

Use Case Descriptions

1. Registration

1.1. Description

First time users can register for an account in ChompTrack. By registering, a record of user's username, email, password and data inputted in their account will be saved in the system.

1.2. Use Case Description

Use Case ID:	REG1		
Use Case Name:	Register user		
Created By:	Chester Chiow	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	First time users can register for an account by clicking on the button 'New user' in the 'Landing' page. The system will create an account after verifying the information entered is sufficient and valid.
Pre-conditions:	The user should not have registered an account previously.
Post-conditions:	The system has successfully created the account and the user is logged in.
Priority:	High
Frequency of Use:	Low
Flow of Events:	<ol style="list-style-type: none">1. User clicks the 'New user' button in the 'Landing' page.2. System prompts user to enter username, email address and password.3. User inputs the required information and clicks the 'Register' button.4. System verifies the information entered, ensuring that it is sufficient and valid.5. System creates an account and stores these details in the database.6. User is logged in.
Alternative Flows:	<p>AF-S2 If not all fields are filled in:</p> <ol style="list-style-type: none">1. System displays "Please fill in this field."2. System returns to step 2. <p>AF-S2 If email is invalid:</p> <ol style="list-style-type: none">1. System displays "Please enter a valid email address."

	<p>2. System returns to step 2.</p> <p>AF-S2 If password do not have at least one uppercase character:</p> <ol style="list-style-type: none"> 1. System displays “Your password must contain at least 8 characters, at least 1 uppercase character, and at least 1 special character.” 2. System returns to step 2. <p>AF-S2 If password do not have at least one special character:</p> <ol style="list-style-type: none"> 3. System displays “Your password must contain at least 8 characters, at least 1 uppercase character, and at least 1 special character.” 4. System returns to step 2. <p>AF-S2 If password do not have length of 8 to 16</p> <ol style="list-style-type: none"> 5. System displays “Your password must contain at least 8 characters, at least 1 uppercase character, and at least 1 special character.” 6. System returns to step 2. <p>AF-S2 If the password do not match with confirm password:</p> <ol style="list-style-type: none"> 1. System displays “Passwords do not match!” 2. System returns to step 2. <p>AF-S2 If the username already exists in the database:</p> <ol style="list-style-type: none"> 1. System displays “Registration failed. Username or email already exists.” 2. System returns to step 2. <p>AF-S2 If the email already exists in the database:</p> <ol style="list-style-type: none"> 3. System displays “Registration failed. Username or email already exists.” 4. System returns to step 2.
Exceptions:	Nil
Includes:	<p>R2 Create profile</p> <p>R3 View suggested estimated nutrition daily intake</p>
Special Requirements:	Nil
Assumptions:	User should connect to the internet when registering.
Notes and Issues:	Nil

Use Case ID:	REG2		
Use Case Name:	Create profile		
Created By:	Chester Chiow	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
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Description:	After registering an account, first time users have to create a profile by entering information - name, height, weight, age, gender, activity level, diet type and allergy. The information will be used to calculate their estimated suggested daily nutrition intake.
Pre-conditions:	The user should have registered an account. The system successfully stored the user data in the database.
Post-conditions:	The system successfully updated the user's profile.
Priority:	High
Frequency of Use:	Low
Flow of Events:	<ol style="list-style-type: none"> 1. User clicks the 'Register' button in the 'Register' page. 2. System prompts user to enter his name, height, weight, age, gender, activity level, diet type and allergy. 3. User inputs the required information and clicks the 'Next' button. 4. System verifies the information entered, ensuring that it is sufficient and valid. 5. System updates the profile and stores these details in the database. 6. User is directed to the 'My Plan' page.
Alternative Flows:	<p>AF-S3 If fields are not filled in:</p> <ol style="list-style-type: none"> 1. System displays "Please fill in the blank fields." 2. System returns to step 2. <p>AF-S3 If age is not within valid range(<1):</p> <ol style="list-style-type: none"> 1. System displays "Value must be greater than or equal to 1." <p>AF-S3 If age is not within valid range(>150):</p> <ol style="list-style-type: none"> 1. System displays "Value must be less than or equal to 150." <p>AF-S3 If height is not within valid range(<1):</p> <ol style="list-style-type: none"> 1. System displays "Value must be greater than or equal to 1." <p>AF-S3 If height is not within valid range(>300):</p> <ol style="list-style-type: none"> 1. System displays "Value must be less than or equal to 300." <p>AF-S3 If weight is not within valid range(<1):</p> <ol style="list-style-type: none"> 1. System displays "Value must be greater than or equal to 1." <p>AF-S3 If weight is not within valid range(>700):</p> <ol style="list-style-type: none"> 1. System displays "Value must be less than or equal to 700."
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	Nil
Notes and Issues:	Nil

