

Lo-Fi Prototype & Testing

Art and Digital Media (1:30-3:30 PM, Team 1)

Overview

Exploring Different Designs:
Concept Sketches

Selected Interface Design

Lo-fi Prototype and Testing
Methodology

Results and Discussion

nomms

Value Proposition

Simplify dining – just for you.

Mission Statement

Our goal is to simplify the decision-making process for people dining out, based on their unique dietary profiles and logistical constraints.



Simplify dining – just for you!

**Problem +
Solution**

A lack of **detailed information about full dining experiences** makes it difficult for people to eat out. While general information and high-level reviews about food quality are now easily accessible, customers are **typically unable to learn specifics** about potential allergens, parking availability, COVID safety measures, and other factors.



Simplify dining – just for you!

**Problem +
Solution**

This poses a particular challenge for consumers with food restrictions, strong dietary preferences, or strict logistic constraints.

Our solution, **noms**, provides granular information about dining experiences to customers based on the unique factors that they prioritize over others.



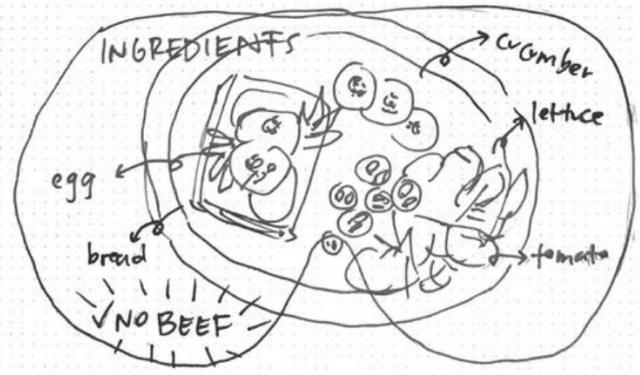
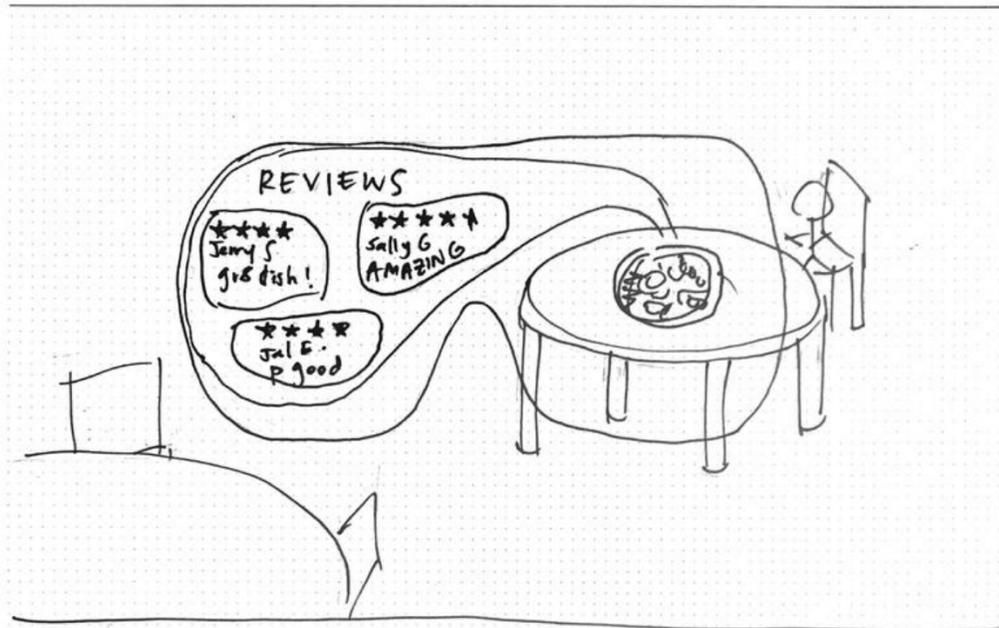
Concept Sketches

Concept 1

AR Glasses

AR via Glasses

PRECISION GRID

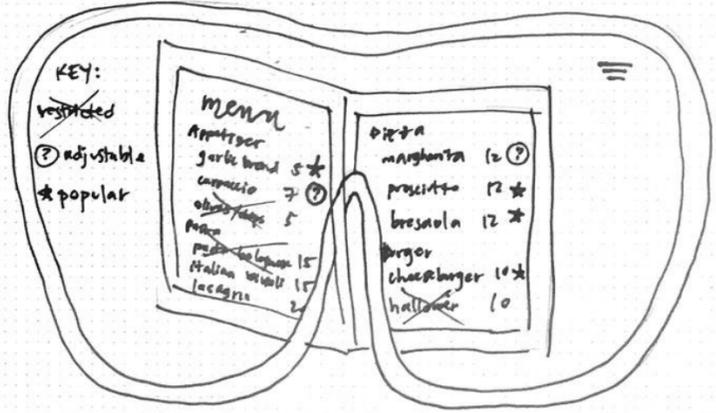


VS

⚠ ALLERGEN DETECTED:
 egg
 bread

AR via Glasses

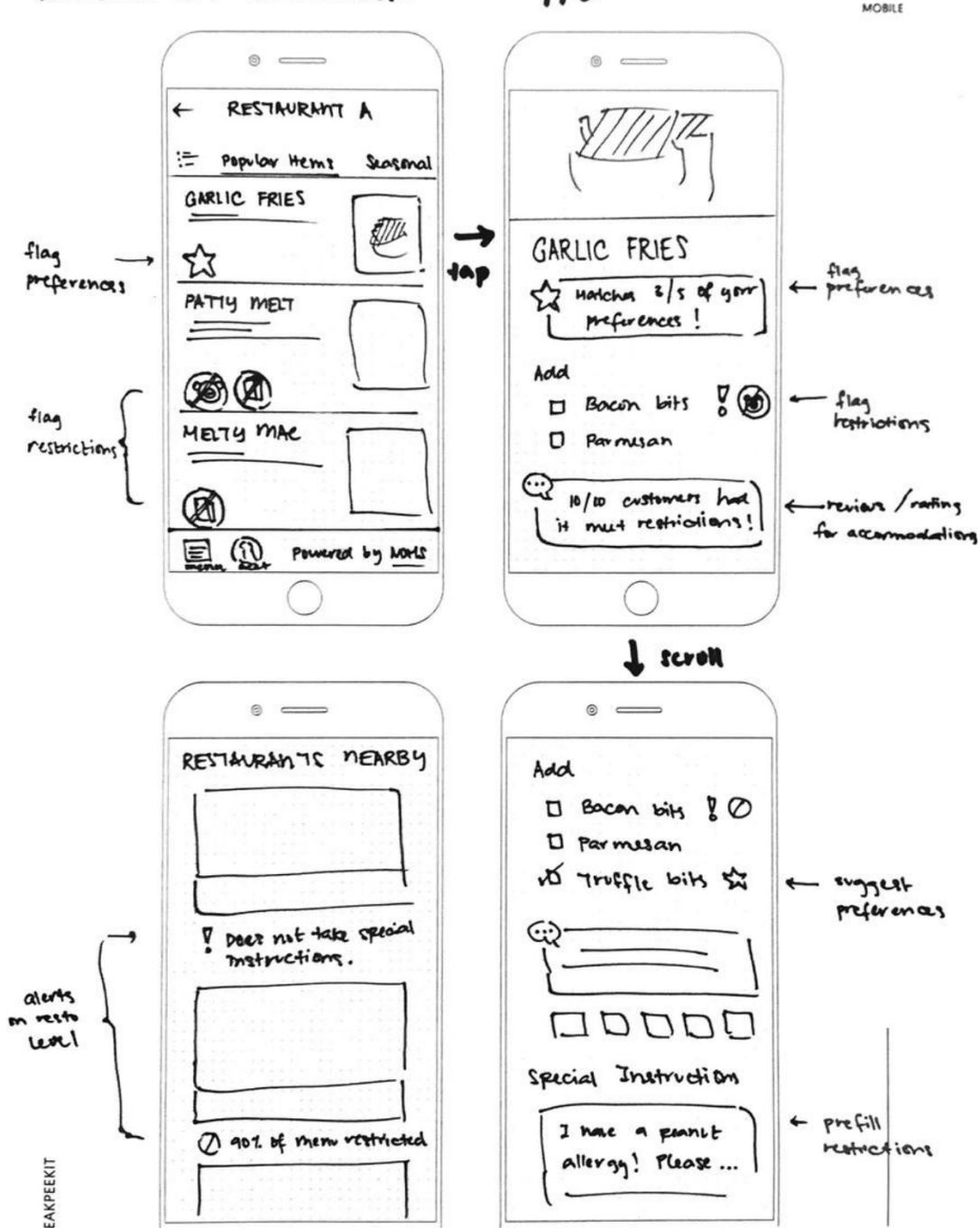
PRECISION GRID



Concept 2

App Extension

MOBILE APP EXTENSION (in-app)

