Functional Requirements

I. User Account Management System (Functional Requirement #1)

1. NewUser:

1.1. Users must be able to register for a new account.

1.1.1. System must check that all required credentials are fulfilled.

1.1.1.1. Users must input their email address.

1.1.1.1.1. If the email address is already taken, the system displays a message “Invalid email! Email is taken by another user”.

1.1.1.2. Users must input their password.

1.1.1.3. System shall be able to check the length of the password.

1.1.1.3.1. If the password does not contain at least 8 characters, with at least 1 number, the system displays a message “Password must contain at least 8 characters, with at least 1 number”.

1.1.1.4. Users must input their display name.

1.1.1.5. System shall be able to check the length of the display name.

1.1.1.5.1. If the display name is not within 5 to 30 characters, the system displays a message “Display name should be between 5-30 characters”.

1.1.2. Users will be redirected to the login page with their registered credentials to access the application.

2. ExistingUser:

2.1. Users must be able to login to the application with their registered credentials.

2.1.1. Users will have to input their registered email address.

2.1.2. Users will have to input their registered password.

2.1.2.1. The system will display an error message “Incorrect email or password! Please try again” when the email address or password or both are incorrect.

2.2. Users must be able to logout of their account.

2.2.1. Users will have to click on their profile and click on “Sign out”.

2.2.2. The system will display a message “Bye! Hope to see you soon next time!”.

2.3. Users must be able to update their profile information.

2.3.1. Users shall be able to update their password.

2.3.2. System shall be able to check the length of the password.

2.3.2.1. If the password does not contain at least 8 characters, with at least 1 number, the system displays a message “Password must contain at least 8 characters, with at least 1 number”.

2.3.3. Users shall be able to change the display name for their account.

2.3.3.1. If the display name is not within 5 to 30 characters, the system displays a message “Display name should be between 5-30 characters”.

2.3.4. Users shall be able to upload a profile picture.

2.3.4.1. Users must click on the “Change Photo” on the default profile picture and upload their picture.

2.4. Users shall be able to delete their accounts if they wish to.

2.4.1. System displays a message “Do you want to delete your account?” for the user to confirm the deletion of the account, so that account will not be deleted by mistake.

2.4.2. System will remove the user’s information from the system upon deletion of the account.

2.4.3. Users will have to create a new account if they want to access the application again.

II. Food Hunt System (Functional Requirement #2)

1. Consumers will be able to view the suggested/popular food choices on the Home page and the entire food list on the Food page.

1.1. Consumers will be redirected to a detailed description of the particular canteen/stall/food they clicked on.

1. SearchFood: (under Food navigation)

2.1. Consumers will be able to search food options by food name.

2.2. Consumers will be able to search food options by location (by canteen/stall).

2.2.1. If the user inputs a food name or location that does not exist, the system will display a message “No results found”.

2. FilterFood: (under Food navigation)

3.1. Consumers will be able to filter food options by price.

3.1.1. The system will display the food from the lowest price or highest price depending on the user's filter choice.

3.2. Consumers will be able to filter food options by food type which is based on their dietary restrictions (e.g. Halal / Vegetarian / Vegan etc.)

3.3. Consumers will be able to filter food options by cuisines (e.g. Japanese / Western/Malay etc.)

3.4. Consumers will be able to filter food options by food on discount.

3. ViewMap:

4.1. Consumers must allow permission for location sharing to access the map.

4.1.1. If location sharing is not enabled, the system displays a message “Please enable location sharing to use Map”.

4.2. Consumers shall be able to find the location of their choice of food by the indicators on the map.

4.2.1. Consumers will be able to search for a particular canteen from the map.

4.2.2. Consumers will be able to search for a particular stall from the map.

4. ReviewManagement:

5.1. Consumers can submit their food reviews.

5.1.1. Consumers will have to indicate overall (food, store, service etc.) rating from 1 to 5.

5.1.2. Consumers can optionally include a photo in the review.

5.1.2.1. Consumers must click “Upload Photo” and upload a photo.

5.1.3. Consumers can include further descriptions of their review.

5.1.3.1. Consumers will have to click on the empty text box with the placeholder text “Enter your review description”.

5.2. Consumers will be able to view the list of reviews they have submitted.

5.2.1. Consumers will be able to edit their food review.

5.2.1.1. Consumers will have to click on the three dots button beside the review that they want to update.

5.2.1.2. Consumers will have to click “Edit Review” to make changes to their review.

5.2.1.2.1. System will have to retain the information submitted before the update of the review.

5.2.2. Consumers will be able to delete their food review if they decide to do so.

5.2.2.1. Consumers will have to click on the three dots button beside the review that they want to delete.

5.2.2.2. Consumers will have to select delete to remove their review.

5.2.2.2.1. System will display a message “Delete your review?” and consumers will have to click “Delete” to proceed with the deletion.

