Food, Glorious Food

Huiying Wang V00794342

Contents

Problem Statement

Your best friend from high-school is a mid-sized food caterer, and they have asked you to help them write some software that will help them manage all the detail faced by such a business. The company has about a dozen full time employees, and usually hires waitering staff from various temp agencies when they are needed. Event planning, food procurement, food preparation, event setup, employee scheduling and menu preparation are all tasks that the system should help support. As labour is a relatively fixed charge, great savings can be obtained by ordering food in large quantities, but spoilage reduces profits. An inventory of plates, cutlery, glassware, linen, candles and cats is also kept by the company.

Document History

Version	Date	Changes
V 1.0	2017/09/29	Initial Version: - Domain Model and Glossary - Use Cases - Requirements - High Level Model Design
V 1.1	2017/10/14	- Added feedback for assignment1 - Updated High Level Model Design - Runtime Structure - OO Design

Part A. Domain Model and Glossary

A1. Glossary

Name	Aliases	Description
Customer	Client	People hire the food catering company
Supervisor		Person who taking charge of the waitering staff and cooking staff, and handling the problems arise during the event
Event Planner		The event planner discusses with the customer, and make event plans. Also, the event planner arrives at the event to help setup and tear down.
Chef	Cook	People assists with menu decision and prepares the food.
Waitering Staff	Waiter, Waitress	People who serve the food

A2. Interview

1) How many people are there in full-time and part-time employees?
2) Where do the food procurement officer purchase the food? Is there a cooperative procurement company?

A3. Domain Model

The system includes functions as event planning, food procurement, food preparation, event setup, employee scheduling and menu preparation. Based on functions to be built in the system, I assume the following works are related to the system, or in other words, are in the domain model.

- **A3.1 Event Planning**
  - Event planners collect information(expectations and requirements) from clients
  - Event planners search and use event plan templates from the database
  - Event planners make plan agreements with clients

- **A3.2 Food Procurement**
  - Food procurement officer gathering food procurement information(food price, quantity and etc.)

- **A3.3 Food Preparation**
  - Supervisors check and update food preparation procedure

- **A3.4 Event Setup**
  - Supervisors assign works to other staff

- Staff setup equipments

- **A3.5 Employee Scheduling**
  - Employees input their available schedule into the system
  - Supervisor assign and edit schedule to the employees

- **A3.6 Menu Preparation**
  - Chef associates with the event planner and decide the menu for the event

Part B. Use Cases

B1. Use Case 1: Event Planning

The customers presents their expectations and requirements to the event planner. The event planner searches event plan templates from the database, and make corresponding changes to the plan to meet the customers' requirements. After the agreement between the event planner and the customers has been made, the event planner upload the plan into the system.

B2. Use Case 2: Employment Scheduling

The employees input their available work period to the supervisor. The system generates the schedule according to available work period. The supervisor have access to make changes to the schedule.

B3. Use Case 3: Menu Preparation

The event planner sends requirements gathered from the customers to the chef through the system. The chef discuss the dishes with the event planner. Once the agreement has been made, input the menu to the system.

(If only three use cases are needed, then ignore the following use cases.)

