



DEPARTMENT OF COMPUTER ENGINEERING
2022 FALL CSE343 SOFTWARE ENGINEERING

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HOMEWORK 1

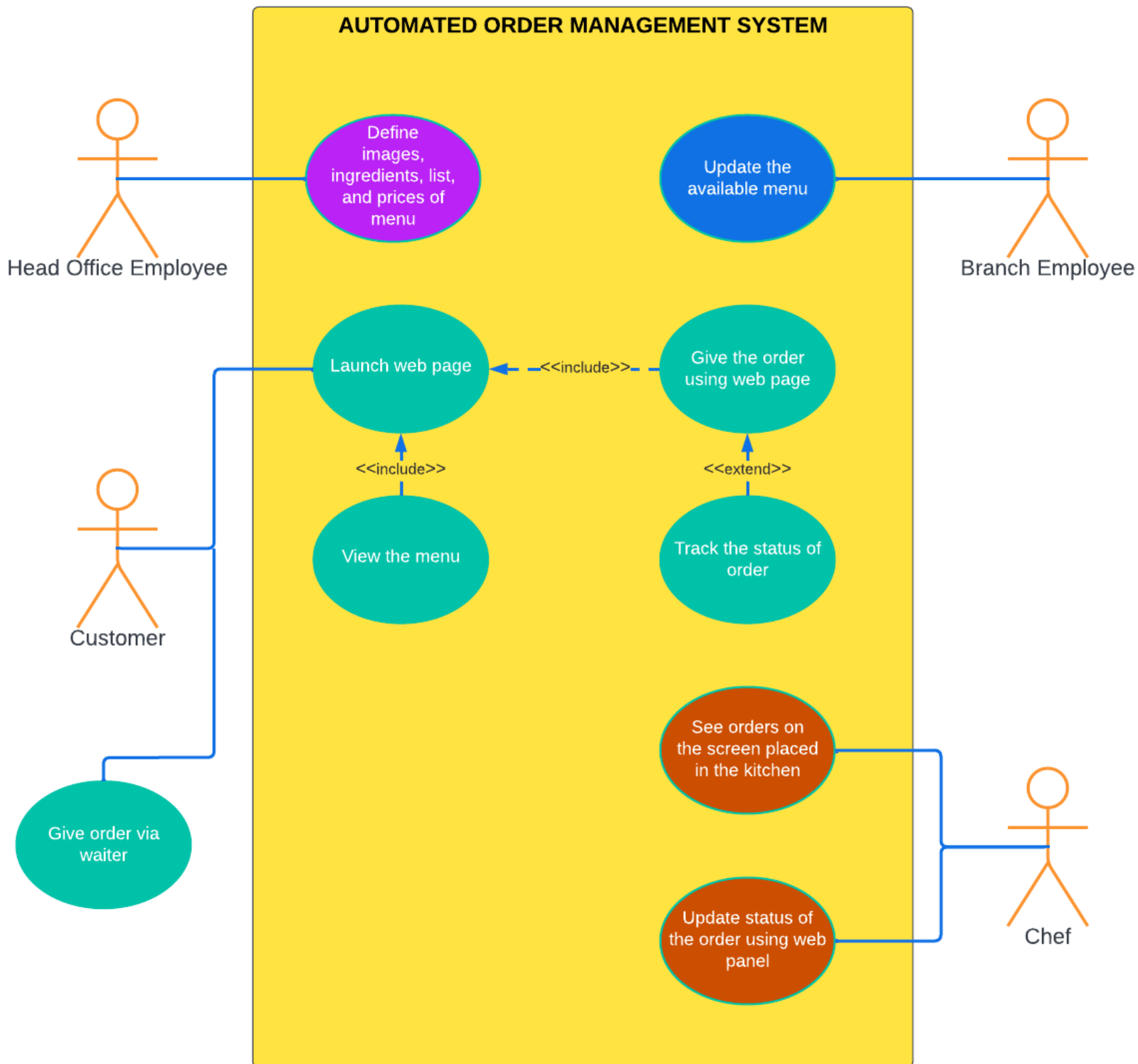
MARTI LOUNGE RESTAURANT CHAIN

AUTOMATED ORDER MANAGEMENT SYSTEM

1) List Of Stakeholders and Their Roles

- Head office employee
 - Define images, ingredients, list, and prices of menu
- Branch employee
 - Update the available menu whose images, ingredients, list, and prices are defined by the head office
- Customer of the branch
 - Launch web page via QRCode
 - Give the order using the web page
 - Track the status of order
 - Give order via waiter
- Chefs
 - See orders on the screen placed in the kitchen
 - Update status of the order using web panel

2) Use Case Diagram



3) Use Case Description Tables

SYSTEM	<i>AUTOMATED ORDER MANAGEMENT SYSTEM</i>
USE CASE	<i>Define images, ingredients, list, and prices of menu</i>
ACTORS	<i>Head office employee</i>
DATA	<i>Data is images, ingredients, list, and prices. Head office employee defines them so that they can be shown on menu</i>
STIMULUS	<i>The head office employee establishes definitions for the stated entries (images, ingredients, list, and price) on menu on Automated Order Management System.</i>
RESPONSE	<i>Images, ingredients, list, and prices of menu are defined.</i>
COMMENTS	<i>Head office defines the images, ingredients, list, and prices on menu of the Marti Lounge restaurant chain on Automated Order Management System.</i>

