



# Pantry App Usability Testing

By Reynold Kissling



## GOAL STATEMENT

My user group is people with dietary restrictions (vegan, vegetarian, gluten-free etc) who have had difficulty finding or adapting recipes online and also find themselves with unfamiliar ingredients that end up going to waste after using them for a single recipe. They trust their fellow users and want to watch videos to help them prepare their meals.



## TESTING GOALS

- Determine viability of primary app functions:
  - Accessing and sorting My Pantry
  - Adding an item to My Pantry
  - Creating a recipe using an item in My Pantry
  - Saving a recipe into the user's Cookbook
  - Substituting ingredients in a recipe
- Assess wayfinding of users in real-world scenarios
- Identify usability issues and brainstorm fixes

## PANTRY



## MEET THE TESTERS

**TG**



- Grandmother of five in her mid-sixties
- Works as an educator in the mental health field
- Recently became a vegetarian
- Not very smartphone literate
- Likes to use google to find recipes

**AM**



- Mother of three in her early thirties
- Going to back to school for cybersecurity
- Frequently cooks for her husband and children
- Uses Pinterest to find recipes
- Highly smartphone-literate

**BK**



- Retired schoolteacher in her early sixties
- Cooks for mostly for herself, but also sometimes for friends and grown children
- Easily flustered by smartphone apps, looking for an easy and guided experience

**LL**



- Mother of two in her early forties
- Works full-time as a microbiologist
- Relies on her husband to do most of the cooking
- Struggles to find good vegan recipes
- Highly smartphone-literate

# PANTRY



## SCENARIO 1

You visit a friend/family member who has an extensive garden and always gives you strange fruits and vegetables to take home and cook with. On this occasion she leaves you with **two kohlrabi**. I want you to go to My Pantry, sort your inventory by location, and add the kohlrabi into your inventory.

### HOME SCREEN

PANTRY   




**BROWSE USER RECIPES**

**MY PANTRY**

**SUBSTITUTE!**

**GROCERY LIST**

### MY PANTRY

PANTRY   

**MY PANTRY**

**SORT** **ADD ITEM** **NEW RECIPE**

**A**

Apples - Granny Smith 2 eaches

**B**

Baking Soda 6 ounces

Bananas 6 eaches

Black Pepper 4 ounces

Black Tea 12 eaches

**C**

Cheese - Shredded 8 ounces

Cinnamon 2 ounces




**D**

Digiornios Pepperoni 1 eaches

Doritos - Nacho Cheese 1 eaches

**E**

### SORT MENU

PANTRY   

**MY PANTRY**

**SORT** **ADD ITEM** **NEW RECIPE**

**A**

**SORT**

Alphabetical

By Item Type

By Location

**DONE**

Cinnamon 2 ounces

**D**

Digiornios Pepperoni 1 eaches

Doritos - Nacho Cheese 1 eaches

**E**

### ADD ITEM

PANTRY   

**MY PANTRY**

**SORT** **ADD ITEM** **NEW RECIPE**

**+ ADD ITEM +**

ITEM NAME	QTY	TYPE
		ounces
		ounces
		ounces
		ounces

**DONE**

Apples - Granny Smith 2 eaches

Bananas 6 eaches

**REFRIGERATOR**

# PANTRY



## SCENARIO 2

Next, I want you to create a **new recipe** using the kohlrabi you just added to your inventory. You can allow the recipes to include ingredients not in your pantry. Save the recipe into your cookbook. Some friends are coming over for dinner tonight and you are excited to try out your new kohlrabi recipe, but you remember that they are vegan and the recipe contains dairy. Make the recipe **vegan** and save the new recipe into your cookbook.

### NEW RECIPE

### SAVE RECIPE

### HOME SCREEN

### SUBSTITUTE!

### SAVE RECIPE

**PANTRY**

**MY PANTRY**

**SORT** **ADD ITEM** **NEW RECIPE**

**NEW RECIPE**

**BY MEAL TYPE** Please Select...

**FIND RECIPES ONLY USING ITEMS FROM MY PANTRY** **CREATE**

**BY INGREDIENT** Please Select...

**FIND RECIPES ONLY USING ITEMS FROM MY PANTRY** **CREATE**

**SURPRISE ME!**

Apples - Granny Smith 2 eaches

Bananas 6 eaches

**REFRIGERATOR**

1/4 teaspoon cayenne  
1/2 cup grapeseed or vegetable oil (enough for 1/4-inch depth in a large skillet)

**For the avocado cream**

1/2 avocado  
1/4 cup plain yogurt  
1/2 lemon  
1/4 teaspoon kosher salt  
Green onions (for garnish)

**INSTRUCTIONS**

Cut the leaves off the kohlrabi and peel the bulb. Peel 1 carrot. Shred the vegetables in a food processor, or by hand using a grater. Squeeze the shredded vegetables in a tea cloth (or with your hands) to remove moisture, then add to a medium bowl with the egg, kosher salt, and cayenne. Mix to combine.