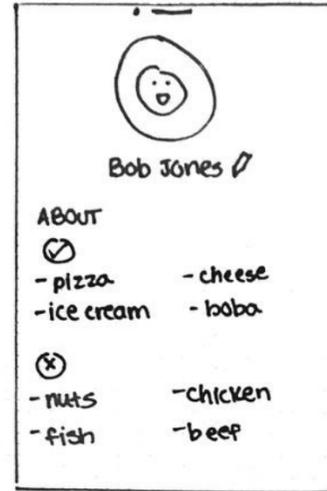


Concept 3

Mobile App

DATING APP

PRECISION GRID

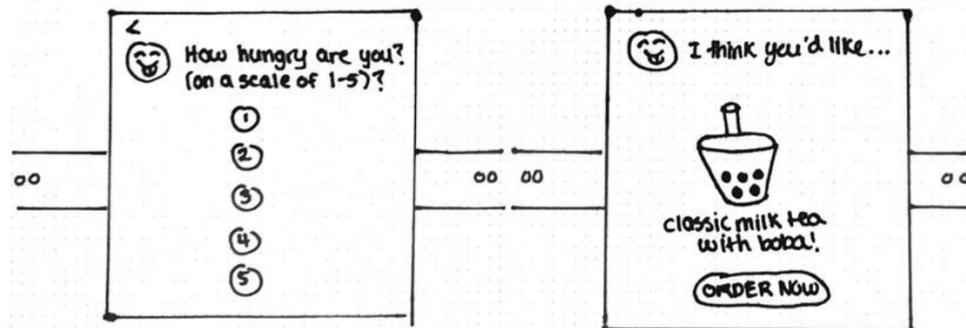
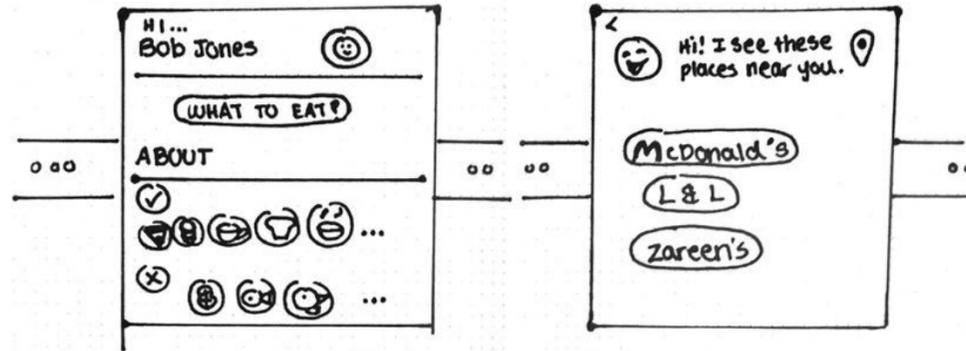


