



MINISTRY OF EDUCATION AND TRAINING VIET NAM

# FPT UNIVERSITY

## Capstone Project Document

### [eRestaurant]

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Capstone Project code	ER	

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## CHAPTER 1: INTRODUCTION

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### 1.1 Purpose

The purpose of this chapter is to provide an overview of Restaurant Management Web App and why we choose it. And we also show Idea, solution, some basic functions in this project. Besides, we have some benefit and limitation in the project. Thereby, we will research orientation of future.

### 1.2 Project information

<b>Project name</b>	eRestaurant
<b>Project code</b>	ER
<b>Project type</b>	Web Base Application
<b>Project manager</b>	Au Van Thinh
<b>Timeline</b>	May, 2018 – August, 2018

#### 1.2.1 Project member

- **Supervisor:**

Full name	E-mail	Title
Tran Dinh Tri	Tritd@fpt.edu.vn	Lecturer

- **Team member :**

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### 1.2.2 Problems

In The Fourth Industrial Revolution, an application which helps people manage their business easily and effective is very popular and must-have. So, we will build a Web Based Application for Restaurant Management which have many diffrent functions to helps restaurant manager and customer for:

- Saving time for customer in pre-order
- Saving time in order phase.
- Improving waiter to chef interaction.
- Improving revenues of restaurant
- Saving time and money in statistics.

### 1.2.3 Solution

To reach our above goals, we will develop a Web Based Application with MVVM Model and many functions which support these goals:

- Pre-order System
- Real time Order System
- Dishes Suggesting System
- Statistics System

### 1.2.4 Overview Of Existing System

In Vietnam, there are several web apps and mobile apps which are used in some restaurants. For instance, **AnVietSoft** is a mobile application are using by a wide range of restaurants for supporting management but it still exists some limitations such as lack of real-time order. It causes delays when customer order. Or like **PosApp** is good

enough for customer. However, it does not have order suggesting system which can help their revenues grow up, so our project not only has must-have functions such as Pre-order and Statistics System but also develop Real time Order and Dishes Suggesting System which are really different from others.

### 1.3 Technology

<b>Programming Language</b>	Java, Typescript, HTML5
<b>Framework</b>	Spring Boot Framework 2.0.2, Hibernate , Angular 6
<b>Version Control</b>	BitBucket
<b>IDEs</b>	eclipse
<b>DBMS</b>	MySQL 8.0.11
<b>UML Tools</b>	Microsoft Visio 2016, Draw.io
<b>Other</b>	Microsoft Office 2016, Microsoft Project 2016

### 1.4 Out of scope

- The system is supported by all current browsers
- Support native app for Android OS and iOS
- Supports data recovery when system is corrupted
- Other system integration: warehouse management system, staff management system, Membership Point Accumulation System, Bank Card Payment System
- Multi language Interface

### 1.5 Benefit

- ❖ For our group
  - Have chance and experiment to develop a project, how to manage plan, how to promote effective teamwork.
  - Training skill about HTML5, Typescript, JAVA, MySQL, SCSS.
- ❖ For restaurants manager
  - Increase revenues of restaurant.
  - Save time and prevent confusing on order phase.

- Save time and money for restaurant on management.
- Make customers pleased when they come to restaurant.

### 1.6 Limitation

- We do not know professional knowledge clearly.
- We are not invested.
- We do not have experiment to develop a project.

## CHAPTER 2: SOFTWARE PROJECT MANAGEMENT PLAN

### 2.1 Purpose

In this chapter, we will talk about the specific roles of the project team members. Plan and organize the project, the responsibilities of the members in each task. Project team members use this document to know their responsibilities and actions in the project.

### 2.2 Problem Definition

#### 2.2.1 Name of this Capstone Project

- **Capstone Project Name:** eRestaurant
- **Abbreviation:** ER

#### 2.2.2 Problem Abstraction

In The Fourth Industrial Revolution, an application which helps people manage their business easily and effective is very popular and must-have. So, we will provide a Web Based Application for Restaurant Management which have many functions to helps restaurants manager and customer:

- Save time for customer in pre-order
- Save time in order phase.
- Improve waiter to chef interaction.
- Improve revenues of restaurant
- Save time and money in statistics.

### 2.3 Project Overview

#### 2.3.1 The Current System

In almost restaurants in Vietnam, waiters write down dishes are ordered then bring it to kitchen. When kitchen finish, waiters bring dishes to customers. In big restaurants, this way not only leads to wasting time and effort but also cause confusing in orders. Therefore, this simple system is not effective and may be unpleasant of customers.

### 2.3.2 Boundaries of System

System includes:

- The functioning web services support many end-devices.
- Web Based Application
- All relevant documents.

### 2.3.3 Development Environment

**Hardware requirement:**

- System requirement for Web Services(minimum): Ram 4GB, CPU 2.5Ghz
- System requirement for Web Application: Android device, IOS device, Windows device

**Software requirement:**

- Operating system: Windows, Android, IOS
- Application server: ER application system requires an application server running on Windows 7
- Browsers: Firefox (latest), Chrome(latest)
- Mobile device: IOS(2 most recent major versions), Android(4.0 or higher)
- Framework: Spring Framework, Angular 6, Hibernate
- Apache Tomcat 9
- Database: MySQL
- Tool: Eclipse

**Testing requirement:**

- Laptop, PC: Internet connection
- Mobile device: Internet connection

## 2.4 Project organization

### 2.4.1 Software Process Model

To develop our project we choose Iterative & Incremental software process model:



Figure 1: Iterative and Incremental process model

The reason why the project team chooses Iterative & Incremental software process model:

- This model is more flexible – less costly to change scope and requirements.
- Reduce the risk of delay due to the important work done first.
- Establish a good relationship between users and developers. Project team will always communicate with users to obtain information to meet the needs of users.
- Repetition of the phases can be built so that the system really met the demand of users
- Through every iterative, we can control scope and requirements, flexibly update or even change things if we think it will help us to have a better product.
- It is easy to manage risk by dividing it into pieces and solve it as quick as possible in each iterative.

### 2.4.2 Roles and Responsibilities

#### *Team organization structure*

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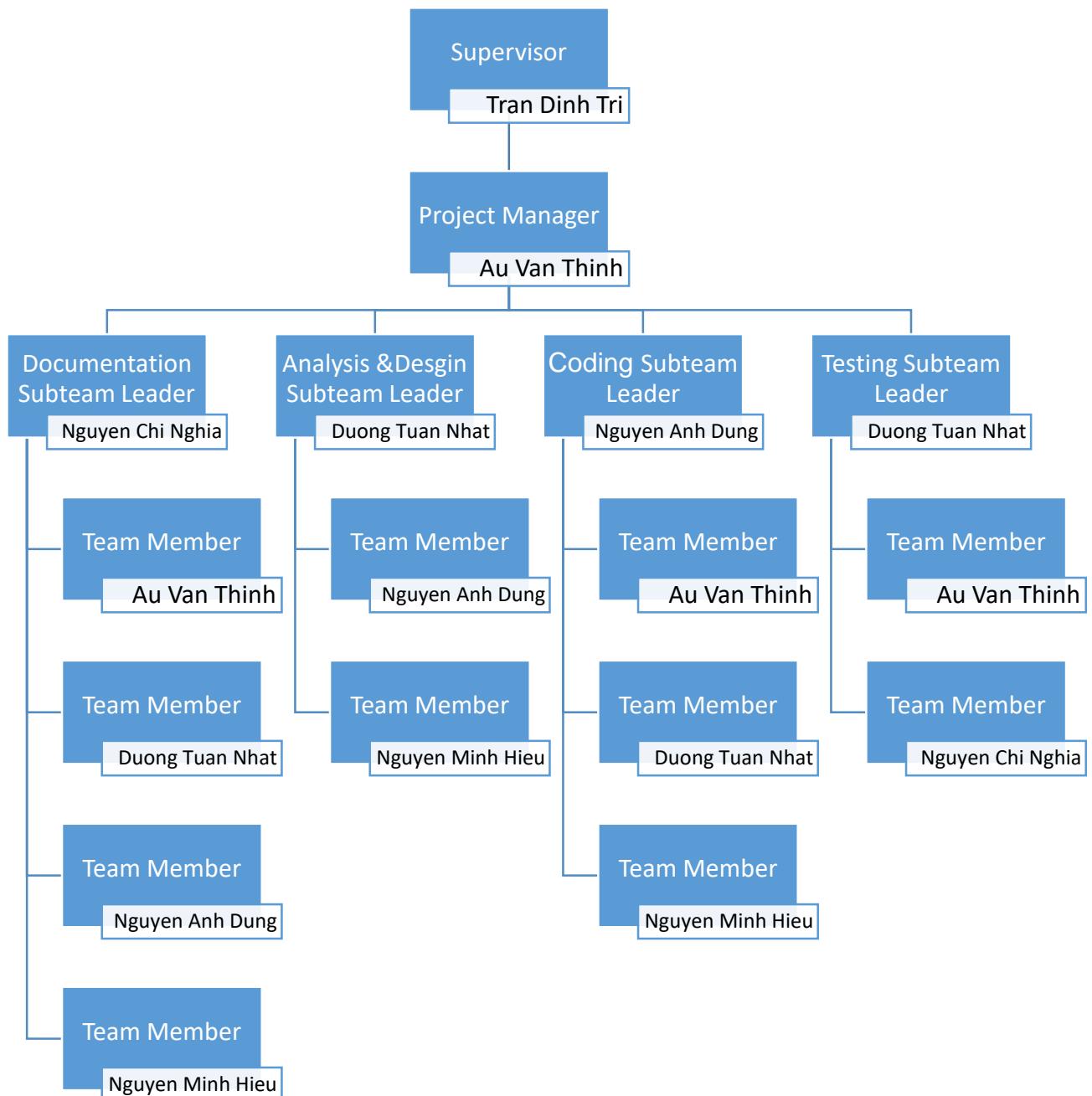


Figure 2: Human Resource

*Roles and responsibilities*

Name	Role	Quality Responsibility
Au Van Thinh	PM, BA, Dev	<ul style="list-style-type: none"> <li>- Define scope and planning, allocate resources to the project.</li> <li>- Managing process</li> <li>- Analyze requirements</li> <li>- Create documents. Reports</li> <li>- Coding</li> <li>- Unit testing</li> </ul>
Duong Tuan Nhat	Designer, Dev, Doc, QA	<ul style="list-style-type: none"> <li>- Coding</li> <li>- Design project. (Investigate solution. Build system architecture, coding. Review codes)</li> <li>- Responsible for test execution, including test set-up and test run, evaluation of test run and error recovery, defect logging and test results recording.</li> <li>- Create test cases, Execute test cases</li> <li>- Manage the Quality Assurance function</li> </ul>
Nguyen Anh Dung	Designer, Dev Doc	<ul style="list-style-type: none"> <li>- Support designing system</li> <li>- Support designing database</li> <li>- Deployment</li> <li>- GUI Design</li> <li>- Coding</li> </ul>

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Nguyen Chi Nghia	Doc, Tester	- Create and review document  - Unit testing
Nguyen Minh Hieu	Designer, Dev, Doc	- Support designing system  - Support designing database  - Support GUI design  - Deployment

### 2.4.3 Tools and Techniques

<b>Programming Language</b>	Java, Typescript, HTML5
<b>Framework</b>	Spring Boot Framework 2.0.2, Hibernate, Angular 6
<b>Version Control</b>	BitBucket
<b>IDEs</b>	eclipse
<b>DBMS</b>	MySQL 8.0.11
<b>UML Tools</b>	Microsoft Visio 2016, Draw.io
<b>Other</b>	Microsoft Office 2016, Microsoft Project 2016

## 2.5 Project management plan

### 2.5.1 Master plan

The master plan of this project is managed in the following summary task level.

## THE CAPSTONE PROJECT

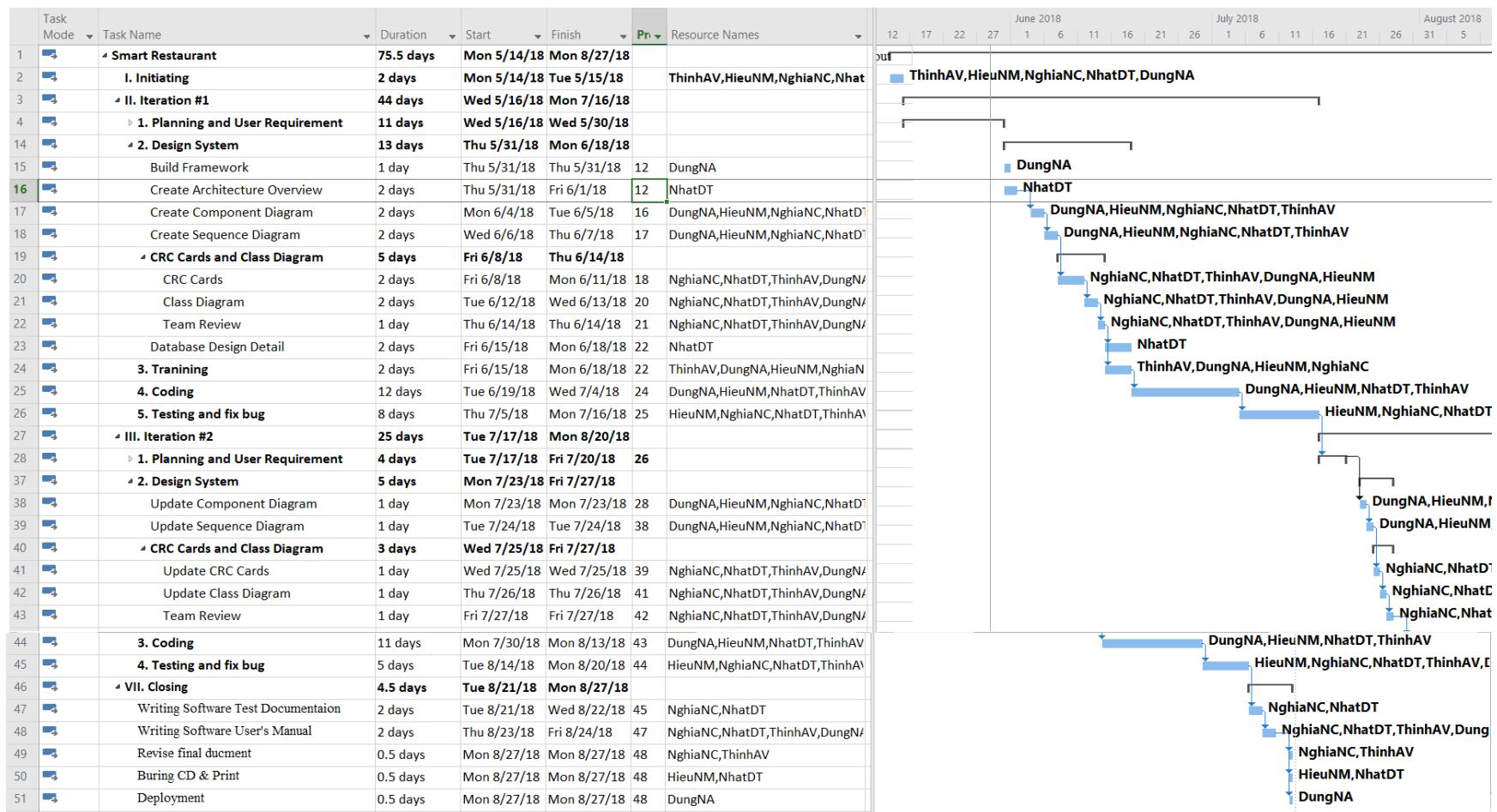


Figure 3: Master Schedules

## 2.5.2 Meeting Minutes

Because of the project doing in the short time, we have to hold the meeting regularly, at least twice a week:

- **Meeting with team members:** 2 times per week, meeting will be held at 9: am on Tuesday and Friday. In these meetings, each member will report their current tasks to others. The issues, rules and knowledge will be shared. Moreover, PM conduct the discussion of the plan in next week.
- **Meeting with supervisor:** 1 time per week, at 4: pm on Tuesday. All activities and issues in former week will be discussed and reported to supervisor. With the senior experiment, supervisor will instruct project team to solve the problems.
- **Special meeting:** When there are anomalous issues which need to solve immediately, a special meeting will be held to find out the most effective solution to ensure progress of the project.

Meeting template:

# Meeting Title | MINUTES

Meeting date | time Date | Time | Meeting location Location

Meeting called by	Name	Attendees
Type of meeting	Purpose	Attendees
Facilitator	Name	
Note taker	Name	
Timekeeper	Name	

## AGENDA TOPICS

Time allotted | Time | Agenda topic Topic | Presenter Name

Discussion Conversation

Conclusion Closing

Action items	Person responsible	Deadline
Topic 1	Presenter Name	Date   time
Topic 2	Presenter Name	Date   time

Figure 5 – Meeting Minute template

## 2.5.3 Risk Management Plan

No	Description	Probability	Avoidance Plan	Contingency Plan	Impact
1	Team members refuse to cooperate with each other	High	Hold teambuilding activities to build team's spirit. Create a friendly environment.	Talk to involved team members personally and in group to work out a solution.	Very High
2	Absences of team members	Medium	Provide meeting schedules and deadlines in	Assign important tasks to other suitable team members	High

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			<p>advance so that all team members know the time and place where they will be needed</p> <p>PM should be warned immediately when team member plan to be absent for a period of time.</p>		
3	Team members lack technical skills and knowledge	High	<p>Person in charge of Development Team provides workshops and training sessions for developers to acquire needed knowledge and techniques.</p> <p>Encourage team members to study on themselves for their technical personal needs</p> <p>Develop project plan with regards to</p>	<p>Person in charge of Development Team assists team member personally or in group to develop required skills and knowledge</p>	Very High

## THE CAPSTONE PROJECT

			training and self-study period		
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## CHAPTER 3: SOFTWARE REQUIREMENT SPECIFICATION

### 3.1 Purpose

The main purpose of this chapter is providing specific information about the system. It covers details specification about user requirements, software requirements and entity relationship diagram. This chapter provides the overview description about features of eRestaurant Web Based Application.

This chapter includes:

- User requirements
- System requirements
- Software system attributes
- Entity relationship diagram

### 3.2 User Requirement Specification

#### 3.2.1 User Description

In eRestaurant System, there are 6 types of user groups: Guest, Customer, Waiter, Chef, Cashier and Manager.

##### **1. Guest: who has not had account in system yet**

*View restaurant info*

*View menu*

*Register*

##### **2. Customer: who already had an account in system**

*Login by Facebook account*

*Logout*

*View available table*

*View menu*

**Manage table booking**

*Book table*

*Cancel table book*

*View table book*

**Manage order**

*Add order*

*Edit order*

*Delete order*

*View order*

*Submit order for waiter*

*Recommend*

**3. Waiter: who helps customer make order and booking.**

*Login*

*Logout*

*View menu*

**Manage table Booking**

*Book table*

*Cancel table book*

*View table book*

**Manage order**

*Add order*

*Edit order*

*Delete order*

*View order*

*Submit order for chef*

*Recommend*

*Notified order*

*Serve order*

**4. Chef: who pick dish from order list to cook.**

*Login*

*Logout*

*List waiting order*

*Change order status*

**5. Cashier: who has responsibility to help customer check out**

*Login*

*Logout*

*List served order*

*Find served order*

*Check out*

**6. Manager: who can manage business process and view reports**

*Login*

*Logout*

**Manage category**

*Add category*

*Edit category*

*Delete category*

*View category*

**Manage food**

*Add food*

*Edit food*

*Delete food*

- View food
- Manage table**
  - Add table
  - Edit table
  - Delete table
  - View table
- Manage agent account**
  - Add account
  - Edit account
  - Delete account
  - View account
- View statistics

In the system there are 6 user groups as shown in the following:

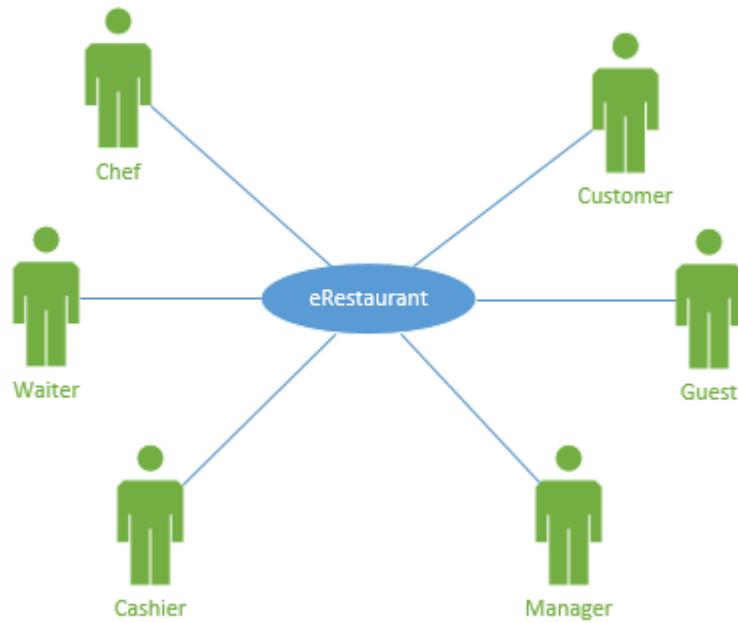


Figure 6 – Use case level 0

## 3.2.2 User Requirement

Here is the total use case diagram:

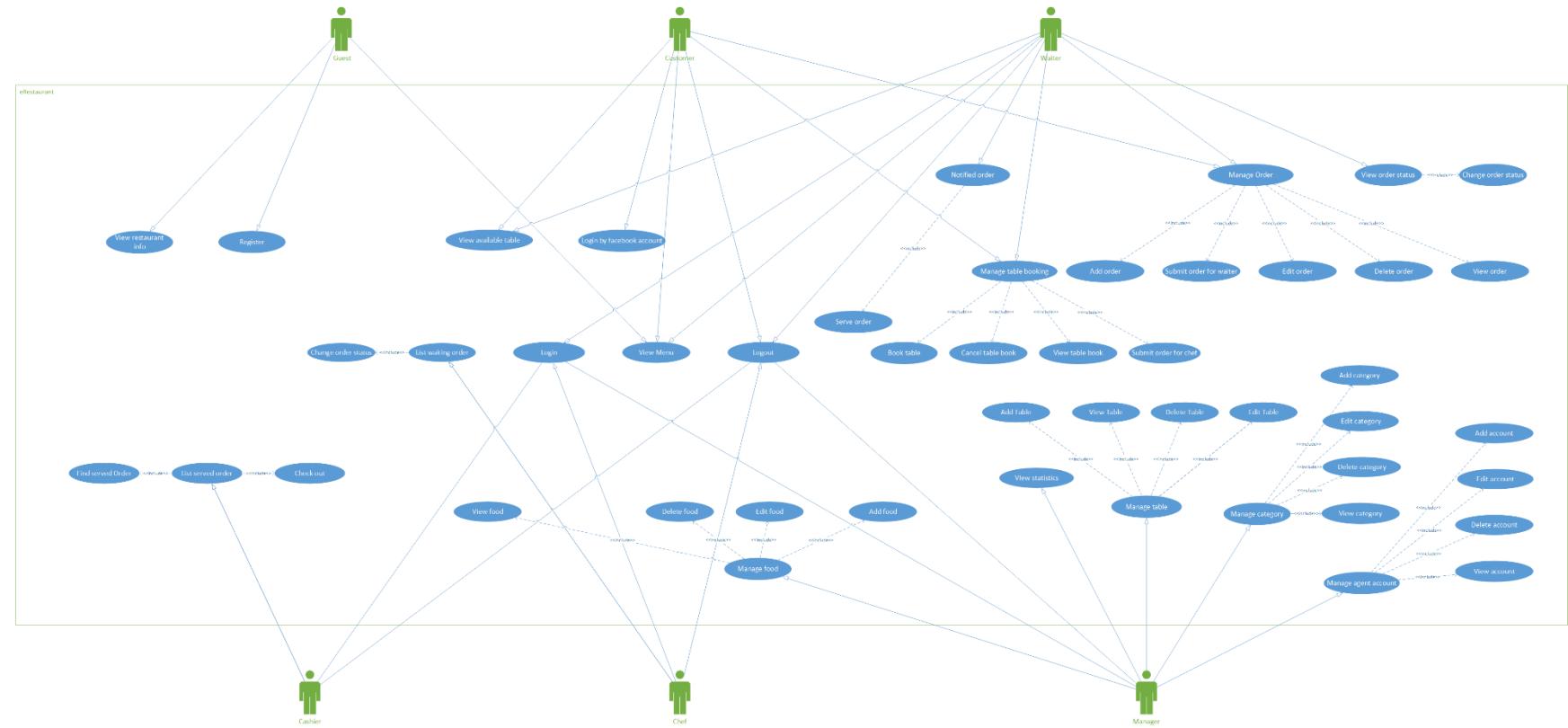


Figure 7 – Total Use Case Diagram

### 3.3 System Requirement Specification

#### 3.3.1 External Interface Requirement

##### *User Interface*

- Vietnamese is the official language of ER website.
- System has been designed with less and simple color to make the page clearly to use. Users can easily focus on their work.
- Each user interface element must be arranged logically, not overlapped over other, allowing user access easily.
- If any error occurs, the system displays an error message clearly.
- All text bases on Cambria. Their size and font style will rely on their type, their function. The text style will be divided into some specific types to make the website be unified.

##### *Hardware Interface*

- Web browsers: Google Chrome, Firefox, Safari

##### *Software Interface*

- Database is stored on MySQL 8.0.11
- Tool for development is Eclipse

##### *Constraints*

- The scope of the project is not changed in the process of the project so time of the project is unchanged.
- Must finish of the project work within 4 months.
- Must work within the available resources.
- Risks relating to the project must be notified in advance.

#### 3.3.2 System Use Case

Below are the detail use cases for every user groups:

*Guest*

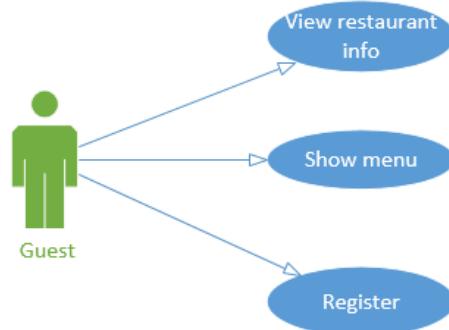


Figure 11 – Use Case - Guest

- **Register:** User use this function to sign up a customer account.
- **View restaurant info:** User use this function to view some description about restaurant.
- **Show menu:** User uses this feature to view all dishes and drinks in menu.

*Customer*

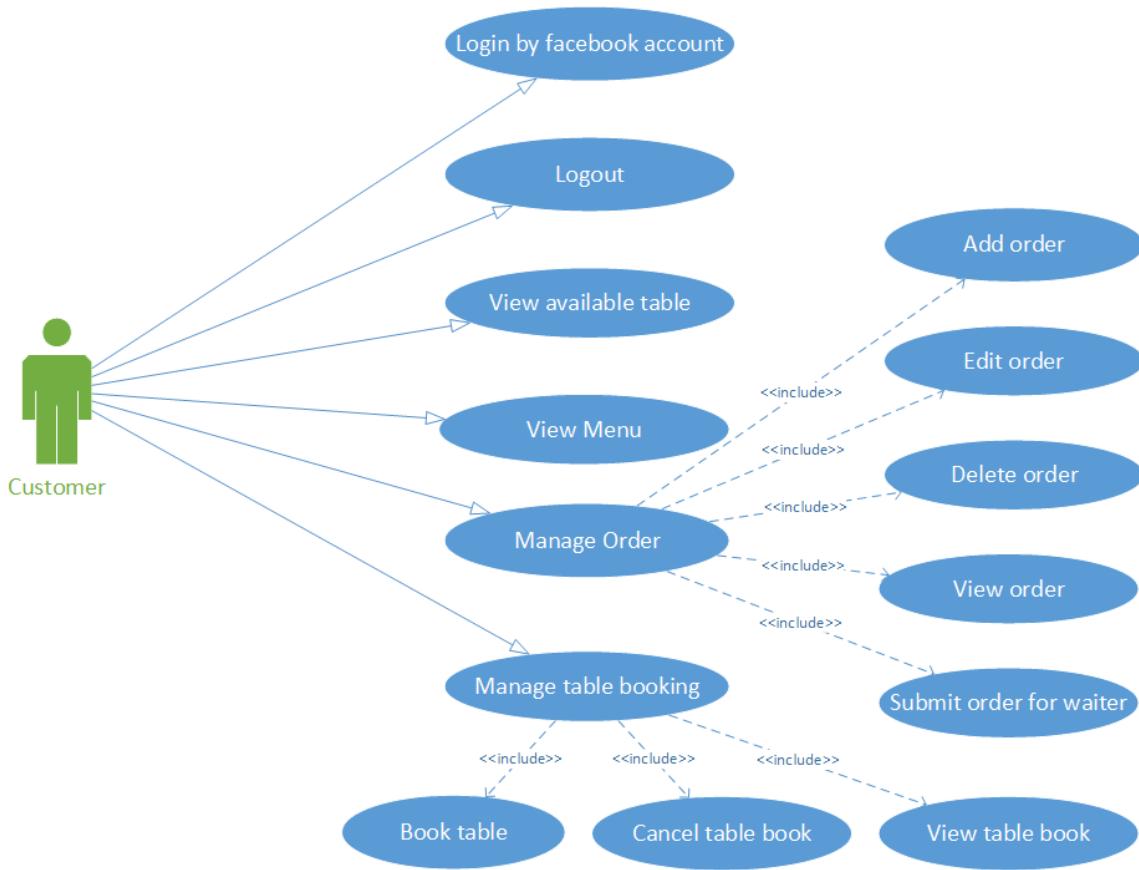


Figure 12 – Use Case - Customer

- **Login by Facebook account:** User uses this function to access to the system by using existent Facebook account.
- **Logout:** The user uses this feature to logout account.
- **View available table:** User use this feature to view available tables in restaurant.
- **View menu:** User uses this feature to display all dishes and drinks in menu.
- **Manage table booking:** User uses this feature to create new table book, view table book, edit table book and cancel table book.
- **Manage order:** User uses this feature to add a new order, view order, edit order, delete order and submit order to chef.
- **Recommend:** System will suggest food for user's order from the data were collected in former orders

*Waiter*

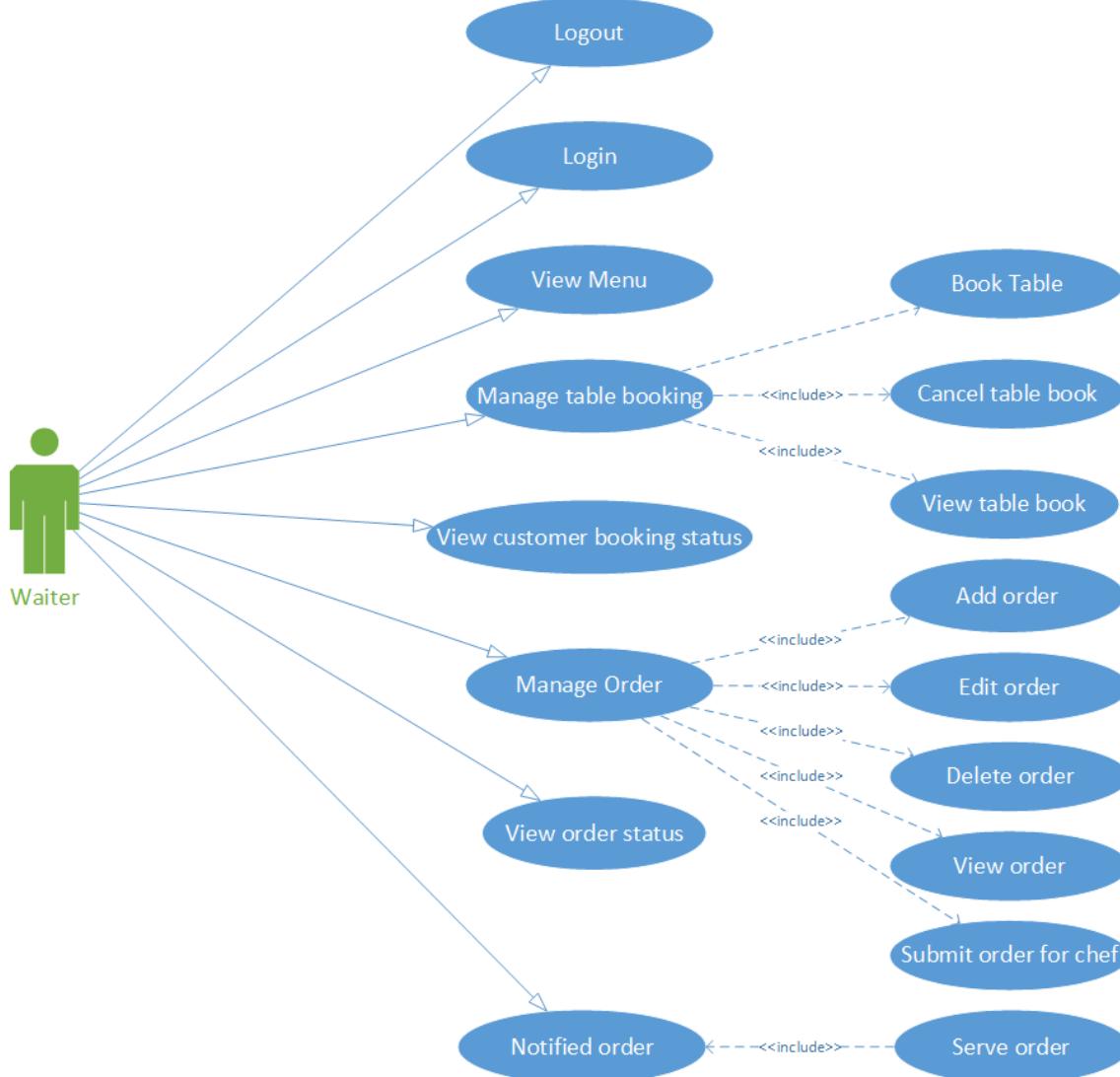


Figure 9 – Use Case - Waiter

- **Login:** User use their username and password to access to the system in order to use other functions.
- **Logout:** The user uses this feature to logout account.
- **Show menu:** User uses this feature to display all dishes and drinks in menu.
- **Manage table booking:** User uses this feature to create new table book, view table book, edit table book and cancel table book.
- **Manage order:** User uses this feature to add a new order, view order, edit order, delete order and submit order to chef.