Use Case ID:	REG3
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Use Case Name:	View suggested estimated nutrition daily intake		
Created By:	Chester Chiow	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	After completing their profile, users will be able to view the suggested estimated nutrition daily intake. The estimated nutrition daily intake is determined by calculating the user's basal metabolic rate (BMR) and total daily energy expenditure (TDEE).
Pre-conditions:	The user should have registered an account. The user should have completed their profile. The system has successfully stored the user data in the database.
Post-conditions:	The system displays the suggested estimated daily intake for each nutrient (Calories, Fats, Protein, Carbohydrates).
Priority:	High
Frequency of Use:	Low
Flow of Events:	<ol style="list-style-type: none"> 7. When a user clicks the 'Next' button in the profile creation page, the system will display the suggested daily intake of calories, proteins, fats and carbohydrates based on the data the user has entered during profile creation. 8. The system will display the suggested estimated daily intake for each nutrient.
Alternative Flows:	Nil
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	Nil
Notes and Issues:	Nil

2. Login

2.1. Description

After successful registration, the user must log into the system by inputting their username and password in order to access the system.

2.2. Use Case Description

Use Case ID:	L1		
Use Case Name:	Login user		
Created By:	Chester Chiow	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	Users must log in to access the web application with the correct login credentials.
Pre-conditions:	The user should have registered an account.
Post-conditions:	User has logged in and the system displays the “My plan” page.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none">1. User clicks the 'Existing user' button in the 'Landing' page.2. The system displays the 'Login' page.3. The user inputs username and password.4. The user clicks on the 'Login' button.5. System verifies the user's input with the user's data from the database.6. System displays the “My plan” page.
Alternative Flows:	<p>AF-S3 if the username or password is not filled in:</p> <ol style="list-style-type: none">1. Display “Login failed: Invalid username or password”2. System returns to step 2. <p>AF-S3 if the username is not found:</p> <ol style="list-style-type: none">1. Display “Login failed: Invalid username or password”2. System returns to step 2. <p>AF-S3 if the password is incorrect:</p> <ol style="list-style-type: none">1. Display “Login failed: Invalid username or password”2. System returns to step 2.
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	Nil
Notes and Issues:	Nil

3. My Plan

3.1. Description

When the user first login, they will land at the “My Plan” page. The “My Plan” page consists of 3 sections. The “Calendar” section allows users to view the overall meal plan for each day of the week and toggle between different weeks. The “Statistics” section displays the accumulated nutritional values of all the meals and nutritional goals of each day for the user. The “Suggested Estimated Daily Nutrients Intake” displays the recommended nutrients consumption based on the user’s profile.