Concept 4

Smart Watch

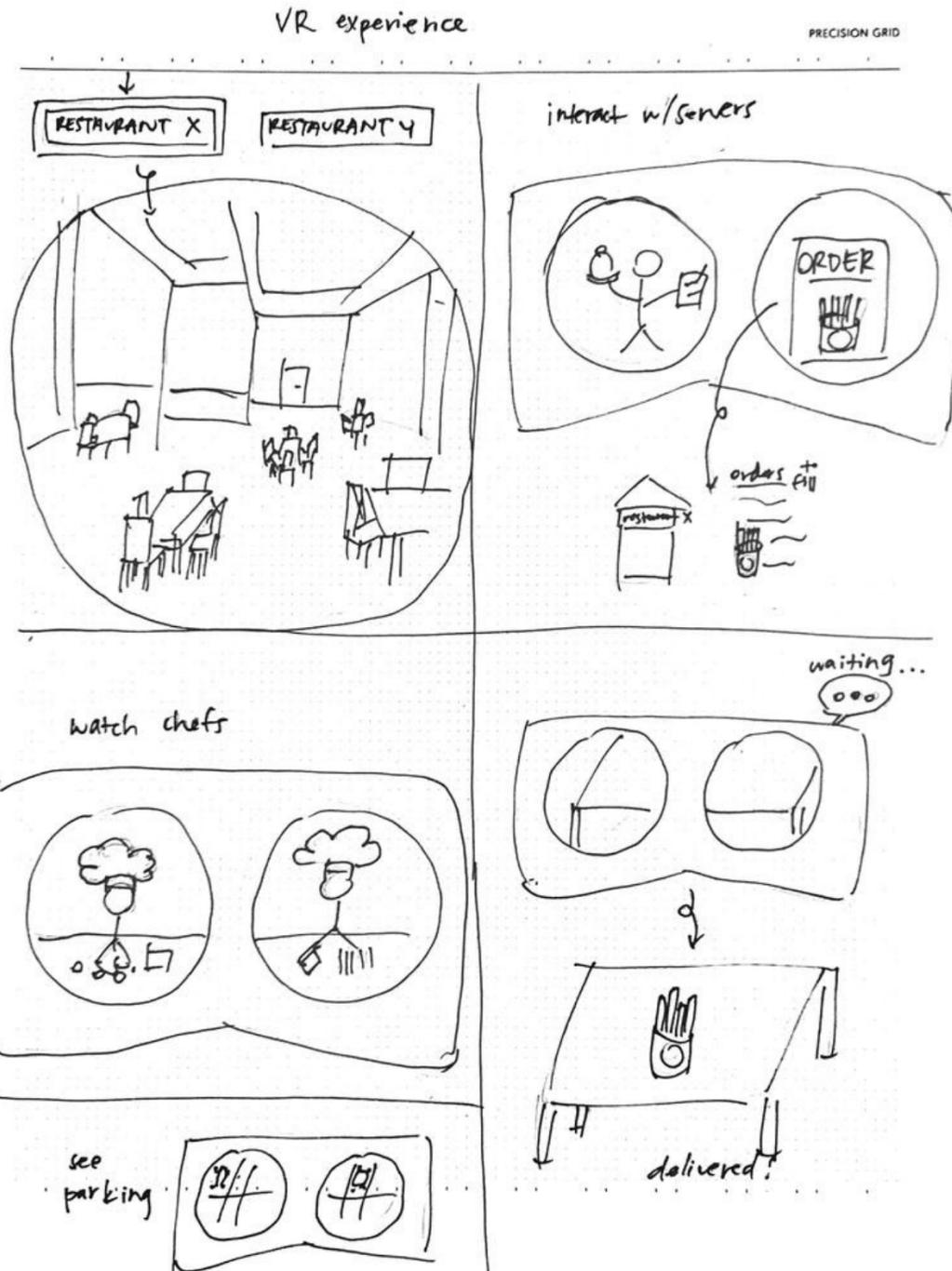
smartwatch

PRECISION GRID



Concept 5

VR Walkthrough

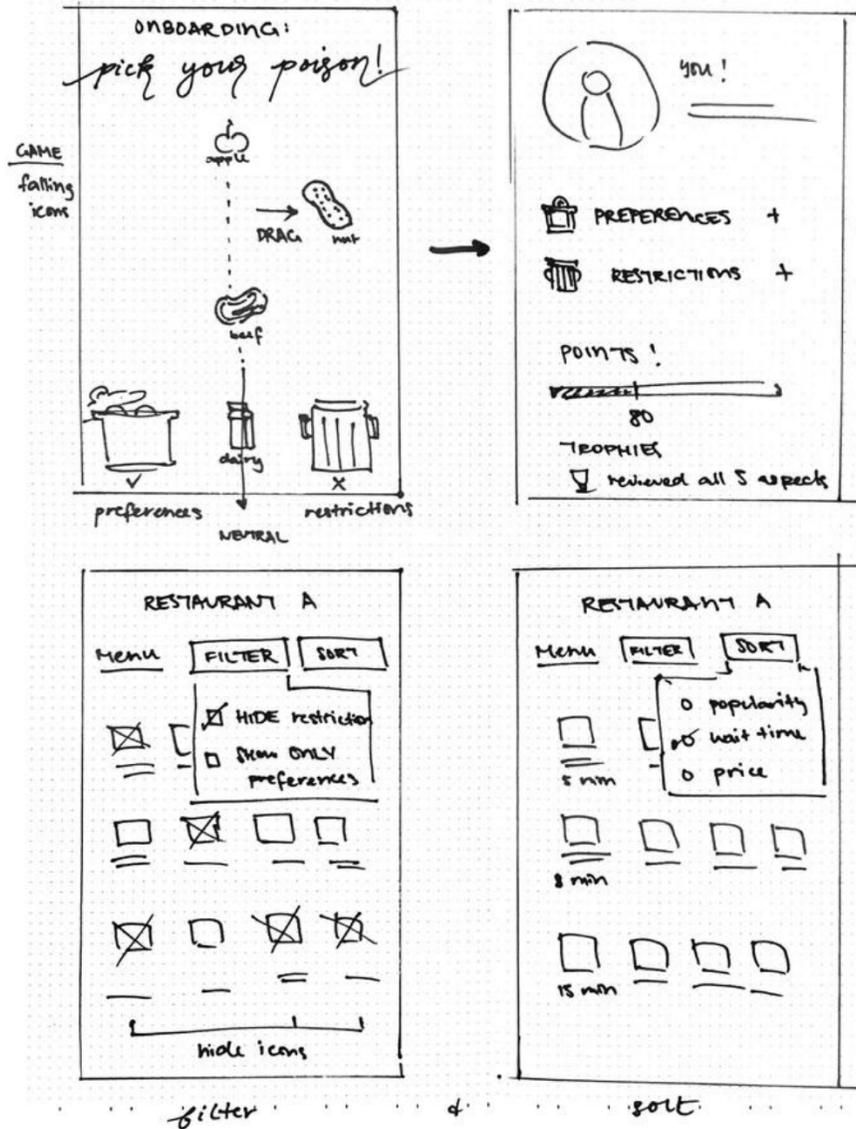


Concept 6

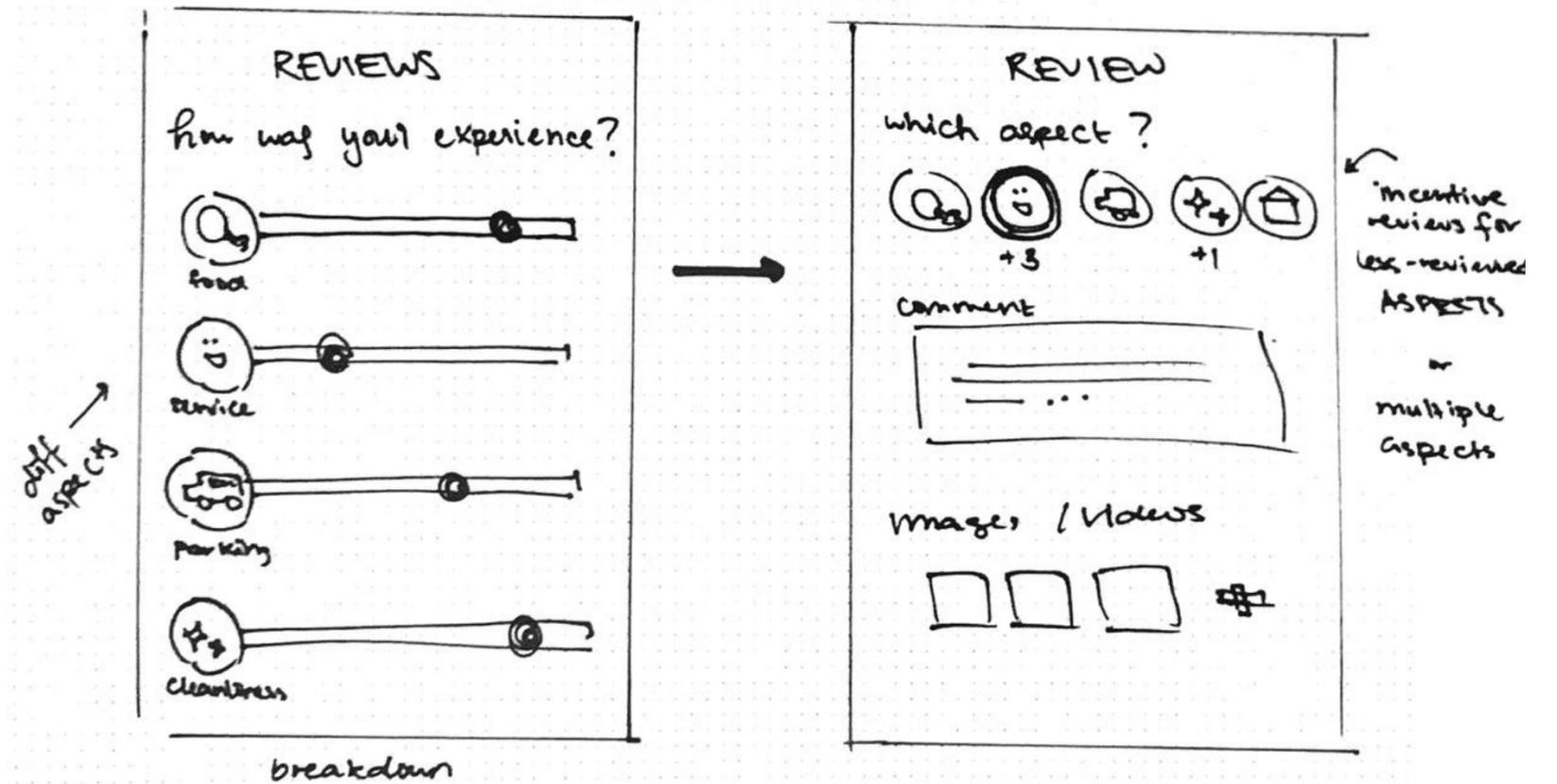
Granular App

MOBILE APP : GRANULAR EXPERIENCE

PRECISION GRID



PRECISION GRID



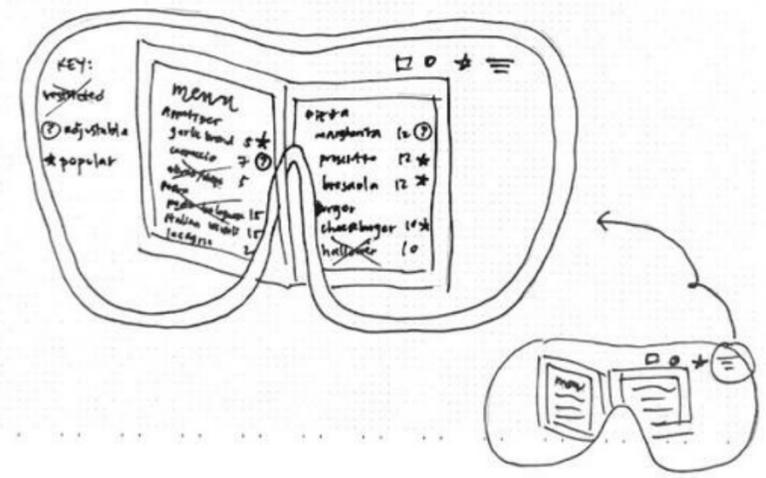
The background features two large, wavy, abstract shapes. One is a light pink shape in the top-left corner, and the other is a teal shape in the bottom-right corner. The text is centered in the white space between them.

Top 2 Designs

AR Glasses Walkthrough

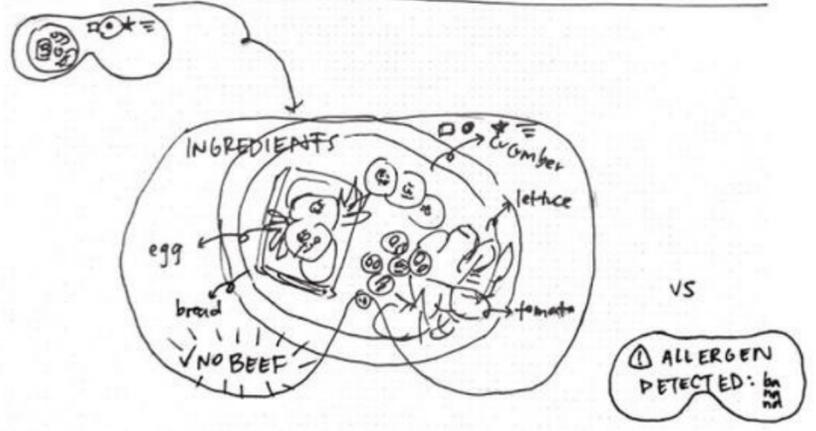
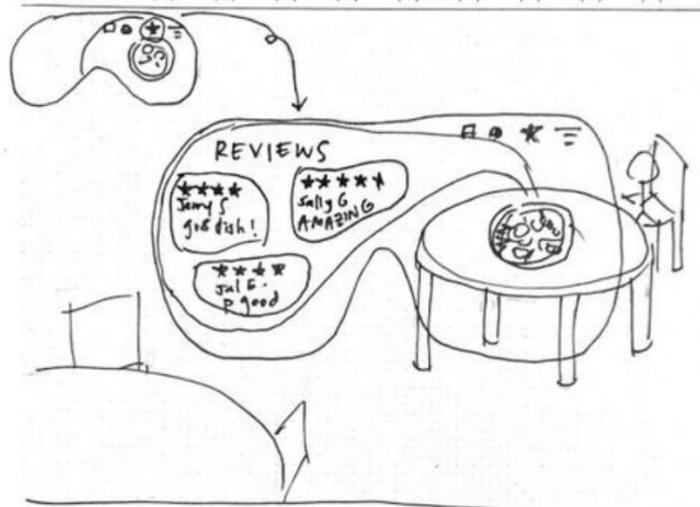
AR via Glasses

