

SC2006: Software Engineering

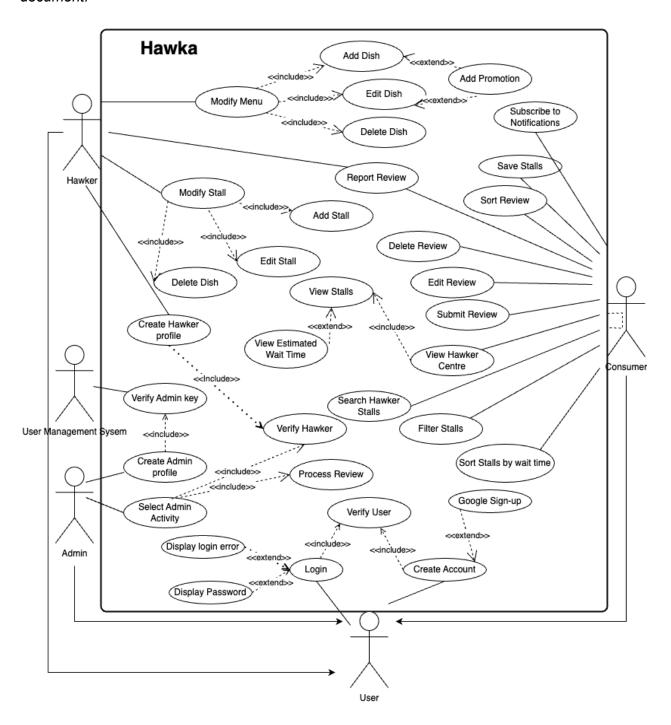
Lab 2 Deliverables

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Use Case Model and Use Case Descriptions

Use Case Diagram

If the image is unclear, please refer to the accompanying raw PNG file uploaded with this document.



Use Case Descriptions

Use Case ID:	HAWK-1.1		
Use Case Name:	Create Account		
Created by:	Cao Junming Last Updated by: Cao Junming		
Date Created:	07-02-2025	Date Last Updated:	19-02-2025

Actors:	Users		
Description:	Users in general must be able to create an account in our application using either an unique email and a chosen password or with a chosen google account. System must be able to detect the input email or google account and verify if an account already exists.		
Preconditions:	User must be using the application for the first time or if the consumer is creating a new account with a new email or google account.		
Postconditions:	New account created and stored in the system or an explanation as to why a new account with the entered information cannot be created.		
Priority:	High		
Frequency of Use:	High		
Flow of events:	 The user chooses to register a new account. System to display account creation page. User can choose to use their google accounts to create a new account. Accounts created via this method can only be accessed via a google account log in. If User chooses to create an account manually, he or she is to enter an unique email, username and password. System verifies whether or not if the entered individual details or associated google account is already associated with another account. If the individual details or google account are not associated with another account, account will be created and user will proceed to the create profile page to complete the set-up. 		

Alternative Flows:

AF-S2-4: If User's internet connections fails when account details are being entered

1. System will inform the User of either unstable or lost connection.

AF-S5(1): If User's internet connection fails when system is creating account or loading into the profile creation page

- 1. System will inform the User of either unstable or lost connection.
- 2. System to NOT record the account creation
- 3. System to return to step 2. With all inputs cleared.

AF-S3 (1): Invalid user details.

- 1. If user email is not a valid email address, system will inform user that it is an invalid email address via a display of a warning beneath the input bar.
- 2. If user attempts to create account afterwards, system to inform user of an Invalid email and return to step 2.
- 3. If this alternate flow occurs repeatedly for 5 times, trigger EX 1.

AF-S3 (2): If the individual details are already associated with another account.

- The system will inform the user that the individual details or the google account used to register a new account is already associated with another account and prompt the user to either go to the login page or re-enter individual details.
- 2. If User chooses to go to the login page, then the system will display the login page.
- 3. If the user does not choose to go to the login page, system returns to step 2.
- 4. If this alternate flow occurs repeatedly for 5 times, trigger EX1.

AF-S3-5: User closes webpage before all details are entered.

- 1. System will NOT save any user inputs.
- 2. When user returns to the webpage, system to return to return to step 2, with cleared inputs.

AF-S6(2): User closes webpage whilst the system is switching from account creation page to profile creation page.

	 If user closes webpage after step 6, before the profile creation page is displayed, System to NOT record the account creation and clear all user input. System to return to step 2. 	
Exceptions:		
Includes:	User verification.	
Special requirements:	None.	
Assumptions:	User is not a bot.	
Notes and Issues		

Use Case ID:	HAWK-1.2		
Use Case Name:	Profile set-up		
Created by:	Cao Junming	Last Updated by:	Cao Junming
Date Created:	07-02-2025	Date Last Updated:	19-02-2025

Actors:	Users.
Description:	The User should be able to create a profile for his or her account, the profile will include the account role and all relevant information specific to the role.
Preconditions:	 User account not assigned any profile. Note that only one profile can be associated with one account. User is logged into an account that has yet to be assigned a profile.
Postconditions:	Created profile tied to User account.
Priority:	High
Frequency of Use:	High

Flow of events: 1. User is shown the profile creation screen after account creation or logging in. 2. User will one of the 3 roles (Consumer, Hawker or Admin) that is to be assigned to the account. 3. User will then enter details that are associated with that particular role to complete profile creation. Take note that each role will have its own unique set of details that needs to be provided. 4. In the case of the User choosing the "Consumer" role, he or she will have to enter his or her contact number, address, preferred cuisine, dietary preferences or requirements and ambulatory status. 5. Once the details are filled in and User chooses to create profile, profile will be created and logged into the system, profile will be assigned to the user. User will be shown the Home Page for the role that was assigned to the profile. Alternative Flows: AF-S2-4(1): Unstable or lost connection when details are being entered 1. System will inform the User of the unstable or lost connection. AF-S2-4(2): User closes webpage before all details are entered 1. System will NOT save any user inputs. 2. When user returns to the webpage, system to return to return to step 2, with cleared inputs. AF-S5(1): Unstable or lost connection during profile creation process. 1. System will inform the User of the unstable or lost connection. Profile will NOT be created or assigned. 3. System to return to step 2, with all input cleared. AF-S5(2): User closes webpage when profile is being created or before homepage is displayed. 1. If user closes webpage after step 6, before the profile creation page is displayed, System to NOT record the account creation and clear all user input. 2. System to return to step 2.

Exceptions:	None
Includes:	None
Special requirements:	None
Assumptions:	User is not a bot and User already has a created account.
Notes and Issues	This use case is meant as a general description of how the profiles relates to the account and how a "Consumer" profile is required for it does not differ from the use flow. For specific details on how a "Hawker" or "Admin" profile is created, refer to HAWK-1.3 and HAWK-1.4 respectively.