B4. Use Case 4: Food Procurement

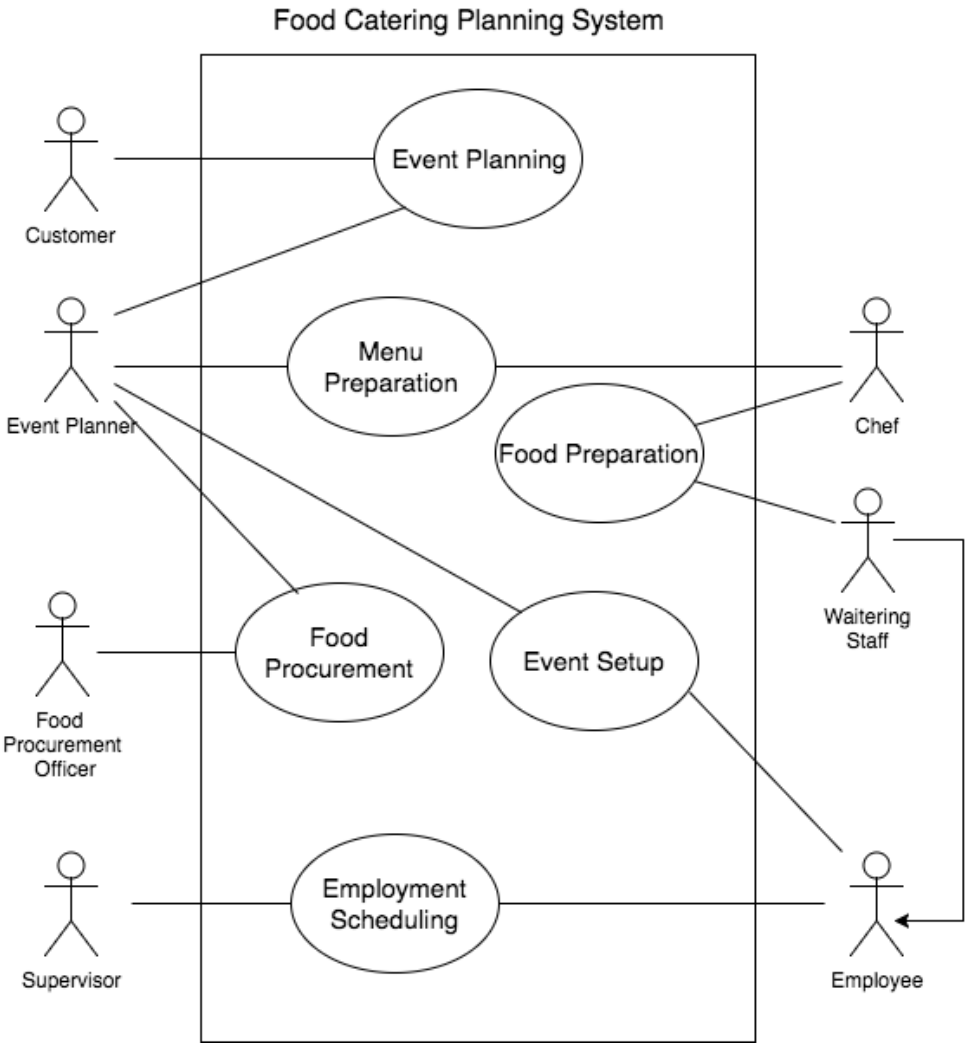
The event planner gives a list of food to be purchased to the food procurement officer through the system. The food procurement officer goes and purchases the food needed.

B5. Use Case 5: Food Preparation

The chef cooks the dishes on the menu in the system. When the food is prepared, the waitering staff serve the food to corresponding destination.

B6. Use Case 6: Event Setup

The employees setup the event equipments based on the plan in the system. The event planner checks and update the procedure through the system.At the mean time, the event planner solves other problems during the setting up procedure.



B7. Use-Case Diagram

Figure 1. Use Case Diagram

Part C. Requirements

C1. Requirements of Use Case 1: Event Planning

Precondition	Event plan templates for customers to choose from are in the database.
Success Steps	- The customers presents their expectation and requirements to the event planner. - The event planner login into the system. - The event planner input the customers' requirements into the system. - The event planner show plan templates to the customers, add or change information into the templates to meet the customer's requirements - After the agreement between the customer and the event planner has been meet, the event planner save and upload the file into the system.
Success Postcondition	The system save the plan successfully, and distribute the work automatically into corresponding department.
Actors involved	Customers, Event Planner

Requirement:

RQ.1 The system shall have a database of event plan templates

RQ.2 The system shall allow the event planner to have priority access, so they could login, check the database, edit the plan, and inputing customer information

RQ.3 The system shall generate and distribute work to corresponding department for event preparation.