PRECISION GRID



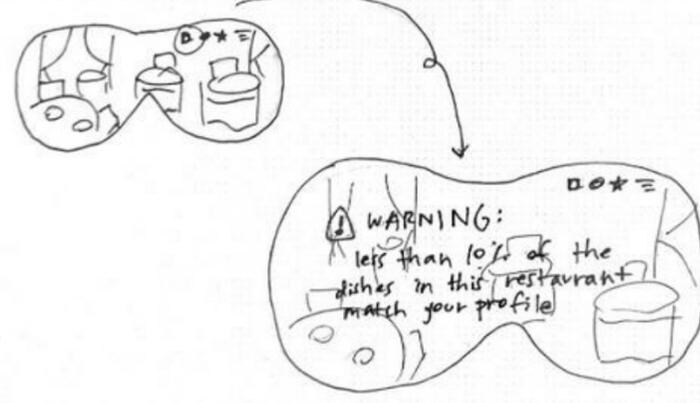
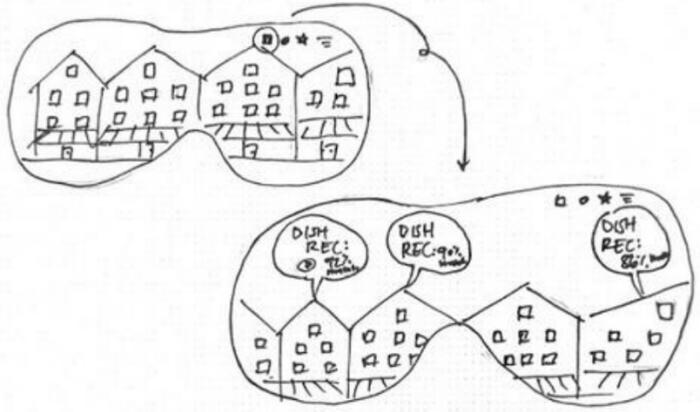
AR via Glasses

PRECISION GRID



AR via Glasses

PRECISION GRID



AR Glasses Walkthrough

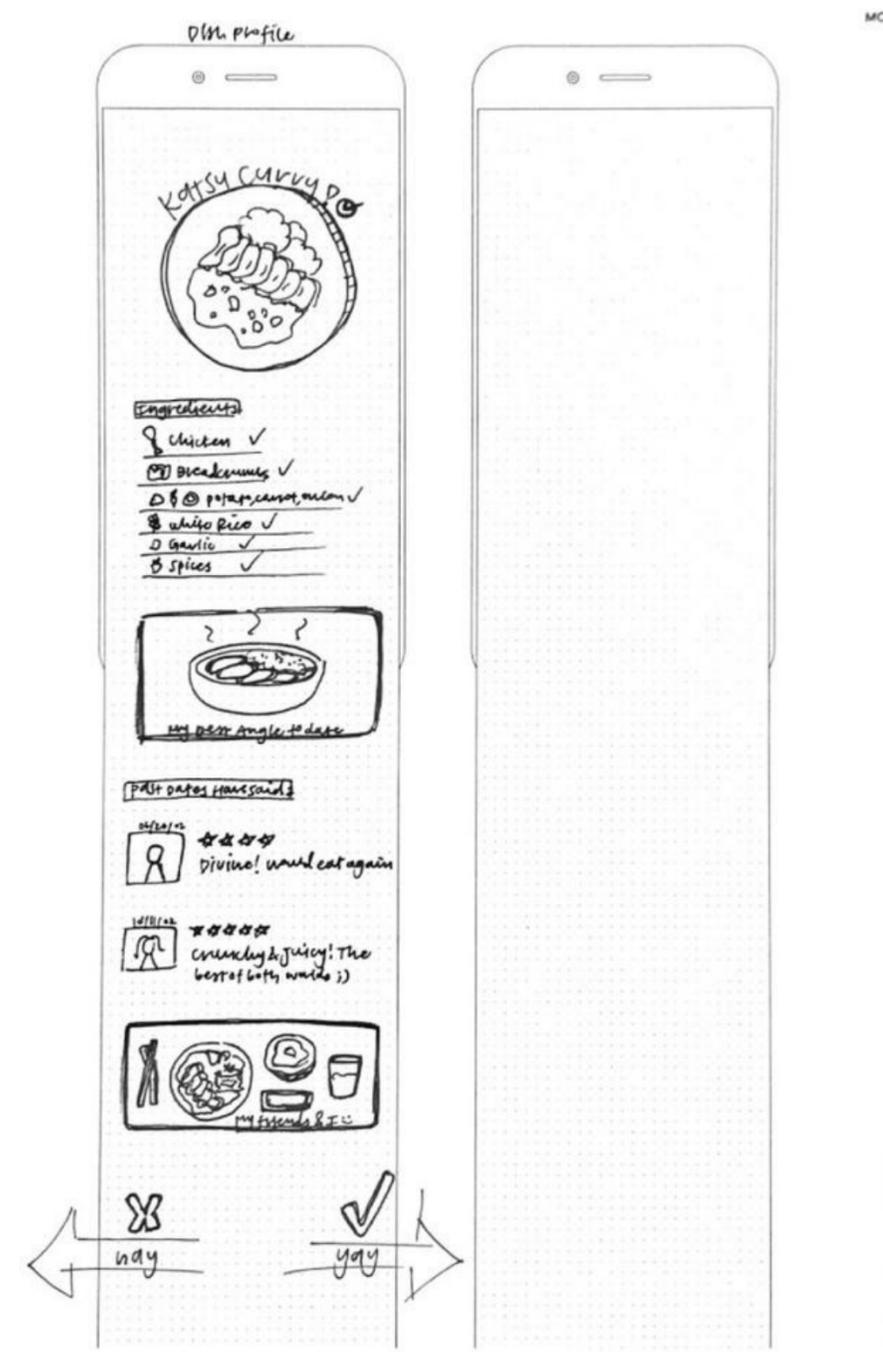
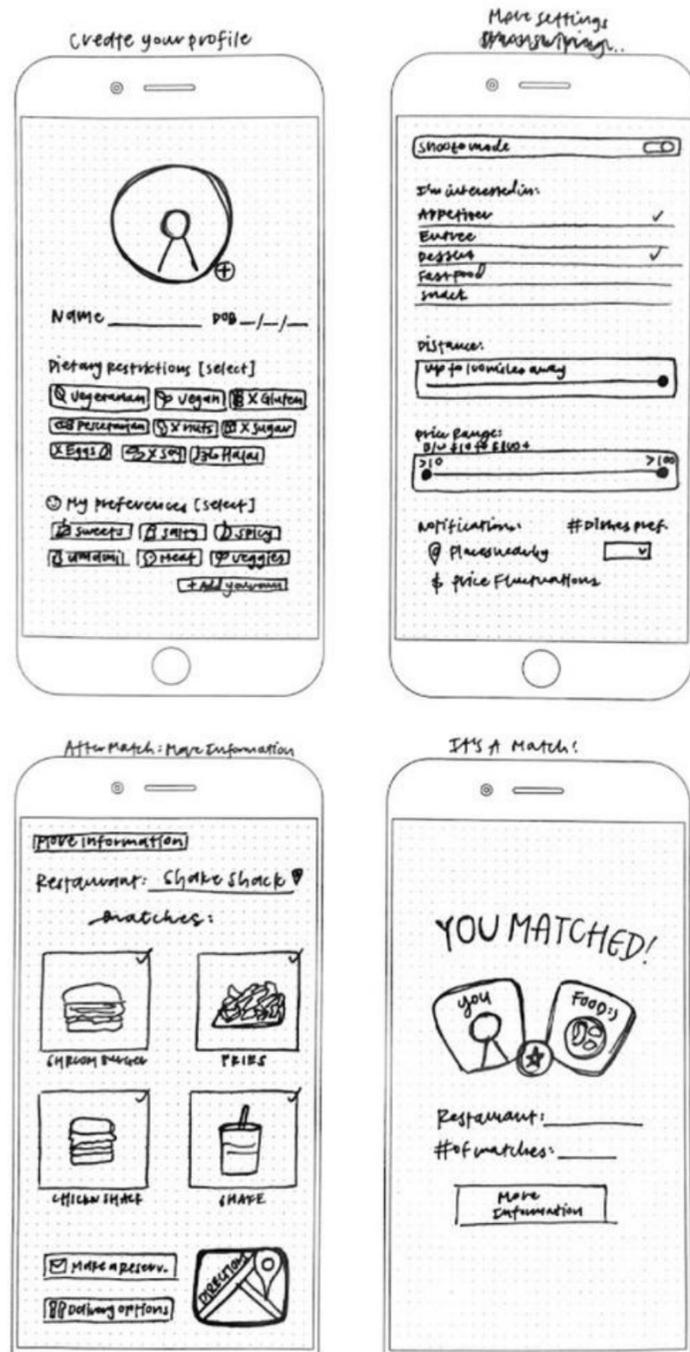
PROS