Place the oil in a large skillet (enough for 1/4-inch depth). Heat the oil over medium high heat, then place small patties of the fritter mixture into the oil. Fry on one side until browned, then fry on the other side. Remove and place on a plate lined with a paper towel to drain excess oil.

For the dipping sauce: Remove the avocado pit and scoop out the flesh with a spoon. In a small bowl, mix the avocado, plain yogurt, lemon juice, and kosher salt to make the avocado cream (or blend the ingredients together in a food processor).

To serve, slice the green onions. Serve fritters with avocado cream and green onions. Note: These fritters are best eaten warm the day of making; they don't save well. Like anything made with avocado, the avocado cream sauce will become brown after exposure to air. Make sure to cover the surface with plastic wrap when storing.

**SPICE RACK**

Black Pepper 4 ounces

**PANTRY**

**BROWSE USER RECIPES**

Recipe Name Updated by USERNAME 30 minutes Vegetarian

Recipe Name Updated by USERNAME 30 minutes Vegetarian

Recipe Name Updated by USERNAME 30 minutes Vegetarian

Recipe Name Updated by USERNAME 30 minutes Vegetarian

Recipe Name Updated by USERNAME 30 minutes Vegetarian

Recipe Name Updated by USERNAME 30 minutes Vegetarian

**MY PANTRY**

**SUBSTITUTE!**

**GROCERY LIST**

**PANTRY**

**SUBSTITUTE!**

**PASTE RECIPE HERE:**

**UPLOAD:** Please Select...

Please Select...

**MAKE PLEASE SELECT...**

**HERE'S YOUR RECIPE!**

**KOHLRABI FRITTERS**  
(Credit: aouplecooks.com)

**For the kohlrabi fritters**

2 kohlrabi  
1 carrot  
**1 banana (substitute for egg)**  
1/4 teaspoon kosher salt  
1/4 teaspoon cayenne  
1/2 cup grapeseed or vegetable oil (enough for 1/4-inch depth in a large skillet)

**For the avocado cream**

1/2 avocado  
**1/4 cup almond yogurt (substitute for plain yogurt)**  
1/2 lemon  
1/4 teaspoon kosher salt  
Green onions (for garnish)

**INSTRUCTIONS**

Cut the leaves off the kohlrabi and peel the bulb. Peel 1 carrot. Shred the vegetables in a food processor, or by hand using a grater. Squeeze the shredded vegetables in a tea cloth (or with your hands) to remove moisture, then add to a medium bowl with the **banana**, kosher salt, and cayenne. Mix to combine.

Place the oil in a large skillet (enough for 1/4-inch depth). Heat the oil over medium high heat, then place small patties of the fritter mixture into the oil. Fry on one side until browned, then fry on the other side. Remove and place on a plate lined with a paper towel to drain excess oil.

For the dipping sauce: Remove the avocado pit and scoop out the flesh with a spoon. In a small bowl, mix the avocado, **almond yogurt**, lemon juice, and kosher salt to make the avocado cream (or blend the ingredients together in a food processor).

To serve, slice the green onions. Serve fritters with avocado cream and green onions. Note: These fritters are best eaten warm the day of making; they don't save well. Like anything made with avocado, the avocado cream sauce will become brown after exposure to air. Make sure to cover the surface with plastic wrap when storing.