Use Case ID:	HAWK-1.3			
Use Case Name:	Creating a Hawker profile			
Created by:	Cao Junming Last Updated by: Cao Junming			
Date Created:	07-02-2025 Date Last Updated: 19-02-2025			

Actors:	Hawkers		
Description:	Hawker profile creation must require a contact number and the SFA license number and the profile will require admin verification before it is created and tied to the account.		
Preconditions:	Hawker must be registered with the SFA, with a SFA license. User must be trying to create a profile with the "Hawker" Role.		
Postconditions:	1. Hawker profile created and assigned to account. 2. User informed of Admin disapproval and reason.		
Priority:	High		
Frequency of Use:	Whenever a new profile with the "Hawker" role is created.		
Flow of events:	System will prompt the Hawker to enter a contact number alongside the Hawker's SFA license number. Once hawker has entered details and proceeded with profile creation, System will inform Hawker that an approval request has been sent via displaying a new		

	 message page. 3. System will bar Hawker from creating another profile by redirecting to the same message page whenever the Hawker enters the profile creation page. 4. System will notify admins for approval. 5. Once approved, system will notify Hawker of approval via email or SMS. Hawker can now access Home Page for the Hawker role after log in. Newly created Hawker profile will be assigned to the associated account. 	
Alternative Flows:	AF-S1(1): Unstable internet whilst entering details.	
	System will inform the Hawker of the unstable or lost connection.	
	AF-S1(2): Hawker closes webpage whilst entering details.	
	 System will NOT save any user inputs. When hawker returns to the webpage, system to return to return to step 1, with cleared inputs. 	
	AF-S2(1): Unstable internet during redirection to message page.	
	 System will inform the hawker of the unstable or lost connection. Profile will NOT be created or assigned, nor will the approval request be sent. System to return to step 1, with all input cleared. 	
	AF-S2(2): Hawker closes webpage before message page displayed.	
	 Profile will NOT be created or assigned, nor will the approval request be sent. System to return to step 1, with all input cleared when the hawker returns to the page. AF-S4: Admin does not approve of the Hawker profile creation request. 	
	 Hawker will be notified of the denial via SMS and email. The notification will include the reason for the denial, the Admin responsible for the denial and any other Admin remarks. Notification will also incudes means to reach out to management for appeal or enquiry. 	
Exceptions:		

Includes:	Hawker verification.	
Special requirements:	None.	
Assumptions:	None.	
Notes and Issues		

Use Case ID:	HAWK-1.4		
Use Case Name:	Admin profile creation.		
Created by:	Cao Junming Last Updated by: Cao Junming		
Date Created:	07-02-2025 Date Last Updated: 19-02-2025		

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Actors:	Admins	
Description:	Admin profile creation must require a unique key that is already logged in the accounts database.	
Preconditions:	Admin must have already registered with management and have received his or her Admin unique key for verification.	
Postconditions:	Admin profile created and tied to the account.	
Priority:	High	
Frequency of Use:	Whenever a new Admin creates an Admin profile.	
Flow of events:	 Admin enters his or her unique that is recorded in the user database and his or her contact number.' Should the unique key be verified and also not associated with any other account, Admin profile created and Admin is redirected to the Admin Home Page. 	
Alternative Flows:	AF-S1(1): Unstable internet during entering of details 1. System will inform the Admin of the unstable or lost connection.	
	AF-S2(1): Unstable internet during system verification or before redirected to account Home Page.	

	 System will inform the hawker of the unstable or lost connection. Profile will NOT be created or assigned, nor will the approval request be sent. System to return to step 1, with all input cleared. AF-S1(2): Admin closes webpage whilst entering details. System will NOT save any inputs. When admin returns to the webpage, system to return to return to step 1, with cleared inputs. AF-S2(2): Admin closes webpage during system verification or before redirected to account Home Page. Profile will NOT be created or assigned or any approval requests sent. System to return to step 1, with all input cleared when the Admin returns to the page. AF-S2(3): Unique key not found or already associated with another account. System to notifies admin of this problem. Admin may choose to contact management.
Exceptions:	1.
Includes:	Admin verification.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None

Use Case ID:	HAWK-1.5		
Use Case Name:	Log in.		
Created by:	Cao Junming Last Updated by: Cao Junming		
Date Created:	19-02-2025	Date Last Updated:	19-02-2025

Actors:	Users		
Description:	Users must be able to sign in using the accounts they have created previously.		
Preconditions:	User must have an account.		
Postconditions:	User either logs in or is denied access.		
Priority:	High		
Frequency of Use:	When the User tries to log in.		
Flow of events:	 User either enters email and password to log in manually or uses google account to log in. If both are valid, User logs in and redirected to account Home Page. 		
Alternative Flows:	AF-S1(1): Unstable internet during entering of details		
	System will inform the User of the unstable or lost connection.		
	AF-S2(1): Unstable internet during system verification or before redirected to account Home Page.		
	 System will inform the User of the unstable or lost connection. User will not be logged in. System to return to step 1 		
	AF-S1(2): User closes webpage whilst entering details.		
	 System will NOT save any inputs. When admin returns to the webpage, system to return to return to step 1, with cleared inputs. 		
	AF-S2(2): User closes webpage during system verification or before redirected to account Home Page.		
	 User will not be logged in. System to return to step 1, with all input cleared when the user returns to the page. 		
	AF-S2(3): Invalid log in.		
	System to notify user of this problem, if the issue lies		

	with the password, system will remind user to change password. If it is the email, system will remin user that the inout email is not associated with any account. 2. If this alternate flow repeats for 5 times, trigger EX1	
Exceptions:	EX1: Suspected Bot or malicious login attempts detected. 1. System returns to login page or homepage. 2. System informs the user of the suspicion. 3. The User receives and is informed of a set cooldown period, during which the User cannot create new accounts or log in.	
Includes:	User verification.	
Special requirements:	None.	
Assumptions:	User is not a bot or malicious.	
Notes and Issues	None	

Use Case ID:	HAWK-2.1		
Use Case Name:	View in Map		
Created by:	Natthakan Last Updated by: Natthakan		
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers	
Description:	Consumers must be able to view map views of hawker centers.	
Preconditions:	Consumers must be logged into the application	
Postconditions:	The map views of hawker centers is shown	
Priority:	Normal	

Frequency of Use:	Whenever a consumer lands on Homepage	
Flow of events:	Consumers land on the homepage after login An interactive map of hawker centers is shown	
Alternative Flows:	AF-2: 1. Consumers hit GPS button to locate user's current location 2. An interactive map at the user's location is shown with hawker centers location	
Exceptions:	None	
Includes:	View Hawker centers	
Special requirements:	None	
Assumptions:	User logged in as a consumer	
Notes and Issues	None	

Use Case ID:	HAWK-2.2		
Use Case Name:	View Hawker stalls list		
Created by:	Natthakan Last Updated by: Natthakan		
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers
Description:	Consumers must be able to view a list of stalls inside a certain hawker center. The application shall show a list of stalls inside a hawker center that consumers hit the icon on the map. The application shall display a picture, name, and rating for each hawker stall.
Preconditions:	Consumers must be logged into the application
Postconditions:	The list of hawker centers and stalls are shown on the home page

Priority:	Normal		
Frequency of Use:	Whenever a consumer logs in.		
Flow of events:	 Consumers land on the homepage after login Consumers hits certain hawker center icon on a map List of hawker stalls in that hawker center are shown 		
Alternative Flows:	None		
Exceptions:	None		
Includes:	View Stalls View Estimated Wait Time		
Special requirements:	None		
Assumptions:	User logged in as a consumer		
Notes and Issues	None		

Use Case ID:	HAWK-2.3		
Use Case Name:	Search Hawker Stalls		
Created by:	Natthakan Last Updated by: Natthakan		
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers
Description:	Consumers must be able to search for hawker stalls. The application shall provide consumers to search by name of the stall or hawker center.
Preconditions:	Consumers must be logged into the application
Postconditions:	Relevant stalls and hawker centers are shown based on the search term

