



FoodDex

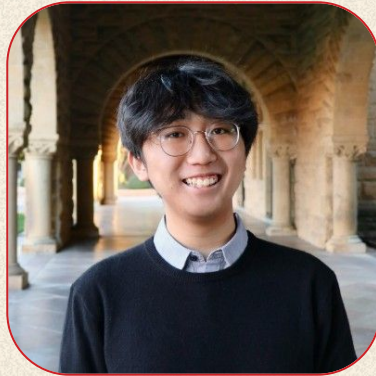
A8 Checkpoint

Team Spice Rack

Team Spice Rack



Jeanette Han



Kevin Song



Maya Chandra



Megan Mou

Why *FoodDex*?

Problem:

Most people **love food** but find culinary exploration **too overwhelming and difficult**.

Solution:

Make cooking outside of the comfort zone **worth it!** Gamify exploration through collecting badges, harness nostalgic food-related memories, and make it a social experience.

Value Proposition

Empower the average home cook to easily connect to new culinary techniques, cultures, and communities in one space — no previous experience required.

Our tagline: Cooking. Culture. Community.

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02

**Hi-Fi Prototype
Design Revisions**



Heuristic Evaluation Summary

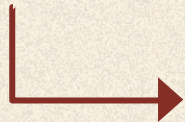


45 total heuristic violations identified.



Most Common Violations:

- H8: Minimalist Design 10/45 \approx 22.2%
- H7: Efficiency of Use 9/45 \approx 20%



Changes Made:

- Severity 1-2: 28 violations \rightarrow 11 changes
- Severity 3-4: 17 violations \rightarrow 11 changes

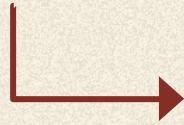
Implemented Revisions: Severity 1-2



Implicit ways to reinforce “exploration” usability goals.



Actual recipe page doesn't show its corresponding culture.



Our favorite — subtle ways to subconsciously reinforce usability goal of **exploration!**



Small design flaws.

- Trending scroll bar has too much white space to the left.
- Arrows on recipe selection screen are cumbersome.
- Too much white space in the post creation screen.

Implemented Revisions: Severity 1-2



User clarity issues.

- “Earned badge” screen buttons may be confusing for the first time.



Prototype limitations.

- Back button from passport → country returns user to home screen, not back to passport.
- Screen transitions and state variables are somewhat inconsistent.

We were much more conscious about the *necessity* of a change for Sev. 1-2 violations.

Goals for Severity 3 & 4 Revisions

Impact

*How would this change support our usability goals: **exploration (robustness) & ease (efficiency)**?*

Necessity

*Would this change add complexity that **lies beyond our three tasks**?*

Feasibility

*Do we have the **technical capabilities** to implement or Wizard-of-Oz this change?*

Design Revisions: Severity 3-4



Related to **accessing recipes**:

1. “Trending” and “New Cuisines” compete for visual hierarchy.

Change implemented

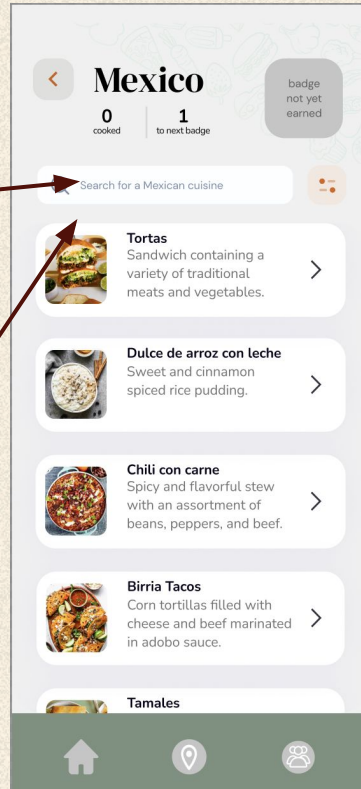
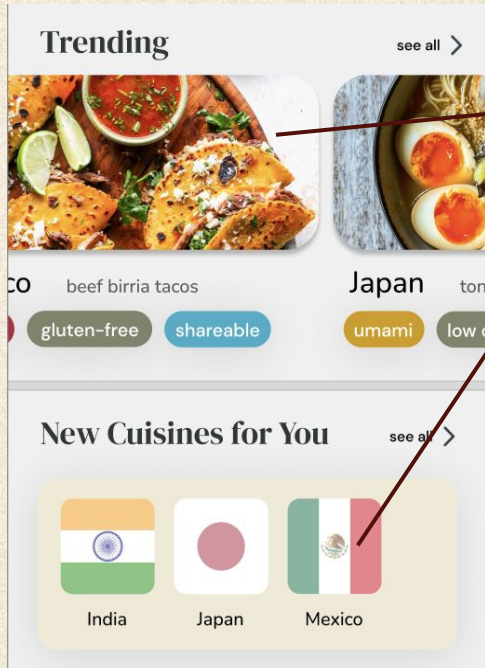
- *Rationale*: No need for multiple identical navigation paths — this is just confusing. Make them unique: Trending = dishes, Cuisines = cultures.
- *How*: Added new screen for recipe based on direct or country.



Usability Goal:
Makes **exploration** clearer and more intuitive!

1

“Trending” and “New Cuisines” compete for visual hierarchy.

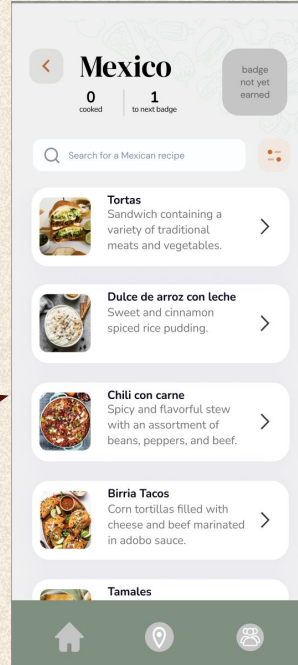
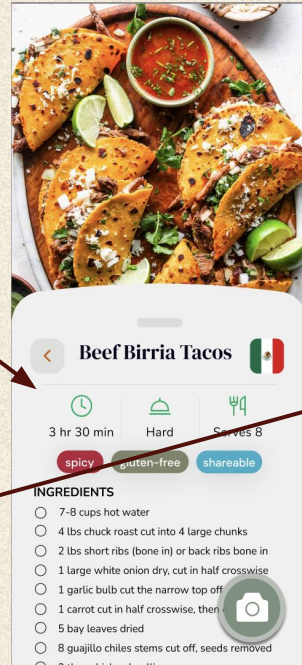
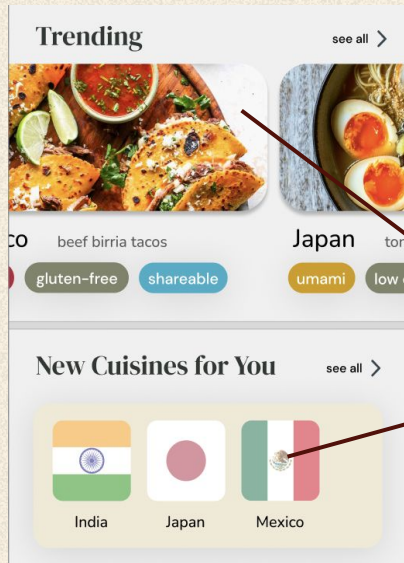


Before

Both the trending and new cuisines would take user to the country recipe search page

1

“Trending” and “New Cuisines” compete for visual hierarchy.



