



CAN YOU COOK IT ?

By Katerina Bosko & Anshul Mathew



Northeastern
University

Content

1. Usability
2. Design
3. Accessibility

1. Usability

Usability Studies

We conducted in total 6 usability studies, 3 per each developer.

Each study was recorded and analyzed.

Tasks:

- T1: Add ingredients on inventory page
- T2: Search for a recipe based on this ingredients
- T3: Add recipes to your recipes collection
- T4: Check your recipes collection
- T5: Add new custom recipe
- T6: Update the custom recipe
- T7: Delete recipes
- T8: Delete Ingredients

Questionnaire:

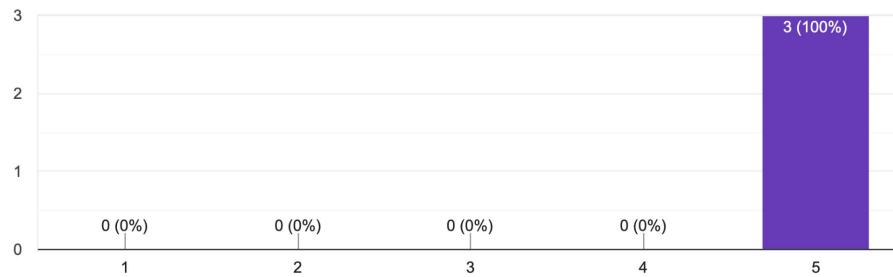
- How easy was it to add ingredients?
- How easy was it to search for a recipe?
- How easy was it to add recipes to your collection?
- How easy was it to check your recipes?
- How easy was it to add new custom recipe?
- How easy was it to update the custom recipe?
- How easy was it to delete the recipes?
- How intuitive/easy was it to use the app overall?
- Any other suggestions how we can improve the app?

Usability Results on Likert Scale

(1 – not easy at all, 3 neutral, 5 - very easy)

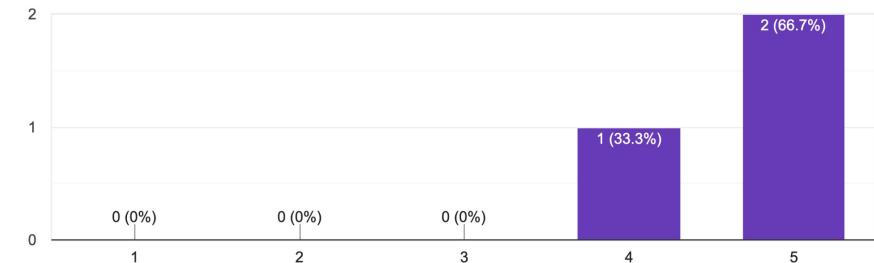
How easy was it to add ingredients?

3 responses



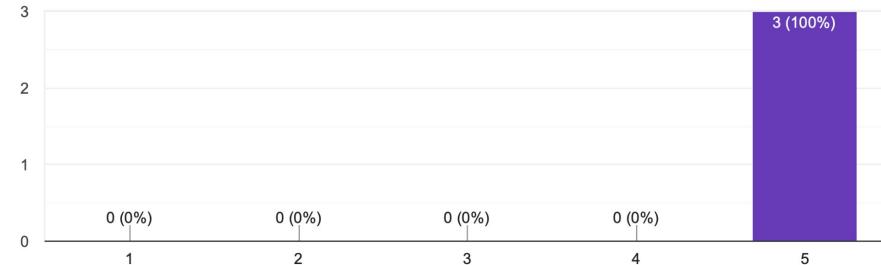
How easy was it to add recipes to your collection?

3 responses



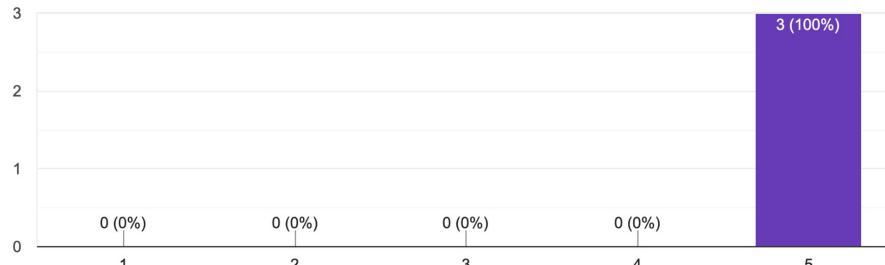
How easy was it to search for a recipe?

3 responses



How easy was it to add new custom recipe?

