Recipal

Helping you cook recipes *your* way

Our Team

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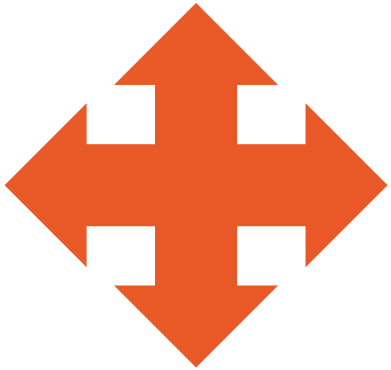
Health Limitations



Uncertain
Ingredient Swaps

Nutrition
Concerns

Problem

People who cook can have difficulty finding recipes that align with their **dietary restrictions** and **preferences**.

Making modifications to recipes to fit their needs complicates the process of figuring out what **nutrients** are in the food they make and eat.

Clear Restrictions

Easy Recipe Modifications

Informative Nutrition Warnings

Solution

Recipal aims to help users **overcome uncertainty** about the recipes they are making by helping them **understand nutritional value, make modifications,** and **learn cooking techniques**.

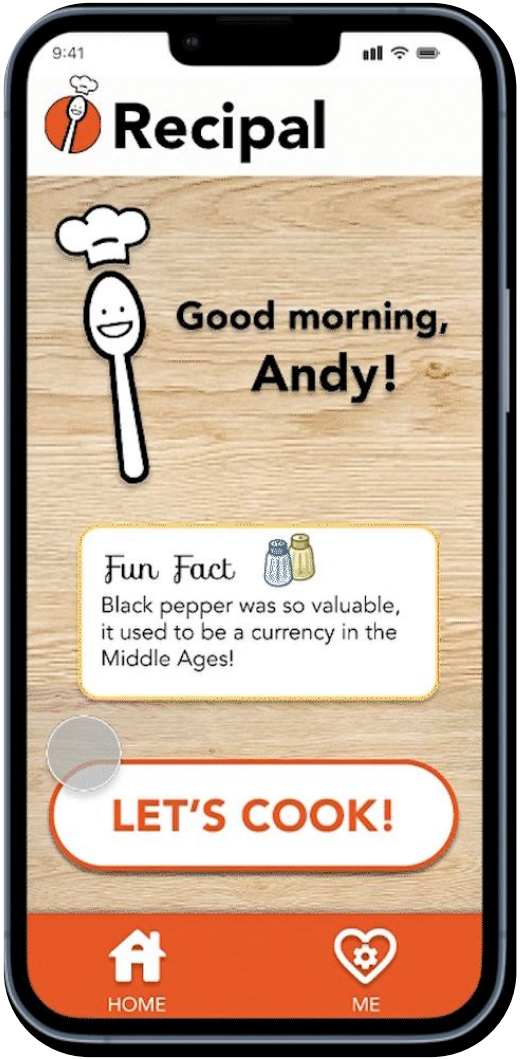
By making cooking fun and informed, Recipal creates a more welcoming and approachable cooking environment.

Medium Fidelity Prototype

Setting Restrictions & Preferences

Medium Fidelity Prototype

Making a recipe



Overview of Talk

1. Heuristic Evaluation Results
2. Overview of Revised Design
3. Prototype Implementation Status
4. Demonstration of Prototype
5. Summary and Questions

1

Heuristic Evaluation Results

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64 total violations

1 severity 0
19 severity 1
24 severity 2
14 severity 3
1 severity 4

Most violated heuristics

H3

User Control

(9/64)

H8

Minimalist Design

(13/64)

Severity 3 + 4

Type of Heuristic	Description	Action
H1 Visibility of System Status	Unclear if recipe search is based on dietary restriction/nutritional preference filters	**Fix:** If the recipe violates one of the user's diet, it will appear with an exclamation point
H2 Match between System and World	Cannot change the units into what I am familiar with.	**Fix:** Add a customary/metric toggle on the Me page
H3 User Control and freedom	Cannot navigate freely through recipe, skipping steps by tapping on progress dots	**Will not fix:** We are following convention about dots not being functional
H3 User Control & Freedom	User may want to quit out of the recipe and save progress but can not.	**Fix:** Add "save progress" button when prompting for exit
H3 User Control and Freedom	User not given visual prompt of how to change increments, can't decrease quantity	**Fix:** the inclusion of either a scroll menu or increment/decrement arrows to modify quantity
H4 Consistency and Standards	Back button in "Recipe Steps" cancels whole recipe instead of going back to ingredients page	**Fix:** Change the back button to an exit button

H7 Flexibility & Efficiency of Use	Home page has no purpose other than fun fact	**Fix:** Combine home page and recipe category select into one page
H7 Flexibility & Efficiency of Use	Users have to click on each recipe or each ingredient to learn more	**Fix:** Include high-level nutritional facts and information about recipe on label
H7 Flexibility and efficiency of use	Cannot save the modified recipe.	**Will not fix:** Cannot implement in timeframe, requires accounts/cloud database
H8 Aesthetic and Minimalist Design	“Add” and other directives are in different font than other text	**Fix:** Rely on one or two default fonts
H9 Help users recognize, diagnose, and recover from errors	No error message alerting that ingredient is essential, user should add ingredient back.	**Fix:** Add an error message that alerts the user to add the essential ingredient back
H9 Help Users Recognize, Diagnose, and Recover From Errors	Modification warning message doesn’t state the exact nature of the violation	**Fix:** Specify that limits will be per meal. Error message will include what the exceeded limit was/how this modification exceeds it
H11 Accessible	All pages purely visual and don’t offer text-based alternatives for users with low vision.	**Will not fix:** Text has screen readers. For the icons, we plan to provide alt-text.