After

“New Cuisines for you” still directs to the recipe search page. Clicking on trending goes directly to recipe page

Design Revisions: Severity 3-4



Related to **accessing recipes**:

2. Inability to save recipes on the homepage.

Change NOT implemented

- *Rationale:* This would add too much complexity to our home navigation screen. We already have the ability to filter and search for recipes, and previously cooked dishes are already stored in their profiles.

Design Revisions: Severity 3-4



Related to **social / sharing photos**:

3. Commenting is unnecessary.

4. No forum to share recipes with other users.

Changes NOT implemented

- *Rationale:* Commenting is a crucial part of the online social experience and conflicts with other feedback we received on how to improve commenting without removing it.
- Forum, while cool, is outside the scope of our tasks. There would need to be content moderation and customizable templates for user-created recipes.

Design Revisions: Severity 3-4



Related to **interface color and visual text usage:**

- 5. Recipe font size is too small.**
- 6. Post and comment font color is too light.**
- 7. Unintuitive color usage for pressables.**

Changes implemented

- *Rationale:* Valid critiques that will positively boost UX will allow users to more easily achieve usability goals. Also, increases accessibility for users with visual impairments.
- *How:* Increase font sizes and darkness across the board. Inverted colors of pressables to bolder color scheme.

5

Recipe font size is too small

INGREDIENTS

- 7-8 cups hot water
- 4 lbs chuck roast cut into 4 large chunks
- 2 lbs short ribs (bone in) or back ribs bone in
- 1 large white onion dry skins removed, cut in half crosswise
- 1 garlic bulb cut the narrow top off, no need to peel
- 1 carrot cut in half crosswise, then cut in half (pieces of carrot)
- 5 bay leaves dried
- 8 guajillo chiles stems cut off and seeds removed



Before

Font size is 10 and recipe instructions spaced closely with no in line breaks

5

Recipe font size is too small

INGREDIENTS

- 7-8 cups hot water
- 4 lbs chuck roast cut into 4 large chunks
- 2 lbs short ribs (bone in) or back ribs
bone in
- 1 large white onion dry, cut in
crosswise
- 1 garlic bulb cut the narrow top off



After

Font size 18/16 with larger margins in between text

6

Post and comment font color is too light



Kevin Song

13 Oct 2023



Like



Comment



Share

[#koreancomfortfood](#) Made some delicious LA Kalbi for my sister's birthday this past weekend!

Maya Chandra omg this looks so good kevin!!

Megan Mou delish! this slayed



omg you're a cooking legend 🍷👏



Before

Text color light gray that looked washed out against gray background

6

Post and comment font color is too light



Kevin Song

13 Oct 2023



Like



Comment



Share

[#koreancomfortfood](#) Made some delicious LA Kalbi for my sister's birthday this past weekend!

Maya Chandra omg this looks so good kevin!!

Megan Mou delish! this slayed



omg you're a cooking legend 🍗🍗



After

Dark gray font that stands out against background

7

Unintuitive color usage for pressables

Select a Difficulty

Easy Medium **Hard**

Dietary Preferences

Vegan Vegetarian Keto

Low cholesterol Low calorie

Gluten free No dairy

Other

<30 minutes Kid friendly

Fan favorite

Before

Grayed out color when filter is selected is unintuitive as gray can mean not included.

7

Unintuitive color usage for pressables

Select a Difficulty

Easy Medium **Hard**

Dietary Preferences

Vegan Vegetarian Keto

Low cholesterol Low calorie

Gluten free No dairy

Other

<30 minutes Kid friendly

Fan favorite

After

Inverted the text and background color of filter buttons to stand out more and add visual cue.

Design Revisions: Severity 3-4



Related to **interface/status visibility**:

8. No way to view all badges from profile.

Changes implemented

- *Rationale*: Valid critiques that will improve UX. We want to centralize things as much as possible for usability.
- *How*: Pressable paths to the passport from the profile using the “x badges” button. Ensure button updates when new badges are acquired and links to the updated passport.

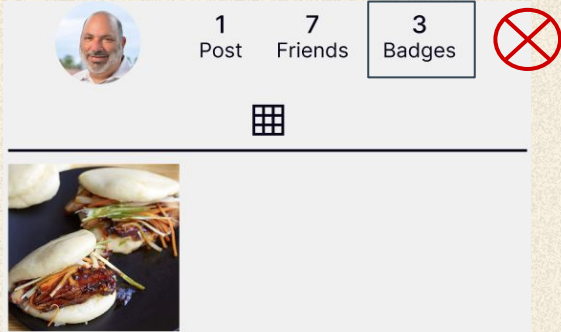


Usability Goal:

Incentivizing **exploration** is key. We want it to be impactful → it needs to be **accurate**.

