# –FOO MY FOOD–

# CS 30700
# Sprint 1 Planning

**Team 29**

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# Sprint Overview:

In Sprint 1, Team 29 focused on developing the core user account functionalities for the FOO MY FOOD app, covering registration, login, logout, password recovery, and profile management. The team implemented key features allowing users to create accounts, log in securely, and manage their credentials across both iOS and Android platforms. This includes building the UI for account sign-up, login, and profile customization, as well as implementing backend functionalities like email validation, password reset via email or security questions, and real-time avatar updates. Additionally, the team worked on database setup to store and manage user credentials securely, with thorough testing to ensure seamless integration between frontend and backend components.

## Sprint Period:

- Sep.23-Oct.11

## Scrum Master:

- Xinyi Wu

## Scrum Meeting Plan:

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

## Risk and Challenges:

The main risk of the first sprint was that most members of the team had not used Flutter and Spring Boot, and there were also members who had never touched a database before, which made the project much more difficult. When integrating the backend to iOS and Android platforms, the team's lack of technical proficiency could lead to further problems, especially in ensuring seamless communication between the user interface and the database. Additionally, as the team chooses to use a SQL cloud database, all table and data definition presetting should be done before any of the data being imported, which is definitely a heavy but core task on database initialization. It is also crucial to consider data security during user registration and password recovery, and any security breaches can cause unexpected problems when setting up. Multi-platform and multi-device functionality testing may expose compatibility issues, further delaying sprint progress. Finally, the team's time management can be extremely challenging due to the large number of basic functions that need to be completed (e.g., user authentication, profile management, and database integration), as well as learning new technologies.

# Current Sprint Detail:

## User Story #1

**As a user, 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.**

| # | Description | Estimated Time | Owner |
|---|---|---|---|
| 1 | Setting up a Spring Boot Project and Flutter project | 3hr | Xiuwen Fang |
| 2 | Create UI for create account page(Learning and programming together) | 4hr total (2hr/ person) | Xiuwen Fang/ Songyu He |
| 3 | Setting up user login account information table in database | 2hr | Xinyi Wu |
| 4 | Verify the validity of the password and username entered by the user | 2hr | Xiuwen Fang |
| 5 | Store email address password and all other information in relation to a unique user. | 2hr | Xiuwen Fang |
| 6 | Implementation of email validation functionality | 5hr | Xiuwen Fang |
| 7 | Test to ensure that the front-end and back-end connections are smooth and all create account functions work smoothly | 2hr | Xiuwen Fang |

**Acceptance Criteria**
1. Given the user opens the account creation page, when they view the form, then they should see fields to input their email, username, and password on both iOS and Android platforms.
2. Given the user submits their registration details, when the system checks the password, then it should confirm the password meets the required criteria (e.g., minimum length, required characters, etc.).
3. Given the user submits their registration details, when the system checks the email and username, then it should confirm that neither the email nor the username is already in use.
4. Given the user provides a valid email, when the system sends a verification email, then the user should receive an email with a verification link, and clicking it should activate their account.
5. Given the user submits registration details, when the system saves the data, then the user's credentials (including hashed passwords) should be stored in the database.

# User Story #2

**As a user, I would like to be able to log in for my FOO MY FOOD account via email address.**

| # | Description | Estimated Time | Owner |
|---|---|---|---|
| 1 | Login page UI | 3hr | Xiuwen Fang |
| 2 | Username and email and password verification | 5hr | Xiuwen Fang/ Xinyi Wu |
| 3 | The user login status will be set in the database | 0.5hr | Xiuwen Fang |
| 4 | Test to ensure that the front-end and back-end connections are smooth and all login functions work smoothly | 2hr | Xiuwen Fang |

**Acceptance Criteria**
1. Given the user opens the login page, when they view the form, then they should see input fields for email and password on both iOS and Android platforms.
2. Given the user enters their email and password, when they submit the form, then the system should validate the email and password for correctness.
3. Given that a user submits accurate login data, they should be immediately redirected to the home screen.
4. Given that the validation fails, the user should be alerted and asked to try again.
5. Given that the user logs in successfully, when the log-in action is confirmed, then the user's log-in status should be updated in the database

