



-FOO MY FOOD-

CS 30700
Sprint 2 Planning Document

Team 29

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Sprint Overview:

In Sprint 2, Team 29 focused on enhancing the FOO MY FOOD app by adding key functionalities for managing inventory and recipes. The team implemented features such as deleting items from the inventory with confirmation prompts, filtering and sorting inventory by categories or expiration dates, and adding new ingredients through preset options. They also introduced a synchronization feature allowing users to sync ingredient expiration dates with Apple Calendar. Additionally, recipe management was enhanced with the ability to create, edit, and delete recipes using text, images, and video links. Manual categorization adjustments were implemented, allowing users to drag-and-drop inventory items into new categories for better organization. The team addressed security challenges related to multi-user operations, ensuring data integrity during concurrent interactions. With thorough testing and debugging, the new features were integrated seamlessly between the frontend and backend, improving overall user experience across platforms.

Sprint Period:

- Oct.15-Nov. 1

Scrum Master:

- Songyu He

Scrum Meeting Plan:

- Sunday 10:00 A.M.
- Tuesday 3:30 P.M. with Project Coordinator
- Wednesday 8:00 P.M.

Risk and Challenges:

As we enter the mid-to-late stages of development, our focus has shifted toward refining features and implementing more advanced UI elements while ensuring seamless synchronization across platforms. Security is now a key concern, especially with multiple users operating simultaneously, requiring us to safeguard data integrity and prevent breaches during concurrent operations like logins and updates.

UI development and debugging have proven more time-consuming than expected, so maintaining a fast development pace while tackling new complexities is crucial. Effective communication and collaboration are essential to avoid bottlenecks and keep progress smooth. Additionally, given the complexity of multi-account operations, we must rigorously test the system to identify security risks and ensure platform stability. Allocating enough time for testing and debugging will help us balance quality with speed, ensuring high standards for security, performance, and user experience during concurrent user interactions.

Current Sprint Detail:

User story #1

As a user, I would like to be able to delete items from my current inventory shelf for recording the immediate consumption.

#	Description	Estimated Time	Owner
1	Implement delete functionality for items in the existing inventory	3hr	Songyu He
2	Create a UI element (e.g., delete button) for each inventory item	1hr	Songyu He
3	Add a confirmation prompt to prevent accidental deletions	2hr	Songyu He
4	Test the delete function to ensure all items can be removed correctly	2hr	Songyu He

Acceptance Criteria:

1. Given the user views their inventory shelf, when they see the list of items, then each item should have a delete button next to it on both iOS and Android platforms.
2. Given the user clicks the delete button for an item, when the confirmation prompt appears, then the user should be able to confirm or cancel the deletion.
3. Given the user confirms the deletion, when the system processes the request, then the item should be removed from the inventory list and the database.
4. Given the item has been successfully deleted, when the user refreshes the inventory shelf, then the item should no longer appear in the list.
5. Given the user cancels the deletion, when the prompt is dismissed, then no changes should occur, and the item should remain in the inventory.
6. Given the user attempts to delete an item, when the deletion fails, then an error message should be displayed to inform the user.

User story #2

As a user, I want to be able to filter ingredients based on different categories to make it easier to manage and view specific ingredient categories in my inventory.

#	Description	Estimated Time	Owner
1	Create filtering UI for ingredient categories	3hr	Songyu He
2	Create a data structure to categorize ingredients	2hr	Songyu He

3	Implement backend functionality to handle filtering requests	2hr	Songyu He
4	Connect the filtering UI with the backend to display results	2hr	Songyu He
5	Test the filtering functionality to ensure it works correctly	2hr	Songyu He

Acceptance Criteria:

1. Given the user opens the ingredients inventory page, when they view the filtering options, then they should see a list of available ingredient categories.
2. Given the user selects a category to filter by, when they apply the filter, then the inventory should display only the ingredients that belong to the selected category.
3. Given the user clears the filter, when they return to the inventory view, then all ingredients should be displayed, regardless of category.
4. Given the user switches between categories, when they apply a different filter, then the inventory should update to reflect the newly selected category without needing to refresh the page.
5. Given the user is applying filters, when they have selected multiple categories, then the inventory should display ingredients that match any of the selected categories, allowing for a broader view of available items.