C2. Requirements of Use Case 2: Employment Scheduling

Precondition	The number of employees are enough to shift working time.
Success Steps	- The employees input their available schedule into the system - The system generate the schedule
Success Postcondition	The system generate the entire schedule successfully.
Alternative Path	The supervisor login into the system and assign schedule for the employees.
Actors Involved	Supervisor, Employees

Requirement:

RQ.4 The system shall allow employees to login into the system to input their schedule into the system. The system shall allow supervisor to login, and have priority access to the scheduling system for them to make changes to the entire schedule.

RQ.5 The system shall have some function to generate the schedule automatically according to employees' input.

(Since as it says "outline at most 5 requirements", I ended the requirements here.)

Part D. High-level Module Design

D1. List of Entity, Value, and Service Classes

(Only the first three use cases - event planning, employment scheduling, and menu preparation are included here.)

Entity	Value	Service Class
Cusotmer	Time	Login
Event planner	Location	Check plan template
Supervisor	Food amount	Edit plan
Employee	People amount	Send Menu
Chef	Date	Generate Schedule
Event Expectation	Name	Distribute work
Plan Menu Login Info	Phone Number Email Menu List	Edit schedule Upload schedule
	Food Name	
	Recipes	
	Username	
	Password	
	Available Timeslot	

D2. Class Diagram

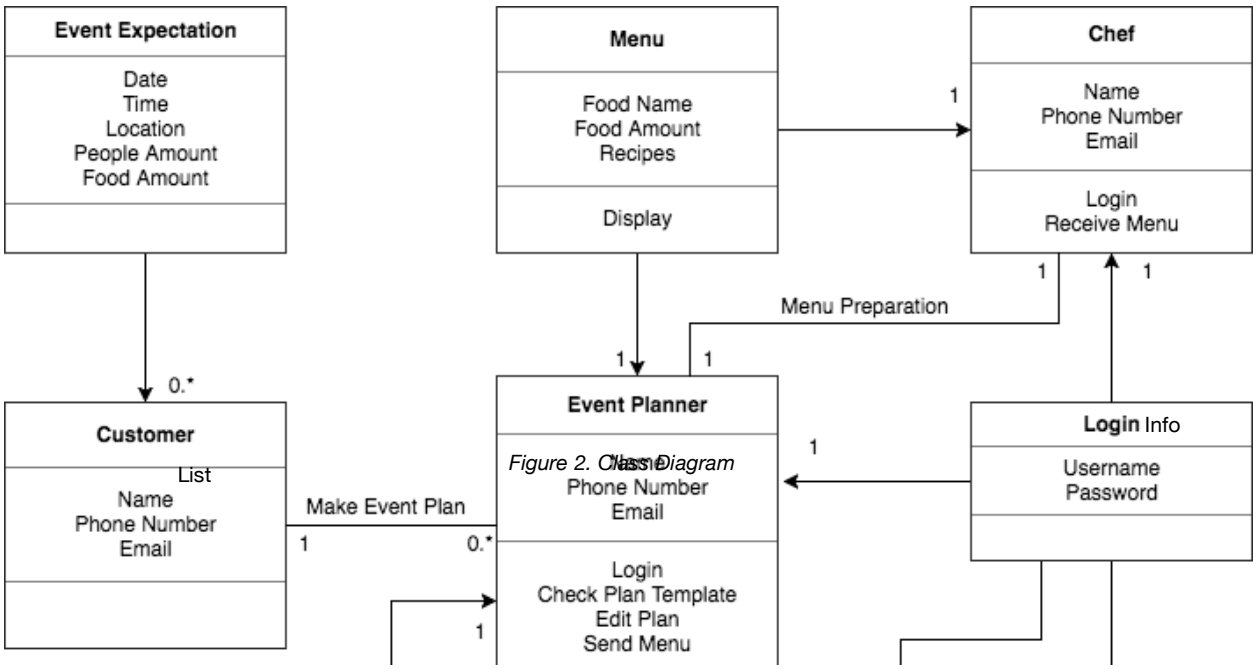


Figure 2. Class Diagram