3.2. Calendar

3.2.1. Use Case Description

Use Case ID:	C1		
Use Case Name:	View meal plans		
Created By:	Yeo Jie Sheng	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	Users can view their selected recipes for each course of the day.
Pre-conditions:	The user must be logged into the system.
Post-conditions:	The system displays the recipes for breakfast, lunch, dinner and snack that the user has added.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none">1. The user clicks on ‘My plan’ in the navigation bar.2. The system displays an interactive weekly calendar.3. The user can toggle between weeks by clicking on the left or right arrow.4. The user clicks on a date on the calendar to view the meals planned for that day.
Alternative Flows:	Nil
Exceptions:	Nil
Includes:	C2 Complete Meal Plan C3 Remove Recipe D2 Add Recipe
Extends:	Nil

Special Requirements:	Nil
Assumptions:	1. The user understands the functionality of the left and right arrow to toggle between weeks.
Notes and Issues:	Nil

Use Case ID:	C2		
Use Case Name:	Complete Meal Plan		
Created By:	Yeo Jie Sheng	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	The user can mark a course as completed for that particular day.
Pre-conditions:	<ol style="list-style-type: none"> 1. The user must be logged into the system. 2. The user is at the 'My plan' page. 3. There is a recipe for that particular date and course.
Post-conditions:	<ol style="list-style-type: none"> 1. The user's course for the selected day is updated as completed.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on the tick icon next to a meal. 2. The system marks the course as completed. 3. The system updates the statistics of the different nutrients and displays it under 'Daily Progress'
Alternative Flows:	Nil
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	<ol style="list-style-type: none"> 1. The user understands the functionality of the tick. 2. The user has made and consumed the meal
Notes and Issues:	Nil

Use Case ID:	C3
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Use Case Name:	Remove Meal Plan		
Created By:	Yeo Jie Sheng	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	The user can remove a course from the meal plan for that particular day.
Pre-conditions:	<ol style="list-style-type: none"> 1. The user must be logged into the system. 2. The user is at the 'My plan' page. 3. There is a recipe for that particular date and course.
Post-conditions:	<ol style="list-style-type: none"> 1. The user's meal plan for the selected day and course is removed.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on the cross icon next to a meal. 2. The system removes the meal from that course on the selected day. 3. The system displays 'No meal planned' and an 'Add recipe' button will be displayed. 4. The system removes the ingredients required to prepare the meal from the grocery list
Alternative Flows:	Nil
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	<ol style="list-style-type: none"> 1. The user understands the functionality of the cross icon.
Notes and Issues:	Nil

3.3. Statistics

3.3.1. Use Case Description

Use Case ID:	S1		
Use Case Name:	View statistics		
Created By:	Sheng Jia-Qi	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	Users can view the total accumulated values of each nutrient from all the meals consumed for the day. The user's actual daily nutrient intake will be displayed as a percentage of the suggested daily intake of each nutrient, in the form of pie charts.
Pre-conditions:	<ol style="list-style-type: none"> 1. The user is logged into the system. 2. The user is at the 'My plan' page.
Post-conditions:	The total accumulated values of each nutrient for the day and each nutrient's pie chart of the user's actual daily intake as a percentage of suggested daily intake is displayed.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on the 'tick' icon of a recipe to mark it as complete 2. The system displays the total accumulated values of each nutrient from the meals marked as completed for the day. 3. The system displays the pie charts for each nutrient, showing the accumulated daily values and the progress toward the recommended intake. The percentage of the progress is also shown in the centre of the pie chart, rounded to the nearest whole number.
Alternative Flows:	Nil
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	Nil
Notes and Issues:	Nil

4. Discover

4.1. Description

On the "Discover" page, users will see a list of recipes that match their profile preferences. These recipes can be further filtered based on various criteria - cost, cuisine, estimated preparation time and course. When the user clicks on the image of a recipe, detailed information about it will be displayed to the user.

