

Team:

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Title:

Food Delivery System

Project Summary:

Food delivery system allows customers order food from restaurant and ask it deliver food to a specific location. The system will automatically get customer's current location and list all the restaurants nearby. Customers can see menu of a restaurant and select foods. By simply click the submit order button, restaurant will be notified and begin to deliver food after cooking.

Project Requirements:

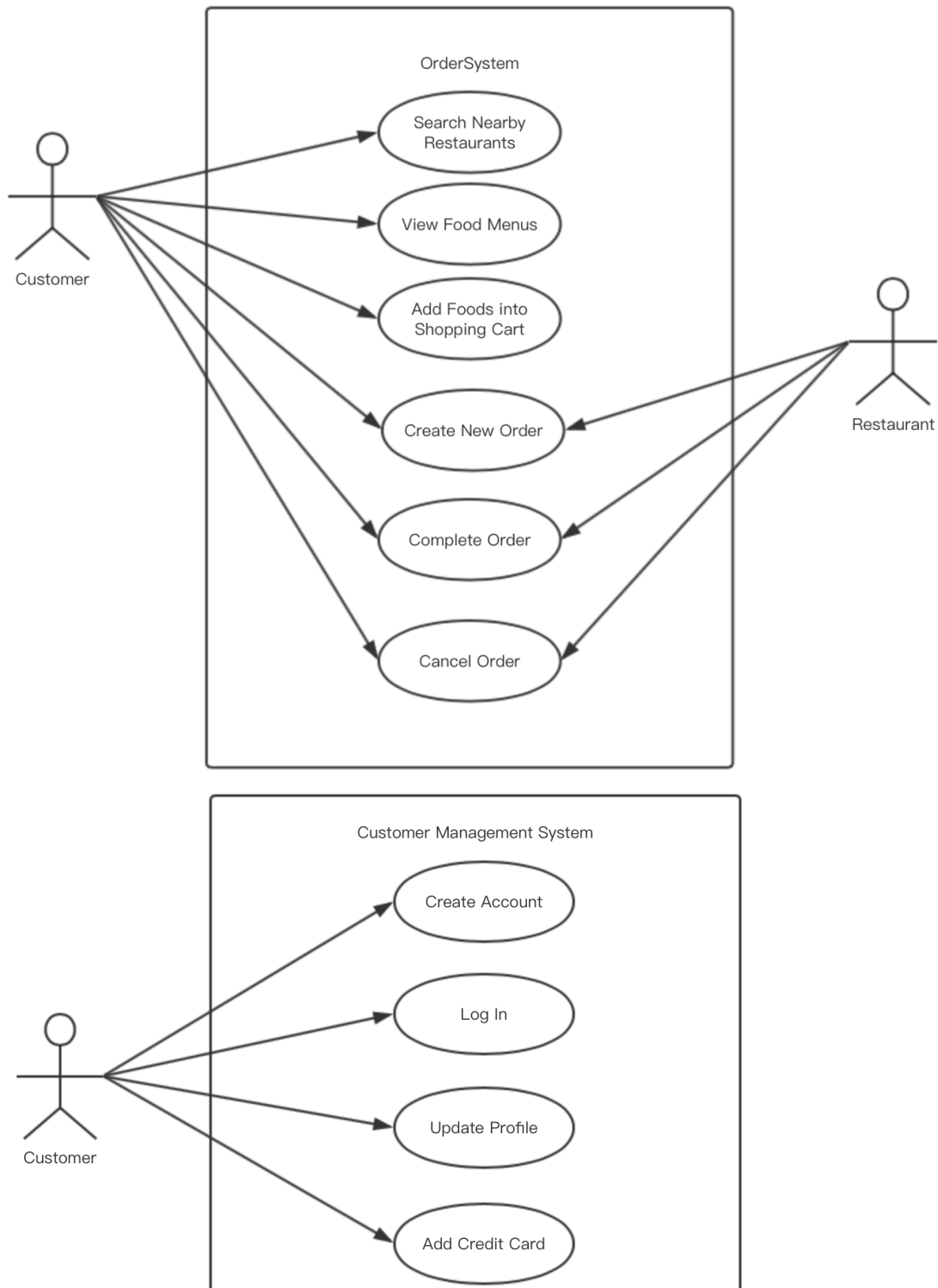
Business Requirements				
ID	Description	Priority	Topic Area	User
BR-1	All the data should be able to remove, import and export from/to system	medium	data	administrator
BR-2	Administrator should be able to manage restaurants	high	administrator	administrator
BR-3	Server should be able to distributed in different places	low	hardware	administrator
User Requirements				
ID	Description	Priority	Topic Area	User
UR-1	Customer can create account	high	Account	Customer
UR-2	Customer can update his information	high	Account	Customer
UR-3	Customer can view the list of restaurants nearby a specific location	high	Menu	Customer
UR-4	Customer can view information(delivering time, rate, etc.) for each restaurants	high	Menu	Customer
UR-5	Customer can view menu of a restaurant	high	Menu	Customer
UR-6	Customer can add food into his shopping cart	high	Menu	Customer
UR-7	Customer can make order and cancel order	high	Order	Customer
UR-8	Customer can view the status of order(delivering/completed)	high	Order	Customer
UR-9	Customer can give a review of each food in his order	high	Order	Customer
UR-10	Customer can view other user's review for restaurants and foods	high	Order	Customer
UR-11	Customer can add a credit/debit card into his account	high	Account	Customer
UR-12	Restaurant can create account	high	Account	Restaurant
UR-13	Restaurant can update his information, such as opening time, delivery fee, description, etc.	high	Account	Restaurant
UR-14	Restaurant can be notified by system when a new order was created	high	Order	Restaurant
UR-15	Restaurant can change the status of order into "complete" after food was delivered	high	Order	Restaurant
UR-16	Restaurant can add, remove, update a food in his menu	high	Menu	Restaurant
UR-17	Administrator can approve or ban a restaurant	high	Management	Administrator
UR-18	Administrator can ban a customer	high	Management	Administrator