SYSTEM	<i>AUTOMATED ORDER MANAGEMENT SYSTEM</i>
USE CASE	<i>Update the available menu</i>
ACTORS	<i>Branch employee</i>
DATA	<i>Data is images, ingredients, list, and prices. Branch employee can update them digitally on the system.</i>
STIMULUS	<i>The branch employee establishes updates for the stated entries (images, ingredients, list, and price) on menu on Automated Order Management System.</i>
RESPONSE	<i>Images, ingredients, list, and prices of menu are updated.</i>
COMMENTS	<i>Branch updates the images, ingredients, list, and prices on menu of the Marti Lounge restaurant chain on Automated Order Management System. These entries of menu should be defined by the head office.</i>

SYSTEM	<i>AUTOMATED ORDER MANAGEMENT SYSTEM</i>
USE CASE	<i>Launch web page</i>
ACTORS	<i>Customer</i>
DATA	<i>QRCode that is supplied by the Marti Lounge.</i>
STIMULUS	<i>Customer scan the QRCode to launch the web page.</i>
RESPONSE	<i>After the scan operation is completed, customer should launch the web page for order management.</i>
COMMENTS	<i>Customer can be successfully launch the web page by scanning the QRCode that is supplied by the Marti Lounge restaurant chain..</i>

SYSTEM	<i>AUTOMATED ORDER MANAGEMENT SYSTEM</i>
USE CASE	<i>Give the order using web page</i>
ACTORS	<i>Customer</i>
DATA	<i>The customer sends his/her order (including what he/she wants to eat or drink that is chosen from menu) which is going to be seen and processed.</i>
STIMULUS	<i>Customer uses web page to place an order thanks to some kind of buttons that user can interact with.</i>
RESPONSE	<i>The order is sent to the system to be seen and processed.</i>
COMMENTS	<i>Customer can successfully order what is on the menu. This is required if customer choose to order via web page.</i>

SYSTEM	<i>AUTOMATED ORDER MANAGEMENT SYSTEM</i>
USE CASE	<i>View the menu</i>
ACTORS	<i>Customer</i>
DATA	<i>The customer can see what is defined by the head office and updated by the branch for the menu. Customer can see images, ingredients, list, and prices data on the web page.</i>
STIMULUS	<i>Customer can use web page to view the menu (by some kind of button) and choose what to order accordingly.</i>
RESPONSE	<i>Menu should be shown to customer.</i>
COMMENTS	<i>Customer should be able to see the menu on the web page because he/she will order on web according to entries of menu.</i>

SYSTEM	<i>AUTOMATED ORDER MANAGEMENT SYSTEM</i>
USE CASE	<i>Track the status of order</i>
ACTORS	<i>Customer - Chefs</i>
DATA	<i>Status of the order that is been updating by the chefs. Customer should be able to see status of his/her order on the web page.</i>
STIMULUS	<i>Customer can use web page to view the status of order (by some kind of button).</i>
RESPONSE	<i>Status of order should be shown to customer.</i>
COMMENTS	<i>Customer should be able to see the status of order that he/she has given on the web page.</i>

SYSTEM	-
USE CASE	<i>Give order via waiter</i>
ACTORS	<i>Customer</i>
DATA	<i>What customer is going to order. Customer can order what he/she has chosen from the menu.</i>
STIMULUS	<i>Customer can call and talk to the waiter to give order.</i>
RESPONSE	<i>Waiter should take order and deliver it to chefs.</i>
COMMENTS	<i>Customer can successfully order what is on the menu. This is required if customer choose to order via waiter.</i>

SYSTEM	<i>AUTOMATED ORDER MANAGEMENT SYSTEM</i>
USE CASE	<i>See orders on the screen placed in the kitchen</i>
ACTORS	<i>Chefs</i>
DATA	<i>Orders that is given by the customers.</i>
STIMULUS	<i>Chefs should be able to see the order on the screen placed in the kitchen when a customer gives an order.</i>
RESPONSE	<i>Orders should be seen on the screen placed in the kitchen.</i>
COMMENTS	<i>Chefs can see what the customers ordered thanks to screen placed in the kitchen which is connected to Automated Order Management System.</i>

SYSTEM	<i>AUTOMATED ORDER MANAGEMENT SYSTEM</i>
USE CASE	<i>Update status of order using web panel</i>
ACTORS	<i>Chefs</i>
DATA	<i>Status of the orders that has been processing by the chefs.</i>
STIMULUS	<i>Chefs should be able to update the status of the order using web panel when the status of the order is changed.</i>
RESPONSE	<i>Status of the order is changed and customer can see the updated version on the web page that is accessed by the QRCode.</i>
COMMENTS	<i>Chefs can update the status of the order like “Preparing”, “On the way”, “Finished”. Then customer should be able to see this updated version of the status at the web page.</i>

4) Faced Challenges

When I first read the system, I have some questions in my mind and these questions make it difficult to extract the use cases. Firstly, I couldn't fully get the role of the waiter. Should waiter be an actor of the system or not? I tried to answer this question and at the end I have decided that waiter is not actor of the system because waiter does nothing with the automated order management system. His/Her only task given in the system description was taking order from the customer physically. So I put that use case related with the waiter outside the system.

Other challenge for me is putting the extend-include relationships properly. I did not want to just put every use case independently when customer launch the web page, view the menu, give the order and track the status of order because these use cases have relationships between them. I have searched about these relationships and updated my use case diagram whenever I found something useful. Also, another challenge that I have faced related to this topic is specifying the data and stimulus for some use cases. For example, how the customer use the web page is another question for me. I read the system definition many times and I fill the gaps which I found implicit. How the customer reach the menu in the system is not mentioned so I thought that customer should view it on the web page because he/she needs to give order and he/she needs menu to order. With that way I was able to extract the use cases in the most proper way I have thought of.