

Heuristic Evaluation of Dishcovery

1. Problem/Prototype Description

Dishcovery allows users to learn more about unfamiliar ingredients, by identifying what an ingredient is, providing information about its cultural context and nutritional facts, and suggesting recipes for authentic dishes to cook with the new ingredient.

2. Violations Found

1. H1 Visibility of System Status / Severity 4 / Found by: B, C
 - Task 1: Search for an unfamiliar food item
 - Description: There is no indication/confirmation on whether or not an item has been successfully scanned by the application.
 - Rationale: Users may be confused by what to do once the item they are scanning is in range to be scanned, possibly awaiting some confirmation that they did it correctly.
 - Fix: Provide some kind of “Scanning Complete” message, or confirmation that the item is in focus or that the item is correctly positioned in the frame of the scanner

2. H1 Visibility of system status / Severity 2 / Found by: A
 - Task 1: Search for an unfamiliar food item
 - Description: From profile, it's unclear how the user saves their allergy information, nutritional goals, and spice preferences.
 - Rationale: Users might be unsure whether the back button will save their updated profile settings.
 - Fix: Add a 'save' button in profile.

3. H1 Visibility of System Status / Severity 2 / Found by: D
 - Task 1, 2
 - Description: The interface does not make clear what selection in the navigation bar I entered.
 - Rationale: It can get a bit confusing at the start as the user is getting adapted to the app and as the user keep descending further into the view hierarchy.
 - Fix: Light up the corresponding button on the navigation bar based on where the user is (e.g. when I get to explore recipes after scanning, I'd expect the magnifying glass to be lit up).

4. H1: Visibility of System Status / Severity 2 / Found by: D
 - Task 3
 - Problem Description: I forget what I clicked to reach a particular screen.
 - Rationale: Although the app's information architecture is not complex / large, the abundance of foreign words can be a bit overwhelming; to offset that, I'd suggest making navigation tracing as clear as possible to not overwhelm the user even more.
 - Fix: Change header “Ginisang Ampalaya” to “Explore: Ginisang Amplaya”.

5. H2: Match between system and real world / Severity 3 / Found by: A, D
 - Task 2: Contextualization
 - Description: In the image recognition results, the “Alternate names” section says “View all >” in the same color and font as the alternate names themselves.
 - Rationale: Since “View all >” is the same color and font as the alternative names, they blend in with the names, and the user may not know that “View all >” is clickable. A common convention is to distinguish that feature from the rest using a color to indicate that it's clickable.
 - Fix: Change the color of “View all >” to indicate that it's clickable, such as teal.

6. H2. Match between system and real world / Severity 4 / Found by: B, C
 - Task 3: Authentic Cooking
 - Description: In the Filter screen, the “View all >” arrow and the “15 min” down arrow are clickable. Clicking those arrows takes the user back to the home page.
 - Rationale: These arrows imply that the user would see more options after clicking them, but taking the user back to the home screen completely strays away from the expectations of the user.
 - Fix: Have these arrows show the user more options rather than navigating them to a completely different screen.

7. H2: Match b/w System & World / Severity 2 / Found by: A, D
 - Task 3: Authentic cooking
 - Description: The % displayed (i.e. bittermelon 90%) was confusing to me as an evaluator.
 - Rationale: First-time users could be confused by what the percentage means.
 - Fix: Add a label to the percentage or clarify what it means during onboarding. Have a reference for it also.

8. H2. Match between system and real world / Severity 2 / Found by: C, D
 - Task 3: Authentic Cooking
 - Description: In the Filter screen, the Time section uses a timeline-like feature to choose the desired cooking length of a recipe, in which the user can drag two circles to select a range of recipe times.
 - Rationale: Referring to cooking times with a range is uncommon. When recipe related websites, apps, shows, etc. talk about cooking time in real life, they usually refer to times as “30 minutes” or “Under 15 minutes”. If a cooking range was intended, it needs to be more clear.
 - Fix: Replace the range feature with similar button selections as Difficulty, and use labels like “Under 10 minutes”, “Under 1 hour”, etc.

9. H2: Match b/w System & World / Severity 3 / Found by: A
 - Task 1: Search for an unfamiliar food item
 - Description: You can check multiple user reviews for stars. Right now, you can click 5 star and up, 3 star and up, and exclude 4 star.

- Rationale: Logically this does not make sense - 3 star and up should include 4 star.
- Fix: Disable checking multiple user review options.

10. H2: Match between system and real world / Severity 4 / Found by: C, D

- Task 3: Authentic Cooking
- Description: After a user clicks on Explore Recipes after scanning a certain ingredient, the Dishes screen has a back navigation arrow in the header that takes you back to the initial home/Explore page.
- Rationale: The user may click the back arrow in Dishes (recipes) page, expecting to see the Ingredient Context again, since that is the screen they had just navigated from.
- Fix: Have the back arrow take the user back to the Ingredient Context page if that is where they navigated from.