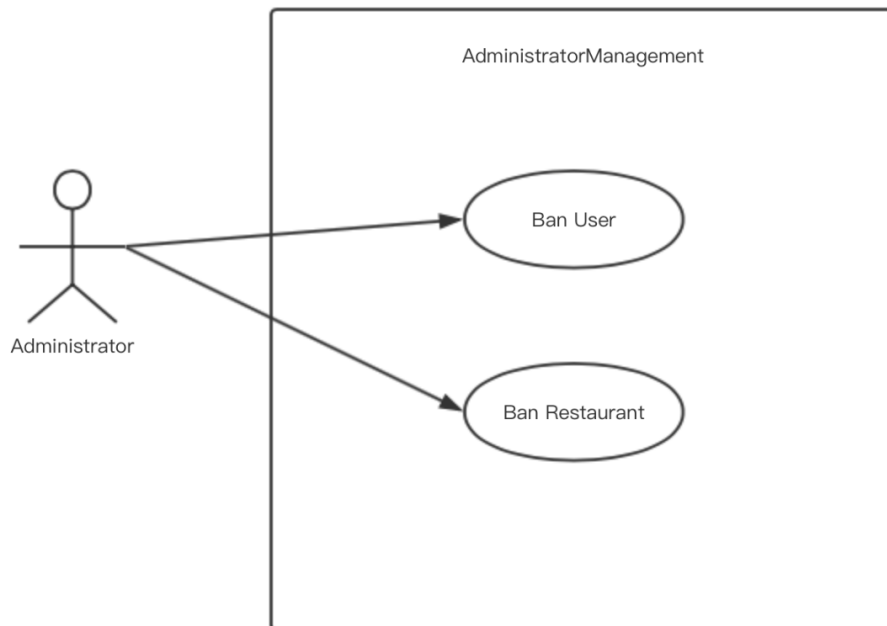
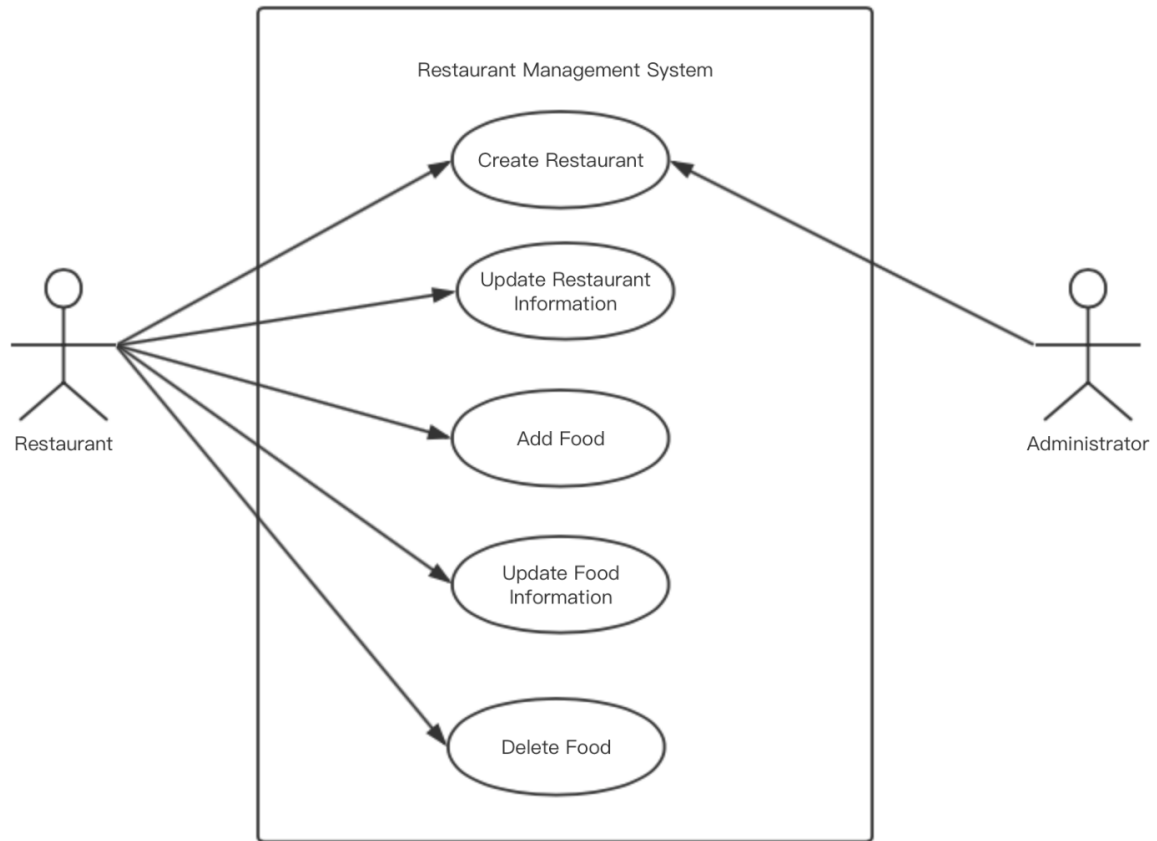
Functional Requirements			
ID	Description	Priority	Topic Area
FR-1	Check the duplicate name when creating an account	high	Data constrain
FR-2	Set customer's current location as his default location for delivering food	high	Intelligent
FR-3	All the foods in one order must come from the same restaurant	high	Order constrain
FR-4	Customer must provide phone numbers in an order	high	Order constrain
FR-5	Restaurant sign up account successful only if administrator approve it	high	Appovement
FR-6	System should give restaurant the order from customers by first-come-first-serve	high	Order constrain
FR-7	System should provide method to remove/import/export data	high	Data control
Non-functional Requirements			
ID	Description	Priority	Topic Area
NR-1	system should provide security, such as encryption of password	high	Security
NR-2	a properly webpage should be shown when user cannot access the web	medium	Consistency
NR-3	system should be able to prevent dangerous or disallowed action from user	medium	Security
NR-4	system will timeout after 10 seconds	medium	Consistency
NR-5	system should finish loading UI in 10 seconds	medium	Consistency
NR-6	system should validate the email address of user	low	Consistency
NR-7	system should provide high concurrency	high	Concurrency
NR-8	system should keep date consist in case of unexpected failure	high	Consistency

Use Cases:

Actors: administrator, customers, restaurants

Use Case Overview:





Use Case Documents:

Use Case ID:	UC-01		
Use Case Name:	Search Nearby Restaurants		
Description	Customer can search restaurants nearby his location or a particular location.		
Actors:	Customer		
Pre-conditions	Customer have logged in		
Post-conditions	Customer can find a interested restaurant in the list and get more detailed information or view the restaurant's foods menu.		
Frequency of Use:	Frequently by customers		
Flow of Events:		Actor Action	System Response
	1	Customer click search nearby systems button.	A list of restaurants with basic information is displayed.
	2	Scroll down or scroll up the list	
	3	Click on a particular restaurant	System enter the restaurant's main page and show basic information about the restaurant
Variations	1. Customer can search another particular location besides his location.		
Exceptions			
Developer Notes:			
Use Case ID:	UC-02		
Use Case Name:	View Food Menus		
Description	Customer can view the list of food in the restaurant, and get more detailed information of any particular food.		
Actors:	Customer		
Pre-conditions	Customer have entered a restaurant's page.		
Post-conditions	Customer can get more information about the interested food and add it into his shopping cart.		
Frequency of Use:	Frequently by customers		
Flow of Events:		Actor Action	System Response
	1	Scroll down or scroll up the list of foods.	
	2	Customer click on a kind of food.	System shows more detailed information about the clicked food.
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-03		
Use Case Name:	Add Foods into Shopping Cart		
Description	Customer can view the list of food in the restaurant, and get more detailed information of any particular food.		
Actors:	Customer		
Pre-conditions	Customer stay on the food's detail page		
Post-conditions	The chosen food is added into customer's shopping cart.		
Frequency of Use:	Frequently by customers		
Flow of Events:		Actor Action	System Response
	1	Click add shopping cart button.	System shows quantity choose option.
	2	Customer select the food quantity.	System notify that the food has been added into shopping cart.
Variations	2. Customer click on cancel button and the food will not be added.		
Exceptions			
Developer Notes:			