## WHAT WORKED

### ICONOGRAPHY

- 3 out of 4 users correctly identified the top menu icons and their functions
- All users identified cookbook icon in recipe page and substitution page
- All users understood how to exit pop-up windows

### SCENARIOS

- 3 out of 4 users completed the scenarios without the need for tester intervention
- All users found the scenarios to be logical and realistic
- All users implicitly understood the concept of creating and saving recipes, updating an inventory and making substitutions

### SUBSTITUTIONS

- All users easily navigated through the Substitutions! menus with no needed guidance
- All users felt the feature-set in the Substitutions! menu were robust, easy to understand and easy to execute
- All users were able to identify the substitutions made in the updated recipe

### ADDING ITEMS

- All users understood the process of entering items by hand, including the quantity and quantity type functionality
- All users understood at least one of the alternate add method icons



## PAIN POINTS

### ICONOGRAPHY

- 2 of 4 users were confused by the "Browse User Recipes" button on the home screen
- 2 of 4 users were not able to name one of the alternate add methods on the add-item menu
- 2 of 4 users were not able to identify the recipe refresh button on the recipe page

### WAYFINDING

- After creating a new recipe and saving into the cookbook, all four users tried to access the cookbook to make a substitution to that recipe instead of using the intended path of going to the home page and Substitutions!
- 2 of 4 users had difficulty finding the home button

### NEW RECIPE

- All users showed confusion navigating the new recipe menu
- 2 of 4 users did not realize the "by meal type" and "by ingredient" dropdown menus were separate
- All users were confused by the "only use items in pantry" checkboxes
- 2 of 4 users were confused by the "Surprise Me" button

### ADDING ITEMS

- 2 of 4 users attempted to add an item into the inventory without clicking the "add item" button
- 2 of 4 users had difficulty finding their item after adding it to their inventory
- 3 of 4 users wanted the option to choose which location the item was added to



