

I. Requirement

1. Glossary list

#	Name	Meaning
Related to human		
1	Management Staff	A person with the highest authority including view statistics, manage dish information, make combo menus
2	Warehouse Staff	A person responsible for import materials from suppliers, manage supplier information
3	Sale Staff	A person who receives customers, takes orders, receives payments at the table, makes membership cards for customers, confirms table reservation information and order online
4	Customer	A person who benefits from the service, can search, book a table and order food online
5	Supplier	Partner providing raw materials and ingredients
Related to activity		
6	View statistics	An action of manager staff that viewing the information of dish (name, category, description, price), ingredient (name, price, stock), customer (name, phone, email), supplier (name, phone, address)
7	Manage dish information	An action of manager staff that including adding new dish, changing or deleting existed dish information (name, category, description, price) in database
8	Make combo menu	An action of manager staff that combining two or more dish into a combo menu (name, description, list of dishes, price) and insert its information into database
9	Import ingredients from suppliers	An action of warehouse staff that confirming all the ingredients brought from suppliers and insert new ingredient or update stock of the existed ingredients in database
10	Manage supplier information	An action of warehouse staff that adding new supplier information (name, phone, email) and changing or deleting existed supplier information in database
11	Receive customer	An action of sale staff that meeting customer at reception hall, checking customer's information and guild them
12	Take orders	An action of sale staff that taking note of customer's orders face-to-face and inform to chefs
13	Receive payment at the table	An action of sale staff that receiving customer's payment after they finish their meal and print bill (id, name, list of dishes and combos, price for each and total)

14	Make membership card for customer	An action of sale staff that creating and issue a card for customer to earn loyal points for their next reservation
15	Confirm table reservation information	An action of sale staff that must do when customer come to restaurant. The customer will tell the sale staff about their name, phone number, the table they pre-booked and show the staff their mail that the restaurant sent to confirm their successful reservation. The sale staff will check their information and lead them to the table pre-booked.
16	Order online	An action of sale staff. The customer first calls the restaurant to book a table. The sale staff picks up and then checks the available table according to the schedule the customer gives them then informs the customer. If the customer agrees to the staff suggestion, the staff will ask the customer's information to make a table reservation and save it to database. After that, the sale staff will send a mail to confirm their successful reservation
17	Add new dish	An action of management staff that was included in manage dish information action. The management staff will select adding new dish option in the app interface then fill the dish information in (name, category, description, price). The dish information will be saved into database
Related to object		
18	Dish	A specific type of food that has been prepared and is ready to be served or eaten. Its information will be saved into database (id, name, category, description, price)
19	Ingredient	A specific food item is used to make a dish. For example, in a salad, the ingredients are lettuce, tomatoes, cucumbers, and dressing. In a cake, the ingredients are flour, sugar, eggs, and milk. Its information will be saved into database (id, name, category, price)
20	Combo	Short for "combination," is a package deal that bundles several individual items together and sells them as a single offer, usually at a discounted price. In the context of a restaurant, a combo typically includes a main dish, a side dish, and a drink. Its information will be saves into database (id, name, list of dishes and beverages, price)
21	Menu	A list of the food and beverages that are available for purchase. The customers can see the menu online or menu book on the table. It contains name of the dish, category, price
22	Order	A request made by a customer to a restaurant for food and drinks. Customer can make order right at the table or via website (order online)

23	Payment	It is the process of a customer settling the cost of their order. The sale staff will receive money from customer and update payment information in database
24	Table	A physical location in the restaurant where customers are seated and is linked to a customer order
25	Membership card	A physical or digital card issued by the restaurant to its customers. It is linked to a customer's account in the system and grants them special privileges (such as discounts, loyalty points)
26	Statistic	The summarized numerical data that provides insights into the performance and status of different aspects of the restaurant