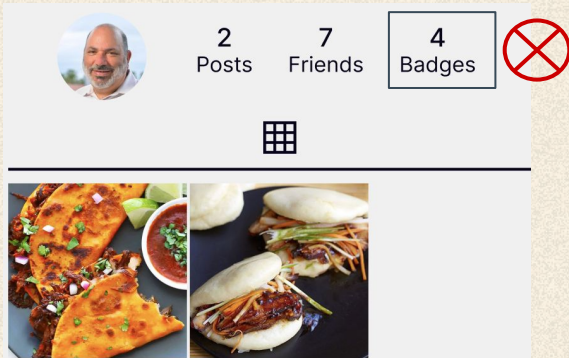
8

No way to view all badges from profile



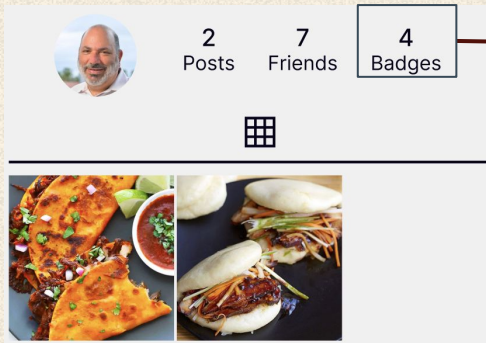
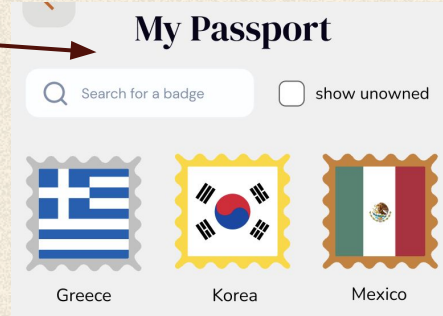
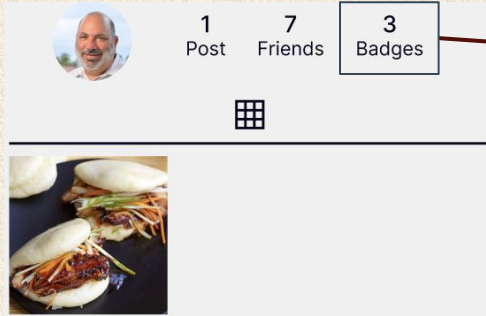
Before

The “badges” button would not link to the passport or any other display of badges.



8

No way to view all badges from profile



After

Links to appropriately updated passport

Design Revisions: Severity 3-4



Related to **interface/status visibility**:

9. Lack of error messages after choosing an incorrect recipe.

10. No progress bar for recipes.

Changes NOT implemented

- *Rationale*: While we heavily considered both changes, a progress bar and error message ended up being unused (9) or cluttering the interface for not enough payoff (10).



Recipes **already fulfills our usability goal** of clarity with clear titles, pictures, and size. What is an “incorrect recipe” in the context of an exploration app?

Design Revisions: Severity 3-4



Related to **earning badges**:

11. Taking a photo is required to earn a badge. Use a timer to countdown the estimated time and ask user to confirm instead.

Change NOT implemented

- *Rationale:* This does not reflect real-world usage of the app. This is our only way to keep users somewhat accountable and also keep a log of their progress photos in one place.



A timer creates additional stress as users can't cook at their own pace. **Conflicts with our usability goals** of unintentionality and leisurely exploration.

Design Revisions: Severity 3-4



Related to **prototype limitations**:

12. Searching for recipes in “Trending” doesn’t work.
13. Taken photo and uploaded photo are different.
14. “Comment” button on Kevin’s profile only works sometimes and appears inconsistently.

Changes implemented

- *Rationale*: We already had plans to implement this in our hi-fi prototype when not constrained by Figma’s capabilities. First priority to make sure functionality and consistency remains the same. (*How on next slide!*)

Design Revisions: Severity 3-4



Related to **prototype limitations cont.:**

15. Can't comment more than once on a photo.

16. Can't post a photo not shared previously; can only post after cooking a recipe.

Changes implemented





- *How:* Connected screens logically such as comments and search box. Added new functionality features like add post button on profile and cropping photo screen.

12


Searching for recipes in “Trending” doesn’t work



Search for a Mexican recipe

- **Tortas**
Sandwich containing a variety of traditional meats and vegetables.
- **Dulce de arroz con leche**
Sweet and cinnamon spiced rice pudding.
- **Chili con carne**
Spicy and flavorful stew with an assortment of beans, peppers, and beef.
- **Birria Tacos**
Corn tortillas filled with cheese and beef marinated in adobo sauce.

Search for a Mexican recipe

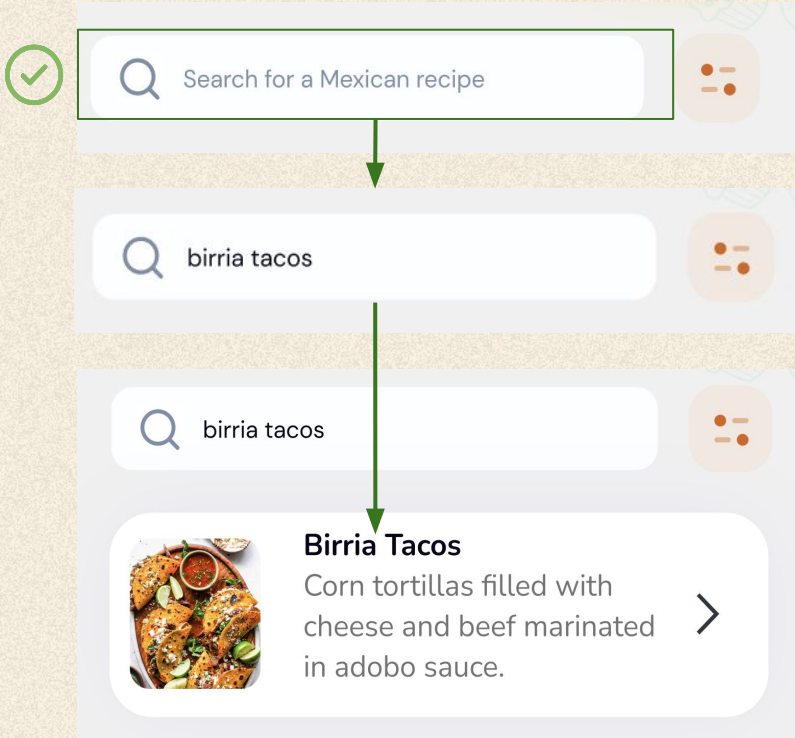
- **Birria Tacos**
Corn tortillas filled with cheese and beef marinated in adobo sauce.

Before

Can only click into recipe and use filters to narrow down the search

12

Searching for recipes in “Trending” doesn’t work



After

Can type input in for a recipe and the appropriate results will show.

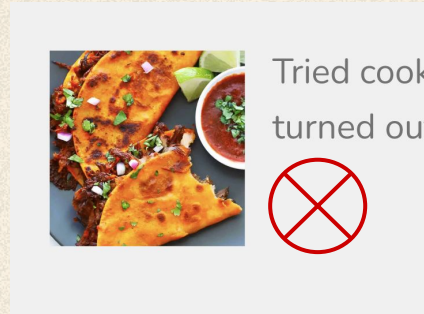


Usability Goals:

Covers **all** paths to achieve a task flow
→ efficient exploration.