Use Case ID:	UC-04		
Use Case Name:	Create New Order		
Description	Customer purchase the foods added in the shopping cart and proceed to check out.		
Actors:	Customer		
Pre-conditions	Customer has added food into his shopping cart.		
Post-conditions	A new order is created and the restaurant will be notified		
Frequency of Use:	Frequently by customers		
Flow of Events:		Actor Action	System Response
	1	Customer click check out button	System shows the default destination page
	2	Customer confirms the destination and click continue button	System shows payment page
	3	Customer select payment way and click continue	The order is created, the cart is clear and system shows the order status page
Variations	2. User input another destination		
Exceptions	3. The payment way does not have enough balance		
Developer Notes:			

Use Case ID:	UC-05		
Use Case Name:	Create New Order		
Description	Restaurant is notified when customer order foods from them, and restaurant knows the detail of the order then begin prepare the food.		
Actors:	Restaurant		
Pre-conditions	Customer have ordered food from this restaurant		
Post-conditions	The order status is changed to delivering		
Frequency of Use:	Frequently by restaurant		
Flow of Events:		Actor Action	System Response
	1	Scroll down or scroll up the order list.	
	2	Click show order detail button.	System shows the detail of the order, include ordered food, customer destination and delivery time.
	3	Click deliver button	The order status is changed to delivering and system shows the order detail page.
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-06		
Use Case Name:	Complete Order		
Description	The food is delivered to customer and restaurant can change the order status the delivered		
Actors:	Restaurant		
Pre-conditions	Restaurant has begin delivering food to customer		
Post-conditions	The order status is changed to delivered		
Frequency of Use:	Frequently by restaurant		
Flow of Events:		Actor Action	System Response
	1	Click complete button	The order status is changed to delivered and system shows the order detail page.
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-07		
Use Case Name:	Complete Order		
Description	The food is delivered to customer and customer can complete the order then rate the restaurant		
Actors:	Customer		
Pre-conditions	The food is delivered to customer		
Post-conditions	The order is completed and the customer's review will be added to the ordered foods and restaurant.		
Frequency of Use:	Frequently by restaurant		
Flow of Events:		Actor Action	System Response
	1	Click complete order	The order status is changed to completed, the system shows the rating page
	2	Customer rate each ordered food	The rating is added to records and the system shows the detail reviews page
	3	Customer write detail reviews and click submit button.	The detail review is added to records and the system shows the main page.
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-08		
Use Case Name:	Cancel Order		
Description	The customer can cancel order when the order is not delivering status		
Actors:	Customer		
Pre-conditions	The customer has ordered food but the restaurant do not being delivering.		
Post-conditions	The order is canceled		
Frequency of Use:	Occasionally by customer		
Flow of Events:		Actor Action	System Response
	1	Customer click cancel button	The system shows the confirmation window
	2	Customer click yes button	The order status is changed to canceled and system show the cancel reason selection page.
	3	Customer click cancel reason	
Variations	2 Customer click no button		
Exceptions			
Developer Notes:			

Use Case ID:	UC-09		
Use Case Name:	Cancel Order		
Description	The Restaurant can cancel order when the order is not delivering status		
Actors:	Restaurant		
Pre-conditions	The customer has ordered food but the restaurant do not being delivering.		
Post-conditions	The order is canceled		
Frequency of Use:	Occasionally by Restaurant		
Flow of Events:		Actor Action	System Response
	1	Restaurant click cancel button	The system shows the confirmation window
	2	Restaurant click yes button	The order status is changed to canceled and system show the cancel reason selection page.
	3	Restaurant click cancel reason	
Variations	2 Restaurant click no button		
Exceptions			
Developer Notes:			

Use Case ID:	UC-10		
Use Case Name:	Create Account		
Description	The customer must create account before using the food delivery platform		
Actors:	Customer		
Pre-conditions			
Post-conditions	A new customer account is created		
Frequency of Use:	Just once by a individual customer		
Flow of Events:		Actor Action	System Response
	1	Customer click sign up button	The system shows information tables page.
	2	Customer fill in his information and click submit button.	The system notify the account creation is succeed and turn to the log in page.
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-11		
Use Case Name:	Log in		
Description	Customer should log in every week.		
Actors:	Customer		
Pre-conditions	Customers have sent account creation application though sigh up system		
Post-conditions	Customer is logged in.		
Frequency of Use:	Once a week by customer		
Flow of Events:		Actor Action	System Response
	1	Customer click on the log in button	The system shows the input textbook of username and password
	2	Customer input the username and password	The system shows the detail information of the applicant
	3	Click log in button again	The system shows log in successfully and turn to main page.
Variations			
Exceptions	3. The customer's username or password is invalid.		
Developer Notes:			

Use Case ID:	UC-12		
Use Case Name:	Update Profile		
Description	The customer can change information including phone number, address and name.		
Actors:	Customer		
Pre-conditions	The customer has created his account		
Post-conditions	The information of the customer is updated		
Frequency of Use:	Occasionally by customer		
Flow of Events:		Actor Action	System Response
	1	Customer click update profile button	The system shows the customer's information
	2	Customer modified the existing information	
	3	Click submit button	System update the information to the record and turn to main page
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-13		
Use Case Name:	Add credit card		
Description	The customer can add a credit card to his payment way.		
Actors:	Customer		
Pre-conditions	The customer has created his account		
Post-conditions	A credit card is added to customer's payment		
Frequency of Use:	Occasionally by customer		
Flow of Events:		Actor Action	System Response
	1	Customer click update profile button	The system shows the customer's information
	2	Customer click add credit card button	The system shows the add credit card page
	3	Click submit button	The credit is added to the record and turn to main page
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-14		
Use Case Name:	Create Restaurant		
Description	A restaurant must create account in order to open business on the food delivery system		
Actors:	Restaurant		
Pre-conditions			
Post-conditions	A new Restaurant account creation application is sent to administrator		
Frequency of Use:	Just once by a individual Restaurant		
Flow of Events:		Actor Action	System Response
	1	Restaurant click sign up a restaurant button	The system shows information tables page.
	2	Restaurant fill in his information and click submit button.	The information is sent to administrator and system turn to log in page.
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-15		
Use Case Name:	Create Restaurant		
Description	The system administrator can approve or reject the restaurant's account creation application		
Actors:	Administrator		
Pre-conditions	Restaurant have sent account creation application though sigh up system		
Post-conditions	A new restaurant account is created		
Frequency of Use:	Frequently by Administrator		
Flow of Events:		Actor Action	System Response
	1	Scroll down or scroll up application list	
	2	Administrator click on a application	The system shows the detail information of the applicant
	3	Click approve button	A new restaurant account is created and system turn back to application list page.
Variations	3 Click reject button		
Exceptions			
Developer Notes:			

Use Case ID:	UC-16		
Use Case Name:	Update Restaurant Information		
Description	The customer can change information including restaurant opening time, delivery fee and description		
Actors:	Restaurant		
Pre-conditions	The restaurant its created his account		
Post-conditions	The information of the restaurant is updated		
Frequency of Use:	Occasionally by restaurant		
Flow of Events:		Actor Action	System Response
	1	Restaurant click update profile button	The system shows the restaurant's information
	2	Restaurant modified the existing information	
	3	Click submit button	System update the information to the record and turn to main page
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-17		
Use Case Name:	Add food		
Description	Restaurant can add food to its food menu		
Actors:	Restaurant		
Pre-conditions	The restaurant has created his account		
Post-conditions	A food is added to the restaurant's menu		
Frequency of Use:	Frequently by restaurant		
Flow of Events:		Actor Action	System Response
	1	Restaurant click update profile button	The system shows the restaurant's information
	2	Restaurant click add food button	The system shows the add food page
	3	Click submit button	The food is added and system our turn to main page
Variations			
Exceptions			
Developer Notes:			