- **Notified order:** User uses this feature to view info of customer's order if they had created an order when they booked table ,user use this feature to mark the order as served.
- **Recommend:** System will suggest food for user's order from the data were collected in former orders

*Chef*

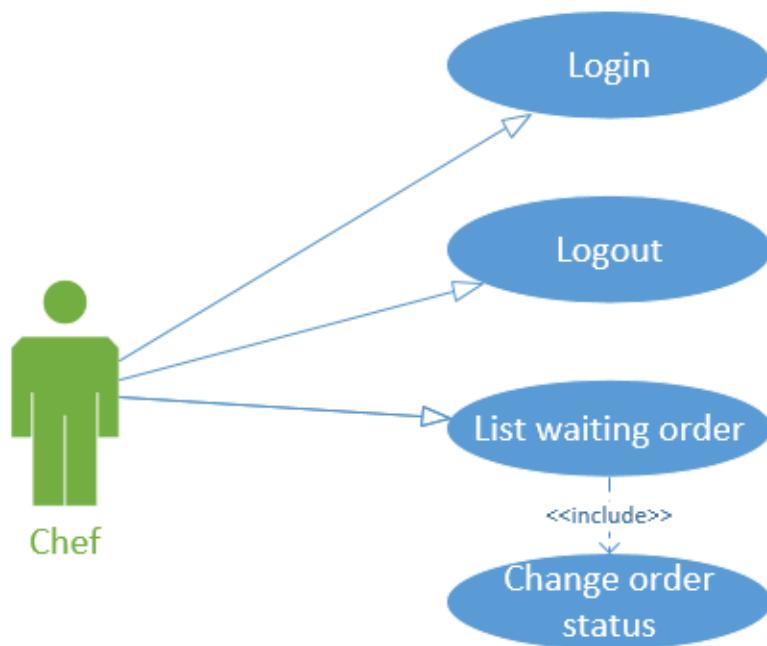


Figure 8 – Use Case - Chef

- **Login:** User uses username and password to access to the system in order to use other functions.
- **Logout:** User uses this feature to logout account.
- **List waiting order:** User uses this feature to display all orders are waiting to cook, and then user use the feature to mark the order which have been chosen to cook has cooking or ready.
- **Change order status:** User uses this feature to change status of an order.

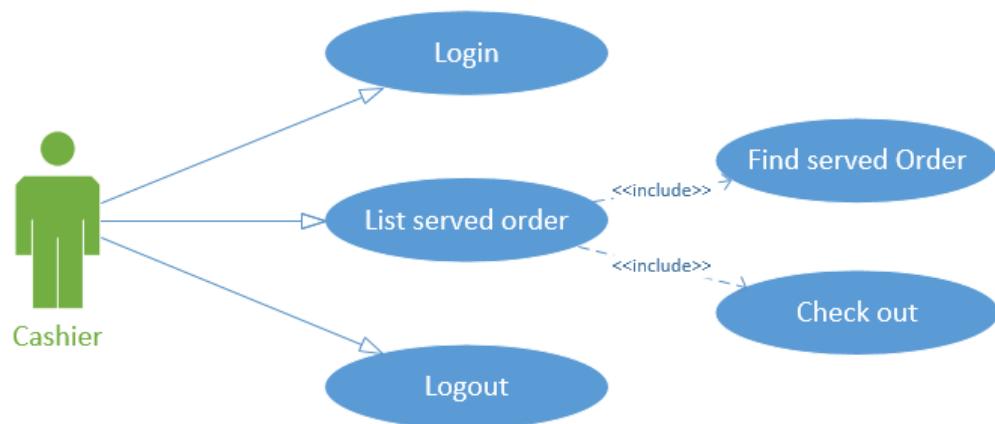
*Cashier*

Figure 10 – Use Case - Cashier

- **Login:** User use their username and password to access to the system in order to use other functions.
- **Logout:** The user uses this feature to logout account.
- **List served Order:** User use this function to display all orders has been served.
- **Find served Order:** User use this function to find specific orders.
- **Check out:** User use this function to mark the order's checkout has been done.

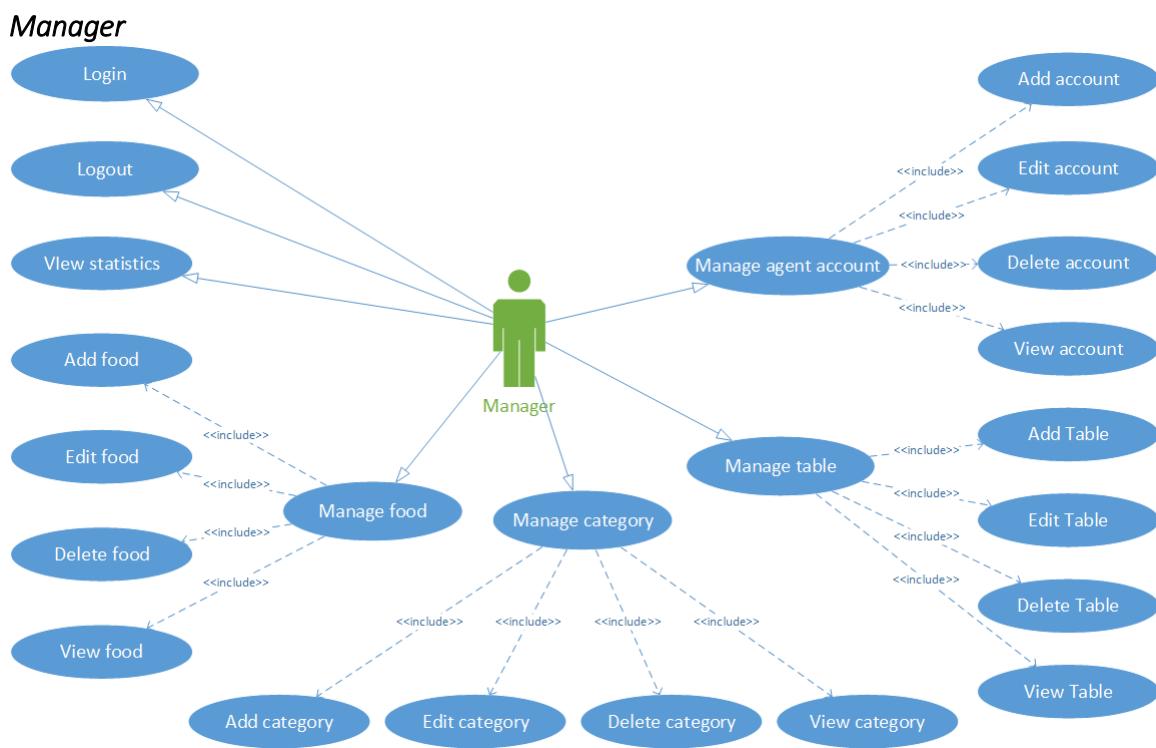


Figure 13 – Use Case level 1- Manager

- **Login:** User use their username and password to access to the system in order to use other functions.
- **Logout:** The user uses this feature to logout account.
- **Manage agent account:** User uses this function to create new, view, edit and delete agent account.
- **Manage table:** User uses this function to create new, view, edit and delete table.
- **Manage food:** User uses this function to create new, view, edit and delete foods.
- **Manage category:** User uses this function to create new, view, edit and delete category
- **View statistics:** User uses this function to view statistics by day, by week, by month and by year.

### 3.3.3 List of Use Cases

No	Use case	Guest	Customer	Waiter	Chef	Cashier	Manager
1	View restaurant info	X					
2	View menu	X	X	X			
3	Register	X					
4	Login by Facebook account		X				
5	Login			X	X	X	X
6	Logout		X	X	X	X	X
7	View available table		X				
8	Manage table booking		X	X			
9	Book table		X	X			
10	Manage order		X	X			
11	Notified order			X			
12	Serve order			X			
13	List waiting order				X		
14	Change order status				X		
15	List served order					x	
16	Find served order					X	
17	Check out					X	
18	Manage category						X
19	Manage food						X
20	Manage table						X
21	Manage agent account						X
22	View statistics						X

### 3.3.4 Business Rule

No	Function	Item	Validation	Description	Error Message
B1	Register/Login/ Edit/Add	All text field items (Text field)	Not empty	Message is displayed when user doesn't enter text field	"Trường này không được bỏ trống"
B2	Register profile	Username (Text field)	Contains at least 3 characters	Message is displayed when user enter less than 3 characters	"Tài khoản không đúng định dạng"

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B3	Register profile	Username (Text field)	No duplicate	Message is displayed when username is existed	"Yêu cầu không hợp lệ"
B4	Register profile	Username (Text field)	Not contain special symbols	Message is displayed when username contains special symbols	"Tài khoản không đúng định dạng"
B5	Register/Login/ Edit/Add	All text field items (Text field)	Not contain only dashes	Message is displayed when textfield contains only dashes	"Trường này không được bỏ trống"
B6	Register/Update profile	Password (Text field)	Match password	Message is displayed when user enter "Confirm password" different from "Password "	"Mật khẩu không trùng nhau"
B7	Register/Update profile	Phone number (Text field)	Contains at least 10 characters	Message is displayed when user enter less than 10 characters	"Số điện thoại không đúng định dạng"
B8	Register/Update profile	Phone number (Text field)	Contain numeric only	Message is displayed when user enter any characters other than numeric	"Số điện thoại không đúng định dạng"

B9	Add/Update food	Avatar image (File)	Incorrect file format	Message is displayed when uploaded wrong image file format(accepted image format are .png & .jpg)	"Phai không hợp lệ"
B10	Book table	Table (List checkbox)	Choose at least 1 element	Message is displayed when click button "Đặt bàn"	"Bạn cần chọn ít nhất 1 bàn"
B11	Book table	Hẹn giờ đặt bàn (Datepicker)	Choose a date greater than the current date	Message is displayed when click button "Đặt bàn"	"Không thể đặt bàn"
B12	Checkout	Tiền nhận (Text field)	The receipt must be greater than the payment required	Message is displayed when click button "thanh toán"	"Không đủ tiền thanh toán"

### 3.3.5 Use Case Specification

*View restaurant info*

<b>Use case ID</b>	UC001	<b>Version</b>	1.0
<b>Use case Name</b>	View restaurant info		
<b>Created by</b>	HieuNM	<b>Last Update</b>	23/7/2018
<b>Primary Actor</b>	Guest	<b>Secondary Actor</b>	Admin
<b>Description</b>	The user uses this feature to view restaurant info		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> </ul>		

<b>Post conditions</b>	Display page matching each role account	
<b>Normal flows</b>		
<b>Step</b>	<b>Actor</b>	<b>Action</b>
1	Guest	Click on button “Giới thiệu” in nav bar in Homepage
2	ER System	Redirect user to information page which display the restaurant’s info
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### *View menu*

<b>Use case ID</b>	UC002	<b>Version</b>	1.0		
<b>Use case Name</b>	View Menu				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	26/7/2018		
<b>Primary Actor</b>	Guest, Customer	<b>Secondary Actor</b>	Waiter		
<b>Description</b>	User uses this feature to view all of foods in menu				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User is in homepage</li> </ul>				
<b>Post conditions</b>	Menu has been displayed				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Guest, Customer	Clicks on category tabs in sidebar			
2	ER System	Display menu which matches with each category			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>					

*Register*

<b>Use case ID</b>	UC003	<b>Version</b>	1.0		
<b>Use case Name</b>	Register				
<b>Created by</b>	ThinhAV	<b>Last Update</b>	26/7/2018		
<b>Primary Actor</b>	Guest	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to register to ER System				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User must have a Facebook account</li> </ul>				
<b>Post conditions</b>	<ul style="list-style-type: none"> <li>- Add account information into Database</li> <li>- Logs user into system</li> <li>- Redirect user to Homepage &amp; display as Customer</li> </ul>				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Guest	Clicks on “Đăng nhập/ Đăng ký” nav bar			
2	ER System	Redirect User to Facebook Login Page			
3	Guest	Login by Facebook account			
4	ER System	Add account information into Database			
5	ER System	Display Homepage as Customer			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>					

*Login by Facebook account*

<b>Use case ID</b>	UC004	<b>Version</b>	1.0
<b>Use case Name</b>	Login by Facebook account		
<b>Created by</b>	HieuNM	<b>Last Update</b>	26/7/2018
<b>Primary Actor</b>	Cutomer	<b>Secondary Actor</b>	N/A
<b>Description</b>	The user uses this feature to login account as customer		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User's Facebook account has registered with ER System</li> <li>- User is currently not logged in</li> </ul>		
<b>Post conditions</b>	<ul style="list-style-type: none"> <li>- Log this account into system</li> </ul>		

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	- Redirects User to Homepage	
<b>Normal flows</b>		
Step	Actor	Action
1	Customer	Clicks on “Đăng nhập/ Đăng ký” in nav bar
2	ER System	Log this account into system
3	ER System	Display Homepage as Customer
<b>Priority</b>		
High		
<b>Frequency of Use</b>		
High		
<b>Business rules</b>		

### *Login*

<b>Use case ID</b>	UC005	<b>Version</b>	1.0		
<b>Use case Name</b>	Login				
<b>Created by</b>	ThinhAV	<b>Last Update</b>	24/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	Waiter, Chef, Cashier		
<b>Description</b>	The user uses this feature to manage agent account				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User is currently not logged in</li> </ul>				
<b>Post conditions</b>	<ul style="list-style-type: none"> <li>- User has logged into ER System as User's role</li> <li>- Redirect User to Manage screen</li> </ul>				
<b>Normal flows</b>					
Step	Actor	<b>Action</b>			
1	Admin	Click on “Quản lý đăng nhập” button in navigation bar			
2	ER system	Redirect user to Login page which includes: <ul style="list-style-type: none"> <li>- Tài khoản (text box)</li> <li>- Mật khẩu (text box)</li> <li>- Đăng nhập (button)</li> </ul>			
3	Admin	Enter “Tài khoản” and “Mật khẩu”			
4	Admin	Click on “Đăng nhập” button			
5	ER system	Redirect user to Manage screen			
<b>Exception</b>					
<b>EC1</b>	At step 3, Username and Password fields are blank				
Step	Actor	<b>Action</b>			

3.1	Admin	Left “Tài khoản” field or “Mật khẩu” field blank
3.2	Admin	Click on “Đăng nhập” button
3.3	ER System	Display message: “Trường này không được bỏ trống”
<hr/>		
<b>Priority</b>		High
<b>Frequency of Use</b>		High
<b>Business rules</b>		B1

### *Logout*

<b>Use case ID</b>	UC006	<b>Version</b>	1.0
<b>Use case Name</b>	Logout		
<b>Created by</b>	HieuNM	<b>Last Update</b>	24/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	Waiter, Chef, Cashier, Customer
<b>Description</b>	The user uses this feature to logout account.		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User logged into ER system</li> </ul>		
<b>Post conditions</b>	<ul style="list-style-type: none"> <li>- Log User out from system</li> <li>- Redirects User to Homepage</li> </ul>		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Admin	Click on User’s avatar in navigation bar	
2	ER System	Display Account Setting	
3	Admin	Click on “Thoát” button	
4	ER System	Display Homepage as Guest	
<b>Exception</b>			
<b>Priority</b>		High	
<b>Frequency of Use</b>		High	
<b>Business rules</b>			

***View available table***

<b>Use case ID</b>	UC007	<b>Version</b>	1.0
<b>Use case Name</b>	View Available Table		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018
<b>Primary Actor</b>	Waiter	<b>Secondary Actor</b>	Customer
<b>Description</b>	User uses this feature to view available tables in restaurant		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Waiter or Customer</li> </ul>		
<b>Post conditions</b>	Available Tables List has been displayed		
<b>Normal flows</b>			
Step	Actor	<b>Action</b>	
1	Waiter	Clicks on “Đặt bàn” button in nav bar in homepage	
2	ER System	Redirect user to Manage Table Booking Screen	
3	Waiter	Clicks on “Danh sách bàn trống” in sidebar	
4	ER System	Display all available tables	
<b>Priority</b>		High	
<b>Frequency of Use</b>		High	
<b>Business rules</b>			

***Manage table booking***

<b>Use case ID</b>	UC008	<b>Version</b>	1.0
<b>Use case Name</b>	Manage Table Booking		
<b>Created by</b>	ThinhAV	<b>Last Update</b>	28/7/2018
<b>Primary Actor</b>	Waiter	<b>Secondary Actor</b>	Customer
<b>Description</b>	When Customer or Waiter want to book, edit, cancel and view status table		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Waiter, Customer</li> <li>- User is in Table Booking Screen</li> </ul>		
<b>Post conditions</b>	Booked table's information is displayed		
<b>Normal flows</b>			
Step	Actor	<b>Action</b>	

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1	Waiter	Actor clicks on “Quản lý đặt bàn” button in sidebar
2	Waiter	Click on “Kiểm tra” button
3	ER System	Display tables which are booked by customer
<b>Priority</b>		High
<b>Frequency of Use</b>		High
<b>Business rules</b>		

<b>Use case ID</b>	UC008.1	<b>Version</b>	1.0
<b>Use case Name</b>	Find Table Booking		
<b>Created by</b>	ThinhAV	<b>Last Update</b>	28/7/2018
<b>Primary Actor</b>	Waiter	<b>Secondary Actor</b>	N/A
<b>Description</b>	User uses this function to find table booking by customer's phone number		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Waiter</li> <li>- User is in Table Booking Screen</li> </ul>		
<b>Post conditions</b>	Booked table's information is displayed		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Waiter	Actor enter phone number in “Số điện thoại của khách” text filed	
2	ER System	Display booked table's information	
<b>Priority</b>		High	
<b>Frequency of Use</b>		High	
<b>Business rules</b>			

<b>Use case ID</b>	UC008	<b>Version</b>	1.0
<b>Use case Name</b>	Book table		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018
<b>Primary Actor</b>	Waiter	<b>Secondary Actor</b>	Customer
<b>Description</b>	User uses this feature to book table		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Waiter or Customer</li> <li>- List Available Table is displayed</li> </ul>		

<b>Post conditions</b>	<ul style="list-style-type: none"> <li>- Redirect user to Order management screen</li> <li>- Display message: "Book table successfully"</li> </ul>	
<b>Normal flows</b>		
<b>Step</b>	<b>Actor</b>	<b>Action</b>
1	Waiter	Clicks in Checkbox belows each table to choose tables
2	Waiter	Clicks in "Đặt bàn" button
3	ER System	<ul style="list-style-type: none"> <li>- Redirect user to Order management screen</li> <li>- Display message: "Book table successfully"</li> </ul>
<b>EC1</b>	At step 3, Username and Password fields are blank	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Waiter	Clicks in "Đặt bàn" button
3.2	ER System	Display message: "Bạn cần chọn ít nhất 1 bàn"
<b>Priority</b>		
<b>Frequency of Use</b>		
<b>Business rules</b>		

<b>Use case ID</b>	UC008.2	<b>Version</b>	1.0
<b>Use case Name</b>	Cancel Table Book		
<b>Created by</b>	ThinhAV	<b>Last Update</b>	28/7/2018
<b>Primary Actor</b>	Waiter	<b>Secondary Actor</b>	Customer
<b>Description</b>	When Customer or Waiter want to book, edit, cancel and view status table		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Waiter, Customer</li> <li>- User is in Manage Table Booking Screen</li> </ul>		
<b>Post conditions</b>	Chosen Booked table has been deleted		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Waiter	Actor clicks on "Hủy bàn!" button besides booked table	
2	ER System	Display confirm options	
3	Waiter	Click on "Đồng ý" button	

4	ER System	Remove chosen table from list then display message “Hủy bàn thành công”
<b>Exception</b>		
<b>EC1</b>		At step 3, actor do not confirm to delete booked table
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Clicks on “Không” button
3.2	ER System	Display Booked Table List
<b>Priority</b>		High
<b>Frequency of Use</b>		High
<b>Business rules</b>		

### Manage order

<b>Use case ID</b>	UC009	<b>Version</b>	1.0		
<b>Use case Name</b>	Manage Order				
<b>Created by</b>	HieuNM	<b>Last Update</b>	28/7/2018		
<b>Primary Actor</b>	Waiter	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to manage order.				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Waiter, Customer</li> <li>- Booked tables's list is displayed</li> </ul>				
<b>Post conditions</b>	Order is submitted to chef				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Waiter	Clicks on “Quản lý đặt món” button beside booked table			
2	ER System	Redirect user to Manage Order screen			
3	Waiter	Pick foods and drinks from menu and recommend list to order			
4	Waiter	Clicks on “Đặt món” button			
5	ER System	Display message “Đặt món thành công”			
<b>EC1</b>	At step 4, actor clicks on “Làm mới” button and confirm to refresh order				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
4.1	Admin	Clicks on “làm mới” button			
4.2	ER System	Display confirm options			
4.3	Admin	Click on “Đồng ý” button			
4.4	ER System	Refresh order			

<b>EC2</b>	At step 4, actor clicks on “Làm mới” button and not confirm to refresh order	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
4.1	Admin	Clicks on “làm mới” button
4.2	ER System	Display confirm options
4.3	Admin	Click on “Không” button
4.4	ER System	Return to Manage Order screen
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

*Notified order*

<b>Use case ID</b>	UC010	<b>Version</b>	1.0		
<b>Use case Name</b>	Notified Order				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	28/7/2018		
<b>Primary Actor</b>	Waiter	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to receive food status				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Waiter</li> </ul>				
<b>Post conditions</b>	Food Status has been change to be “Chế biến xong” in waiter screen				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Waiter	Click on pop-up “Có món nấu xong”			
2	ER System	Display food and status which has status “Chế biến xong” in Waiter’s “Danh sách trạng thái món ăn” screen			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>					

*Serve order*

<b>Use case ID</b>	UC011	<b>Version</b>	1.0		
<b>Use case Name</b>	Serve Order				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	28/7/2018		
<b>Primary Actor</b>	Waiter	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to change order status				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Waiter</li> </ul>				
<b>Post conditions</b>	Food has been remove from List Food in waiter's screen				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Waiter	Clicks on “Các món ăn” in sidebar			
2	ER System	Displays all foods which has finished cooked			
3	Waiter	Clicks on “Phục vụ” button besides each food			
4	ER System	Remove food from List Food in waiter's screen			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>					

*List waiting order*

<b>Use case ID</b>	UC012	<b>Version</b>	1.0		
<b>Use case Name</b>	List Waiting Order				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018		
<b>Primary Actor</b>	Chef	<b>Secondary Actor</b>	N/A		
<b>Description</b>	User uses this feature to view all orders are waiting to cook				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Chef</li> </ul>				
<b>Post conditions</b>	Display list of food which are waiting to be cooked				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Chef	Clicks on “Các món ăn” button in sidebar			
2	ER System	Display list of food which are waiting to be cooked			
<b>Priority</b>	High				

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<b>Frequency of Use</b>	High
<b>Business rules</b>	

### *Change order status*

<b>Use case ID</b>	UC013	<b>Version</b>	1.0		
<b>Use case Name</b>	Change Order Status				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018		
<b>Primary Actor</b>	Chef	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to change order status				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Chef</li> <li>- Waiting food is displayed</li> </ul>				
<b>Post conditions</b>	Status of food is changed which are displayed in “Tình trạng” column				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Chef	Clicks on button in “Hành động” column			
2	ER System	Change current food status to next status			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>					

### *List served order*

<b>Use case ID</b>	UC014	<b>Version</b>	1.0
<b>Use case Name</b>	List Served order		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	26/7/2018
<b>Primary Actor</b>	Cashier	<b>Secondary Actor</b>	N/A
<b>Description</b>	The user uses this feature to view all orders has been served		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Cashier</li> </ul>		
<b>Post conditions</b>	- Display all orders which have been served		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Cashier	Clicks on “Thanh toán” button in sidebar	

2	ER System	Display all orders which have been served
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### *Find Served Order*

<b>Use case ID</b>	UC015	<b>Version</b>	1.0
<b>Use case Name</b>	Find Served order		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	26/7/2018
<b>Primary Actor</b>	Cashier	<b>Secondary Actor</b>	N/A
<b>Description</b>	The user uses this feature to find specific orders have been served		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Cashier</li> <li>- User is in List Served Oders screen</li> </ul>		
<b>Post conditions</b>	<ul style="list-style-type: none"> <li>- Display all orders which have been served and matches with search condition</li> </ul>		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Cashier	Enter customer's name or phone number in search bar	
2	Cashier	Clicks on “Tìm” button	
3	ER System	Display all orders which have been served and matches with search condition	
<b>Priority</b>	High		
<b>Frequency of Use</b>	High		
<b>Business rules</b>			

*Check out*

<b>Use case ID</b>	UC0016	<b>Version</b>	1.0		
<b>Use case Name</b>	Check out				
<b>Created by</b>	ThinhAV	<b>Last Update</b>	26/7/2018		
<b>Primary Actor</b>	Cashier	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user use this feature to check out				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User has logged into ER System as Cashier</li> <li>- User is in List Served Oders screen</li> </ul>				
<b>Post conditions</b>	The chosen order has been checked out successfully				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Cashier	Clicks on “CheckOut” button which beside each order			
2	ER System	Redirect User to Checkout screen which includes: <ul style="list-style-type: none"> <li>- List of items that served</li> <li>- “Tổng chi phí” (Text Box)</li> <li>- “Nhận” (Text Box)</li> <li>- “Trả lại” (Text Box)</li> </ul>			
3	Cashier	Enter the money that received in Receive			
4	ER System	Display the rutern money in Return			
5	Cashier	Clicks on “Thanh toán hóa đơn” button			
6	ER System	Display message “The order checkout successfully”			
<b>Exception</b>					
<b>EC</b>	In step 3, actor do not enter the money that received in Receive				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Cashier	Actor do not enter the money that received in Receive			
3.2	Cashier	Clicks on “Thanh toán hóa đơn” button			
3.3	ER System	Display message: “”			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>	B12				

*Manage category*

<b>Use case ID</b>	UC017	<b>Version</b>	1.0
<b>Use case Name</b>	Manage Category		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	24/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	The user uses this feature to manage category		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User logged into ER system as Admin</li> </ul>		
<b>Post conditions</b>	Display Manage Category Menu in sidebar		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Admin	Click on “Quản lý danh mục thực đơn” button in sidebar	
2	ER System	Display Manage Category Menu in sidebar	
<b>Priority</b>		High	
<b>Frequency of Use</b>		High	
<b>Business rules</b>			

**View Category**

<b>Use case ID</b>	UC017.1	<b>Version</b>	1.0
<b>Use case Name</b>	View Category		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	24/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	User uses this feature to view list of categories		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Manage Category Menu is displayed</li> </ul>		
<b>Post conditions</b>	Display list of Categories		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Admin	Click on “Danh sách danh mục” button in sidebar	
2	ER System	Display list of Categories and Search Bar	

Priority	High
Frequency of Use	High
Business rules	

**Edit Category**

<b>Use case ID</b>	UC017.2	<b>Version</b>	1.0		
<b>Use case Name</b>	Edit Category				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	24/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to update category				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Category List is displayed</li> </ul>				
<b>Post conditions</b>	Category has been updated and User is redirected to Category List				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Click on “Sửa” button which besides the Category’s info			
2	ER System	<p>Redirect User to Edit Category screen which includes:</p> <ul style="list-style-type: none"> <li>- “Tên” (Text Box)</li> <li>- “Danh mục mẹ” (Combo Box)</li> <li>- “Mô tả” (Text Box)</li> </ul>			
3	Admin	Enter all required information All fields contain currently info of chosen category			
4	Admin	Click on “Lưu” button			
5	ER System	Redirect User to Category List and display message: “Danh mục được cập nhật thành công”			
<b>Exception</b>					
<b>EC1</b>	At step 3, Category Name field are blank				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Admin	Left Category Name field blank			
3.2	Admin	Click on “Lưu” button			

3.3	ER System	Display message: "Trường này không được bỏ trống"
<b>EC2</b>	At step 3, actor enters only space in Category Name field	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters only space
3.2	Admin	Click on "Lưu" button
3.3	ER System	Display message: "Yêu cầu không hợp lệ"
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>	B2, B3, B4, B5, B6, B7, B8	