User story #3

As a user, I would like to be able to filter and sort current inventory by preset or customized “expiration times”.

#	Description	Estimated Time	Owner
1	Create the filtering and sorting UI for expiration times	3hr	Songyu He
2	Implement functionality to support filtering by expiration dates	2hr	Songyu He
3	Implement functionality to support sorting by expiration dates	2hr	Songyu He
4	Connect the filtering and sorting UI with the backend to display results	2hr	Songyu He
5	Test the filtering and sorting functionality to ensure it works correctly	2hr	Songyu He

Acceptance Criteria:

1. Given the user opens the inventory page, when they view the filtering and sorting options, then they should see options to filter and sort items by expiration times.
2. Given the user selects a preset expiration filter (e.g., "Expires in 3 days"), when they apply the filter, then the inventory should display only items that meet the selected expiration criteria.
3. Given the user clears the filter, when they return to the inventory view, then all items should be displayed, regardless of expiration time.
4. Given the user sorts the inventory by expiration date, when they apply the sorting option, then the items should be rearranged in ascending or descending order based on their expiration dates.
5. Given the user applies multiple filters (e.g., expiration and category), when they apply those filters, then the inventory should update to reflect the combined criteria, showing only items that meet all selected conditions.

User story #4

I would like to synchronize ingredient expiration information with my Apple Calendar so that I can receive notification on my device.

#	Description	Estimated Time	Owner
1	Set up permissions for Apple Calendar and configure EventKit. Enable permissions in Xcode and add required configurations	2hr	Xiuwen Fang
2	Request calendar permissions and handle user authorization, write permission request code and handle different permission scenarios (grant/deny).	3hr	Xiuwen Fang
3	Implement communication with iOS's EventKit and synchronize the food and expiration time data returned by the backend to Apple Calendar.	4hr	Xiuwen fang
4	The UI that asks the user whether they want to sync to the calendar when add food	1hr	Xiuwen Fang
5	Tests need to ensure Flutter communicates with the backend, and that platform channels are correctly integrated with iOS.	2hr	Xiuwen Fang

Acceptance Criteria:

1. Given that the user is adding ingredients, when the user chooses whether to sync to Apple Calendar in the interface for adding ingredients, the interface should provide a clear option for the user to choose whether to sync.
2. Given a user adds an ingredient in the FOO MY FOOD app, when the user checks the "Sync to Calendar" option while adding an ingredient, then the expiration time of the ingredient should be synced to Apple Calendar and a calendar event with a reminder should be created.

3. Given a user adds ingredients in the FOO MY FOOD app, when the user chooses not to add the ingredient to the calendar, then the expiration time of the ingredient will not be synchronized to Apple Calendar, and no calendar event will be created.
4. Given that the user has chosen to synchronize ingredients to Apple Calendar for the first time and the app has not yet been granted calendar permissions, When the user submits a synchronization operation, Then the system should request permission to access Apple Calendar.
5. Given that the user has chosen to sync ingredients to Apple Calendar for the first time or the app has not yet been granted calendar permissions, When the user submits a sync operation, Then if the user grants permissions, the system shall create a calendar event and sync the ingredient information.

User story #5

I would like the system to suggest appropriate saving methods and saving times when adding or modifying ingredient information.

#	Description	Estimated Time	Owner
1	Create a database or configuration file containing the storage rules for common ingredients. Each ingredient corresponds to one or more storage methods (such as refrigeration, freezing) and the corresponding storage time.	1hr	Xinyi Wu
2	Create an API that returns matching food information based on the food name entered when the user searches.	2hr	Xiuwen Fang
3	a search button is provided to allow the user to search the database for matching foods.	1hr	Xiuwen fang
4	Automatically fill the food information returned by the backend into the input form, allowing users to see preset saving suggestions and information.	2hr	Xiuwen Fang
4	Logic for handling user input and calling the API to get suggestions	2hr	Xiuwen Fang
5	Test different search scenarios to ensure the system can correctly match food items, autocomplete, and handle user modifications. Test data saving and error handling.	2hr	Xiuwen Fang

Acceptance Criteria:

1. Given a user enters a food name when adding or modifying a food item, when the user clicks on the "Search" button, then the system returns the names and

abbreviated information of all matching food items based on the name entered by the user.