# User Story #3

**As a user, 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.**

| # | Description | Estimated Time | Owner |
|---|---|---|---|
| 1 | Log out option UI | 2hr(1h per person) | Xinyi Wu/ Songyu He |
| 2 | After logging out the user would return to the initial login page | 2hr | Xinyi Wu |
| 3 | Log out confirmation notice | 1hr | Xinyi Wu |
| 4 | Update the user's logging information in the database for they can view and change their own data in later login | 3hr | Xinyi Wu |
| 6 | Testing | 1hr | Xinyi Wu |

**Acceptance Criteria:**
1. Given that the user is logged in and navigates to the profile or menu section, when they view the options, then they should see a visible "Log Out" button.
2. Given that the user is logged in, when they click the "Log Out" button, then they should see a confirmation prompt asking, "Are you sure you want to log out?"
3. Given that the user confirms the log-out action, when the log-out process is completed, then the user should be redirected to the initial login page and their session should be terminated, and users should not be able to access any authenticated pages.
4. Given that the log-out process is completed, when the user attempts to access any authenticated page (e.g., profile, order history), then they should be redirected to the login page with a message indicating, "Please log in to continue."
5. Given that the user logs out successfully, when the log-out action is confirmed, then a success notification should appear, stating, "You have been successfully logged out."
6. Given that the user logs out successfully, when the log-out action is confirmed, then the user's log-in status should be updated in the database to reflect the log-out.

# User story #4

**As a user, I would like to be able to reset my FOO MY FOOD account's password through a confirmation email with the rest link if I forget it in order to regain access to my account.**

| # | Description | Estimated Time | Owner |
|---|---|---|---|
| 1 | Create password recovery UI(including recovery button and dialog box for entering email) | 2hr | Xinyi Guan |
| 2 | Create email verification API (generate password recovery email, verify user identity through unique username) | 2hr | Xinyi Guan |
| 3 | Create password reset page UI | 2hr | Xinyi Guan |
| 4 | Update password instantly in database | 1hr | Xinyi Wu |
| 5 | Test to ensure that a user can reset their password using the link sent to email | 2hr | Xinyi Guan |

**Acceptance Criteria:**
1. Given that password recovery options are correctly implemented, when a user forgets their password, then they will be able to access the recovery feature on the login/signup page.
2. Given that a user has accessed the password recovery feature, when they provide their email address, then they will receive a password recovery email with a reset link.

3.  Given that a user entered wrong format email, wrong email, wrong username or duplicate username, the system will inform and let this user reenter.
4.  Given that a user has received a password recovery email, when they click the reset link, then they will be redirected to a password reset page where they can set a new password.
5.  Given that the user's new password is saved in the database, when they try to log in, then they will be able to access their account using the new password.

# User story #5

**As a user, I would like to set a new password for my account by answering a security question, without waiting for an email.**

| # | Description | Estimated Time | Owner |
|---|---|---|---|
| 1 | Generate a security questions page UI | 2hr | Xinyi Guan |
| 2 | Generate a security question and one answer dialog UI | 1hr | Xinyi Guan |
| 2 | Generate a answer validation page UI | 1hr | Xinyi Guan |
| 3 | Generate answer correct/wrong feedback page UI | 2hr | Xinyi Guan |
| 4 | Update password and answer in database | 1hr | Xinyi Wu |
| 5 | Test to ensure that a user can reset their password by answering a security question. | 2hr | Xinyi Guan |

**Acceptance Criteria:**
1.  Given that a user chooses security question validation, the system will show up a security questions page, and they should be able to choose a security question and enter the correct answer.
2.  Given that a user has selected the security question option, when they proceed, then they will be presented with a security question that they previously set up.
3.  Given that a user is presented with their security question, when they answer the question correctly, then they will be allowed to reset their password.
4.  Given that a user is presented with their security question, when they answer the wrong answer, then they will be informed to re-enter the answer.
5.  Given that the user's new password is saved in the database, when they try to log in, then they will be able to access their account using the new password.