- Novel experience
- Immerse yourself in the real world (tech is an accessory)
- Minimalist interface
- Active engagement
- Hands-free

CONS

- Sight is required for menu filtering / flagging, no audio component (accessibility issue)
- Fully separate device to bring around, doesn't build off existing devices
- Financial inaccessibility
- Potential privacy issues, glasses are always "on" for warnings
- No way to filter out and sort information on physical menus

Mobile App Walkthrough



EARPEEKIT

EARPEEKIT

Mobile App Walkthrough

PROS

- Familiar UI (Tinder, Hinge, Bumble)
- Saves you mental energy
- Saves you time and effort to decide
- Profile-dependent (your preferences are remembered)
- Lots of detailed information on specific dishes
- Active engagement (swiping method)

CONS

- Given a singular recommendation
- Number of steps to get to desired dishes (need to input lots of preferences)
- Binary options
- Doesn't address detailed information for other aspects of the dining experience

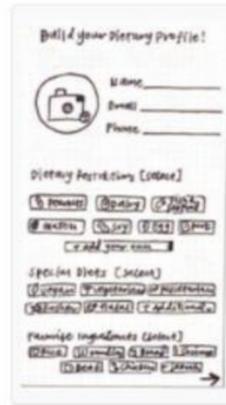


Selected Interface Design

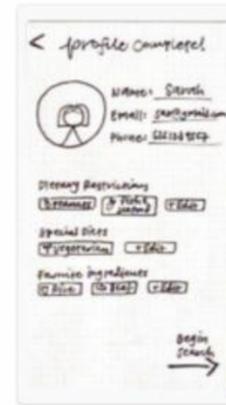
Mobile App!



Updated 1st Feb @ 22:48 PM
Screen Shot 2022-02-01 at 10:48:05 PM



Updated 1st Feb @ 23:27 PM
Screen Shot 2022-02-01 at 10:59:21 PM



Updated 1st Feb @ 23:27 PM
Screen Shot 2022-02-01 at 10:48:28 PM



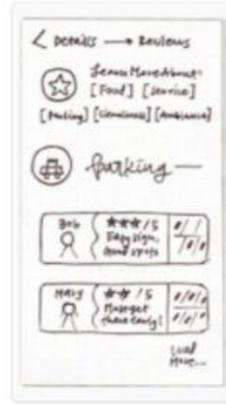
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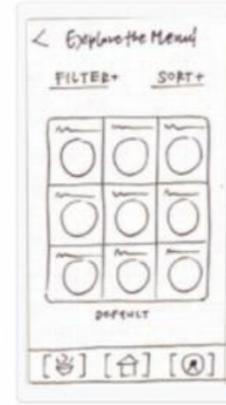
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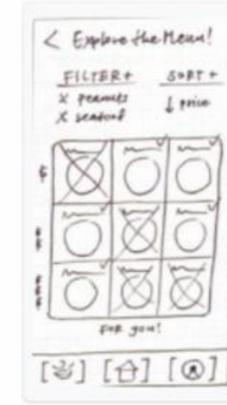
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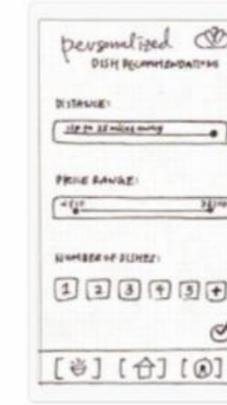
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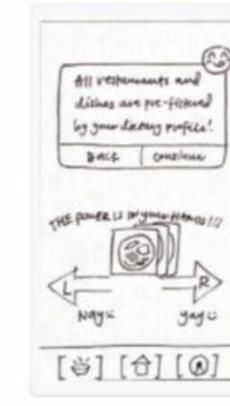
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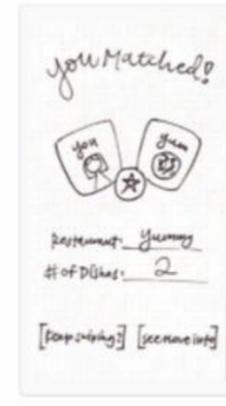
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Screen Shot 2022-02-01 at 11:35:20 PM



Updated 1st Feb @ 23:11 PM
Screen Shot 2022-02-01 at 11:11:02 PM



Updated 1st Feb @ 23:36 PM
Screen Shot 2022-02-01 at 11:35:28 PM

Reasoning

While AR glasses would have been novel and game-changing, wearing such an accessory while eating out is **unrealistic** and **inconvenient**.

People tend to decide where to eat **on the go** and always have their smartphones with them.

Having a **portable** interface eases the food decision process as users can **complete tasks comfortably** and get **preference and/or location based suggestions**.

UI Task Flows

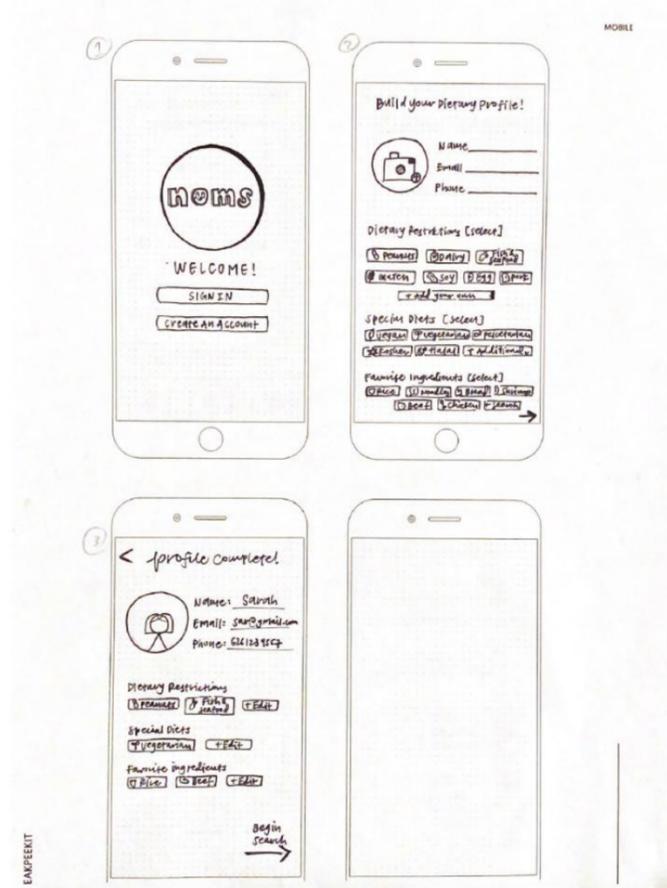


Figure 10: Create a dietary profile (Simple Task)