2. Given that there is no matching food name in the database, when the user clicks on "Search" and the system does not find a matching food, then the system should display "No matching food found" or a similar message.
3. Given that the user clicks "Search" and selects a matching food item, when the system finds the matching food item then the system should automatically populate the input form with the food item's details, including fields such as preservation method and preservation time.
4. Given that the system has auto-populated food information, when the user modifies the auto-populated food information (e.g., save method, save time, etc.), then the app should allow the user to manually modify this information without affecting the auto-populated data.
5. Given that the user has searched and modified the food information (or manually entered the food information directly, when the user clicks on the "Add" button, then the system shall store the modified food information into the user's food database.

User story #6

I would like to have an in-app list function to track what I am going to buy soon.

#	Description	Estimated Time	Owner
1	Create a table(database), such as shopping_list, with fields such as user ID, product name, quantity, date added, etc.	1hr	Xinyi Wu
2	Create a "Shopping List" page or section that includes an input box for adding products, a product list display area, and buttons for editing and deleting functions. And add a "Shopping List" button to the navigation bar.	3hr	Xiuwen Fang
3	Create APIs for users' shopping lists to support adding, updating, deleting, and querying items.	2hr	Xiuwen fang
4	link frontend and backend	2hr	Xiuwen Fang
5	Fully test and debug the shopping list functionality to ensure that the add, modify, delete and synchronize functions are working properly.	2hr	Xiuwen Fang

Acceptance Criteria:

1. Given that the user wants to add a certain product to the shopping list, when the user enters the name and quantity of the product in the "Add Product" interface and clicks the "Add" button, then the system should add the product to the user's shopping list

and display the newly added product in the shopping list interface. Then the system should add the product to the user's shopping list and display the added product in the shopping list interface.

2. Given that a user has added an item to the shopping list, When the user clicks on an item in the shopping list and modifies its quantity or name, Then the system should update the information of the item and display the updated item information in the shopping list interface.
3. Given that the user wishes to view the current shopping list, when the user navigates to the "Shopping List" screen, then the system should display all the items in the user's current shopping list, including the names and quantities of the items.
4. Given that the user wants to delete an item in the shopping list, when the user clicks the "Delete" button in the shopping list, then the system should remove the item from the shopping list and no longer display the item on the interface.
5. Given that the user has purchased an item in the shopping list, when the user selects the "Mark as Purchased" option in the shopping list, then the system shall mark the item as purchased and remove it from the shopping list screen or mark it as "Purchased". Purchased".

User story #7

I would like to receive an in-app notice of the expiration information.

#	Description	Estimated Time	Owner
1	Create a notice UI	2hr	Xinyi Guan
2	Write an in-app notification API to remind users that ingredients are about to expire.	3hr	Xinyi Guan
3	Connect frontend and backend	2hr	Xinyi Guan
4	Test/debug the expiration information notification function to ensure that it works	2hr	Xinyi Guan

Acceptance Criteria:

1. Given that the user has ingredients in their account with expiration dates, when the expiration date is approaching, then the user should receive an in-app notification reminding them of the upcoming expiration.
2. Given that the system tracks ingredient expiration dates, when an expiration date passes without the user acting on it, then the system should continue showing the notification until the user acknowledges or clears it.
3. Given that the user sees an expiration notification, when the user interacts with the notification (e.g., marks it as read or deletes it), then the notification should be updated accordingly and disappear.
4. Given that the user does not interact with a notification, when they reopen the app, then the unhandled notification should still be displayed until they take action.

User story #8

I want to be able to create my recipes via text, image or video links and keep accurate records.