### Delete Category

<b>Use case ID</b>	UC017.3	<b>Version</b>	1.0		
<b>Use case Name</b>	Delete Category				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	24/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>			
<b>Description</b>	The user uses this feature to delete category				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Category List is displayed</li> </ul>				
<b>Post conditions</b>	Chosen Category has been deleted				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Clicks on "Xóa" button which besides the Category's info			
2	ER System	Display message which need actor's confirmation			
3	Admin	Clicks on "Xóa" button			
4	ER System	Delete the chosen Category then display Category List			
<b>Exception</b>					
<b>EC1</b>	At step 3, actor do not confirm to delete Category				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Admin	Clicks on "Quay lại" button			
3.2	ER System	Display Category List			
<b>Priority</b>	High				

<b>Frequency of Use</b>	High
<b>Business rules</b>	

**Add Category**

<b>Use case ID</b>	UC017.4	<b>Version</b>	1.0		
<b>Use case Name</b>	Add Category				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	24/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to add a new category				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Manage Category Menu is displayed</li> </ul>				
<b>Post conditions</b>	A new category has been created and User is redirected to Category List				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Click on “Tạo danh mục” button in sidebar			
2	ER System	Redirect User to Add new Category screen which includes: <ul style="list-style-type: none"> <li>- “Tên” (Text Box)</li> <li>- “Danh mục mẹ” (Combo Box)</li> <li>- “Mô tả” (Text Box)</li> </ul>			
3	Admin	Enter all required information			
4	Admin	Click on “Lưu” button			
5	ER System	Redirect User to Category List and display message: “Danh mục được tạo thành công”			
<b>Exception</b>					
<b>EC1</b>	At step 3, Category Name field are blank				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Admin	Left Category Name field blank			
3.2	Admin	Click on “Lưu” button			
3.3	ER System	Display message: “Trường này không được bỏ trống”			
<b>EC2</b>	At step 3, actor enters only space in Category Name field				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Admin	Actor enters only space			
3.2	Admin	Click on “Lưu” button			
3.3	ER System	Display message: “Yêu cầu không hợp lệ”			

<b>Priority</b>	High
<b>Frequency of Use</b>	High
<b>Business rules</b>	B2, B3, B4, B5, B6, B7, B8

### Search Category

<b>Use case ID</b>	UC017.5	<b>Version</b>	1.0		
<b>Use case Name</b>	Search Category				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	User use this function to search category from list category				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Category List is displayed</li> </ul>				
<b>Post conditions</b>	The specific category which user want to search has been displayed				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Enter category name in search textfield			
2	Admin	Clicks on “Tim” button			
3	ER System	Display all specific categories which matches with search conditions			
<b>Exception</b>					
<b>EC1</b>	In step 1, User do not enter category name in search textfield				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1.1	Admin	Left search textfield blank			
1.2	Admin	Clicks on “Tim” button			
1.3	ER System	Display all specific categories which matches with search conditions( all category name)			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>					

*Manage food*

<b>Use case ID</b>	UC018	<b>Version</b>	1.0		
<b>Use case Name</b>	Manage Food				
<b>Created by</b>	HieuNM	<b>Last Update</b>	25/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to manage food				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User logged into ER system as Admin</li> </ul>				
<b>Post conditions</b>	Display Manage Food Menu in sidebar				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Click on “Quản lý món ăn” button in sidebar			
2	ER System	Display Manage Food Menu			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>					

**View Food**

<b>Use case ID</b>	UC018.1	<b>Version</b>	1.0
<b>Use case Name</b>	View Food		
<b>Created by</b>	HieuNM	<b>Last Update</b>	25/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	User uses this feature to view list of food		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Manage Category Menu is displayed</li> </ul>		
<b>Post conditions</b>	Display list of food		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Admin	Click on “Danh sách món ăn” button in sidebar	
2	ER System	Display list of food and Search Bar	
<b>Priority</b>	High		

<b>Frequency of Use</b>	High
<b>Business rules</b>	

**Edit Food**

<b>Use case ID</b>	UC018.2	<b>Version</b>	1.0		
<b>Use case Name</b>	Edit Food				
<b>Created by</b>	HieuNM	<b>Last Update</b>	25/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to update food				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Food List is displayed</li> </ul>				
<b>Post conditions</b>	Food has been updated and User is redirected to Food List				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Click on “Lưu” button which besides the Food’s info			
2	ER System	Redirect User to Edit Food screen which includes: <ul style="list-style-type: none"> <li>- “Tên món” (Text Box)</li> <li>- “Trạng thái” (Combo Box)</li> <li>- “Giá tiền” (Combo Box)</li> <li>- “Danh mục thực đơn” (Text Box)</li> <li>- “Mô tả” (Text Box)</li> <li>- “Ảnh” (File Chooser)</li> </ul>			
3	Admin	Enter all required information All fields contain currently info of chosen food			
4	Admin	Click on “Lưu” button			
5	ER System	Redirect User to Food List and display message: “ The food updated successfully”			
<b>Exception</b>					
<b>EC1</b>	At step 3, Food Name field are blank				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Admin	Left Food Name field blank			
3.2	Admin	Click on “Lưu” button			
3.3	ER System	Do not update the food			
<b>EC2</b>	At step 3, actor enters only space in Food Name field				

<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters only space
3.2	Admin	Click on “Submit” button
3.3	ER System	Do not update the food
<b>EC3</b>	Actor uploads incorrect file format	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Click on “Choose File” button and choose a file that not an image or incorrect image format
3.2	Admin	Click on “Lưu” button
3.3	ER System	
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>	B2, B3, B4, B5, B6, B7, B8, B9	

### Delete Food

<b>Use case ID</b>	UC018.3	<b>Version</b>	1.0
<b>Use case Name</b>	Delete Food		
<b>Created by</b>	HieuNM	<b>Last Update</b>	25/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	
<b>Description</b>	The user uses this feature to delete food		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Food List is displayed</li> </ul>		
<b>Post conditions</b>	Chosen Food has been deleted		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Admin	Clicks on “Xóa” button which besides the Food’s info	
2	ER System	Display message which need actor’s confirmation	
3	Admin	Clicks on “Xóa” button	
4	ER System	Delete the chosen Category then display Category List	
<b>Exception</b>			
<b>EC1</b>	At step 3, actor do not confirm to delete Category		
<b>Step</b>	<b>Actor</b>	<b>Action</b>	

3.1	Admin	Clicks on “Quay lại” button
3.2	ER System	Display Category List
<b>Priority</b>		High
<b>Frequency of Use</b>		High
<b>Business rules</b>		

### Add Food

<b>Use case ID</b>	UC018.4	<b>Version</b>	1.0		
<b>Use case Name</b>	Add Food				
<b>Created by</b>	HieuNM	<b>Last Update</b>	24/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to add a new food				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Manage Food Menu is displayed</li> </ul>				
<b>Post conditions</b>	A new food has been created and User is redirected to Food List				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Click on “Tạo món ăn” button in sidebar			
2	ER System	Redirect User to Create Food screen which includes: <ul style="list-style-type: none"> <li>- “Tên món” (Text Box)</li> <li>- “Trạng thái” (Combo Box)</li> <li>- “Giá tiền” (Combo Box)</li> <li>- “Danh mục thực đơn” (Text Box)</li> <li>- “Mô tả” (Text Box)</li> <li>- “Ảnh” (File Chooser)</li> </ul>			
3	Admin	Enter all required information All fields contain currently info of chosen food			
4	Admin	Click on “Lưu” button			
5	ER System	Redirect User to Food List and display message: “The food created sucessfully”			
<b>Exception</b>					
<b>EC1</b>	At step 3, Food Name field are blank				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Admin	Left Food Name field blank			

3.2	Admin	Click on “Lưu” button
3.3	ER System	Do not create the food
<b>EC2</b>	At step 3, actor enters only space in Food Name field	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters only space
3.2	Admin	Click on “Submit” button
3.3	ER System	Do not create the food
<b>EC4</b>	Actor uploads incorrect file format	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Click on “Choose File” button and choose a file that not an image or incorrect image format
3.2	Admin	Click on “Lưu” button
3.3	ER System	
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>	B2, B3, B4, B5, B6, B7, B8, B9	

### Search Food

<b>Use case ID</b>	UC016.5	<b>Version</b>	1.0
<b>Use case Name</b>	Search Food		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	User use this function to search food from list category		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Food List is displayed</li> </ul>		
<b>Post conditions</b>	The specific food which user want to search has been displayed		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Admin	<ul style="list-style-type: none"> <li>- Enter food name in search textfield</li> <li>- Select Status from Status Combobox</li> </ul>	
2	Admin	Clicks on “Tìm” button	
3	ER System	Display all specific foods which matches with search conditions	
<b>Exception</b>			

<b>EC1</b>	In step 1, User do not enter food name in searchtextfield	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
1.1	Admin	Left searchtextfield blank
1.2	Admin	Clicks on “Tìm” button
1.3	ER System	Display all specific foods which matches with search conditions( all food name)
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### *Manage table*

<b>Use case ID</b>	UC019	<b>Version</b>	1.0		
<b>Use case Name</b>	Manage Table				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	25/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to manage table				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User logged into ER system as Admin</li> </ul>				
<b>Post conditions</b>	Display Manage Table Menu				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Click on “Quản lý bàn” button in sidebar			
2	ER System	Display Manage Table Menu			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business rules</b>					

### **View Table**

<b>Use case ID</b>	UC019.1	<b>Version</b>	1.0
<b>Use case Name</b>	View Table		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	25/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A

<b>Description</b>	User uses this feature to view list of tables	
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Manage Table Menu is displayed</li> </ul>	
<b>Post conditions</b>	Display list of tables	
<b>Normal flows</b>		
Step	Actor	Action
1	Admin	Click on “Danh sách bàn” button in sidebar
2	ER System	Display list of table and Search Bar
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### Edit Table

<b>Use case ID</b>	UC019.2	<b>Version</b>	1.0
<b>Use case Name</b>	Edit Table		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	25/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	The user uses this feature to update table's info		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Table List is displayed</li> </ul>		
<b>Post conditions</b>	Food has been updated and User is redirected to Table List		
<b>Normal flows</b>			
Step	Actor	<b>Action</b>	
1	Admin	Click on “Sửa” button which besides the Food's info	
2	ER System	Redirect User to Edit Table screen which includes: <ul style="list-style-type: none"> <li>- “Tên bàn” (Text Box)</li> <li>- “Số ghế” (Text Box)</li> </ul>	
3	Admin	Enter all required information All fields contain currently info of chosen table	
4	Admin	Click on “Lưu” button	

5	ER System	Redirect User to Table List and display message: "Table has been updated successfully"
<b>Exception</b>		
<b>EC1</b>	At step 3, actor left required field are blank	
Step	Actor	Action
3.1	Admin	Left Table Name field and Number of Seating field blank
3.2	ER System	Display message: "Trường này không được bỏ trống"
<b>EC2</b>	At step 3, actor enters only space in Table Name field	
Step	Actor	Action
3.1	Admin	Actor enters only space
3.2	Admin	Click on "Lưu" button
3.3	ER System	Display message: ""
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### Delete Table

<b>Use case ID</b>	UC019.3	<b>Version</b>	1.0
<b>Use case Name</b>	Delete Table		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	25/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	
<b>Description</b>	The user uses this feature to delete table		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Table List is displayed</li> </ul>		
<b>Post conditions</b>	Chosen Table has been deleted		
<b>Normal flows</b>			
Step	Actor	<b>Action</b>	
1	Admin	Clicks on "Xóa" button which besides the Table's info	
2	ER System	Display message which need actor's confirmation	
3	Admin	Clicks on "Xóa" button	

4	ER System	Delete the chosen Table then display Table List
<b>Exception</b>		
<b>EC1</b>		At step 3, actor do not confirm to delete Table
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Clicks on “Quay lại” button
3.2	ER System	Display Table List
<b>Priority</b>		High
<b>Frequency of Use</b>		High
<b>Business rules</b>		

### Add Table

<b>Use case ID</b>	UC019.4	<b>Version</b>	1.0		
<b>Use case Name</b>	Add Table				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	24/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	The user uses this feature to add a new food				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Manage Table Menu is displayed</li> </ul>				
<b>Post conditions</b>	A new food has been created and User is redirected to Food List				
<b>Normal flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Admin	Click on “Tạo bàn” button in sidebar			
2	ER System	Redirect User to Edit Table screen which includes: <ul style="list-style-type: none"> <li>- “Tên bàn” (Text Box)</li> <li>- “Số ghế” (Text Box)</li> <li>- “Ghi chú” (Text Box)</li> </ul>			
3	Admin	Enter all required information			
4	Admin	Click on “Lưu” button			
5	ER System	Redirect User to Table List and display message: “Create table success”			
<b>Exception</b>					
<b>EC1</b>	At step 3, actor left required field are blank				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			

3.1	Admin	Left Table Name field and Number of Seating field blank
3.2	ER System	Display message: “Trường này không được bỏ trống”
<b>EC2</b>	At step 3, actor enters only space in Table Name field	
Step	Actor	Action
3.1	Admin	Actor enters only space
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “ ”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### Search Table

<b>Use case ID</b>	UC019.5	<b>Version</b>	1.0		
<b>Use case Name</b>	Search Table				
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018		
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A		
<b>Description</b>	User use this function to search table from list table				
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Table List is displayed</li> </ul>				
<b>Post conditions</b>	The specific table which user want to search has been displayed				
<b>Normal flows</b>					
Step	Actor	<b>Action</b>			
1	Admin	<ul style="list-style-type: none"> <li>- Enter table name in search textfield</li> <li>- Select number of seats form Combobox</li> </ul>			
2	Admin	Clicks on “Tìm” button			
3	ER System	Display all specific tables which matches with search conditions			
<b>Exception</b>					
<b>EC1</b>	In step 1, User do not enter table name in search textfield				
Step	Actor	<b>Action</b>			
1.1	Admin	Left search textfield blank			

1.2	Admin	Clicks on “Tìm” button
1.3	ER System	Display all specific tables which matches with search conditions( all table name)
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### *Manage agent account*

<b>Use case ID</b>	UC020	<b>Version</b>	1.0
<b>Use case Name</b>	Manage Agent Account		
<b>Created by</b>	ThinhAV	<b>Last Update</b>	24/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	The user uses this feature to manage agent account		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User logged into ER system as Admin</li> </ul>		
<b>Post conditions</b>	Display Manage Agents Menu		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Admin	Click on “Nhân viên” button in sidebar	
2	ER System	Display Manage Agents Menu	
<b>Priority</b>	High		
<b>Frequency of Use</b>	High		
<b>Business rules</b>			

### **View Agents List**

<b>Use case ID</b>	UC020.1	<b>Version</b>	1.0
<b>Use case Name</b>	<b>View Agents List</b>		
<b>Created by</b>	ThinhAV	<b>Last Update</b>	24/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	User uses this feature to view list of agents		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> </ul>		

	<ul style="list-style-type: none"> <li>- User browsed ER Website</li> <li>- Manage Agents Menu is displayed</li> </ul>	
<b>Post conditions</b>	<ul style="list-style-type: none"> <li>- Display list of Agents and their information</li> </ul>	
<b>Normal flows</b>		
Step	Actor	Action
1	Admin	Click on “Danh sách” button in sidebar
2	ER System	Display list of Agents's information and Search Bar
<b>Priority</b>		High
<b>Frequency of Use</b>		High
<b>Business rules</b>		

### Edit Agent Account

<b>Use case ID</b>	UC020.2	<b>Version</b>	1.0
<b>Use case Name</b>	Edit Agent Account		
<b>Created by</b>	ThinhAV	<b>Last Update</b>	24/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	The user uses this feature to update agent's account info		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Agents Account List is displayed</li> </ul>		
<b>Post conditions</b>	Agent Account has been updated and User is redirected to Agents Account List		
<b>Normal flows</b>			
Step	Actor	<b>Action</b>	
1	Admin	Click on “Sửa” button which besides the Agent Account's info	
2	ER System	Redirect User to Edit Account screen which includes: <ul style="list-style-type: none"> <li>- “Chức vụ” (Combo Box)</li> <li>- “Trạng thái” (Combo Box)</li> <li>- “Tài khoản” (Not Editable)</li> <li>- “Họ và tên” (Text Box)</li> <li>- “Mật khẩu” (Text Box)</li> <li>- “Nhập lại mật khẩu” (Text Box)</li> <li>- “Số điện thoại” (Text Box)</li> </ul>	

		- “Địa chỉ” (Text Box)
3	Admin	Enter all required information Password and Re-enter Password fields are blank All others fields contain currently info of chosen account
4	Admin	Click on “Lưu” button
5	ER System	Redirect User to Agents Account List and display message: “Nhân viên đã được sửa thành công”
<b>Exception</b>		
<b>EC1</b>	At step 3, required fields are blank	
Step	Actor	Action
3.1	Admin	Left required fields blank
3.2	ER System	Display message: “Trường này không được bỏ trống”
<b>EC2</b>	At step 3, actor enters only space in Full Name field	
Step	Actor	Action
3.1	Admin	Actor enters only space
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “Họ và tên không đúng định dạng”
<b>EC3</b>	At step 3, actor enters only space in Phone Number field	
Step	Actor	Action
3.1	Admin	Actor enters only space
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “Số điện thoại không đúng định dạng”
<b>EC4</b>	At step 3, actor enters space or special symbol in address field	
Step	Actor	Action
3.1	Admin	Actor enters space or special symbol in address field
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “Địa chỉ không đúng định dạng”
<b>EC5</b>	At step 3, actor enters Re-enter Password field do not match with Password field	
Step	Actor	Action
3.1	Admin	Actor enters Password field
3.2	Admin	Actor enters Re-enter Password field

3.3	Admin	Click on “Lưu” button
3.4	ER System	Display message: “Mật khẩu nhập lại không đúng”
<b>EC6</b>	Actor edit his/her own account	
Step	Actor	Action
1	Admin	Actor clicks on “Sửa” button in his/her own account
2	ER System	Redirect User to Edit Account screen
3	Admin	Enter all required information
4	Admin	Click on “Lưu” button
5	ER System	Display message: “You can not update your account”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>	B2, B3, B4, B5, B6, B7, B8	

### Delete Account

<b>Use case ID</b>	UC020.3	<b>Version</b>	1.0
<b>Use case Name</b>	Delete Account		
<b>Created by</b>	ThinhAV	<b>Last Update</b>	24/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	
<b>Description</b>	The user uses this feature to delete account		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Agents Account List is displayed</li> </ul>		
<b>Post conditions</b>	Agent Account has been deleted		
<b>Normal flows</b>			
Step	Actor	<b>Action</b>	
1	Admin	Clicks on “Xóa” button which besides the Agent Account’s info	
2	ER System	Display message which need actor’s confirmation	
3	Admin	Clicks on “Xóa” button	

4	ER System	Delete the chosen Agent Account, display message: "Xóa thành công" then display Agent Account List
<b>Exception</b>		
<b>EC1</b>	At step 3, actor do not confirm to delete Agent Account	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Clicks on “Quay lại” button
3.2	ER System	Display Agent Account List
<b>EC2</b>	At step 1, actor choose his/her own account to delete	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
1.1	Admin	Clicks on “Xóa” button beside his/her own account
1.2	ER System	Display message which need actor's confirmation
1.3	Admin	Clicks on “Xóa” button
1.4	ER System	Display message: “Bạn không thể xóa tài khoản của chính mình”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### Add Account

<b>Use case ID</b>	UC020.4	<b>Version</b>	1.0
<b>Use case Name</b>	Add Account		
<b>Created by</b>	ThinhAV	<b>Last Update</b>	24/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	The user uses this feature to create new agent's account		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Manage Agents Menu is displayed</li> </ul>		
<b>Post conditions</b>	New Agent Account has been Created and user is redirected to Agents Account List		
<b>Normal flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Admin	Click on “Thêm mới” button in sidebar	
2	ER System	Redirect User to Add new Account screen which includes:	

		<ul style="list-style-type: none"> <li>- “Chức vụ” (Combo Box)</li> <li>- “Trạng thái” (Combo Box)</li> <li>- “Tài khoản” (Not Editable)</li> <li>- “Họ và tên” (Text Box)</li> <li>- “Mật khẩu” (Text Box)</li> <li>- “Nhập lại mật khẩu” (Text Box)</li> <li>- “Số điện thoại” (Text Box)</li> <li>- “Địa chỉ” (Text Box)</li> </ul>
3	Admin	Enter all required information
4	Admin	Click on “Lưu” button
5	ER System	Redirect User to Agents Account List and display message: “Tạo nhân viên thành công”
<b>Exception</b>		
<b>EC1</b>	At step 3, actor enters only space or left blank in Username field	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Left required fields blank
3.2	ER System	Display message: “tài khoản không đúng định dạng”
<b>EC2</b>	At step 3, actor enters only space or left blank in Full Name field	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters only space or left blank
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “Họ và tên không đúng định dạng”
<b>EC3</b>	At step 3, actor enters only space or left blank in Phone Number field	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters only space or left blank
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “Số điện thoại không đúng định dạng”
<b>EC4</b>	At step 3, actor enters space or special symbol in Username field	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters space or special symbol in Username field
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “Tài khoản không đúng định dạng”
<b>EC5</b>	At step 3, actor enters space or special symbol in Phone Number field	

<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters space or special symbol in Phone Number field
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “Số điện thoại không đúng định dạng”
<b>EC6</b>	At step 3, actor enters Re-enter Password field do not match with Password field	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters Password field
3.2	Admin	Actor enters Re-enter Password field
3.3	Admin	Click on “Lưu” button
3.4	ER System	Display message: “Mật khẩu nhập lại không đúng”
<b>EC7</b>	At step 3, actor enters username which has already exist in database	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Admin	Actor enters username which has already exist in database
3.2	Admin	Click on “Lưu” button
3.3	ER System	Display message: “Username already exist”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>	B2, B3, B4, B5, B6, B7, B8	

### Search Agent Account

<b>Use case ID</b>	UC020.5	<b>Version</b>	1.0
<b>Use case Name</b>	Search Agent Account		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	User use this function to search agent account from list agent account		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- Agents Account List is displayed</li> </ul>		

## THE CAPSTONE PROJECT

<b>Post conditions</b>	The specific accounts which user want to search has been displayed	
<b>Normal flows</b>		
Step	Actor	Action
1	Admin	<ul style="list-style-type: none"> <li>- Enter Name or Phone Number in search textfield</li> <li>- Select role form Role Combobox</li> <li>- Select Status from Combobox</li> </ul>
2	Admin	Clicks on “Tìm” button
3	ER System	Display all specific accounts which matches with search conditions
<b>Exception</b>		
<b>EC1</b>	In step 1, User do not enter Name or Phone Number in search textfield	
Step	Actor	Action
1.1	Admin	Left search textfield blank
1.2	Admin	Clicks on “Tìm” button
1.3	ER System	Display all specific accounts which matches with search conditions( all name and phone numberl)
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### *View statistics*

<b>Use case ID</b>	UC021	<b>Version</b>	1.0
<b>Use case Name</b>	View statistics		
<b>Created by</b>	NghiaNC	<b>Last Update</b>	27/7/2018
<b>Primary Actor</b>	Admin	<b>Secondary Actor</b>	N/A
<b>Description</b>	Manager uses this feature to view all report of the restaurant.		
<b>Preconditions</b>	<ul style="list-style-type: none"> <li>- ER must be connected to Internet</li> <li>- User browsed ER Website</li> <li>- User has logged into system as admin</li> </ul>		
<b>Post conditions</b>	Display report of the restaurant		
<b>Normal flows</b>			
Step	Actor	Action	
1	Admin	Clicks on “Dashboard” button in sidebar	

2	ER System	Display dashboards which show restaurant's business results by day/month/year
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business rules</b>		

### 3.3.6 Non-functional Requirements

#### *Usability*

- Easy to remember, casual users do not lose much time to learn how to use.
- The application's UI should be simple, friendly, logical and easy to use.

#### *Availability*

- Guarantee 24 hours availability. However, decide a stop time separately about system maintenance.

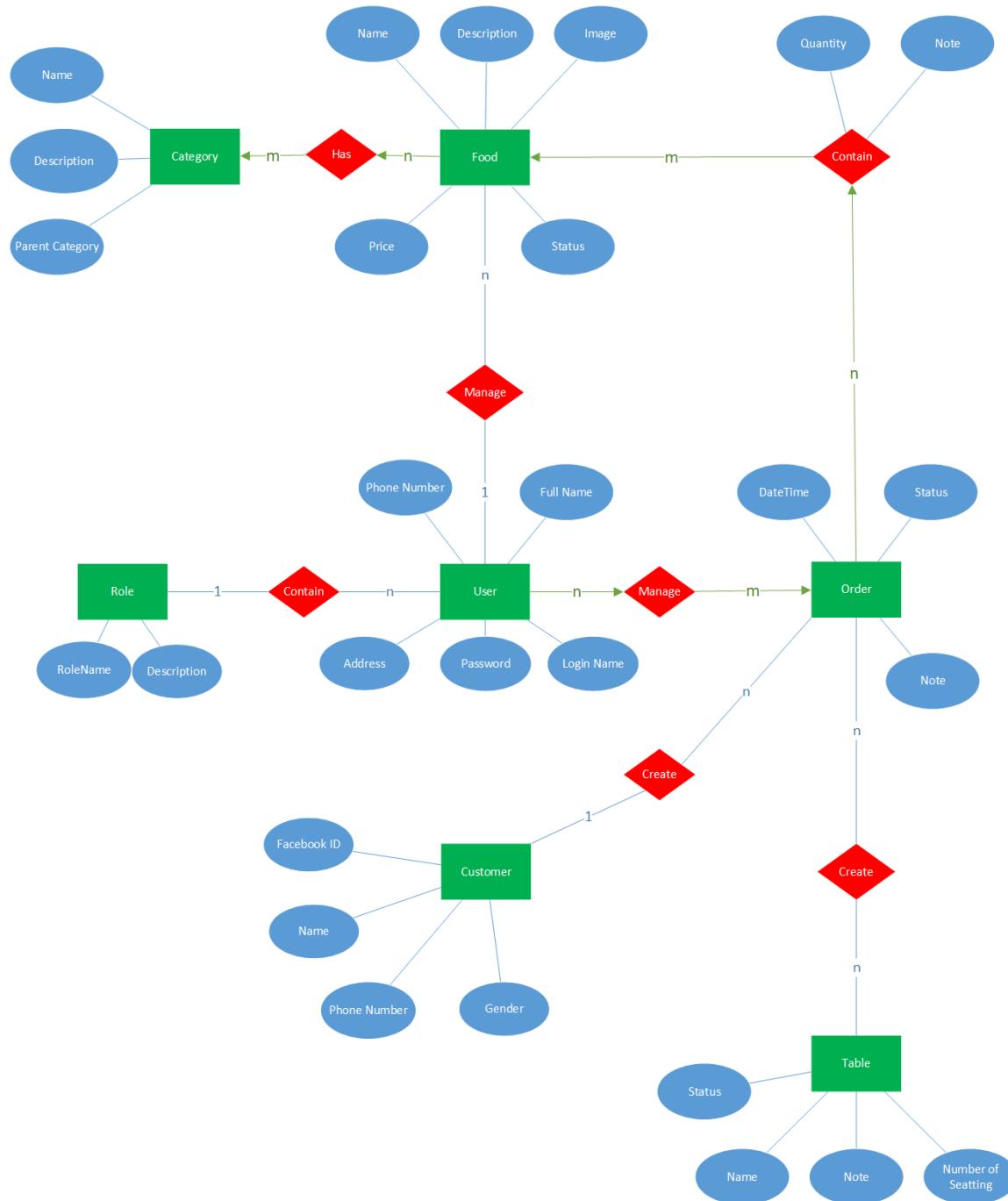
#### *Security*

- Encrypt Password with Hash function
- Authenticate Requirement for web service

#### *Maintainability*

- Coding convention clearly in function name, variable name, class name...
- Logging clearly and multi-level log.

### 3.4 Entity Relationship Diagram (ERD)



## CHAPTER 4: SOFTWARE DESIGN DESCRIPTION

### 4.1 Purpose

The purpose of this chapter is to give the developer team a guide of the system's architecture and how they should be implemented. This chapter includes:

- Component Diagram
- Architecture Overview
- Sequence Diagram
- Class Diagram
- User Interface Design
- Database Design

### 4.2 Architecture Overview

#### 4.2.1 Choice of System Architecture

##### *MVVM model*

The Model-View-ViewModel (MVVM) pattern is an application pattern that isolates the user interface from the underlying business logic. MVVM belongs to a class of patterns called Separated Presentation. These patterns provide a clean separation

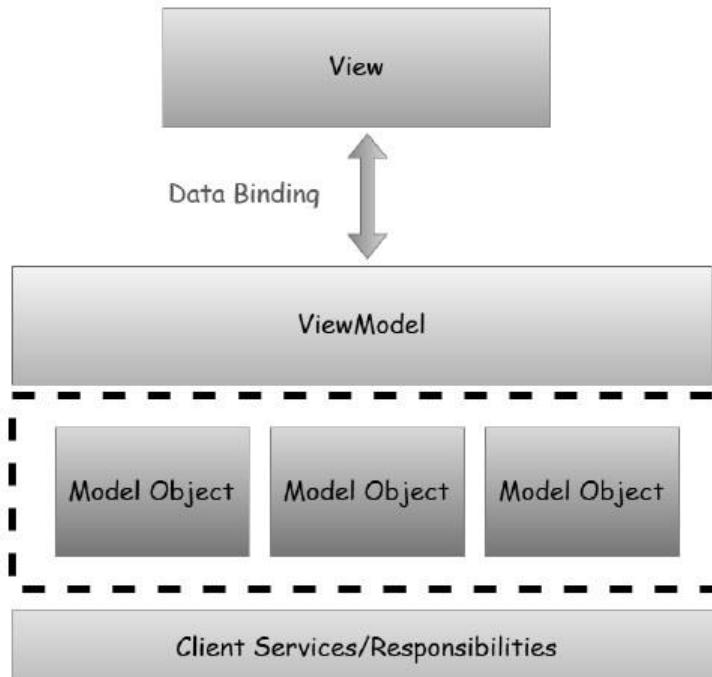


Figure 4: MVVM Model

between the UI and the rest of the application.

**The Model**, which provides a view-independent representation of your business entities. The design of the model is optimized for the logical relationships and operations between your business entities, regardless of how the data is presented in the user interface.

**The View** class which is the user interface. It displays information to the user and fires events in response to user interactions.

**The ViewModel** class, which is the bridge between the view and the model. Each View class has a corresponding ViewModel class. The ViewModel retrieves data from the Model and manipulates it into the format required by the View. It notifies the View if the underlying data in the model is changed, and it updates the data in the Model in response to UI events from the View.

#### *Advantages and Disadvantages of MVP model*

- **Advantage:**
  - **Maintainability:** A clean separation of different kinds of code should make it easier to go into one or several of those more granular and focused parts and make changes without worrying.
  - **Testability:** With MVVM each piece of code is more granular and if it is implemented right your external and internal dependences are in separate pieces of code from the parts with the core logic that you would like to test
  - **Extensibility:** You have a better chance of making any of those parts more reusable, because of the clean separation boundaries and more granular pieces of code.
- **Disadvantages:**
  - Some people think that for simple UIs, MVVM can be overkill.
  - Similarly in bigger cases, it can be hard to design the ViewModel.