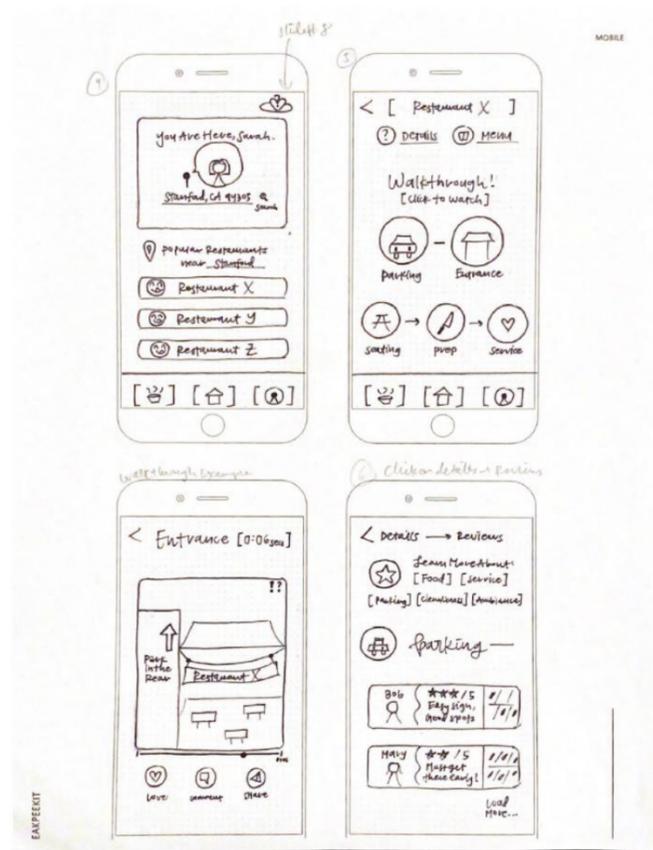


Figure 11: Get details on a restaurant's "full" dining experience (Moderate Task)

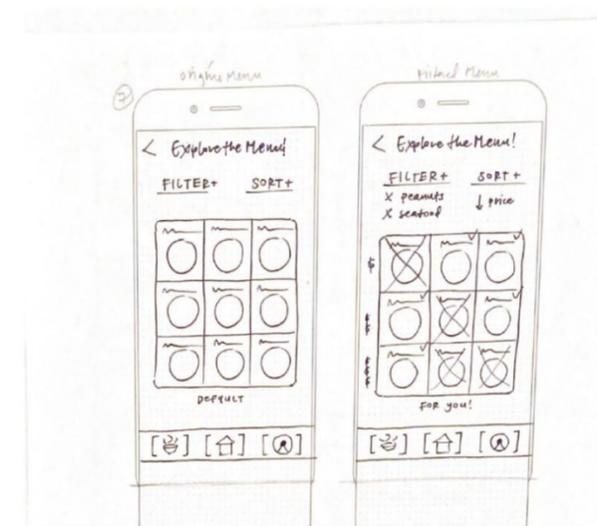


Figure 12: Filter & sort menu based on dish details (Simple Task)

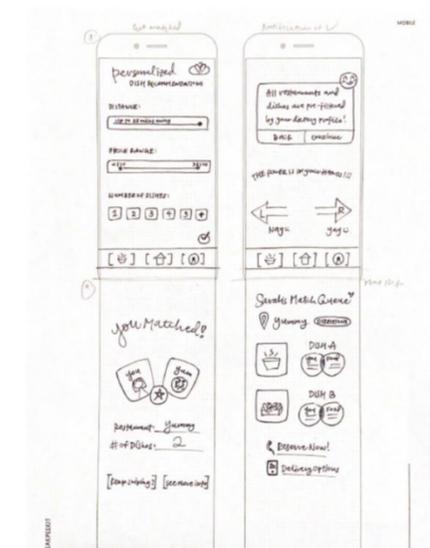
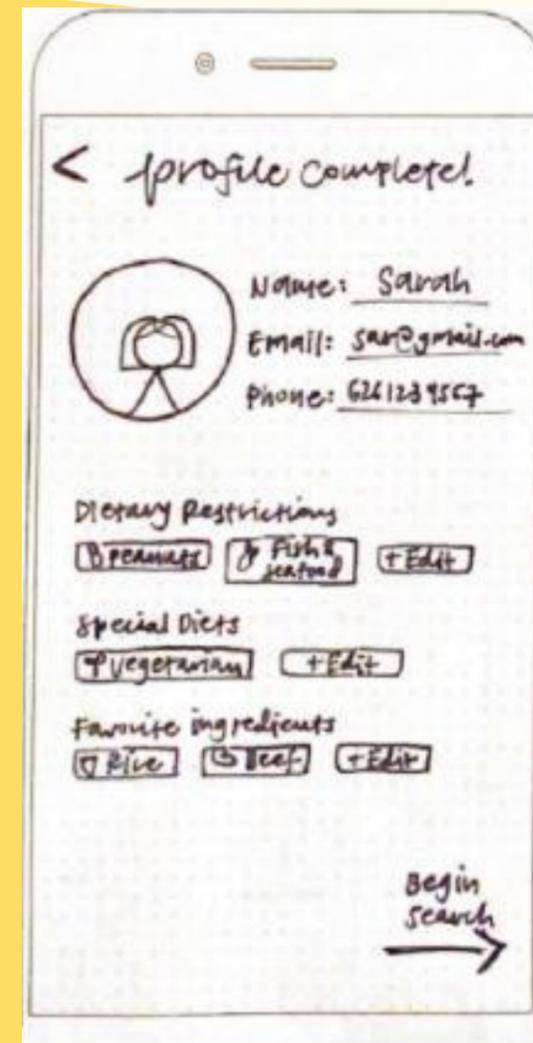
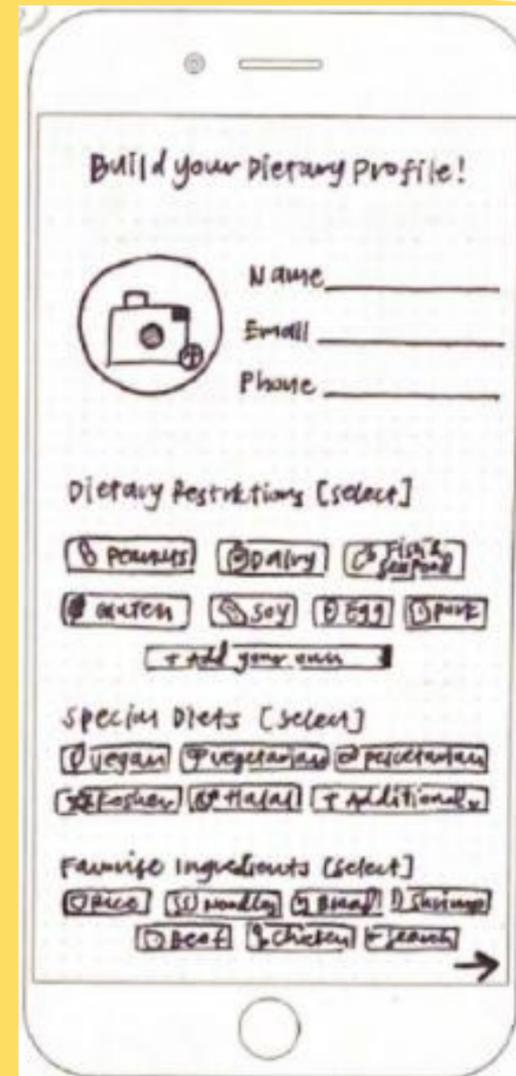


Figure 13: Get personalized dish recommendations (Complex Task)

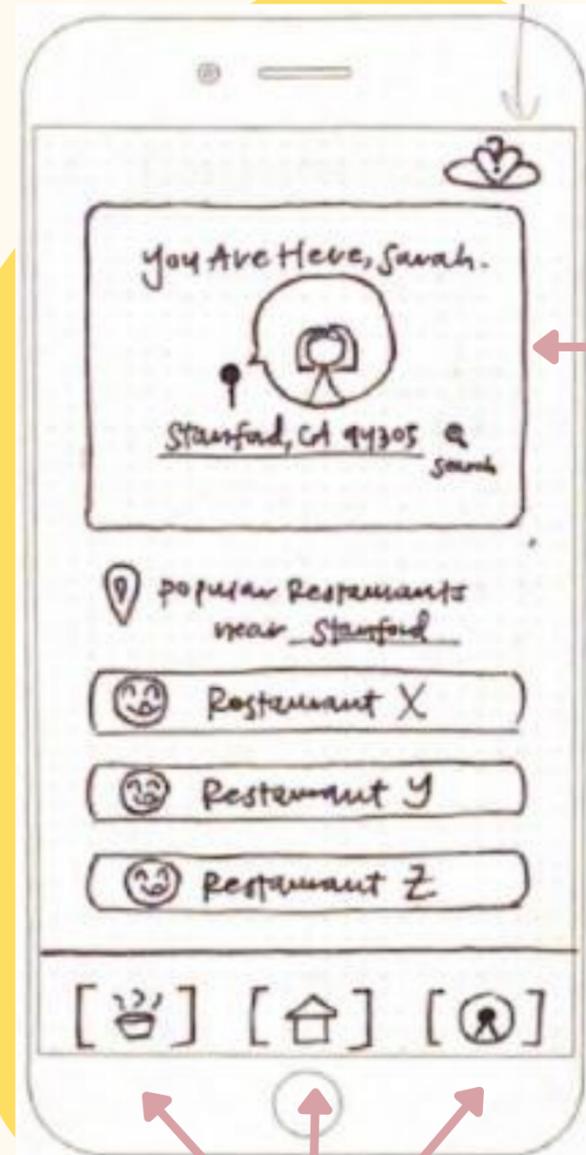
Section I

first-time users are prompted to create their dietary profile



Section II

home/landing page with user's current location and list of popular restaurants in their area