5.2.2.2.2. System will remove the food review for that particular food.

5.3. Consumers will be able to flag the reviews submitted by other consumers.

5.3.1. Consumers will be able to flag reviews submitted by other consumers.

5.3.1.1. Consumers will have to click on the three dots button beside the review that they want to flag.

5.3.1.2. System will display a message “Flag this review?” and consumers will have to select “Flag” to flag the review.

5.3.1.2.1. The system will send a notification to the system admin.

5. FoodListing:

6.1. Store owners shall be able to submit new and/or discounted food listings.

6.1.1. Store owners must provide photo(s) when listing the food.

6.1.2. Store owners must provide the price of food when listing the food.

6.1.3. Store owners must provide the name and description of the food when listing the food.

6.2. Store owners shall be able to edit the usual food menu as a discounted item and vice versa.

6.3. Store owners shall be able to delete their food listings.

6.3.1. Store owners will have to click on the three dots button beside the food listing that they want to delete.

6.3.1.1. The system will display a message “Delete your listing?” and the store owners will have to click “Delete” to proceed with the deletion.

III. Admin Management System (Functional Requirement #3)

1. BanUser:

1.1. Admin will check the reviews provided by the users.

1.1.1. If there are more than three inappropriate reviews (e.g. unreasonably low ratings, inappropriate language use in reviews) by a particular account, the admin will ban the account from the application permanently.

1.1.1.1. Admin will be able to access a list of accounts and admin will have to click on the “Ban” beside the account to ban it.

1.1.1.1.1. The system will display a message “ Do you want to ban this user?” and the admin will have to select “Yes” to proceed with the suspension of the account.

1.1.1.1.2. Users will have to contact the admin for support through the email address displayed when they attempt to login with the same credentials.

2. ProcessReview:

2.1. Admin shall be able to manage the reviews flagged by users.

2.1.1. If admin finds that the flagged reviews are indeed inappropriate, admin can click on the three dots button beside each of the reviews to delete them.

3. NotifyUsers:

3.1. Admin will be able to create notifications which will be sent to the target users by the system.

3.1.1. Admin will have to click on the “plus” button on the Notifications page to input the required fields (e.g. title, description etc.) and click on the “Notify” button to submit the notification.

Non-Functional Requirements

ID	Category	Description	Priority (H/M/L)	Remarks
NFR1	Performance	Response Time: The app should respond to user actions within 2 seconds Scalability: The app should handle up to 10,000 concurrent users without performance degradation. Throughput: The system should process up to 100 actions per second.	High	
NFR2	Usability	User Interface: The UI should be intuitive and easy to navigate for all users. Accessibility: The app should be accessible to users with disabilities, following WCAG 2.1 guidelines. Localization: The app should support the English language.	High	
NFR3	Reliability	Availability: The app should have an uptime of 99.9%. Backup: Data should be backed up every 24 hours. Recovery: The system should recover from failures within 1 hour.	High	
NFR4	Security	Authentication: Users must authenticate using a secure method. Data Encryption: All sensitive data should be encrypted both in transit and at rest.	High	

		Access Control: Different user roles should have appropriate access controls.		
NFR5	Maintainability	Code Quality: The codebase should follow best practices and be well-documented to facilitate maintenance. Modularity: The system should be modular to allow for easy updates and feature additions. Monitoring: The app should have monitoring tools in place to detect and alert on issues in real-time.	Medium	
NFR6	Compliance	Data Protection: The app must comply with relevant data protection regulations (e.g., GDPR, PDPA). Audit Logs: All user actions should be logged for auditing purposes.	High	
NFR7	Interoperability	API Standards: The app should use RESTful APIs to ensure compatibility with other systems. Data Formats: The app should support common data formats like JSON and XML for data exchange.	Medium	
NFR8	Environmental	Supported Platforms: The app should be compatible with major operating systems (iOS, Android, Windows, macOS). Browser Compatibility: The web version should support major browsers (Chrome, Firefox, Safari, Edge).	Low	