



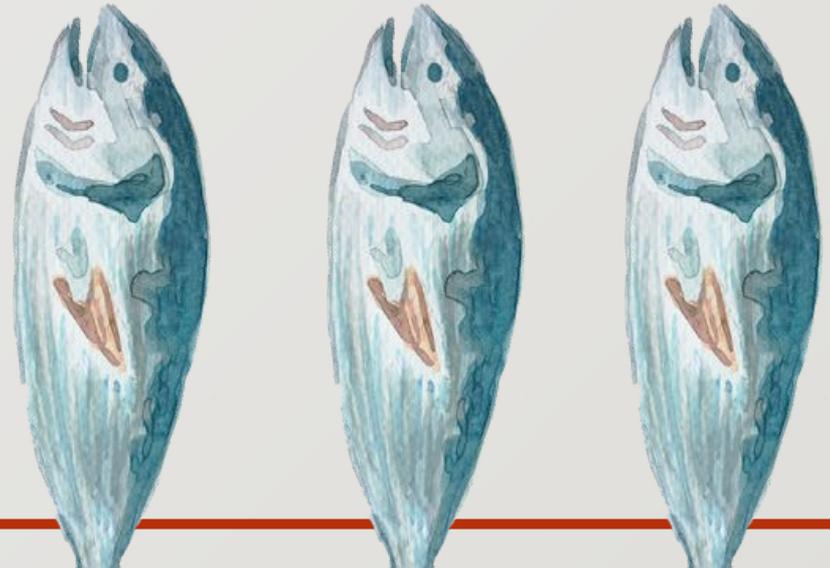
Interactive Hi-Fi Prototype

Group 1
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ROAD MAP

- I. Introduction
- II. Problem & Solution
- III. Value Design
- IV. Heuristic Evaluation Results
- V. Major UI + Product Revisions
- VI. Prototype Implementation Status
- VII. Demo
- VIII. Appendix





Graham
'25
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ABOUT US



PLATED

Elevate your cooking one swipe at a time..

Value Proposition:

**Discover and share recipes from local chefs, friends,
and family effortlessly based on your current pantry.**

**Gain the technical skills to be self-expressive and
independent in the kitchen.**





Problem & Solution

Primary User:

We aim to help amateur chefs learn how to cook and enjoy the process.

Problem:

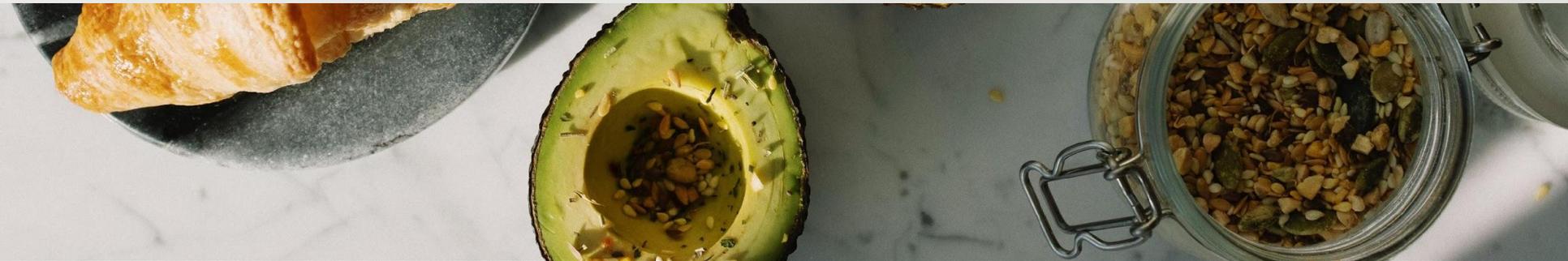
Many amateur chefs feel like cooking is a chore that always takes longer than expected and has no room for creativity.