Priority:	Normal	
Frequency of Use:	Whenever a consumer input the search term	
Flow of events:	 Consumers land on the homepage after login Consumers enter search term in the search bar A list of relevant stalls is shown 	
Alternative Flows:	AF-S3: 1. "No search found" is shown when the search term does not match anything	
Exceptions:	None	
Includes:	None	
Special requirements:	None	
Assumptions:	User logged in as a consumer	
Notes and Issues	None	

Use Case ID:	HAWK-3.1		
Use Case Name:	Filter Stalls		
Created by:	Natthakan	Last Updated by:	Natthakan
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers
Description:	The application shall provide options for Consumers to specify a time range to find hawker centers and stalls that are open during that period.
Preconditions:	Consumers must be logged into the application
Postconditions:	Relevant stalls are shown based on the filter

Priority:	Normal	
Frequency of Use:	Whenever a consumer specifically choose to filter	
Flow of events:	 Consumers hit filter button Consumers specify a time range Relevant stalls are shown based on the filter 	
Alternative Flows:	AF-S3: 1. "No search found" is shown when the filter does not match anything	
Exceptions:	None	
Includes:	None	
Special requirements:	None	
Assumptions:	User logged in as a consumer	
Notes and Issues	None	

Use Case ID:	HAWK-3.2		
Use Case Name:	Filter Stalls		
Created by:	Natthakan	Last Updated by:	Natthakan
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers
Description:	The application shall provide consumers to filter hawker centers based on the availability of washrooms and parking spaces
Preconditions:	Consumers must be logged into the application
Postconditions:	Relevant stalls are shown based on the filter

Priority:	Normal		
Frequency of Use:	Whenever a consumer specifically choose to filter		
Flow of events:	 Consumers hit filter button Consumers tick washroom or parking spaces box Relevant stalls are shown based on the filter 		
Alternative Flows:	AF-S3: 1. "No search found" is shown when the filter does not match anything		
Exceptions:	None		
Includes:	None		
Special requirements:	None		
Assumptions:	User logged in as a consumer		
Notes and Issues	None		

Use Case ID:	HAWK-3.3		
Use Case Name:	FilterStalls		
Created by:	Natthakan	Last Updated by:	Natthakan
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers
Description:	The application shall allow Consumers to filter hawker centres based on the availability of ramps, railings, or tactile pavings for visually impaired individuals.
Preconditions:	Consumers must be logged into the application
Postconditions:	Relevant stalls are shown based on the filter

Priority:	Normal		
Frequency of Use:	Whenever a consumer specifically choose to filter		
Flow of events:	 Consumers hit filter button Consumers tick accessibility box Relevant stalls are shown based on the filter 		
Alternative Flows:	AF-S3: 1. "No search found" is shown when the filter does not match anything		
Exceptions:	None		
Includes:	None		
Special requirements:	None		
Assumptions:	User logged in as a consumer		
Notes and Issues	None		

Use Case ID:	HAWK-3.4		
Use Case Name:	FilterStalls		
Created by:	Natthakan	Last Updated by:	Natthakan
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers
Description:	The application shall allow consumers to filter stalls based on food preferences, including food type and dietary restrictions, price range, using predefined categories such as low, medium and high, and hygiene ratings.
Preconditions:	Consumers must be logged into the application
Postconditions:	Relevant stalls are shown based on the filter

Priority:	Normal
Frequency of Use:	Whenever a consumer specifically choose to filter
Flow of events:	 Consumers hit filter button Consumers tick food preferences, price range, or hygiene ratings box Relevant stalls are shown based on the filter
Alternative Flows:	AF-S3: 1. "No search found" is shown when the filter does not match anything
Exceptions:	None
Includes:	None
Special requirements:	None
Assumptions:	User logged in as a consumer
Notes and Issues	None

Use Case ID:	HAWK-4.1		
Use Case Name:	View Estimated Wait Ti	ime	
Created by:	Natthakan	Last Updated by:	Natthakan
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers
Description:	Consumers must be able to see an estimated wait time for food based on crowd data of different hawker centres. The application must calculate estimated wait time accurately by using historical crowd data and order volume data.
Preconditions:	Consumers must be logged into the application

Postconditions:	Estimated wait time in minutes is shown for each stall
Priority:	Normal
Frequency of Use:	Whenever a consumer hit check wait time function
Flow of events:	Consumers hit check wait time function Estimated wait time in minutes is shown for each stall
Alternative Flows:	None
Exceptions:	EX2: No data available to calculate estimated wait time 1. Estimated wait time is shown as ""
Includes:	None
Special requirements:	None
Assumptions:	User logged in as a consumer
Notes and Issues	None

Use Case ID:	HAWK-5.1		
Use Case Name:	Consumers must be at wait time	ole to view a sorted list o	f hawker centers using
Created by:	Natthakan	Last Updated by:	Natthakan
Date Created:	12-02-2025	Date Last Updated:	12-02-2025

Actors:	Consumers
Description:	Consumers must be able to view a sorted list of hawker centers using wait time. The application shall allow Consumers to sort the list by wait time in ascending order.

Preconditions:	Consumers must be logged into the application	
Postconditions:	A sorted list of hawker centers based on average waiting time is shown in ascending order	
Priority:	Normal	
Frequency of Use:	Whenever a consumer hit sort by wait time function	
Flow of events:	 Consumers hit sort by wait time function Estimated wait time in minutes is shown for each stall A sorted list of hawker stalls based on waiting time is shown in ascending order 	
Alternative Flows:	None	
Exceptions:	None	
Includes:	HAWK-4.1	
Special requirements:	None	
Assumptions:	User logged in as a consumer	
Notes and Issues	None	

Use Case ID:	HAWK-6.1		
Use Case Name:	Modify reviews		
Created by:	Aliff	Last Updated by:	Aliff
Date Created:	2025-02-06	Date Last Updated:	2025-02-17

Actors:	Consumer

Description:	Allows consumers to modify their reviews for stalls. It includes adding, editing, and deleting reviews.
Preconditions:	The consumer must be logged in. The consumer must have interacted with the stall before submitting a review.
Postconditions:	The consumer's review is added, updated, or deleted in the system.
Priority:	NORMAL
Frequency of Use:	As needed, when consumers want to leave or update their reviews.
Flow of events:	 The consumer selects the "Modify Review" option. The system presents options to: a. Add Review b. Edit Review c. Delete Review The consumer selects the appropriate action and proceeds. The system processes the request and updates the review accordingly.
Alternative Flows:	If the consumer tries to modify a review for a stall they haven't interacted with, the system restricts access.
Exceptions:	System downtime prevents modifications. Invalid or missing review content results in an error message.
Includes:	HAWK-6.2, HAWK-6.3, HAWK-6.4

Special requirements:	Consumers should only modify their own reviews.
Assumptions:	The system stores and retrieves reviews from a database.
Notes and Issues	None

Use Case ID:	HAWK-6.2		
Use Case Name:	Add Reviews		
Created by:	Aliff	Last Updated by:	Aliff
Date Created:	2025-02-06	Date Last Updated:	2025-02-17

Actors:	Consumer	
Description:	This use case allows consumers to add a review for a stall.	
Preconditions:	The consumer must be logged in. The consumer must have interacted with the stall.	
Postconditions:	A new review is saved in the system.	
Priority:	NORMAL	
Frequency of Use:	Consumers add reviews when they want to provide feedback.	
Flow of events:	 The consumer selects the "Add Review" option. The system presents a review input form. The consumer enters review details and submits it. The system saves the review and displays confirmation. 	