13

Taken photo and uploaded photo are different



Tried cook
turned out

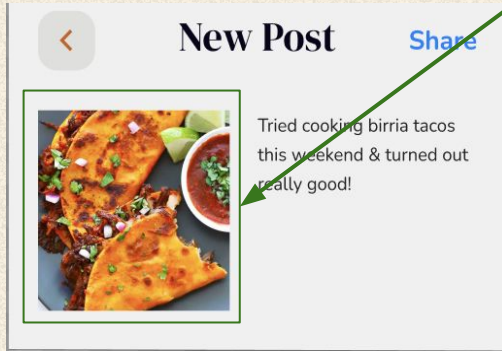


Before

The uploaded photo is a square while photo taken is a rectangle on the phone

13

Taken photo and uploaded photo are different

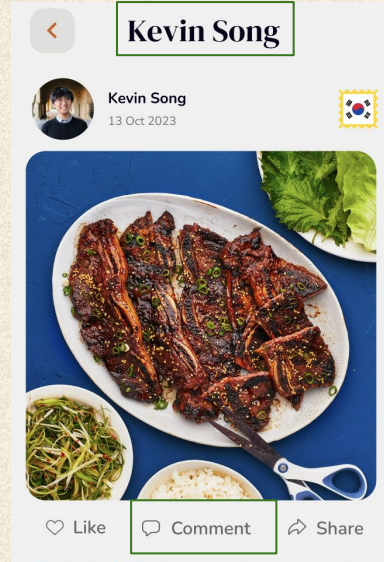
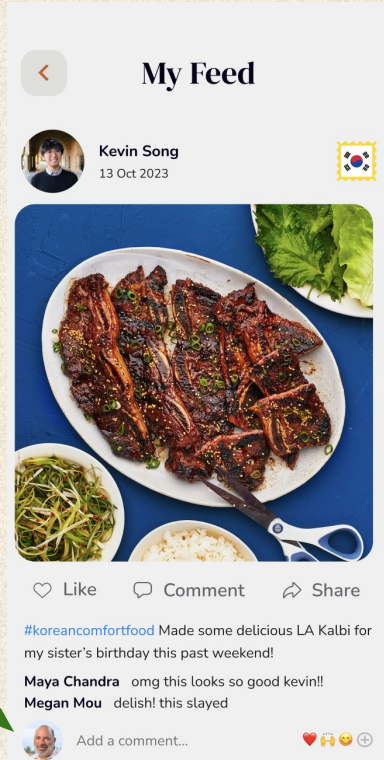
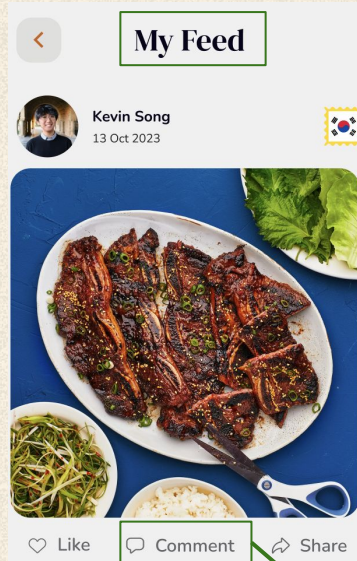


After

Uploading from camera roll now requires a crop option to resize for the square format

14

“Comment” button on Kevin’s profile only works sometimes and appears inconsistently

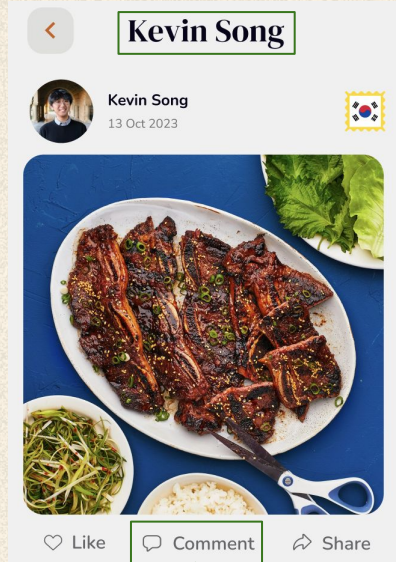
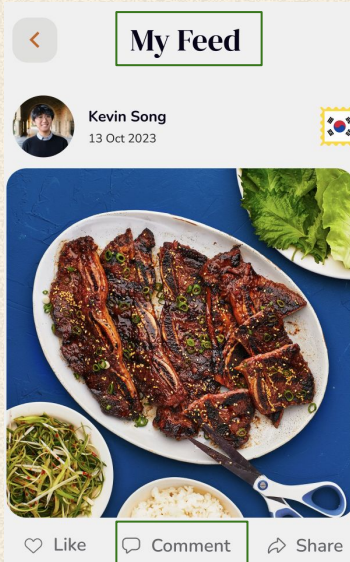


Before

Comment button under Kevin’s post works only for “My Feed” and not his profile

14

“Comment” button on Kevin’s profile only works sometimes and appears inconsistently



After

Works appropriately for both



Usability Goal:
Consistency of
same actions
throughout entire app
→ makes actions
more intuitive

15

Can't comment more than once on a photo

Before

No additional comment prompt shows up

 Like  Comment   Share

[#koreancomfortfood](#) Made some delicious LA Kalbi for my sister's birthday this past weekend!

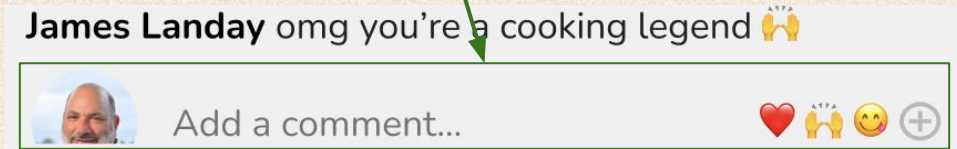
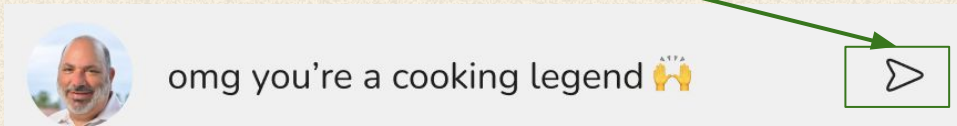
Maya Chandra omg this looks so good kevin!!