11. H2: Match between System and World / Severity 1 / Found by: D

- Task 3
- Description: Wording when filtering based on User Review sounds a bit unnatural.
- Rationale: There is no “up” from a 5-star review, and it overall sounds a bit repetitive.
- Fix: Remove the topmost “up” or change menu header to “Minimum Review Rating”.

12. H2: Match between system and the real world / Severity 3 / Found by: D

- Task 3
- Description: Unfavoriting a recipe leaves the card in place instead of disappearing.
- Rationale: Unfavoriting something inherently means not needing it anymore under the favorites app.
- Fix: Remove recipe cards after unfavoriting.

13. H2: Match between system and the real world / Severity 3 / Found by: D

- Task 1
- Description: navigation buttons do not work when I am about to scan an item / other parts of the app. [edit] - they work every other time for some reason.
- Rationale: Although the back button works quite well, I should also be able to navigate to the other two navigation buttons because most apps support that. I realize this was probably a bug but wanted to include this just in case! If you want to lock the other buttons for whatever reason then it's good to change their appearance (e.g. fade).
- Fix: Make navigation buttons work throughout the whole app.

14. H3: User Control & Freedom / Severity 3 / Found by: B, C

- Task 1: Identification
- Description: After clicking on the Camera icon to start a scan (and before seeing the image recognition results), there isn't a way to go back to the previous screen.
- Rationale: The user must get to the image recognition results in order to navigate away from the scanner, which could be very annoying if they no longer wanted to scan.

- Fix: Add a back arrow to this screen.
15. H3. User Control & Freedom / Severity 3 / Found by: C
- Task 1: Identification
 - Description: The image-recognition results of an ingredient doesn't have a mechanism for closing that tab.
 - Rationale: The user can't redo a scan without navigating to the Camera icon again.
 - Fix: Have a way to close/hide the image recognition results to be able to scan again from the same screen.
16. H3 User Control and Freedom / Severity 3 / Found by: C, B
- Task: Contextualization
 - Description: Once a scan is done and a user hits "Explore Recipes," they are not able to find the facts behind the ingredients anymore.
 - Rationale: The user may want a way to go back to the screen that they were initially at when scanning an object and viewing its facts.
 - Fix: Add a button that allows the user to go back to the facts page once finished viewing recipes.
17. H3: User Control & Freedom / Severity 1 / Found by A
- Task 1: Search for an unfamiliar food item
 - Description: Similarly, search page doesn't allow users to search for anything beyond ingredients.
 - Rationale: Users would appreciate being able to put in keywords beyond ingredients.
 - Fix: Consider using 'search by keyword: ex. Ingredient, recipe, culture,...)
18. H3 User Control and Freedom / Severity 4 / Found by D
- Task 1
 - Description: The interface's back button behaves differently based on the place in a task flow: sometimes it intuitively takes me back one screen, but sometimes it takes me back 2-3 screens (e.g. scanning bitter melon → more info → back)
 - Rationale: Users will get confused if one icon does different things in different places in a task flow.
 - Fix: Make the back button always go back one screen.
19. H3 User Control and Freedom / Severity 4 / Found by C, D
- Task 3
 - Description: No way to go back after opening the filters menu.
 - Rationale: The user may click on that accidentally and prefer to simply exist instead of clicking "show n results" even if the results are the same.
 - Fix: Add exit functionality with either drag down or a back arrow like in the rest of the UI.
20. H3. User Control & Freedom / Severity 3 / Found by B, C

- Task 2: Contextualization
 - Description: There's no way to get back to the image recognition results from the Ingredient Context screen.
 - Rationale: After looking at the cultural context and other information about an ingredient, the user may want to go back and see the same information for another ingredient option in the image recognition results. They can't do that without rescanning entirely.
 - Fix: Create a back button/arrow that takes the user from the Ingredient Context page to the image recognition results page.
21. H4 Consistency and standards / Severity 3 / Found by A, D
- Task 3: Cooking an authentic dish with a new ingredient
 - Description: Ingredients and Recipe are inconsistent headers in the page for 'Ginisang Ampalaya.
 - Rationale: Since they are on the same page and feature similar length bodies, it's important to keep their styling and font size similar.
 - Fix: Increase font size of recipe and get rid of the colon.
22. H4. Consistency & Standards / Severity 2 / Found by C
- Task 3: Authentic Cooking
 - Description: "52 results" has a teal background with white text, which is the same as the buttons in the Filters tab.
 - Rationale: Since "52 results" has the same colors as containers that are clickable, the user may think that "52 results" is clickable when it isn't.
 - Fix: Have consistent indications (colors and shapes) of what is and isn't clickable.
23. H4 Consistency and Standards / Severity 2 / Found by B
- Task: Contextualization
 - Description: Health Benefits tab on Ingredient Context page reads as 'Health Information' when expanded.
 - Rationale: The user may be confused by the inconsistency of terms as they navigate their way through the app and ingredient context.
 - Fix: Make the terms and wording as similar as possible.
24. H4 Consistency and Standards / Severity 1 / Found by B
- Task: Authentic Cooking
 - Description: Explore page shows both ingredients and dishes, however, search bar just reads as, "search an ingredient."
 - Rationale: The user is incapable of searching for a dish on its own and must search for an ingredient that is then linked to a dish
 - Fix: Add a search feature for dishes as well
25. H4: Consistency and standards / Severity 2 / Found by A
- Task 3: Authentic cooking
 - Description: The headers for Ginisang Ampalaya (ingredients, recipe, cuisine) are inside of the body section instead of out.