Use Case ID:	UC-18		
Use Case Name:	Update food information		
Description	Restaurant change food information including price,description and so on		
Actors:	Restaurant		
Pre-conditions	The restaurant has created his account and added several food to its menu		
Post-conditions	A food is added to the restaurant's menu		
Frequency of Use:	Occasionally by restaurant		
Flow of Events:		Actor Action	System Response
	1	Restaurant scroll down or scroll up food list	
	2	Restaurant click on a food	The system shows the food detail page.
	3	Click update button	The food's information become editable
	4	Click submit button	The food's information is changed and system turn to main page
Variations			
Exceptions			
Developer Notes:			

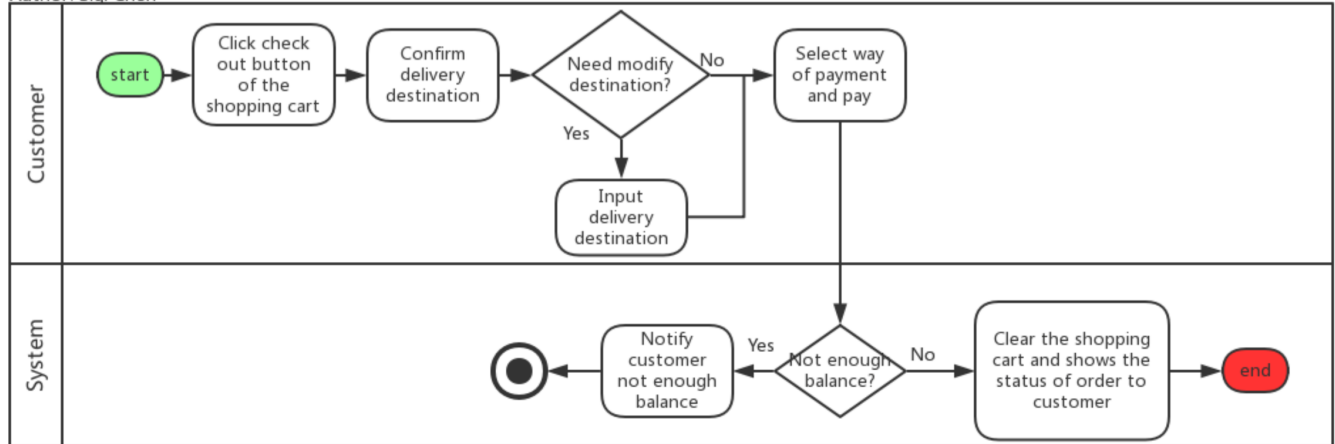
Use Case ID:	UC-19		
Use Case Name:	Delete food		
Description	Restaurant can delete food to from its food menu		
Actors:	Restaurant		
Pre-conditions	The restaurant has created his account and added several food to its menu		
Post-conditions	A food is deleted from the rstaruant's menu		
Frequency of Use:	Occasionally by restaurant		
Flow of Events:		Actor Action	System Response
	1	Restaurant scroll down or scroll up food list	
	2	Restaurant click on a food	The system shows the food detail page.
	3	Click delete button	System shows the confirmation window
	4	Click yes button	The food is deleted and system turn to main page
Variations	4 Restaurant click no button		
Exceptions			
Developer Notes:			

Use Case ID:	UC-20		
Use Case Name:	Ban User		
Description	Administrator can stop a user using the system anymore for some special reason		
Actors:	Administrator		
Pre-conditions	Administrator reads the system logs and suspect an abnormal user		
Post-conditions	The user has been banned and his account is locked		
Frequency of Use:	Occasionally by administrator		
Flow of Events:		Actor Action	System Response
	1	Click on a user	The system shows the user detail page
	2	Click ban button	System shows the confirmation window
	3	Click yes button	The user account is banned.
Variations	3 Click no button		
Exceptions			
Developer Notes:			

Use Case ID:	UC-21		
Use Case Name:	Ban Restaurant		
Description	Administrator can stop a restaurant opening for business any more for some special reason		
Actors:	Administrator		
Pre-conditions	Administrator reads the system logs and suspect an abnormal restaurant		
Post-conditions	The Restaurant has been banned and his account is locked		
Frequency of Use:	Occasionally by administrator		
Flow of Events:		Actor Action	System Response
	1	Click on a restaurant	The system shows the restaurant detail page
	2	Click ban button	System shows the confirmation window
	3	Click yes button	The restaurant account is banned.
Variations	3 Click no button		
Exceptions			
Developer Notes:			

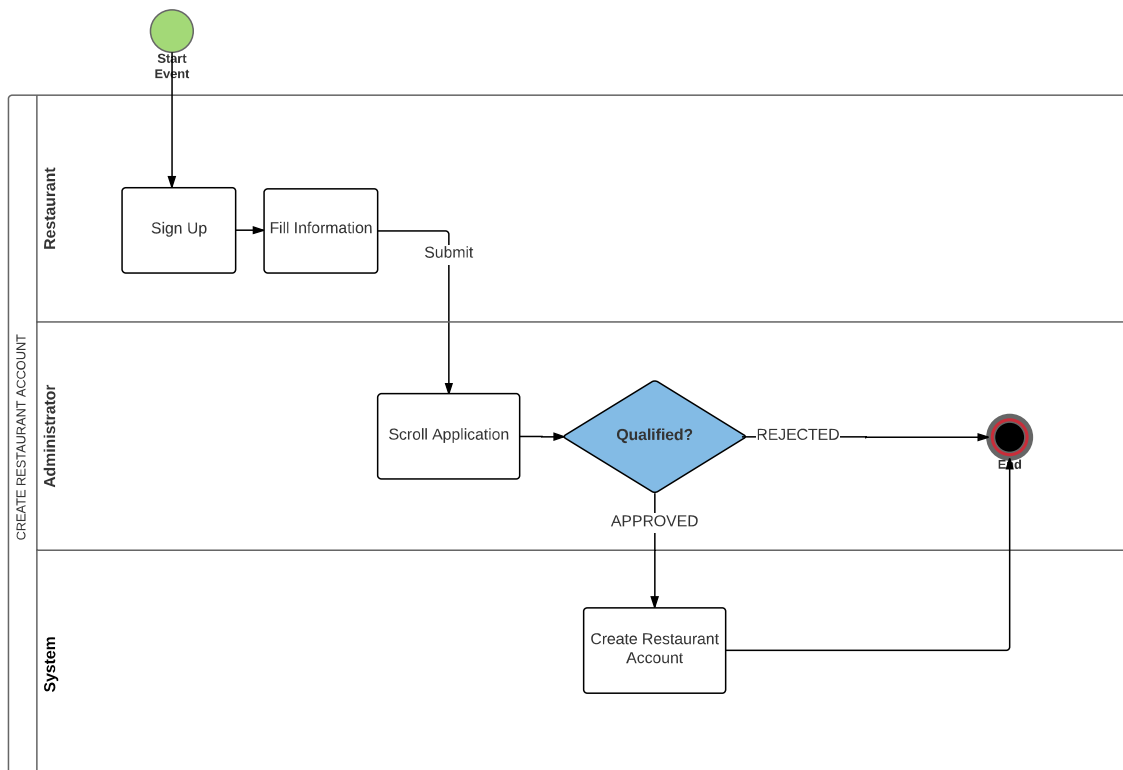
Activity Diagram:

Use case: Create New Order
Use case ID: UC-04
Requirement ID: UR-06, UR-07
Author: Sigi Chen

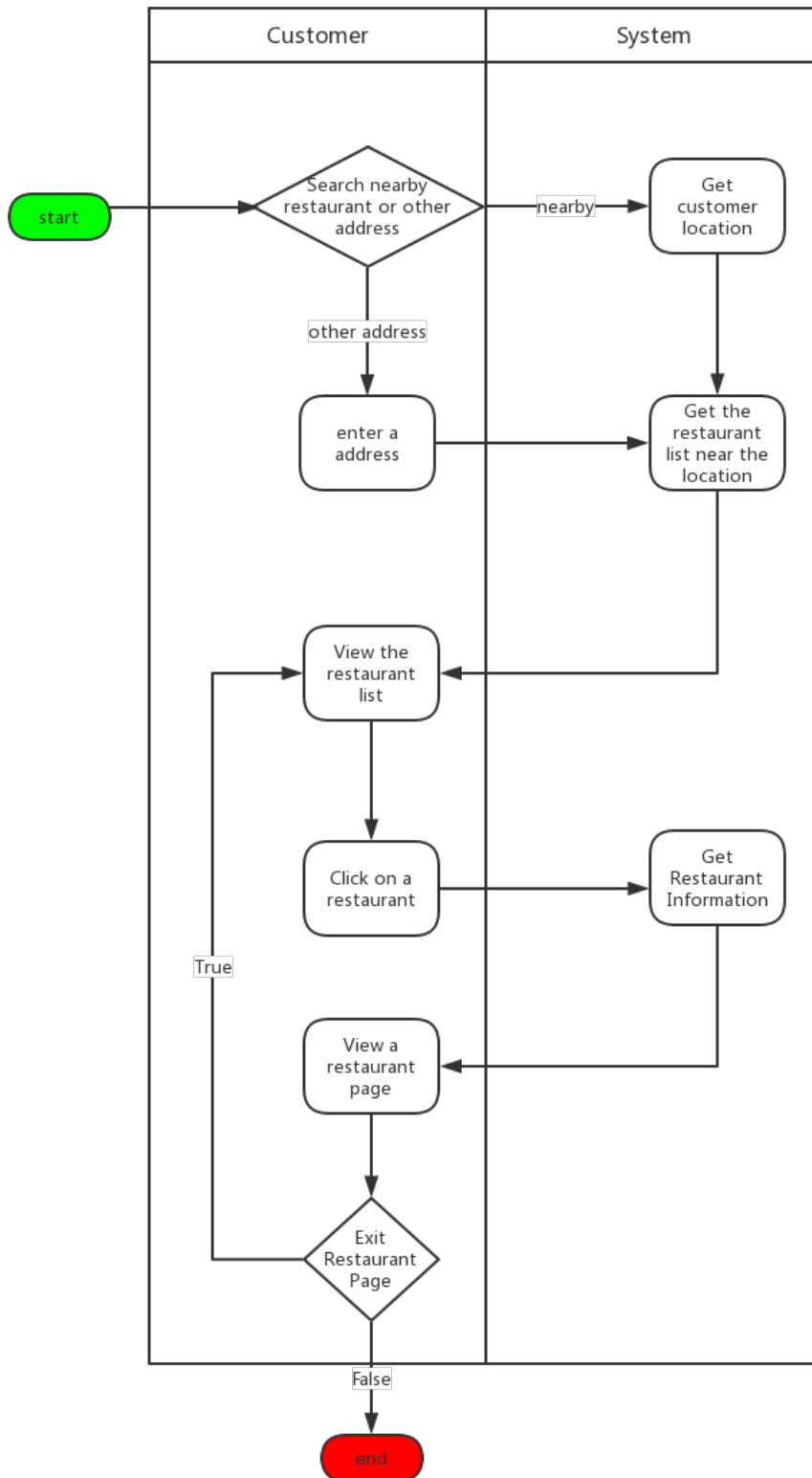


ACTIVITY DIAGRAM
USECASE ID : UC-14 UC-15 CREAT RESTAURANT
REQUIREMENT ID : UR-12

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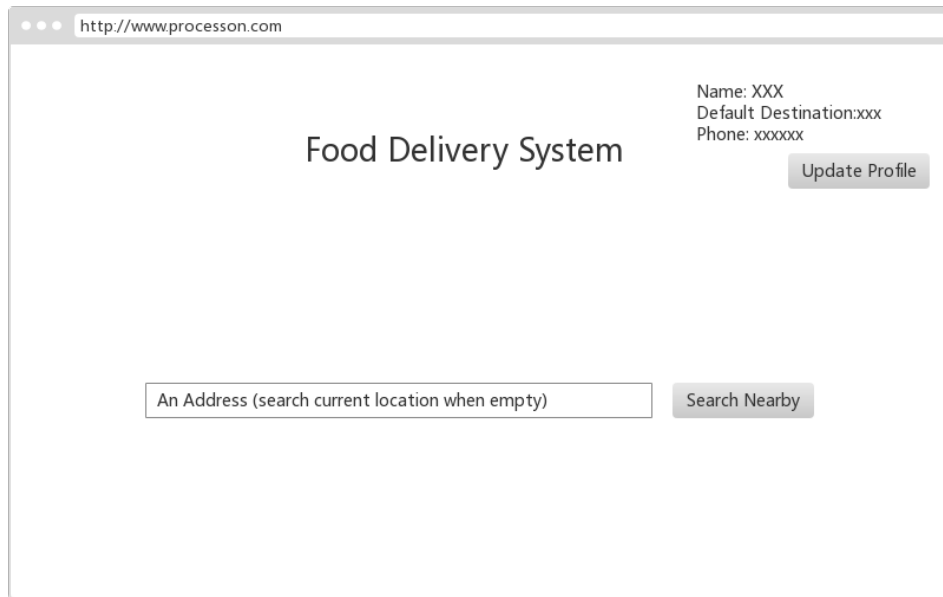


Requirement ID # : UR-3, UR-4, UR-5
UseCase ID #: UC-01
UseCase Name: Search Nearby Restaurants
Author: Yuhan Lin