Overview of Revised Design

1. Renovating the **Home Page**
2. Clearly informing how **recipe search** uses **user restrictions**
3. Clearly indicating how **modifications** violate **user preferences**

Usability Goals

1. **Learnability**
   Learning to use app, Learning from the app

2. **Flexibility**
   Friendly to all users

1. Renovating the Home Page

Med-Fi Prototype

H1 Visibility of System Status

Violation: Home page has no purpose other than fun fact

Fix: Combine home page and recipe category select into one page

1. Renovating the Home Page

Med-Fi Prototype

***Learnability*: Improved** **_Flexibility_: Same**

Learnability: Less navigation makes the app easier to learn to use

2. Clearly informing how recipe search uses user restrictions

H7 Flexibility & Efficiency of Use

Violation: Unclear if recipe search is based on dietary restriction/nutritional preference filters

Fix: If the recipe violates one of the user's diet, it will appear with an exclamation point

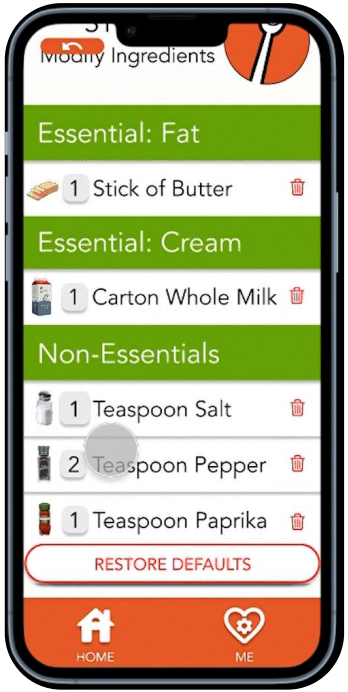
2. Clearly informing how recipe search uses user restrictions

***Learnability:* Improved** **_Flexibility_: Improved**

Learnability: Better warning icons lets users learn what they can and cannot do and why

Flexibility: New warning icon makes choosing recipes more safe for all users

3. Clearly indicating how modifications violate user preferences



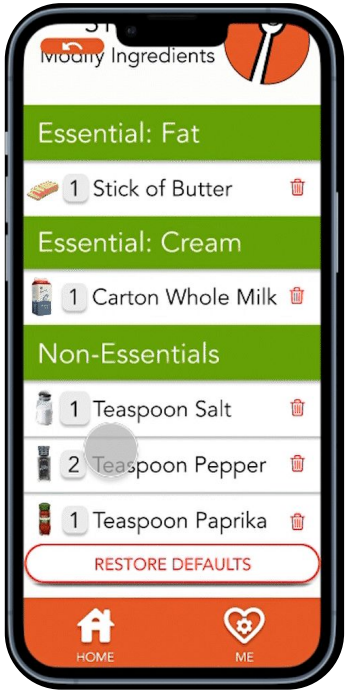
Med-Fi Prototype

H9 Help Users Recognize, Diagnose, and Recover From Errors

Violation: Modification warning message doesn't state the exact nature of the violation

Fix: Specify that limits will be per meal. Error message will include what the exceeded limit was/how this modification exceeds it

3. Clearly indicating how modifications violate user preferences



Med-Fi Prototype

***Learnability*: Improved** **_Flexibility_: Improved**

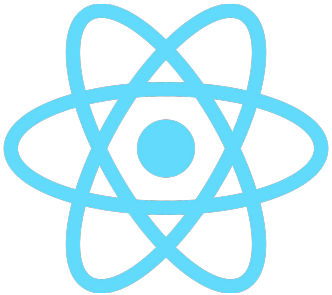
Learnability: Better explanation lets users learn what they can and cannot do and why

Flexibility: Better explanation makes making modifications more safe for all users