map of user's current location

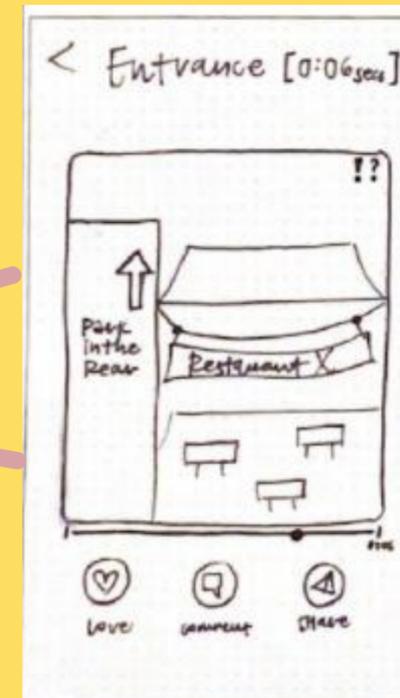
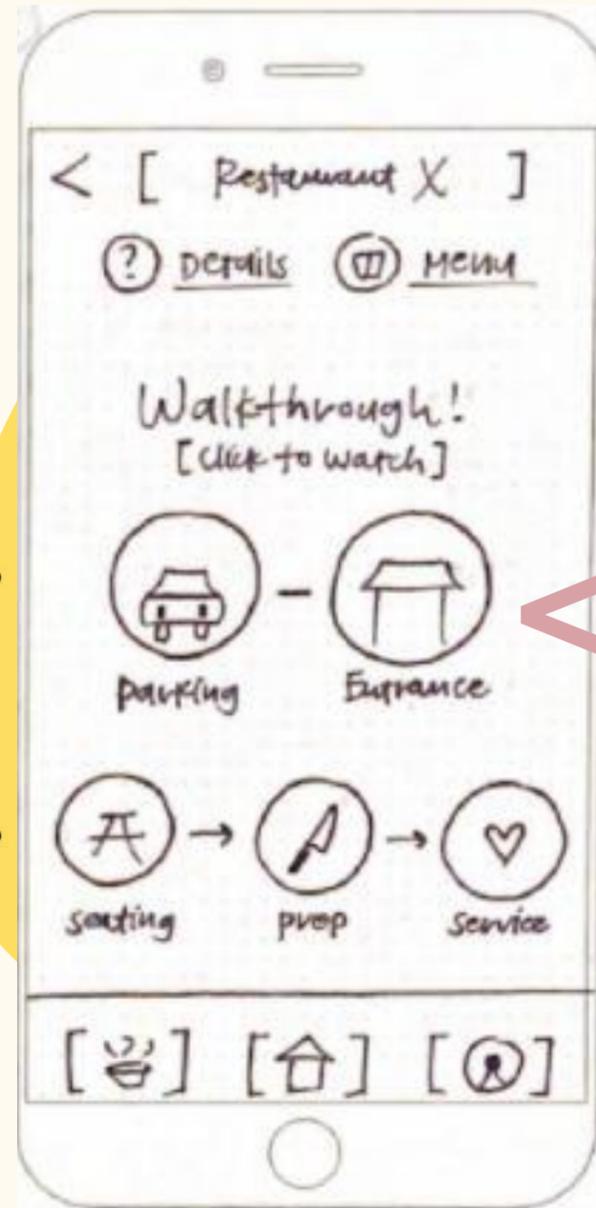
list of popular restaurants in user's area

navigation bar (dish recs, home, profile)

Section III

video walkthrough of the dining experience that details the restaurant's parking, entrance, seating, prep and service

video bubbles outlining each step of dining experience

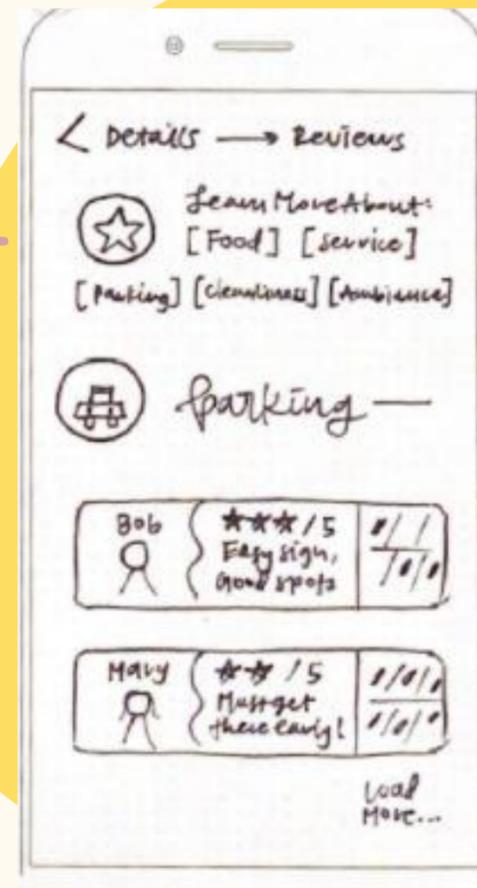


interactivity buttons (like, comment, share)

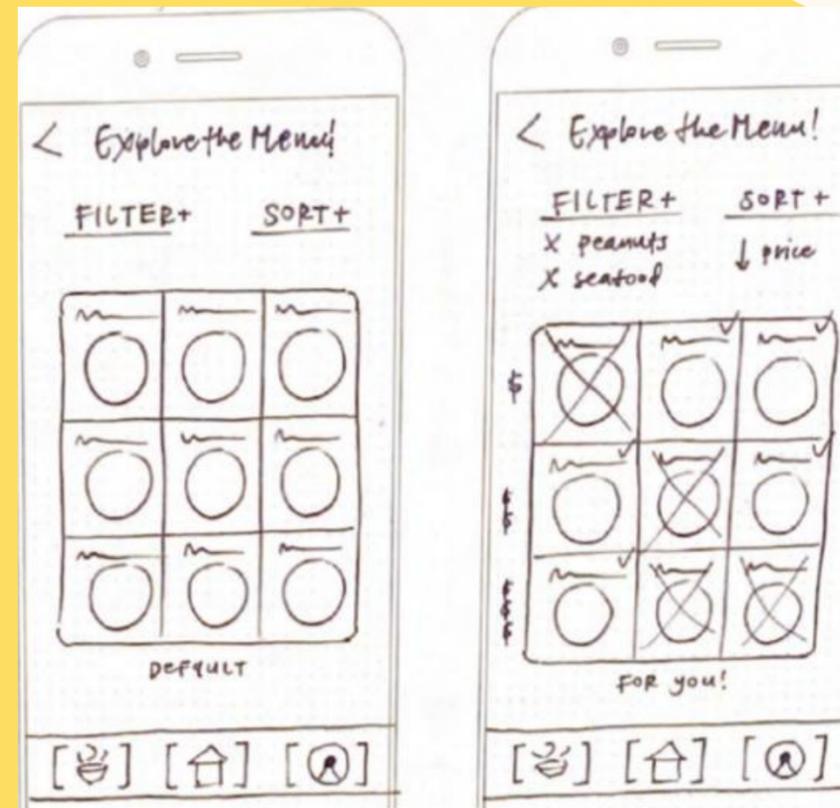
Section IV

user can (A) view details about a place via organized reviews or (B) explore the menus filtered and sorted by their needs

click on reviews organized by category



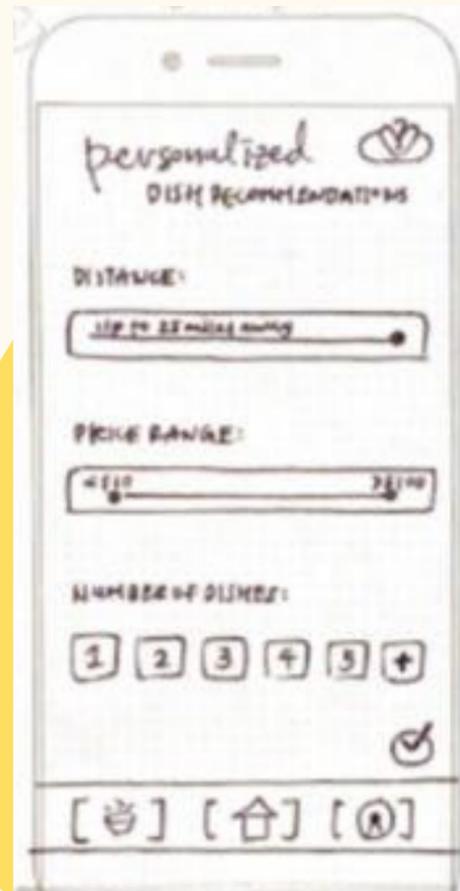
detailed reviews including ratings, comments, and pictures



