FUDGER

PROBLEM SPACE

Food waste is a threat to both environmental and food sustainability. We aim to reduce food waste; despite many facets to any level of food waste (production, transportation, supplier, consumer, etc), Our group focuses on the earliest stage of the consumer level-reducing the likelihood of overbuying food in retail spaces.

To alleviate this issue, we have designed a mobile application that aims to reduce over-purchasing grocery items by allowing the user to keep track of their inventory.

TARGET AUDIENCE

The application is designed for anyone who goes grocery shopping.

DESIGN PROCESS

There are not many mobile applications that keeps tracks of a person's inventory and most of them does not offer any incentive to keep users engaged.

Through each member's prototypes, we have collaboratively designed an application that focuses on being easy to use, mobility and functionality.

Throughout our design iterations, we were able to improve on the usability of the application by addressing several heuristic violations such as visibility of system status, user control, and error prevention.

Our application looks to allows users to keep track of the status of their food, streamlines the process of creating and maintaining grocery lists for users, and familiarizing users the process of creating grocery lists and maintaining an inventory of food at home.



Oldest Food in Fridge:

ltem	Number of Days Passed
Apple	10
Carrot	6
Honeydew	6
Pear	6



Apples

10 Days

Cantaloupes

6 Days

Eggs

3 Days

Title

Potato

Eggs

Onions

0



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Search for item



Carrots

6 Days

Pears

6 Days

Cheese

Grocery List

HOME PAGE

The homepage gives an overview of food the user has had the longest which also features tips to reduce food waste and a rewards icon that allows users to redeem prizes using their points.

Iteration changes:

Simplified colors to avoid confusion and color distraction.

First iteration of table had too many items, now prioritizes oldest items.

Highlighted the current page label the user is on to remind the user.

Implemented a rewards icon that allows users to redeem rewards by using accumulated points

INVENTORY PAGE

The inventory page keeps track of items the user currently has and allows the user to add items and search through them either by name or by category.

Iteration changes:

Many users had difficulty noticing the add button, we changed it into a different shape and color from the theme.

Previous version included +/- buttons beside the quantity which can accidentally be clicked by the user. On the latest iteration, the user must click on the item and confirm any changes if they wish to change the quantity.

Implemented a history for items that gave insight on items that have multiple quantities

We also added a placeholder text on the search bar as its purpose served unclear to previous users.

FINDINGS

During user testing, most participants were students which gives limited insight on how the application would fair with other age groups. Furthermore, many does not site food waste as an issue for them but do empathize when reminiscing of impoverished countries with sub-par amount of food.

The ability to send items from grocery list directly to inventory, add items by using a bar code scanner, and a user reward program received positive feedback from many users.

With the new Grocery List page layout, users had an easier time navigating and inputting items into the list whereas previous users of earlier iterations would often seek for help.

On the other hand, simple heuristic violations were often overlooked such as visibility of status (confirmation of changes), consistency and standards (does "x" in item description save changes and the use of units for quantities of items) and user freedom (ability to change "tip" slides on their own).

For future work, implementing an AR technology to scan inventory would accelerate the process of adding item into inventory. Another improvement could be the ability to create and share recipes among users based on their inventory.

Reuse to 1 2 Ins New Item Add To Inventory Items added! + 1

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GROCERY LIST PAGE

The grocery list page allows user to create a grocery list or reuse an existing list.

Iteration changes:

Added placeholder texts as users were confused what to put on the text boxes.

Added a feature which they can transfer items from their list directly to their inventory bypassing manual addition.

Implemented feature where user can simply press the "Reuse" button beside the list title, to reset any checked off items on the list.

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