Megan Mou delish! this slayed

James Landay omg you're a cooking legend 🍳

15

Can't comment more than once on a photo



After

As shown, able to add multiple comments



Usability Goal:

Allow necessary **repetition** on tasks when needed → **ease of exploration**

16

Can't post a photo not shared previously; can only post after cooking a recipe

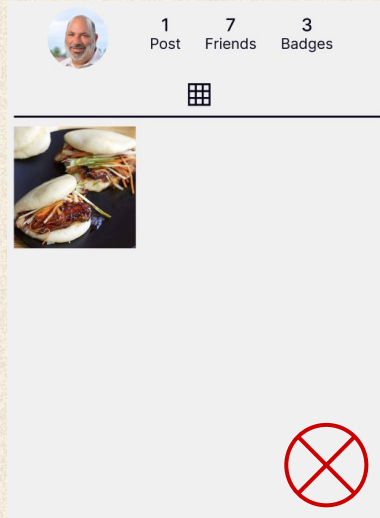
You've earned
a badge!



Mexico
Bronze



Share badge

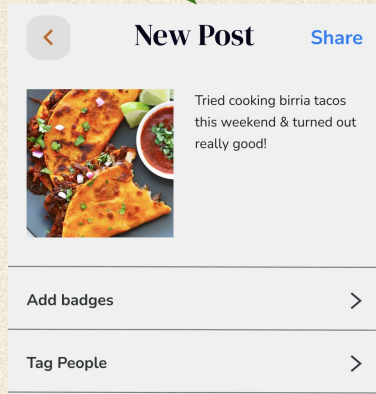
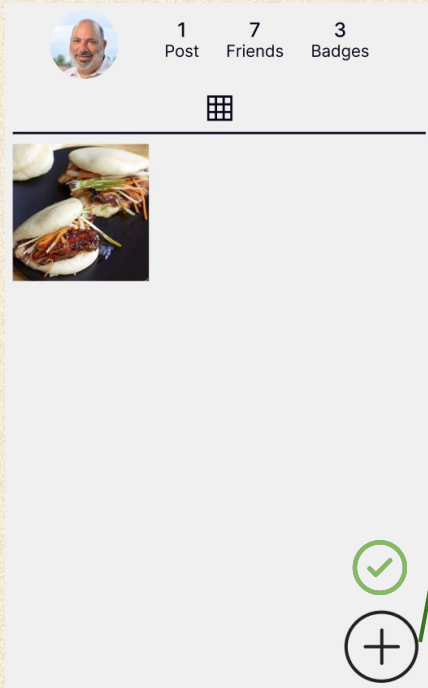


Before

Unable to upload any
pictures/posts from profile

16

Can't post a photo not shared previously; can only post after cooking a recipe



After

New button from profile navigates to post creation screen



Usability Goal:

Flexibility in completing tasks based on time or convenience → **robust**

Design Revisions: Severity 3-4



Related to **inclusion and values**:

17. Representing countries with flags may be problematic.



Changes implemented

- *Rationale*: We recognize that countries, borders, and territories are inherently political and want to make all users feel welcome regardless of political context. **If we had the time to implement a hifi prototype completely we would have additional features and recipes to represent all cultures.**
- *How*: Start users off with a “starter pack” of countries. Users can upload their own country identities/flags as desired and more recipes will be created and uploaded as database collection grows.



03

Hi-Fi Prototype Implementation Status



Tools Used



Figma

centralize design components



React Native

code app framework, access external libraries (React Native Elements)



Expo

build and run the app



XCode iOS Simulator

display and emulate the app

Tools Used (cont.)



VSCode / VSCode Live

IDE, app development, live code collaboration



GitHub

version control

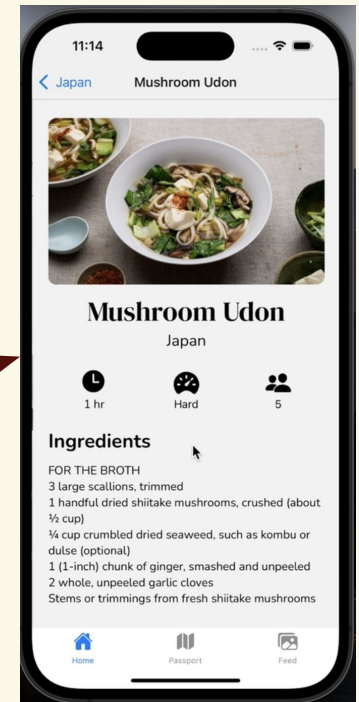
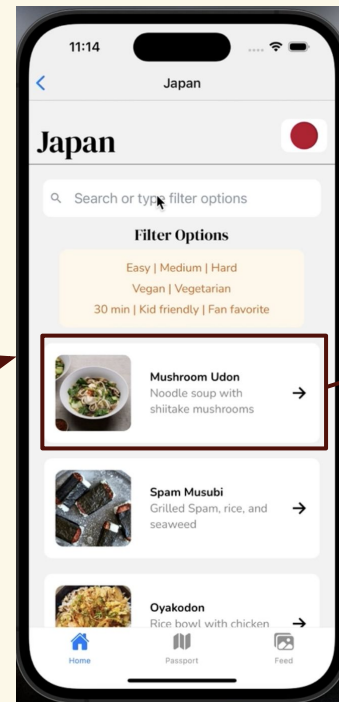
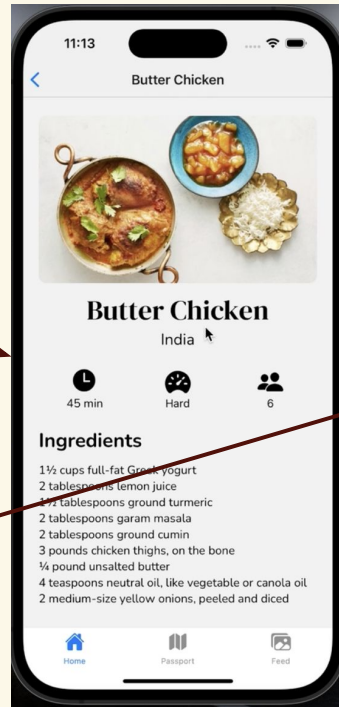
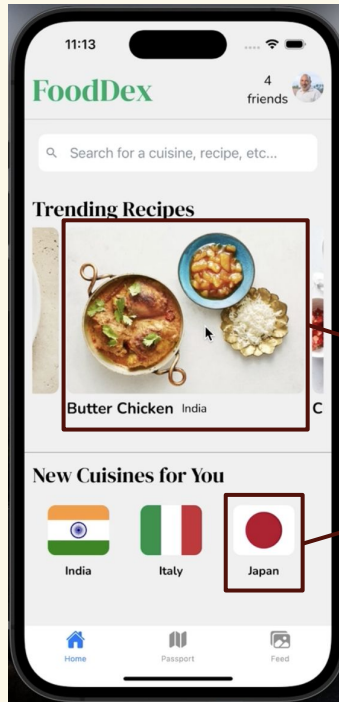