4.1.2. Use Case Description

Use Case ID:	D1		
Use Case Name:	View recipe list		
Created By:	Chester Chiow	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	The system will draw the recipe list from the AP and users can find the different recipes that suit their preference.
Pre-conditions:	1. The user is logged into the system.
Post-conditions:	The system displays a list of recipes filtered based on the user's diet type and allergy.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none">1. The user clicks on 'Discover' in the navigation bar.2. The system calls the recipeAPI to obtain a list of recipes3. The system displays the recipes to the users4. If the user uses the filter, the system displays a list of recipes that satisfies the conditions .
Alternative Flows:	Nil
Exceptions:	EX1 API response invalid: There is an error communicating with the API. <ol style="list-style-type: none">1. The system displays the message "Something went wrong."
Includes:	R1 View recipe details
Extends:	D2 Filter recipe list
Special Requirements:	System has access to recipeAPI.
Assumptions:	Nil
Notes and Issues:	Nil

Use Case ID:	D2
Use Case Name:	Filter recipe list

Created By:	Chester Chiow	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	User is able to filter the list of recipes.
Pre-conditions:	<ol style="list-style-type: none"> 1. User is logged in 2. User is at the 'Discover' page
Post-conditions:	System displays an updated list of recipes according to a set of options selected by the user.
Priority:	High
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. The system will display a list of filters (cost, cuisine, course, estimated preparation time) 2. User inputs the options to filter the list of recipes. 3. System updates the list of recipes displayed.
Alternative Flows:	Nil
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	The user has an existing ChompTrack Account.
Notes and Issues:	Nil

4.2. Recipe

4.2.1. Description

When a recipe's image is clicked, detailed information about it will be displayed to the user.

4.2.2. Use Case Description

Use Case ID:	REC1		
Use Case Name:	View recipe details		
Created By:	Lee Choonggi	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	The user can view detailed information about a recipe.
Pre-conditions:	The user is logged into the system. The user is at the 'Discover' page.
Post-conditions:	The system displays the recipe's details.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on the recipe's image from the 'Discover' page. 2. The system displays the recipe's details.
Alternative Flows:	Nil
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	The system successfully called the recipeAPI and a list of recipes is displayed
Notes and Issues:	Nil

Use Case ID:	REC2		
Use Case Name:	Add Meal Plan		
Created By:	Ng Jia Xin	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	The user adds a recipe to their meal plan by selecting a date and course (e.g., breakfast, lunch, dinner, snack) and the recipe is then reflected under the 'My Plan' page.
Pre-conditions:	The user is logged into the app. The user is at the recipe's page.
Post-conditions:	The recipe is successfully added to the user's meal plan.
Priority:	High

Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on the 'Add to Meal Plan' button on the recipe's page. 2. The system displays a popup with fields to input the date and course. 3. The user selects the date and course for the meal. 4. The system checks the selected date and course 5. The system adds the recipe to the meal plan for the selected date and course.
Alternative Flows:	<p>AF-S4 if the date and course selected already has a meal planned:</p> <ol style="list-style-type: none"> 1. The system will display the message "Meal Plan for this date and course exists!" 2. System returns to step 3. <p>AF-S4 if the user did not select a date:</p> <ol style="list-style-type: none"> 1. The system will display the message "Please select a date." 2. System returns to step 3. <p>AF-S4 if the user did not select a course:</p> <ol style="list-style-type: none"> 1. The system will display the message "Please select a course." 2. System returns to step 3.
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	The user has already generated courses in the 'discover' page before.
Notes and Issues:	Nil

5. Grocery List

5.1 Description

The "Grocery List" section allows users to view an accumulated list of ingredients based on the recipes planned for the week. This feature ensures that users have a clear, organised, and cost-aware shopping list tailored to their meal plans.