#	Description	Estimated Time	Owner
1	Create a create recipe UI	2hr	Xinyi Guan
2	Create all recipes display UI	2hr	Xinyi Guan
3	Create API to allow users upload their recipes by text, image or video links and keep them.	3hr	Xinyi Guan
4	Connect frontend and backend	2hr	Xinyi Guan
5	Creating needed table and data structure changes in the database	1hr	Xinyi Wu
6	Test/debug to make sure this function is working	2hr	Xinyi Guan

Acceptance Criteria:

1. Given that the user wants to create a recipe, when they open the recipe creation UI, then they should be able to input recipe details through text, images and video links.
2. Given that the user chooses to input a recipe, they should be able to select multiple input options for one recipe (text, images, links).
3. Given that the user uploads a recipe, when they submit the recipe, then the application should inform them correct information (uploaded successfully/fail to upload)
4. Given that the user has already created a recipe, when they want to check all the recipes they have, then they should be able to see all of them in one page.

User story #9

As a user, I would like to be able to edit and delete recipes that I have previously created.

#	Description	Estimated Time	Owner
1	Create a edit/delete recipes UI	2hr	Xinyi Guan
2	Create API to support users to edit/delete created recipe contents.	4hr	Xinyi Guan
3	Connect frontend and backend	2hr	Xinyi Guan
4	Store information into the database.	1hr	Xinyi Guan

5	Test/debug to make sure this function is working	2hr	Xinyi Guan
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Acceptance Criteria:

1. Given that the user has created recipes, when they want to edit/delete recipes UI, then they should be able to view all the previously created recipes with options to edit or delete them.
2. Given that the user wants to edit a recipe, when they finish editing, the application should inform them with the correct message.
3. Given that the user wants to delete a recipe, when they choose the button to delete, the application should inform them with the correct message.
4. Given that the user has already edited one of the recipes, then the user should be able to see it has been changed in the UI that shows up all recipes.
5. Given that the user has already deleted one of the recipes, then the user should not see it in the UI that shows up all recipes.

User story #10

As a user, I want to be able to receive an automatically categorized inventory shelf after each modification.

#	Description	Estimated Time	Owner
1	Design and implement the UI to allow users to choose between displaying the inventory by addition order, category (sorted by expiration within each category), or by expiration date for all items.	3hrs	Xinyi Wu
2	Develop the API to support sorting the inventory based on the user's selection: addition order, category with expiration within, or overall expiration date.	4hrs	Xinyi Wu
3	Connect the frontend with the backend so that the selected sorting option is correctly applied and reflected in the inventory display.	2hrs	Xinyi Wu
4	Ensure that inventory items are grouped and sorted correctly in the frontend based on the user's selected option (category with expiration or overall expiration).	2hrs	Xinyi Wu
5	Provide feedback messages after sorting to confirm to the user which sorting option was applied (e.g., sorted by category or expiration).	1hr	Xinyi Wu
6	Test and debug the feature to ensure sorting works as expected across different	2hrs	Xinyi Wu

	scenarios, ensuring no errors occur when switching between sorting methods.		
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Acceptance Criteria:

1. Given that the user is on the inventory page, when they do not select any sorting option, then the inventory should display items in the order they were added by default.
2. Given that the user wants to categorize their inventory, when they select the option to sort by category, then the system should group the items by type (category) and further sort each category by expiration date, from nearest to farthest expiration.
3. Given that the user wants to sort their inventory by expiration date, when they select the option to sort by expiration date, then all items, regardless of category, should be displayed in order of expiration, with the nearest expiration date first.
4. Given that the user has selected a sorting method (either by category or expiration date), when the sorting is applied, then the system should display a confirmation message to inform the user of the applied sorting method (e.g., "Items are sorted by category and expiration date").
5. Given that the user has applied one of the sorting methods, when they view the inventory, then the inventory should consistently reflect the selected sorting method without errors, and switching between sorting options should immediately update the display.

User story #11

As a user, I would like to be able to change the categorization of an ingredient at any time so that I can manually adjust the categorization if the automatic categorization is inaccurate.