Supabase

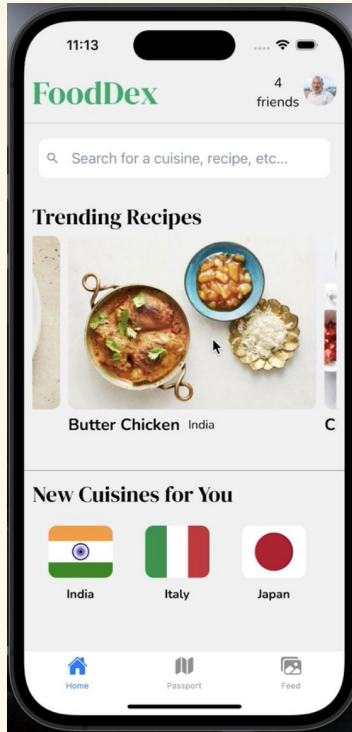
store data

Task 1

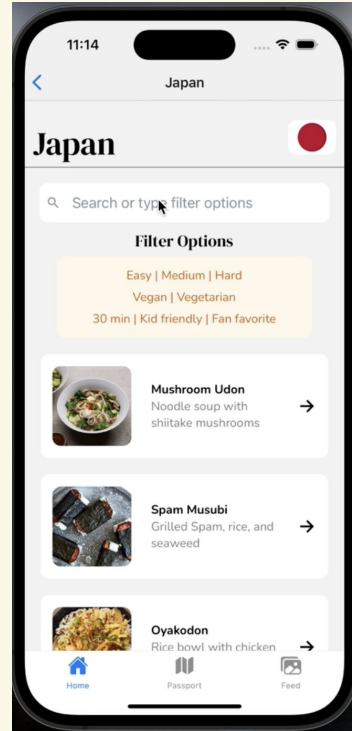
→ Discover a new recipe to cook from a specific culture.



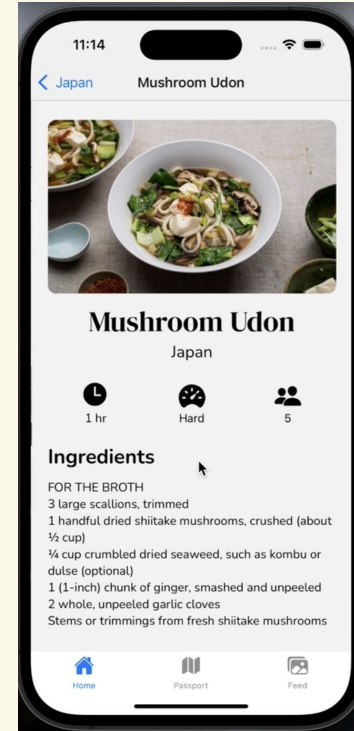
Screens



Home



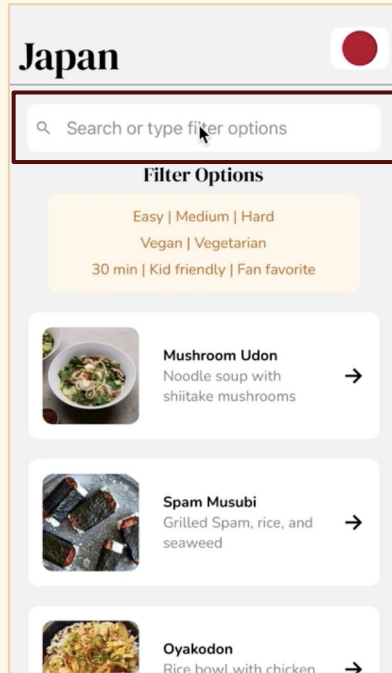
Country



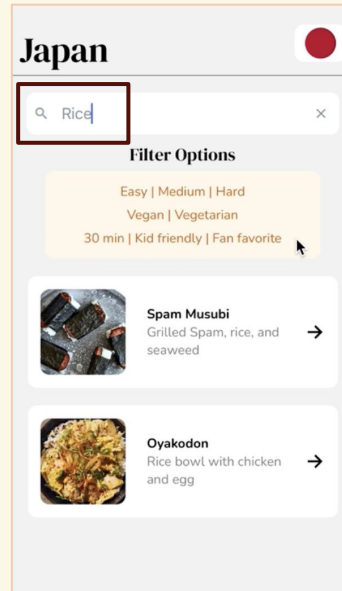
Recipe

Recipe Search Bar

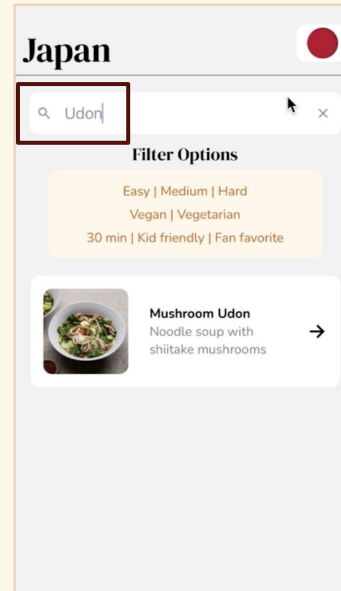
→ Search recipes with a specific query, and filter recipes.



