Use Cases

for

Food Hero

Version 1.0 approved

Prepared by SCSJ Group 47

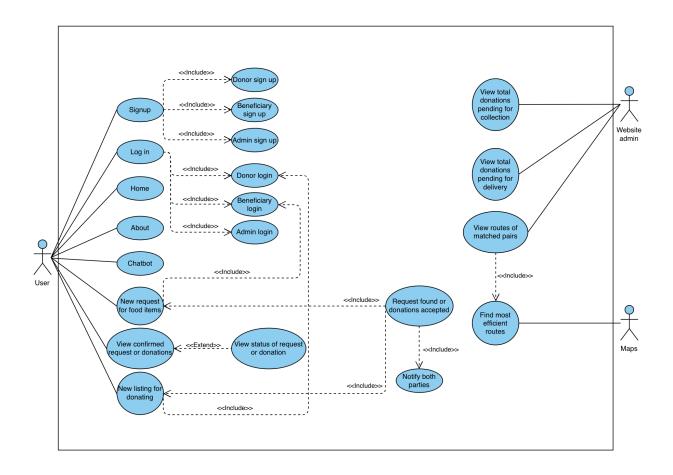
NTU

01/09/2024

Revision History

Name	Date	Reason For Changes	Version

Use Case Diagram



Use Case Description

Use Case ID:	1		
Use Case Name:	Sign Up		
Created By:	Kai Bin	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	9/9/24

Actor:	User
Description:	Register for a new account
Preconditions:	User must have access to the platform. User account is not already registered.
Postconditions:	User is registered and is able to log in.
Priority:	Medium
Frequency of Use:	Once per lifetime
Flow of Events:	 User selects "Sign up". System prompts user to enter their personal details such as name, phone number, address, email and password. User submits the registration form System validates the information provided (e.g password meets complexity requirements, password and confirm password are the same, email has not been used before) System creates a new account upon successful validation User is redirected to create a profile

Alternative Flows:	4a: Email is already registered	
	System prompts the user to log in	
	2. Redirect to "Login" page	
Exceptions:	4b: Password did not meet complexity requirements or password and confirm password does not match or invalid email	
	System displays error message	
	System prompts the user to correct the	
	information	
Includes:	Donor sign up	
	2. Beneficiary sign up	
	3. Admin sign up	
Special	-	
Requirements:		
Assumptions:	-	
Notes and Issues:	-	

Use Case ID:	2		
Use Case Name:	Login		
Created By:	Kai Bin	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	9/9/24

Actor:	User
Description:	A registered user logs in by entering email address and password
Preconditions:	User account must be valid. User must have signed up.
Postconditions:	User are redirected to their respective dashboards.
Priority:	Medium
Frequency of Use:	0-20 times per day
Flow of Events:	 User selects "Login". System prompts user to input email address and password User submits the login form System verifies the credentials User successfully logins upon successful verification.
Alternative Flows:	3a: User forgot password 1. User can click on "Forgot password?" to change password should they forget their password
Exceptions:	System displays error message and prompts user to try again.

Includes:	1. Donor login
	2. Beneficiary login
	3. Admin login
Special	-
Requirements:	
Assumptions:	-
Notes and Issues:	-

Use Case ID:	3		
Use Case Name:	Home		
Created By:	Kai Bin	Last Updated By:	
Date Created:	30/8/24	Date Last Updated:	

Actor:	User
Description:	The landing page of the platform, encouraging users to sign up and get to know more about what we do.
Preconditions:	User must have access to the platform.
Postconditions:	User can view information about the platform, log in or sign up as a donor or beneficiary from the Home page.
Priority:	Medium
Frequency of Use:	0-20 times per day
Flow of Events:	 System displays information about the portal and buttons redirecting to "Chatbot", "About", "Sign Up", and "Login" pages User select their desired choice
Alternative Flows:	-
Exceptions:	-
Includes:	-
Special Requirements:	-

Assumptions:	-
Notes and Issues:	-

Use Case ID:	4		
Use Case Name:	About		
Created By:	Kai Bin	Last Updated By:	
Date Created:	30/8/24	Date Last Updated:	

Actor:	User
Description:	Provides information about the platform
Preconditions:	-
Postconditions:	User is informed about the platform.
Priority:	Low
Frequency of Use:	0-3 times per lifetime
Flow of Events:	 User navigates to "About" page. System displays our mission, our values, and what we do. User reads the information and can navigate back to other pages of the platform
Alternative Flows:	3a: Contact details