Solution:

Plated presents the user with a curated selection of recipes from other users that align with the users' preferences and current ingredient inventory. Plated also incorporates an in-app chef helper, chef su, who can answer any common cooking questions during the process. With this solution, the plated team hopes to make the cooking experience more exciting and less tedious for amateur cooks through shared discovery and collaboration with chefs of all abilities.



Heuristic Evaluation Results



Summary



Heuristic	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of System Status	0	0	1	2	1	4
H2: Match b/w System & World	0	2	2	3	1	8
H3: User Control & Freedom	0	0	0	1	3	4
H4: Consistency & Standards	0	3	2	2	3	10
H5: Error Prevention	0	0	3	0	1	4
H6: Recognition not Recall	0	0	2	2	1	5
H7: Flexibility & Efficiency of Use	0	1	2	4	2	9
H8: Aesthetic & Minimalist Design	0	3	4	1	0	8
H9: Help Users with Errors	0	0	1	1	0	2
H10: Help & Documentation	0	1	0	1	1	3
H11: Accessible Design	0	0	0	3	0	3
H12: Value Alignment & Inclusion	0	0	1	0	1	2
Total Violations	0	10	18	20	14	62

Summary



Intuitive Design

- Violations of H4 Consistency, H7 Flexibility/Efficiency, and H8 Aesthetics and Minimalist Design
 - Icon Design
 - Inconsistent navigation bar placement
 - Unnecessary features such as Calendar
 - Confusion about Chef Su and Pantry



Application Flow

- H2 Match btw System and World and H4 Consistency
 - Unclear what icons in navigation bar mean
 - Confusion about what the swiping means
 - Lack of flexibility in Pantry
 - Search, order of adding items
 - Are recipes linked to AI?

Change Overview

Intuitive Design

- Complete Revamp of Navigation Bar
 - Includes titles, simple icons
 - Fixed Navigation bar styles
- Removed features that cluttered the app
- Information tab for Chef Su



Application Flow

- Revamped Swiping Interface
- Quick Onboarding
- Reworked Filters

Justifications

- Inclusion (App Moderation, Chef Su Info)
- Questions asked about functionality and purpose were already addressed in README





Major UI and Product Revisions



Home Page

Major Changes

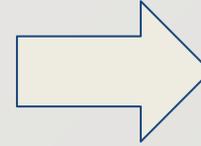
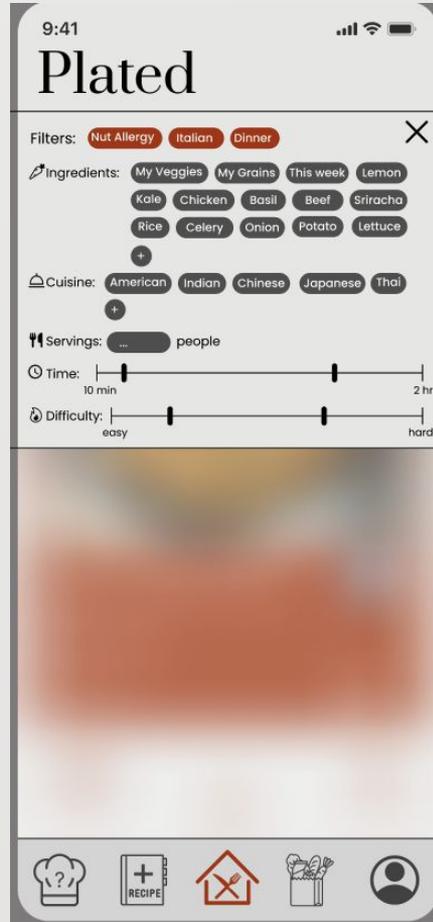
- Navigation Bar
 - Titles + Icons
- Safe-Area
 - No conflicts with standard iPhone
- Swiping Cards
 - Easily swipe into Saved Recipes
- Saved Recipes
 - Easy Access



Filters

Major Changes

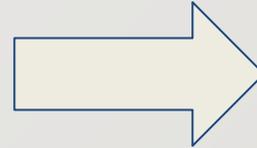
- Easier to read
 - Colors
- Easier to recognize which have been selected
 - Clear pattern with full vs empty background
- Ensure users know options are saved
- Permanent Filters
- Full Screen



Recipe Page

Major Changes

- Background consistent with app theme
- Removed unexplained “play button” feature
- Clearer Idea about what recreations are
 - Option to see all
- Easy option to “Save Recipe”
- Making the recreations clickable to see more
- Making the about chef a link to their profile!



