Final Project Proposal

- **Project overview**

Our project is to design and implement a take-away food delivery system. In the United States, although many restaurants have their own take-away service, or have a delivery service like Ubereats. However, these take-away services have some problems: for example, the delivery time is too long, it is difficult for customers to track the delivery schedule of the takeaway, or it is difficult for users to modify their order information. In order to solve and perfect these problems, we designed this take-away food delivery system.

- **Application Key Functionalities**

1. The user orders the meal.

The customer searches for a favorite restaurant that is closer to him and then orders it. Both the restaurant and the takeaway service company will receive the order information.

2. The restaurant processes the order information.

The restaurant accepts, processes or rejects orders. If the restaurant accepts the order, it sends a meal request to the out-of-service company. If the takeaway service company accepts the meal request, the restaurant begins to prepare food.

3. The delivery service company processes the meal request.

The delivery service company receives the restaurant's meal request and can accept, process or reject the delivery request. If the request is accepted, the dispatcher is scheduled to start. The takeaway service company will assign an order to each food delivery staff according to the delivery distance.

4. The food delivery staff handles the meal request.

The food delivery staff can receive a meal request that is closer to him at the delivery destination and can choose to accept a meal request. Each food delivery staff can only accept one meal request at a time.

5. The customer modifies the meal delivery information.

The customer can modify the destination of the meal, but only once and within 5 minutes of the order. After the user modifies the information. If the food delivery agent fails to take the order, the takeaway service company redistributes the order based on the modified destination. If the food delivery person has received the order, the food delivery staff is reminded to modify the destination.

6. Customer inquiry order progress

Customers can check the progress of their orders. For example, whether the restaurant receives the order, whether the food delivery staff takes the order, where the food delivery staff arrives, and so on.

- **Proposed Entities**

Enterprise:
1. Customer (Business or individual)
2. Takeaway service company
3. Restaurant

Organization:
1. System administrator
2. order manager
3. customer
4. restaurant administrator
5. food delivery staff

- **Eco-system architecture diagram**