Debugging would be bit difficult when we have complex data bindings.

#### 4.2.2 System Architecture

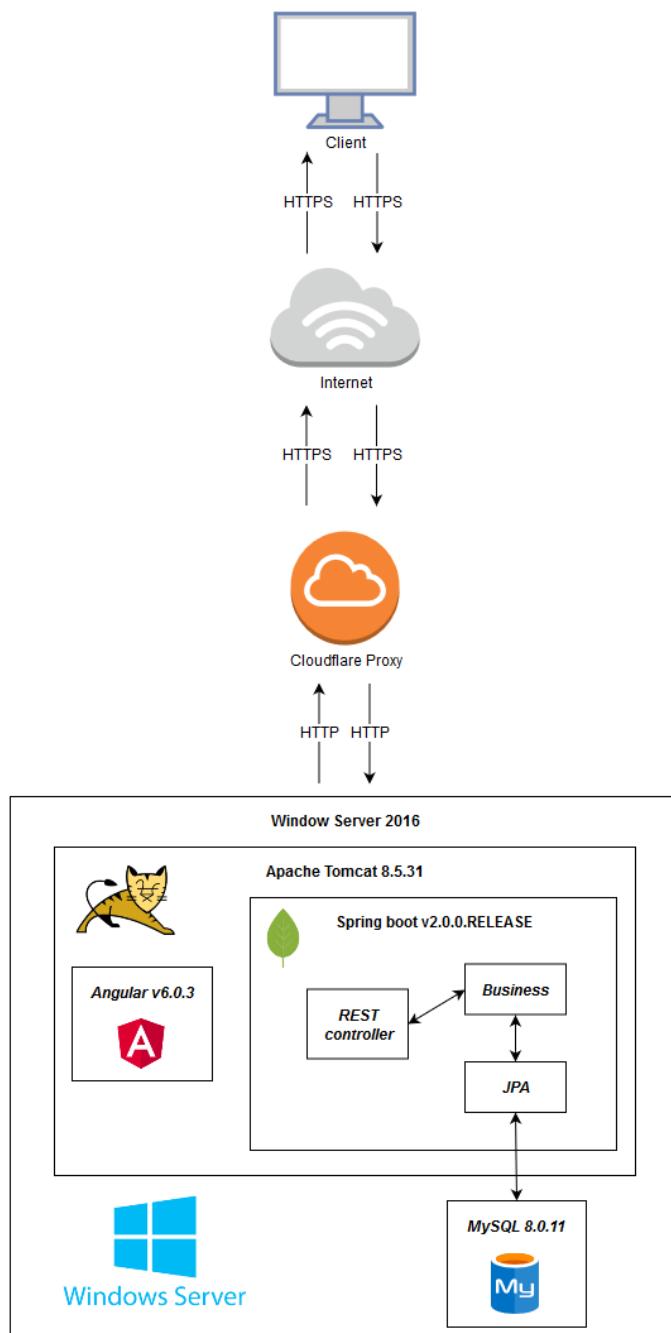


Figure 5 System Architecture Overview

#### 4.2.3 System Architecture Explanation

##### ***Cloudflare Proxy***

Cloudflare Proxy to help the system faster and safer.

We use it to enable ssl, mitigate DDoS attacks, optimize html,css,js file

##### ***Window Server 2016***

Window Server 2016 is a server operating systems released by Microsoft.

We use it to provide environment to run Apache Tomcat, MySQL Server

##### ***Apache Tomcat***

The Apache Tomcat® software is an open source implementation of the Java Servlet, JavaServer Pages, Java Expression Language and Java WebSocket technologies.

We use it to run ER application

##### ***MySQL***

MySQL is a freely available open source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL).

We use it to store data of ER application

##### ***Spring boot***

Spring Boot makes it easy to create stand-alone, production-grade Spring based Applications that you can "just run".

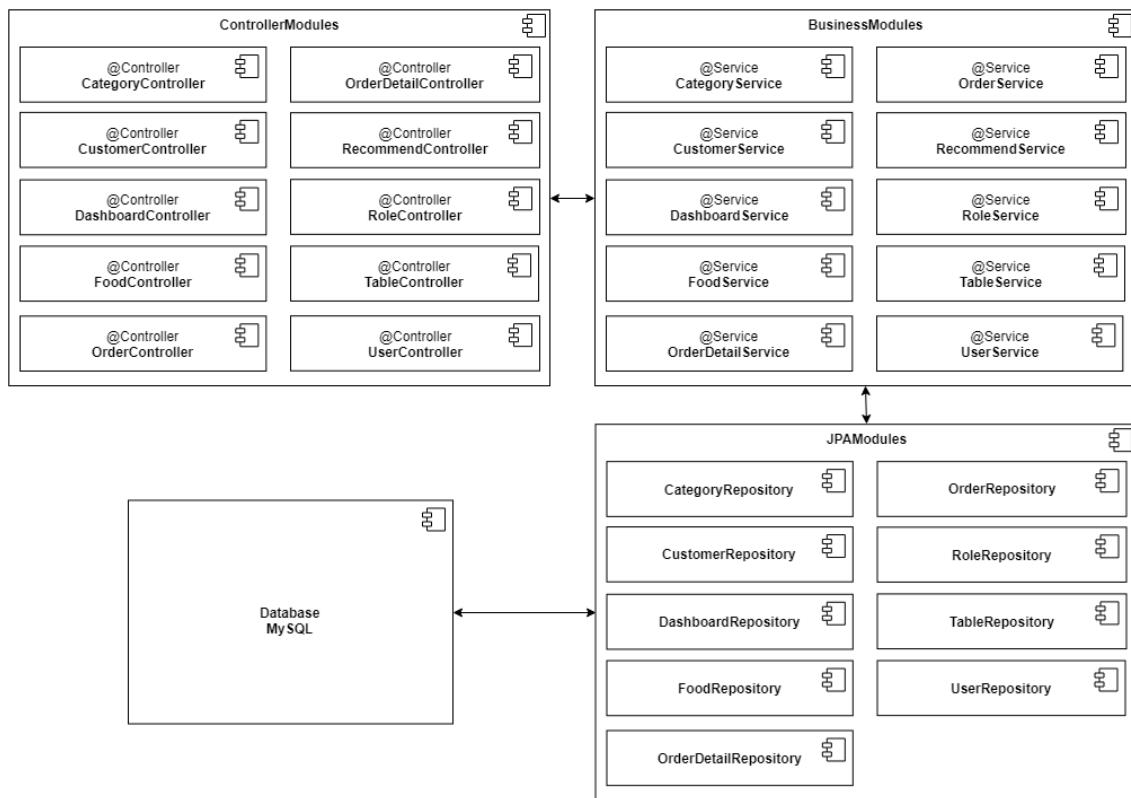
We use it to build ER application

##### ***Angular***

Angular is a platform that makes it easy to build applications with the web.

We use it to build ER application

### 4.3 Component Diagram



## 4.4 Sequence Diagram

### 4.4.1 Login by Facebook

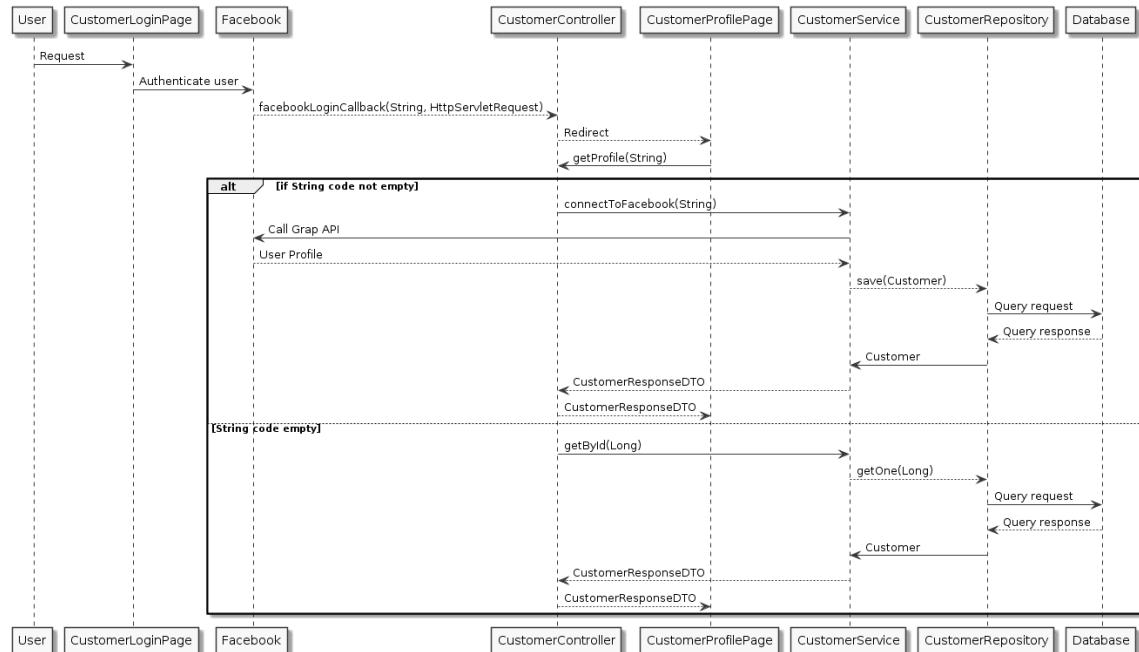


Figure 6: Sequence Diagram- Login by facebook

### 4.4.2 Login

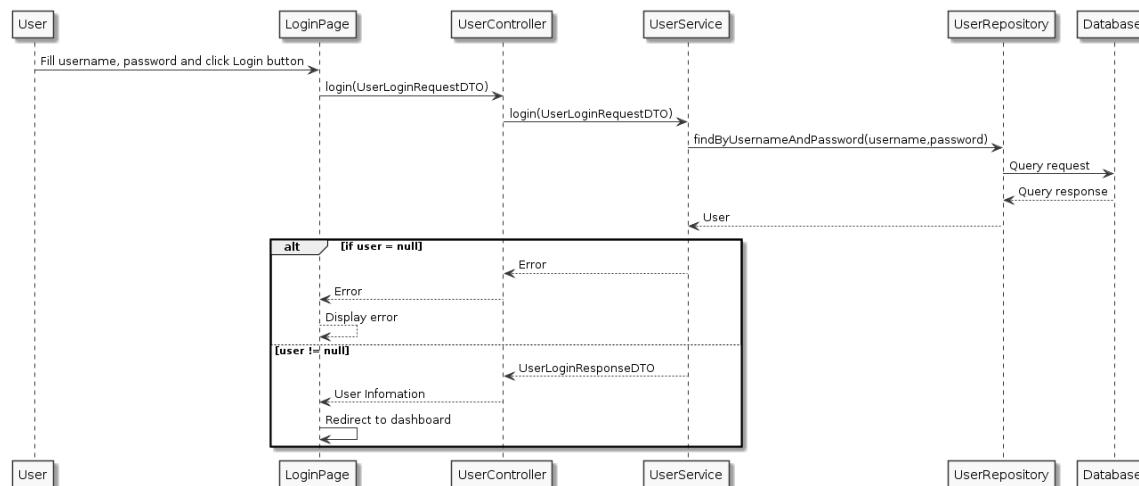


Figure 7 Sequence Diagram- Login (for user)