	User can contact the support team of the platform via phone number or email stated at the end of the About page.
Exceptions:	-
Includes:	-
Special	-
Requirements:	
Assumptions:	-
Notes and Issues:	-

Use Case ID:	5		
Use Case Name:	Chatbot		
Created By:	Kai Bin	Last Updated By:	
Date Created:	30/8/24	Date Last Updated:	

Actor:	User
Description:	An Al-powered chatbot is available for users to interact with should they need guidance.
Preconditions:	-
Postconditions:	User receives assistance from the chatbot.
Priority:	Low
Frequency of Use:	0-10 times per lifetime
Flow of Events:	 User clicks on the chatbot icon The chatbot interface opens Chatbot prompts user to type a question or choose from preconfigured options Chatbot processes the query and provides relevant response

Alternative Flows:	4a: Multiple questions	
	User have the option to continue asking questions or quit.	
	4b: Unsatisfactory answers	
	If the user is unhappy with the provided answers, the user has the option to escalate the case to a human support agent if necessary.	
Exceptions:	4c: Unable to process the query	
	Chatbot escalates complex queries to a human support agent.	
Includes:	-	
Special	-	
Requirements:		
Assumptions:	-	
Notes and Issues:	-	

Use Case ID:	6		
Use Case Name:	New request for food items		
Created By:	Jun hern	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	7/9/24

Actor:	User	
Description:	User request food from donors	
Preconditions:	User must be logged in.	
	2. User's profile must be a beneficiary.	
Postconditions:	The request offer is stored in the system.	
	The request is displayed under "Manage	
	Requests".	
Priority:	Medium	
Frequency of Use:	0-5 times per day.	
Flow of Events:	User selects "New Request"	
	System prompts user to input fields such as:	
	a) Food Name	

	b) Food Category
	c) Quantity
	, ,
	d) Need by (if applicable)
	e) Delivery Location
	f) Preferred Delivery Time
	User provides the details
	4. User submits the request offer
	System validates the request then lists it under the "Manage Requests" page.
Alternative Flows:	-
Exceptions:	5b: Empty mandatory fields
	System displays an error message and prompts the user to re-enter the fields.
Includes:	Beneficiary login
Special	-
Requirements:	
Assumptions:	-
Notes and Issues:	-

Use Case ID:	7		
Use Case Name:	View confirmed request or donations		
Created By:	Jun hern	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	9/9/24

Actor:	User	
Description:	Donor can view details of confirmed donations and	
	Beneficiary can view details of confirmed requests.	
Preconditions:	User has a valid registered account.	
	User has to be either a donor or a beneficiary	
Postconditions:	 Donor is informed of the specifics of the donations Beneficiary is informed of the specifics of the requests. 	
Priority:	Medium	
Frequency of Use:	0-5 times a day	
Flow of Events:	Donor or Beneficiary navigates to "Manage Listings" or "Manage Requests" respectively.	

	 System displays a list of food items and their respective donors or beneficiaries Details of the food such as Food, Food Category, Quantity and Expiration Date will be shown.
Alternative Flows:	-
Exceptions:	-
Includes:	-
Special	-
Requirements:	
Assumptions:	User have basic familiarity with the system's interface and functionality.
	The system has a reliable database and network connection to support real-time data retrieval.
Notes and Issues:	-

Use Case ID:	8		
Use Case Name:	New listing for donating		
Created By:	Jun hern	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	7/9/24

Actor:	User
Description:	User offer to donate food to those in need through the platform.
Preconditions:	 User must be logged in. User's profile must be a donor.
Postconditions:	The food item is being listed on "Manage Listings".
Priority:	Medium
Frequency of Use:	0-5 times per day.
Flow of Events:	 User selects "New Donation" System prompts user to input fields such as:

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	a) Food name
	b) Food Category
	c) Quantity
	d) Expiration Date (if applicable)
	e) Food Image
	f) Pick-Up Location
	g) Preferred Pick-Up Time
	3. User provides the details
	4. User submits the request
	System validates the listing then lists it under "Manage Listings" page.
Alternative Flows:	-
Exceptions:	5b: Empty mandatory fields
	System displays an error message and prompts the user to re-enter the fields.
Includes:	1. Donor login
Special	-
Requirements:	
Assumptions:	-
Notes and Issues:	-

Use Case ID:	9		
Use Case Name:	Feedback		
Created By:	Kai Bin	Last Updated By:	
Date Created:	7/9/24	Date Last Updated:	

Actor:	User	
Description:	User provide feedback via the feedback form should they have any concerns regarding the application or any issues with the process of the food donation or request.	
Preconditions:	User must be either a donor or beneficiary.	
Postconditions:	User submits the feedback form and expects a response from the admins.	
Priority:	Low	