# User story #6

**As a user, 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.**

| # | Description | Estimated Time | Owner |
|---|---|---|---|
| 1 | Create form for users to set profile information (username, email, avatar) | 2hr | Xinyi Guan |
| 2 | Create user profile page UI | 3hr | Xinyi Guan |
| 3 | Validate profile input (e.g., valid email format, unique username) | 1hr | Xinyi Guan |
| 4 | Allow users to upload an avatar image | 3hr | Xinyi Guan |
| 5 | Store profile information in the database | 1hr | Xinyi Wu |
| 6 | Test to ensure profile information can be updated and displayed | 2hr | Xinyi Guan |

**Acceptance Criteria:**
1. Given that the profile setup form is correctly implemented, when a user inputs their profile information, including username, email, and avatar, then the system will process the information..
2. Given that a user entered wrong format email, wrong email, wrong username or duplicate username, then the system will give the invalid feedback and let this user to reenter.
3. Given that a user has submitted their profile information, when the system validates the data, then it will ensure that the email format is correct and the username is unique and inform users of the success message.
4. Given that the profile information is valid, when the user uploads an avatar, then the system will verify and store the profile picture along with other information in the database.
5. Given that the profile picture and information are successfully stored in the database, when the user completes the setup, then the profile information will be saved, allowing the user to view and update their profile as needed.

# User story #7

**As a user, 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.**

| # | Description | Estimated Time | Owner |
|---|---|---|---|
| 1 | Implement functionality to choose an avatar from the gallery. | 2hr | Songyu He |

| 2 | Implement functionality to take a new photo with the camera. | 2hr | Songyu He |
|---|---|---|---|
| 3 | Create a preview screen for selected or captured avatar. | 2hr | Songyu He |
| 4 | Implement a confirmation button to save the avatar and update the UI. | 2hr | Songyu He |
| 5 | Implement error handling for unsupported formats or large files. | 2hr | Songyu He |
| 6 | Display success notification upon avatar update. | 1hr | Songyu He |
| 7 | Testing | 1hr | Songyu He/ Xinyi Wu |

**Acceptance Criteria:**
1. Given that the UI for selecting an avatar is implemented, when the user navigates to the profile page, then they should see options to choose an image from the gallery or take a new photo.
2. Given that the user selects an image from the gallery, when they confirm the selection, then the selected image should be displayed in the preview.
3. Given that the user takes a new photo, when they confirm the photo, then the captured image should be displayed in the preview.
4. Given that the user clicks the confirmation button, when the avatar is saved successfully, then the avatar should update in real time on the profile page.
5. Given that the user selects an unsupported format or a file that is too large, when they attempt to upload, then an appropriate error message should be displayed.
6. Given that the avatar is successfully updated, when the update is confirmed, then a success notification should appear, confirming the update.

# User story #8

**As a user, 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.**

| # | Description | Estimated Time | Owner |
|---|---|---|---|
| 1 | Create UI for manual ingredient entry. | 4hr | Songyu He/Xinyi Guan |
| 2 | Implement input fields for attributes (image,expiration date etc.) | 2hr | Songyu He |
| 3 | Create a button to save the manually entered ingredient. | 1hr | Songyu He |

| 4 | Implement validation for user-entered ingredients to ensure that duplicates and invalid inputs are handled appropriately. | 2hr | Songyu He |
| 5 | Initialization the whole project database, link database to server, set up and update the inventory parameters in the database. | 8hrs | Xinyi Wu |
| 6 | Update the inventory display to include the newly added ingredient. | 3hr | Songyu He/Xinyi Guan |
| 7 | Display success notification upon successful addition. | 1hr | Songyu He |
| 8 | Testing | 2hr | Songyu He/ Xinyi Wu |