#	Description	Estimated Time	Owner
1	Modify the UI to include an "Edit Categorization" button, and allow users to long-press and drag items into new categories for manual adjustment.	5hr	Xinyi Wu
2	Develop the logic to handle the drag-and-drop functionality, ensuring smooth interaction and proper UI feedback during the drag operation.	2hrs	Xinyi Wu
3	Ensure to handle saving the manually adjusted categorization to the database.	1hr	Xinyi Wu
4	Ensure the frontend and backend are properly connected to reflect the new categories after the user saves their changes and sync the new categorization with the database.	2hrs	Xinyi Wu
5	Provide feedback to the user after saving the changes, confirming that the new	1hr	Xinyi Wu

	categorization has been successfully applied (shown on the inventory page and updated in the database).		
6	Test and debug the entire feature to ensure that manual adjustments are reflected correctly in the UI and database, and that feedback is properly displayed.	2hrs	Xinyi Wu

Acceptance Criteria:

1. Given that the user has selected to display inventory sorted by categorization, when they click the "Edit Categorization" button, then the system should allow them to long-press any item and drag it to a new category.
2. Given that the user is in the edit mode for categorization, when they long-press and drag an item to a new category, then the system should visually indicate that the item has been moved and provide an option to save or cancel the changes.
3. Given that the user has dragged items into new categories, when they press the "Save" button, then the system should save the changes to the database and display the inventory in the newly updated categorization.
4. Given that the user has successfully saved their categorization changes, when the changes are confirmed, then the system should display a feedback message confirming that the categorization has been updated and saved successfully.
5. Given that the user has manually adjusted the categorization, when they revisit the inventory page, then the system should display the items based on the newly saved categories and ensure the new categorization persists across sessions.

User story #12

As a user, I would like to add new items into my inventory by selecting preset ingredient options for quick updates.

#	Description	Estimated Time	Owner
1	Change the UI for the "Add Inventory" feature, including a search box for the user to input keywords related to ingredients.	2hrs	Xinyi Wu
2	Develop the backend logic to query the database for the most relevant ingredients based on the user's input and display the results in a dropdown list.	3hrs	Xinyi Wu
3	Create or modify a table in the database containing preset ingredients, categories, and other related information to be used for quick adding.	2hrs	Xinyi Wu
4	Develop the feature that automatically fills in the ingredient's preset information when the user selects an item from the dropdown list.	2hrs	Xinyi Wu

5	Ensure that the preset data is editable by the user once the item is loaded into the food addition page, allowing further customization before saving.	1hr	Xinyi Wu
6	Provide feedback messages after the item is successfully added as a preset ingredient, confirming the addition to the inventory.	1hr	Xinyi Wu
7	Test and debug the entire workflow, ensuring the search, preset data loading, and item addition processes work smoothly.	2hrs	Xinyi Wu

Acceptance Criteria:

1. Given that the user wants to add a new item to their inventory, when they click the "Add Inventory" button, then a search box should appear for the user to enter keywords related to the ingredient they want to add.
2. Given that the user has entered a keyword, when the system retrieves relevant ingredients, then a dropdown list should display the most relevant ingredient categories based on the user's input.
3. Given that the user selects an ingredient from the dropdown list, when they are redirected to the item addition page, then the system should automatically fill in the preset information (e.g., name, category, expiration guidelines, etc.) for the selected ingredient.
4. Given that the user is on the food addition page with pre-filled data, when they make any changes to the preset information or confirm the item, then the system should update the inventory with the new or modified details.
5. Given that the user has successfully added the item to their inventory, when the process is completed, then the system should display a confirmation message indicating that the item has been added to the inventory.