2. Project information

a. Object

A website system for restaurant management including viewing statistics (dishes, ingredients, customers, suppliers), managing dish information, making combo menus for manager; importing materials from suppliers, managing suppliers information for warehouse staff; receiving customers (taking orders, receiving payments at the table, make membership cards, confirm table reservation information) for sale staff. Booking table and order foods online for customer

b. Scope

- Staff:
 - + Login/ logout
 - + Change personal password
- Manager:
 - + View statistics
 - + Manage dish information
 - + Making combo menus
- Warehouse staff:
 - + Import materials from suppliers
 - + Manage supplier's information
- Sale staff:
 - + Confirm table reservation
 - + Taking order
 - + Receiving payment
 - + Make membership card for customer
- Customer:
 - + Booking table
 - + Order foods

c. How the module works

Management staff adds new dish: Staff logins into the system → selects the menu to manage dish information → selects the function of adding dish information → the system displays adding dish information interface with text fields (name, category, description, price) → enters dish information and clicks add → The system saves to the database.

Management staff views customer statistics: Selects the menu to view statistical reports → selects customer statistics by revenue → the system displays an interface with a combo box to select start and end date → selects the time to start and end statistics → view with a list of customers (name, phone number, revenue) → selects a customer to view expenses details at chosen start and end date → the system displays an interface with the order list that the customer has called (date, price) → selects view 1 order → views detail the selected order (list of dishes with number and price).

d. Information about objects

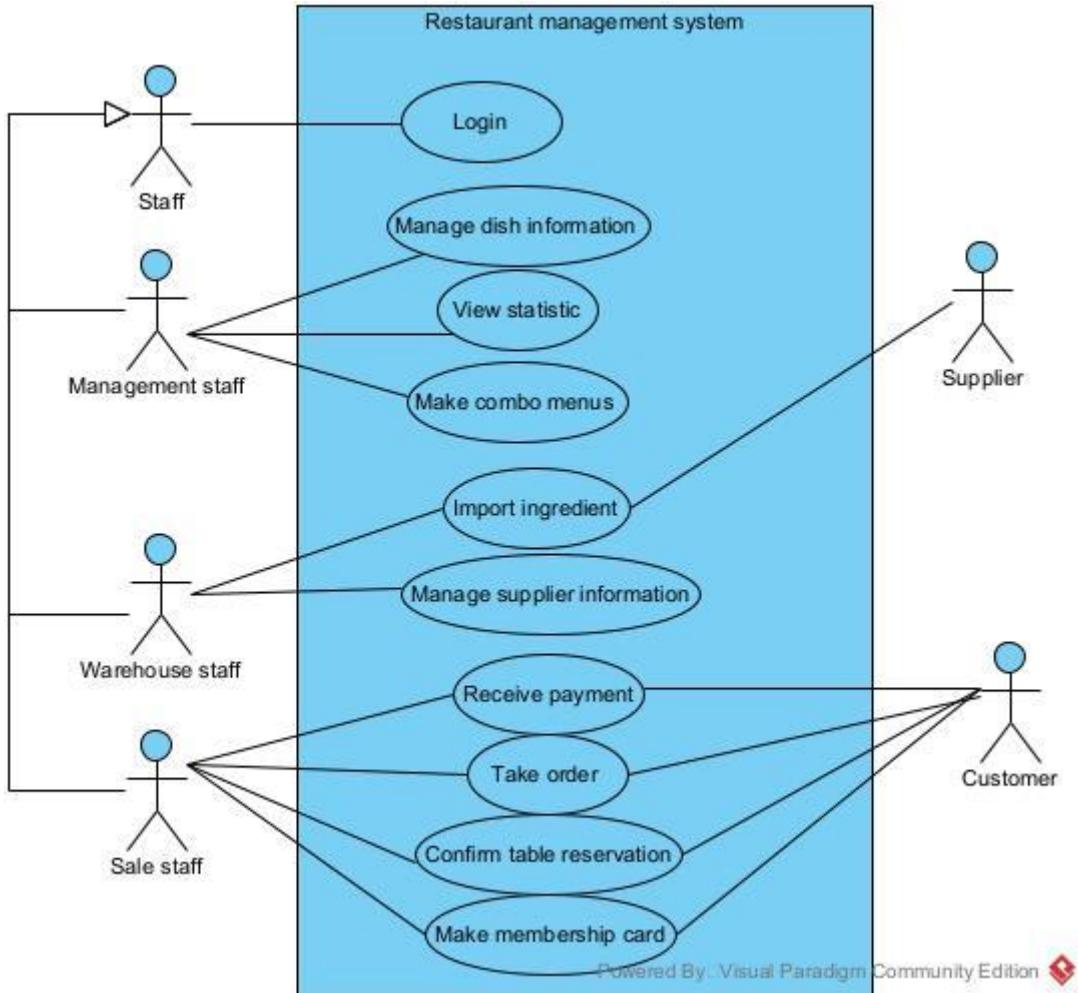
- Staff: username, password, name, phone number, email, role
- Customer: name, phone number, email
- Restaurant: name, address, star
- Dish: name, category, description, price
- Order: date, price
- Table: type, isReady

