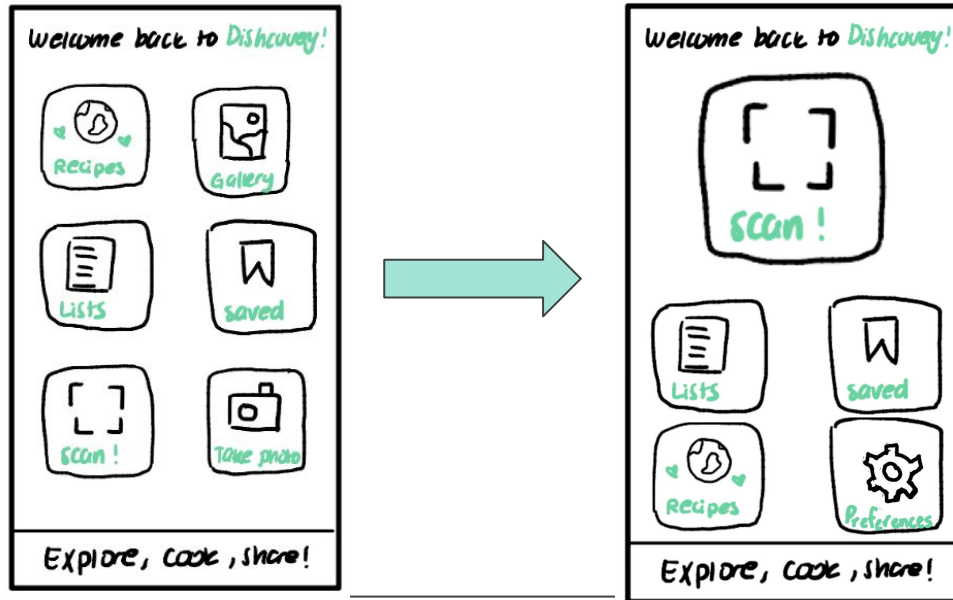
Progress towards hitting usability goals

- Taking into account feedback from low-fi prototypes
 - Making scanning more prominent within the app
 - Making it easier to access contextual information that you need and ignore what you're not as interested in → can open up context information with separate expandable context for flavor profile, origins, health benefits, etc.
 - Multiple methods for finding and filtering recipes
 - Can input dietary restriction in user profile that are consistent across searches for recipes
 - After scanning an ingredient, recipes are auto-filtered to show dishes that include that ingredient
 - Can search for recipes based on ingredients either through scanning or by explicitly inputting an ingredient name
-

Revised sketches

Home Screen

- Emphasized scanning feature, removed "Take Photo" and "Gallery" buttons based on low-fi feedback
- Usability: makes the process of identification easier to remember by emphasizing the action



Preferences Screen

- Enables users to add food allergies, nutritional preferences, and spice tolerance
- Accessible from Home screen
- Common request from our experience prototypes and low-fi testing
- Only recipes that satisfy these constraints will be shown
- Users can update their preferences at any point when through this screen
- Usability: makes finding recipes more efficient by remembering some user preferences that don't change easily (e.g. dietary restrictions)

Preferences

Allergy Information:

Green Bell Peppers
Oats
+ Add allergy

Nutritional Goals:

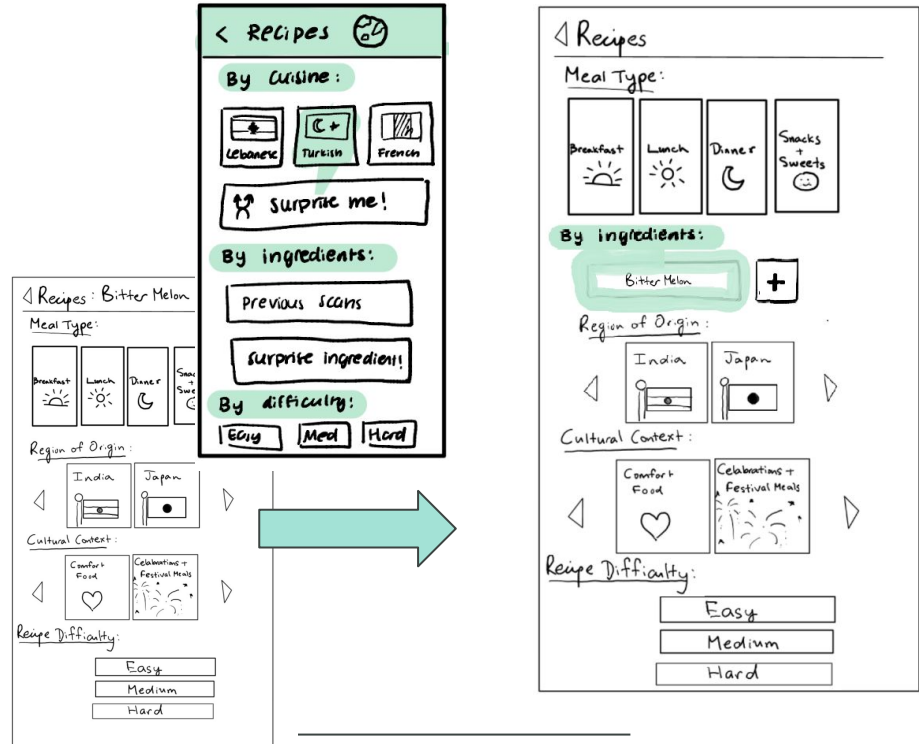
Low-fat
< 700 calories
+ Add nutritional goal

Preferred Spice Level:

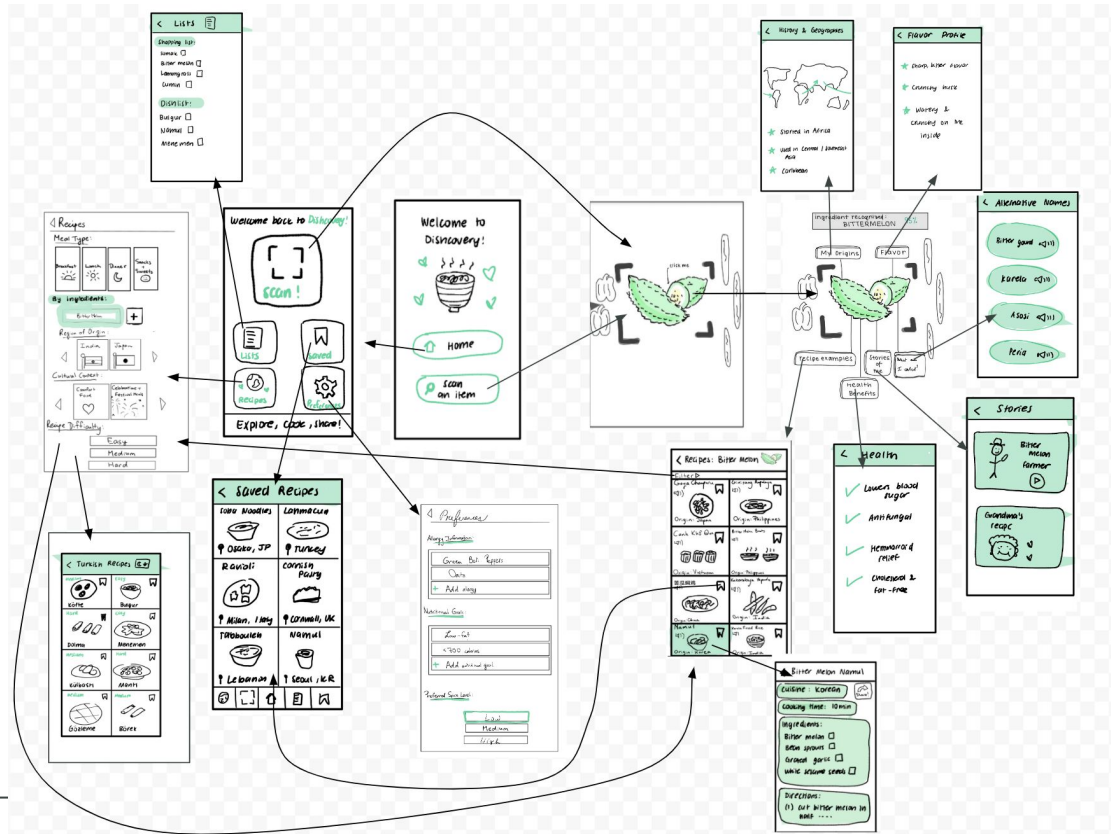
Low
Medium
High

Consolidate Recipes Screens

- Our original task flow contained two recipe preferences screens → one through filtering and one when selecting recipes from the home screen
- We combine these into one recipe filtering screen accessible from both the home screen and scanning an ingredient
- Repeated screens were a point of confusion in studio and in low-fi testing
- Usability: makes recipe filtering more efficient by reducing redundant screens, reduces the need for users to learn two separate flows for recipes based on whether they scan an ingredient or search