Alternative Flows:	AF-S10: If Consumer has not make a review on any particular stalls:	
	 The system will not display "Edit" button. The system will display "Review" button only to submit a review of the stalls. 	
	If the "Cancel" button is pressed	
	 The system will not save the changes made. The system will direct the consumer to the "Edit" button. 	
Exceptions:	If the consumer submits an empty review, the system prompts for valid input.	
Includes:	None	
Special requirements:	Review content should be filtered for inappropriate language.	
Assumptions:	Consumers provide honest feedback.	
Notes and Issues	None	

Use Case ID:	HAWK-6.3		
Use Case Name:	Edit Reviews		
Created by:	Aliff	Last Updated by:	Aliff
Date Created:	2025-02-06	Date Last Updated:	2025-02-17

Actors:	Consumer
Description:	This use case allows consumers to edit their existing reviews for stalls.

Preconditions:	The consumer must be logged in.	
	The review must already exist in the system.	
Postconditions:	The consumer's review is updated in the system.	
Priority:	NORMAL	
Frequency of Use:	Consumers edit reviews when they want to update their feedback.	
Flow of events:	 The consumer selects the "Edit Review" option. The system retrieves the existing review. The consumer modifies the review and submits it. The system updates the review and displays confirmation. 	
Alternative Flows:	If the consumer tries to edit a review they didn't create, the system restricts access.	
Exceptions:	If no reviews are available, display "No reviews yet."	
Includes:	None	
Special requirements:	None	
Assumptions:	Consumers update reviews responsibly.	
Notes and Issues	None	

Use Case ID:	HAWK-6.4		
Use Case Name:	Delete Review		
Created by:	Aliff	Last Updated by:	Aliff
Date Created:	2025-02-06	Date Last Updated:	2025-02-19

Actors:	Consumer	
Description:	Allows consumers to delete their reviews for stalls.	
Preconditions:	The consumer must be logged in. The review must already exist in the system.	
Postconditions:	The consumer's review is removed from the system.	
Priority:	HIGH	
Frequency of Use:	Consumers delete reviews when they no longer wish to provide feedback.	
Flow of events:	 The consumer selects the "Delete Review" option. The system retrieves the existing review. The consumer confirms the deletion. The system removes the review and displays confirmation. 	
Alternative Flows:	If the consumer tries to delete a review they didn't create, the system restricts access.	
Exceptions:	None	
Includes:	None	
Special requirements:	None	
Assumptions:	Consumers do not delete reviews maliciously.	
Notes and Issues	None	

Use Case ID:	HAWK-7			
Use Case Name:	Aggregate and Display Rating and Reviews			
Created by:	Aliff Last Updated by: Aliff			
Date Created:	2025-02-06	Date Last Updated:	2025-02-19	

Actors:	Consumer	
Description:	The application aggregates ratings and reviews for a stall and displays consolidated information.	
Preconditions:	The stall must have at least one review.	
Postconditions:	Consumer can view the average rating, total reviews, and prioritized reviews	
Priority:	HIGH	
Frequency of Use:	Frequent	
Flow of events:	 System calculates the average rating for the stall based on all submitted ratings. System counts the total number of reviews for the stall. System displays the aggregate rating alongside the total reviews on the stall's page. Consumer navigates to the reviews section. Consumer selects a sorting option (e.g., by highest rating or recency). System updates the display to prioritize reviews based on the selected sorting option. Consumer views the reviews to make a decision 	
Alternative Flows:	None	
Exceptions:	If no reviews are available, display "No reviews yet."	

Includes:	None
Special requirements:	None
Assumptions:	Consumers value consolidated review information to aid decision-making.
Notes and Issues	None

Use Case ID:			
Use Case Name:	HAWK-8 Sort Review		
Created by:	Aliff	Last Updated by:	Aliff
Date Created:	2025-02-06	Date Last Updated:	2025-02-17

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Actors:	Consumer
Description:	The application allows users to prioritize reviews most relevant to their preferences and sort reviews by rating or recency.
Preconditions:	The stall must have existing reviews.
Postconditions:	Consumers can view reviews sorted according to their preferences.
Priority:	NORMAL

Frequency of Use:	Frequent
Flow of events:	 Consumer navigates to the stall's reviews section. Consumer selects a sorting preference (e.g., "Most Relevant," "Highest Rating," or "Newest First"). System applies the selected sorting preference. System updates the display to match the preference. Consumer views sorted reviews.
Alternative Flows:	None
Exceptions:	If no reviews match the preference, display "No reviews matching your preference."
Includes:	None
Special requirements:	None
Assumptions:	None
Notes and Issues	None

Use Case ID:	LIANAIK O		
Use Case Name:	HAWK-9 Report Review		
Created by:	Aliff	Last Updated by:	Aliff
Date Created:	2025-02-06	Date Last Updated:	2025-02-17

Actors:	Consumer, Admin		
Description:	Consumers can flag reviews that are irrelevant or inappropriate.		
Preconditions:	Consumer must be logged in		
Postconditions:	The Admin is notified, and the flagged review is reviewed.		
Priority:	NORMAL		
Frequency of Use:	Occasional		
Flow of events:	 Consumer navigates to a review. Consumer selects the report option. Consumer chooses a predefined category (e.g., "spam," "offensive content," or "irrelevant to food"). Consumer submits the report. System notifies the Admin. System confirms the report submission to the Consumer. 		
Alternative Flows:	None		
Exceptions:	If a Consumer has already reported a review, they cannot report it again.		
Includes:	None		
Special requirements:	None		

Assumptions:	Consumers will report reviews responsibly.	
Notes and Issues	None	

Use Case ID:	HAWK-12.1		
Use Case Name:	Save Favourite Stalls		
Created by:	Kow Zi Ting Last Updated by: Kow Zi Ting		
Date Created:	2025-02-06	Date Last Updated:	2025-02-06

Actors:	Consumer.		
Description:	Consumer will be able to save their favourite hawker centres or stalls for quick access.		
Preconditions:	Consumer must be logged into the application.		
Postconditions:	The favorited hawker centre or stall is saved under the Consumer's profile.		
Priority:	NORMAL		
Frequency of Use:	More often during initial use of the application and less often subsequently.		
Flow of events:	 Consumer navigates the list of hawker centers and stalls on the home page. Consumer searches for the hawker centre or stall using his selected criteria Consumer selects hawker centre or stall Consumer clicks on the "Save to Favourites" button Consumer can view the favorites hawker centre or stall in the profile 		
Alternative Flows:	None.		
Exceptions:	If the user is not logged into the system, they will be prompted to log in first.		

Includes:	None.
Special requirements:	None.
Assumptions:	Consumer wants to save multiple favourite hawker centres or stalls.
Notes and Issues	None.

Use Case ID:	HAWK-12.2		
Use Case Name:	Delete Favourite Stalls		
Created by:	Kow Zi Ting Last Updated by: Aliff		
Date Created:	2025-02-06 Date Last Updated: 2025-02-19		

Actors:	Consumer.		
Description:	Consumer will be able to delete their favourite hawker centres or stalls for quick access.		
Preconditions:	Consumer must be logged into the application.		
Postconditions:	The favorited hawker centre or stall is successfully removed from the user's favorites list		
Priority:	NORMAL		
Frequency of Use:	More often during initial use of the application and less often subsequently.		
Flow of events:	 6. The Consumer navigates to their Favorites List 7. The Consumer selects a hawker center/stall to remove 8. The Consumer clicks "Remove from Favorites" option 9. The system removes the selected hawker center/stall from the favorites list 10. The system updates the favorites list and displays a success message 		
Alternative Flows:	 The consumer tries to remove a hawker center/stall from favorites. The system detects that the hawker center/stall is not in the favorites list. The system displays an error message:"This item is not in your favourite" 		

Exceptions:	If the user is not logged into the system, they will be prompted to log in first.
Includes:	None.
Special requirements:	None.
Assumptions:	The Consumer only removes a favourite when they no longer need quick access to it.
Notes and Issues	None.