- Rationale: In other areas of the app like Explore, the headers are outside the body (images).
 - Fix: Consider moving the headers out.
26. H4: Consistency and standards / Severity 2 / Found by A
- Task 3: Authentic cooking
 - Description: borders, and spacing of Ginisang Ampalaya aren't consistent with the look and feel of other parts of the app.
 - Rationale: The light yellow and uneven spacing could be tidied up.
 - Fix: Make the spacing even and rethink the bordering/colors.
27. H4 Consistency and standards / Severity 2 / Found by A
- Task 2: Learning about the cultural context behind a food item and its uses in recipes
 - Description: Spacing between Alternate names and Images of food differs for bittermelon and cucumber.
 - Rationale: Consistent spacing and styling gives users a much better experience with the app.
 - Fix: Make sure spacing is the same, whether a space is included or not.
28. H4 Consistency and Standards / Severity 1 / Found by B
- Task: Authentic Cooking
 - Description: There is no rating option for a dish
 - Rationale: There is a lot of emphasis on dish ratings, but the user has no way of rating the dishes that they make
 - Fix: Add a rating option or get rid of ratings altogether
29. H4. Consistency & Standards / Severity 2 / Found by C
- Task 3: Authentic Cooking
 - Description: The third photo card in the "Based on your scans" section of the home/Explore page doesn't have a string for the dish name; every other photo card on this page has a labeling string.
 - Rationale: Users may wonder or be confused why one photo card/dish is different from the rest.
 - Fix: Add a label to all photo cards on this page.
30. H4. Consistency & Standards / Severity 3 / Found by C
- Task 3: Authentic Cooking
 - Description: The interface uses the string "Explore Recipes" to get to the screen titled "Dishes".
 - Rationale: Users might be confused by the mismatch of the terms "Recipes" and "Dishes".
 - Fix: Choose one word to use for both. Either "Recipes" for both, or "Dishes" for both.
31. H4. Consistency & Standards / Severity 1 / Found by C

- Task 3: Authentic Cooking
 - Description: In the Explore page, spacing between food photo cards is different for photo cards in “Based on your scans” and photo cards in “Explore by ingredient”
 - Rationale: Minor issue, but the user may notice the inconsistent spacing and be distracted by it
 - Fix: Standardize spacing between all photo cards in the Explore page.
32. H4. Consistency and Standards / Severity 2 / Found by C
- Task 3: Authentic Cooking
 - Description: In the Filter screen, there’s inconsistency in the spacing between check marks and strings. I.e. The checkmark on the “Breakfast” button is right next to it; the check mark for Gluten-free overlaps the string itself.
 - Rationale: Inconsistent spacing between the text and the check marks will make the selected filter options less understandable and look less clean.
 - Fix: Have consistent spacing between check marks and selected options.
33. H4. Consistency and Standards / Severity 2 / Found by C
- Task 2: Contextualization
 - Description: In the Cultural Context and Tips tab of the Ingredient Context screen, the different cultures in the bullet points are bolded. In Health Information, each nutritional category is also bolded.
 - Rationale: Bolding on black text is not used anywhere else in the app to convey distinction, and it could be confusing to the user as to why those particular words/phrases are bolded. Are they more important than the rest of the text on that screen?
 - Fix: Remove the bolding, or follow a standardized convention of bolding throughout the app.
34. H4 Consistency & Standards / Severity 2 / Found by D
- Task 2
 - Description: Ingredients are not included in the filters window but instead stand on their own under the search field.
 - Rationale: It would be more consistent to have ingredients in the filter menu along with other filters.
 - Fix: Add ingredients to the filter menu and can also keep them where they are.
35. H4. Consistency and Standards / Severity 1 / Found by D
- Task 2/3
 - Description: Need to keep punctuation consistent.
 - Rationale: This is very nit-picky but punctuation use should be more consistent on the dish screen (e.g. “Ingredients” does not have a colon after it but “Recipe” does).
 - Fix: Follow the same punctuation standards throughout your system.
36. H4. Consistency and Standards / Severity 1 / Found by C