Progress Towards Usability Goals

Efficiency

Intuitive Filter Design
Leaner Features

Flexibility

Access to Saved Recipes
Saving Optionality
Chef Su Accessibility

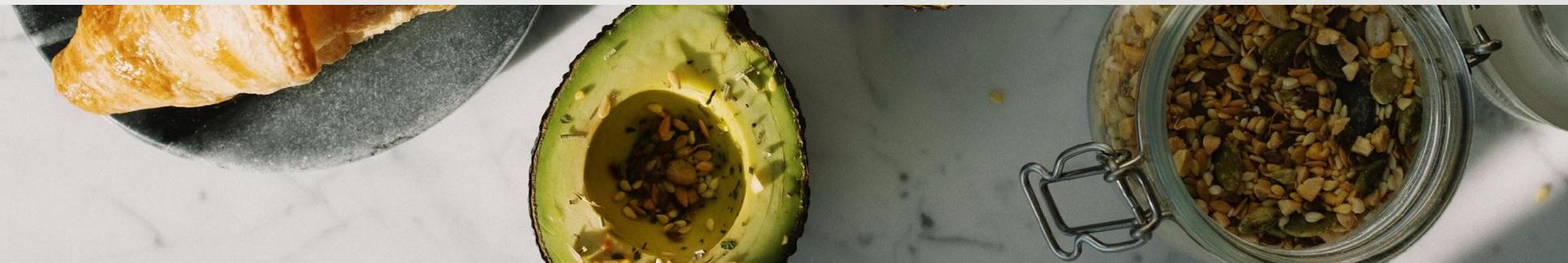
Fun

Cleaner Colors
Intuitive Swiping
Revamped Navigation





Prototype Implementation



Prototype Overview: Tools



Core Framework & Tools

- React Native + Expo
- Expo Router for navigation with tab directory structure

AI Integration

- Google's Gemini AI
- Implemented chat interface with Gemini 1.5 Flash model
- Maintains conversation context with custom system instructions for chef persona

Backend Integration

- Supabase set up to store recipes, users, posts, ingredients, etc.



Implemented Feature: Chef Su

Implemented Features

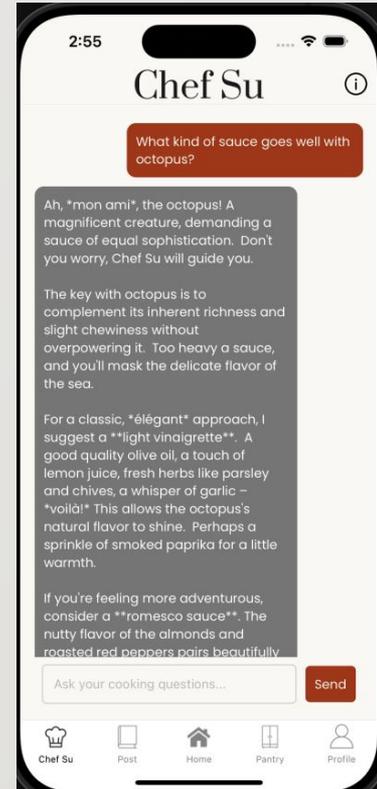
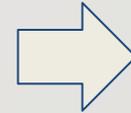
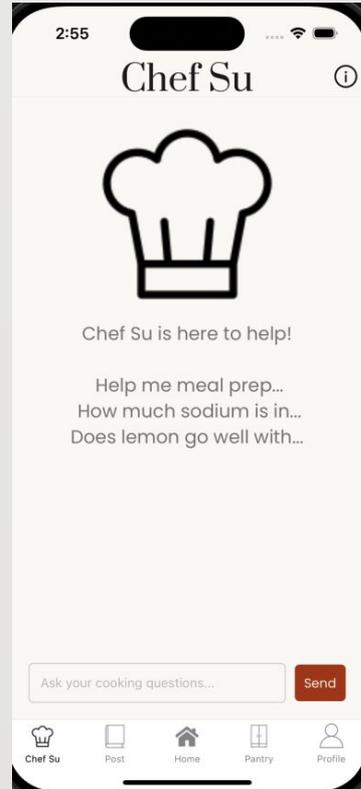
- Tab bar navigation to every page
- Skeleton of every page
- Connection to Backend