**Acceptance Criteria:**
1. Given that the UI for manual ingredient entry is implemented, when the user navigates to the inventory section, then they should see an option to manually add ingredients.
2. Given that the user enters an ingredient name and quantity, when they click the save button, then the ingredient should be validated for correctness.
3. Given that the input is valid, when the user confirms the addition, then the ingredient should be stored in the inventory.
4. Given that the ingredient is successfully added, when the user views the inventory, then the new ingredient should be visible in the list.
5. Given that the user enters a duplicate ingredient or invalid input, when they attempt to save, then an appropriate error message should be displayed.
6. Given that the ingredient is successfully added, when the addition is confirmed, then a success notification should appear, confirming the addition.

# User story #9

**As a user, I would like to be able to change the names and quantities of the ingredients in my inventory to ensure that all entries are accurate and up-to-date.**

| # | Description | Estimated Time | Owner |
|---|-------------|----------------|-------|
| 1 | Create UI for displaying inventory items. | 3hr | Songyu He |
| 2 | Implement an edit option/button next to each ingredient. | 2hr | Songyu He |
| 3 | Display success notification upon successful name change. | 2hr | Songyu He |
| 4 | Update the information in database | 2hr | Xinyi Wu |

| 5 | Testing | 1hr | Songyu He/ Xinyi Wu |
|---|---------|-----|---------------------|

**Acceptance Criteria:**
1. Given that the UI for displaying inventory items and quantities is implemented, when the user navigates to the inventory section, they should see options to edit both the name and the quantity of each ingredient.
2. Given that the user clicks the edit button for an ingredient name, when the edit input field appears, they should be able to enter a new name/ quantity.
3. Given that the user enters a new ingredient name/ quantity, when they click the save button, the new name should be validated for correctness.
4. Given that the new name is valid, when the user confirms the change, the ingredient name/quantity should be updated in the inventory.
5. Given that the user enters a duplicate name or invalid input for the name/ quantity, when they attempt to save, an appropriate error message should be displayed.
6. Given that the ingredient name and/or quantity is successfully changed, when the update is confirmed, a success notification should appear, confirming the update.

# User story #10

**As a user,I would like to set custom expiration dates for my ingredients so that I can take into account personal preferences or storage methods.**

| # | Description | Estimated Time | Owner |
|---|-------------|----------------|-------|
| 1 | Create UI for displaying inventory items' expiration dates | 1hr | Xiuwen Fang |
| 2 | Collect and update the general expiration period for a part of the provided ingredients, update in database | 4hrs | Xiuwen Fang/ Xinyi Wu |
| 3 | Implement an edit option/button next to each inventory items' expiration dates | 1hr | Xiuwen Fang |
| 4 | Display success notification upon successful expiration date | 1hr | Xiuwen Fang |
| 5 | Update the information in database | 1hr | Xinyi Wu |
| 6 | Test to ensure that users can successfully customize the date, and that all front-end and back-end links and functions run smoothly | 2hr | Xiuwen Fang/ Xinyi Wu |

**Acceptance Criteria:**

1. Given that the user navigates to the inventory section, when the user wants to check each inventory's pre-set expiration date, then the user should see the current expiration date next to each ingredient along with an edit button.
2. Given that the user clicks the edit button next to an ingredient's expiration date, when the edit input field appears, then they should be able to enter a new custom expiration date in a valid date format (e.g., MM/DD/YYYY).
3. Given that the user enters a new expiration date, when they click the save button, then the new expiration date should be validated to ensure it is a valid future date.
4. Given that the new expiration date is valid, when the user confirms the change, then the expiration date for the ingredient should be updated in the inventory database.
5. Given that the user enters an invalid expiration date (e.g., past date, incorrect format), when they attempt to save, then an appropriate error message should be displayed (e.g., "Please enter a valid future date").
6. Given that the ingredient expiration date is successfully updated, when the update is confirmed, then a success notification should appear, stating, "Expiration date updated successfully."