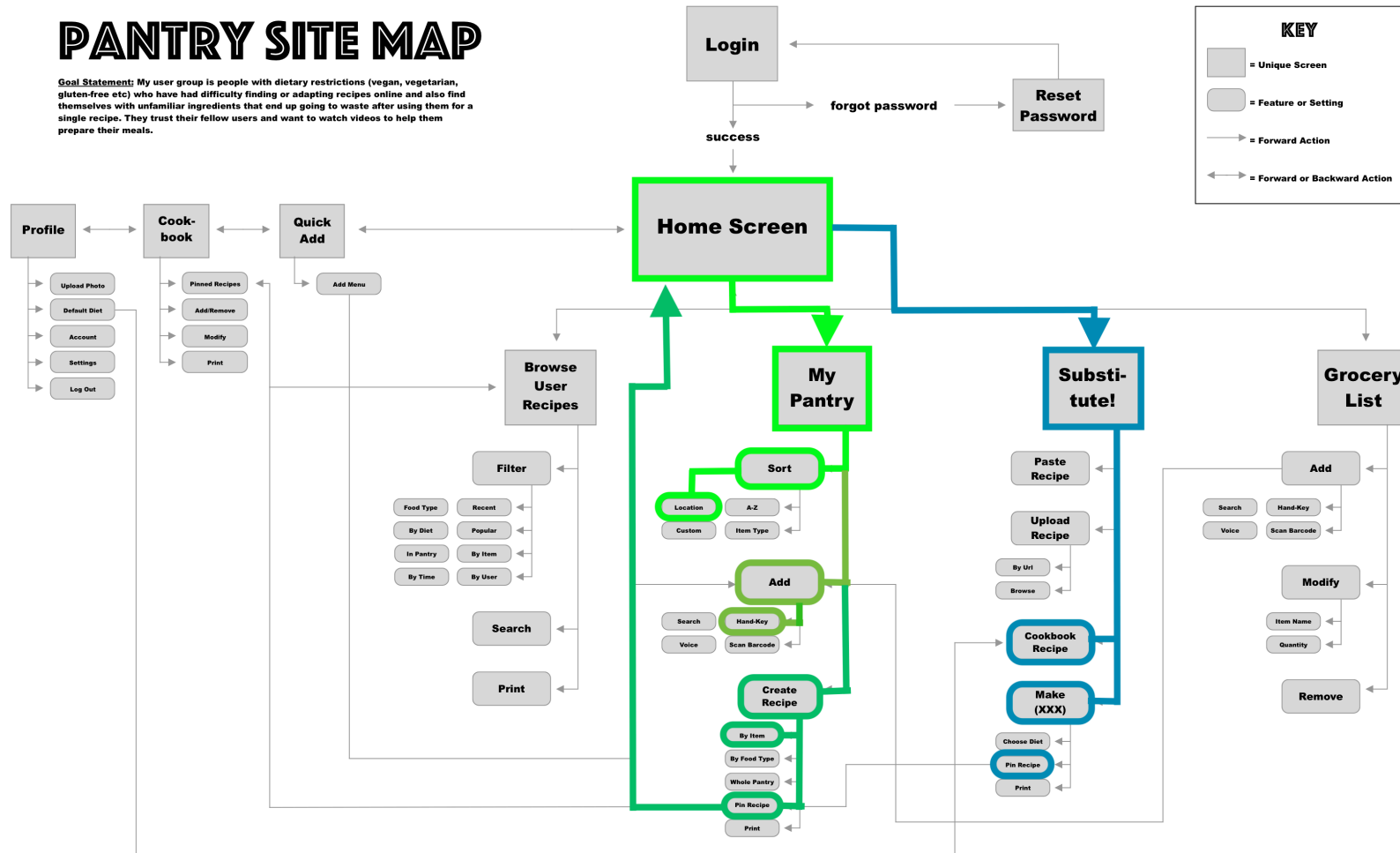
# PANTRY



# INTENDED USER PATH

## PANTRY SITE MAP

**Goal Statement:** My user group is people with dietary restrictions (vegan, vegetarian, gluten-free etc) who have had difficulty finding or adapting recipes online and also find themselves with unfamiliar ingredients that end up going to waste after using them for a single recipe. They trust their fellow users and want to watch videos to help them prepare their meals.