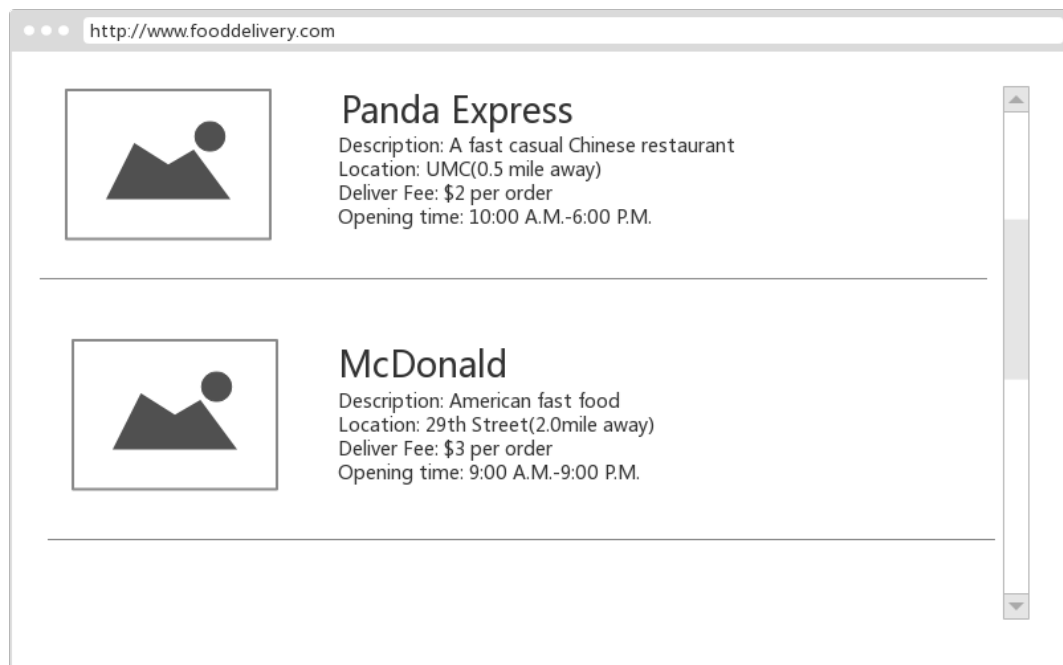
User Interactions:

The welcome screen of customer's view:



A screenshot of a web browser window showing the welcome screen of a food delivery system. The browser's address bar displays "http://www.processon.com". The main heading "Food Delivery System" is centered. In the top right corner, user information is displayed: "Name: XXX", "Default Destination:xxx", and "Phone: xxxxxx", with an "Update Profile" button below it. At the bottom, there is a search bar with the placeholder text "An Address (search current location when empty)" and a "Search Nearby" button.

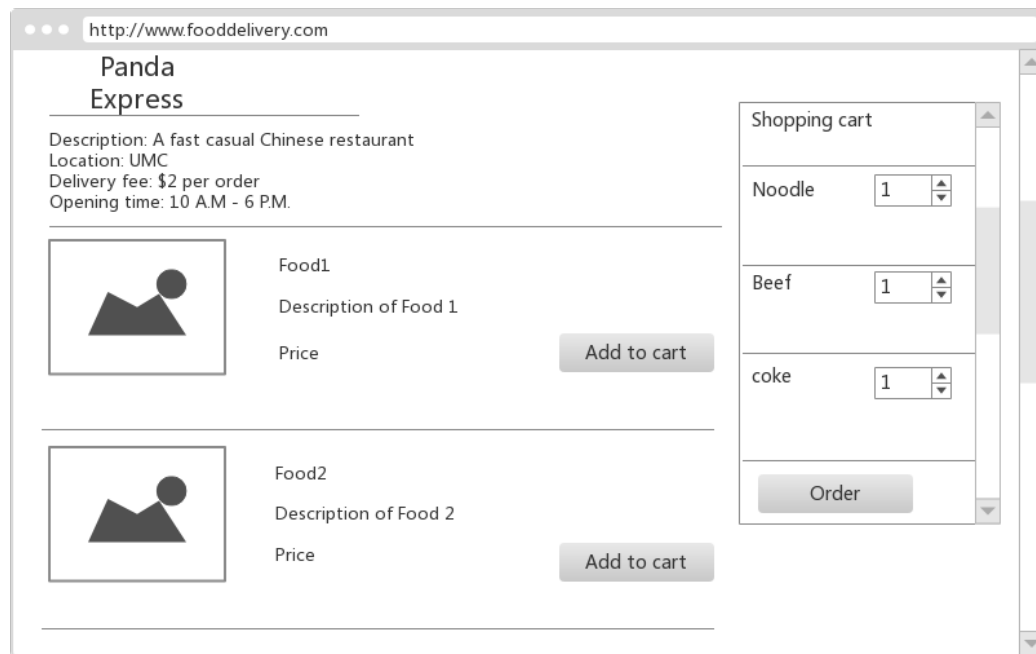
Restaurants list of customer's view:



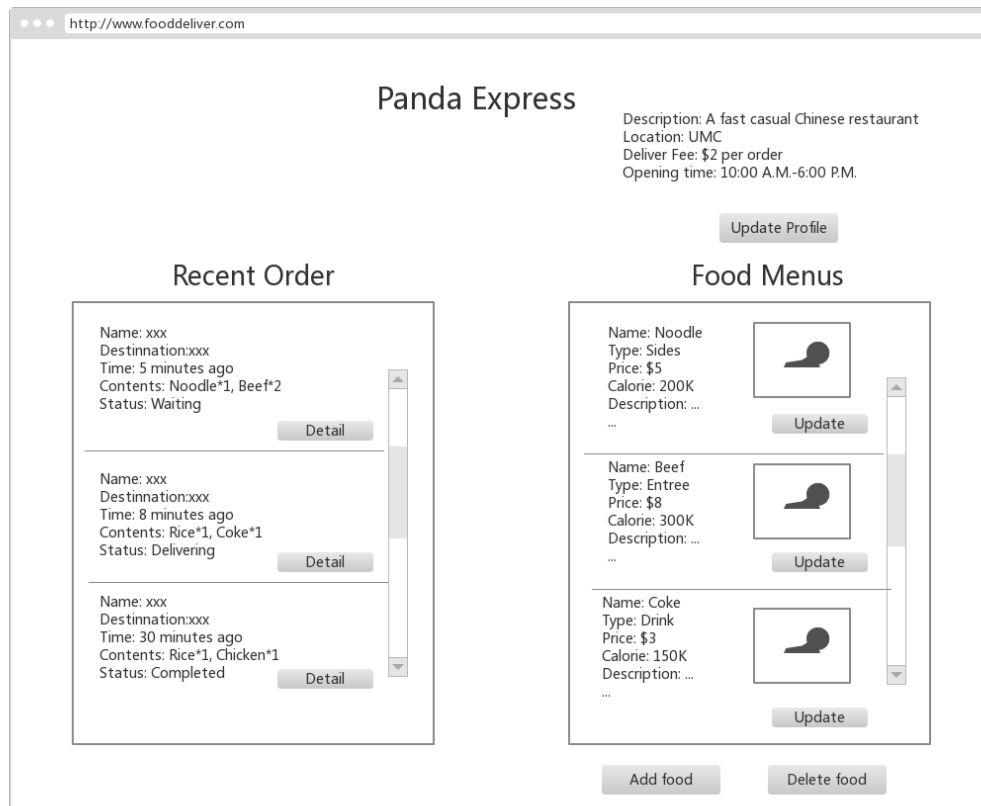
A screenshot of a web browser window showing a list of restaurants. The browser's address bar displays "http://www.fooddelivery.com". The page lists two restaurants, each with a placeholder image, name, description, location, deliver fee, and opening time. A vertical scrollbar is visible on the right side of the list.