#### 4.4.3 Logout

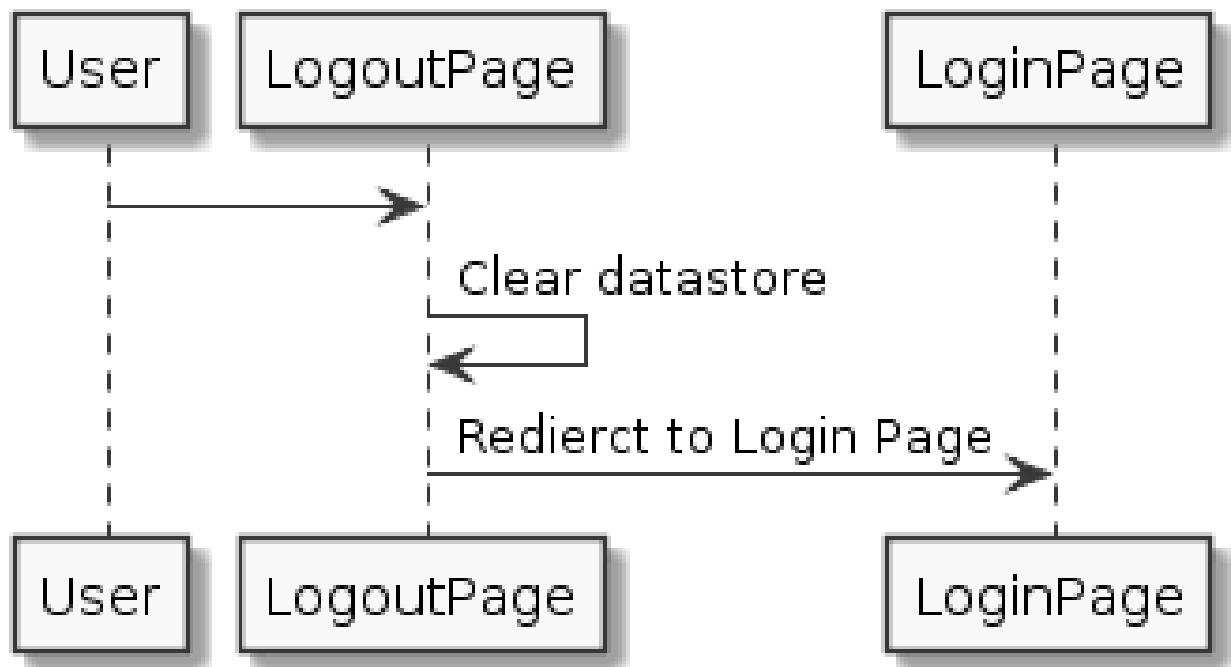


Figure 8 Sequence Diagram- Logout

#### 4.4.4 Show menu

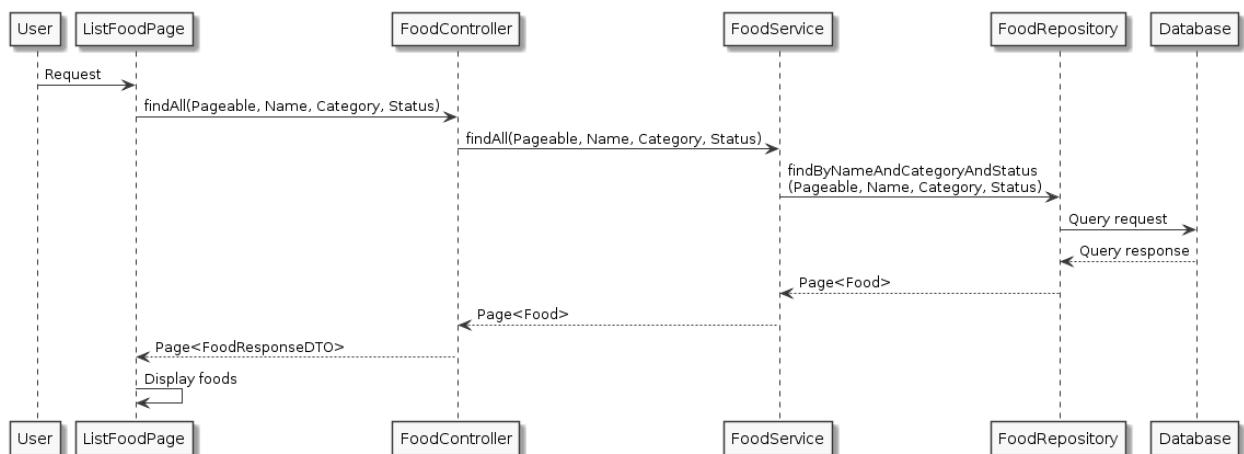


Figure 9 Sequence Diagram- Show menu

#### 4.4.5 Add food

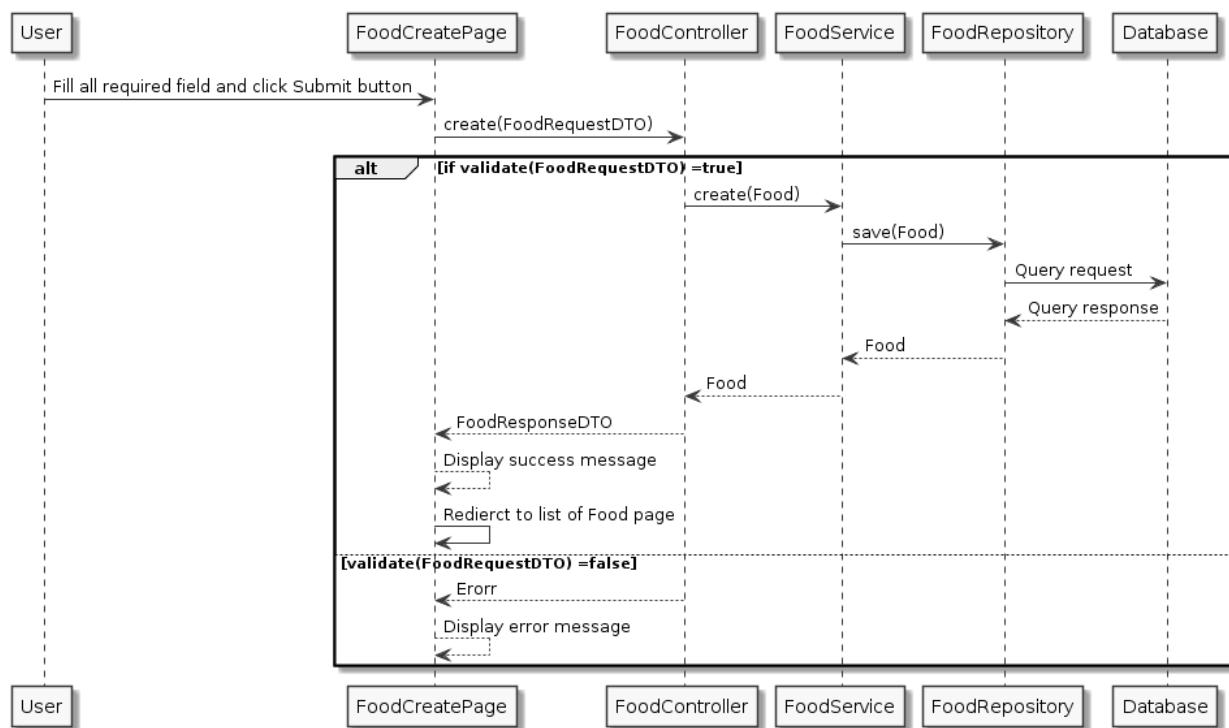


Figure 10 Sequence Diagram- Add food

#### 4.4.6 Delete food

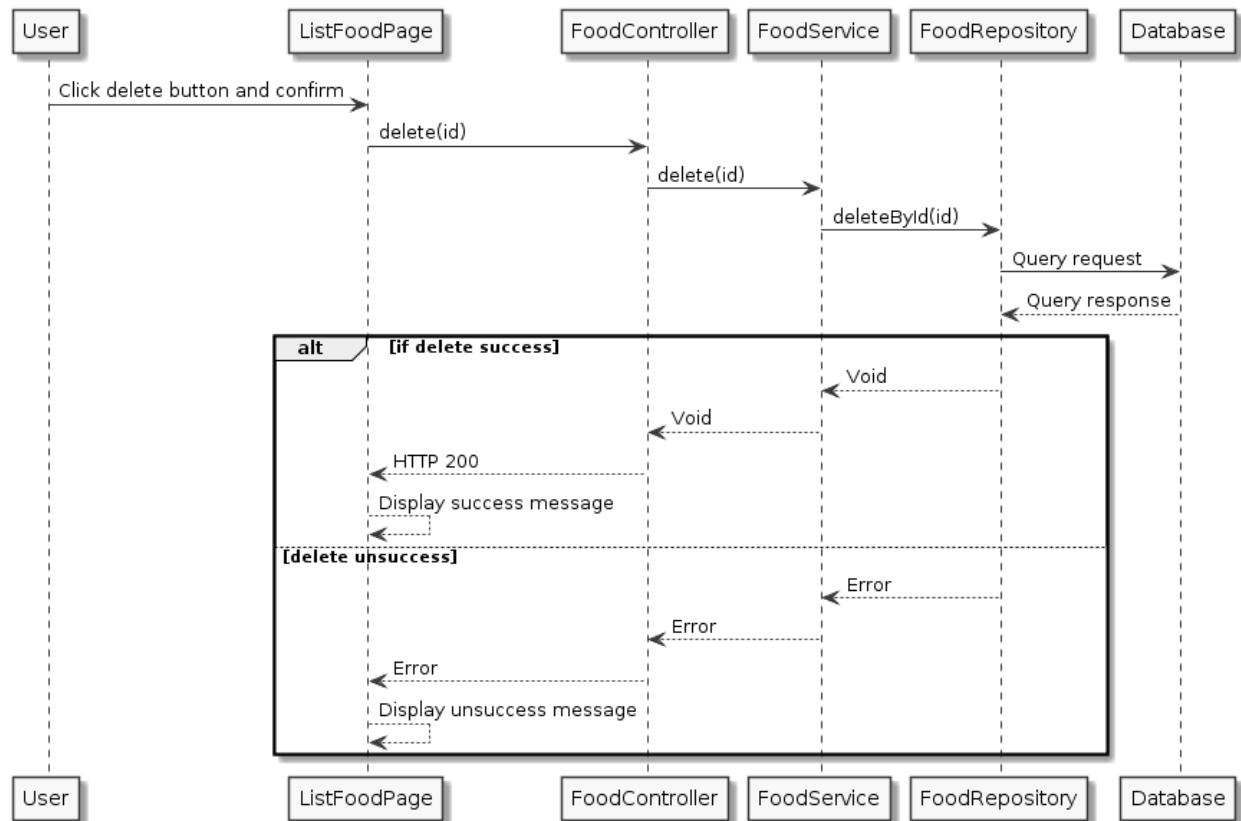


Figure 11 - Sequence Diagram- Delete food

#### 4.4.7 Add account

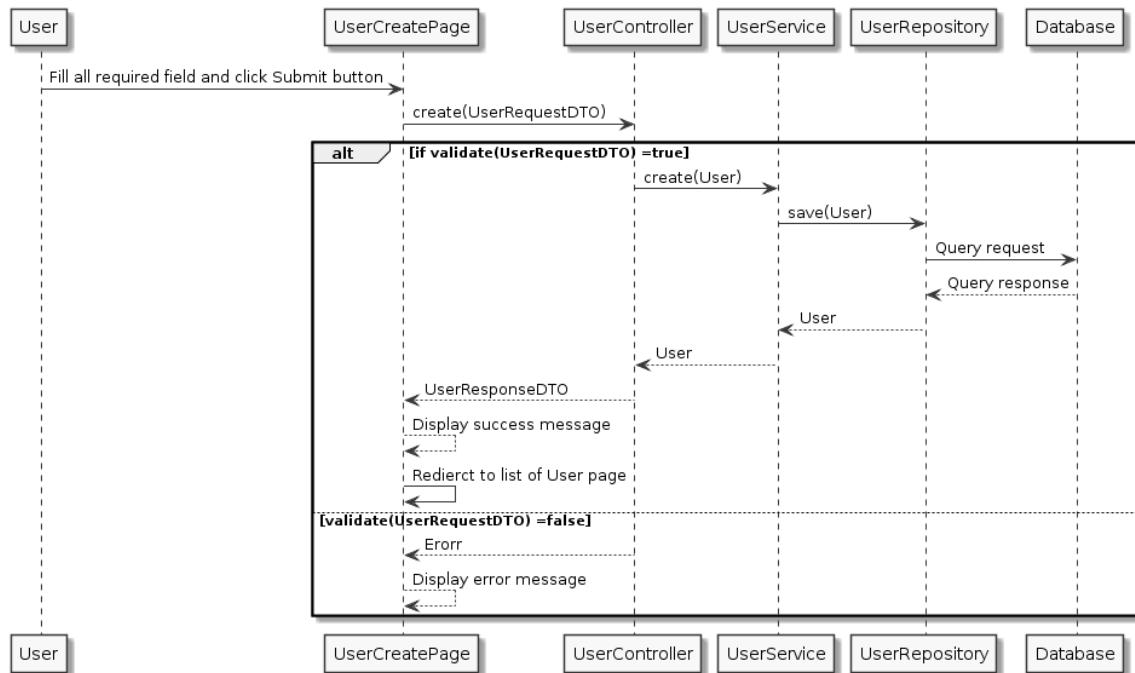


Figure 12 Sequence Diagram- add account

#### 4.4.8 Edit account

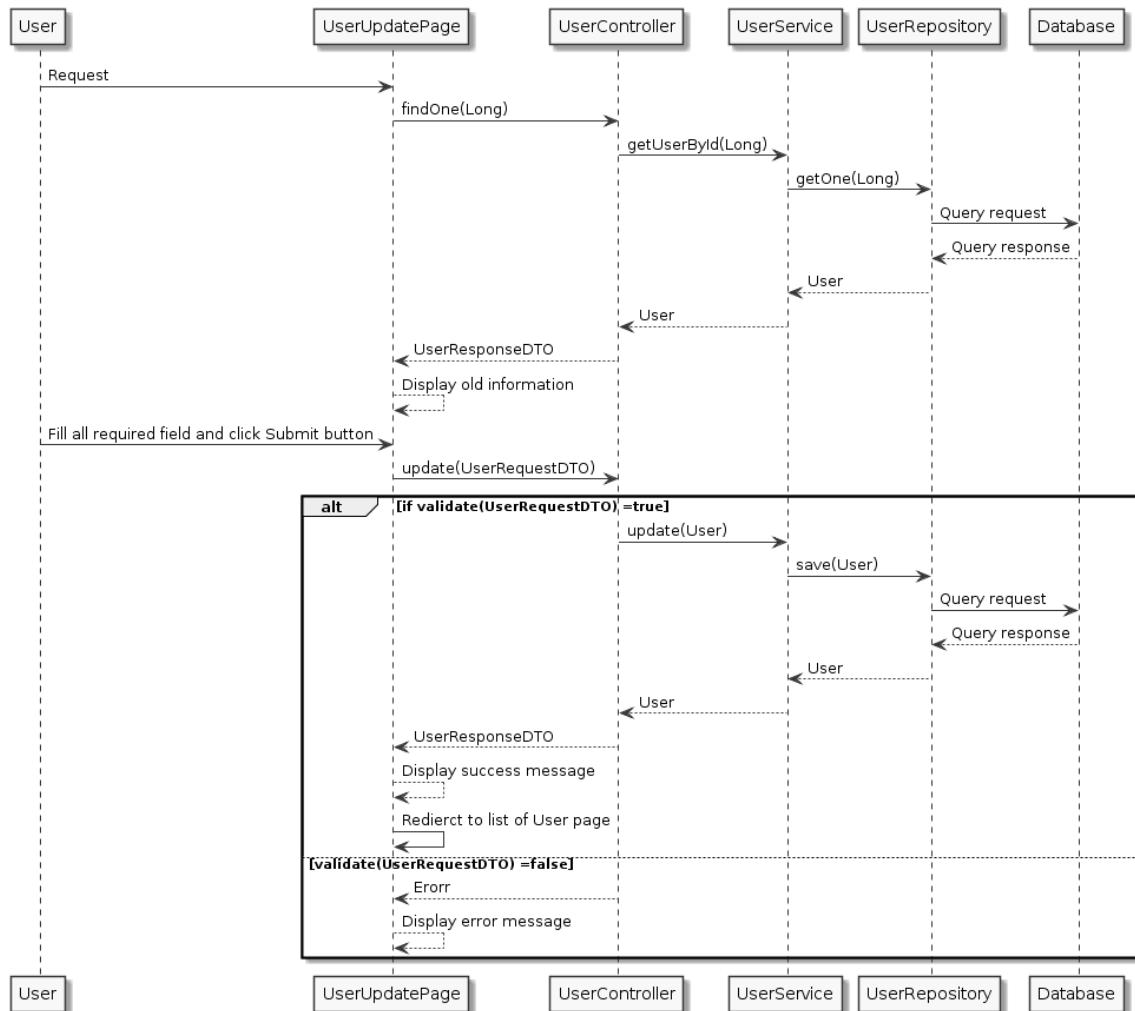


Figure 13 Sequence Diagram- edit account

#### 4.4.9 Delete account

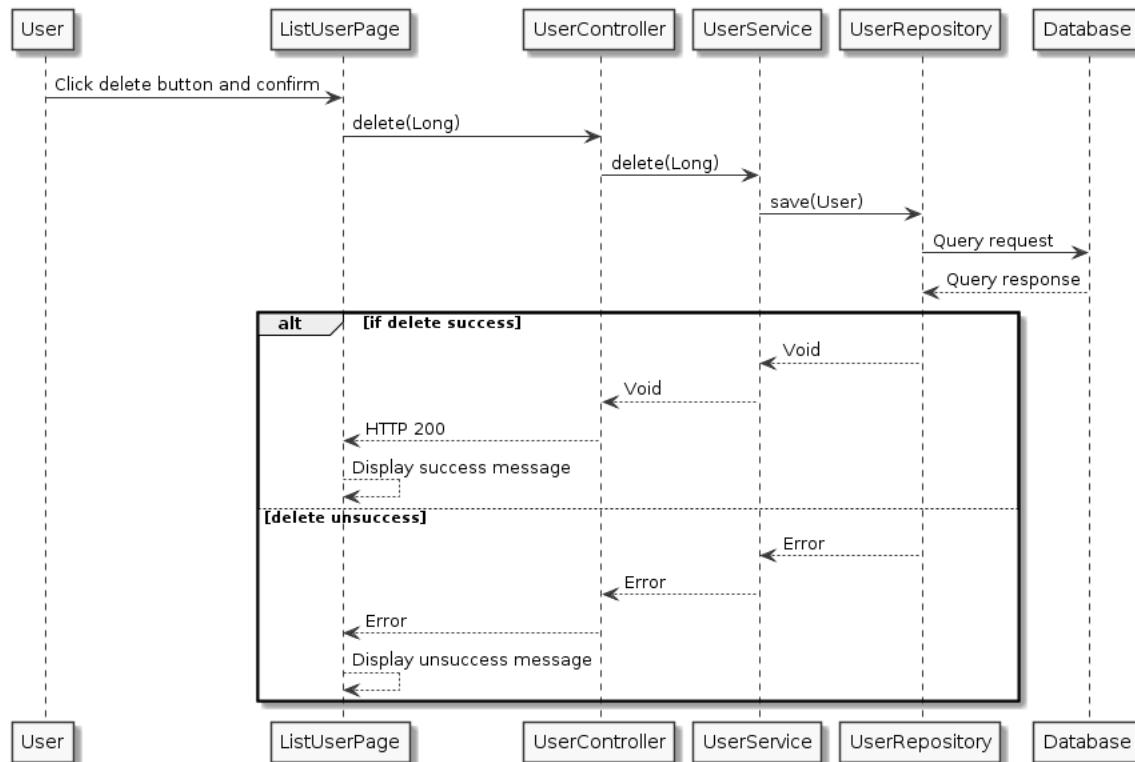


Figure 14 Sequence Diagram- delete account

#### 4.4.10 View account

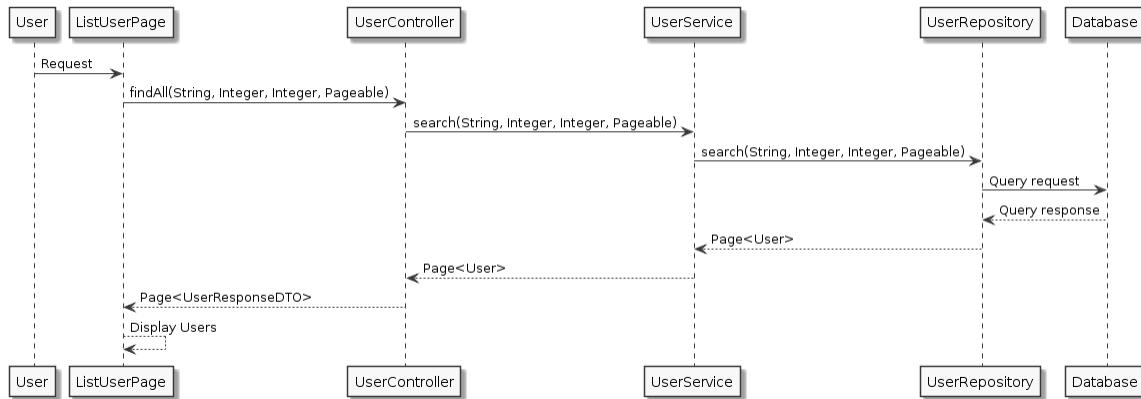


Figure 15 Sequence Diagram- View account

#### 4.4.11 Add table

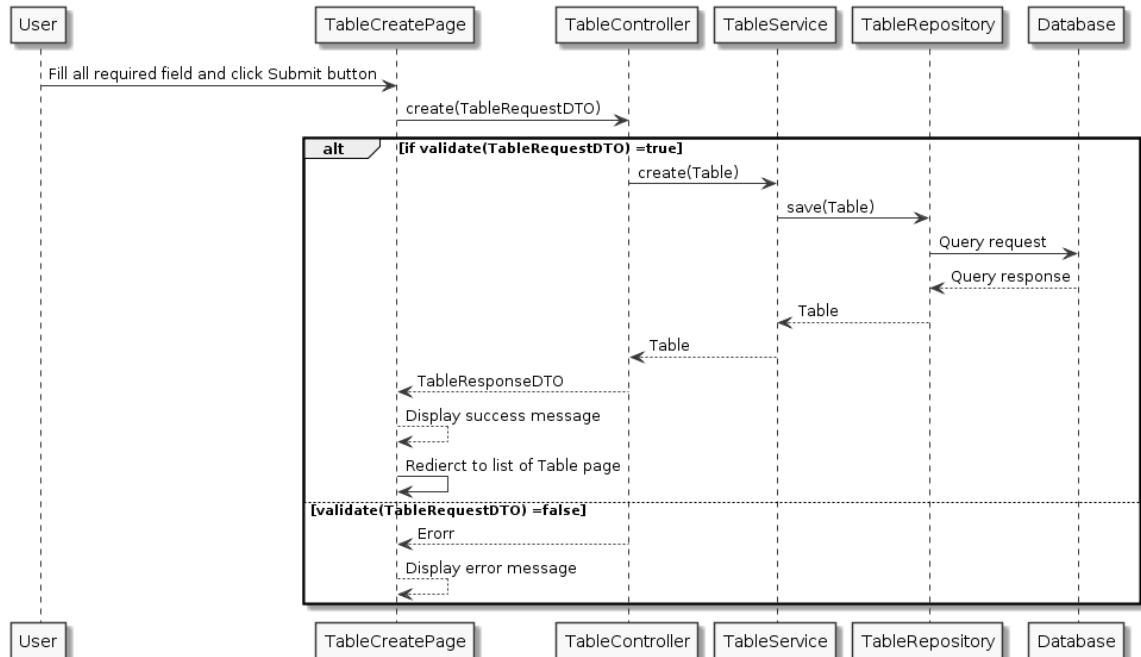


Figure 16 Sequence Diagram- Add table

#### 4.4.12 Edit table

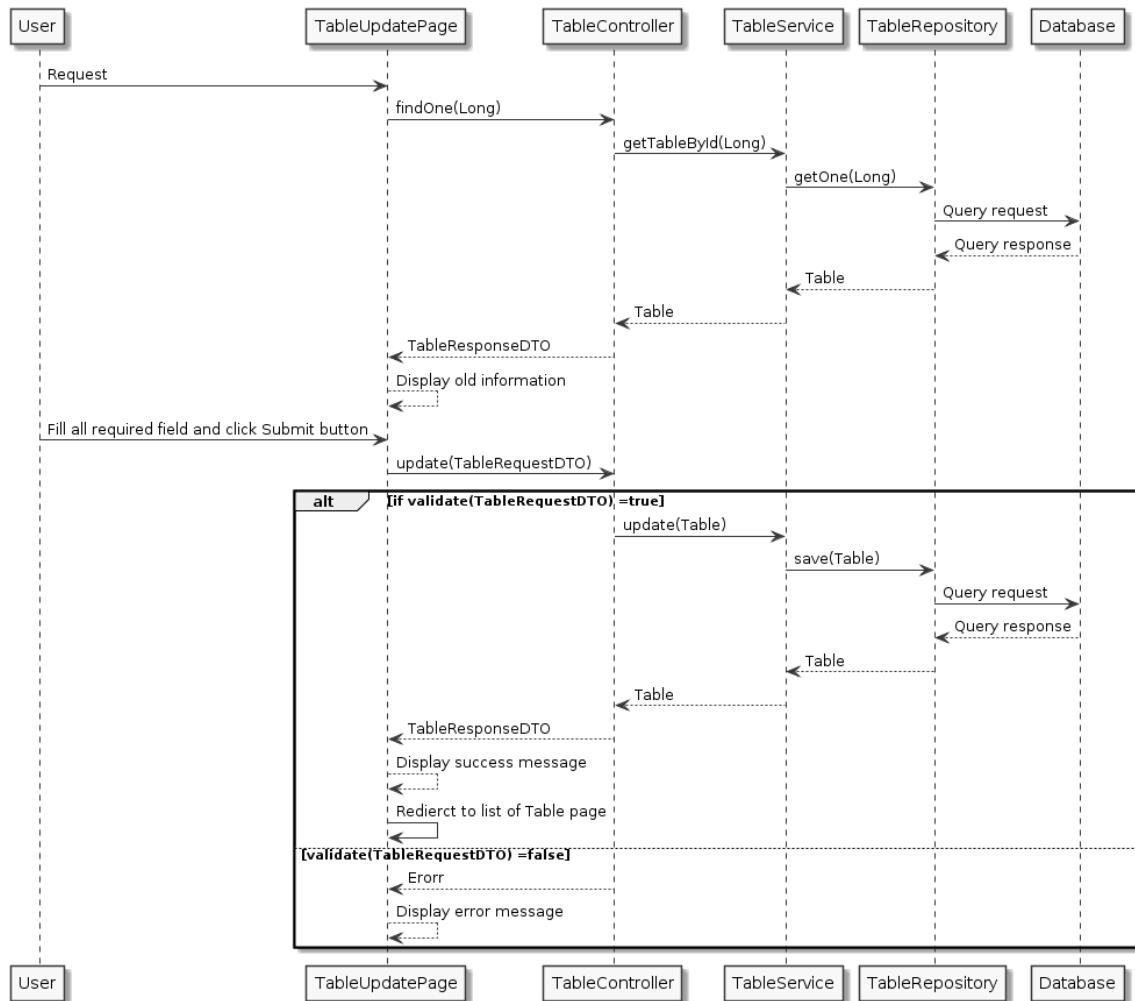


Figure 17 Sequence Diagram- Edit table

#### 4.4.13 View table

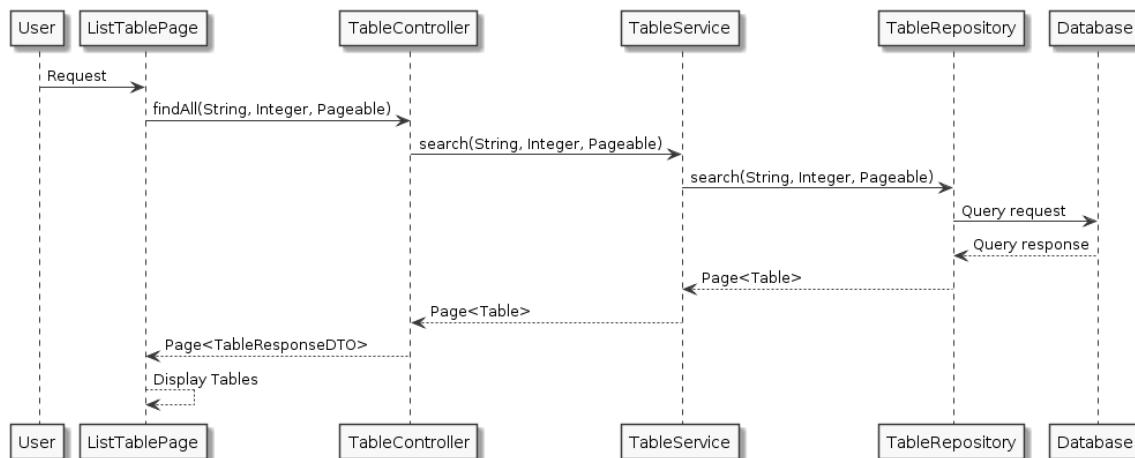


Figure 18 Sequence Diagram- View table

#### 4.4.14 View statistics

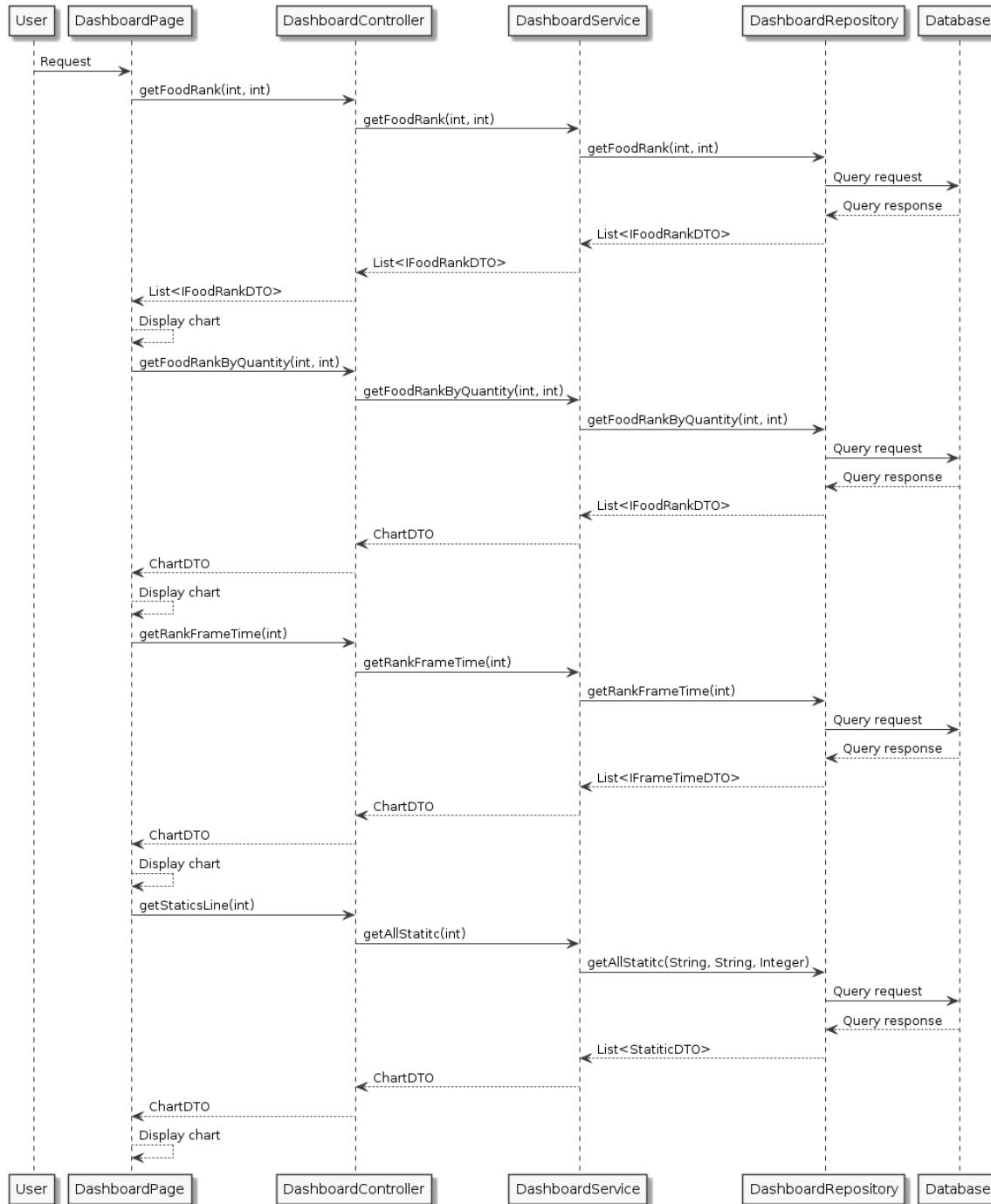


Figure 19 Sequence Diagram- View statistics

#### 4.4.15 Book table

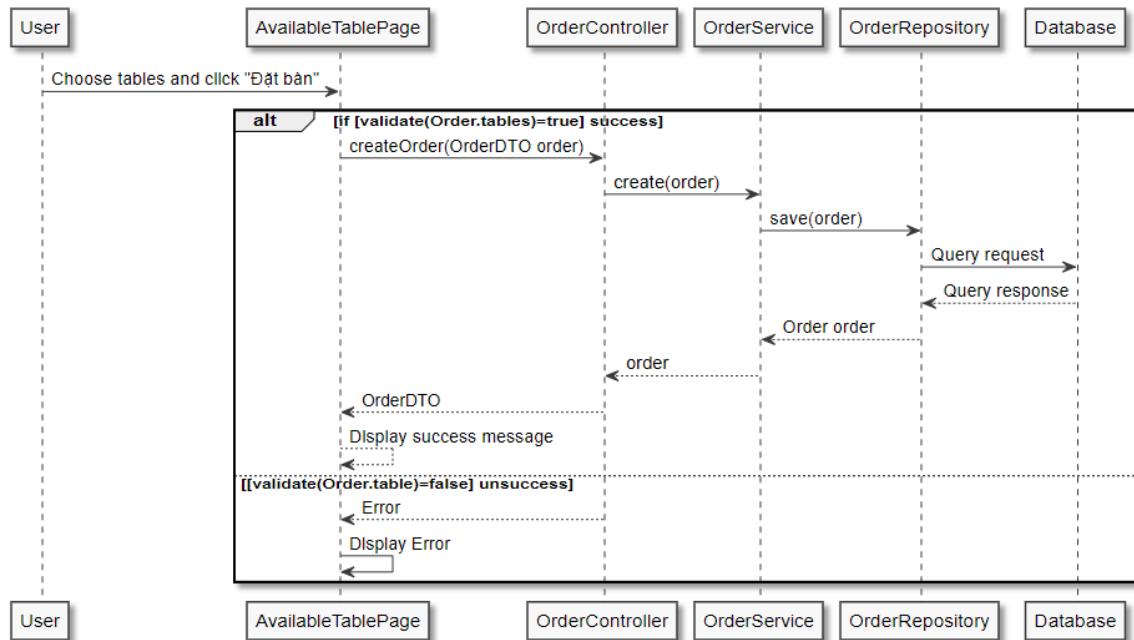


Figure 20 Sequence Diagram- book table

#### 4.4.16 Cancel table book

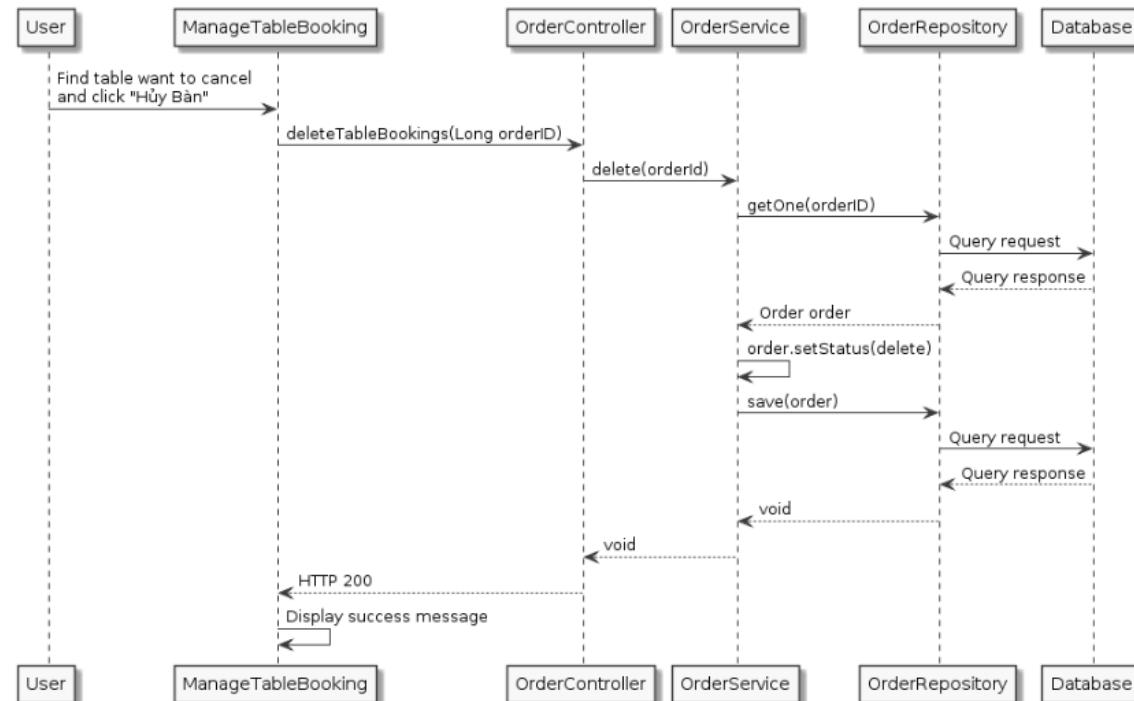


Figure 21 Sequence Diagram- cancel table book

#### 4.4.17 Add order

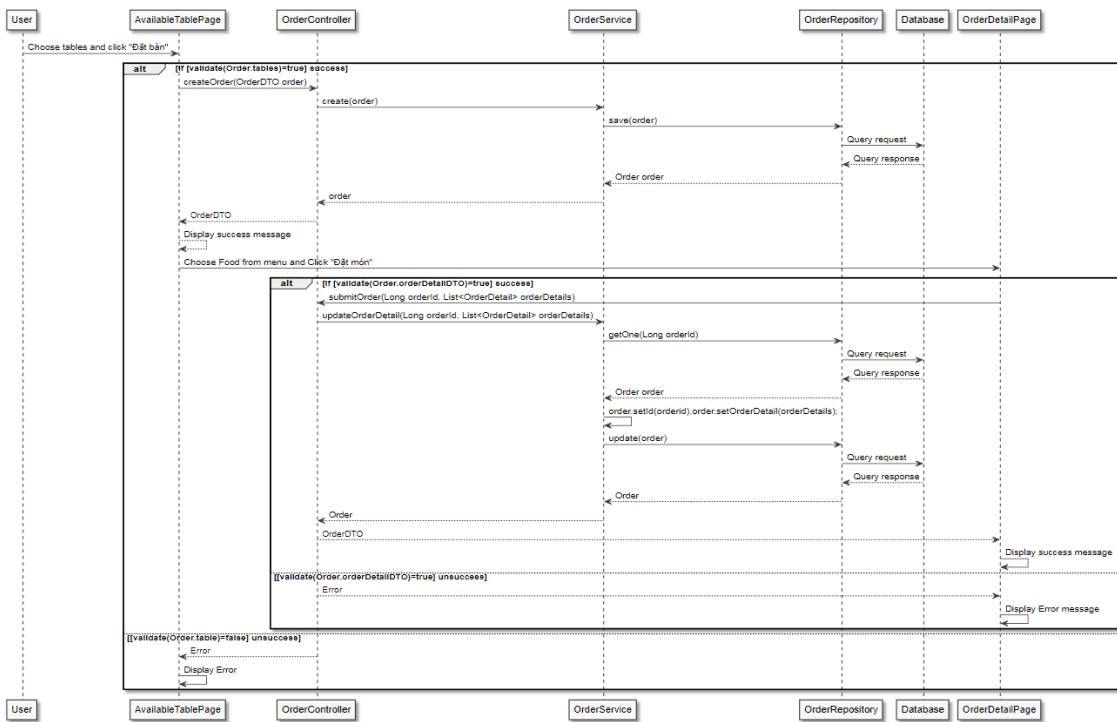


Figure 22 Sequence Diagram- Add order

#### 4.4.18 View order

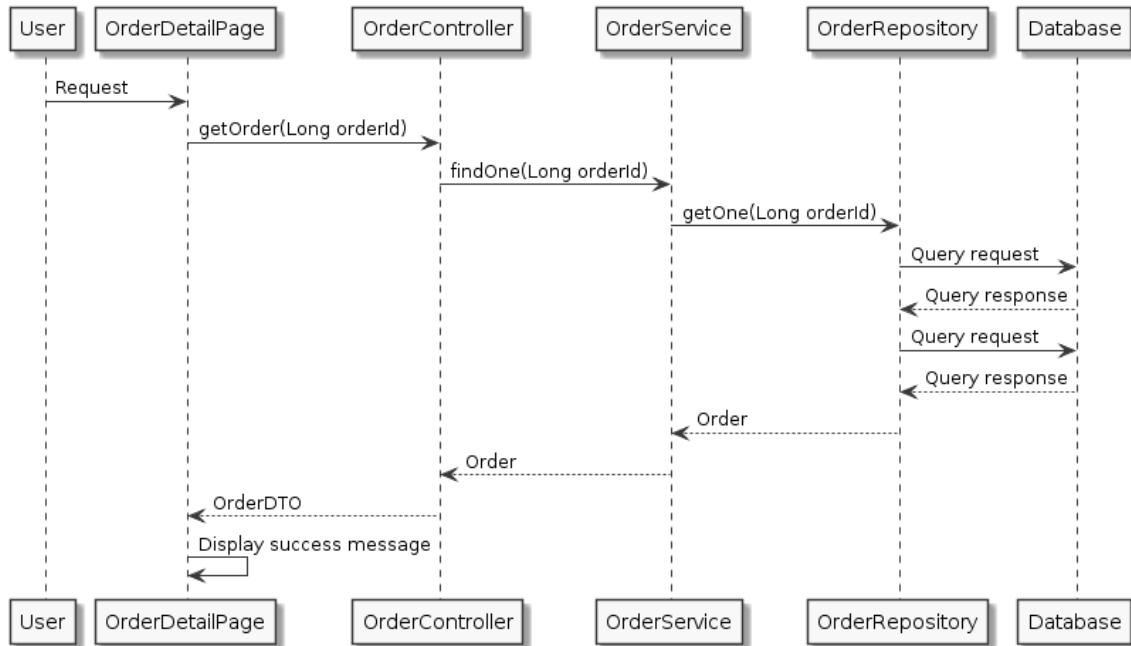


Figure 23 Sequence Diagram- View order

#### 4.4.19 Delete order

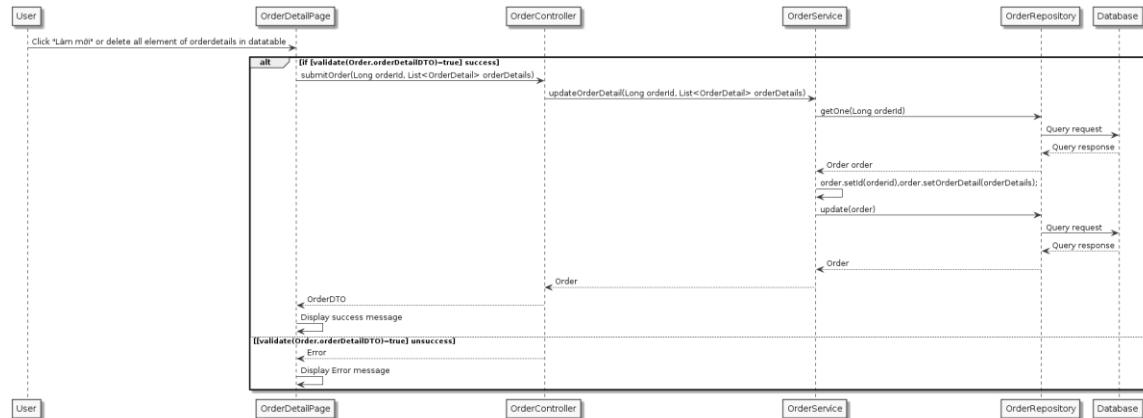


Figure 24 Sequence Diagram- Delete order

#### 4.4.20 Change order status

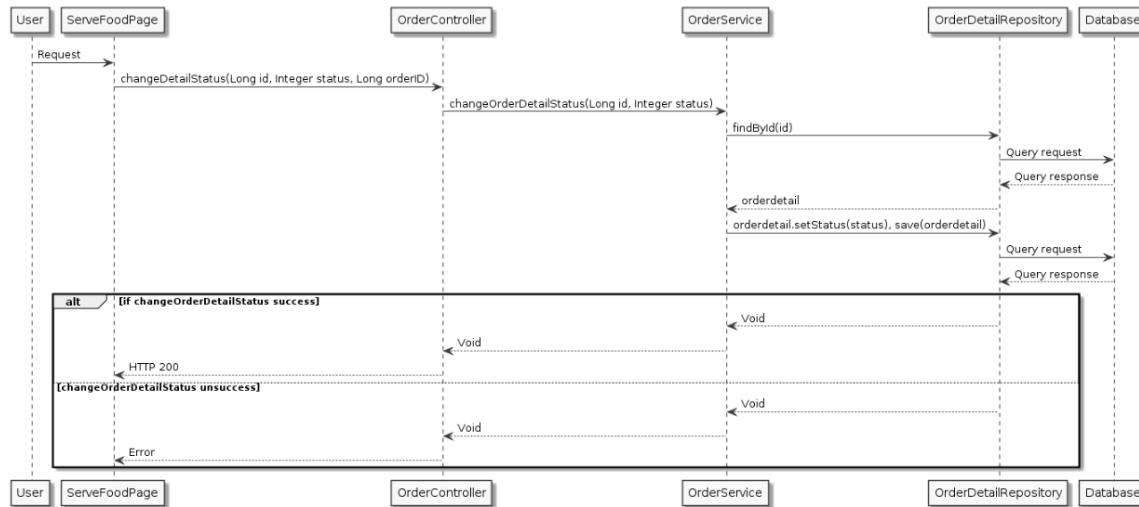


Figure 25 Sequence Diagram- Change order status

#### 4.4.21 View customer booking status

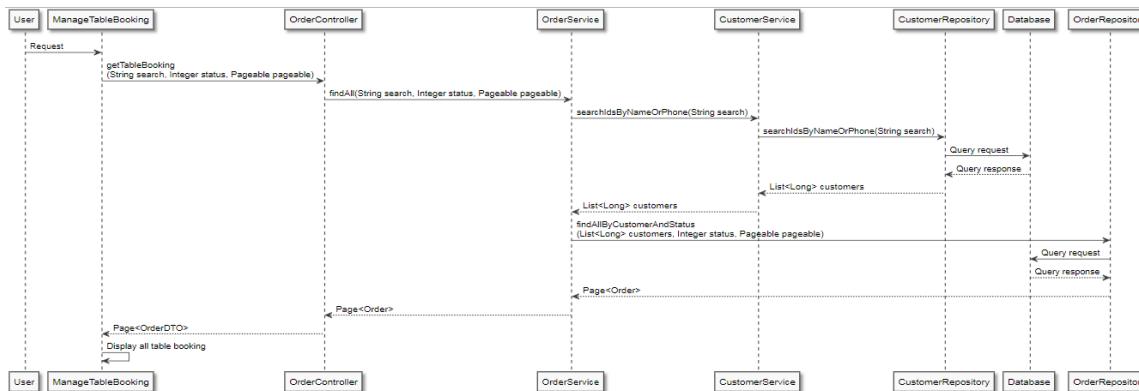


Figure 26 Sequence Diagram- View customer booking status

#### 4.4.22 Checkout

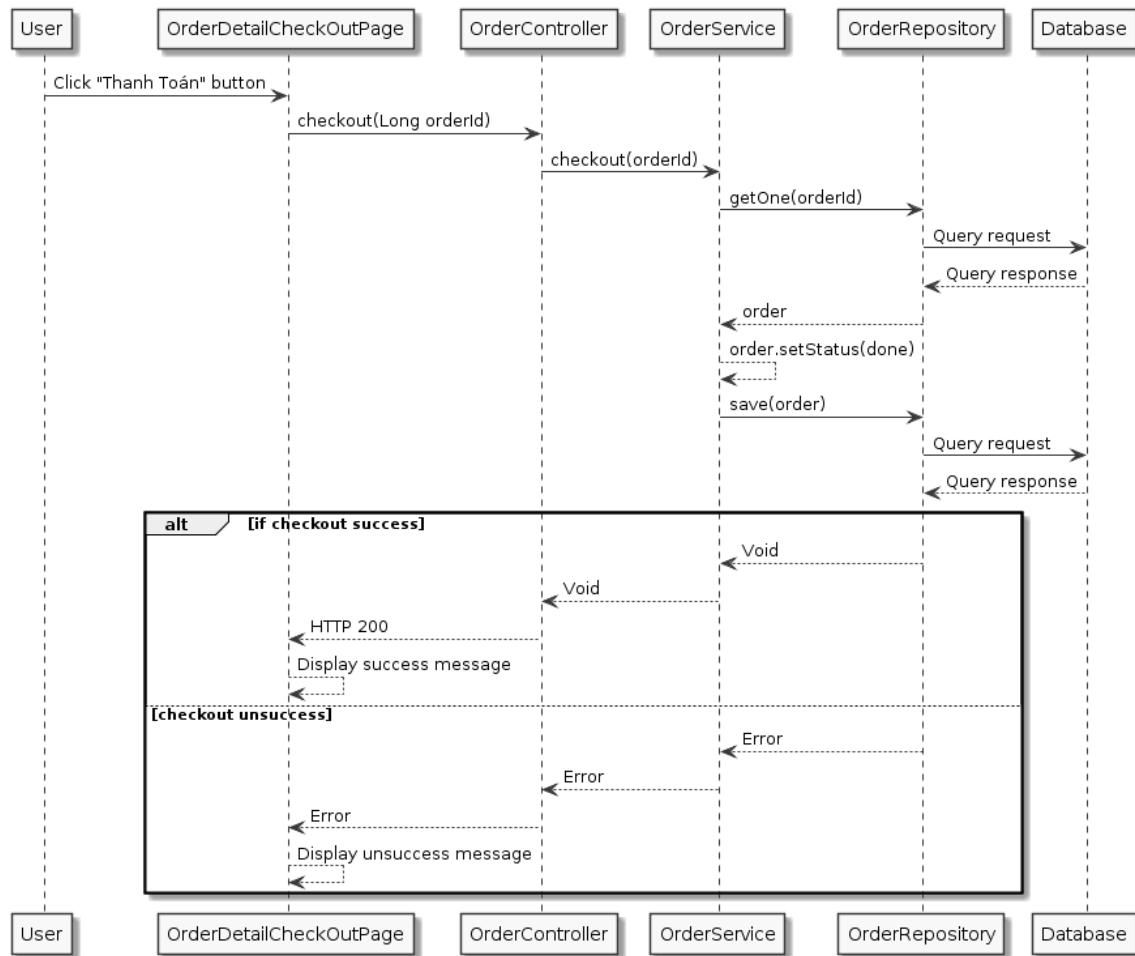


Figure 27 Sequence Diagram- Checkout

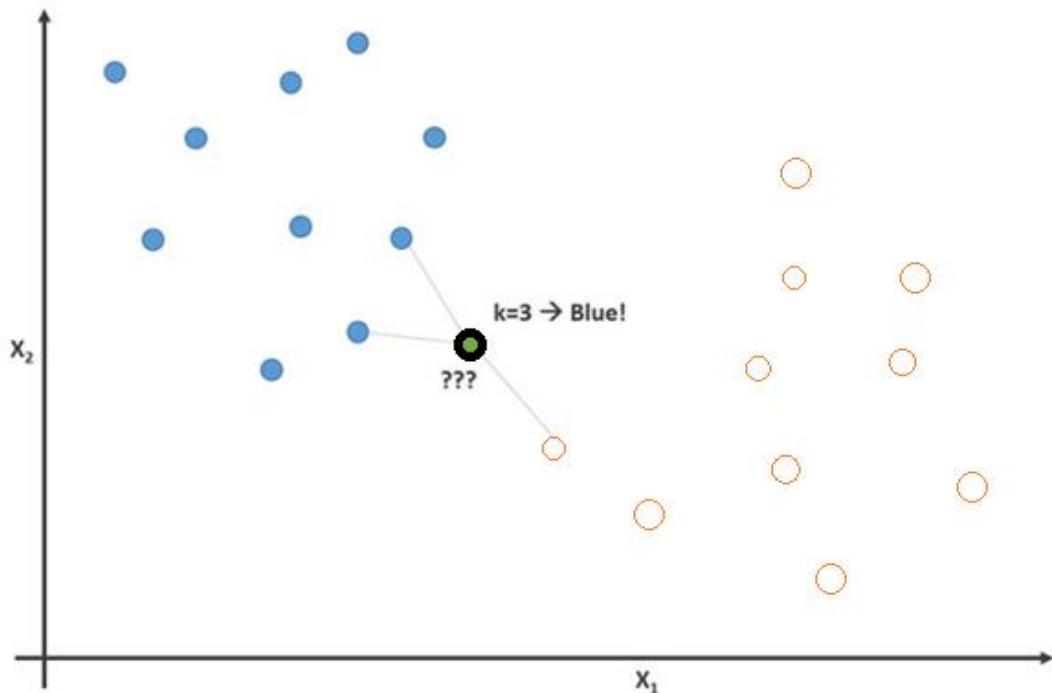
## 4.5 Algorithm

Applied recommendation in food recommend service using Knn.