Frequency of Use:	0-3 times a day
Flow of Events:	 User navigates to "Feedback" on the navigation bar, System displays the feedback form User fills up information such as: a. Name b. Email c. Subject d. Message User clicks on the submit button System validates the information provided Form is successfully submitted.
Alternative Flows:	-
Exceptions:	 5a: Invalid Email Address Format System displays error message System prompts user to re-enter email. 5b: Empty fields System displays error message. System prompts user to fill up the empty fields.
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	10		
Use Case Name:	Donor sign up		
Created By:	Jun hern	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	7/9/24

Actor:	User	
Description:	Allow potential donors to create accounts on the platform.	
Preconditions:	 User must have access to the platform. User account is not already registered. 	
Postconditions:	 A new donor account is created with the provided information. They will be granted access to list their donations and accept requests. 	

Priority:	Medium		
Frequency of Use:	Once per lifetime		
Flow of Events:	1. Donor selects "Donor Sign Up" 2. System prompts donor to select user type (Supermarket or Individual) 3. If User selects Supermarket, system prompts to fill in: a. Organization Name b. Address c. UEN Number d. Point of Contact Name e. Point of Contact Phone Number f. Certification Status g. Organisation's Hygiene Rating h. Email i. Password j. Confirm Password 4. If User selects Individual, system prompts to fill in:		
Alternative Flows:	a. Agency Name b. Point of Contact Name c. Point of Contact Phone Number d. Email e. Password f. Confirm Password 5. Donor submits the registration form 6. System validates the information provided (e.g., email, password) 7. If validation is successful, system creates a new donor account 6. Donor is redirected to their dashboard. 5a. Rejection: If account creation fails, notify the user of		
	invalid fields and prompts user to re-enter details.		
Exceptions:	5b. System error: If an error occurs during the sign up process, the system displays an error message and prompts the admin to retry.		

Includes:	-
Special	-
Requirements:	
Assumptions:	
Notes and Issues:	-

Use Case ID:	11		
Use Case Name:	Beneficiary sign up		
Created By:	Jun hern	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	7/9/24

Actor:	User
Description:	Allow potential beneficiaries to create accounts on the platform.
Preconditions:	 User must have access to the platform. User account is not already registered.

Postconditions:	 new beneficiary account is created with the provided information. They will be granted access to make food requests and accept donations. 		
Priority:	Medium		
Frequency of Use:	Once per lifetime.		
Flow of Events:	 Beneficiary selects "Beneficiary Sign Up" System prompts beneficiary to fill in: a. Agency Name b. Point of Contact Name c. Point of Contact Phone Number d. Email e. Password f. Confirm Password Beneficiary submits the registration form System validates the information provided (e.g., email, password) If validation is successful, system creates a new beneficiary account Beneficiary is redirected to their dashboard. 		
Alternative Flows:	5a. Rejection: If account creation fails, notify the user of invalid fields and prompts user to re-enter details.		
Exceptions:	5b. System error: If an error occurs during the sign up process, the system displays an error message and prompts the admin to retry.		
Includes:	-		
Special Requirements:	-		
Assumptions:			
Notes and Issues:	-		

Use Case ID:	12		
Use Case Name:	Admin sign up		
Created By:	Jun hern	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	7/9/24

Actor:	User

Description:	Allow potential Admin to create accounts on the platform.
Preconditions:	 User must have access to the platform. User account is not already registered.
Postconditions:	3. A new Admin account is created with the provided information.4. Admin will be granted access to view and update the status of the successfully matched request.
Priority:	Medium
Frequency of Use:	Once per lifetime.
Flow of Events:	1. Admin selects " Admin Sign Up" 2. System prompts donor to fill in: a. Email b. Password c. Confirm Password 3. Admin submits the registration form 4. System validates the information provided (e.g., email, password) 5. If validation is successful, system creates a new Admin account 6. Admin is redirected to their dashboard.
Alternative Flows:	5a. Rejection: If account creation fails, notify the user of invalid fields and prompts user to re-enter details.
Exceptions:	5b. System error: If an error occurs during the sign up process, the system displays an error message and prompts the admin to retry.
Includes:	-
Special Requirements:	-
Assumptions:	
Notes and Issues:	-

Use Case ID:	13		
Use Case Name:	Donor login		
Created By:	Jun Hern	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	7/9/24