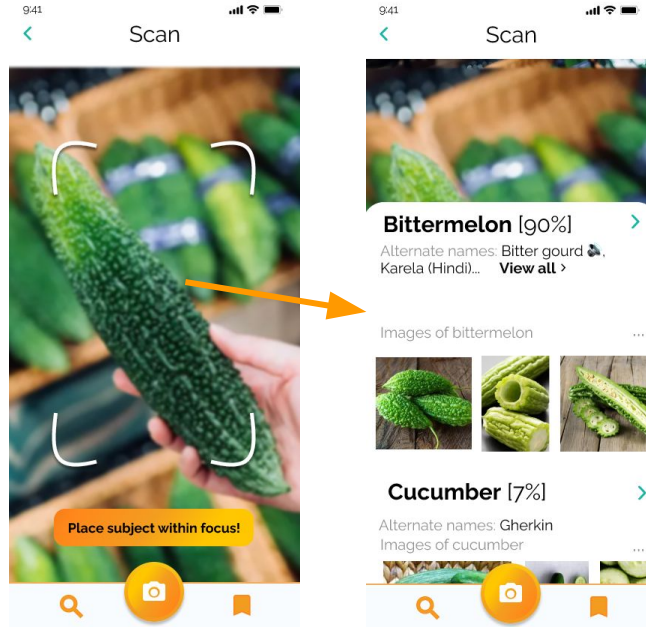
Revised Birds-eye View



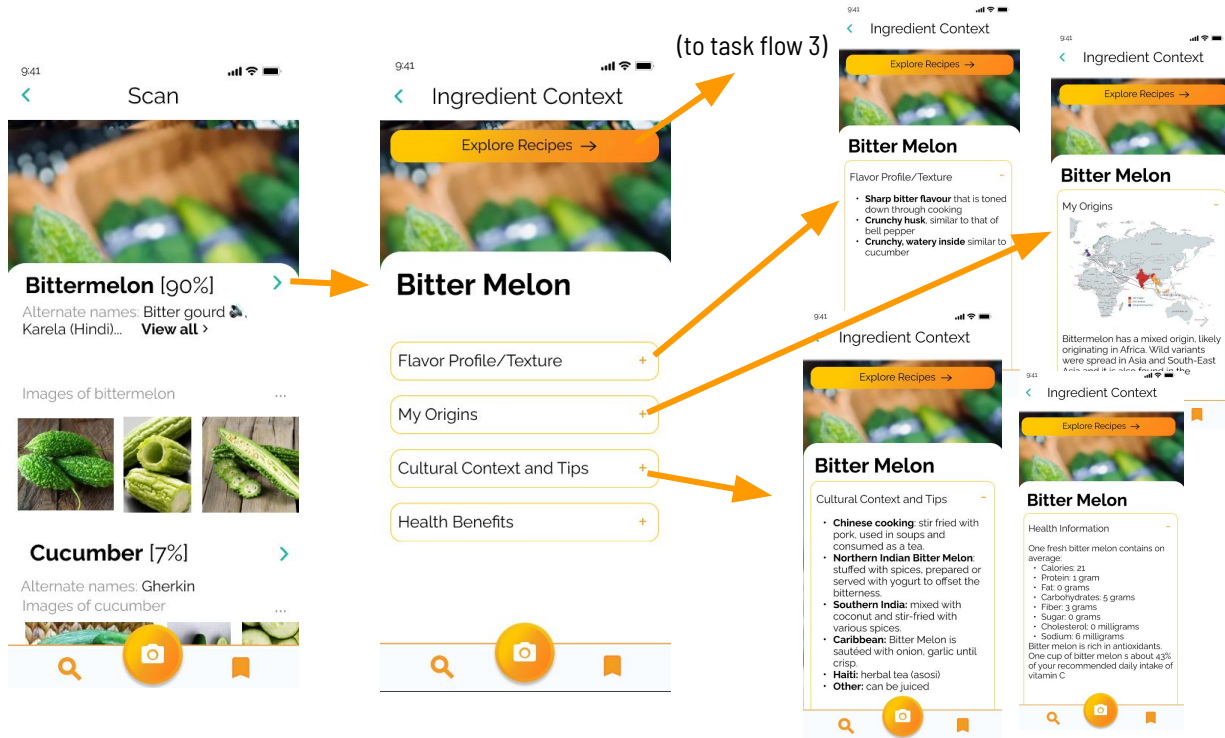
Medium-fi task flows

Medium-Fi Task Flow: Scanning (Task 1)