Total Working Hours for Sprint2

Member Name	Total Time	Tasks
Charlie Fang	30	Calendar synchronization of expiration times, auto-population of food information, shopping lists
Xinyi Guan	31	Recipe creation and display; In-app notification of expiration date
Hathaway He	30	delete ingredients and enable sort and filter for inventory
Xinyi Wu	43	Categorization and sorted display; quick-add functions; database supports

Remaining Backlog

Functional Requirements

Account System

As a user:

- ~~1. I would like to sign up for a FOO MY FOOD account via email with a unique username on both iOS and Android platform, so that I can easily distinguish my account and access the app through a traditional method.~~
- ~~2. I would like to be able to log in for my FOO MY FOOD account via email address.~~
- ~~3. I would like to be able to log out of my FOO MY FOOD account at any time to ensure the security of my account and to protect personal information.~~
- ~~4. I would like to be able to reset my FOO MY FOOD account's password through a confirmation email with the reset link if I forget it in order to regain access to my account.~~
- ~~5. I would like to set a new password for my account by answering a security question, without waiting for an email.~~
- ~~6. I would like to be able to set my profile information (e.g., username, email address, avatar) for my FOO MY FOOD account, in order to display my basic information.~~
7. I would like to be able to change my profile to keep my information up to date.
- ~~8. I would like to be able to select an avatar from the gallery or just take an avatar photo in order to update my profile in real time.~~
9. I would like to be able to set my food and cooking style preferences (e.g. dietary restrictions, preferred cuisine) in my FOO MY FOOD account so that the app can recommend personalized recipes and meal plans based on my preferences.
10. I would like to be able to update my food and cooking style preferences at any time (e.g. adjusting my dietary restrictions or adding new preferred dishes) so that the app can continue to recommend personalized recipes and meal plans based on my latest needs.

Expiration Tracking and Notification

As a user:

- ~~11. I would like to add new items into my inventory by selecting preset ingredient options for quick updates.~~
- ~~12. I would like to be able to manually enter ingredients to add to inventory in order to enter ingredients that are not in the preset options.~~
13. I would like to be able to see the current inventory of ingredients to have a better idea of what is in my home.(Add a preview page or something)
- ~~14. I would like to be able to change the names of the ingredients in my inventory in order to update incorrect or outdated entries.~~
- ~~15. I would like to be able to modify the quantity of each ingredient in my inventory to accurately reflect the amount of ingredients available.~~

- ~~16. I would like to be able to delete items from my current inventory shelf for recording the immediate consumption.~~
- ~~17. I would like to set custom expiration dates for my ingredients so that I can take into account personal preferences or storage methods.~~
18. I would like to set food preservation methods (e.g., freezer, pantry) for ingredients.
- ~~19. I would like the system to suggest appropriate saving methods and saving times when adding or modifying ingredient information.~~
20. I would like to receive an automatically updated food status from the app, calculated with the provided preservation methods and starting datesation dates with my Google calendar so that I can receive notification on my device.
21. I would like to synchronize ingredient expiration information with my Google Calendar so that I can receive notification on my device.
- ~~22. I would like to synchronize ingredient expiration dates with my Apple calendar so that I can receive notification on my device.~~
- ~~23. I would like to receive an in-app notice of the expiration information.~~
24. I would like to receive a notice from the calendar of the expiration information.
25. I would like to receive a preview notice of the expiration information.
26. I would like to receive expiration notifications for ingredients either at a preset or customized number of days before expiration, and at a preset or customized time.
- ~~27. I want to be able to filter ingredients based on different categories to make it easier to manage and view specific ingredient categories in my inventory.~~
- ~~28. I want to be able to receive an automatically categorized inventory shelf after each modification.~~
- ~~29. I would like to be able to change the categorization of an ingredient at any time so that I can manually adjust the categorization if the automatic categorization is inaccurate.~~
- ~~30. I would like to be able to filter and sort current inventory by preset or customized "expiration times".~~

Smart Menu

As a user:

31. I would like to get menu suggestions based on what I have at home so I can plan meals without having to buy additional ingredients.
32. I would like to get menu suggestions based on what ingredients are near the expiration dates so I can avoid food wastes.
33. I would like to record the times of cooking a specific dish with the cooking date.
34. I would like to receive a reminder when checking a dish recipe that has been cooked too often, either within a preset or customized period of time.
35. I want recipe recommendations and meal plans tailored to my current ingredient preferences
36. I want to categorize recipes with labels like 'Breakfast', 'Vegetarian', etc.
37. I want to be able to create my recipes via text, image or video links and keep accurate records.