Actor:	User
Description:	Allow donors to log into their accounts.
Preconditions:	User must be registered in as donor.
Postconditions:	Donor is successfully logged in and redirected to the donor dashboard
Priority:	Medium
Frequency of Use:	0-5 times per day.
Flow of Events:	 Donor selects "Donor Login". System prompts donor to enter their login credentials. Donor provides credentials and submits the form System validates the credentials and redirects donor to Donor's dashboard where they can view Notifications, Manage Listings and Requests to Fulfil. They are able to make new food donations as well.
Alternative Flows:	4a: Unable to find account – If account is invalid, redirect to "Forget password".
Exceptions:	4b: Timed out – When password has been entered wrongly for 5 times in a row, log user out of the website.
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	14		
Use Case Name:	Beneficiary login		
Created By:	Jun Hern	Last Updated By:	Kai Bin
Date Created:	30/8/24	Date Last Updated:	7/9/24

Actor:	User
Description:	Allow beneficiaries to log into their accounts.
Preconditions:	User must be logged in as beneficiaries.
Postconditions:	Beneficiary is successfully logged in and redirected to the beneficiary's dashboard.
Priority:	Medium
Frequency of Use:	0-5 times per day.
Flow of Events:	 Beneficiaries selects "Beneficiary Login". System prompts donor to enter their login credentials. Beneficiaries provides credentials and submits the form System validates the credentials and redirects donor to Beneficiary's dashboard where they can view Notifications, Manage Listings and Available Donations. They are able to make new food requests as well.
Alternative Flows:	4a: Unable to find account – If account is invalid, redirect to "Forget password".
Exceptions:	4b: Timed out – When password has been entered wrongly for 5 times in a row, log user out of the website.
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	15		
Use Case Name:	Admin login		
Created By:	Jun Hern	Last Updated By:	Kai Bin

Date	30/8/24	Date Last	7//9/24
Created:		Updated:	

Actor:	User
Description:	Allow Admin to log into their accounts.
Preconditions:	User must be registered as Admin.
Postconditions:	Admin is successfully logged in and redirected to the admin home page .
Priority:	Medium
Frequency of Use:	0-3 times per day.
Flow of Events:	 Admin selects "Admin Login". System prompts the admin to enter their login credentials. Admin provides credentials and submits the form System validates the credentials and redirects donor to Admin's dashboard where they can view Notifications, Collect Donation and Deliver Donation.
Alternative Flows:	4a: Unable to find account – If account is invalid, redirect to "Forget password".
Exceptions:	4b: Timed out – When a password has been entered wrongly for 5 times in a row, log the user out of the website.
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	16
Use Case Name:	View total donations pending for collection

Created By:	Kai Bin	Last Updated By:	
Date Created:	7/9/24	Date Last Updated:	

Actor:	Website Admin
Description:	Administrative task to view the total number of donation requests that are currently pending for collection from donors.
Preconditions:	 User must be logged in. User's profile must be an admin.
Postconditions:	System displays the total number of pending donation requests.
Priority:	Medium
Frequency of Use:	1-5 times per day.
Flow of Events:	 Admin logs into the system Admin selects "Collect Donation" System displays all food listings by the donors that have not been collected.
Alternative Flows:	3a: Generate Fastest Route Admin can view the fastest route from the headquarters to the donor's address.
Exceptions:	-
Includes:	-
Special Requirements:	Admins must have appropriate permissions to view.
Assumptions:	The system has a mechanism for tracking the status of donation requests.

Notes and Issues:	-

Use Case ID: 17

Use Case Name:	View total donations pe	ending for delivery	
Created By:	Kai Bin	Last Updated By:	
Date Created:	7/9/24	Date Last Updated:	

Actor:	Website Admin	
Description:	Administrative task to view the total number of donation requests that are currently pending for delivery	
Preconditions:	 Users must be logged in. User's profile must be an admin. 	
Postconditions:	System displays the total number of pending donation requests.	
Priority:	Medium	
Frequency of Use:	1-5 times per day.	
Flow of Events:	 Admin logs into the system Admin selects "Delivery Donation" System displays all food that has yet to be delivered to the beneficiaries. 	
Alternative Flows:	3a: Generate Fastest Route - Admin can view the fastest route from the headquarters to the beneficiary's address.	
Exceptions:	-	
Includes:	-	
Special Requirements:	Admins must have appropriate permissions to view.	