Use Case ID:	HAWK-13		
Use Case Name:	Notify Consumer		
Created by:	Kow Zi Ting Last Updated by: Kow Zi Ting		
Date Created:	2025-02-06	Date Last Updated:	2025-02-19

Actors:	System, Consumer		
Description:	System will be able to notify Consumers on new stalls added to nearby hawker centres, promotions or discounts at hawker centres and successful actions done within the application.		
Preconditions:	Consumer must be logged into the application.		
Postconditions:	Notifications will appear on Consumer's notifications mailbox.		
Priority:	HIGH		
Frequency of Use:	Every use of the application.		
Flow of events:	 Consumer logs into the system. Consumer selects the "Notifications" icon on the home page. Consumer views the notifications accumulated within the notifications mailbox. 		
Alternative Flows:	If there are no notifications accumulated within the notifications mailbox: • The mailbox will show the text: "Great, you're all caught up!"		

Exceptions:	If the consumer is not logged into the system, they will be prompted to log in first.
Includes:	None.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

Use Case ID:	HAWK-14.1		
Use Case Name:	Add Stall		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting
Date Created:	2025-02-06	Date Last Updated:	2025-02-10

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Actors:	Hawker.		
Description:	Hawker will be able to add stall information associated with the hawker centre.		
Preconditions:	Hawker must be logged into the application.		
Postconditions:	Stall information is added and shows successfully on searching by Consumer		
Priority:	HIGH		
Frequency of Use:	Occasional.		
Flow of events:	 Hawker logs into the system. Hawker clicks the "Profile" icon on the home page. Hawker clicks the "Add stall" button on the Profile page. Hawker fills in required information about the stall, including the hawker centre it belongs to. Hawker clicks the "Save" button located at the bottom of the template. Hawker receives a notification saying "Profile updated successfully.". 		
Alternative Flows:	After Step 5: If Hawker has entered a stall with the same		

	 hawker centre and unit number as an existing stall on his profile: System will show an alert: "Duplicate Stall detected, please check!" Hawker will be unable to click the "Save" button. Flow returns to Step 5 once Hawker has made edits to the stall unit number, hawker centre or deleted the duplicate stall from his profile After Step 5: If Hawker keys a Hawker Centre whose name does not exist in the system: System will show an alert: Hawker Centre does not exist, please check!" Hawker will be unable to click the "Save" button. Flow returns to Step 5 once Hawker has made edits to the hawker centre name.
Exceptions:	If the hawker is not logged into the system, they will be prompted to log in first.
Includes:	None.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

Use Case ID:	HAWK-14.2		
Use Case Name:	Edit Stall		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting
Date Created:	2025-02-06	Date Last Updated:	2025-02-10

Actors:	Hawker.	
Description:	Hawker will be able to edit stall information associated with the hawker centre.	
Preconditions:	Hawker must be logged into the application.	
Postconditions:	Stall information is edited and shows successfully on searching by Consumer	
Priority:	HIGH	

Frequency of Use:	Occasional.
Flow of events:	 Hawker logs into the system. Hawker clicks the "Profile" icon on the home page. Hawker clicks the desired stall's name to enter the stall page. Hawker clicks the "Edit" button beside the stall name to enter editing mode. Hawker edits content in the fields he wants to modify. Hawker clicks the "Save" button located at the bottom of the page in editing mode. Hawker receives a notification saying "Profile updated successfully.".
Alternative Flows:	After Step 5: If Hawker has entered a stall with the same hawker centre and unit number as an existing stall on his profile: • System will show an alert: "Duplicate Stall detected, please check!" • Hawker will be unable to click the "Save" button. • Flow returns to Step 5 once Hawker has made edits to the stall unit number, hawker centre or deleted the duplicate stall from his profile After Step 5: If Hawker keys a Hawker Centre whose name does not exist in the system: • System will show an alert: Hawker Centre does not exist, please check!" • Hawker will be unable to click the "Save" button. • Flow returns to Step 5 once Hawker has made edits to the hawker centre name.
Exceptions:	If the hawker is not logged into the system, they will be prompted to log in first.
Includes:	None.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

Use Case ID:	HAWK-14.3		
Use Case Name:	Delete Stall		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting

Date Created:	2025-02-06	Date Last Updated:	2025-02-10
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Actors:	Hawker.
Description:	Hawker will be able to edit stall information associated with the hawker centre.
Preconditions:	Hawker must be logged into the application.
Postconditions:	Stall information is edited and shows successfully on searching by Consumer
Priority:	HIGH
Frequency of Use:	Occasional.
Flow of events:	 Hawker logs into the system. Hawker clicks the "Profile" icon on the home page. Hawker clicks the "Edit" button on the Profile page. Hawker clicks the stall's name to enter the stall page. Hawker scrolls to the bottom of the stall page. Hawker clicks the "Delete stall" button located under the information of the stall. Stall page shows the window: "Confirm delete stall? Your stall's information will be deleted from the system." Hawker clicks the "Yes" button to confirm their selection.
Alternative Flows:	None.
Exceptions:	If the hawker is not logged into the system, they will be prompted to log in first.
Includes:	None.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

Use Case ID:	HAWK-16.1		
Use Case Name:	Add dish		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting

Date Created:	2025-02-06	Date Last Updated:	2025-02-10
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Actors:	Hawker.	
Description:	Hawker will be able to add new dishes on their menu.	
Preconditions:	Hawker must be logged into the application.	
Postconditions:	New dishes and prices are updated and displayed on the Stall page when any user views the Stall.	
Priority:	NORMAL	
Frequency of Use:	Occasional.	
Flow of events:	 Hawker logs into the system. Hawker clicks the "Profile" icon on the home page. Hawker clicks the desired stall whose menu he would like to add the dish to. Hawker clicks "Add dish" under Menu on the stall page. Hawker fills in information about the dish, including its name, type of food, photo, price, promotional status and discounted price. Hawker clicks "Save" to add the new dish. 	
Alternative Flows:	If Hawker adds a duplicate dish with the same name existing on the menu: • System will show the alert: "Dish already exists! Please change dish name." • Flow returns to Step 6 once Hawker has changed the name of the dish. If Hawker clicks the checkbox beside "Promotion" but does not	
	 enter a discounted price: System will show the alert: "Please key in discounted price!" Flow returns to Step 6 once Hawker has entered the discounted price. If Hawker enters a discounted price that is greater or equal to	
	 the existing price of the dish: System will show the alert: "Discounted price must be lower than original price! Please check." Flow returns to Step 6 once Hawker has entered another discounted price. 	
Exceptions:	None.	