### Background

Food recommendation service is a service in project eRestaurant, focus on management restaurant booking and order. So, recommendation service must be small, easy to use and change model data. Because order is small and changing by time, so I choose Knn for this system.

### k-Nearest Neighbors



kNN is a machine learning algorithm to find clusters of similar item based on order, and make predictions using the similar of nearest neighbors. For example, we first present order in a matrix, with the matrix having one row for each order and column food for food in order, like so:

Order	Food
O1	F1, F2, F3
O2	F1, F2, F3
O3	F1, F3, F5
O4	F3, F4, F5
O5	F1, F3, F4

We calculate a function  $c(x, y)$  mean distance between item  $x$  and  $y$  by counting order has both  $x$  and  $y$ .

$c(x, y)$	F1	F2	F3	F4	F5
F1		2	4	1	1
F2	2		2	0	0
F3	4	2		2	2
F4	1	0	2		1
F5	1	0	2	1	

This table can update by time if new order come.

Nextly, if new order need to recommend other item, easy to calculate similar of each food with new order.

Example new order is:

Order	Food
Ox	F1, F3

So we estimate similar for f2, f4, f5 in table bellow by using some of near function between each food in new order with other food in menu:

x	S(x)
F2	4
F4	3
F5	3

Simply, we choose F2 to recommend for new order because it is nearest to new order.

## 4.6 CRC Cards and Class Diagram

### 4.6.1 CRC Cards

<b>UserController</b>	
<b>Responsibilities</b>	<b>Collaborators</b>
<b>List all user info</b> <b>Get user info by user id</b> <b>Create user</b> <b>Update user info</b> <b>Delete user info</b> <b>login for user</b>	UserService UserMapper

<b>UserMapper</b>	
<b>Responsibilities</b>	<b>Collaborators</b>
<b>Parser from user Entity to user DTO</b> <b>Parser from user DTO to user entity</b> <b>Parser user entity to authentication DTO</b>	

<b>UserService</b>	
<b>Responsibilities</b>	<b>Collaborators</b>
<b>List all user info</b> <b>Get user info by user id</b> <b>Find user by username password</b> <b>Get user info by role</b> <b>Create user</b> <b>Update user info</b> <b>Delete user info</b> <b>Login into system</b>	RoleService TokenProvider UserRepository

**TokenProvider**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>Generate token</b> <b>Get info from JWT</b> <b>Validate token</b>	

**RoleService**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>Check “Role” Exist</b> <b>Fill all role info</b> <b>Get Role info by id</b>	<b>RoleRepository</b>

**UserRepository**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>List all user info</b> <b>Get user info by user id</b> <b>find user by name</b> <b>Create user</b> <b>Update user info</b> <b>Delete user info</b> <b>check username and password of user account</b>	

**RoleController**

Responsibilities	Collaborators
<b>Check “Role” Exist</b> <b>Find all of Role info</b> <b>Get Role info by id</b>	RoleService

**RoleService**

Responsibilities	Collaborators
<b>Check “Role” Exist</b> <b>Find all of Role info</b> <b>Get Role info by id</b>	RoleService UserService

**RoleService**

Responsibilities	Collaborators
<b>Check “Role” Exist</b> <b>Find all of Role info</b> <b>Get Role info by id</b>	RoleRepository

**RoleRepository**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>Get role info by id</b>	

**FoodController**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>Find all of food</b> <b>Get food info by id</b> <b>Get food list info by category</b> <b>Get food list info by food status and name</b> <b>Create food</b> <b>Update food info</b> <b>Delete food</b>	FoodService FoodMapper

**FoodMapper**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>Parser from food entity to food DTO</b> <b>Parser from food DTO to food entity</b>	

<b>FoodService</b>	
<b>Responsibilities</b>	<b>Collaborators</b>
<a href="#">Find all of food by name, status</a> <a href="#">Get food info by id</a> <a href="#">Get food list info by category</a> <a href="#">Create food</a> <a href="#">Update food info</a> <a href="#">Delete food</a> <a href="#">Update food list</a>	<a href="#">FoodRepository</a> <a href="#">CategoryService</a>

<b>FoodRepository</b>	
<b>Responsibilities</b>	<b>Collaborators</b>
<a href="#">Find all of food</a> <a href="#">Get food info by id</a> <a href="#">Create food</a> <a href="#">Update food info</a> <a href="#">Delete food</a> <a href="#">Find food list by name, status</a> <a href="#">Find food list which in category list</a>	

<b>CategoryService</b>	
<b>Responsibilities</b>	<b>Collaborators</b>
<a href="#">Get category</a> <a href="#">Get sub category by parent category</a> <a href="#">Find category by name</a> <a href="#">Check category exist</a>	<a href="#">CategoryRepository</a>

**CategoryController**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>Find all of category</b> <b>Get category info by category id</b> <b>Create category</b> <b>Update category info</b> <b>Delete category</b> <b>Get parent category list by sub category id</b>	CategoryService CategoryMapper

**CategoryMapper**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>Parse to category entity from category request dto</b> <b>Parse to category dto from category entity</b>	

**CategoryService**

<b>Responsibilities</b>	<b>Collaborators</b>
<b>Find all of category</b> <b>Get category info by category id</b> <b>Create category</b> <b>Update category info</b> <b>Delete category</b> <b>Get parent category list by sub category id</b> <b>Find category by name</b> <b>Get sub category list by parent category id</b>	CategoryRepository

## CategoryRepository

Responsibilities	Collaborators
<a href="#">Find all of category</a> <a href="#">Get category info by id</a> <a href="#">Create category</a> <a href="#">Update category info</a> <a href="#">Delete category</a> <a href="#">Get parent category list by sub category id</a> <a href="#">Find category by name</a> <a href="#">Get sub category list by parent category id</a>	
<b>TableController</b>	
Responsibilities	Collaborators
<a href="#">List all table</a> <a href="#">Find table</a> <a href="#">Create table</a> <a href="#">Update table</a> <a href="#">Delete table</a> <a href="#">Find table by name and number of seating</a> <a href="#">Find available table by date</a>	<a href="#">TableService</a> <a href="#">TableMapper</a>

## TableMapper

Responsibilities	Collaborators
<a href="#">parse to table entity from table request dto</a> <a href="#">parse to table dtp from table entity</a> <a href="#">parse to available table entity from table entity</a>	

**TableService**

<b>Responsibilities</b>	<b>Collaborators</b>
List all table Find table Create table Update table Delete table Find table by name, number of seating Find available table by date	TableRepository

**TableRepository**

<b>Responsibilities</b>	<b>Collaborators</b>
List all table Find table Create table Update table Delete table Find table by name, number of seating Find available table by date	

**CustomerController**

<b>Responsibilities</b>	<b>Collaborators</b>
Connect to facebook Facebook connect callback Update profile customer Find Customer by phone or name Check customer is exist or not	CustomerService CustomerMapper

**CustomerMapper**

<b>Responsibilities</b>	<b>Collaborators</b>
<p>Parse to customer entity from customer dto</p> <p>Parse to customer dtp from customer entity</p>	

**CustomerService**

<b>Responsibilities</b>	<b>Collaborators</b>
<p>Connect to facebook</p> <p>Facebook connect callback</p> <p>Update profile customer</p> <p>Find Customer by phone or name</p> <p>Check customer is exist or not</p>	CustomerRepository TokenProvider

**TokenProvider**

<b>Responsibilities</b>	<b>Collaborators</b>
<p>Generate token</p> <p>Get info from JWT</p> <p>Validate token</p>	

### CustomerRepository

Responsibilities	Collaborators
<b>Connect to facebook</b> <b>Facebook connect callback</b> <b>Update profile customer</b> <b>Find Customer by phone or name</b> <b>Check customer is exist or not</b>	CustomerRepository

### OrderController

Responsibilities	Collaborators
<b>Find order by status, name</b> <b>Check order is open or not</b> <b>Change order status</b> <b>Create order</b> <b>Update order</b> <b>Delete order</b> <b>Find order by order id</b> <b>Check out order by id</b> <b>Change order detail status by order id</b>	OrderService OrderMapper PusherConfig

### OrderMapper

Responsibilities	Collaborators
<b>Parse to order entity from order request dto</b> <b>Parse to order dto from order entity</b> <b>Parse to notification dto from order entity</b>	

**PusherConfig**

<b>Responsibilities</b>	<b>Collaborators</b>
<p><b>Set sluster</b>  <b>Set pusher key</b>  <b>Set app id</b></p>	

**OrderService**

<b>Responsibilities</b>	<b>Collaborators</b>
<p><b>Find order by status</b>  <b>Check order is open or not</b>  <b>Change order status</b>  <b>Create order</b>  <b>Update order</b>  <b>Delete order</b>  <b>Get order by order id</b>  <b>Check out order by id</b>  <b>Change order detail status by order id</b></p>	<p>OrderRepository  OrderDetailRepository  CustomerService</p>

**OrderRepository**

<b>Responsibilities</b>	<b>Collaborators</b>
<p><b>Find order by status , customers id</b>  <b>Create order</b>  <b>Update order</b>  <b>Delete order</b>  <b>Find order by order id</b>  <b>Find Order Over Time</b></p>	

**OrderDetailRepository**

Responsibilities	Collaborators
<b>Find order detail by order id</b> <b>Stream all order detail</b>	

**OrderDetailController**

Responsibilities	Collaborators
<b>Get list order detail by order id</b>	OrderDetailService

**OrderDetailsService**

Responsibilities	Collaborators
<b>Get list order detail by order id</b>	OrderDetailRepository

### OrderDetailRepository

Responsibilities	Collaborators
<a href="#">Get list order detail by order id</a>	

### DashboardController

Responsibilities	Collaborators
<a href="#">Get food rank in former month</a> <a href="#">Get food rank by quantity in former month</a> <a href="#">Get peak time in frame time of day</a> <a href="#">Get static line in former days, month, years</a>	<a href="#">DashboardService</a>

### DashboardService

Responsibilities	Collaborators
<a href="#">Get food rank in former month</a> <a href="#">Get food rank by quantity in former month</a> <a href="#">Get peak time in frame time of day</a> <a href="#">Get static line in former days, month, years</a>	<a href="#">DashboardRepository</a>

**DashboardRepository**

Responsibilities	Collaborators
<b>Get food rank in former month</b> <b>Get food rank by quantity in former month</b> <b>Get peak time in frame time of day</b> <b>Get static line in former days, month, years</b>	

**AuthenticationFilter**

Responsibilities	Collaborators
<b>Do filter by servlet request, servlet response, filter chain</b> <b>Get jwt from request by servlet request</b>	TokenProvider UserService CustomerService

**TokenProvider**

Responsibilities	Collaborators
<b>Generate token</b> <b>Get Info from JWT</b> <b>Validate token</b>	

### RecommendController

Responsibilities	Collaborators
<b>Train data</b> <b>Get recommended food list by order detail list</b>	RecommendService

### RecommendService

Responsibilities	Collaborators
<b>Train data</b> <b>Get recommended food list by order detail list</b>	OrderDetailRepository FoodRepository

### OrderDetailRepository

Responsibilities	Collaborators
<b>Find all orderdetail</b>	

## FoodRepositoryRepository

Responsibilities	Collaborators
Find food list by foos id	

## THE CAPSTONE PROJECT

### 4.6.2 Class Diagram

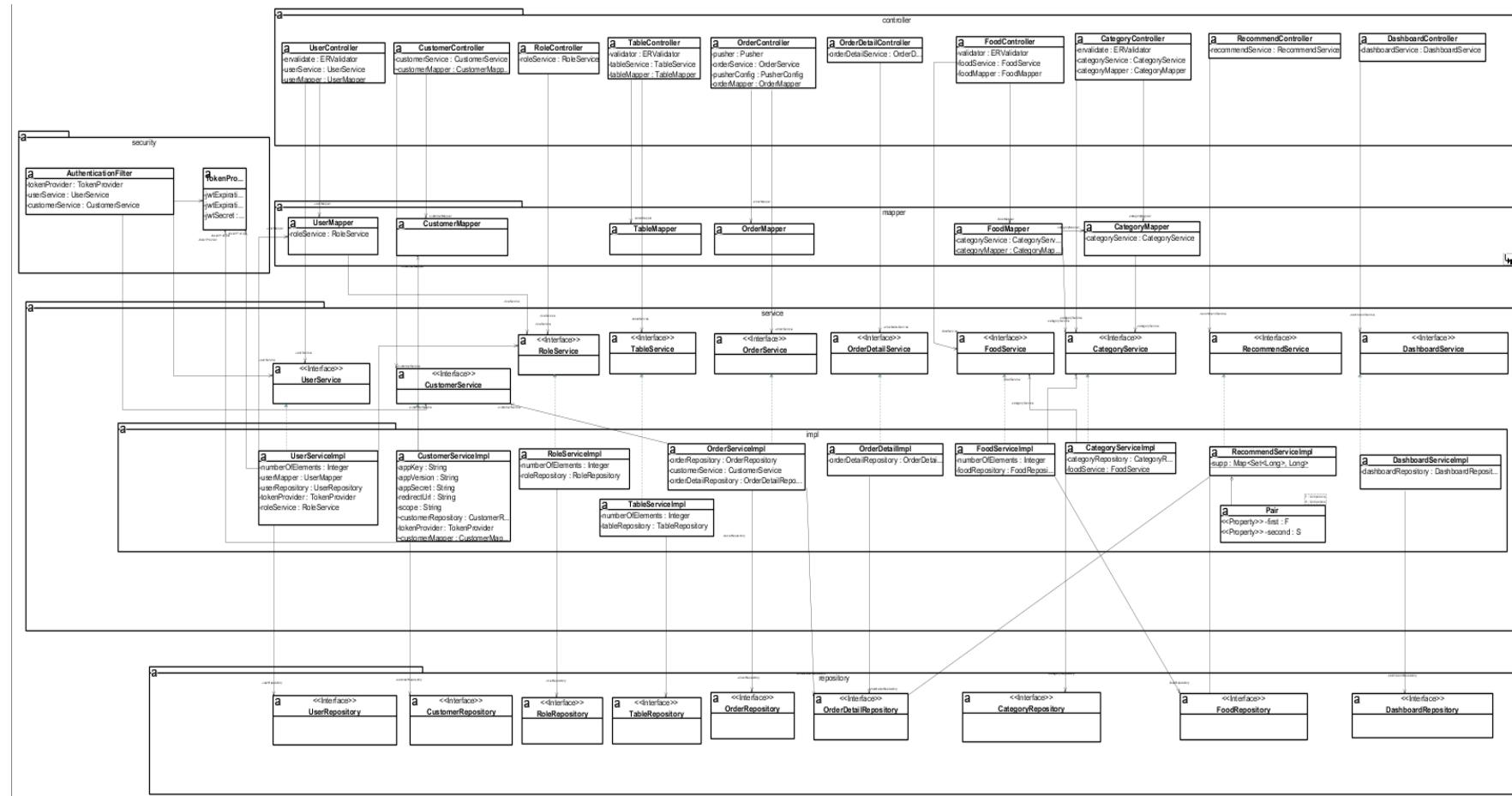


Figure 28 Total class diagram

Use Case	Classes
<b>1. View menu</b>	<interface> RoleService <interface> FoodService <interface> FoodRepository <interface> CategoryRepository <interface> CategoryService FoodServiceImpl CategoryServiceImpl FoodMapper FoodController
<b>2. View table</b>	TableMapper <interface> TableService <interface> TableRepository TableServiceImpl OrderServiceImpl
<b>3. Register</b>	<interface> CustomerService <interface> CustomerRepository TokenProvider CustomerServiceImpl CustomerController
<b>4. Login by Customer</b>	<interface> CustomerService <interface> CustomerRepository TokenProvider CustomerServiceImpl CustomerController
<b>5. Login</b>	<interface> UserService <interface> UserRepository TokenProvider UserServiceImpl UserController TokenProvider
<b>6. View available table</b>	TableMapper <interface> TableRepository TableServiceImpl TableController
<b>7. Manage table booking</b>	PusherConfig <interface> OrderService <interface> OrderRepository OrderServiceImpl

	CustomerController OrderController
<b>8. Manage order</b>	PusherConfig <interface> OrderService <interface> OrderRepository OrderServiceImpl CustomerController OrderController
<b>9. Notified order</b>	<interface> OrderService <interface> OrderDetailRepository PusherConfig OrderServiceImpl OrderController
<b>10. Serve order</b>	<interface> OrderService <interface> OrderDetailRepository PusherConfig OrderServiceImpl OrderController
<b>11. List waiting order</b>	<interface> OrderService <interface> OrderDetailRepository PusherConfig OrderServiceImpl OrderController
<b>12. Change order status</b>	<interface> OrderService <interface> OrderDetailRepository PusherConfig OrderServiceImpl OrderController
<b>13. List served order</b>	<interface> OrderService <interface> OrderDetailRepository PusherConfig OrderServiceImpl OrderController
<b>14. Find served order</b>	<interface> CustomerService <interface> OrderService <interface> CustomerRepository <interface> OrderRepository CustomerServiceImpl OrderServiceImpl
<b>15. Check out</b>	<interface> OrderService <interface> OrderDetailRepository

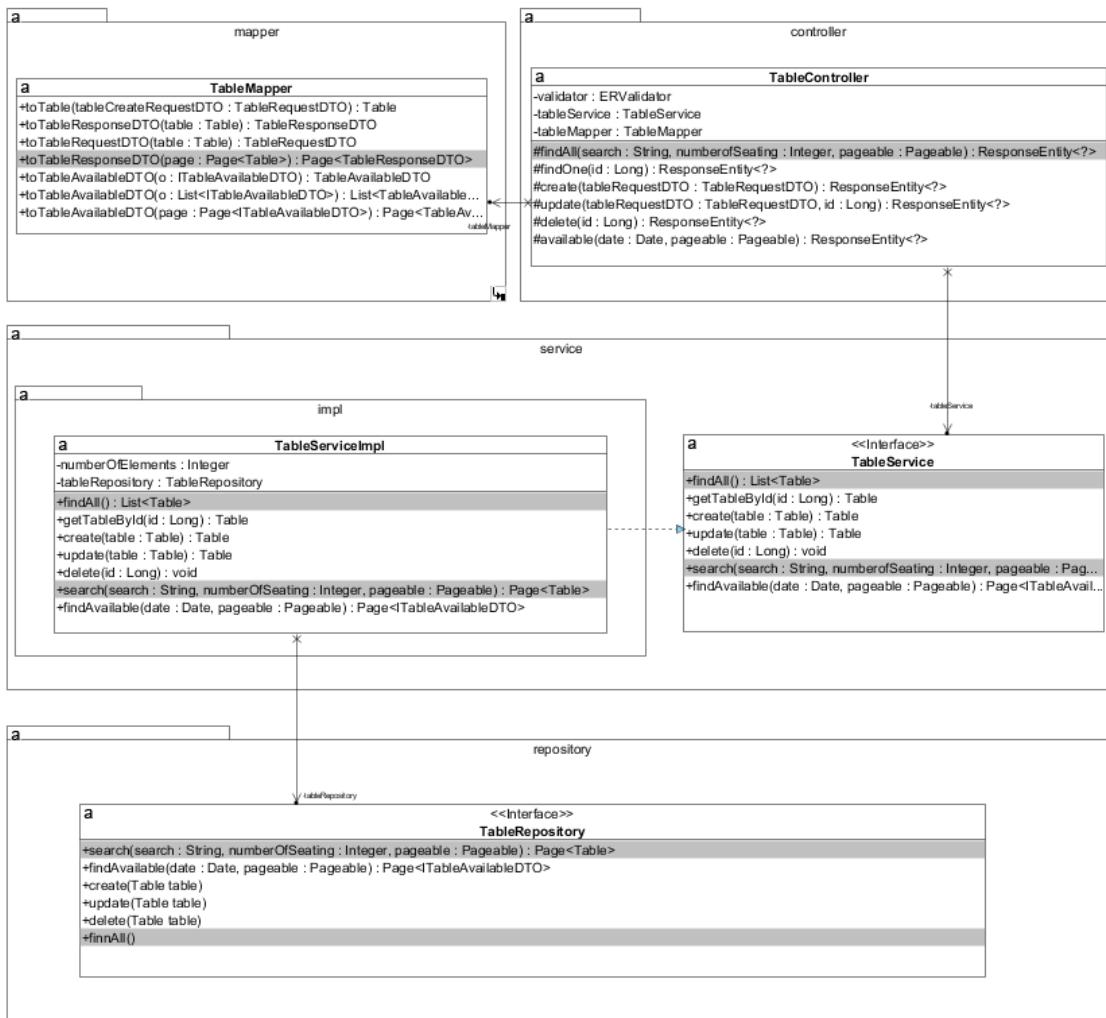
	<interface> OrderRepository OrderServiceImpl OrderController
<b>16. Manage category</b>	<interface> CategoryService <interface> CategoryRepository CategoryServiceImpl CategoryController
<b>17. Manage food</b>	<interface> FoodService <interface> RoleService <interface> FoodRepository <interface> CategoryRepository FoodServiceImpl CategoryServiceImpl FoodController
<b>18. Manage table</b>	<interface> TableService <interface> TableRepository TableServiceImpl TableController
<b>19. Manage agent account</b>	<interface> UserService <interface> RoleService <interface> UserRepository <interface> RoleRepository UserServiceImpl RoleServiceImpl UserController RoleController

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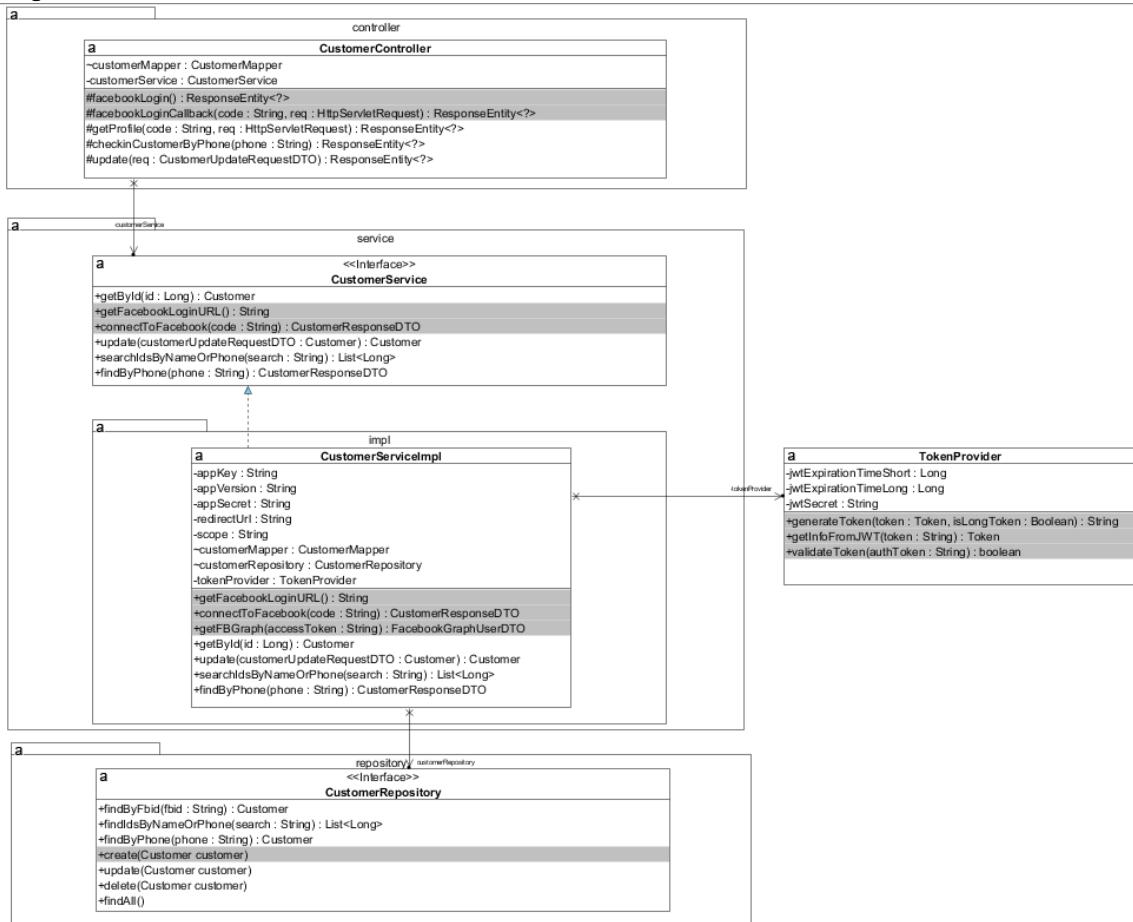
## View menu