Figma Prototype

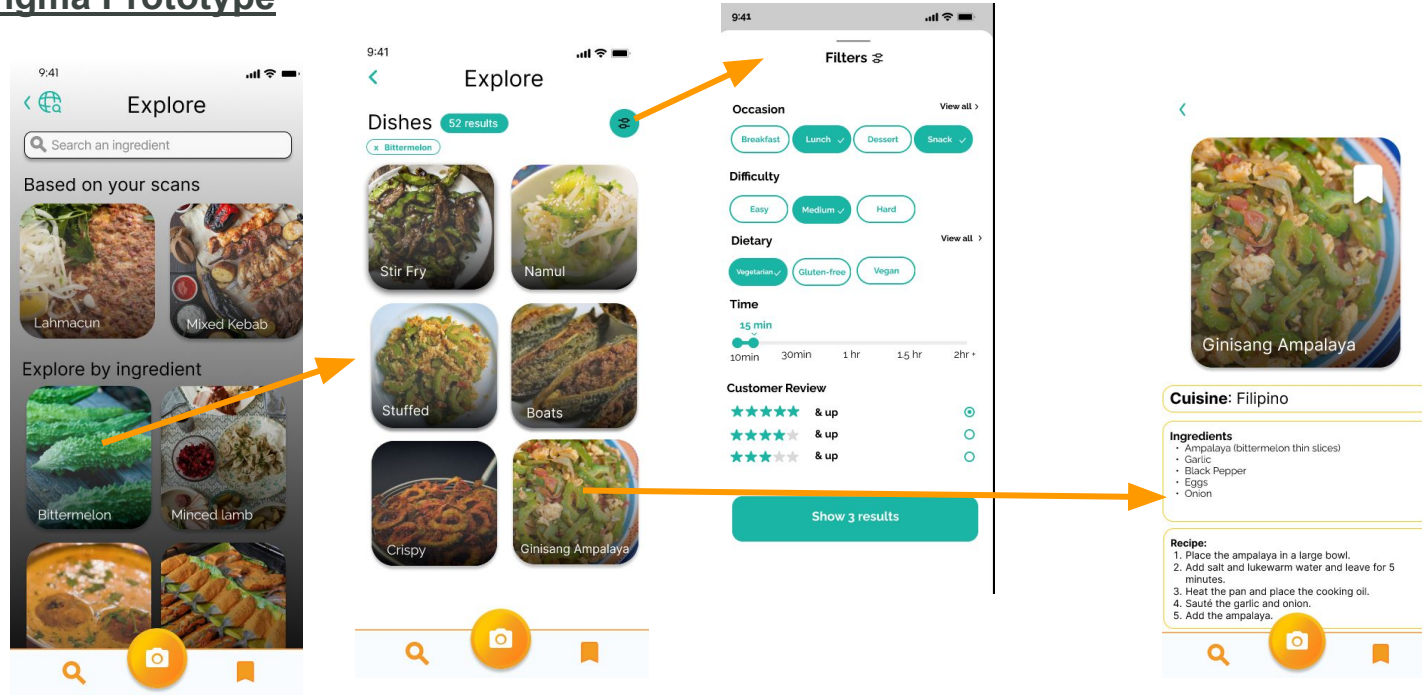


Medium-Fi Task Flow: Context (Task 2)



Medium-Fi Task Flow: Recipes (Task 3)

Figma Prototype



Med-fi prototype - Figma Link

Prototype Implementation

Prototyping Tool Used: Figma

Pros

- Easy to create reusable components and templates
- Fine-grained control over colors, fonts, and shapes
- Can implement smooth transitions between screens to simulate actions like clicking buttons and scrolling
- Real-time collaboration, which enabled us to edit screens at the same time and talk through design decisions
- Tools like “tidy up” helped us maintain alignment and group items together

Cons

- Steep learning curve
- Difficult to approximate some transitions that don't involve clicking (e.g. scanning an ingredient and having a pop-up when that ingredient appears in the camera)
- Discrepancies in included features/fonts in Windows and Mac made collaboration and simultaneous work more challenging

01

Interactive Maps

In the contextualization flow, our prototype doesn't yet include a map that shows a clickable journey of the ingredient rather than a static image of the maps for context.

02

Functionality to Add Reviews

In the recipe flow, the user is currently unable to add their own reviews to recipes that they try, or filter by review star-rating.

03

Sharing

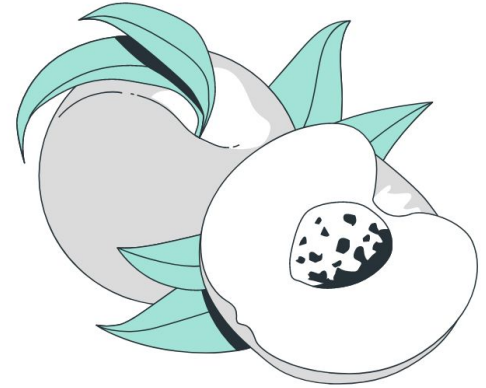
Screens to share recipes you've shared over social media or messaging

04

Full Filter Options

User cannot dynamically change filters currently or see how results change depending on the filters applied.

Limitations in Prototyping



01

Image Recognition

Computer vision for automatically identifying food items is abstracted away to just predict a specific ingredient (bitter melon in our prototype)

02

Viewing Previous Scans

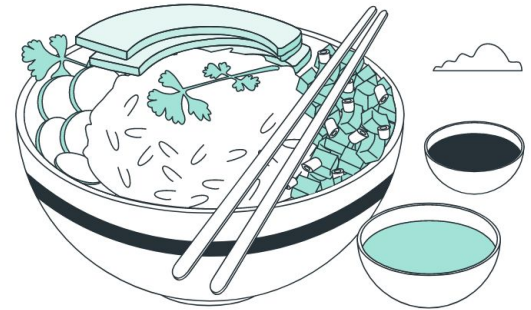
Storage of previous scan data and recommendations for recipes including these ingredients.

03

Dynamic Filtering

Filtering logic based on dietary restrictions in profile and selected preferences is hard-coded

Hard-coded/ Wizard of Oz Features



04

Search by ingredient

We don't have a proper recipe database yet to search by ingredient or find recipes related to a specific culture.

