

Smart Fridge Inventory System (SIFS)

Group 13

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Big User Stories

Iteration 1 Big Stories

Add Contents of Fridge

As a user, I would like to be able to add the current contents of my fridge to the program.

Priority: High

Cost: 14

Remove Contents of Fridge

As a user, I would like to be able to remove the current contents of my fridge in the program.

Priority: High

Cost: 12

Viewing Contents of Fridge

As a user, I would like to be able to view the current contents of my fridge to the program.

Priority: High

Cost: 22

Search Contents of Fridge

As a user, I would like to search the current contents of my fridge.

Question: Search by food group?

Priority: Medium

Cost: 8

Iteration 2 Big Stories

Assign Expiry Dates to Food

As a user, I would like to assign expiry dates to food in my fridge

Priority: High

Cost: 22

Defining Weekly Consumption Habits

As a user, I would like to have a consistent list of items I need week to week so I know what to get from the grocer.

Priority: High

Cost: 40

Generate Grocery List

As a user, I need to be able to create a list of items that I may need to restock on during my next trip to the grocery store.

Priority: High

Cost: 32

Sorting Contents of Fridge

As a user, I would like to be able to sort the current contents of my fridge to the program.

Priority: Medium

Cost: 18

Iteration 3 Big Stories

Personalised Recipe Recommendation

As a user, I want to see a list of suggested recipes that take into account what is in my fridge.

Priority: Medium

Cost: 30

Export/Import Tracking Data

As a user, I want to be able to export/import a backup for my application.

Priority: High

Cost: 14

Recent Food Consumption History

As a user, I want to be able to see what I have recently added or deleted from my fridge.

Priority: High

Cost: 24

Self-Adjusting Consumption :

As a user, I want my apps tracking to adjust for my habits of food consumption so that it can better generate grocery recommendations.

Priority: Medium

Cost: 44

Detailed User Stories (Iteration 1)

Adding New Fridge Items

As a user, I want to permanently add a new item to the fridge.

Priority: High

Cost: 7

Increment Item Stock

As a user, I want to increase the number of certain items in my fridge.

Priority: High

Cost: 3

Remove Used Items

As a user, I want to permanently remove an item from the fridge.

Priority: High

Cost: 8

Decrement Item Stock

As a user, I want to decrease the number of certain items in my fridge while still keeping them in the fridge.

Priority: High

Cost: 4

Expressive View Layout

As a user, I want to see the items in my fridge in a view layout alongside corresponding images and stock numbers to easily see through items.

Priority: Medium

Cost: 16

Compressed View Layout

As a user, I would like to see the items in my fridge in a minimal format with just its name, so that I can view more of my fridge at once and to reduce scrolling.

Priority: Medium

Cost: 6

Food Item Search

As a user, I would like to easily find certain items in the fridge to see how much of it is left.

Priority: High

Cost: 8

Personally Defined Items

As a user, I would like to add unique and uncommon items to my tracker.

Priority: Low

Cost: 4

Vision Statement

Title: "Smart Fridge Inventory System" (SFIS)

Summary: Our project aims to develop a fridge inventory system to help households manage their fridge groceries more efficiently and effectively. This is achieved by keeping track of fridge items, allowing users to add, remove, and search food items. Additionally SFIS generates grocery lists for shopping, notifies users about expired items, provides recipes of meals that can be made from the readily available ingredients from the user's fridge, and promotes healthy food consumption habits.

The project: Our software, "Smart Fridge Inventory System", is a smart inventory management application that targets households. The primary users of the application are families, and Students/Individuals that can benefit from managing and improving their grocery tracking and purchasing needs. The system will be fully run locally, with no dependencies or connections over the internet.

Unique features: The application will have a wide array of special/unique features such as, notifying users of empty or expired items, providing users with a personalised grocery list according to depleted items, as well as recipes and food consumption data/health tracking according to their available groceries. Additionally, the software will include a large default list of common grocery items for the user to search and add from to their fridge inventory, as well as the ability for users to add unique items (such as homemade, ethnic foods, etc). The software will keep track of food depletion by predicting the average food consumption of the user's household according to the number of family members and average depletion time of a food item, this future is also enhanced by the ability to learn about the food consumption patterns of the specific user to provide more accurate grocery lists, recipes and more.

Timeline: The software will be released in 3 stages of complexity, the first iteration will include basic inventory functionalities such as add, remove, and search. The second will provide users with weekly grocery lists according to depleted items, notify users of depleted or expired items, and filter/group food types for easier search. Finally our last iteration will include more advanced functionalities such as recipe generators, health & food consumptions tracking, backup of food inventory and data, as well as a history log of recently added and deleted items.

Value: Our application is designed to reduce food waste, and improve the quality of life in households regarding their groceries purchases and consumption. This can be achieved by providing easy-to-use, comprehensive, and intuitive software that can help families keep track of their fridge groceries more efficiently, and ultimately make better decisions about what to buy, how much to buy, and how to use their fridge groceries.

Success Criteria: Our project will be successful if it can reduce food waste, allow users to make better decisions about what groceries to buy, how much to buy, and how to use their fridge groceries appropriately. Additionally, the system will be successful if it can be adopted to a wide range of households, individuals and the general consumer market, and if it can be user-friendly, easy to use, and maintain long term recurring users.