## View table

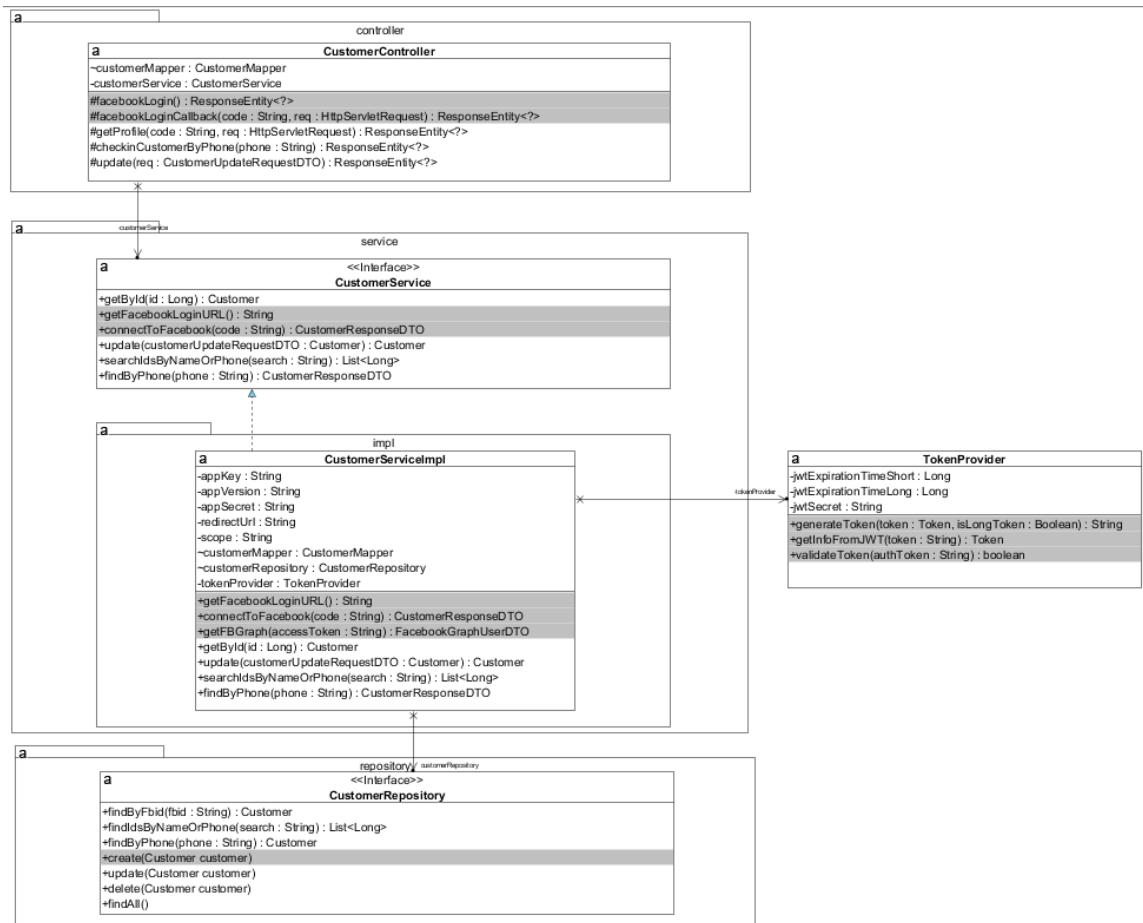


## Register

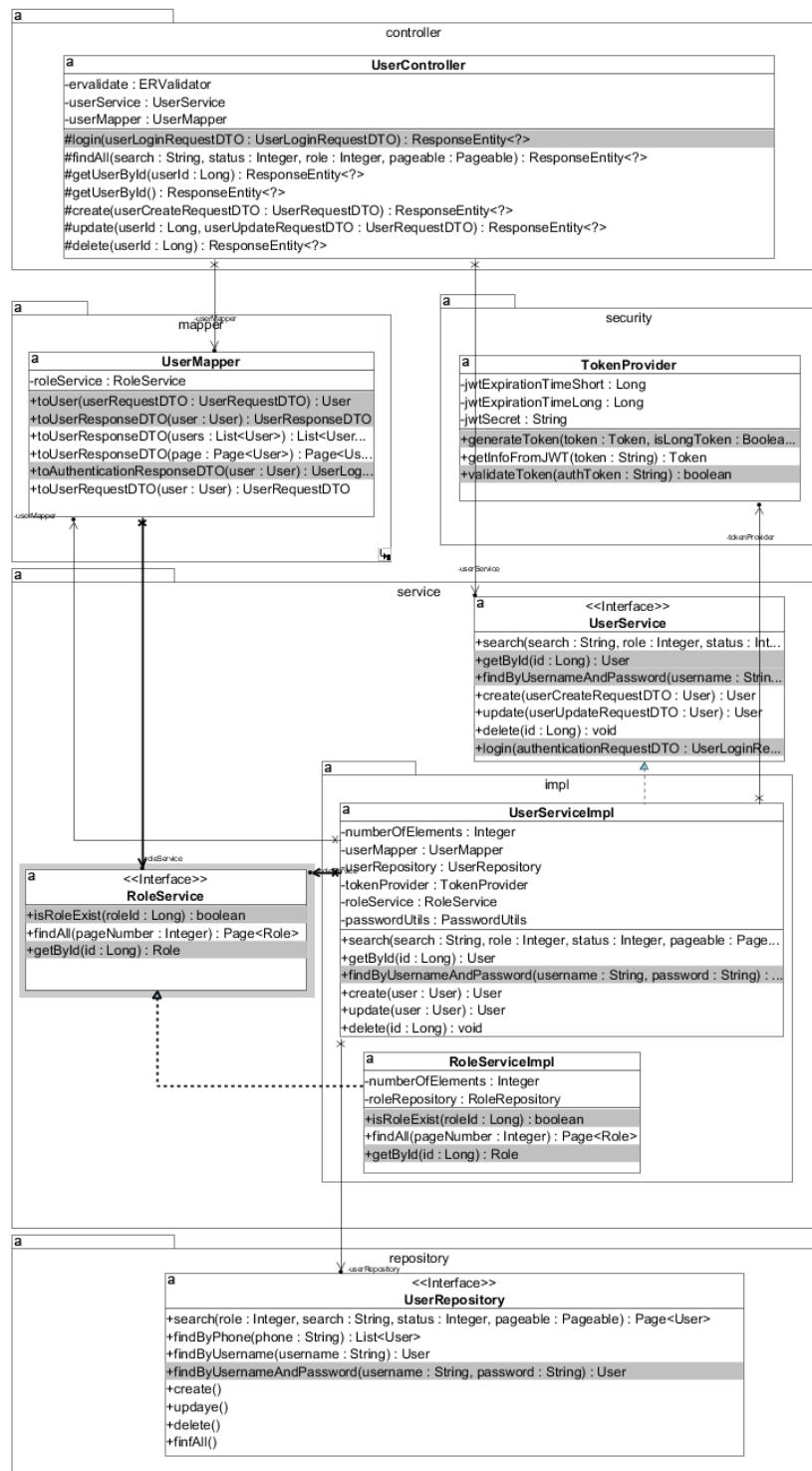


# THE CAPSTONE PROJECT

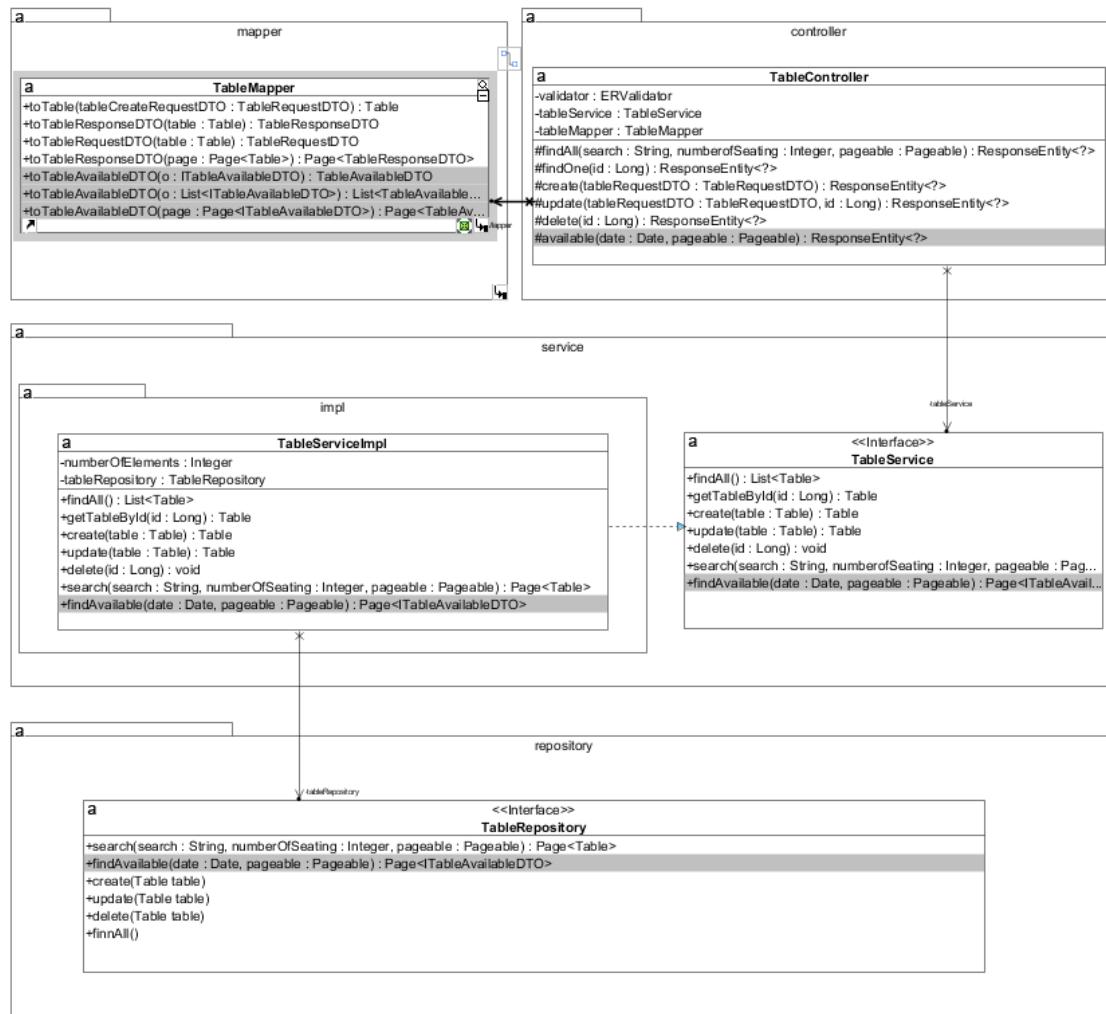
## *Login by Customer*



## Login

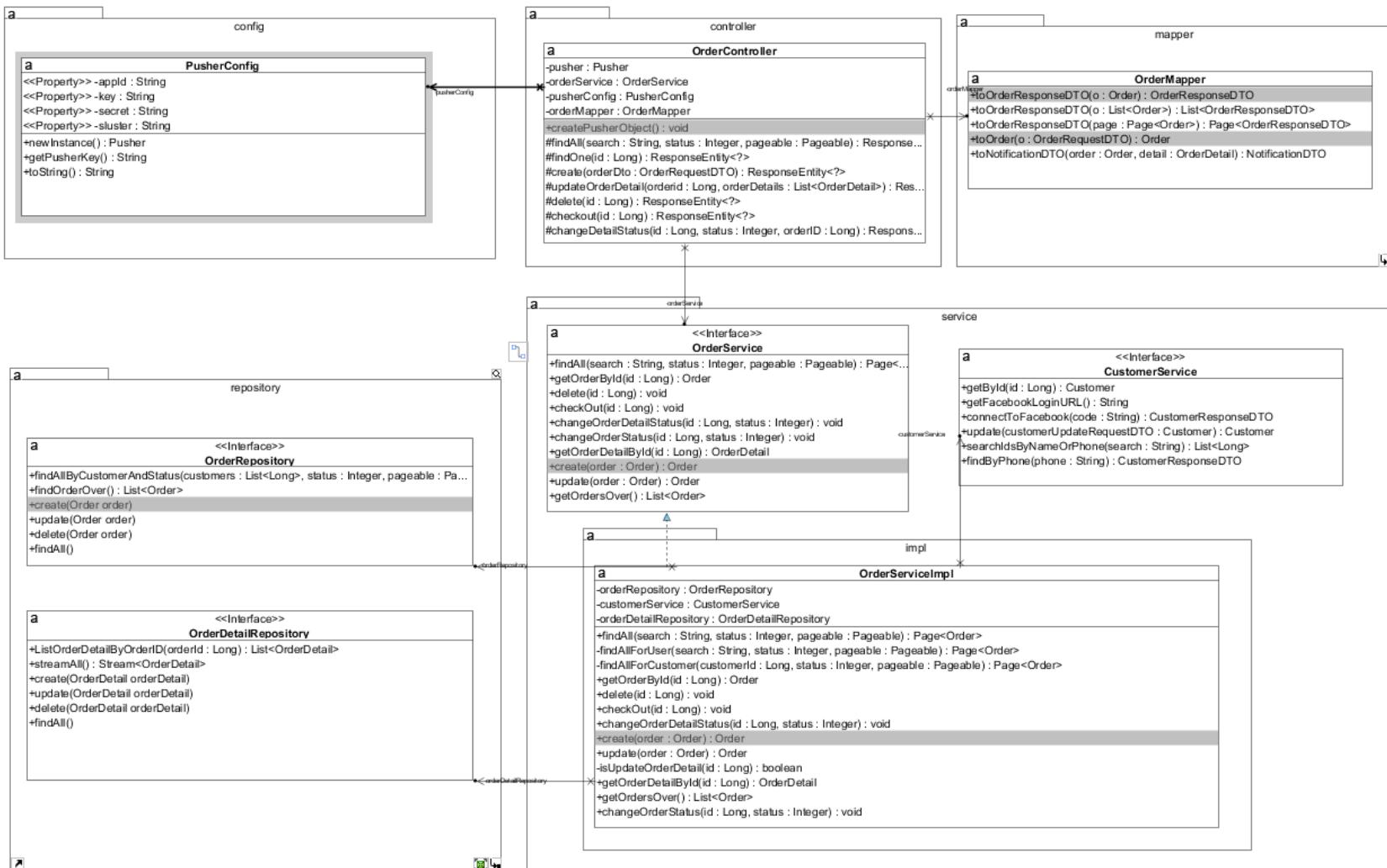


## View available table



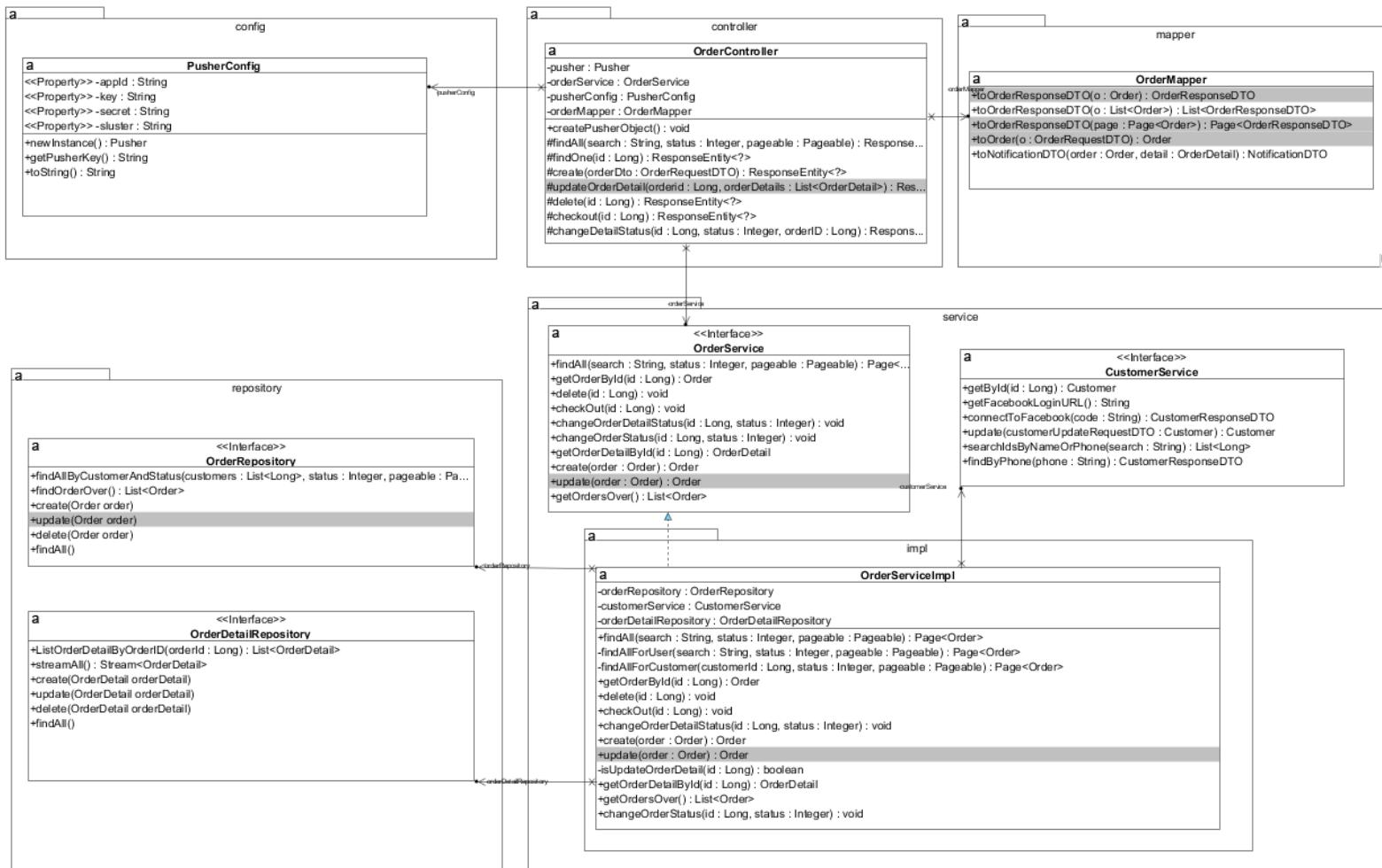
# THE CAPSTONE PROJECT

## Book table



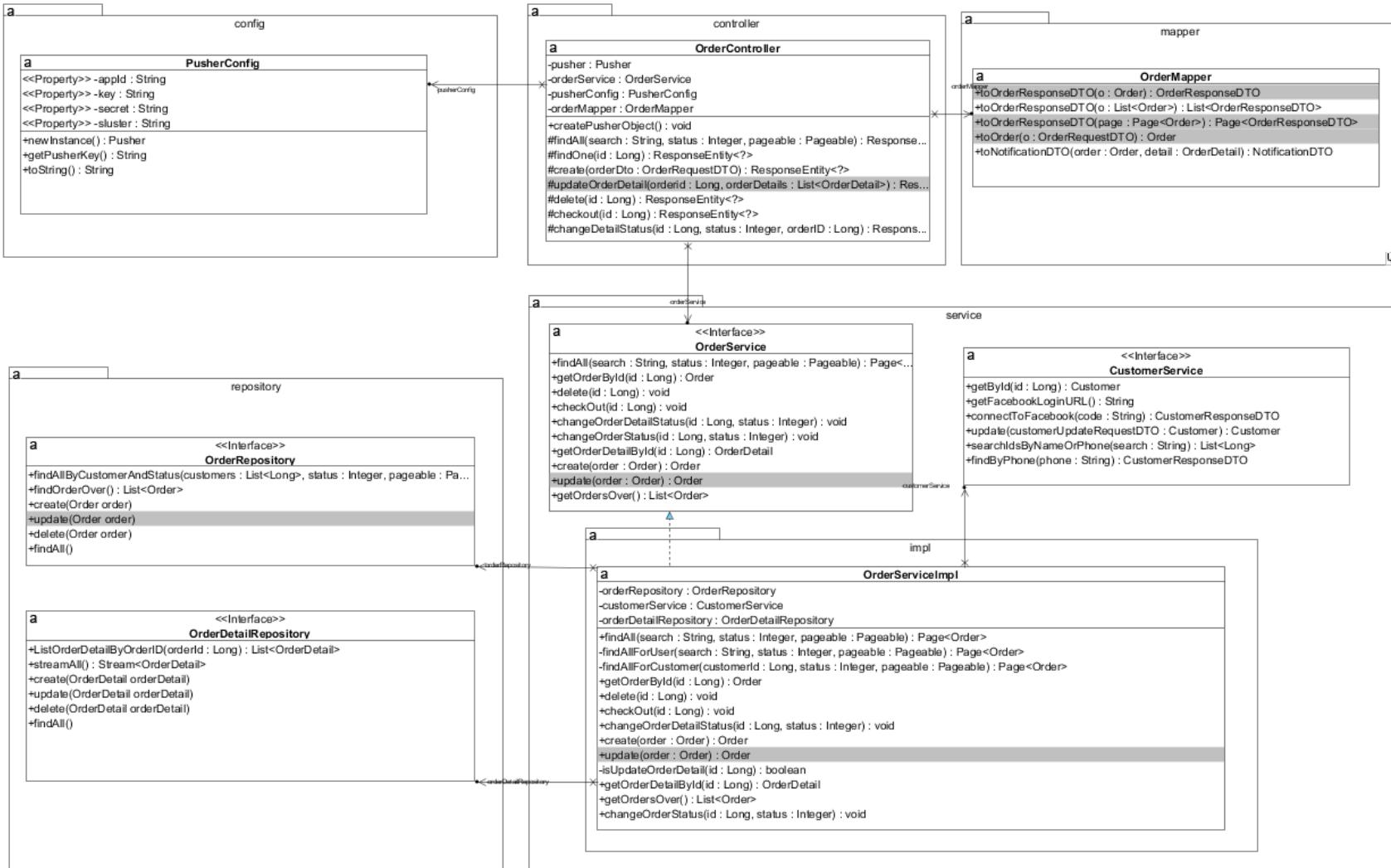
# THE CAPSTONE PROJECT

## Edit table book



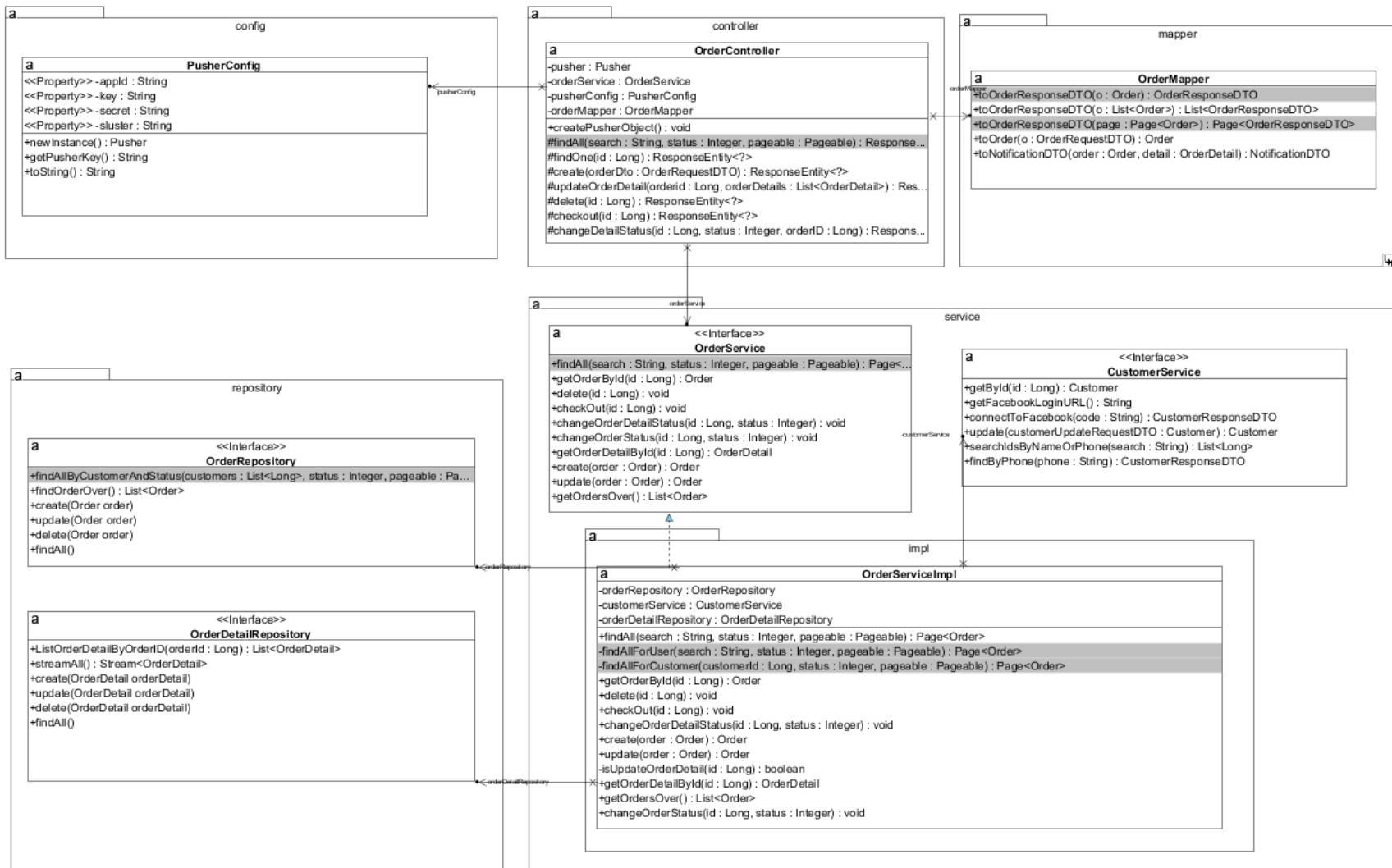
# THE CAPSTONE PROJECT

## *Cancel table book*



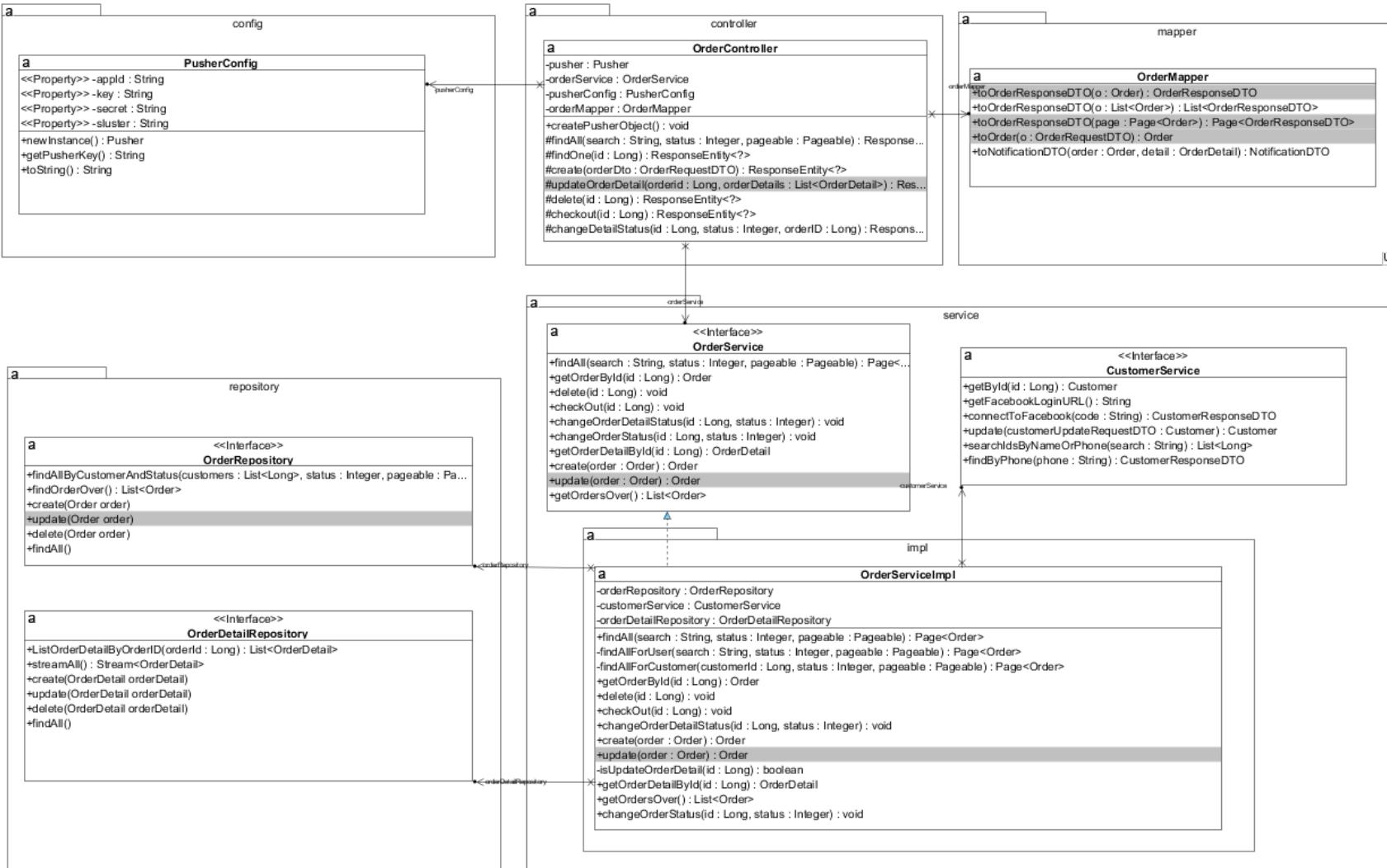
# THE CAPSTONE PROJECT

## View table book



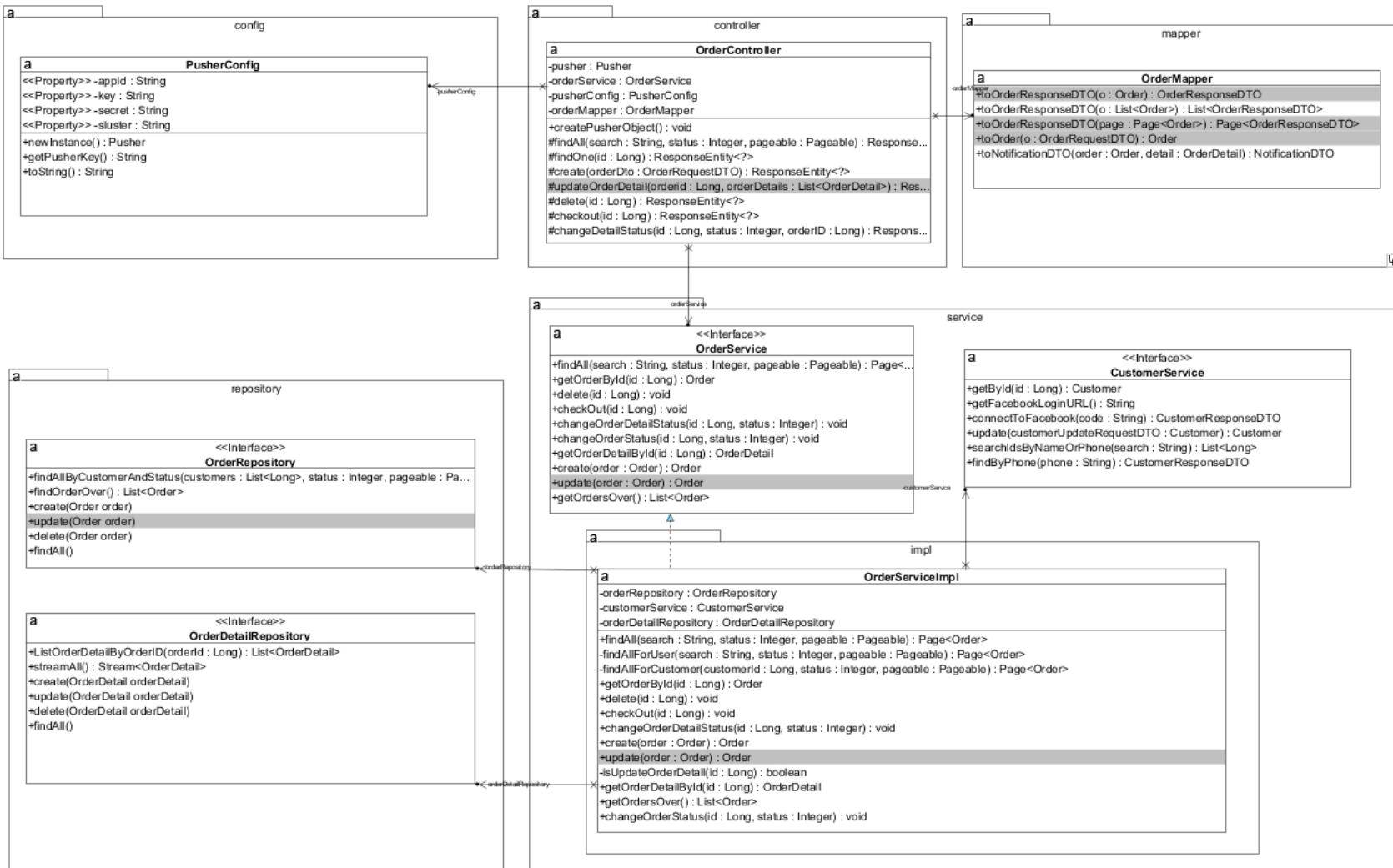
# THE CAPSTONE PROJECT

## Add order



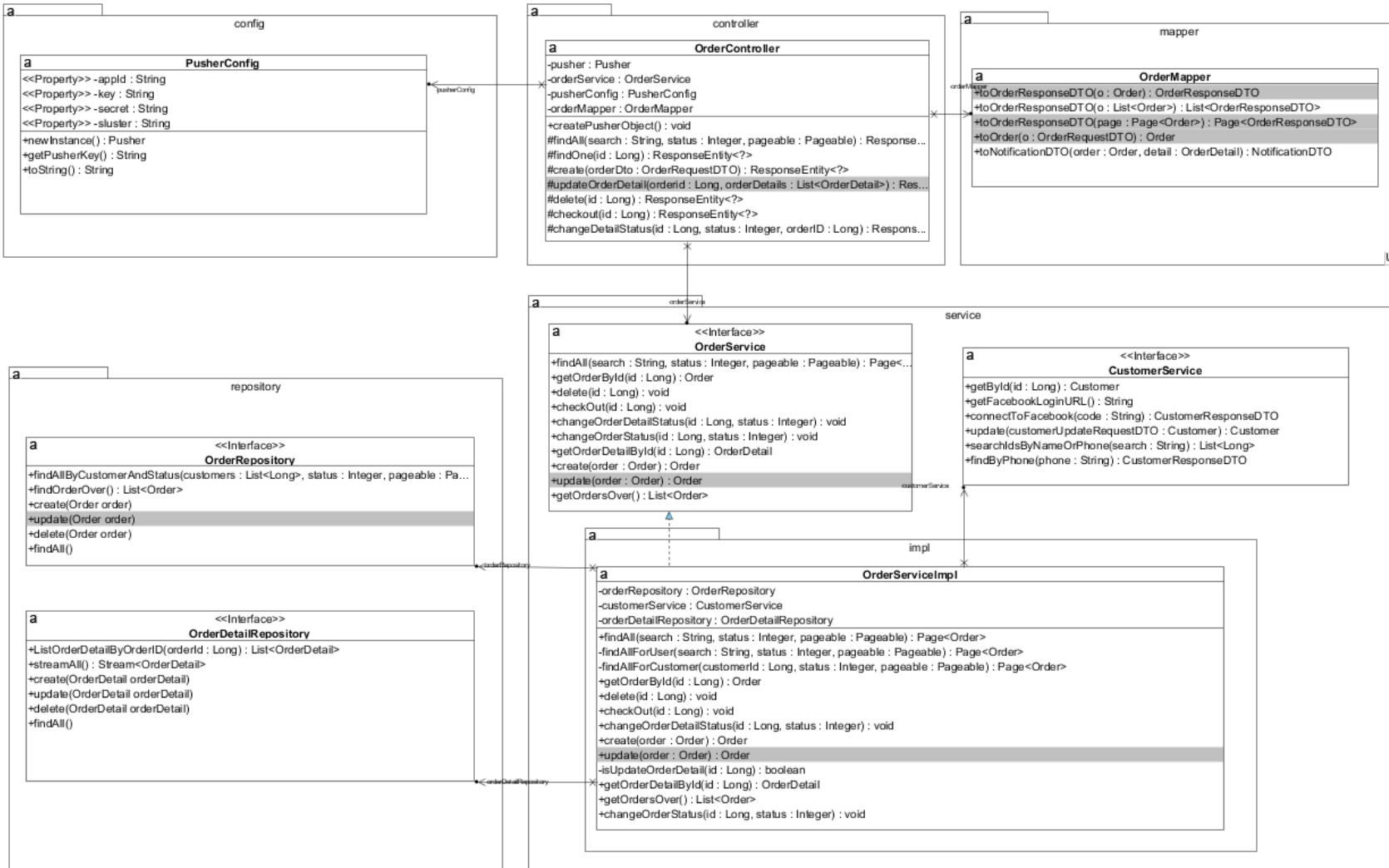
