Use Case ID:	1		
Use Case Name:	User Account Registration		
Created By:	Pei He	Last Updated By:	Pei He
Date Created:	5/2/22	Date Last Updated:	5/2/22

Actor:	User, Database System
Description:	User registration process
Preconditions:	User is on the main webpage, user is not already logged in
Postconditions:	User completes account registration
Priority:	High
Frequency of Use:	
Flow of Events:	1) User clicks on “Create a New Account” 2) System displays a registration page, and the user is prompted to enter his email, and password to confirm his password 3) User enters the required login information and clicks on the register button 4) Database system verifies that the email address is valid, and that the passwords match and is at least 8 characters long 5) Database system checks that the email is not in the system database 6) Database System encrypts user details and logs new account into database 7) User is redirected to login page
Alternative Flows:	AF- 3) : User enters an e-mail that is already in database 1. System informs User that e-mail has already been registered 2. System returns to 2) AF- 3) : User enters a username that is already in database 1. System informs User that username inputted has already been used 2. System returns to 2) AF- 3) : User enters a password that is not 8 characters long 1. System informs User that password inputted has to be at least 8 characters long 2. System returns to 2) AF- 3) : User enters passwords that do not match 1. System informs User that passwords have to match 2. System returns to 2)
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	2		
Use Case Name:	User Account Login		
Created By:	Holdon	Last Updated By:	Pei He
Date Created:	05/02/2023	Date Last Updated:	06/02/23

Actor:	User, Database System
Description:	User login process
Preconditions:	User has a registered account
Postconditions:	User successfully logs in
Priority:	High
Frequency of Use:	
Flow of Events:	1) User clicks on the “login” button 2) User enters their username and password into the fields 3) Account System validates login credentials 4) System redirects User to main page
Alternative Flows:	AF - 2) : User inputs invalid credentials 1. If User inputs a username not in the database, System will inform User that username is not in database 2. If User inputs a username in the database but inputs the wrong password, System will inform User of error 3. System returns to 1) unless User has failed to login 5 times 4. User is not allowed to login to account 5. Database System sends User an email to the email associated to that username for email verification
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	3		
Use Case Name:	Account Recovery		
Created By:	Holdon	Last Updated By:	Pei He
Date Created:	05/02/2023	Date Last Updated:	06/02/2023

Actor:	User, Database System
Description:	User has ability to recover account if they forget their password
Preconditions:	- User requests password reset - User has attempted 5 logins to 1 account unsuccessfully
Postconditions:	User recovers password
Priority:	High
Frequency of Use:	
Flow of Events:	1) Database system sends e-mail to User's email account after fifth unsuccessful login/requests password reset 2) User clicks on link on sent to their email to reset their password 3) System displays the password reset web page, prompting users to enter a new password and confirm it 4) User enters a new password and confirms it 5) System verifies that the passwords match and are at least 8 characters long. 6) Database System updates user database with new password 7) Account displays a "password successfully reset" message.
Alternative Flows:	AF - 2) : User does not click on email link 1. If user does not click on link 5 minutes after e-mail was sent, the link will expire 2. Use case terminates AF - 4) : User's new passwords do not match 1. System informs user that the passwords do not match and requests that the user try again 2. System returns to 3) AF - 4): User's passwords are less than 8 characters long 1. System informs user that the new password is not strong enough 1. System returns to 3)
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	4		
Use Case Name:	Location Service		
Created By:	Holdon	Last Updated By:	Pei He
Date Created:	05/02/2023	Date Last Updated:	30/03/23

Actor:	User, Maps API
Description:	User must allow System to get their device location for the application to function
Preconditions:	User clicks find nearby restaurants
Postconditions:	User returns location to System
Priority:	High
Frequency of Use:	
Flow of Events:	1) System prompts user to enable their device's location service if needed 2) User enables their device's location services 3) System records User's current location
Alternative Flows:	AF - 1) : If user has not enabled/does not have device location 1. The system prompts the user to input their location details 2. User inputs their location details 3. If valid, system returns to 3), otherwise it prompts user for valid location details
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	5		
Use Case Name:	View Own Reviews		
Created By:	Holdon	Last Updated By:	Holdon
Date Created:	05/02/2023	Date Last Updated:	23/02/2023