Chef Su Task

- Fully implemented the AI-powered Su Chef
- Customized version of Gemini
- Information Tab to increase accessibility

Home Page

- Hard-coded with minimal functionality besides navigation



Future Implementation Plan



Priority #1 (Early Thanksgiving Break)

- Implement core styling for all pages on home navigation
- Fill pages with all necessary components

Priority #2 (Late Thanksgiving - Start of Week 10)

- Enable touchable components to complete tasks
- Fully implemented stack navigation flow for all pages
 - Posting, viewing saved recipes, profile
- Deploy Supabase backend to enable tasks
 - Saving recipes, posting, viewing users

Priority #3 (Middle Week 10)

- Implement advanced animation for swiping through recipes
- Implement advanced filtering of recipes
- Testing & Debugging



Implementation Techniques



- **Hard-coded Features**
 - One “Test-User” logged in on demo to avoid setting up user authentication
 - Home Page looks like it’s functional but only our “Chef Su” task if currently functional
 - Simplified chat interface
 - Hard-coded system for chef personality
 - No loading states or typing indicators while waiting for responses
- **Wizard of Oz**
 - Chatbot doesn’t take into account what you have in the pantry, but we have a note saying to input what you have
 - This simulates the idea that Chef Su knows what you have in your fridge/pantry