# Total Working Hours for Sprint1

| Member Name | Total Time | Tasks |
|---|---|---|
| Charlie Fang | 30 hours | Set up Spring Boot and Flutter project<br>Design the UI for account creation and login and expiration date choose<br>Validate user password and username<br>Implement email validation functionality<br>Validate login credentials |
| Xinyi Guan | 30.5 hours | Password Reset with Email Link;<br>Set Password by Answering a Security Question;<br>Set Account Information;<br>Manual ingredient entry UI;<br>Update the inventory display to include the newly added ingredient. |
| Hathaway He | 32.5 hours | Set avatar, enter ingredient to inventory |
| Xinyi Wu | 31.5 hours | Logout feature, all other database set up and updating |

# 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 rest 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.
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.

| | | | | | Week 1 | | | | | | | Week 2 | | | | | | | Week 3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STORY NUMBER | TASK DESCRIPTION | OWNER | START DATE | DUE DATE | Mon | Tue | Wed | Thr | Fri | Sat | Sun | Mon | Tue | Wed | Thr | Fri | Sat | Sun | Mon | Tue | Wed | Thr | Fri |
| | | | | | 9/23 | 9/24 | 9/25 | 9/26 | 9/27 | 9/28 | 9/29 | 9/30 | 10/1 | 10/2 | 10/3 | 10/4 | 10/5 | 10/6 | 10/7 | 10/8 | 10/9 | 10/10 | 10/11 |
| 1 | sign up for a FOO MY FOOD account | | | | | | | | | | | | | | | | | | | | | | |
| | Setting up a Spring Boot Project and Flutter project | Xiuwen Fang | 9/23/2024 | 9/23/2024 | | | | | | | | | | | | | | | | | | | |
| | Create UI for create account page | Xiuwen Fang | 9/24/2024 | 9/25/2024 | | | | | | | | | | | | | | | | | | | |
| | Create UI for create account page | Songyu He | 9/24/2024 | 9/25/2024 | | | | | | | | | | | | | | | | | | | |
| | verify the validity of the password and username entered by the user | Xiuwen Fang | 9/26/2024 | 9/27/2024 | | | | | | | | | | | | | | | | | | | |
| | Implementation of email validation functionality | Xiuwen Fang | 9/28/2024 | 9/29/2024 | | | | | | | | | | | | | | | | | | | |
| | Store email address password and all other information in relation to a unique user. | Xiuwen Fang | 9/29/2024 | 9/30/2024 | | | | | | | | | | | | | | | | | | | |
| | Setting up a usable database with initialization on user login account information table | Xinyi Wu | 9/30/2024 | 10/2/2024 | | | | | | | | | | | | | | | | | | | |
| | Testing | Xiuwen Fang | 9/30/2024 | 9/30/2024 | | | | | | | | | | | | | | | | | | | |
| 2 | log in for my FOO MY FOOD account | | | | | | | | | | | | | | | | | | | | | | |
| | Login page UI | Xiuwen Fang | 10/1/2024 | 10/2/2024 | | | | | | | | | | | | | | | | | | | |
| | Login page UI | Songyu He | 10/1/2024 | 10/2/2024 | | | | | | | | | | | | | | | | | | | |
| | Username and email and password verification | Xiuwen Fang | 10/3/2024 | 10/9/2024 | | | | | | | | | | | | | | | | | | | |
| | The user login status will be set in the database | Xiuwen Fang | 10/5/2024 | 10/5/2024 | | | | | | | | | | | | | | | | | | | |
| | Username and email and password verification-Database | Xinyi Wu | 9/30/2024 | 10/2/2024 | | | | | | | | | | | | | | | | | | | |
| | Testing | Xiuwen Fang | 10/5/2024 | 10/5/2024 | | | | | | | | | | | | | | | | | | | |
| 3 | log out for my FOO MY FOOD account | | | | | | | | | | | | | | | | | | | | | | |
| | Logout page UI | Songyu He | 10/1/2024 | 10/1/2024 | | | | | | | | | | | | | | | | | | | |
| | Log out option UI | Xinyi Wu | 10/1/2024 | 10/1/2024 | | | | | | | | | | | | | | | | | | | |
| | Log out and return to the initial login page | Xinyi Wu | 10/2/2024 | 10/7/2024 | | | | | | | | | | | | | | | | | | | |
| | Log out confirmation notice | Xinyi Wu | 10/2/2024 | 10/7/2024 | | | | | | | | | | | | | | | | | | | |
| | Update the user's logging information in the database | Xinyi Wu | 10/7/2024 | 10/10/2024 | | | | | | | | | | | | | | | | | | | |
| | Testing | Xinyi Wu | 10/9/2024 | 10/10/2024 | | | | | | | | | | | | | | | | | | | |
| 4 | Password Reset with Email Link | | | | | | | | | | | | | | | | | | | | | | |
| | Create password recovery UI(including recovery button and dialog box for entering email) | Xinyi Guan | 9/23/2024 | 9/23/2024 | | | | | | | | | | | | | | | | | | | |