3

Prototype Implementation Status

Framework/Tools Used



React Native
Mobile Development

- ✔ Building UI/UX
- ✘ New language

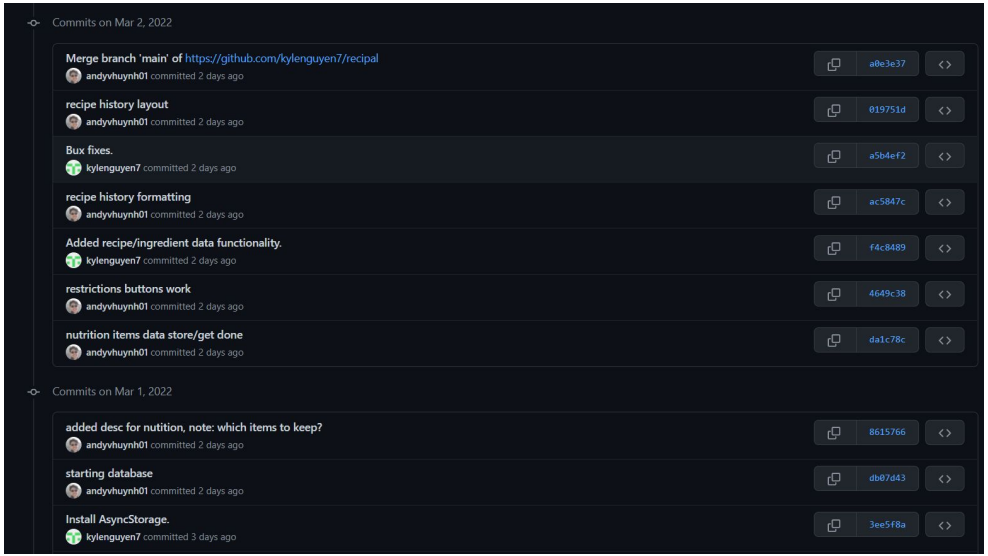
Expo
Mobile Development

- ✔ Easy testing
- ✘ Needs wifi

Git
Version Control, Collaboration

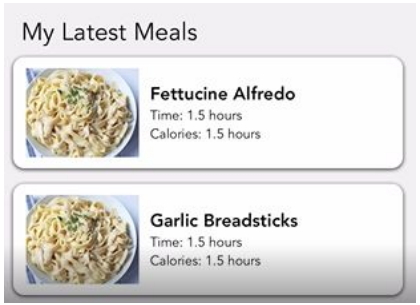
- ✔ Sharing workload
- ✔ Easy learning curve

Implemented Features



- Page layouts and navigation
- User input data storage
- Modifications
- Nutritional limit warnings

Unimplemented Features & Plan



- Restrictions showing up as exclamation points on recipe select
- Recipe history
- Recipe and ingredient databases

Remaining Timeline

1

Restriction Functionality

By 3/6

2

Recipe History

By 3/6

3

Polishing, Small Details

By 3/9

4

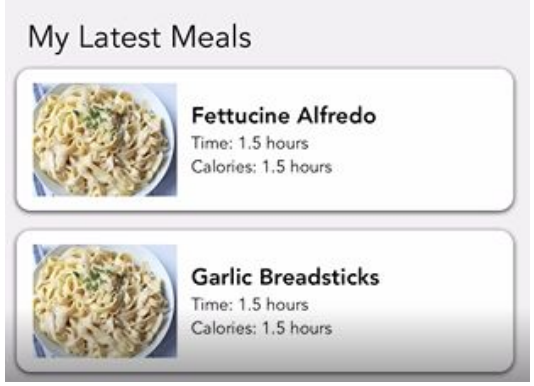
More Recipes, Ingredients

By 3/11

Hard-coded Data

Greeting

Personal Progress Counters



Recipe History

Fun Fact

Wizard of Oz Techniques

Nutrition limits are not calculated faithfully and use crude estimates

- Each ingredient is pre-labeled with a nutrient per unit ratio
- e.g. fettuccine pasta: 7g carbohydrates / oz

Issues/Questions

Switching between customary and metric

- Varies by ingredient (weight vs. volume)
- e.g. a cup of feathers is heavier than a cup of marbles

4

Demonstration of Prototype

?

5

Summary & Questions

Summary

Heuristic Evaluation Results

- 15 total severity 3-4 issues found (one 4 and fourteen 3's)
- Will address most of the issues

Overview of Revised Design

- Home page
- Clear indications of how user restrictions and preferences are used

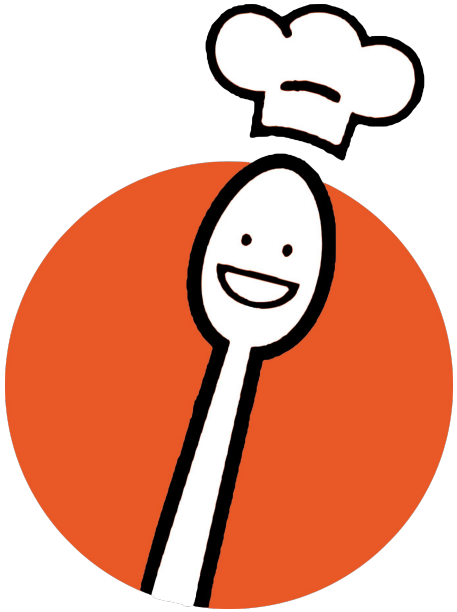
Prototype Implementation Status

- Completed layout, modifications, and nutrition warnings
- Need restriction indications and more recipes

Demonstration of Prototype

- Making a recipe
- Making a modification
- Setting a personal diet

Questions?



Thanks!