- Task 3: Authentic Cooking
 - Description: In the recipe screen for a particular dish, spacing between elements on the screen is not standardized (i.e. different spacing between the photo card and the type of cuisine, between the type of cuisine and the ingredients, between the ingredients and the recipe steps).
 - Rationale: Minor, but this difference in spacing between elements on the screen may be distracting for the user.
 - Fix: Standardize spacing between elements, or have a clear pattern of spacing between elements.
37. H5: Error Prevention / Severity 3 / Found by A, B
- Task 1: Search for an unfamiliar food item
 - Description: What happens if the user searches for an ingredient that doesn't exist?
 - Rationale: It might be helpful to have some safeguards for non-existent ingredients.
 - Fix: It might not be essential for the prototype (maybe more for backend purposes), but it would be nice to include this in limitations/other features.
38. H5: Error Prevention / Severity 3 / Found by C, D
- Task 3: Authentic Cooking
 - Description: In the Saved screen, there's no option to submit or confirm any un-saving of recipes.
 - Rationale: It's unclear when un-saving recipe changes are saved – Are they automatically saved, and the next time I navigate to the Saved screen those recipes will be gone? The user could accidentally un-save recipes without some sort of confirmation.
 - Fix: Introduce a confirmation message that recipe(s) were un-saved, or create some sort of save button.
39. H5: Error Prevention / Severity 3 / Found by C
- Task 3: Authentic Cooking
 - Description: In the Dishcovery Profile screen, there's no option to submit or confirm one's choices.
 - Rationale: It's unclear whether a user's selected options are automatically saved or not; users have no way of confirming to the system that the changed profile settings are what they want. Or, without a visible confirmation from the interface, they could undesirably end up changing their settings accidentally.
 - Fix: Introduce a confirmation message that profile settings were changed, and/or introduce a submit/save button for when a user changes their profile information.
40. H6: Recognition rather than recall / Severity 2 / Found by C
- Task 2: Authentic Cooking
 - Description: After clicking on a dish in the Dishes screen, there is no clear indication of what the chosen ingredient was to cook with.
 - Rationale: The user is forced to recall what special ingredient is supposed to be in the recipe.

- Fix: Either re-state the ingredient this recipe is incorporating clearly on the screen, or use color to differentiate the special ingredient in the Ingredients section of the screen.
41. H6: Recognition not recall / Severity 2 / Found by A
- Task 1: Search for an unfamiliar food item
 - Description: There is no example provided for ingredient.
 - Rationale: Ingredients could range from anything like simple fruits to less common items like turmeric.
 - Fix: Consider adding 'Search an ingredient (i.e. pepper, spinach, cheese)' in the search icon in place of only 'search an ingredient.'
42. H6. Recognition rather than recall / Severity 2 / Found by C
- Task 2: Contextualization
 - Description: In the Alternate Names view all pop-up for a scanned ingredient, the interface blocks and doesn't show the initial name of the ingredient that these alternate names are for.
 - Rationale: The user is forced to recall what the initial name was because they can no longer see it on the screen.
 - Fix: Position the pop-up so that it doesn't block the name of the ingredient from the image recognition results, or include the initial name in the pop-up as well.
43. H7: Flexibility & Efficiency of Use / Severity 2 / Found by A
- Task 3: Authentic cooking
 - Description: 'View all' under each of the Filter categories is redundant.
 - Rationale: If each button brings you back to the main page, it might be better to have one for the entire page.
 - Fix: Add a 'view all' back button on Filters in the header.
44. H7. Flexibility and efficiency of use / Severity 3 / Found by C
- Task 2: Contextualization
 - Description: People who want to refer back to the cultural context behind an ingredient need to re-scan it in order to see that information.
 - Rationale: Users may scan an ingredient, be very interested in the ingredient context, and want to refer back to that context again at a later time. They can't do so without re-scanning the ingredient, which they may have already eaten or put away.
 - Fix: Include ingredient context as part of the information that is saved based on recent scans, or allow users to "save" ingredient context, so that users can easily access the context either from the home page or from their "Saved".
45. H7. Flexibility and efficiency of use / Severity 2 / Found by C
- Task 3: Authentic Cooking
 - Description: Users who just want to scan an ingredient to find a recipe for it have to navigate through the Ingredient Context page first.

- Rationale: Some users may only be using the app for its image recognition to recipe service. Having to navigate through the Ingredient Context page before getting to recipes makes things inconvenient for these users.
- Fix: After scanning an ingredient, there could be a button to explore recipes on that ingredient in the image recognition results section.

46. H8. Aesthetic and minimalist design / Severity 2 / Found by C

- Task 1: Identification
- Description: In the image recognition results, there are three dark gray dots above ingredient image results and to the right of “Images of [ingredient name]”.
- Rationale: I’m not sure what those dots indicate, and it is likely the user won’t know either. Do they indicate loading images? Are they clickable? Is it to see more images? I would think to scroll horizontally to see more images given that the image is cut off. The three dots seem to be unneeded.
- Fix: Remove the three gray dots.