3 responses

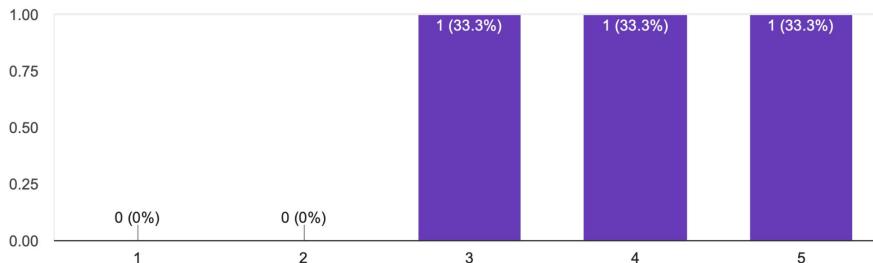


Usability Results on Likert Scale

(1 – not easy at all, 3 neutral, 5 - very easy)

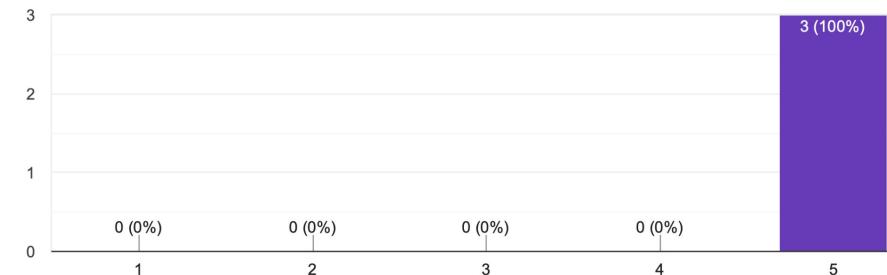
How easy was it to update the custom recipe?

3 responses



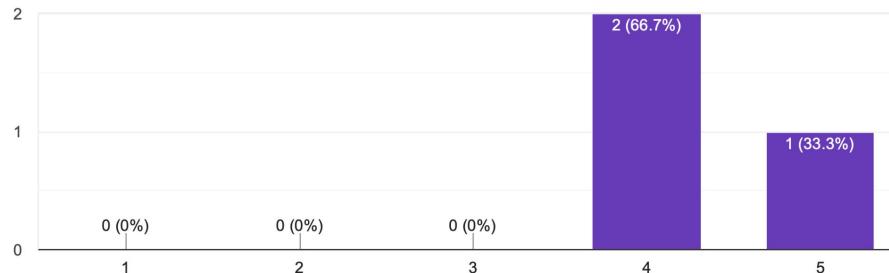
How easy was it to delete the recipes?

3 responses



How intuitive/easy was it to use the app overall?

3 responses

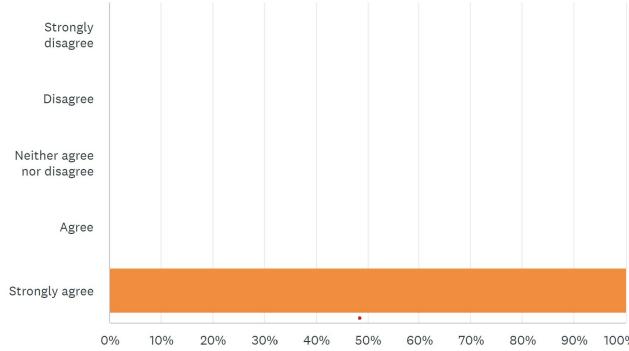


Usability Results on Likert Scale

(1 – not easy at all, 3 neutral, 5 - very easy)

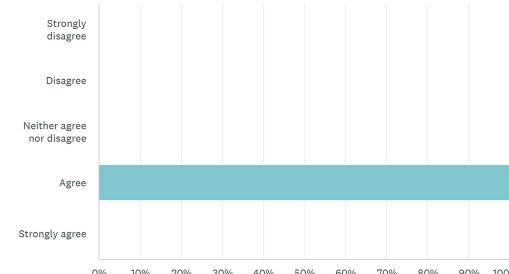
Was the application intuitive/easy to use for T1?

Answered: 3 Skipped: 0



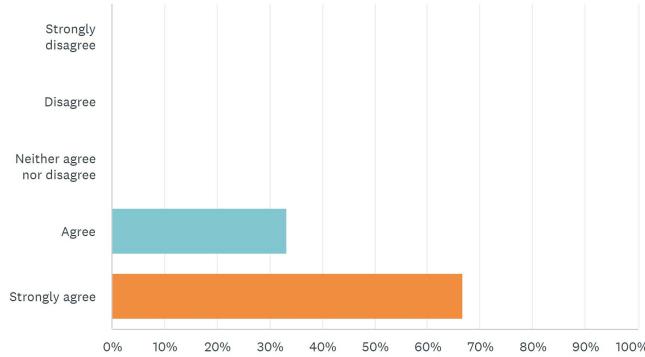
Was the application intuitive/easy to use for T3?

Answered: 3 Skipped: 0



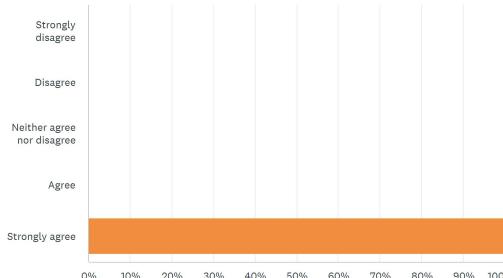
Was the application intuitive/easy to use for T2?

Answered: 3 Skipped: 0



Was the application intuitive/easy to use for T4?