e. Relationships among objects

- Restaurant – Table: 1 – n
- Staff – Order: 1 – n
- Customer – Order: 1 – n
- Order – table: 1 – n
- Dish – Order: n – n

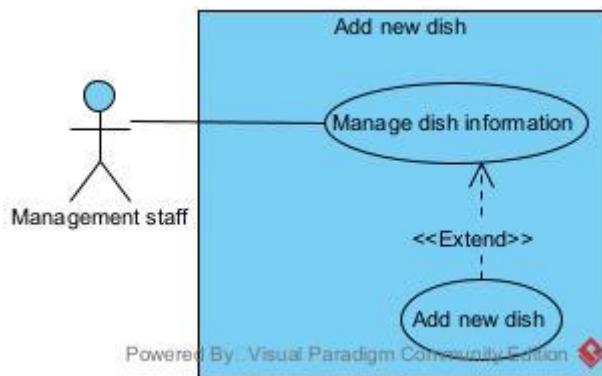
3. Use case diagram

f. General use case



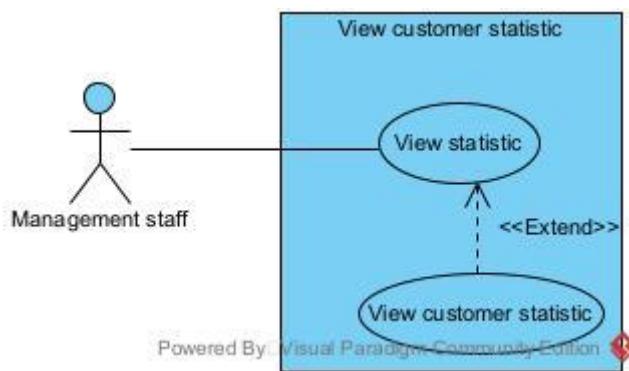
- Description:
 - + Login: This use case enables the staff to login into the restaurant system
 - + Manage dish information: This use case enables the management staff to adding new dish or change/delete exited dish
 - + View statistic: This use case enables the management staff to view the information of dish, ingredient, customer, supplier
 - + Make combo menus: This use case enables the management staff to make combo menus
 - + Import ingredient: This use case enables the warehouse staff to import ingredient
 - + Manage supplier information: This use case enables the warehouse staff to adding new supplier information or change/delete exited one
 - + Receive payment: This use case enables the sale staff to receiving customer's payment after they finish their meal and print bill
 - + Take order: This use case enables the sale staff to receive order online
 - + Confirm table reservation: This use case enables the sale staff to confirm the customer table reservation
 - + Make membership card: This use case enables the sale staff to create and issue a card for customer to earn loyal points for their next reservation

g. Management staff adds new dish use case



- Add new dish: This use case enables the management staff to add new dish into database

h. Management staff views customer statistic



- View customer statistic: This use case enables the management staff to view customer statistic