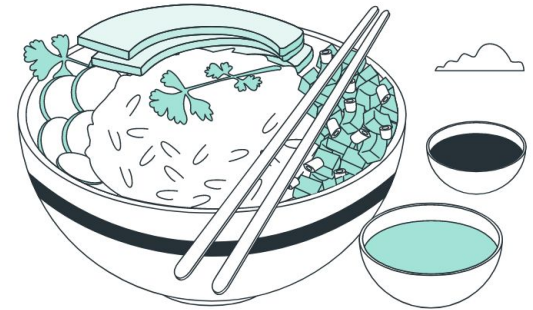
05

Contextual information

Contextual information, as well as recipes, related to the scanned item was manually sourced.



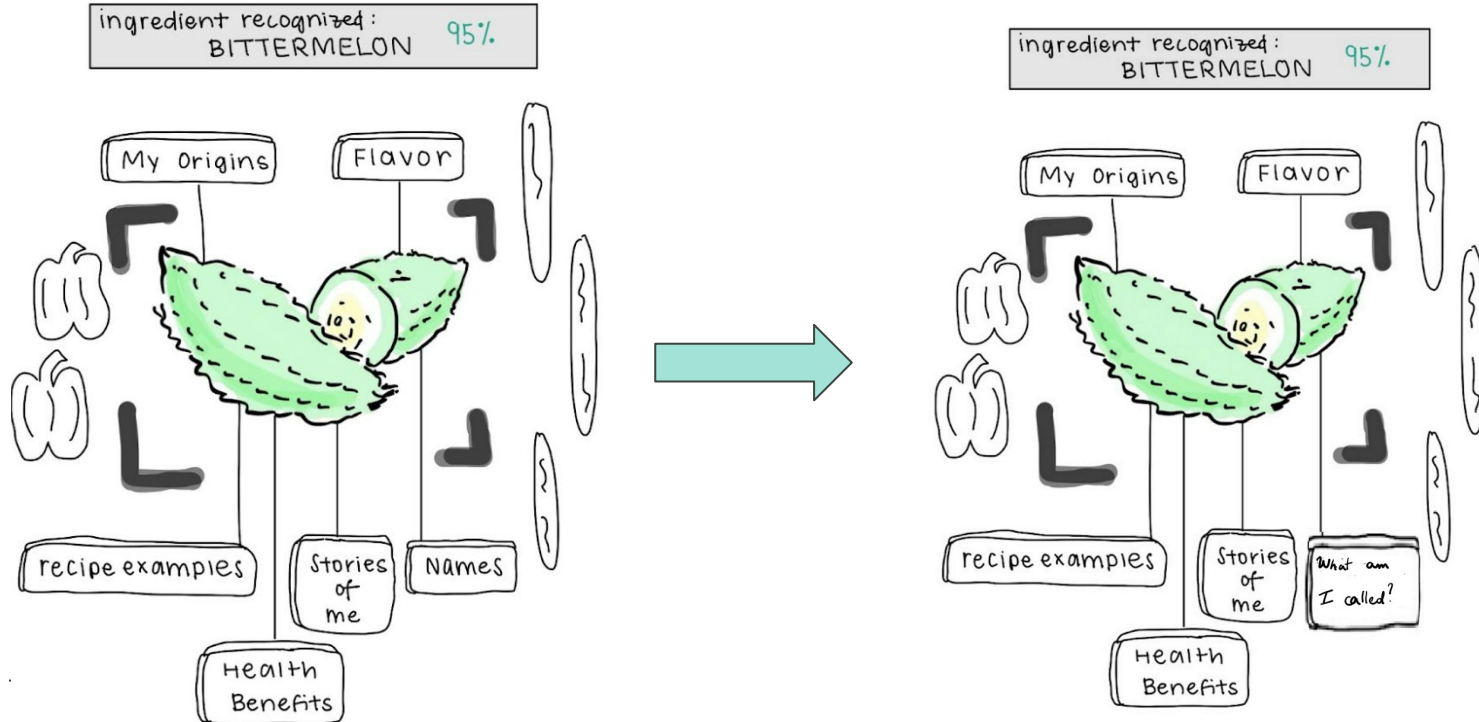
Hard-coded/ Wizard of Oz Features



Appendix

Additional Sketch Modification: Scanning

- Renamed "Names" button to "What am I called?" to provide more clarity





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