| | Create email verification API(generate password recovery email, verify user identity) | Xinyi Guan | 9/24/2024 | 9/24/2024 | | | | | | | | | | | | | | | | | | | |
| | Create password reset page UI | Xinyi Guan | 9/26/2024 | 9/26/2024 | | | | | | | | | | | | | | | | | | | |
| | Update password instantly in database | Xinyi Wu | 10/2/2024 | 10/9/2024 | | | | | | | | | | | | | | | | | | | |
| | Test to ensure that a user can reset their password using the link sent to email | Xinyi Guan | 9/27/2024 | 9/27/2024 | | | | | | | | | | | | | | | | | | | |
| 5 | Set Password by Answering a Security Question | | | | | | | | | | | | | | | | | | | | | | |
| | Generate a security questions pick page UI | Xinyi Guan | 10/2/2024 | 10/2/2024 | | | | | | | | | | | | | | | | | | | |
| | Generate a security question and one answer dialog UI | Xinyi Guan | 10/3/2024 | 10/3/2025 | | | | | | | | | | | | | | | | | | | |
| | Generate a answer validation page UI | Xinyi Guan | 10/4/2024 | 10/4/2025 | | | | | | | | | | | | | | | | | | | |
| | Generate answer correct/wrong feedback page UI | Xinyi Guan | 10/5/2024 | 10/5/2025 | | | | | | | | | | | | | | | | | | | |
| | Update password and answer in database | Xinyi Wu | 10/10/2024 | 10/11/2024 | | | | | | | | | | | | | | | | | | | |
| | Test to ensure that a user can reset their password by answering a security question. | Xinyi Guan | 10/4/2024 | 10/4/2024 | | | | | | | | | | | | | | | | | | | |
| 6 | Set Account Information | | | | | | | | | | | | | | | | | | | | | | |
| | Create form for users to set profile information (username, email, avatar) | Xinyi Guan | 10/5/2024 | 10/5/2024 | | | | | | | | | | | | | | | | | | | |
| | Create UI for blank user profile page of new users | Xinyi Guan | 10/6/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Validate profile input (e.g., valid email format, unique username) | Xinyi Guan | 10/7/2024 | 10/7/2024 | | | | | | | | | | | | | | | | | | | |
| | Allow users to upload an avatar image | Xinyi Guan | 10/8/2024 | 10/8/2024 | | | | | | | | | | | | | | | | | | | |
| | Store profile information in the database | Xinyi Wu | 9/30/2024 | 10/9/2024 | | | | | | | | | | | | | | | | | | | |
| | Test to ensure profile information can be updated and displayed | Xinyi Guan | 10/10/2024 | 10/10/2024 | | | | | | | | | | | | | | | | | | | |
| 7 | Update Profile Avatar | | | | | | | | | | | | | | | | | | | | | | |
| | Create UI for selecting "Change Avatar" option. | Songyu He | 9/28/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Implement functionality to choose an avatar from the gallery. | Songyu He | 9/29/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Implement functionality to take a new photo with the camera. | Songyu He | 9/30/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Create a preview screen for selected or captured avatar. | Songyu He | 10/1/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Implement a confirmation button to save the avatar. | Songyu He | 10/2/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Ensure real-time update of avatar on the profile page. | Songyu He | 10/3/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Implement error handling for unsupported formats or large files. | Songyu He | 10/4/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Display success notification upon avatar update. | Songyu He | 10/5/2024 | 10/6/2024 | | | | | | | | | | | | | | | | | | | |
| | Testing | Songyu He | 10/5/2024 | 10/11/2024 | | | | | | | | | | | | | | | | | | | |
| | Testing | Xinyi Wu | 10/10/2024 | 10/11/2024 | | | | | | | | | | | | | | | | | | | |
| 8 | Enter ingredients | | | | | | | | | | | | | | | | | | | | | | |
| | Create UI for manual ingredient entry. | Songyu He | 9/23/2024 | 9/26/2024 | | | | | | | | | | | | | | | | | | | |
| | Create UI for manual ingredient entry. | Xinyi Guan | 9/23/2024 | 9/26/2024 | | | | | | | | | | | | | | | | | | | |
| | Implement input fields for attributes. | Songyu He | 9/24/2024 | 9/27/2024 | | | | | | | | | | | | | | | | | | | |
| | Create a button to save the manually entered ingredient. | Songyu He | 9/25/2024 | 9/28/2024 | | | | | | | | | | | | | | | | | | | |
| | Update the inventory display to include the newly added ingredient. | Songyu He | 9/26/2024 | 9/29/2024 | | | | | | | | | | | | | | | | | | | |