Answered: 3 Skipped: 0

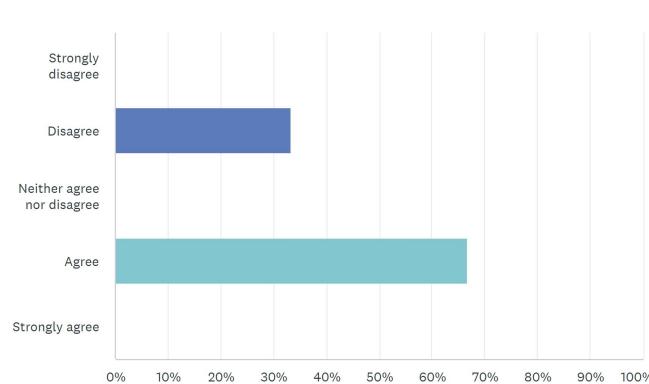


Usability Results on Likert Scale

(1 – not easy at all, 3 neutral, 5 - very easy)

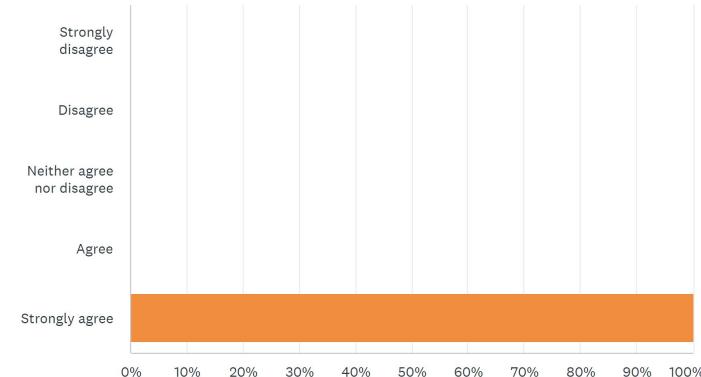
Was the application intuitive/easy to use for T7?

Answered: 3 Skipped: 0



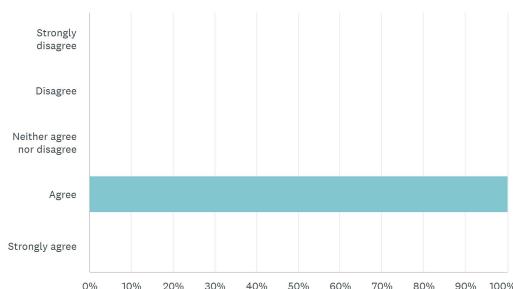
Was the application intuitive/easy to use for T8?

Answered: 3 Skipped: 0



Was the application intuitive/easy to use overall?

Answered: 3 Skipped: 0



Usability Report

Conclusions:

- Mostly positive feedback
- All tasks were completed
- Weak spots:
 - Updating recipes
 - Navigating from search results to my recipes

Suggestions:

- Please add possibility to removing ingredients, make it clear where my favorite recipes are
- Updating ingredients should include adding and deleting new items to the custom recipe
- Add a secondary option to update custom recipes via a new button by the Delete button
- Add a note in the inventory page saying that only if we have ingredients in it we should be able to search for recipes.
- Make the Plus button more prominent
- Improve the quality of search results.
- The search bar doesn't seem to be responsive when the words are capitalized
- The suggestions provided by the add ingredients search bar don't seem to have organization (perhaps he meant the alignment was not proper)
- Points out that it would be easier for the user to have ingredients presented as pages and rather not an infinite scroll

Usability Improvements

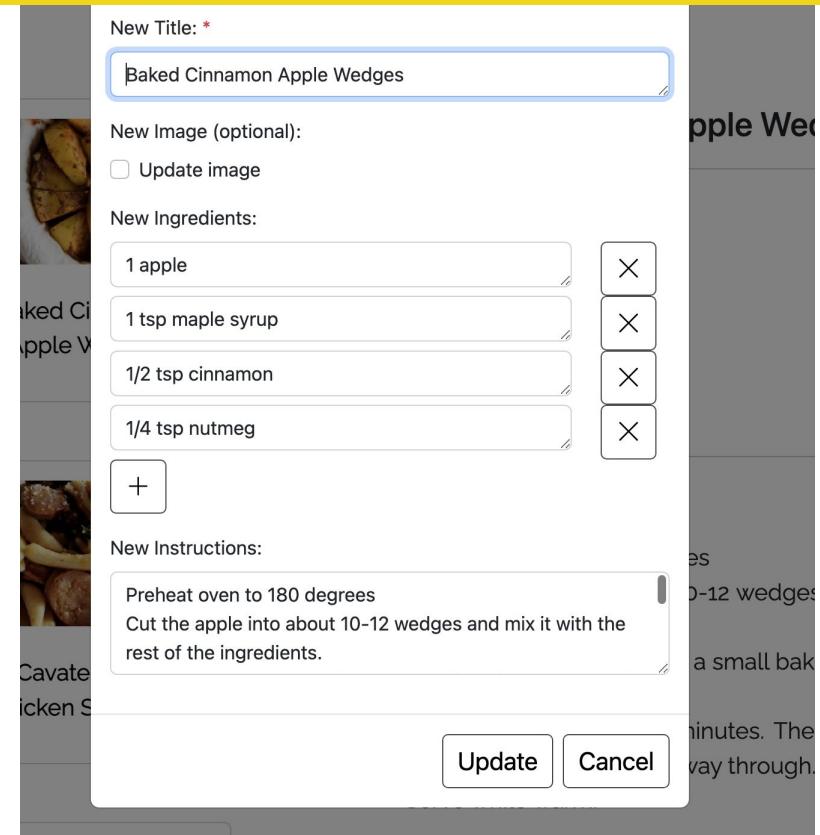
Issue #1:

Updating ingredients should include remove/add option

Change:

New Feature:

Added an Update Recipe Modal



Usability Improvements

Issue #2:

Unclear how to start updating the recipe despite the tooltip

Change:

“Add a secondary option to update recipes via a new button next to Delete button”
 (opens Update Recipe modal)

My Recipes



Simit (Turkish Circular Bread)



Old-Fashioned Potato Salad



Hasselback Potatoes



Hasselback Potatoes

Ingredients

- 2 tablespoons breadcrumbs
- melted butter
- 2 tablespoons grated Parmesan cheese
- 6 medium potatoes, peeled
- 1 teaspoon salt

Instructions

Preheat oven to 400. Slice each potato crosswise at 1/8-inch intervals, cutting to within 1/4 inch of the bottom. Be careful not to cut all the way through. Arrange potatoes in a buttered roasting pan. Drizzle 2 tablespoons melted butter evenly over potatoes, and sprinkle with

BEFORE

My Recipes



Simit (Turkish Circular Bread)



Old-Fashioned Potato Salad



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AFTER

Usability Improvements

Issue #3:

Unclear where the recipes are saved to once they are added from the Search page

Change:

Add new button with tooltip “Check saved recipes” in SearchPage to navigate to MyRecipes Page

Search results:



Curry Leaves Potato Chips



Gluten Free Vegan Gnocchi



Hasselback Potatoes



Old-Fashioned Potato Salad

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BEFORE

Search results



Curry Leaves Potato Chips



Gluten Free Vegan Gnocchi



Hasselback Potatoes



Old-Fashioned Potato Salad

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AFTER

Usability Improvements

Issue #4:

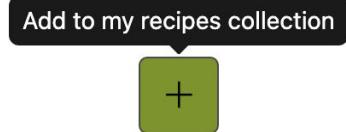
Unclear what different “+” buttons do



Change:

Add tooltips to buttons to eliminate
guessing

Bobby Flay's Meatball & Sauce



Usability Improvements

Issue #5:

2 participants started typing the ingredients separated by commas and only later found out they need to add ingredients one by one via “+” button

Change:

Add default values like
“enter ingredient #1”,
“enter ingredient #2”

The image shows two side-by-side screenshots of a 'Create New Recipe' dialog box. Both screenshots have a yellow header bar at the top.

BEFORE: The left screenshot shows an empty 'Ingredients:' input field. Below it is a row with a '+' button and an 'X' button. The 'Choose File' button shows 'No file chosen'.

AFTER: The right screenshot shows the same dialog box, but the 'Ingredients:' input field now contains the placeholder text 'enter ingredient #1'. The rest of the interface remains the same.

BEFORE

AFTER

Usability Improvements

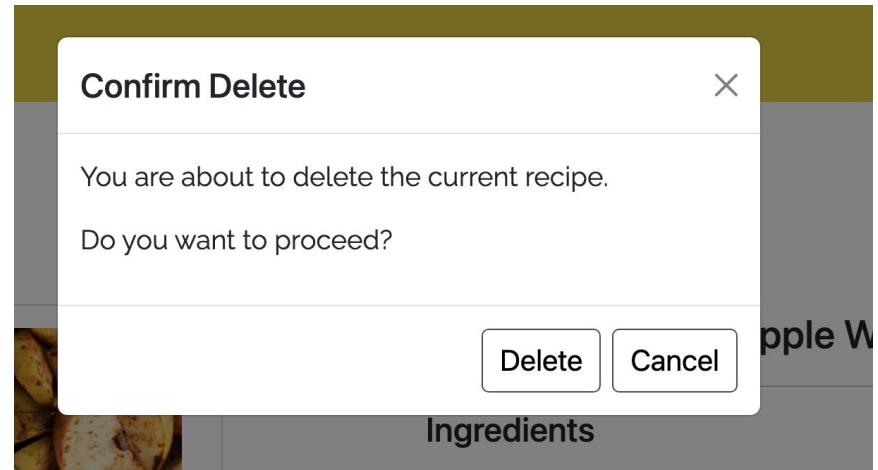
Issue #6:

2 participants asked for confirmation before deletion

Change:

New Feature:

Add a dialog window to confirm deletion



Usability Improvements

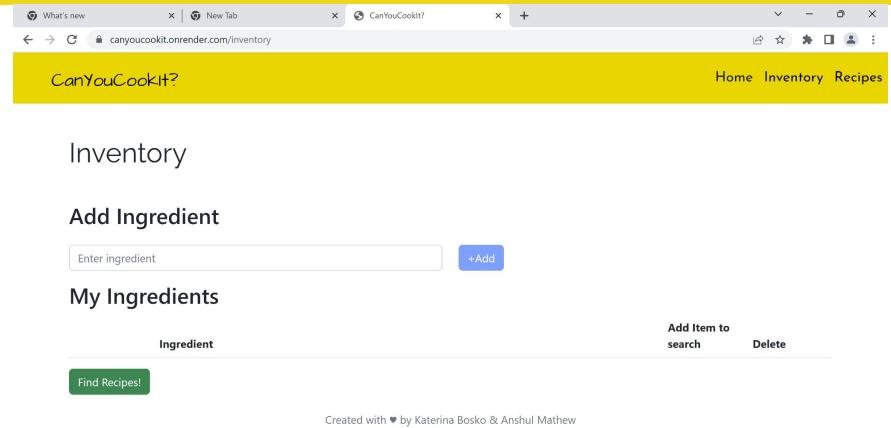
Issue #7:

Unclear as to when to start finding recipes (whether to proceed with an empty list or not)

Change:

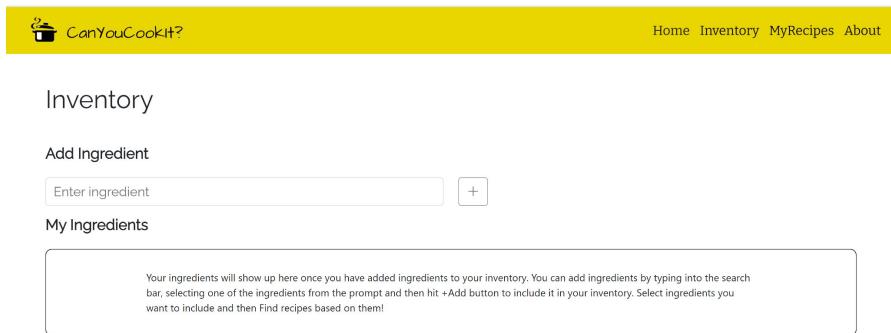
New Feature:

Add a note mentioning that we must first and select at least one ingredient to be included in the search before finding recipes



The screenshot shows a web browser window with three tabs: 'What's new', 'New Tab', and the active tab 'CanYouCookIt?'. The main content area has a yellow header bar with the title 'CanYouCookIt?'. Below it, there are three buttons: 'Home', 'Inventory', and 'Recipes'. The 'Inventory' section is currently selected. It displays the heading 'My Ingredients' and a table with two columns: 'Ingredient' and actions ('Add Item to search', 'Delete'). A green button labeled 'Find Recipes!' is located below the table. At the bottom of the page, a small note reads: 'Created with ❤ by Katerina Bosko & Anshul Mathew'.

BEFORE



This screenshot shows the same web browser window as the previous one, but with a note added to the 'My Ingredients' section. The note states: 'Your ingredients will show up here once you have added ingredients to your inventory. You can add ingredients by typing into the search bar, selecting one of the ingredients from the prompt and then hit +Add button to include it in your inventory. Select ingredients you want to include and then Find recipes based on them!'

AFTER

Usability Improvements

Issue #8:

When using capital letters the search doesn't provide any suggestions and the user is unable to add ingredients

Change:

Passed lower case entered value to perform the query against the database.
Suggestions are now provided even with capital case input.

Inventory

Add Ingredient

Milk

My Ingredients

Ingredient	Add Item to search	Delete
paneer	<input type="checkbox"/>	X
egg whites	<input type="checkbox"/>	X

BEFORE

Inventory

Add Ingredient

Milk

milk

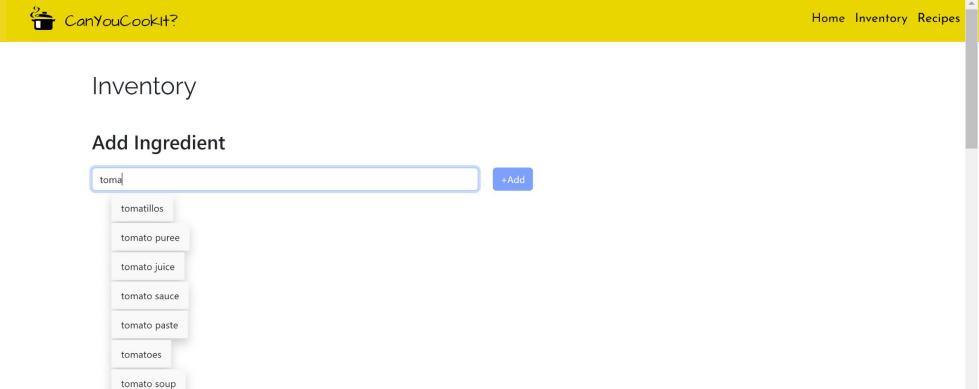
milk chocolate chips

here once you have added ingredients to your inventory. You can add ingredients by typing into the search bar, selecting one of the ingredients from the prompt and then hit +Add button to include it in your inventory. Select ingredients you want to include and then Find recipes based on them!