5.1.2 Use Case Description

Use Case ID:	G1		
Use Case Name:	View Grocery List		
Created By:	Daven Poon	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	The user can view the consolidated grocery list for a particular week. The price and quantity required of each ingredient and the total cost of all ingredients will be reflected as well. Ingredient prices, updated to reflect current market rates, are retrieved via the recipeAPI.
Pre-conditions:	<ol style="list-style-type: none"> 1. The user is logged into the system. 2. The user is at the 'My plan' page. 3. The user has added recipes to the meal plan
Post-conditions:	The system displays a grocery list which includes the consolidated ingredients to be purchased for the meal plan for a particular week. The system will display the price and quantity required of each ingredient and total cost of all ingredients.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on 'Grocery List' in the navigation bar. 2. The system displays a list of ingredients to purchase for the meal plans from a particular week. 3. The system calls the recipeAPI to fetch the price of each ingredient. 4. The system displays the price and quantity required of each ingredient 5. The system calculates the total cost by summing up all the prices of the ingredients.
Alternative Flows:	Nil
Exceptions:	<p>EX1 API response invalid: There is an error communicating with the API.</p> <ol style="list-style-type: none"> 1. The system displays the message "Something went wrong."
Includes:	G2 Strikethrough Ingredient
Special Requirements:	Nil
Assumptions:	Nil
Notes and Issues:	Nil

Use Case ID:	G2		
Use Case Name:	Strikethrough Ingredient		
Created By:	Lee Choonggi	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	The user can strike through the ingredients in the grocery list to mark them as purchased.
Pre-conditions:	<ol style="list-style-type: none"> 1. The user is logged into the system. 2. The user is at the 'Grocery' page. 3. The user has added recipes to the meal plan
Post-conditions:	The system displays the ingredients' name with a strikethrough.
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on the name of the ingredient. 2. The system displays the name of the ingredient with a strikethrough. 3. The system recalculates the total cost of all ingredients 4. The system displays the new total cost
Alternative Flows:	Nil
Exceptions:	Nil
Includes:	Nil
Special Requirements:	Nil
Assumptions:	The user understands that striking through is meant to mark an ingredient as purchased.
Notes and Issues:	Nil

6. History

6.1 Description

The history page allows users to easily browse and sort through their previously used recipes. Users are also able to filter recipes based on date and find recipes through a search bar.

6.1.2 Use Case Description

Use Case ID:	H1		
Use Case Name:	View history		
Created By:	Lee Choonggi	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	User can find and filter past recipes used.
Pre-conditions:	The user is logged into the system.
Post-conditions:	The user successfully views past recipes.
Priority:	Medium
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. User navigates to the 'History' page. 2. The system displays a list of past recipes.
Alternative Flows:	<p>AF-S2 If no recipes are available:</p> <ol style="list-style-type: none"> 1. The system displays the message, "There are no past recipes used." <p>AF-S2 The user filters the recipes based on date</p> <ol style="list-style-type: none"> 1. The system displays past recipes used on the specific date <p>AF-S2 The user finds recipes through a search bar</p> <ol style="list-style-type: none"> 1. The system displays past recipes with names that matches the input in the search bar
Exceptions:	Nil
Includes:	R1 View recipe details
Extends:	H2 Search past meal plans
Special Requirements:	Nil
Assumptions:	Nil
Notes and Issues:	Nil

Use Case ID:	H2		
Use Case Name:	Search past meal plans		
Created By:	Lee Choonggi	Last Updated By:	
Date Created:	30/08/2024	Date Last Updated:	

Actor:	User
Description:	User can search for past recipes used.
Pre-conditions:	<ol style="list-style-type: none"> 1. The user is logged into the web app. 2. The user is at the history page.

Post-conditions:	The user successfully views and interacts with the history of past recipes that matches the search query.
Priority:	Medium
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. The user enters keywords into the search bar. 2. The system displays past recipes with the keyword in the recipe's details.
Alternative Flows:	AF-S2 If no recipes are available: <ol style="list-style-type: none"> 1. The system displays the message, "There are no past recipes used."
Exceptions:	Nil
Includes:	Nil
Extends:	Nil
Special Requirements:	Nil
Assumptions:	<ol style="list-style-type: none"> 1. The user will return to their past recipes to plan future meals.
Notes and Issues:	Nil