47. H8. Aesthetic and minimalist design / Severity 2 / Found by C

- Task 2: Contextualization
- Description: In the image recognition results, the “Alternate names” section has a “View all >” clickable to see more alternative names that didn’t fit in the current screen.
- Rationale: “View all” and “>” seem repetitive in their conveyed functionality and take up more screen space than needed. Both are not needed.
- Fix: Change the text from “View all >” to “View all”, and the recommendation in #5 should make it appear clickable.

48. H8 Aesthetic and Minimalist Design / Severity 4 / Found by B, C

- Task: Authentic Cooking
- Description: The scan button in the navbar blocks the actual recipe and sticks too far out of the navbar
- Rationale: The user may not be able to scroll through the recipe and so the text may stay blocked as it is in the recipe portion of the app.
- Fix: Position screen content so that it is never overlapping with the nav bar icons.

49. H8 Aesthetic and Minimalist Design / Severity 1 / Found by B

- Task: Contextualization
- Description: Orange gradient and black text combination in “Explore Recipes” button could be more subtle
- Rationale: The button contrast distracts from the aesthetically pleasing layout due to its complexness
- Fix: Solidify the color and maybe make the text white to match the style of the camera in the navbar

50. H8 Aesthetic and Minimalist Design / Severity 2 / Found by B, C

- Task: Contextualization
- Description: Unnecessary arrow in the 'Explore Recipes' button
- Rationale: The user should know based on the button as well as the text in the button that it can be clicked and what it does. Arrow adds nothing.
- Fix: Remove the arrow.

51. H8 Aesthetic and Minimalist Design / Severity 1 / Found by B

- Task: Authentic Cooking
- Description: The combination of colors in the filters button is inconsistent with the rest of the theme (black and teal vs white and teal)
- Rationale: The teal buttons are inconsistent and distract from the aesthetic of the app.
- Fix: Make the button teal and white like the other teal buttons

52. H8 Aesthetic and Minimalist Design / Severity 1 / Found by B

- Task: Identification/ Authentic Cooking
- Description: Navbar icons are distracting due to every other button being an outline while all of these are filled.
- Rationale: The buttons are inconsistent and drive attention to the navbar rather than to the actual app
- Fix: Make the icons in the navbar outlines rather than filled icons.

53. H8 Aesthetic and Minimalist Design / Severity 1 / Found by B

- Task: Identification/ Authentic Cooking
- Description: Capitalization of letters in the names of objects are inconsistent.
- Rationale: Some names of dishes and ingredients within both the scanning features are inconsistent with capitalization (e.g. 'Bitter melon' vs 'Mixed Kebab' vs 'Minced lamb').
- Fix: Minor fix of capitalization errors.

54. H8 Aesthetic and Minimalist Design / Severity 1 / Found by B

- Task: Identification/ Authentic Cooking
- Description: Inconsistencies between spacing of names of ingredients (Bittermelon vs Bitter melon)
- Rationale: The spacing between words may cause confusion between items as well as errors when searching for ingredients or dishes with certain ingredients.
- Fix: Minor fix of consistent spacing of words.

55. H8 Aesthetic and Minimalist Design / Severity 1 / Found by B, C, D

- Task: Authentic Cooking
- Description: Save button and share button are large and take away from the photo of the food image.
- Rationale: The share and save options distract the user from the photo of the dish that they would like to make.

- Fix: Make these two items smaller, consider positioning them at the bottom right of the photo card or even under the photo card itself, following the convention of similar sharing interfaces.
56. H8: Aesthetic & Minimalist Design / Severity 1 / Found by A
- Task 1: Search for an unfamiliar food item
 - Description: I like the color palette used, but the contrast between the orange and teal for the profile and search/filter icons is a bit stark for my taste.
 - Rationale: Since both are in the header area and both are pretty bright colors, I would consider diluting one of them.
 - Fix: Make the orange profile icon a bit darker/dustier.
57. H8: Aesthetic & Minimalist Design / Severity 2 / Found by A
- Task 3: Cooking an authentic dish with a new ingredient
 - Description: The differentiation between the header (Ingredients) and body (ingredients themselves) is not very visible.
 - Rationale: Users with visual difficulties would benefit from a clearer differentiation.
 - Fix: Bold the header.
58. H8: Aesthetic & Minimalist Design / Severity 2 / Found by A, D
- Task 3: Learning about the cultural context behind a food item and its uses in recipes
 - Description: The transition from 'view all' for alternate names to the alternate names page seems a bit too animated. More broadly, some of the transitions (i.e. search icon coming from profile icon, saved icon coming from profile) are not so intuitive to me.
 - Rationale: Some users might be overwhelmed by the amount of 'bounce' between screens.
 - Fix: Reduce transition movement/animations.
59. H8: Aesthetic & Minimalist Design / Severity 2 / Found by A
- Task 1: Search for an unfamiliar food item (profile)
 - Description: The highlighted buttons (add additional allergy, nutritional goal) seem like they've been clicked on.
 - Rationale: Because they're a deepened color and the specified spice level is similarly highlighted, users might be confused.
 - Fix: Consider coloring those buttons to a lighter/gray color.
60. H8. Aesthetic and minimalist designs / Severity 2 / Found by C
- Task 3: Authentic Cooking
 - Description: The recipe screen for a particular dish uses a rounded, orange outline to separate the sections for type of cuisine, ingredients needed, and recipe steps.