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AFTER

Usability Improvements

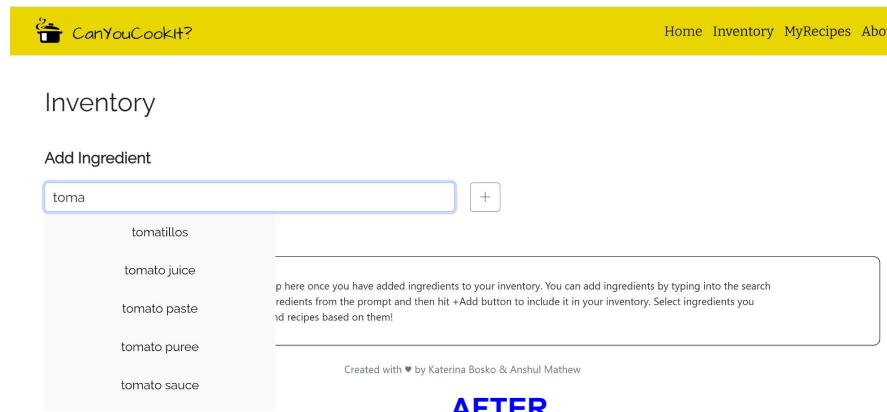


Issue #9:

The arrangement of the suggestions from the search should be arranged properly and not disrupt the flow of the page and keep the flow natural

Change:

A cleaner well formatted dropdown menu with a natural overflow was designed and built to keep the design more visually appealing



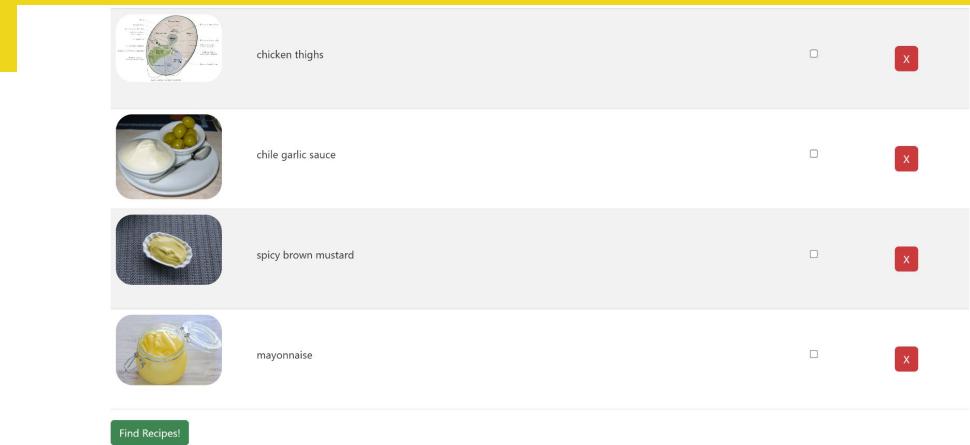
Usability Improvements

Issue #10:

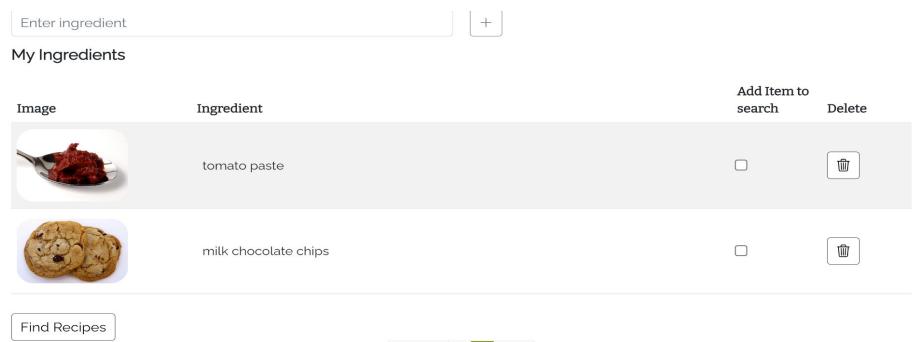
The inventory page of ingredients should not be arbitrarily long and must have a limit of the number of items displayed per page as the user might have to scroll a large amount to keep track of the different ingredients available

Change:

A paginated view of the inventory was developed to mitigate the above issue



BEFORE



AFTER

2. Design

Design

Color palette

Main color

 #eed61d

Approval color

 #769505

Cancelation color

 #c02a01

- tetradic colors for approval and cancelation chosen

based on Canva tool <https://www.canva.com/colors/color-wheel/>

Topography

2 main Google fonts:

- Raleway
- Bitter

Fonts chosen based on pairing proposed by Fontpair tool, <https://www.fontpair.co/all>

Bitter & Raleway

All of this text is editable. Simply click anywhere in the paragraph or heading text and start typing. You can copy and paste your own content in to see what it looks like with these font combinations.

Bitter

Raleway



Design

Redesigned HomePage

CanYouCookIt

Quickly find the matching recipes based on the list of ingredients you have at home.

[Get Started](#)


Welcome to CanYouCookIt app!

CanYouCookIt helps you to find the matching recipes based on the list of ingredients you have at home.

The app was built using React + Express.js + MongoDB + HTML5/Bootstrap. Its current version does not support user authentication.

We use external API - [Spoonacular](#) - to find the recipes and there are only 150 API calls for free per day. If the limit is depleted, please come back next day.