Includes:	None.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

Use Case ID:	HAWK-16.2		
Use Case Name:	Edit dishes		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting
Date Created:	2025-02-06	Date Last Updated:	2025-02-10

Actors:	Hawker.	
Description:	Hawker will be able to edit dishes on their menu.	
Preconditions:	Hawker must be logged into the application.	
Postconditions:	Updated dishes and prices are updated and displayed on the Stall page when any user views the Stall.	
Priority:	NORMAL	
Frequency of Use:	Occasional.	
Flow of events:	 Hawker logs into the system. Hawker clicks the "Profile" icon on the home page. Hawker clicks the desired stall whose menu he would like to edit the dish. Hawker clicks "Edit dish" under Menu on the stall page. Hawker updates information about the dish, including its name, type of food, a photo, price, its promotional status and promotional price. Hawker clicks "Save" to update information about the dish. 	
Alternative Flows:	If Hawker clicks the checkbox beside "Promotion" but does not enter a discounted price: • System will show the alert: "Please key in discounted price!" • Flow returns to Step 6 once Hawker has entered the discounted price.	

	If Hawker enters a discounted price that is greater or equal to the existing price of the dish: • System will show the alert: "Discounted price must be lower than original price! Please check." • Flow returns to Step 6 once Hawker has entered another discounted price. If Hawker edits the name of a dish to one already existing on the menu: • System will show the alert: "Dish already exists! Please change dish name." • Flow returns to Step 6 once Hawker has changed the name of the dish.
Exceptions:	None.
Includes:	None.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

Use Case ID:	HAWK-16.3		
Use Case Name:	Delete dishes		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting
Date Created:	2025-02-06	Date Last Updated:	2025-02-10

Actors:	Hawker.
Description:	Hawker will be able to delete dishes from their menu.
Preconditions:	Hawker must be logged into the application.
Postconditions:	Dishes and prices are updated and displayed on the Stall page when any user views the Stall.
Priority:	NORMAL
Frequency of Use:	Occasional.

Flow of events:	 Hawker logs into the system. Hawker clicks the "Profile" icon on the home page. Hawker clicks the desired stall whose menu he would like to add the dish to. Hawker clicks "Delete dish" under the dish name, under Menu on the stall page. The notification "Delete dish? Yes/No" appears for the hawker to confirm his selection. Hawker clicks "Yes" to confirm the deletion.
Alternative Flows:	None.
Exceptions:	None.
Includes:	None.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

Use Case ID:	HAWK-17		
Use Case Name:	Select Admin activity		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting
Date Created:	2025-02-06	Date Last Updated:	2025-02-12

Actors:	Admin.
Description:	Admin will be able to select the actions he would like to take.
Preconditions:	Admin must be logged into the system.
Postconditions:	Admin enters the page of the activity he would like to perform.
Priority:	HIGH
Frequency of Use:	Every day.
Flow of events:	 Admin logs into the system. Admin sees "Process Reviews" and "Verify Hawker" on the landing page. If Admin clicks on "Verify Hawker", then Admin uses the

	use case Verify Hawker (HAWK-19) 4. If Admin clicks on "Process Reviews", then Admin uses the use case "Process reviews" (HAWK-18) application to confirm their authenticity.
Alternative Flows:	None.
Exceptions:	None.
Includes:	HAWK-18, HAWK-19
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

Use Case ID:	HAWK-18		
Use Case Name:	Process reviews		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting
Date Created:	2025-02-06	Date Last Updated:	2025-02-19

Actors:	Admin.
Description:	Admin will be able to delete reported reviews.
Preconditions:	Admin must be logged into the system.
Postconditions:	 Errant review is deleted. Admin receives a notification confirming the deletion. Ratings for the stall are reaggregated taking into account the deleted review.
Priority:	HIGH
Frequency of Use:	Every day.
Flow of events:	Admin sees the list of reported reviews with the following information: a. Writer of review b. Content of review c. Reporter of review d. Reason for reporting

	 e. Pending actions for review 2. Admin assesses the content of the reported review and verifies it against the reason for reporting. 3. Admin clicks "Delete Review" under Actions for the review. 4. The notification "Delete Review? Yes/No" appears for Admin to confirm his selection. 5. Admin clicks "Yes" to confirm the deletion.
Alternative Flows:	None.
Exceptions:	If the review does not violate review policies: 1. After Step 2, Admin clicks Dismiss Review under pending actions to delete the report.
Includes:	None.
Special requirements:	None.
Assumptions:	Administrators are impartial and fully follow review policies in evaluating reports.
Notes and Issues	None.

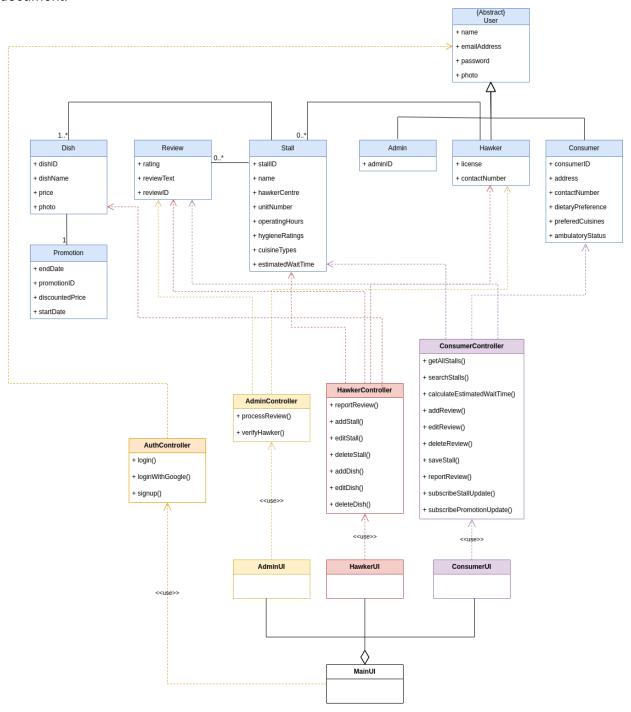
Use Case ID:	HAWK-19		
Use Case Name:	Verify Hawker		
Created by:	Kow Zi Ting	Last Updated by:	Kow Zi Ting
Date Created:	2025-02-19	Date Last Updated:	2025-02-19

Actors:	Admin.
Description:	Admin will be able to verify Hawkers.
Preconditions:	Admin must be logged into the system.
Postconditions:	Hawker is able to log into their account.
Priority:	HIGH
Frequency of Use:	Every day.
Flow of events:	Admin sees the list of Hawker accounts pending verification, including:

	 a. Hawker name b. Hawker's SFA licence number c. Hawker's contact number 2. Admin verifies the legitimacy and validity of the SFA licence number. 3. Admin clicks "Verify Hawker under pending actions.
Alternative Flows:	None.
Exceptions:	If Hawker's SFA licence number is invalid: 1. After Step 7, Admin clicks "Reject Application" under pending actions.
Includes:	None.
Special requirements:	None.
Assumptions:	None.
Notes and Issues	None.

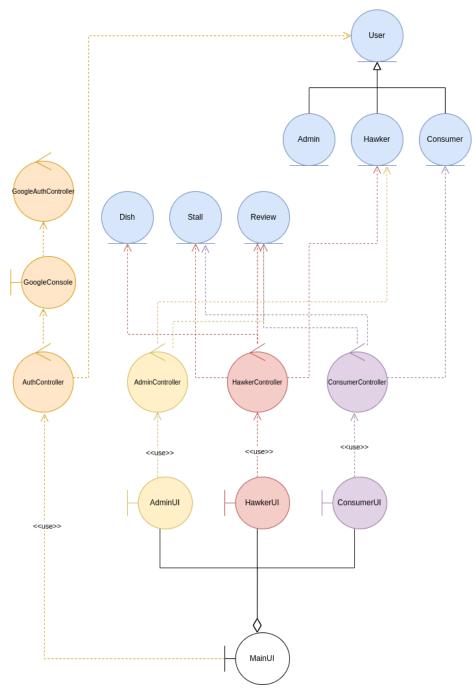
Class Diagram of Entity Classes

If the image is unclear, please refer to the accompanying raw PNG file uploaded with this document.