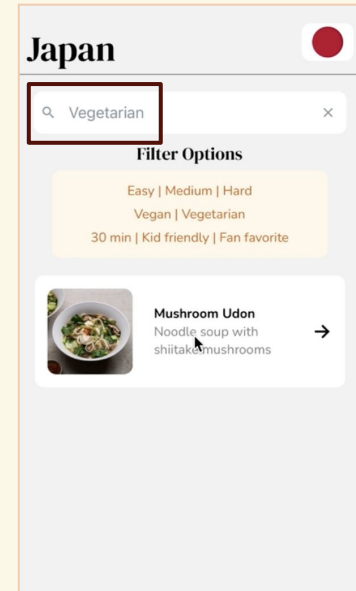
Ingredient



Exact Dish

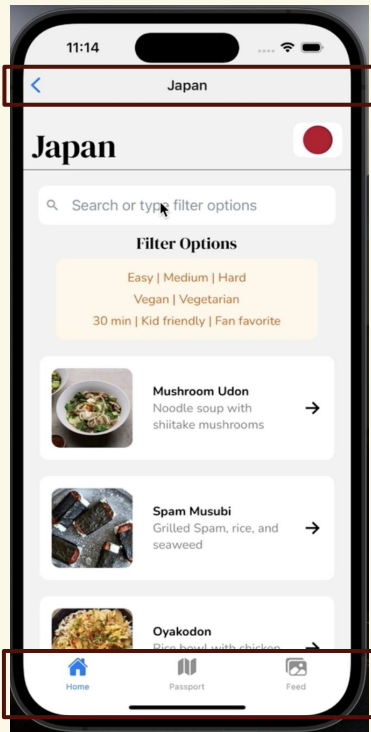


Dietary Restriction



Navigation

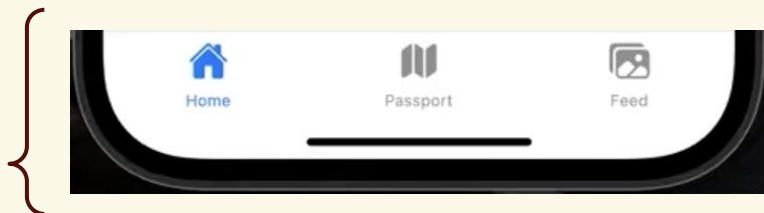
→ Nested stack navigation within Tab navigation.



Stack Navigation

Facilitate intermediate task flow steps

1. *Where am I now?*
2. *How did I get here?*



Tab Navigation

Initiate 3 main tasks

Unimplemented Features

Tasks 2 & 3

- 2: Earn badges, view them in your passport
- 3: Share achievements/photos with friends, interact with each others' content

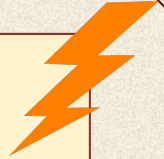
Remaining Screens/Functionality

- Social feed (upload, comment)
- Camera interface
- Passport, badge earning process

UI/UX Improvements

- Error message(s) for unexpected interactions
- Recipe tags

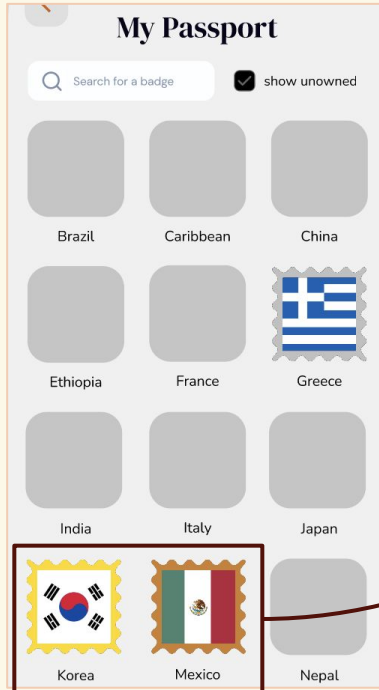
Plan of Attack:



- **Sprints:** Easier to hack-a-thon each task in one sitting
- **Considerations:** Always prioritize supporting usability goals
- **Completion:** Base functionality ASAP, design changes later → division of work

Simulated Progress

→ Start users off with some progress. Simulate logging badges.

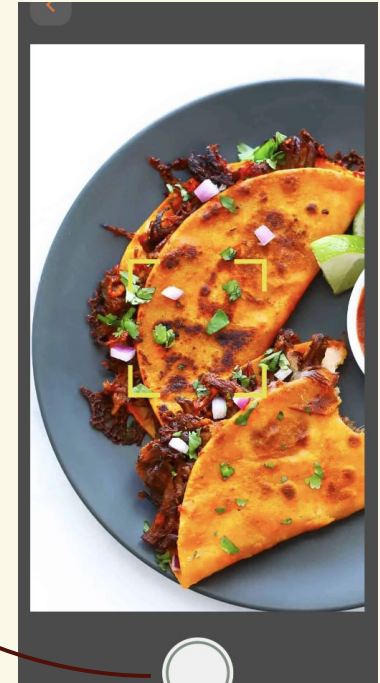


Pre-Load Badges

- *Show design without the need for extra steps (or real cooking)*

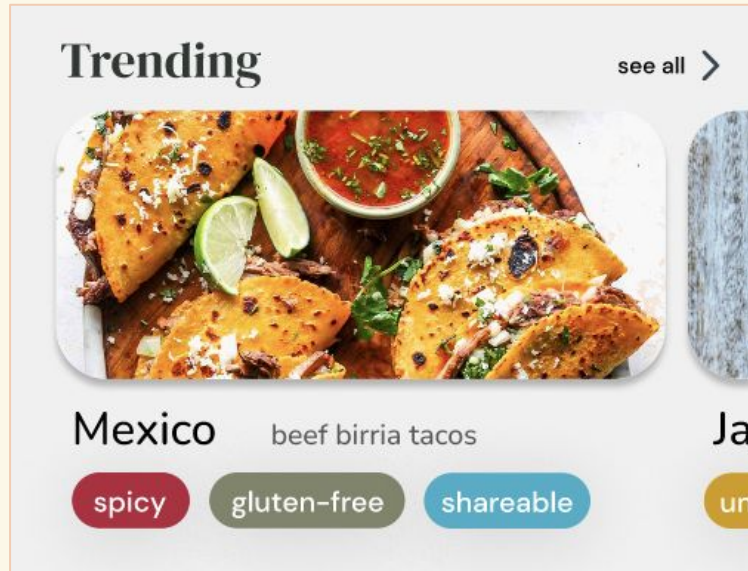
Camera Simulation

- *Doubtful that testers have a plate of tacos handy!*



Recommendations

→ We can't feasibly create a real algorithm for "Trending" recipes.