How to use the app:

1. Start adding ingredients on Inventory page. To enable the "Add" button, you must select an ingredient from the dropdown menu.
2. Update your ingredient's list by deleting ingredients you no longer have by clicking on "X" button
3. Use checkbox to add ingredients to the search and press "Find Recipes" button to search for recipes based on the checked ingredients.
4. Explore the recipes returned from the search by clicking on the recipe card on the left.
5. Add recipes you liked from the search to your recipes collection by pressing "+" button on the right.
6. Go to Recipes page to see your saved recipes.
7. You can edit the recipes by double clicking on title, ingredients or instructions on

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AFTER

BEFORE

Design

Fixed Alignment

My Recipes [+]



Simit (Turkish Circular Bread)



Old-Fashioned Potato Salad



[Home](#) [Inventory](#) [Recipes](#) [Hasselback Potatoes](#)

My Recipes [+]



Simit (Turkish Circular Bread)



Old-Fashioned Potato Salad



Hasselback Potatoes



AFTER

Simit (Turkish Circular Bread)

Ingredients

- 400 g flour,
- 1 1/3 tsp instant dry yeast,
- 40 g molasses
- olive oil
- 1 tsp salt,
- 150 g hulled sesame seeds
- 1 tablespoon water

Instructions

1. In a medium bowl combine the dry ingredients.
2. Make a well in the center and pour the olive oil and lukewarm water into the well.
3. Knead the dough with your hands for 5-10 minutes.



BEFORE

Design

Fixed Alignment

Inventory

Add Ingredient

on

- onion soup mix
- onion
- onion powder

My Ingredients

Ingredient	Add Item to search	Delete
paneer	X	

BEFORE

Inventory

Add Ingredient

pan

- pancetta
- paneer
- panko

Here once you have added ingredients to your inventory. You can add ingredients by typing into the search bar once you have added ingredients to your inventory. You can add ingredients by typing into the search bar and then hit +Add button to include it in your inventory. Select ingredients you

3 recipes based on them!

Created with ❤️ by Katerina Bosko & Anshul Mathew

6°C Sunny

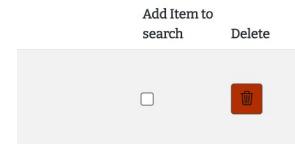
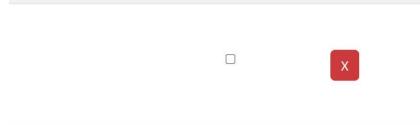
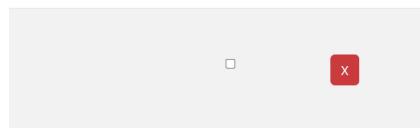
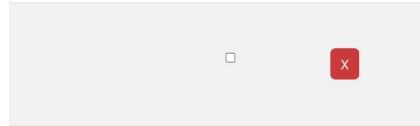
10:38 13-12-2022

AFTER

Design

Made consistent:

The delete icon across all pages with an improved css for better visuals and aesthetics



BEFORE

AFTER

Design

Made consistent:

The add and find recipes button across all pages with an improved css for better visuals and aesthetics

A screenshot of a user interface showing a list of ingredients. Each item consists of a small image on the left and the ingredient name on the right. The items listed are 'chile garlic sauce', 'spicy brown mustard', and 'mayonnaise'. Below the list is a green button labeled 'Find Recipes!'. The entire interface is contained within a white box with a thin black border.

BEFORE

Inventory

Add Ingredient

Enter ingredient

My Ingredients

Image	Ingredient
	peas

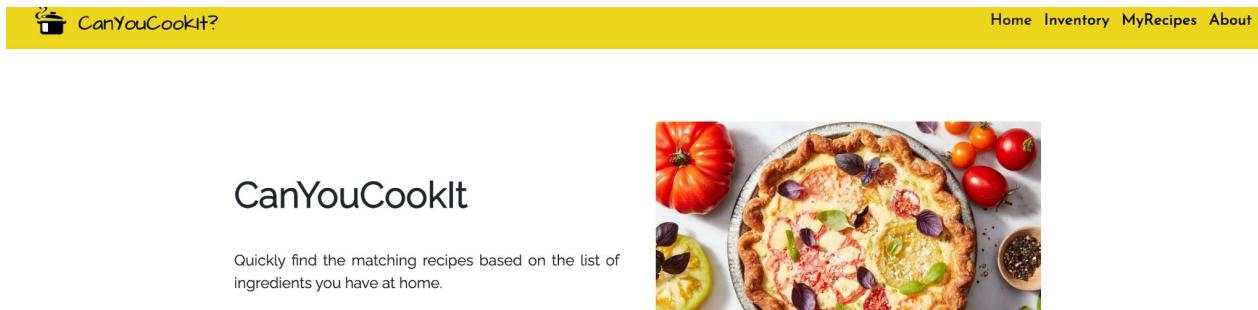


AFTER

3. Accessibility

Accessibility: Axe tool scans

HomePage



The screenshot shows the homepage of the CanYouCookIt? website. At the top, there's a yellow header bar with the logo "CanYouCookIt?" and navigation links for Home, Inventory, MyRecipes, and About. Below the header, the main content area features a large image of a pizza with various toppings like tomatoes and basil leaves. To the left of the image, the text "CanYouCookIt" is displayed. Below the image, there's a subtitle: "Quickly find the matching recipes based on the list of ingredients you have at home." At the bottom of the page, there's a DevTools interface for the axe-core 4.4.2 tool, showing a summary of accessibility issues. The DevTools interface includes sections for Overview, Test Name, Test URL (set to http://localhost:3000/), and a summary table. The summary table shows the following data:

TOTAL ISSUES	AUTOMATIC ISSUES	GUIDED ISSUES
0	0	0
Critical	0	0
Moderate	0	0

The DevTools interface also displays a message: "You have (0) automatic issues, nice!" and a call-to-action button: "TRY FOR FREE".