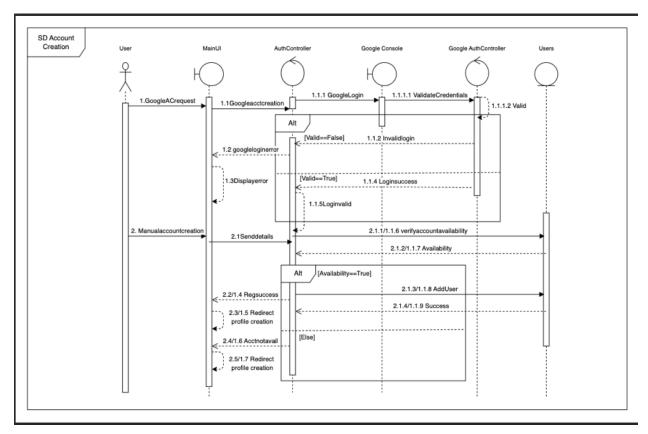
Key Boundary Classes and Control Classes

If the image is unclear, please refer to the accompanying raw PNG file uploaded with this document.

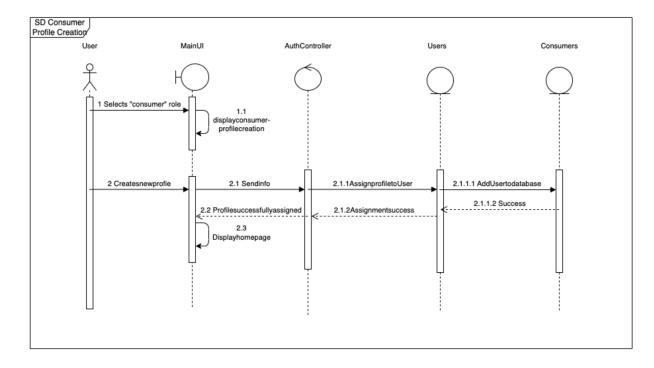


Sequence Diagrams of Use Cases

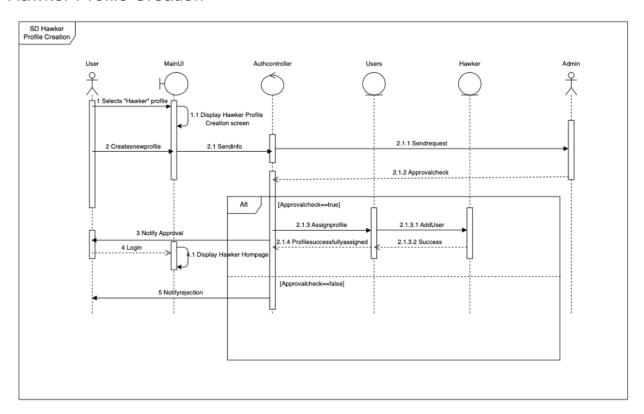
User Account Creation



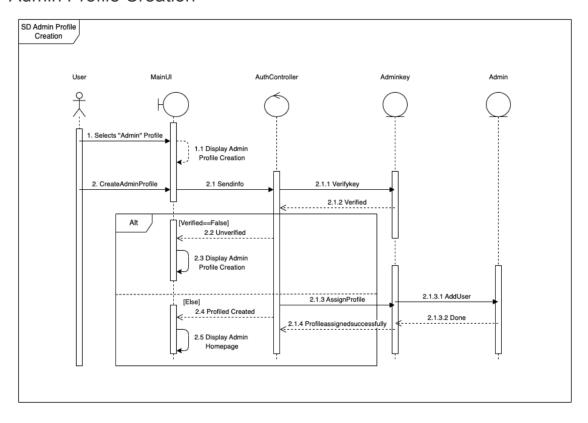
Consumer Profile Creation



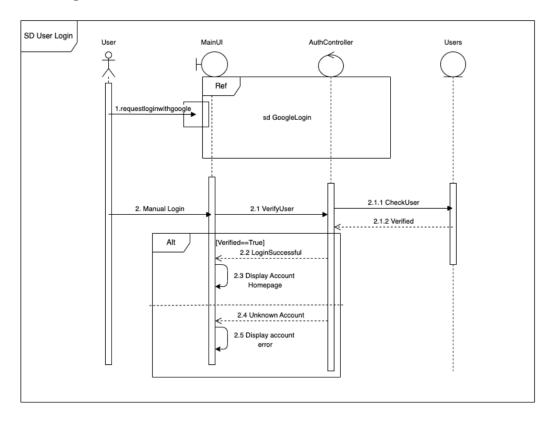
Hawker Profile Creation



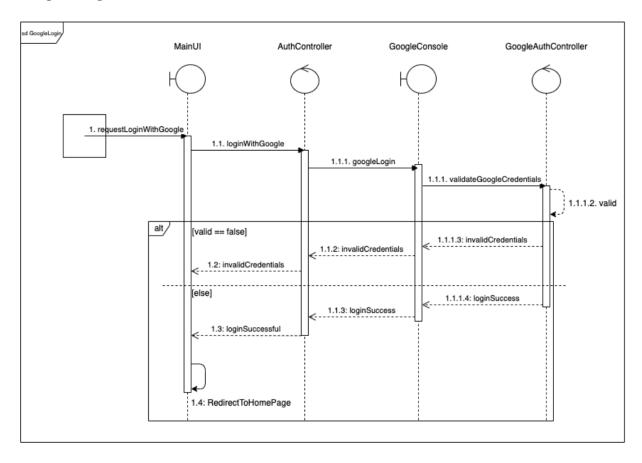
Admin Profile Creation



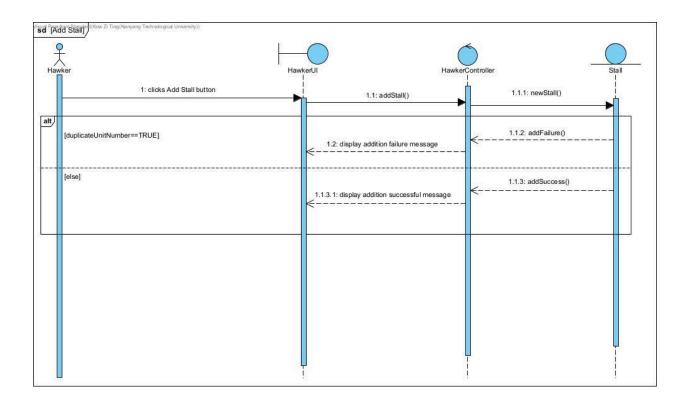
User Login



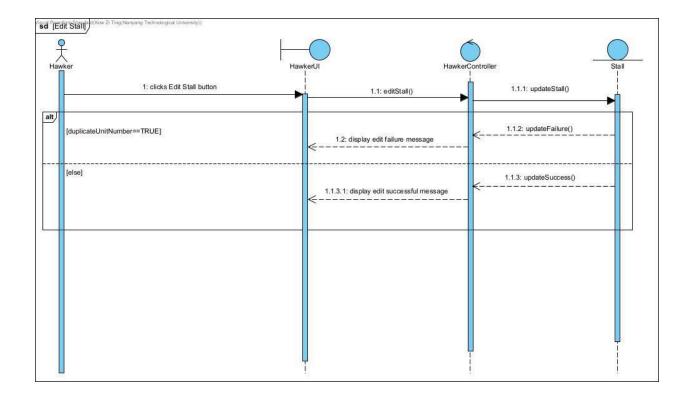
Google Login



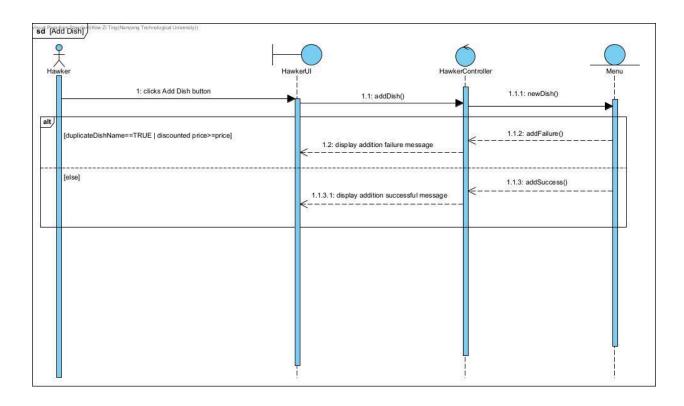
Add Stall