Trending Recipes

- *Are beef birria tacos actually trending right now? We don't know.*
- *Still want to simulate finding and discovering new recipes (usability goal = **exploration**)!*

Social Interactions

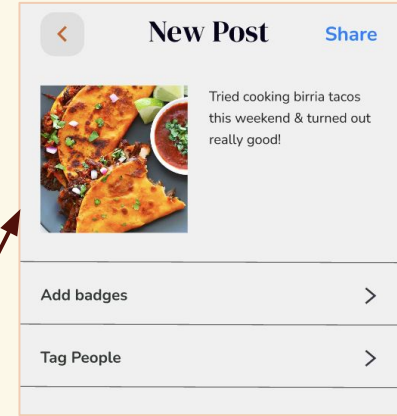
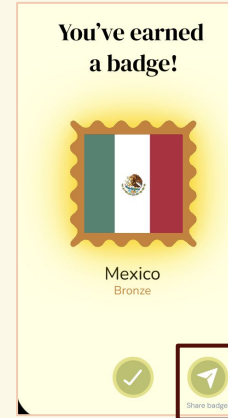
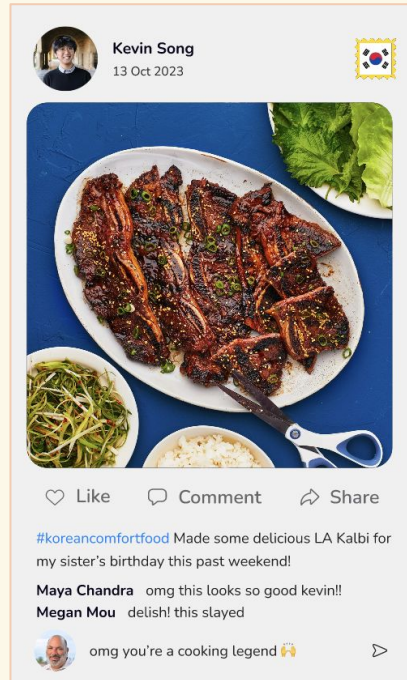
→ All two-sided social interactions need to be Wizard-of-Oz'd.

Examples:



Pre-Add Friends

- Task 3 focuses sharing content with existing friends.

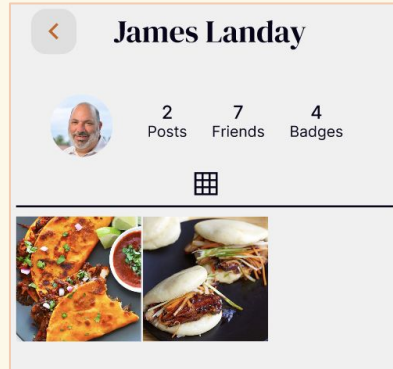
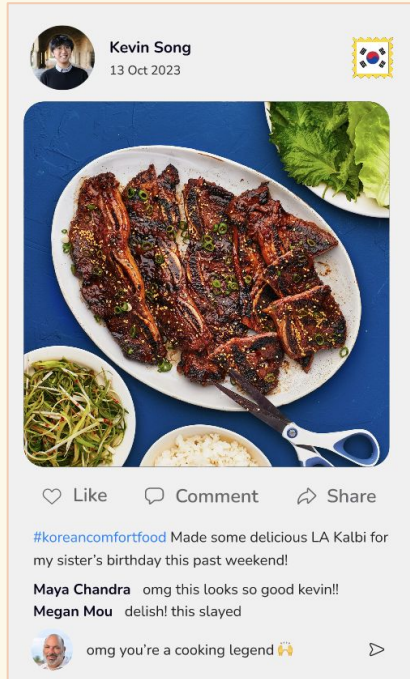


Creating & Interacting with Posts

- No real users will interact with posts, but we want to simulate them (usability goal = **community**)!

Social Interactions

→ Previous social components are hard-coded.

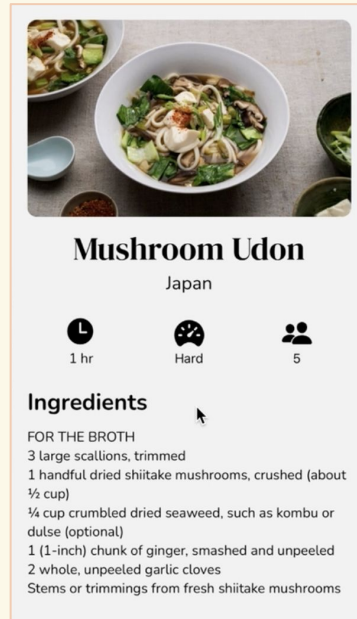
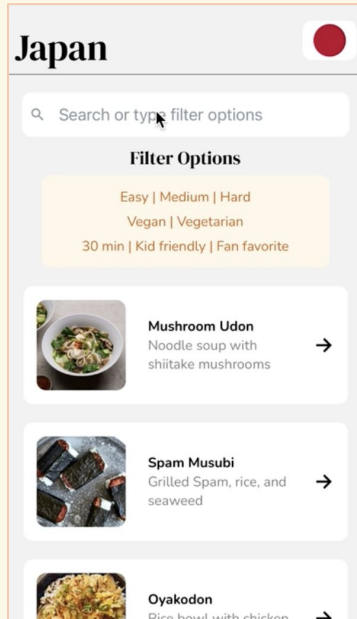


Feed content and users' post history are hard-coded to show design components and simulate a robust social environment.

Worried more about the “how” than the “what” here.

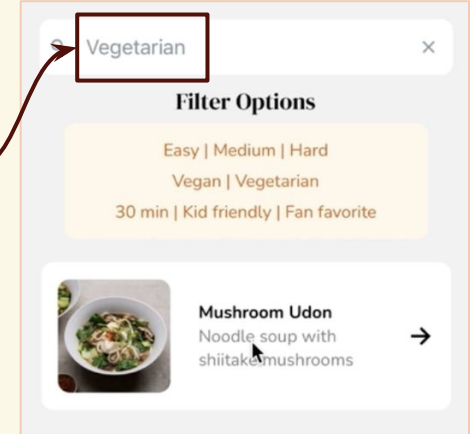
Recipes

→ Recipe lists and characteristics are pre-set.



Available recipes are a preset of 15, 3 from each of 5 cuisines (in a database that we made).

Recipe characteristics / filters are pre-determined.



Lingering Questions...



Implementation

- **Accessing device camera to take photos of food?**
 - *Currently planning on using Wizard-of-Oz, but would be cool to have real camera functionality.*
- **Commenting and liking using local async storage on posts?**
 - *Feels necessary for social simulation but difficult.*



Design

- **Keeping track of user progress within each cuisine and displaying their current badge level?**
 - *Previously limited by Figma. With more front-end capabilities, we're rethinking how to visualize badge progress.*



04

**Hi-Fi Prototype
Recorded Demo**



Prototype Recorded Demo





05

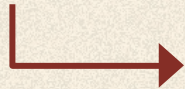
Conclusion



Summary



22+ meaningful changes made based on heuristic evaluation feedback.



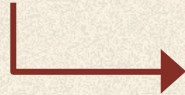
We identified **impactful** changes that enhance our usability goals of **exploration and community**.

Summary



We are on track!

Task 1 fully implemented, Task 2 halfway done.



We still have to implement **badge progression** and **social components** (Wizard-of-Oz), but have a strong idea of **how** we will do so already.



Thank you!

♥, Team Spice Rack