Restaurant Name	Description	Location	Deliver Fee	Opening time
Panda Express	A fast casual Chinese restaurant	UMC(0.5 mile away)	\$2 per order	10:00 A.M.-6:00 P.M.
McDonald	American fast food	29th Street(2.0mile away)	\$3 per order	9:00 A.M.-9:00 P.M.

Food menu of a restaurant in customers' view:

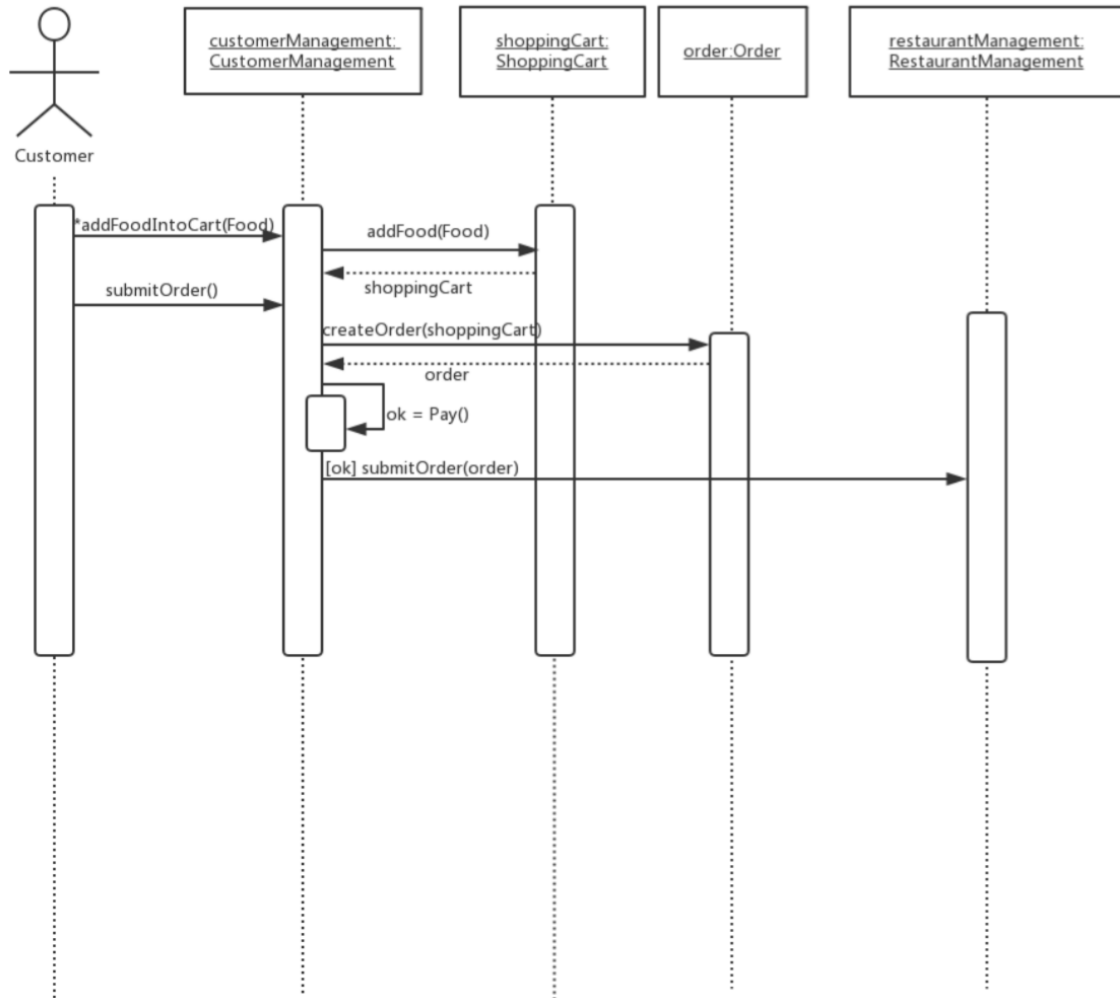


A restaurant's main page in restaurant's view:



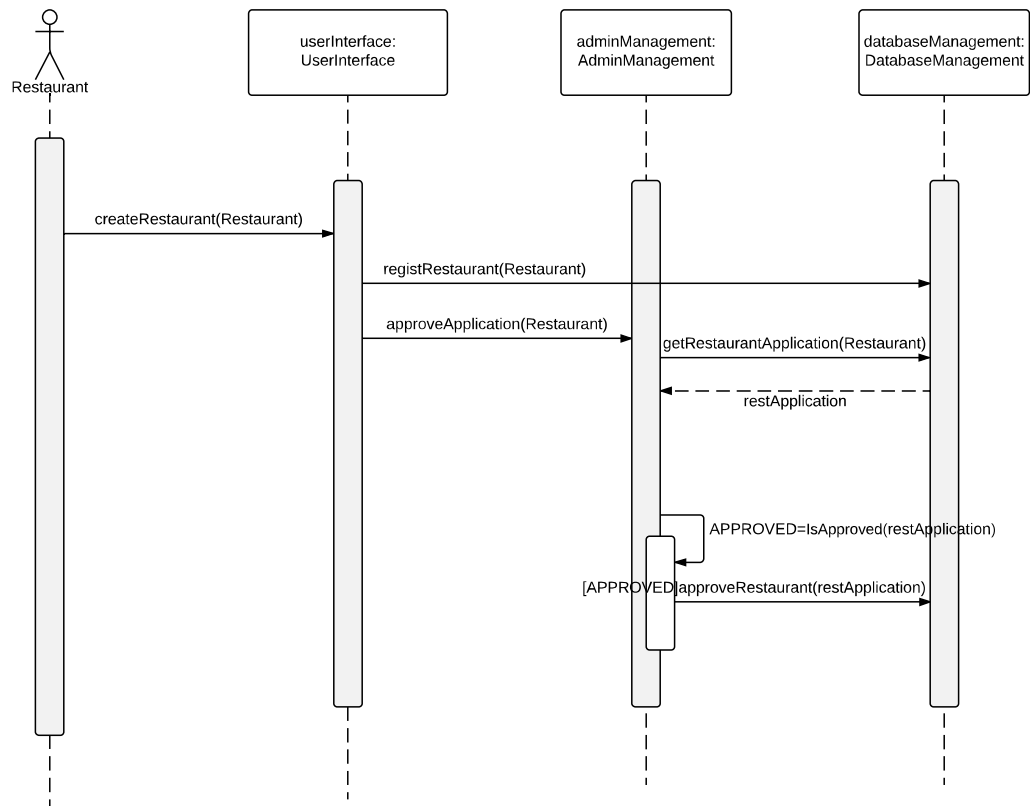
User Interactions:

Use case: Create New Order
Use case ID: UC-04
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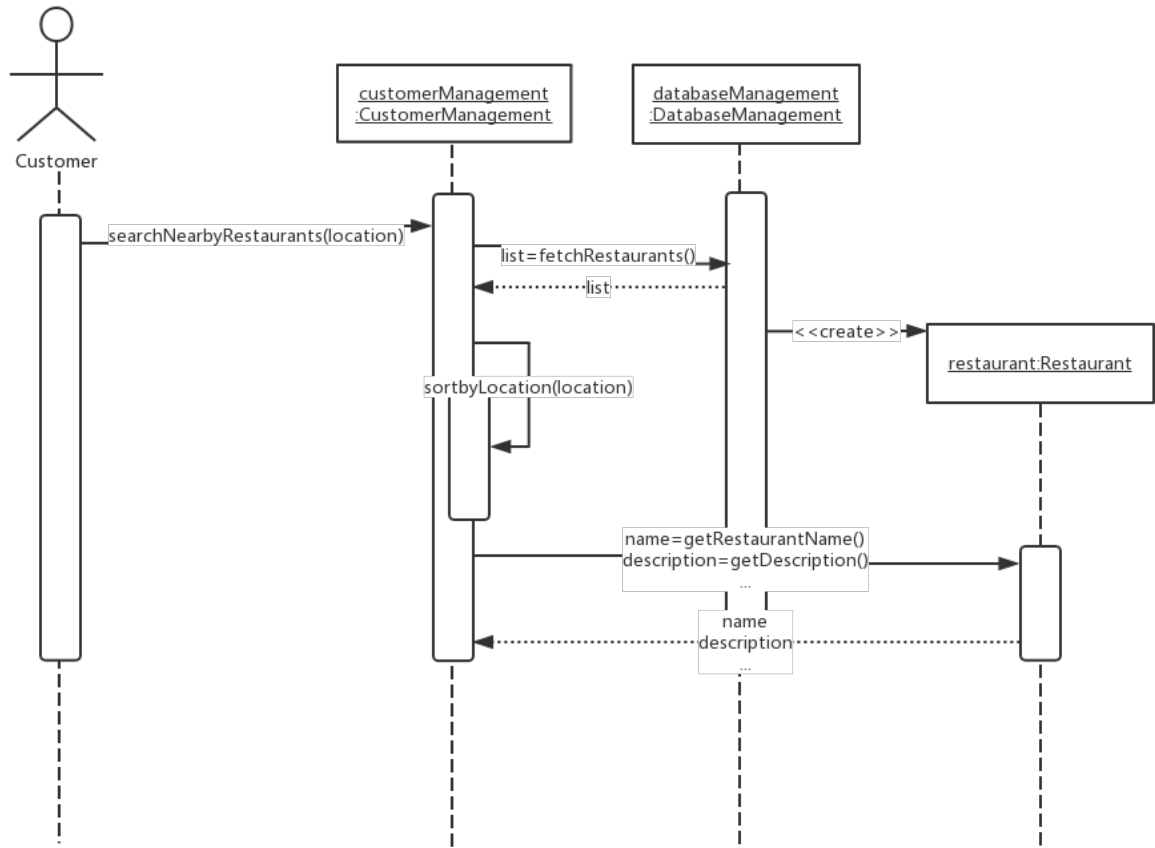


BASIC SEQUENCE DIAGRAM
USECASE ID : UC-14 UC-15 CREAT RESTAURANT
REQUIREMENT ID : UR-12

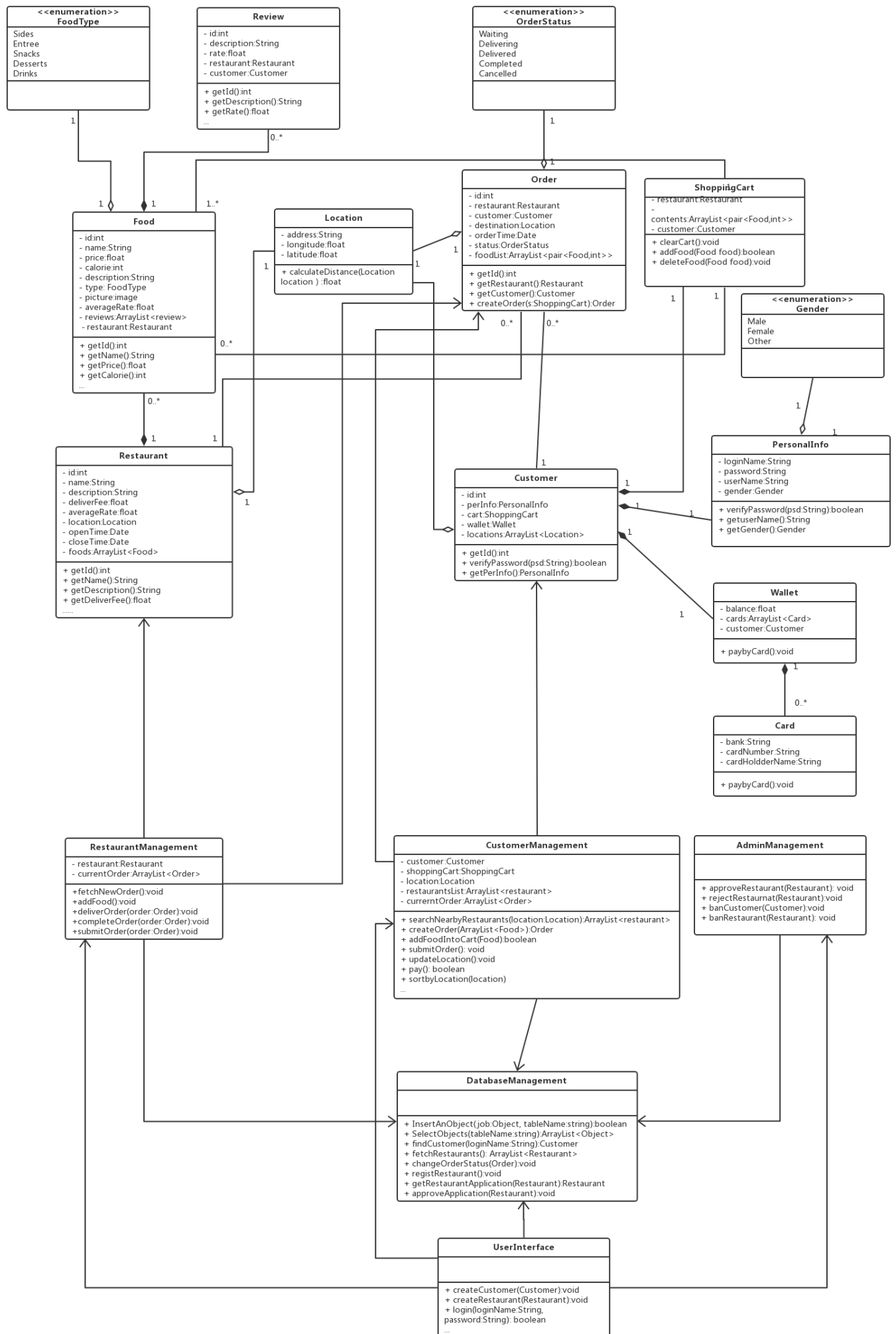
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Requirement ID # : UR-3, UR-4, UR-5
UseCase ID #: UC-01
UseCase Name: Search Nearby Restaurants
Author: Yuhan Lin



Class Diagram:



Data Storage:

We will use MySQL as our database management system. There will be several tables such as Customers, Restaurants, Foods, Reviews and Orders in the database, which storage the corresponding information. The id attribute in each class will be the primary key of the tables. The program will use connector to connect the database and do some operations on it.