| Task | Assignee | Start | End |
|---|---|---|---|
| Update the inventory display to include the newly added ingredient. | Xinyi Guan | 9/26/2024 | 9/29/2024 |
| Initialization the whole project database, link database to server, set up and update the inventory parameters in the database. | Xinyi Wu | 9/24/2024 | 10/10/2024 |
| Display success notification upon successful addition. | Songyu He | 9/27/2024 | 9/30/2024 |
| Testing | Songyu He | 10/5/2024 | 10/11/2024 |
| **9 Change name/quantity** | | | |
| Create UI for displaying inventory items. | Songyu He | 10/6/2024 | 10/9/2024 |
| Implement an edit option/button next to each ingredient. | Songyu He | 10/7/2024 | 10/9/2024 |
| Display success notification upon successful name change. | Songyu He | 10/8/2024 | 10/9/2024 |
| Update the information in database | Songyu He | 10/9/2024 | 10/11/2024 |
| Update the information in database | Xinyi Wu | 9/30/2024 | 10/2/2024 |
| Testing | Songyu He | 10/12/2024 | 10/11/2024 |
| Testing | Xinyi Wu | 10/10/2024 | 10/11/2024 |
| **10 custom expiration dates** | | | |
| Create UI for displaying inventory items' expiration dates | Xiuwen Fang | 10/6/2024 | 10/6/2024 |
| logic part of Collect and update the general expiration period for a part of the provided ingredients | Xiuwen Fang | 10/7/2024 | 10/8/2024 |
| database part of Collect and update the general expiration period for a part of the provided ingredients | Xinyi Wu | 9/25/2024 | 9/26/2024 |
| Implement an edit option/button next to each inventory items' expiration dates | Xiuwen Fang | 10/6/2024 | 10/6/2024 |
| Display success notification upon successful expiration date | Xiuwen Fang | 10/9/2024 | 10/10/2024 |
| Test to ensure that users can successfully customize the date, and that all front-end and back-end links and functions run smoothly | Xiuwen fang | 10/11/2024 | 10/11/2024 |
| When the user modifies the time, the database can modify the data correctly | Xinyi Wu | 10/10/2024 | 10/11/2024 |