- Rationale: Dividing each section of the recipe information with the same orange outline is not aesthetically pleasing. The separation of sections could be achieved with spacing/bolding, using spacing and bolding as the natural dividers of content.
- Fix: Differentiate each section in another way, such as by bolding the titles of each section and applying visible spacing between each section.

61. H8: Aesthetic and minimalist designs / Severity 2 / Found by C

- Task 3: Authentic Cooking
- Description: In the Filter screen, un-selected options change from a white background with teal text to a teal background with white text along with a check mark when selected.
- Rationale: Since the button changes significantly in color after being selected, the check mark is an unnecessary indicator of selection.
- Fix: Remove all check marks entirely from selected filter settings.

62. H8: Aesthetic and Minimalist Design / Severity 2 / Found by D

- Task 3
- Description: The horizontal / vertical scrolling under Explore is fun but it is unclear how the UI will look once it is scrolled vertically more.
- Rationale: User may feel confused why the whole screen isn't scrolling / why photos appear behind the label.
- Fix: Either separate upper and lower carousels into separate bordered components, or scroll the whole screen when scrolling vertically.

63. H8: Aesthetic and Minimalist Design / Severity 1 / Found by D

- Task 1
- Problem Description: Pictures of bittermelon are the only ones with sharp corners.
- Rationale: Everything in the app is very rounded and all images lack sharp corners besides pictures of bittermelon. I would suggest rounding them for consistency.
- Fix: Round all image corners.

64. H8: Aesthetic and Minimalist Design / Severity 1 / Found by D

- Task 2/3
- Description: Ingredient names are in white font without any sort of background.
- Rationale: The ingredient name may be difficult to read if the image happens to be white / light color (like on the Mixed Kebab page).
- Fix: Add some background color / fade to accentuate the text.

65. H8: Aesthetic and Minimalist Design / Severity 1 / Found by D

- Task: 2/3
- Description: Inconsistent use of shading under images in the "Under your scans" horizontal carousel menu.
- Rationale: Almost all have a shade underneath besides two. For consistency, all of them should have a shade at the bottom.

- Fix: add shading below all images or remove all.
66. H8: Aesthetic and Minimalist Design / Severity 1 / Found by D
- Task 2/3
 - Description: Dish names are of different sizes.
 - Rationale: It would be more aesthetic and consistent if all dish names / image labels in general had the same font size, even if the label is too long like Chinisang Ampalaya.
 - Fix: Display “Ampalaya” under “Chinisang” / perhaps stretch an image (varying card width based on background image could be fun).
67. H9 Help Users With Errors / Severity 2 / Found by B
- Task: Identification
 - Description: There is no solution for a wrong scan
 - Rationale: The user may scan an item and receive the wrong information and have no solution but to scan the object again
 - Fix: Add a feature that allows for the user to rescan with a higher probability of the app being correct
68. H9. Help users recognize, diagnose, and recover from errors / Severity 3 / Found by C, D
- Task 1: Identification
 - Description: The Scan screen has instructional text saying “Place subject within focus!”
 - Rationale: The user may not understand what “within focus” means. Does that mean to make sure that the subject isn’t blurry? Does it mean to make sure the subject is within the rounded frame? Does it mean that the subject should just generally be within view of the camera? It could mean any of these things, and the user might not know how to interpret this message. Also, if the user has no context on what the scanner is for, they might not know what “subject” should even be.
 - Fix: Slightly change the wording so that it’s clearer exactly what the user should be aiming to do, e.g. “Position ingredient within the frame!”.
69. H10 Help and Documentation/ Severity 1 / Found by B
- Task: Authentic Cooking
 - Description: There is no way to search through saved recipes
 - Rationale: The user may want to look through their saved recipes to see what they would like to cook, but to do so they have to scroll through all recipes that they have saved.
 - Fix: Add a search bar to allow users to search through saved recipes for a specific dish.
70. H10: Help & Documentation / Severity 1 / Found by A
- Task 1: Search for an unfamiliar food item (profile)
 - Description: It’s unclear what ‘add nutritional goals’ in
 - Rationale: Could be different measurements like caloric input or any other goals.
 - Fix: (maybe not necessary in this app) but specifications/ideas of what goes into the goal would be helpful.

71. H10 Help and Documentation / Severity 1 / Found by B

- Task: Authentic Cooking
- Description: Dish ingredient lists have no way to explore other ingredients if they are unfamiliar to the user.
- Rationale: The user may be unfamiliar with an ingredient in a recipe that they are using, so there should be some quick way to inform them of the ingredients' history and usage.
- Fix: Add a quick tab that explains the context of the ingredient to the user (similar to what is offered when scanning, however, it is instead a quick click).