Issues + Discussion

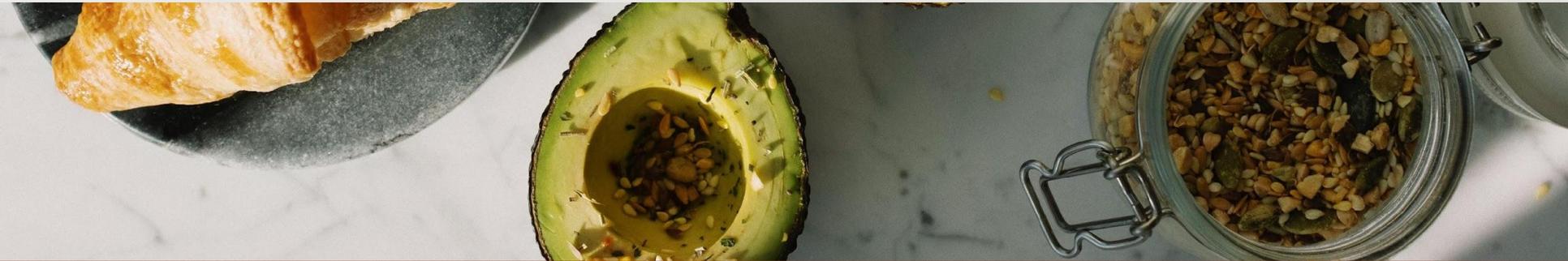


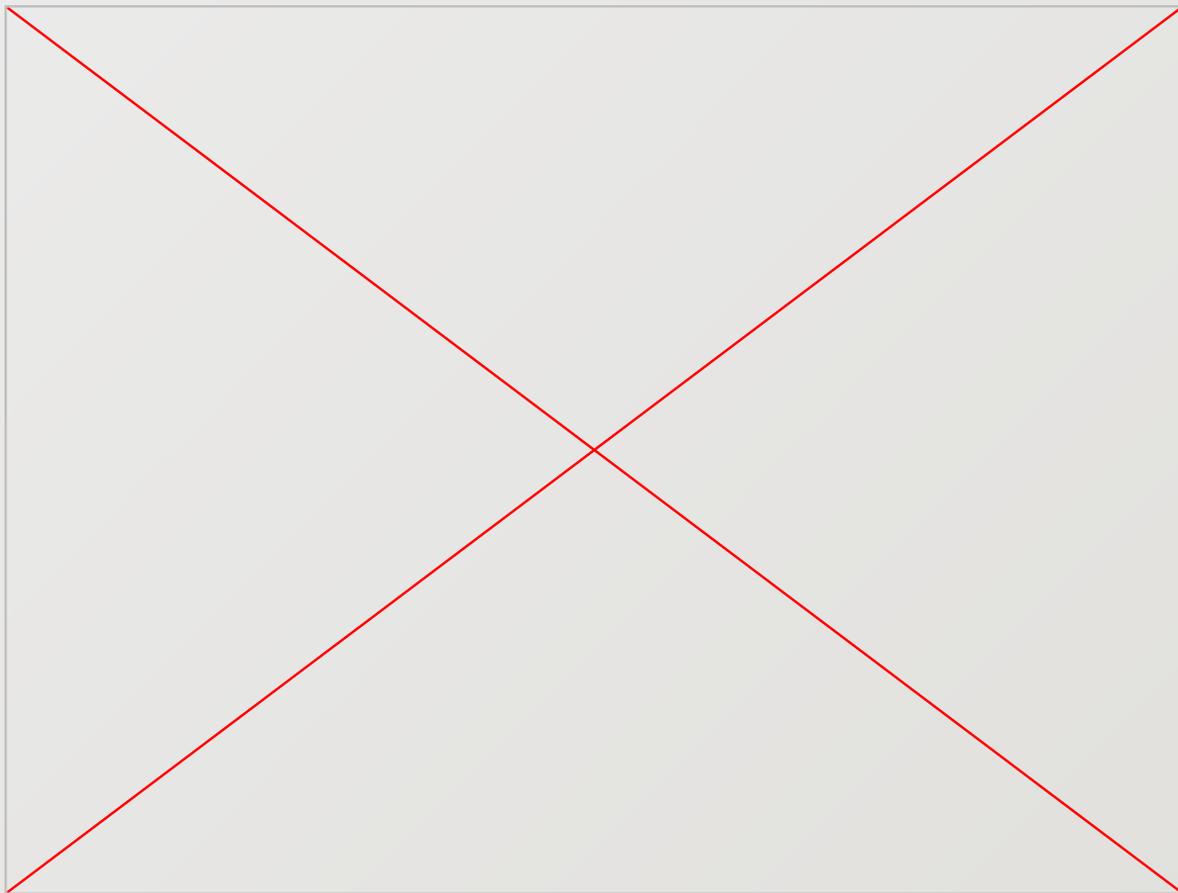
- **Advanced animation for Swiping**
 - React Native Gesture Handler: still need to research and learn for further implementation
- **Switching from SDK Expo 51 -> SDK Expo 52**
 - Bugs when transferring our code
 - Currently keeping one version still in 51
- **Next Steps**
 - Finish remaining pages, components, and tasks in order of priority (Slide 18)





Demo







Feedback? :)

