

Course Project

Software Engineering

Assignment - Task 1

Group SE03

Task 1.1. Identify the context of this project. Who are relevant stakeholders? What are expected to be done? What are the scope of the project?

Stakeholders: Customer, Clerk, Kitchen

Expected result:

The system should allow non-direct contact between Clerks and Customers

The system should be implemented using Web technology and QR code, so customers will not have to install apps.

The system should be usable from a mobile device, a tablet device or a normal computer/ laptop.

The system should be extendable to use in multiple restaurants in the future

The current transactions are about 300 orders per day.

Scope of the project:

Objective: design a web-based POS system for a large scale restaurant with multiple branches during the coronavirus pandemic.

Resources:

- Dev + tester (5 people), 12 hours of work a week for 6 weeks.
- Budget: free (educational project).

Deliverables:

- A complete POS system includes table reservation, ordering food, alerts, billing, credit card processing and customer management in late April.

Project timeline:

- February 17: Begin and complete requirement elicitation
- February 24 : Prepare for the Assignment task 2
- Mar 3 : Complete the requirements of task 2
- Mar 17 : Prepare for the Assignment task 3
- Mar 24 : Complete the requirements of task 3 and prepare for taks 4

- Mar 31 - 7 Apr : Complete and run the demo
- 13 Apr : Final demo

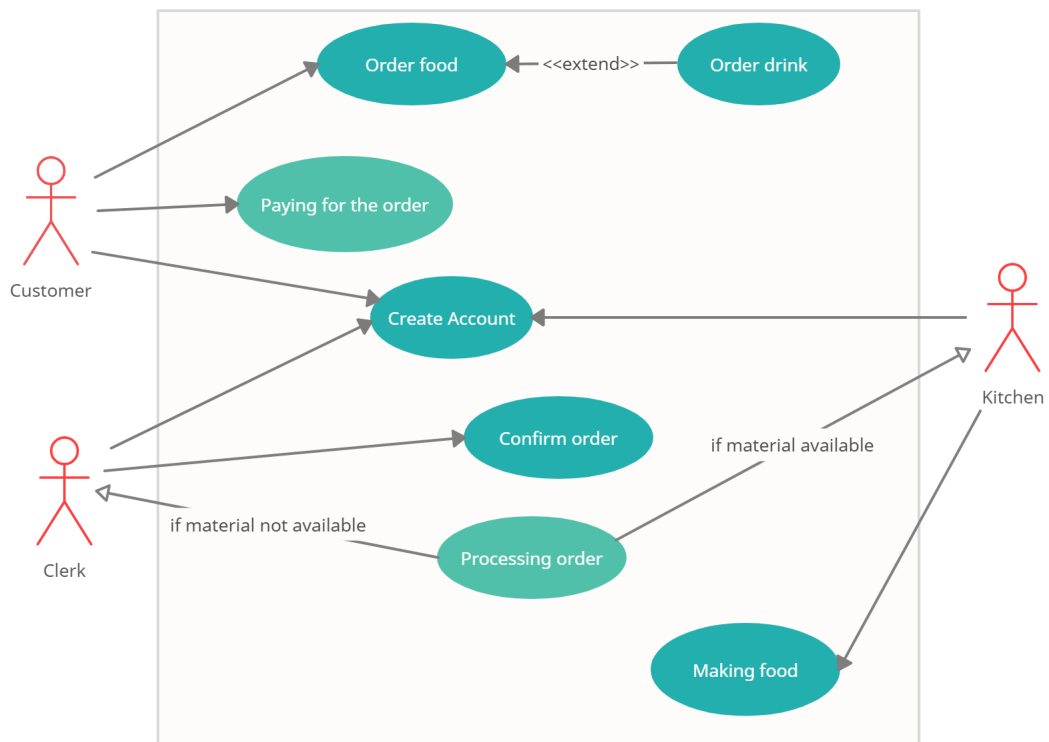
Out of scope:

- A whole new POS system
- Customize given POS system

Task 1.2. Describe all functional and non-functional requirements of the desired system. Draw a use-case diagram for the whole system