72. H10. Help and documentation / Severity 3 / Found by C

- Task 1: Identification
- Description: Missing documentation to help the user with scanning and its associated results.
- Rationale: Users might not know what to even scan after first downloading the app. There could be more clarity on what the purpose of the scanner is, what the user should be scanning, and how to interpret the confidence interval results.
- Fix: There could be a question mark icon on the Scan screen that takes the user to short documentation informing them that ingredients should be scanned, and what information they are going to see about the ingredient (an explanation of the image recognition results / confidence intervals).

73. H10: Help and Documentation / Severity 2 / Found by D

- Task 1
- Problem Description: Users are given a blackbox score on the recognition of the ingredient without any explanation.
- Rationale: Users may be confused what the number means (accuracy / precision / F-metric. Also, the user may feel skeptical without knowing how a score was calculated.
- Fix: Add a question mark field somewhere near the score with auxiliary explanation of what it means and how it was calculated.

74. H10: Help and Documentation / Severity 2 / Found by D

- All tasks
- Problem Description: No FAQ page
- Rationale: Users can benefit from a page with frequently asked questions in case a user. This could help when onboarding the first time or coming back to use the app after some time off.
- Suggested Fix: Add a FAQ page.

75. H11. Accessible design / Severity 3 / Found by C, D

- Task 1: Identification
- Description: In the Scan screen, there is nothing indicating that the subject is correctly in focus.

- Rationale: For users with low vision, they may not be able to tell whether or not they've positioned the subject correctly for the camera. The user needs a way to know if they're doing it correctly without having to rely on the camera screen.
- Fix: Have some textual indication that the user has properly positioned the subject in the camera.

76. H11 Accessible Design / Severity 3/ Found by B

- Task: Identification
- Description: The scanning and identification feature has no accessibility feature for those who are visually impaired.
- Rationale: If a user is visually impaired, there should be a way to identify an unknown ingredient.
- Fix: Add a textual component that allows for a description of smell, physical aspects, etc.

77. H11 Accessible Design / Severity 1 / Found by B

- Task: Authentic Cooking
- Description: Recipe matching fails to include those with health risks outside of allergens.
- Rationale: The user may have a health risk that is not an allergen that should be help with recipe selection
- Fix: Add a tag for those recipes that include health risks, or provide a prompt during onboarding with this option to be filled.

78. H11. Accessible design / Severity 3 / Found by C

- Task 3: Authentic Cooking
- Description: In the Saved page, the bookmark icon is white.
- Rationale: If the photo of a dish has a white background in the upper right corner, it may be very difficult or impossible for the user to see the icon.
- Fix: Use a different color for the bookmark, or have it pop out in white backgrounds by giving it an outline.

79. H12 Value Alignment and Inclusion / Severity 1 / Found by B

- Task: Contextualization
- Description: Contextualization does not mention cultural significance, just origins and cooking tips.
- Rationale: The user may feel as if their culture was not fully presented through a specific ingredient without a full description of an ingredient's cultural significance.
- Fix: Add more details about why an ingredient is important to the dish and to the people who cook with it.

80. H12. Value Alignment and inclusion / Severity 3 / Found by C

- Task 2: Contextualization

- Description: In the Alternate Names pop-up after scanning an ingredient, alternate names of that ingredient from different languages are shown.
- Rationale: Only a limited number of languages are shown. How do you determine the languages that are shown? It's possible that underrepresented languages will not be displayed, leading to the exacerbation of inequality in language representation.
- Fix: Be intentional about how alternate names are chosen, working towards the inclusion of underrepresented languages.

81. H12. Value Alignment and inclusion / Severity 3 / Found by C

- Task 2: Contextualization
- Description: In the "Cultural Context and Tips" tab of the Ingredient Context screen, information about the usage of the ingredient by different cultures/regions is shown.
- Rationale: Only a limited number of cultures/regions are shown. How do you determine which information to display? It's possible that information for marginalized cultures or underrepresented regions will not be displayed, leading to the exacerbation of underrepresentation of certain cultures or regions.
- Fix: Be intentional about how you choose what is displayed in this section, working towards the inclusion of marginalized/underrepresented cultures and regions.

82. H12: Value alignment and inclusion / Severity 3 / Found by D

- Task 3
- Description: Dietary preferences are incomplete and, despite being a prototype, should include at least one religious option as an example.
- Rationale: Many Muslim / Jewish people seriously restrict their diet, and such user may feel left out when not seeing Halal / Kosher as an option.
- Fix: Add at least one religion-related dietary preference.