Thanks for listening

APPENDIX/ LINK TO FIGMA

- I. Full Change Justification
- II. Unimplemented Features

Change Justification

- H1: Visibility of System Status - **severity 3**
 - The placement and no text near the circular picture may make it difficult for users to assume that it represents the profile picture of the recipe creator.
 - **Our fix:** we moved the profile picture to be grouped with the recipe text more so that it all seems related while also keeping the recipe card very simple
- H11: Accessible Design - **severity 3**
 - The filter selections and sliders are too small, making them hard to see and interact with for users with low vision or low touch sensitivity.
 - **Our fix:** make the filters displayed on home screen larger font and then we also will make the filters drop down work farther down so that the text can be larger
- H11: Accessible Design - **severity 3**
 - No 'see more' button for Recreation reviews or About the Chef after clicking on the recipe
 - **Our fix:** add a see more button that opens a modal pop up of the chef's recreations or add some UI such that it is obviously pressable to see more
- H12: Value Alignment & Inclusion - **severity 4**
 - Current design assumes that the recipe speaks for itself, but most users may not recognize certain food names, like "Zuppa di Fagioli, which may exclude non-native users from fully understanding the recipe.
 - **Our justification:** this person didn't read the readme which tells them to click the card to read more about the recipe
- H2: Match b/w System & World - **severity 4**
 - The two bold lines in the slider design are unclear, leaving users uncertain about their purpose and whether they represent a range, or how to change them. Does not match how sliders conventionally work.
 - **Our fix:** we will add lower and upper bound labels for the slider and color the range in between so it's clear to the user
- H4: Consistency & Standards - **severity 4**
 - From the readme, swiping right and hitting save on a post should both "save" the post, but they are separate actions from the home page. The same applies for the "X" button, whose functionality overlaps with swiping left. Additionally, There is no way to follow a user whose recipe you see, but on the profile the number of followers and following is shown.
 - **Our fix:** we are not going to make the swiping left and right anymore, they will be swiping up and down into a recipe box

Change Justification

- H6: Recognition not Recall - **severity 3**
 - Ingredients you have vs. not have are not listed
 - **Our fix:** ingredients that are in your pantry will not have a plus button to add to your grocery cart and ingredients that are not in your pantry will have a plus button.
- H7: Flexibility & Efficiency of Use - **severity 3**
 - The difficulty level slider in the filters is not intuitive and definition of 'easy' vs. 'hard' recipes is not clear
 - **Our fix:** we are making the sliders more clear with bounds
- H9: Help Users with Errors - **severity 3**
 - We can increase accessibility for those that don't have certain ingredients. Easily finding substitutes for certain ingredients would be amazing
 - **Our fix:** users can ask for substitutions for ingredients using chef su AI helper
- H2: Match b/w System & World - **severity 3**
 - Pantry tab collections (Grains, Vegetables) don't add up to what is in the entire Pantry collection
 - **Our justification:** not even really sure what this means and i just don't think this was a well thought out HE

- H6: Recognition not Recall - **severity 4**
 - There is no clear indicator that you are able to swipe left or right, and is not intuitive from the prototype itself. There is a lack of visual confirmation that the user has saved or rejected a recipe when swiping.
 - **Our fix:** got rid of the two save icons and just have one now
- H7: Flexibility & Efficiency of Use - **severity 4**
 - Nowhere to add 'Nut Allergy' and 'Dinner' customizable options in sections listed
 - **Our fix:** listed in the read me to set your permanent preferences like allergies or food restrictions in the profile preferences page.
- H3: User Control & Freedom - **severity 4**
 - After adding an ingredient to the pantry, there is no way to remove it if it is depleted.
 - **Our fix:** we just hadn't implemented this yet
- H4: Consistency & Standards - **severity 4**
 - The "PaperClip" icon in the Pantry sections do not link to anything except for in the "This Week" part of the Pantry. However, after clicking on the Paper Clip attachment icon, then pressing the back button, it leads to the Chef Su screen rather than reverse it back to the previous screen of "this week Pantry".
 - **Our fix:** we just haven't made it yet but we will make it link to something