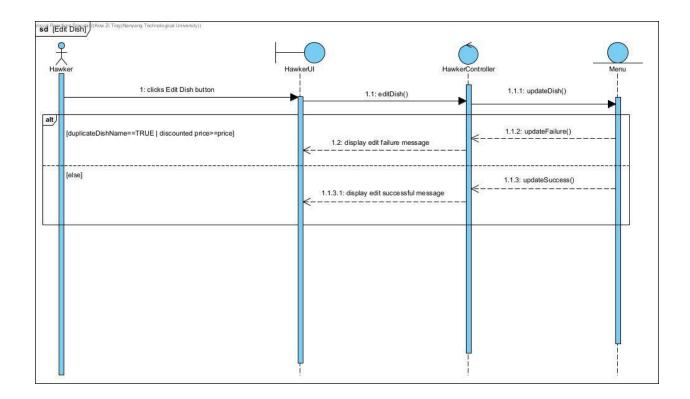
Edit Stall



Add Dish

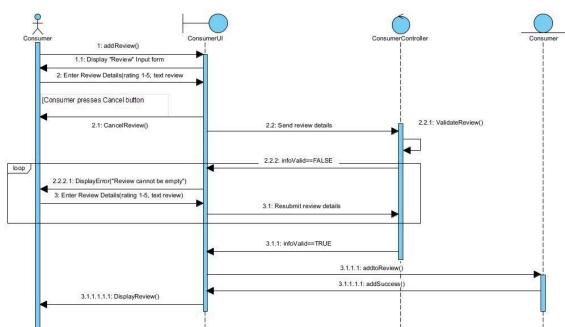


Edit Dish

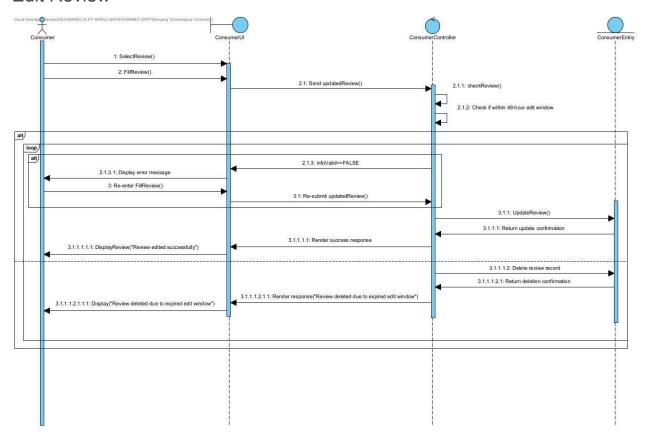


Add Review

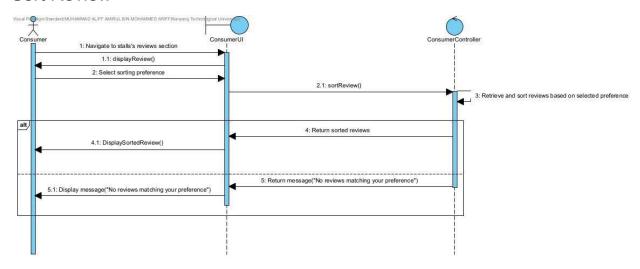
ual Paradigm Standard (MUHAMMAD ALIFF AMIRUL BIN MOHAMMED ARIFF (Nanyang Technological University))



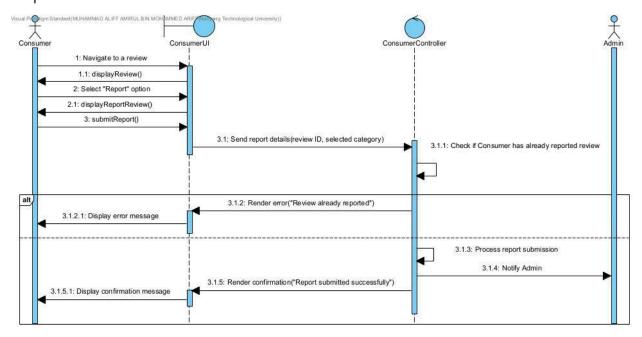
Edit Review



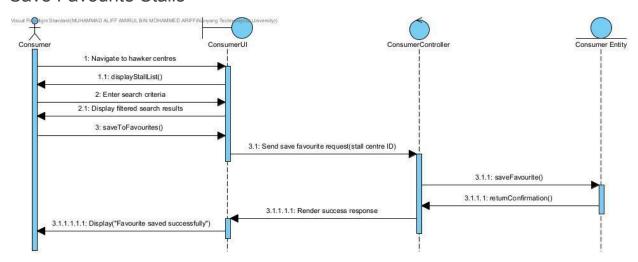
Sort Review



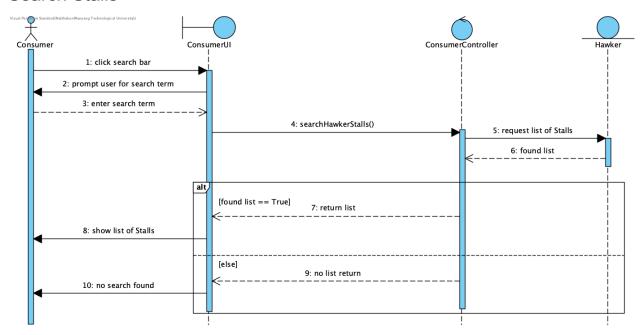
Report Review



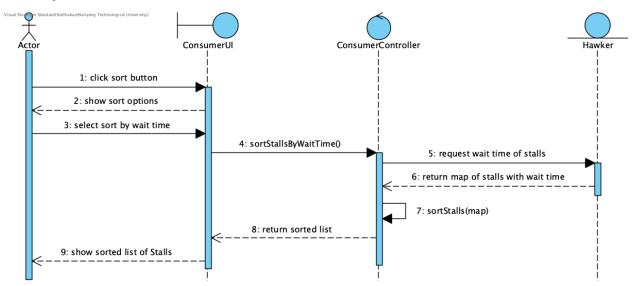
Save Favourite Stalls



Search Stalls



Sort by wait time



Initial Dialog Map

If the image is unclear, please refer to the accompanying raw PNG file uploaded with this document.