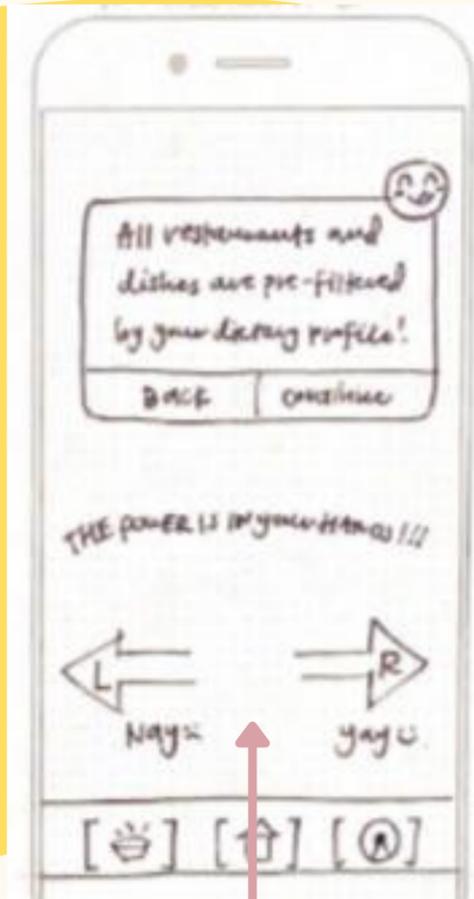
filter and sort menu based on your dietary needs and other preferences

Section V

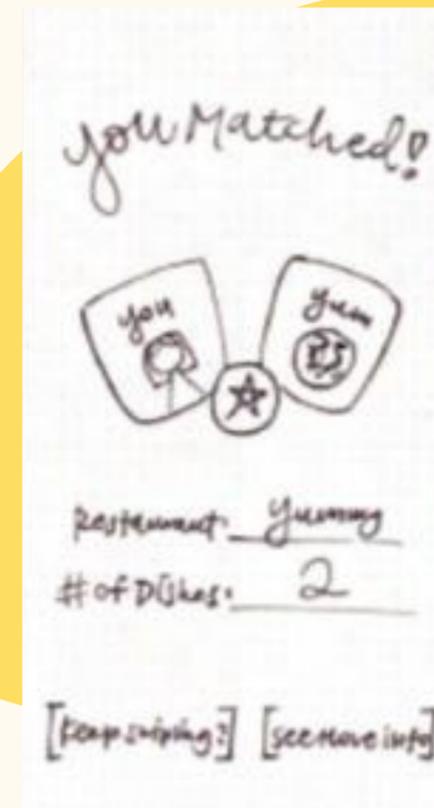
users get "matched" to personalized dish recommendations based on their dietary profile and other preferences



edit distance, price, and dish quantity preferences



like / reject dish



list of dish recommendations + their details for you!



Interface & Features

Took inspiration from social apps, including TikTok and Bumble to make the food search experience **familiar** and **engaging**.

TikTok: short video clips + interactivity buttons

Bumble: mimicked the matching algorithm for customizability and compatibility

Overall, we hope our interface makes the food decision process **exciting, carefree,** and **inclusive** for all users.

The background features abstract, wavy shapes in shades of pink and teal. The pink shape is on the left side, and the teal shape is on the bottom right side. The text is centered in the white space between them.

Testing Methodology

Participants

Aimed to find those with food restrictions and strict dietary preferences

Participant 9

- Age: Early 20s
- Location: Washington state
- Dietary Restrictions: None

Participant 10

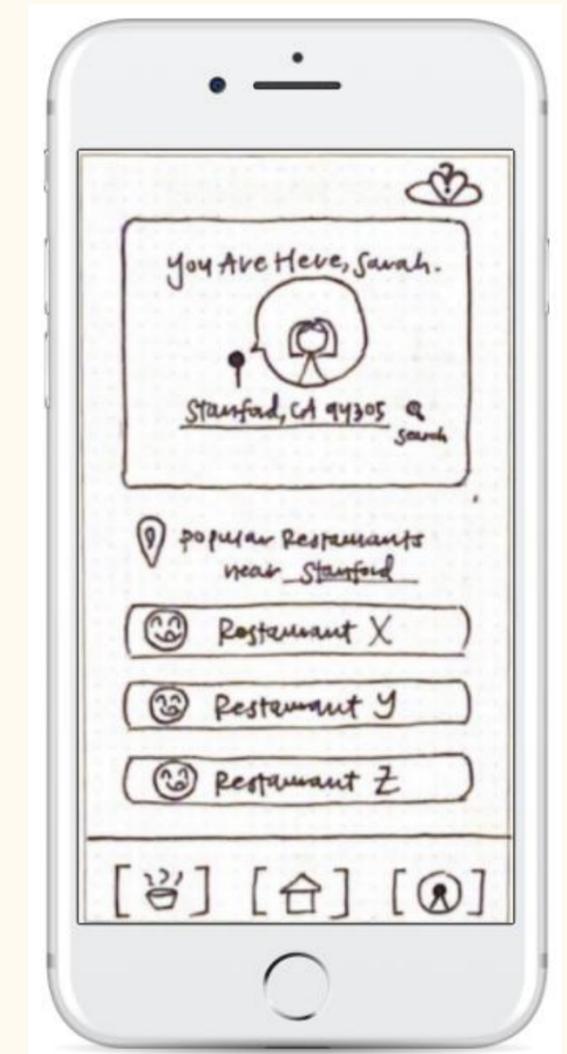
- Age: Late teens
- Location: Washington state
- Dietary Restrictions: peanut allergy

Participant 11

- Age: Late 20s
- Location: Philippines, former Bay Area resident
- Dietary Restrictions: Shrimp & mint allergy, avid foodie

Lo-Fi Testing

- Input sketches into Marvel POP
 - Allows interaction like a real app, but with lo-fi sketches
- All interviews were conducted on Zoom
 - Sent POP link to participants in chat
- The participant shared their screen with the POP prototype
- No compensation given



Test Structure:

Overview → Share screen → Given each task, talks out loud → Give feedback

Tasks Tested

- Create a dietary profile (**Simple**)
- Get details on “full” dining experience (**Moderate**)
- Filter & sort menu based on dish details (**Simple**)
- Get personalized dish recommendations (**Complex**)

Key Measurements

- **Satisfaction**
 - Asked users to rate their experience at the end
- **Efficiency**
 - Time to complete task for each user
- **Robustness**
 - Number of screens needed to complete each task



Results

Positives

- Users enjoyed the **profile-building** and **customization** aspect
- Users liked the ability to **filter & sort** feature specific dishes based on ingredients & other factors
- Users liked getting **detailed information** about different aspects of experience
- Users had fun with the dish **recommendations** feature

Negatives

- Users wanted ways to adjust around **"permanent"** restrictions vs **"temporary"** ones
- Users wanted to see a **search** functionality within full restaurant list
- Users found **reviews** more important than a restaurant walkthrough
- Users wanted **more customization** and filtering before matching (on ratings, cuisine, etc.)

Discussion - Key Points

1. Recommendation system set up/framework
2. Restaurant information page layout
3. Adjusting preferences / restrictions on case-to-case basis

Suggested UI Changes

- (1) Recommendation system set up/framework
 - Specific dish within chosen restaurant VS multiple dishes across multiple restaurants
 - More food-features based (like Typeform) or more specific dish based (like Tinder)
- (2) Restaurant information page layout
 - Incorporate reviews & walkthrough in first page, make reviews more prominent
 - Add general details about restaurant (location, hours, contact info, etc)
- (3) Adjusting preferences + restrictions on case-to-case basis
 - Make all profile/personal data editable yet retain important, concrete details (i.e. allergens, dietary restrictions/diets)

Summary

Narrowed down concepts to one lo-fi prototype through POP

Tested on participants, who liked personalization and detailed information but wanted even **more customization**

Will need to:

- Determine how to allow users to **change preferences** without making it too overwhelming
- Reconsider **recommendations format** and **unify** app design
- Hone in on which aspects are most valuable to focus on based on user feedback