3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of Status	0	0	3	0	1	4
H2: Match Sys & World	0	1	2	4	2	9
H3: User Control	0	1	0	4	2	7
H4: Consistency & Standards	0	5	9	2	0	16
H5: Error Prevention	0	0	0	3	0	3
H6: Recognition not Recall	0	0	3	0	0	3
H7: Efficiency of Use	0	0	2	1	0	3
H8: Minimalist Design	0	11	9	0	1	21
H9: Help Users with Errors	0	0	1	1	0	2
H10: Help & Documentation	0	3	2	1	0	6
H11: Accessible	0	1	0	3	0	4
H12: Value Alignment & Inclusion	0	1	0	3	0	4
Total Violations by Severity	0	23	31	22	6	82

Note: check your answer for the green box by making sure the sum of the last column is equal to the sum of the last row (not including the green box)

4. Evaluation Statistics

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D	Evaluator E
Sev. 0	0%	0%	0%	0%	
Sev. 1	3/23 = 13%	12/23 = 52%	3/23 = 13%	9/23 = 39%	
Sev. 2	9/31 = 29%	3/31 = 10%	13/31 = 42%	8/31 = 26%	
Sev. 3	5/22 = 23%	5/22 = 23%	14/22 = 64%	5/22 = 23%	
Sev. 4	1/6 = 17%	3/6 = 50%	5/6 = 83%	3/6 = 50%	
Total (sevs. 3 & 4)	6/28 = 21%	8/28 = 29%	19/28 = 68%	8/28 = 29%	
Total (all severity levels)	18/82 = 22%	23/82 = 28%	35/82 = 43%	25/82 = 30%	

*Note that the bottom rows are *not* calculated by adding the numbers above it.

5. Summary Recommendations

[merge the general recommendations you made here]

We love how your task flows are thoughtful, intuitive and well planned-out! The contextualization of an ingredient is very thorough. We also love the layout and photo selection of the Explore page; it reflects your app's values of inclusivity and hominess. The inclusivity of different cultures reflected in the additional names of an ingredient is also great.

In terms of inclusivity, it would be valuable to think through what kind of error prevention to implement if certain information can't be found. For instance, what if a scanned ingredient isn't in the database? Will you allow users to add it in? Additionally, how could you further include users who are visually impaired when using Dishcovery, a visually focused app? We also wonder how you decide what's displayed in the Explore page: does it change depending on factors like your past recipes or what time of day you're searching? It would be interesting to think about what recommendations users would appreciate most. When thinking about what users would appreciate the most, we wonder what information someone who's actually cooking a recipe for Task 3 would want. How important is seeing cooking times or star reviews at first glance when deciding between recipes?

Additionally, there's a trend of Consistency & Standards and Aesthetic & Minimalist Design violations. We recommend adding more consistency to your interface, specifically with header/body styling, spacing, alignment, color choices, sizing, and terms across pages (i.e. "Recipes" and "Dishes" are different), to make the user experience even better! For example, in terms of color, it seems a bit arbitrary what you pick to be orange vs. turquoise – is there more structure to your color selection? In addition, to prevent user confusion, we also recommend

correcting any unexpected or unclear navigation results, having more sign posting for where a user is in the app, and ensuring that users can easily navigate back to previous screens. One interesting example of this is that the same icon is used for search and for the home/Explore page, creating conflicting interpretations of the magnifying glass icon. If you used two different icons, that might make things more intuitive for the user when navigating the app.

Severity Ratings

- 0 - not a usability problem
- 1 - cosmetic problem
- 2 - minor usability problem
- 3 - major usability problem; important to fix
- 4 - usability catastrophe; imperative to fix

Heuristics

H1: Visibility of System Status

- Keep users informed about what is going on

H2: Match Between System & Real World

- Speak the users' language
- Follow real world conventions

H3: User Control & Freedom

- "Exits" for mistaken choices, undo, redo
- Don't force down fixed paths

H4: Consistency & Standards

- Words, actions, and UI elements should be consistent across the entire platform
- Follow platform and industry conventions

H5: Error Prevention

- Minimize error-prone conditions
- Remove memory burdens, support undoing, and warn your users when necessary

H6: Recognition Rather Than Recall

- Make objects, actions, options, & directions visible or easily retrievable

H7: Flexibility & Efficiency of Use

- Accelerators for experts (e.g., gestures, keyboard shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

H8: Aesthetic & Minimalist Design

- No irrelevant information. Focus on the essentials.

H9: Help Users Recognize, Diagnose, & Recover from Errors

- Error messages in plain language
- Precisely indicate the problem
- Constructively suggest a solution

H10: Help & Documentation

- Easy to search
- Focused on the user's task
- List concrete steps to carry out

- Not too large

H11: Accessible

- Users can interact with the system using alternative input methods.
- Content is legible with distinguishable contrast and text size.
- Key information is upfront and not nested for screen readers.
- Purely visual or auditory content has text-based alternatives for users with low vision and low hearing.

H12: Fairness and Inclusion

- Users shouldn't feel that the design is not made for them.
- The design should meet all users' needs equally and prevent the reproduction of pre-existing inequities.
- It should not create additional burdens for members of disadvantaged populations.

H13: Value Alignment

- The design should encode values that users can understand and relate to.
- Conflicting collateral values should not emerge when the user interacts with the product.
- Encoded values should match users' values in a broad set of use-contexts.