Accessibility

Inventory Page

The screenshot shows the DevTools interface with the axe DevTools extension active. The top navigation bar includes tabs for Console, Sources, Elements, Network, Performance, Memory, Application, Security, Lighthouse, and axe DevTools. The axe DevTools tab is selected.

The main area displays the results of a scan for the URL <http://localhost:3000/inventory#myIngredients>. The results are summarized in a table:

TOTAL ISSUES	AUTOMATIC ISSUES	GUIDED ISSUES	
0	0	0	
Critical	0	Serious	0
Moderate	0	Minor	0

The status message indicates "You have (0) automatic issues, nice!" and encourages users to "Catch even more accessibility issues with semi-automated guided tests." A "TRY FOR FREE" button is visible at the bottom.

Accessibility: Axe tool scans

Search Page

CanYouCookIt? Home Inventory MyRecipes About

Search results



Barley salad with vegetables



Easy and Addictive Eggplant *C...

localhost:3000/inventory

DevTools axe-core 4.4.2 Sign up / Sign in Overview Guided Tests

Test Name: SAVE TEST

Test URL: RE-RUN SCAN

http://localhost:3000/inventory

TOTAL ISSUES	AUTOMATIC ISSUES	GUIDED ISSUES
0	0	0
Critical	0	0
Moderate	0	0
Minor	0	0

Issues: Total Issues 0

You have (0) automatic issues, nice!

Catch even more accessibility issues with semi-automated guided tests.

TRY FOR FREE

Accessibility: Axe tool scans

MyRecipes page

CanYouCookIt? Home Inventory MyRecipes About

My Recipes

+  

Simit (Turkish Circular Bread)

Ingredients

- 400 g flour.
- 1 1/3 tsp instant dry yeast.

Double-click to edit

Hasselback Potatoes

DevTools axe-core 4.4.2 Sign up / Sign in Overview Guided Tests Test Name SAVE TEST Test URL RE-RUN SCAN http://localhost:3000/myrecipes Issues: Total Issues 0 TOTAL ISSUES AUTOMATIC ISSUES 0 GUIDED ISSUES 0 Critical 0 Serious 0 Moderate 0 Minor 0 You have (0) automatic issues, nice! Catch even more accessibility issues with semi-automated guided tests. TRY FOR FREE

Accessibility: Axe tool scans

Update Recipe modal

The screenshot shows the CanYouCookIt? application interface. A modal window titled "Update Recipe" is open, prompting the user to enter a title ("Simit (Turkish Circular Bread)"), upload an image, and list ingredients ("400 g flour.", "1 1/3 tsp instant dry yeast.", "40 g molasses"). In the background, a list of recipes like "Simit (Turkish Circular Bread)" and "Hass Pot" is visible. The browser's developer tools are open, specifically the Axe DevTools panel, which displays "Issues: Total Issues" and "You have (0) automatic issues, nice!". The Axe DevTools version is 4.4.2.

CanYouCookIt?

My Recipes +

Simit (Turkish Circular Bread)

Hass Pot

Home Inventory MyRecipes About

DevTools axe-core 4.4.2

Overview Guided Tests

Test Name

Test URL

http://localhost:3000/myrecipes

TOTAL ISSUES 0

AUTOMATIC ISSUES..... 0

GUIDED ISSUES..... 0

Critical..... 0 Serious..... 0

Moderate..... 0 Minor..... 0

TRY FOR FREE

Accessibility: Axe tool scans

Create Recipe modal

The screenshot shows the Axe DevTools interface running in a browser. The main window displays a "Create New Recipe" modal over a "My Recipes" application. The modal fields include "Title:" (empty), "Image (optional):" (choose file, no file chosen), and "Ingredients:" (enter ingredient #1, +, X). The background application shows two recipe cards: "Simit (Turkish Circular Bread)" and "Hass Pot". The browser's address bar shows the URL <http://localhost:3000/myrecipes>. The Axe DevTools toolbar at the bottom includes tabs for Overview, Guided Tests, and a status bar showing 0 issues.

DevTools axe-core 4.4.2

Sign up / Sign in

Overview Guided Tests

Test Name

Test URL <http://localhost:3000/myrecipes>

SAVE TEST RE-RUN SCAN

TOTAL ISSUES AUTOMATIC ISSUES 0
GUIDED ISSUES 0

Critical 0 Serious 0
Moderate 0 Minor 0

Issues: Total Issues 0

You have (0) automatic issues, nice!

Catch even more accessibility issues with semi-automated guided tests.

TRY FOR FREE