Assumptions:	The system has a mechanism for tracking the status of donation requests.
Notes and Issues:	-

Use Case ID:	18		
Use Case Name:	View routes of matched pairs		
Created By:	Jun hern	Last Updated By:	
Date Created:	30/8/24	Date Last Updated:	

Actor:	Website admin
Description:	Admin is able to view the most efficient route generated by "find most efficient routes" use case.
Preconditions:	The admin has access to the website. User is logged in as Admin.
Postconditions:	Admin is made aware of the most efficient route.
Priority:	High
Frequency of Use:	Real-time (triggered automatically after the route is calculated)
Flow of Events:	Admin receives a notification Admin logs into the website and is able to view the most efficient route for each matched pairs.
Alternative Flows:	2a. Admin would collect food from donors once they are ready for collection.
	2b. Admin would deliver food to beneficiaries once they are ready to be delivered.
Exceptions:	-
Includes:	Find most efficient routes
Special Requirements:	-

Assumptions:	-
Notes and Issues:	-

Use Case ID:	19		
Use Case Name:	Find most efficient routes		
Created By:	Jun hern	Last Updated By:	
Date Created:	30/8/24	Date Last Updated:	

Actor:	Maps
Description:	Automatically calculate the most efficient routes for approved matched donations, considering factors such as distance, and traffic.
Preconditions:	 A donation request has been matched. The donor and beneficiary information, including their locations, is available in the system. Access to Google Maps API is made available.
Postconditions:	The system generates an efficient route based on traffic conditions.
Priority:	High
Frequency of Use:	Real-time (triggered automatically upon approval of a matched donation)
Flow of Events:	 When a donation is matched, the system triggers the route optimization process. The system collects relevant data, such as the donor's location and the beneficiary's location. The system will generate and send the route information to our team to facilitate the collection of items from the donor's location.

	The system will also calculate and provide the most efficient route from our headquarters to the beneficiary's location for the delivery process.
Alternative Flows:	1a. No available admin drivers: If no delivery drivers are available in the area, the system may delay the delivery or notify the donor and beneficiary of the situation.
Exceptions:	-
Includes:	-
Special Requirements:	Integration with a mapping API or navigation system to obtain accurate distance and traffic data.
Assumptions:	 The system has access to reliable mapping data and traffic information. Delivery drivers are able to follow the generated routes efficiently.
Notes and Issues:	-

Use Case ID:	20		
Use Case Name:	Request found or donations accepted		
Created By:	Jun hern	Last Updated By:	
Date Created:	30/8/24	Date Last Updated:	

Actor:	System	
Description:	Triggers when a match has been made.	
Preconditions:	 The beneficiary has made a request or the donor has found a suitable listing. The donor has found a suitable listing by the beneficiary and offered to donate. 	
Postconditions:	System prepares notifications to send out to both parties.	
Priority:	High	
Frequency of Use:	10-20 times a day	
Flow of Events:	 System matches requests with listings that have the same requirements, System notifies the beneficiary that the donation has been accepted. System notifies donors that the request has been accepted. System updates the status of the items. 	
Alternative Flows:	-	

Exceptions:	-
Includes:	Notify both parties
Special	-
Requirements:	
Assumptions:	-
Notes and Issues:	-

Use Case ID:	21		
Use Case Name:	Notify both parties		
Created By:	Jun hern	Last Updated By:	
Date Created:	30/8/24	Date Last Updated:	

Actor:	Maps
Description:	To notify them of the process of food delivery.
Preconditions:	 The beneficiary has made a request or the donor has found a suitable listing. The donor has found a suitable listing by the beneficiary and offered to donate.
Postconditions:	Donors and beneficiaries are made aware of the exact location of the food delivery and the status of the delivery (if any).
Priority:	High
Frequency of Use:	0-50 times a day
Flow of Events:	 An optimal route has been generated successfully. Donors and beneficiaries are made aware that their matches have been processed.
Alternative Flows:	-
Exceptions:	-
Includes:	-

Special Requirements:	-
Requirements:	
Assumptions:	-
Notes and Issues:	-

Use Case ID:	22		
Use Case Name:	View Status of request	or donation	
Created By:	Kai Bin	Last Updated By:	
Date Created:	7/9/24	Date Last Updated:	

Actor:	User
Description:	Donors can view pickup status of confirmed donations and beneficiaries can view delivery status of confirmed requests.
Preconditions:	User has a valid registered account.
	2. User has to be either a donor or a beneficiary
Postconditions:	Donor and Beneficiary are informed of the date
	and time of the pick-up or delivery respectively.
Priority:	Medium
Frequency of Use:	1-5 times a day
Flow of Events:	User selects "Details" under each confirmed food request or confirmed donation.
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	Delivery and pick-up details such as date and time will be shown.

Alternative Flows:	-
Exceptions:	-
Includes:	-
Special	-
Requirements:	
Assumptions:	-
Notes and Issues:	-