Actor:	User, Database System
Description:	Database system contains all the reviews left by the User for reference
Preconditions:	User is in the ‘Profile’ page
Postconditions:	User leaves “Profile” page
Priority:	Medium
Frequency of Use:	
Flow of Events:	1) User selects “Reviews by me” on his/her user profile page 2) Database System displays reviews previously made by the User, as well as buttons to edit or delete the reviews.
Alternative Flows:	
Exceptions:	
Includes:	Editing/Deleting Reviews
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	6		
Use Case Name:	Editing/Deleting Reviews		
Created By:	Holdon	Last Updated By:	Pei He
Date Created:	05/02/2023	Date Last Updated:	30/3/23

Actor:	User, Database System
Description:	Reviews left by Users can be edited or deleted if the User chooses
Preconditions:	Users click on the “View Review” on the “Profile” page or when they search for a particular restaurant.
Postconditions:	User makes changes to existing review
Priority:	Medium
Frequency of Use:	
Flow of Events:	1) User selects to edit specific review on “View Reviews” page 2) User edits previously made review 3) User edits previously given rating 4) System updates review and rating in database. 5) System displays success message.
Alternative Flows:	AF 2): User wants to delete review 1. User selects to delete specific review on “View Reviews” page 2. System requests for user confirmation 3. User confirms the request. 4. System removes the review and updates review database 5. System displays success message.
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	7		
Use Case Name:	Settings Update		
Created By:	Holdon	Last Updated By:	Holdon
Date Created:	05/02/2023	Date Last Updated:	05/02/2023

Actor:	User, Account System, E-mail System
Description:	User must be able to change their password or email if they wish to do so
Preconditions:	User is on main page
Postconditions:	User exits settings menu
Priority:	Medium
Frequency of Use:	
Flow of Events:	1) User selects “Settings” on main page 2) User must enter their password 3) Account System verifies if password entered is correct 4) System displays settings menu 5) Settings menu has “Change Password” and “Change Email”
Alternative Flows:	AF 3) : User enters incorrect password 1. System informs User that password entered was incorrect 2. System returns to 2) AF 5) : User wants to change password 1. User selects “Change Password” 2. User inputs current password 3. User inputs new password, which is 8 characters or longer 4. E-mail System sends e-mail to User to inform them of password change AF 5) : User wants to change e-mail 1. User selects “Change E-mail” 2. User inputs new E-mail 3. E-mail System sends e-mail to User’s new e-mail to confirm the change
Exceptions:	
Includes:	
Special Requirements:	

Assumptions:	
Notes and Issues:	

Use Case ID:	8		
Use Case Name:	View Nearby Restaurants		
Created By:	Holdon	Last Updated By:	
Date Created:	05/02/2023	Date Last Updated:	

Actor:	User, Database System, Maps API
Description:	System shows User all restaurants in their vicinity
Preconditions:	User is on the main page
Postconditions:	User selects the “view nearby restaurants” option on the main page
Priority:	High
Frequency of Use:	
Flow of Events:	1) Database System retrieves information of restaurants from the database based on default filter (3km radius) and passes it to API 2) Map API displays all restaurants in a 3 km radius on the map overlay (default filter) 3) A list of the restaurants also displayed below the map. Clicking any food establishment in the list brings the user to the specific food establishment page 4) User selects a specific restaurant to view more information
Alternative Flows:	AF 1): User wants to view restaurants of certain types 1. User selects on the “cuisine”, “proximity” or “rating” filter 2. Restaurant System filters restaurant according to filters selected AF 3): User wants to select a random restaurant 1. User selects the “random” button 2. Restaurant System accounts for any filters in place 3. Restaurant System displays a specific restaurant at random
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	9		
Use Case Name:	Restaurant Page		
Created By:	Holdon	Last Updated By:	Pei He
Date Created:	05/02/2023	Date Last Updated:	30/03/2023