- 38. I would like to be able to edit and delete recipes that I have previously created.
- 39. I would like to see a calculated nutritional report after selecting specific dish recipes.

Shopping List

As a user:

- ~~40. I would like to have an in-app list function to track what I am going to buy soon.~~
- 41. As a user, I would like to have a categorized search feature in the list to help me keep track of my inventory while shopping.
- 42. As a user, I would like to be able to get a pop-up notification when adding an existing ingredient on the shelf into the shopping list.

User Clustering

As a user:

- 43. I would like to be able to build up a group chat with other users.
- 44. I would like to be able to add friends through searching email or by searching the username.
- 45. I would like to be able to upload my created recipe into a group chat.
- 46. I would like to be able to hit "like" buttons on recipes posted from others publicly.

Other Functions

As a user:

- 47. I want to track the nutritional value of each item on the shelf and see detailed nutritional info, such as calories, to make healthier meal choices.
- 48. I would like to have a personal main page showing my public collection folders and other information.
- 49. I would like to be able to change the theme color from the provided options.

Advanced Features (If Time Available)

As a user,

- 50. I want the app to automatically recognize the newly purchased items via scanning receipts.
- 51. I want receipt scanning to generate default shelf life values for ingredients and paired with the added items in my inventory shelf.
- 52. I would like to be able to modify the scanned items' names to correct the errors created through scanning.
- 53. I would like to be able to manually edit the shelf life of each ingredient to ensure accuracy and avoid missing important information when scanning.
- 54. I would like recurring purchases to automatically adjust their expiration dates based on historical data.
- 55. I would like to save my favorite recipes as pictures into my device gallery.
- 56. I would like to be able to collect favorite recipes posted from others publicly.

57. I would like to be able to share the publicly uploaded recipes from others with friends.
58. I want to generate a shareable link for my inventory so friends can view what I have in stock.
59. I want to be able to share links from other websites to share recipes or cooking tutorials.
60. I want to control permissions on shared links, making them either view-only or editable.
61. I would like to be able to set my “like” and “collected” recipe folders into public or private.
62. I would like to be able to set an expiration date for my shared link so that access to my inventory or recipe is automatically revoked after a certain period.
63. I would like to receive an email or in-app confirmation when my link has been successfully shared so that I know the sharing process was completed.
64. I would like to be able to set customized tags for my recipe or in the collection folder.
65. I would like to be able to customize my preferred language in the app.
66. I want to get suggestions for food chosen based on the ingredients I use frequently in order to make healthier choices in my meal planning.

Non-functional Requirements

Architecture and Performance

As a developer:

1. I would like _FOO MY FOOD_ to have a fully separated frontend and backend architecture to reduce compatibility issues and improve efficiency.
2. I would like _FOO MY FOOD_ to use Spring Boot for the backend, enabling scalability with features like database caching and ORM support.
3. I would like the frontend to be developed using Flutter, allowing a cross-platform solution for both iOS and Android.

Security

As a developer:

4. I would like _FOO MY FOOD_ to implement two-factor authentication (2FA) to enhance security for user accounts during login and other sensitive actions.
5. I would like sensitive data stored in the SQLite database to be encrypted using SQLCipher, ensuring data at rest is secure.
6. I would like to implement role-based access control to limit access to sensitive data to only authorized users.

Response Time

As a developer:

7. I would like _FOO MY FOOD_ to complete user actions, such as adding ingredients or searching recipes, within 500 milliseconds to maintain a smooth experience.
8. I would like server-side API calls to return data within 300 milliseconds for simple queries, ensuring quick load times.
9. I would like complex operations to be handled asynchronously, with a response time of no more than 1 second, so the UI remains responsive.
10. I would like the application to scale to handle up to 500 simultaneous requests during peak times while maintaining performance.

Usability

As a developer:

11. I would like to create a visually appealing and functional interface that is easy to navigate for users.
12. I would like the design to balance aesthetics and functionality, making key tasks like searching for recipes or adding ingredients intuitive.
13. I would like smooth transitions and responsive UI elements that enhance the user experience on both Android and iOS.

[illegible]

[illegible]