Change Justification

- H4: Consistency & Standards - **severity 3**
 - Settings icon on Post page doesn't make sense intuitively – settings for what?
 - **Our fix:** true, deleting
 - H11: Accessible Design - **severity 3**
 - Chef Su feature may be difficult to navigate for users who are unfamiliar with AI chatbot interfaces. The icon when clicking on a recipe is also confusing on whether or not it's a clickable button to redirect to Chef Su.
 - **Our fix:** Rephrasing the wording on the Chef Su page to “ask me your cooking questions”
 - H7: Flexibility & Efficiency of Use
 - The app lacks a clear way for users to input or adjust filters for difficulty, number of people, time, and cuisine, making it harder to customize recipe searches.
 - **Our fix:** We need to make it more obvious how users can add filters. We can make the button bigger and add text that says “add filters”
 - H4L Consistency & Standards
 - Users are unsure whether they should use the same method as posting a new recipe for a recreation.
 - **Our Fix:** When adding your recipe, we will add a step asking if it is a recreation or new recipe OR
- H1: Visibility of System Status - **severity 4**
 - Unsure what calendar feature on Profile is meant for (also not included in ReadMe).
 - **Our fix:** We decided the calendar is an unnecessary feature and have removed it
 - H10: Help and Documentation
 - There is no menu explaining what each button throughout app (on nav bar, in main page, etc) does.
 - **Our fix:** We are improving the wording in the README and are adding small titles to each button in the nav bar to make it clearer what each symbol means
 - H2: Match w system and world
 - Confusion about what cookbooks, all recipes, and recreations mean.
 - **Our fix:** We should change of cookbooks or make it more obvious that it is a category of recipes
 - H7: Flexibility & Efficiency of Use
 - Restricts users from adding any content beyond the regulated ingredients and recipe, limiting creativity, personal expression, and flexibility.
 - **Our fix:** add a box where you can optionally describe the recipe or give some history/context

Change Justification

- H4 Consistency & Standards
 - Despite having filters available when swiping through recipes, when uploading a recipe there doesn't seem to be an option to add filters (except for cuisine)
 - **Our justification:** We have filters right there in the recipe posting and the nut free, etc will be determined by the ingredients you put in
- H3: User Control & Freedom
 - The user may be confused about how to insert steps and properly customize their recipe post
 - **Our justification:** it is pretty clear where the steps should be added and there is a text box that says "add steps here"
- H3: User Control & Freedom
 - There's a potential for a user to be posting a recipe with errors but the app lacks the ability to undo or edit after posting.
 - **Our fix:** Add an edit post button
- H2: Match w system and world
 - Clicking between "POST" and then clicking on the recipe again on the profiles page causes the user to go back to the "Plating..." page where you can post it once again
 - **Our fix:** Navigation bug will be fixed
- H2: match w world
 - After posting a recipe, the app lands on the Profile page.
 - **Our justification:** It goes to the page where you can see your most recent post
- H12: Value Alignment & Inclusivity
 - The design should encode values that users can understand and relate to, fostering inclusion and respect for diverse groups. Features like posting culturally specific recipes or unrestricted image sharing may unintentionally limit visibility or lead to negative social effects, potentially reproducing inequities. The design should prevent these issues, avoiding added burdens for disadvantaged users.
 - **Our justification:** There is going to be moderation
- H1: Visibility of System Status
 - No notifications and action progress on what happens after posting
 - **Our fix:** We will be adding a "Post successful" notification
- H7: Flexibility & Efficiency
 - If the user is adding a bunch of items en masse, it's hard for them because they have to go into the individual categories to put them in
 - **Our justification:** users have control over how many categories they would like to have, so if they are bothered about having to add them to different categories, we assume they will not create the category in the first place
- H6: recognition not Recall
 - Current input structure allows for variation in how ingredients are listed (e.g., "30 eggs" versus "carrots"), so the system can't effectively match ingredients to recipes due to inconsistency in input formats.
 - **Our fix:** We will change it so that quantities are shown in the recipe

Unimplemented Features



- **Home Page**
 - Swiping, stack navigation, saving recipes, viewing recipe details, filters, setting preferences
- **Pantry Page**
 - Adding and removing items, to shopping list and to pantry
- **Posting Page**
 - Native camera integration, selecting photos from camera roll, adding comments and ingredients, connection with backend to enable posting
- **Profile**
 - Touchable components for viewing other profiles and recipes, browse through saved recipes and followers, etc.