Actor:	User, Database System, Maps API
Description:	User can see details about a specific restaurant
Preconditions:	User clicks "view details" button on a restaurant popup on the map User clicks a restaurant on the restaurant list
Postconditions:	User exits the restaurant page User chooses to get directions to restaurant
Priority:	High
Frequency of Use:	
Flow of Events:	1) User selects a specific restaurant 2) System queries database for restaurant information 3) System displays the restaurant's cuisine, distance, reviews, rating and opening hours 4) User selects "Review" tab 5) Restaurant System displays reviews left by other users
Alternative Flows:	
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	10		
Use Case Name:	View Nearby Parking		
Created By:	Holdon	Last Updated By:	Pei He
Date Created:	05/02/2023	Date Last Updated:	30/3/23

Actor:	User, Maps API
Description:	User can view parking spots near the restaurant selected
Preconditions:	User selects a specific restaurant
Postconditions:	User selects a specific parking space User backs to specific restaurant page
Priority:	Medium
Frequency of Use:	
Flow of Events:	1) User selects “Find Nearby Parking” 2) Maps API retrieves parking information for carparks in 500m radius 3) Parking System shows nearby parking spaces
Alternative Flows:	
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	11		
Use Case Name:	View Specific Parking		
Created By:	Holdon	Last Updated By:	Pei He
Date Created:	05/02/2023	Date Last Updated:	30/3/23

Actor:	User, Parking API, Maps API
Description:	User can view specific parking space for more information
Preconditions:	User is on the "Find Nearby Parking" page
Postconditions:	User is taken to Google Maps on a new tab
Priority:	Medium
Frequency of Use:	
Flow of Events:	1) User selects a specific parking space 2) System retrieves information from Parking API 3) System displays number of available lots and total number of lots of parking space
Alternative Flows:	
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	12		
Use Case Name:	Pathfinding		
Created By:	Holdon	Last Updated By:	Pei He
Date Created:	05/02/2023	Date Last Updated:	30/3/23

Actor:	User, Database System, Maps API
Description:	User can find a route from their current location to the specific restaurant or specific parking space they want to get to
Preconditions:	User selects “Get Direction” at specific restaurant page User selects “Get Direction” at specific parking space page
Postconditions:	User exits application
Priority:	Medium
Frequency of Use:	
Flow of Events:	1) System obtains coordinates of restaurant from database or parking space from maps API 2) System calls Maps API with the coordinates 3) Google maps opens with the coordinates
Alternative Flows:	
Exceptions:	
Includes:	
Special Requirements:	
Assumptions:	
Notes and Issues:	

Use Case ID:	13		
Use Case Name:	Add review		
Created By:	Pei He	Last Updated By:	Pei He
Date Created:	06/02/23	Date Last Updated:	30/3/23

Actor:	User, Database System
Description:	User can add a review to a restaurant they went to
Preconditions:	User is logged in
Postconditions:	User is returned to the restaurants page
Priority:	High
Frequency of Use:	
Flow of Events:	1) User selects “add review” on the restaurants page or sidebar 2) System prompts the user to select a rating (1-5), as well as any comments about the food establishment 3) User inputs the rating and comments, and clicks submit 4) Review system adds the review to its database 5) Restaurant system recalculates a new average rating, and displays it accordingly 6) The message “review successfully added” is displayed to the user
Alternative Flows:	AF - 1) 1. User selects add a review from the sidebar 2. User chooses the restaurant to review 3. System goes to step 3)
Exceptions:	
Includes:	Review Making
Special Requirements:	
Assumptions:	
Notes and Issues:	