

Spoons: Your Kitchen Helper

Spoons is a mobile application prototype that aims to make food management simple, while emphasizing methods to increase awareness of existing foods in the home and ways to utilize them: minimizing waste and maximising delicious meals.

The key features implemented in our final prototype are:

1. [The Dashboard](#)
2. [Scanning and Processing New Items](#)
3. [Viewing and Managing the Expiry Date Calendar](#)
4. [Viewing and Managing the Pantry](#)
5. [Searching, Selecting, and Executing Recipes](#)
6. [User Settings and App Customization](#)

Using the Prototype

The link to the prototype view of Spoons can be found on the title page of our Final Report.

If viewing the prototype in a Desktop environment, anticipate using mouse/trackpad motions such as scrolling and hold-clicking to drag objects. This will simulate manual swiping motions in the target Mobile environment.

Upon opening the prototype link, you should be greeted with the main Dashboard screen.

Look for lines in this document indicated with “Action:” to follow the walkthrough.

The Dashboard

When the user first opens Spoons, their dashboard will be much more bare: this Dashboard has been populated by our team to simulate its appearance with regular use of the app.

The Dashboard is designed to efficiently accommodate the most likely reasons a user will pick up and open the app. The use cases and supporting features listed in order of appearance on the Dashboard screen are:

1. The user is looking for preparation ideas at mealtime: supported with a banner alert on the top of the screen directing the user to relevant recipes.

2. The user wishes to know if any items are expiring soon: supported by a simple 2-week snapshot of the Expiry Calendar and a relevant section of the Pantry in a card below.
3. The user is deciding which grocery items they should buy: supported by an abridged overview of items in the pantry, separated into their storage categories.
4. The user has shopped for groceries and wants to enter items into the app: supported by the prominent “Add Items” button in the center of the navigation bar.

The Dashboard allows users to jump directly into their intended task. However, the first task a new user will have to complete before they can do anything else is to add items into their Pantry.

→ **Action:** Click the “Add Items” button in the center of the navigation bar.

New Items

On the Item Scanning screen, users have the opportunity to customize the scanning process through a menu next to the Camera button. Although these options are not yet simulated in the scanning process, they demonstrate some of the user conveniences considered in the design process.

→ **Action:** Click the “Menu” button on the right of the navigation bar to explore the Scanning Options panel.

Upon entering the Item Scanning screen for the first time, users are prompted to begin a short tutorial to ensure a streamlined process.

→ **Action:** Follow the short Item Scanning tutorial, ending with navigation to the New Items screen.

The app processes the items listed on the receipt, and displays them to the user as a series of cards they can swipe through. The user can choose to skip all items, saving them in the calendar as a predicted expiry date range, or manually save each item with either its predicted range or an exact date.

→ **Action:** Swipe through the carousel on the New Items screen, exploring different date options or skipping all items for efficiency.

Once the scanning process is complete, the user has the options to return to the Dashboard or check out the new items in the Calendar. Let’s take a look at the calendar.

→ **Action:** Click the “Coming Up” button to navigate to the Calendar screen.

The Expiry Date Calendar

The sample months of June and July have been implemented for interaction. Users can see upcoming expiry dates, quickly find their corresponding items, and move directly into recipe ideas to use them.

- **Action:** Click marked days on the Calendar to see how the app efficiently scrolls to display the relevant list of items.
- Use the arrows on the Calendar to navigate between the months of June and July

On the Expiry Calendar screen, users can edit the expiry dates of previously logged items.

- **Action:** Click the purple arrow button on the “Eggs” item card. Click a date on the card’s calendar view to set its new expiry date.
- Click the pink “Generate Range” button to reset the item’s expiry to a predicted range.

However, the Expiry Calendar does not display all of the items a user owns; just the ones that are expiring soon. To see all the food available, a user will navigate to the Pantry screen.

- **Action:** Click the “Pantry” button on the left of the navigation bar.

The Pantry

On the Pantry screen, users can see all the food they have logged into the app categorized by storage area. Users will be able to search for items or scroll through each list.

- **Action:** Click the search bar to simulate searching for an item.

However, the user probably has lots of items in their household from before their use of the app. To seamlessly log these into the app for use in recipes, the user can navigate to the Manage Pantry screen.

- **Action:** Click the “Manage” button on the left of the navigation bar.

On this screen, users can rapidly scan through lists of common household foods, utilizing recognition over recall to keep the app up-to-date on pantry stock. By easily selecting which items the user has at home, the app will be able to accurately suggest possible recipes.

- **Action:** Try selecting and deselecting some items in each category.
- Click the “Pantry” button on the left of the navigation bar to return to the Pantry screen.

The next key function is for users to make something with the ingredients they have on the Recipes screen.

- **Action:** Click the “Recipes” button on the right of the navigation bar.

Recipes

On entering the Recipes screen, the user is presented with meal options in order of relevance.

- **Action:** Scroll around the page to see key informative tags on each recipe.
- Switch between the “Grid” and “List” options beside the search bar to see recipes in different viewing formats.
- Click the “Filter” button beside the search bar to see recipe filtering options, then click the “Back” button to return to the Recipes screen

Let's take a look at one of the recipes.

- **Action:** Click the “Cook” button on the “Egg Fried Rice” recipe card.

Each recipe has a summary of its nutritional facts, with the option to see more information.

- **Action:** Click the “See more details” label in the “Nutrition Facts” section and click outside the overlay to close it.

Our recipes are easy for users to follow, with check boxes for ingredients and steps to help users stay on track as they gather their ingredients and start cooking. Manually clicking each step after completion will help motivate users through the cooking process and ensure they do not miss any instructions.

- **Action:** Try checking some boxes in the Ingredients and Steps boxes, then click the “Done” button at the bottom of the screen.

After each recipe, the user has a chance to reflect on the cooking process and give their opinion on its difficulty with a rating.

- **Action:** Pick a spoon rating and click the “Confirm” button to complete the recipe.

As the user becomes more familiar with the core features, they may have the desire to customize the app more in the Settings screen.

- **Action:** Click the “Settings” icon on the top right of the screen.

Settings

The user is presented with a wealth of additional details and customization options on the Settings screen.

- **Action:** Click the App Details, Security, and Notifications objects to get a taste of some account options.

Spoons allows users to toggle certain nutrition facts on or off while on the Recipes screen.

- **Action:** Click the “i” button on the right of the Nutritional Info card to find out more.
- Try toggling some dietary facts on and off.

Now, let's take a look at some aesthetic customization. During the interviewing phase, we found that many users are put off by apps that lack aesthetic colour schemes. For this reason, implementing many colour and theme options to suit individual tastes was an important feature to include. Let's start simple with monochromatic themes.

- **Action:** Scroll to the bottom of the Settings page and click “Display.”
- Click the block labeled “Dark” to set the app theme to Dark Mode.
- Click the Settings icon on the navigation bar to check out the new Dark Mode theme.

If the user is feeling creative, there are even more options to adjust colors to their liking.

- **Action:** Scroll to the bottom of the Settings page and click “Styles.”
- Select the dark blue circle under “Font Colour.”
- Select the light blue circle under “Background Colour.”
- Select the yellow circle under “Secondary Background Colour.”
- Click the Settings icon on the navigation bar to check out your new Custom theme.

Thus concludes the walkthrough of our prototype, Spoons.