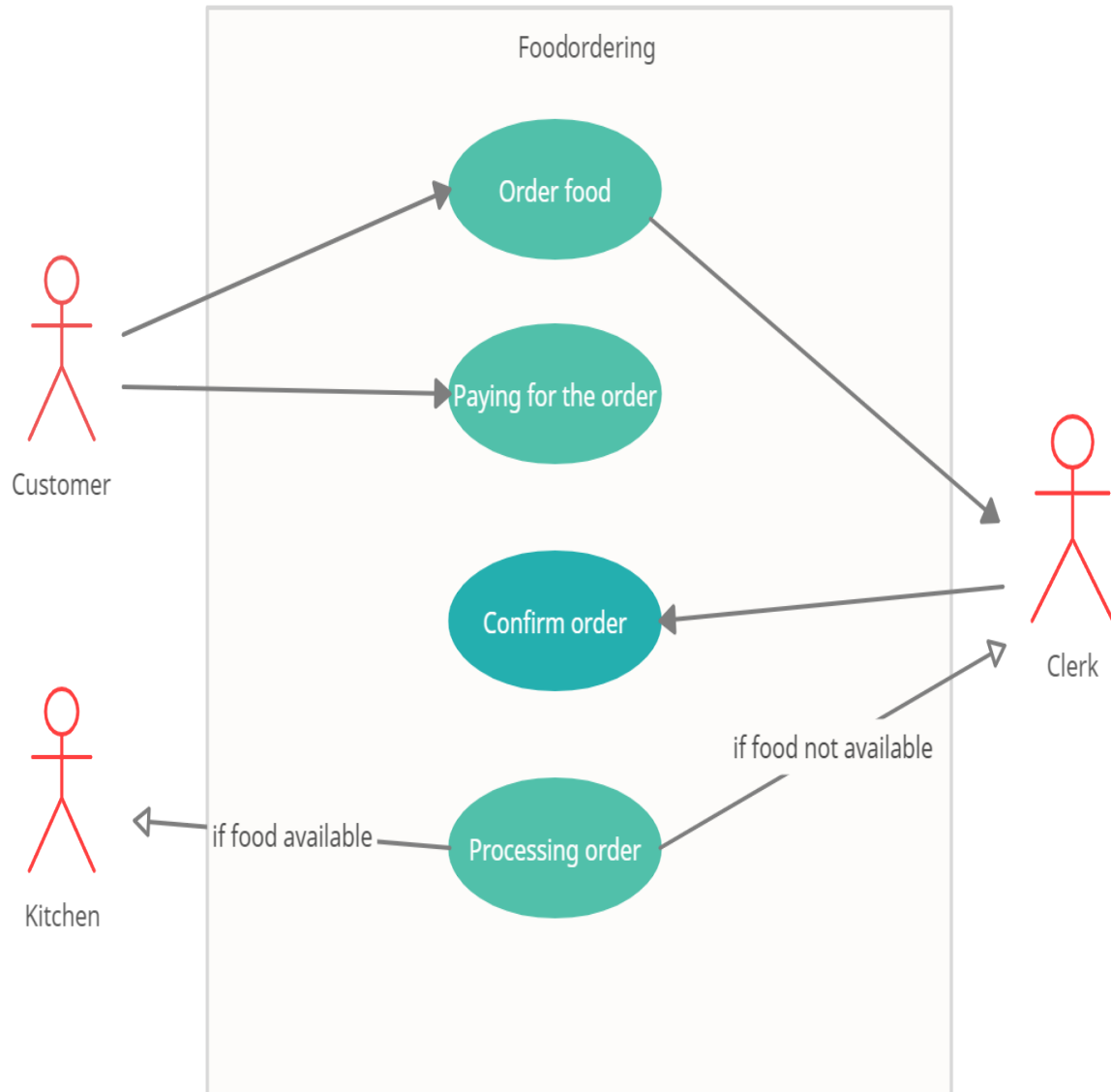
- Functional requirements:
 - Customer can select meal, order and pay from distance
 - The system can categorize foods and drinks
 - When changing the Quantity or click on the shopping button, returning to the Menu screen and update the sum-up Your Cart in the right hand side
 - Customer can be pay by credit card when clicking on PAYMENT button in menu screen
 - After a Clerk confirms an order, the system processes the order to confirm whether or not it is available or not
 - If the order is available, the system will record the order and send the order to Kitchen
 - If the order is not available, the system sends feedback to Clerk
 - After ordering, a receipt shall be generated by the POS system
 - After the system receives payment from Customer, the system records the transaction
- Non-functional requirements:
 - The system can easily handle 300 orders per day.
 - The system can be used in multiple restaurants.
 - The sensitive information of customers is protected.
 - Suitable on different screen size devices.
 - The system is available on every work day (from 8AM each day from Monday to Saturday to 9PM)

Use-case diagram:



Task 1.3. Choose one specific feature, i.e. food ordering, table reservation, customer management. Draw its use-case diagram and describe the use-case using a table format

Use case diagram for food ordering :



Use case table format:

Name:	Food ordering
Created by:	SE03 Date created: 2/17/2022
Primary Actor	Customer Secondary Actor: Clerk, POS terminal, Kitchen
Description:	The customer requests the desired food by choosing on the menu screen. The clerk confirms the order then records it. The system either sends the order to the kitchen if the material is available or lets the clerk feedback the situation to the customer.
Trigger:	Clerk confirms the customer's order.
Preconditions	PRE-1: System is available for customers to order food PRE-2: Clerk is available to confirm the customer's order PRE-3: The order's ingredients are available
Postconditions	POST-1: The order are recorded in the POS terminal POST-2: The order is sent to the kitchen