1. Navigate to My Pantry
2. Sort by Location
3. Add Item
4. New Recipe by Item
5. Save Recipe
6. Navigate to Home Screen

1. Navigate to Substitute!
2. Choose Recipe from Cookbook
3. Make Vegan
4. Save Recipe

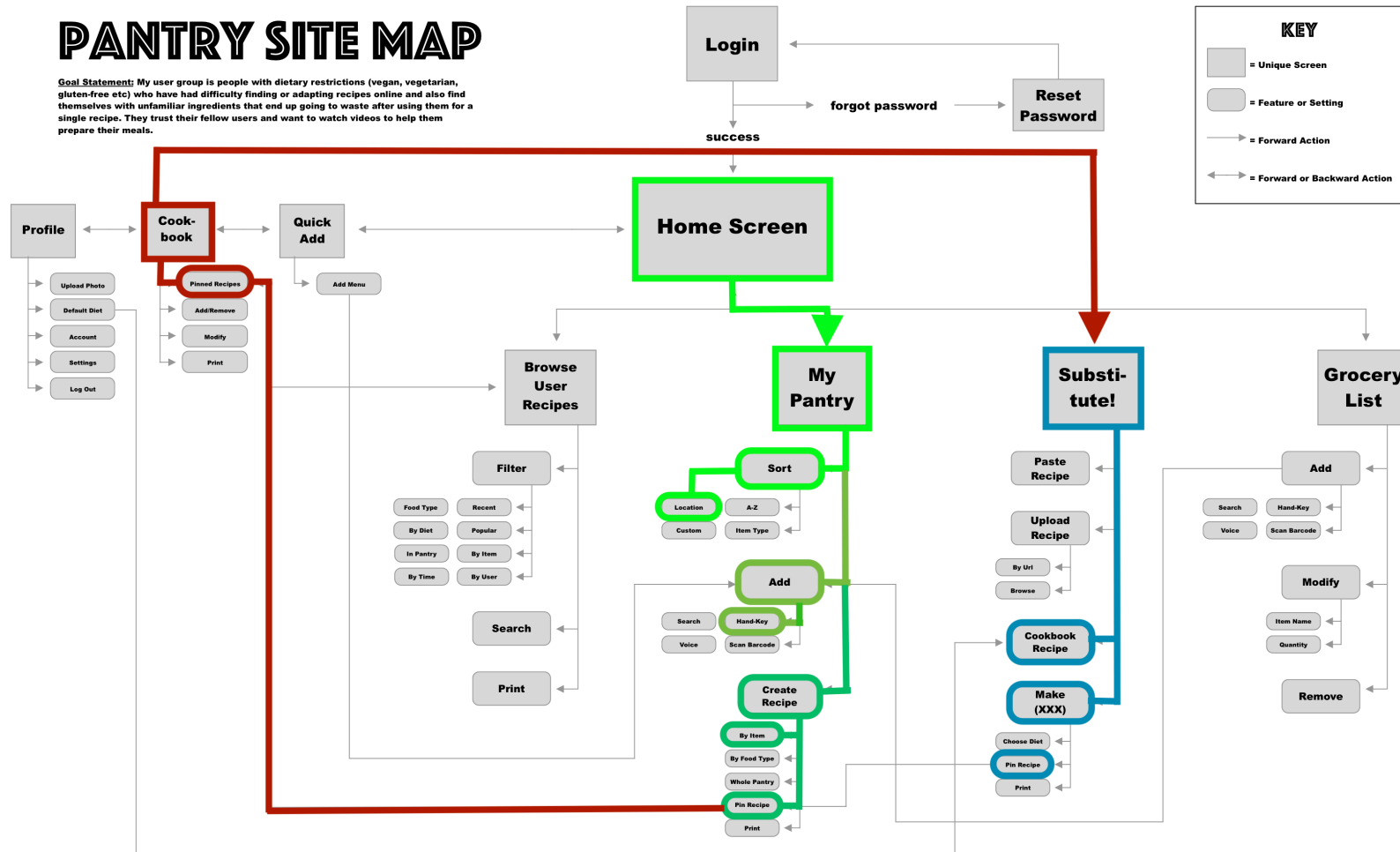
# PANTRY



## ACTUAL USER PATH

### PANTRY SITE MAP

**Goal Statement:** My user group is people with dietary restrictions (vegan, vegetarian, gluten-free etc) who have had difficulty finding or adapting recipes online and also find themselves with unfamiliar ingredients that end up going to waste after using them for a single recipe. They trust their fellow users and want to watch videos to help them prepare their meals.



1. Navigate to My Pantry
2. Sort by Location
3. Add Item
4. New Recipe by Item
5. Save Recipe

6. Navigate to Cookbook
7. Choose Recipe to Substitute
8. Navigate to Substitute!

9. Choose Recipe from Cookbook
10. Make Vegan
11. Save Recipe

# PANTRY



# AFFINITY DIAGRAM

## Icons Working Well

- Understood all upper icons
- Understood all add-item icons
- Understood recipe icons
- Understood all icons and buttons in home screen
- Understood all recipe icons
- Understood top menu icons
- Understood recipe icons

## Substitution Menu Worked!

- Understood substitution menus
- Understood substitution menus
- Understood substitution menus
- Understood substitution menus

## Tutorials

- "I usually explore apps by just clicking around"
- Likes learning by having video tutorials

## Using Web for Recipes

- Uses Google for recipes
- Uses allrecipes.com for recipes
- Uses Pinterest for recipes

## Icons Not Working Well

### home screen

- Didn't understand profile icon
- Misunderstood "Browse User Recipes" on home screen
- Thought "Browse User Recipes" was her cookbook
- Confused by meaning of "Substitute!" button on home screen

### sort

- Didn't understand difference between "item type" and "location" in sort menu
- Confused by term "eaches"
- Confused by term "eaches"

### add item

- Didn't understand voice integration button in add item menu
- Didn't understand barcode scanner

### recipe

- Didn't understand "refresh" icon
- Confused by "meal type" while creating recipe
- Confused by new recipe menu, "only use items in pantry" feature
- Didn't understand "only use items in pantry" in add menu

## Different Subs. Path

- Tried to go to cookbook to do substitution after creating recipe
- Tried to go to cookbook to do substitution after creating recipe
- Tried to go to cookbook to do substitution after creating recipe
- Tried to go to cookbook to do substitution after creating recipe

## Getting Home

- Could not figure out how to get back home
- Could not figure out how to get back home

## Choosing Locations

### wants choice

- Wants to choose where to sort newly added items
- Wants to choose where to sort newly added items

### do it for me

- Didn't want to choose where item was sorted, wanted the app to do it for her
- Wanted to see item after it was added

## PANTRY



## USER QUOTES

"I get frustrated if I have too many things [that I have to do in an app]" - BK

"I don't want recipes that are too labor-intensive" - BK

"I want to be able to see where these recipes came from" - BK

"I usually explore apps just by clicking around" - AM

"I like having the substitutions in the body of the recipe, not just in the ingredients list" - TG

"Recipe apps are too general and aren't focused enough for me to bother" - LL

"I really like that this is so simple and can be sorted in different ways" - LL

"This would be great for people who subscribe to CSA's (Community Supported Agriculture)" - LL

PANTRY



## RECOMMENDED CHANGES

Change "Browse User Recipes" button to clarify social function

Allow users to make substitutions to recipes saved in the cookbook

Allow users to sort newly-added items into pantry locations from the add menu

Change Home Button to make it easier for users to navigate home

Make it clear that creating a recipe by meal type is separate from creating a recipe by ingredient

Rename "Surprise Me" button to clarify its function

Show newly-added items in the pantry by scrolling to them, bolding or highlighting, etc

Rework the "Recipe Refresh" button into a carousel showing multiple recipe choices