# THE CAPSTONE PROJECT

## Edit order



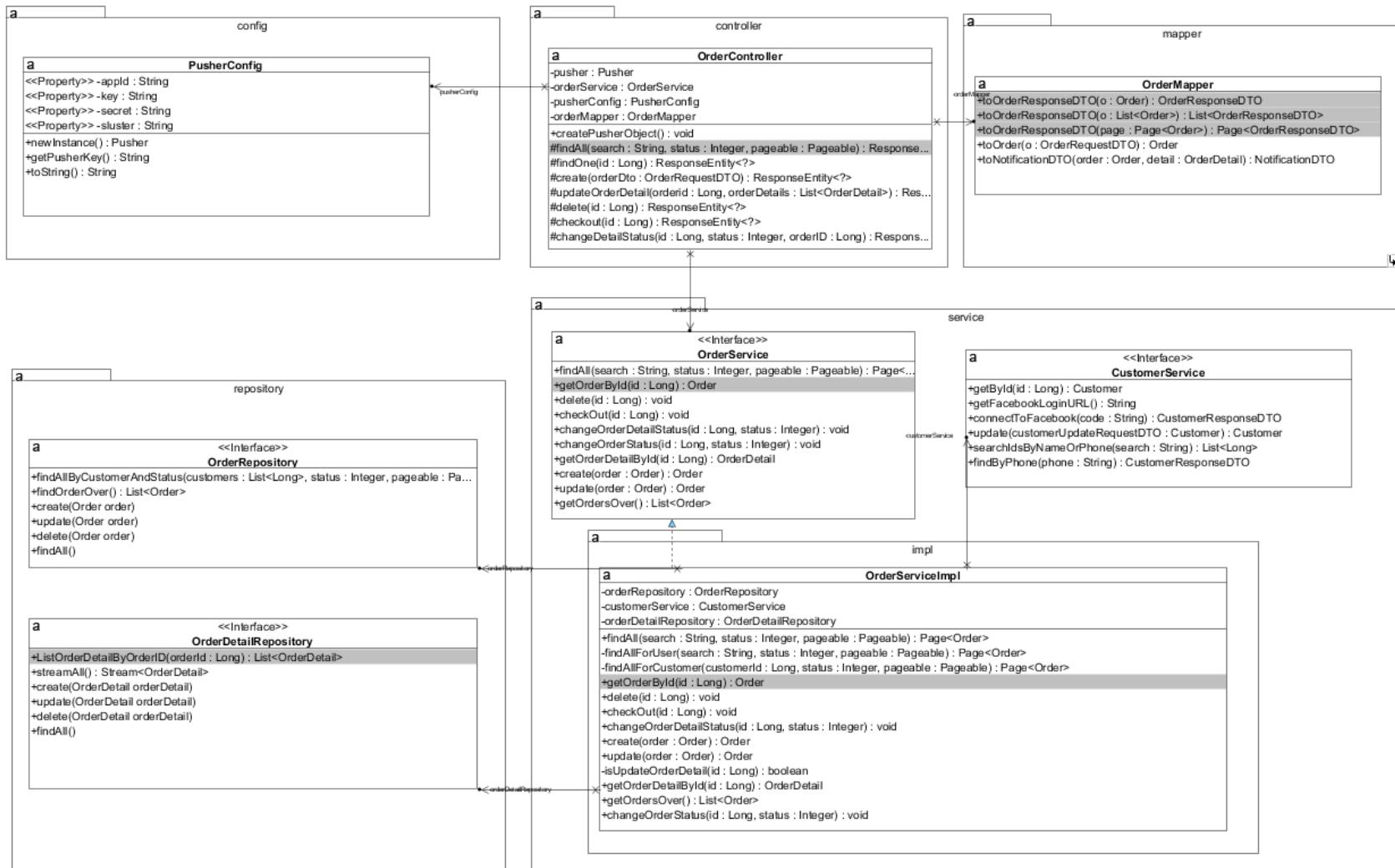
# THE CAPSTONE PROJECT

## Delete order



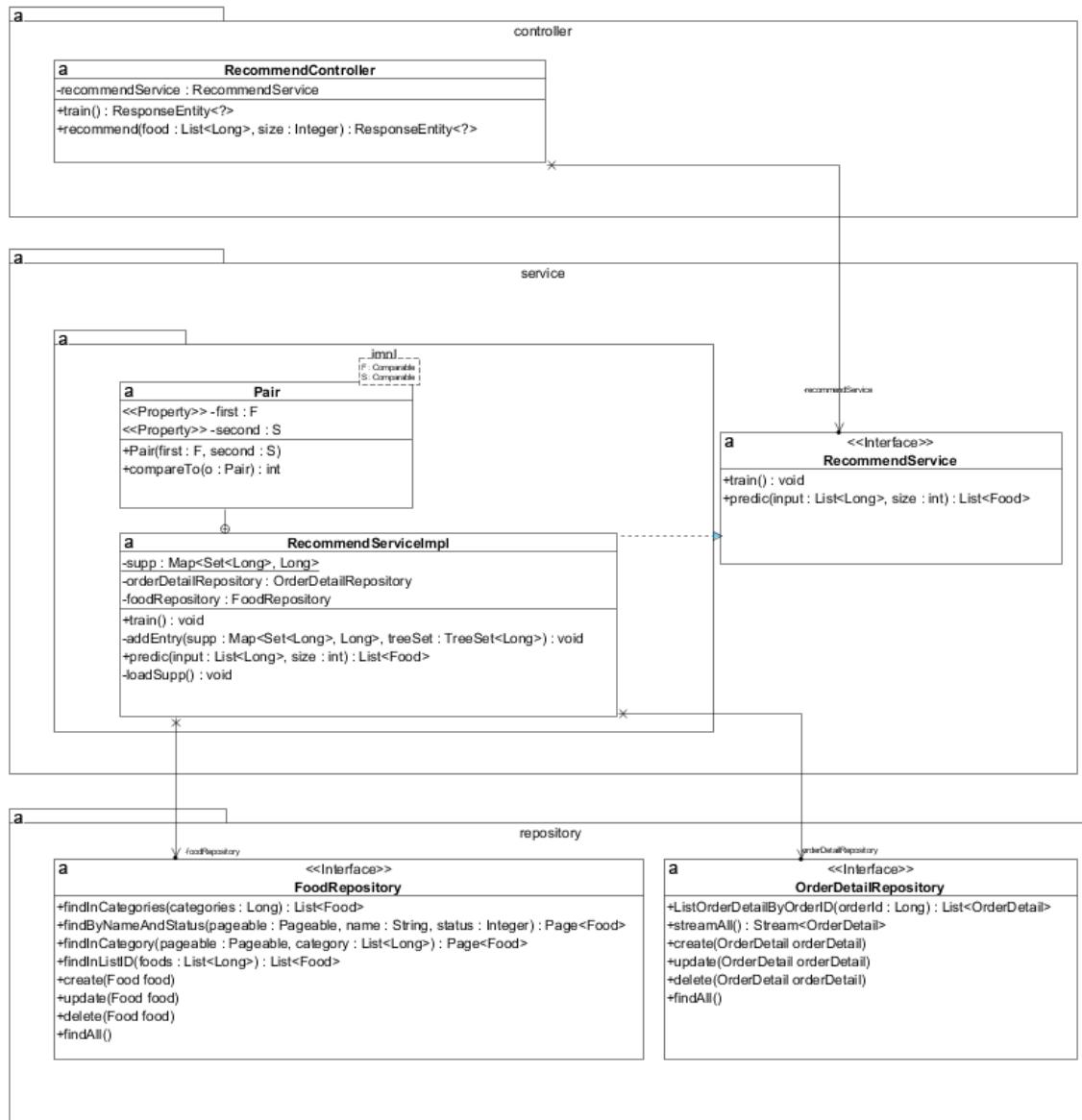
# THE CAPSTONE PROJECT

## View order



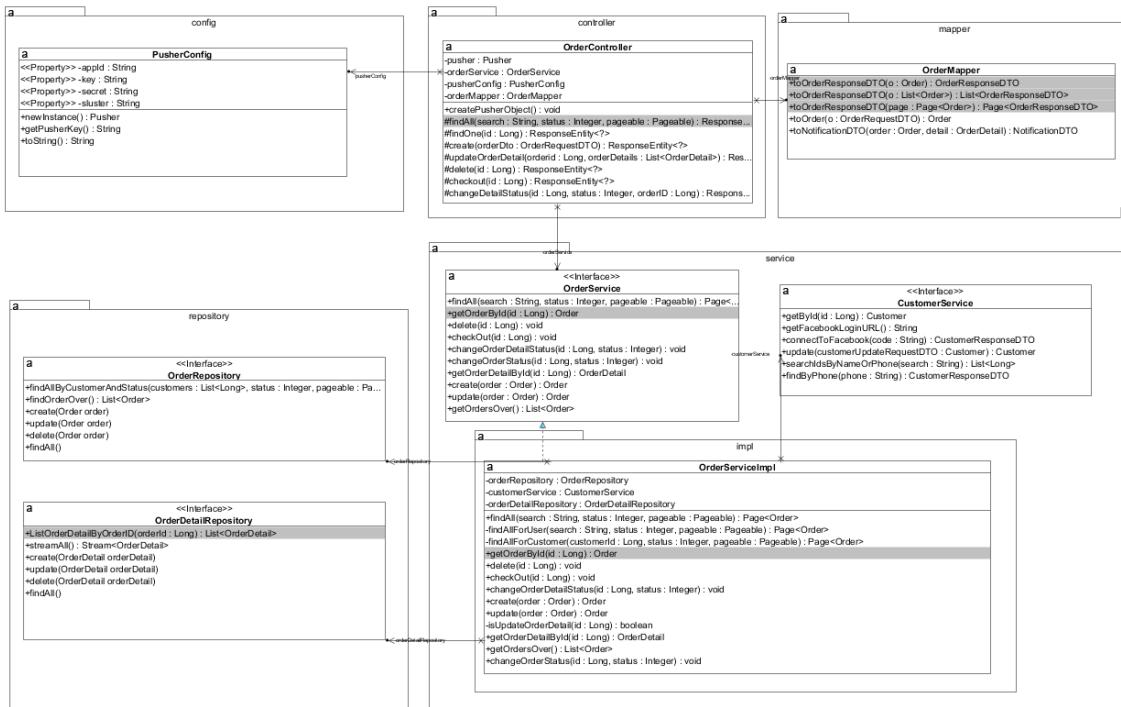
# THE CAPSTONE PROJECT

## Recommend food

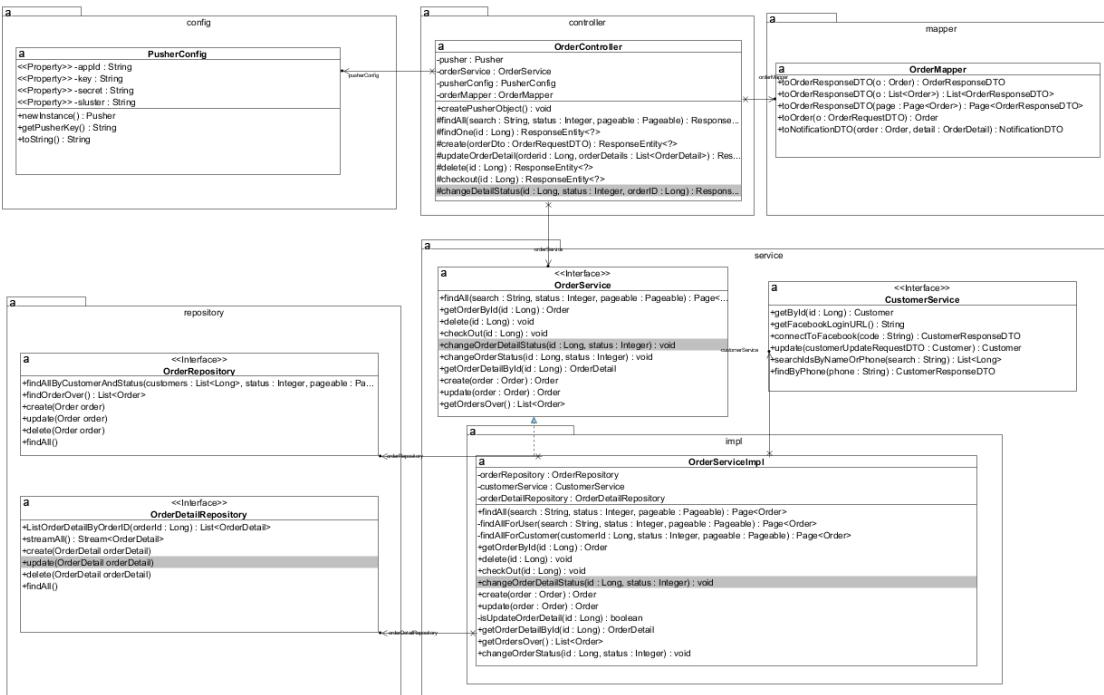


# THE CAPSTONE PROJECT

## Notified order

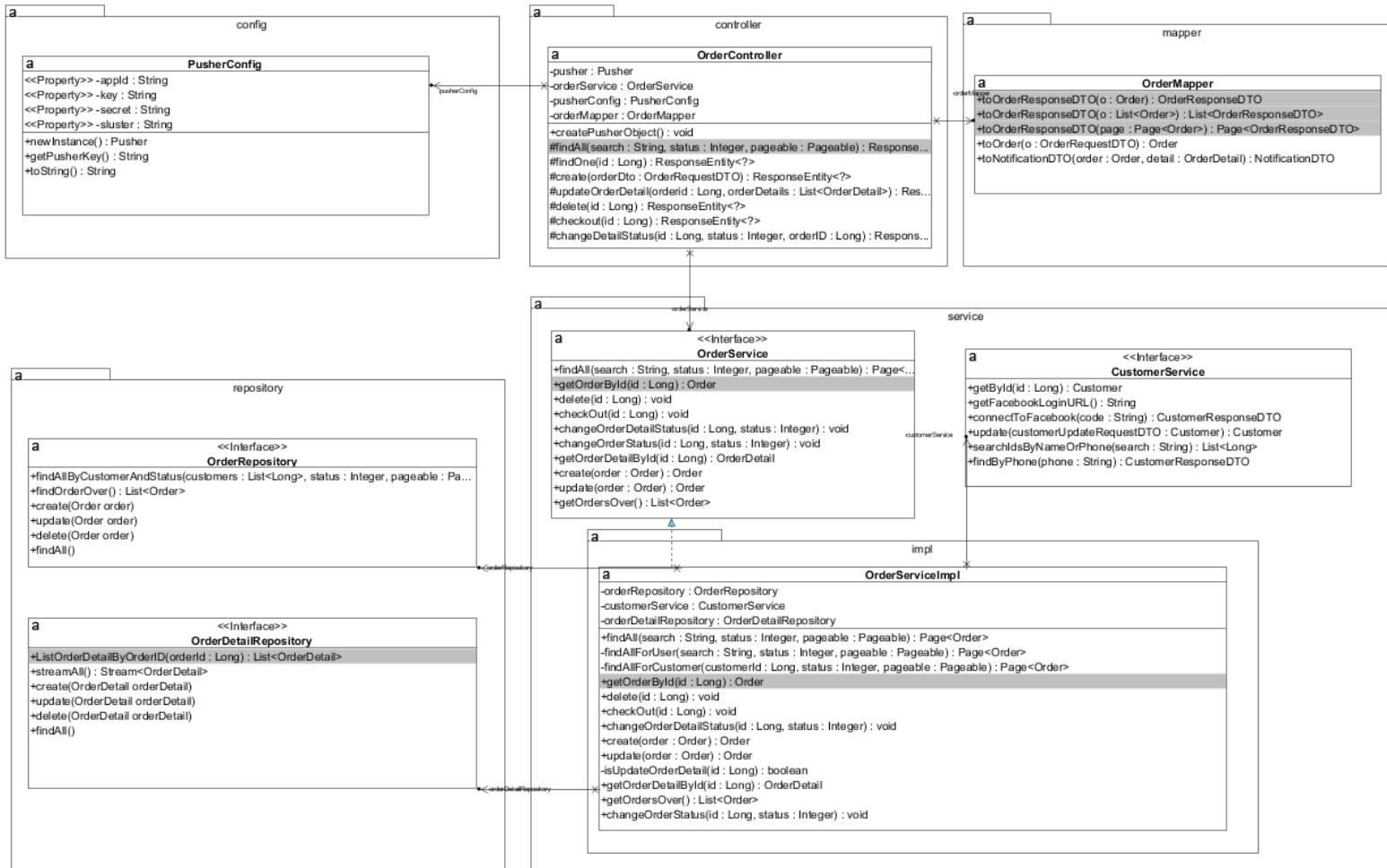


## Serve order



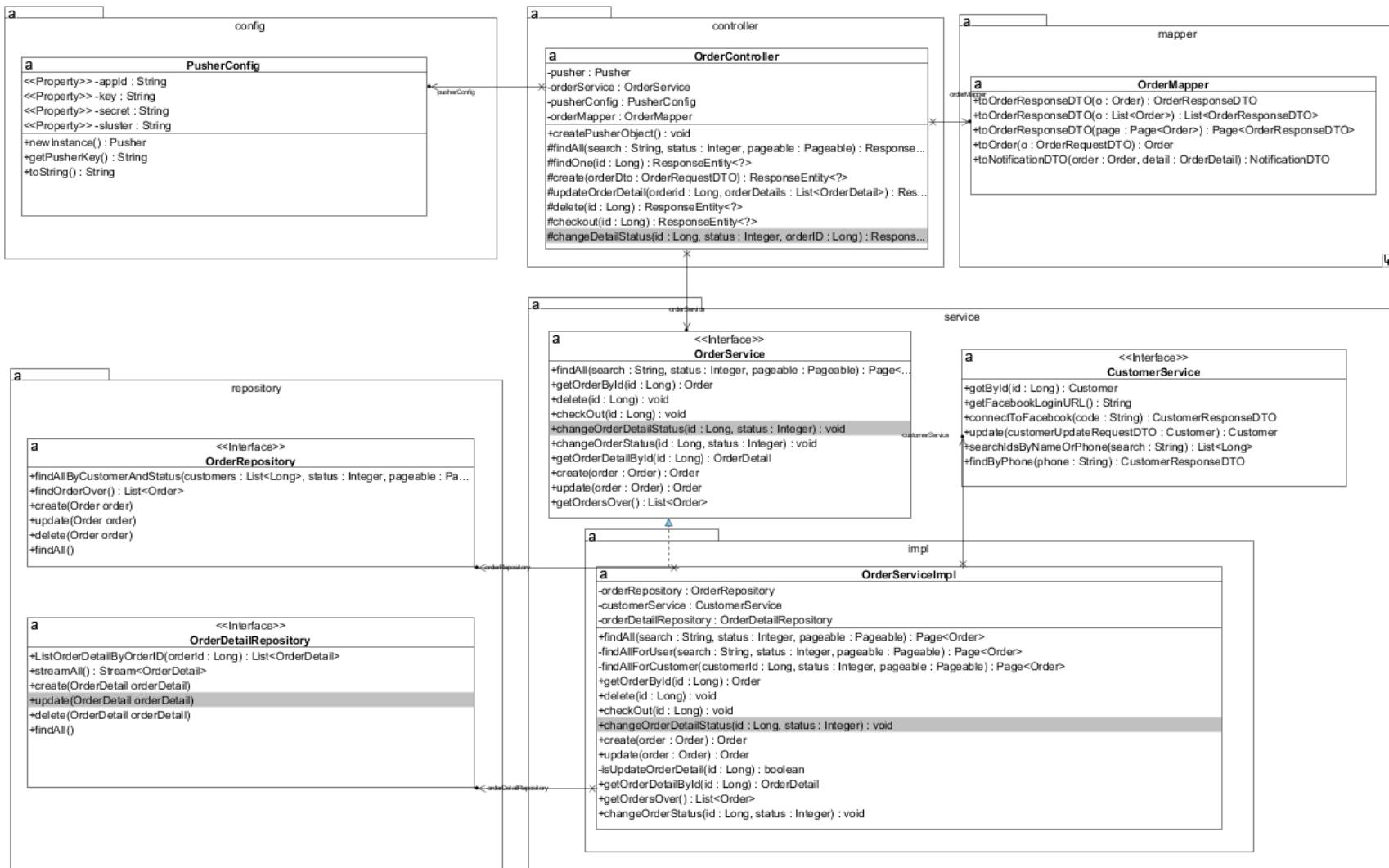
# THE CAPSTONE PROJECT

## List waiting order



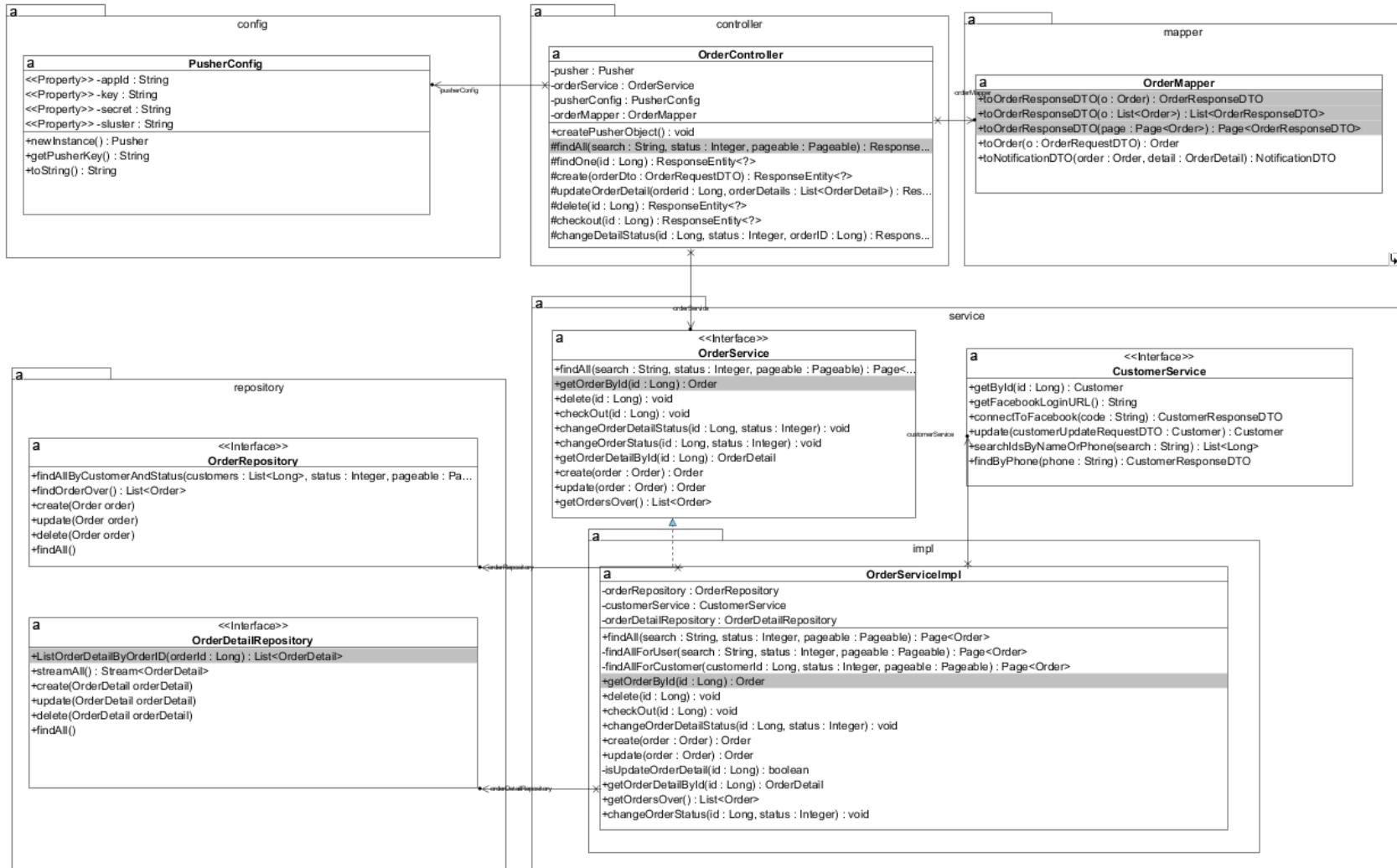
# THE CAPSTONE PROJECT

## Change order status



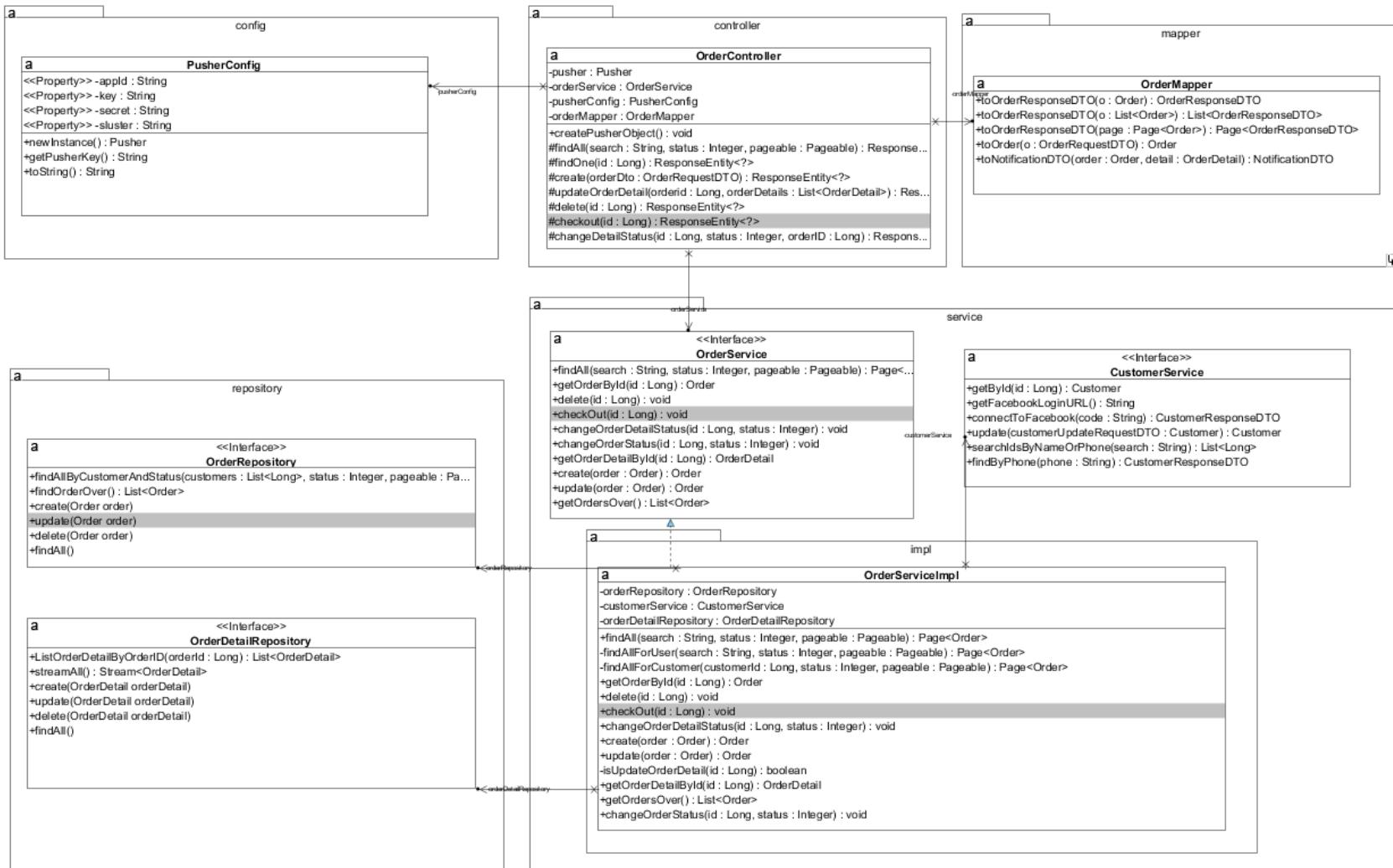
# THE CAPSTONE PROJECT

## List served order



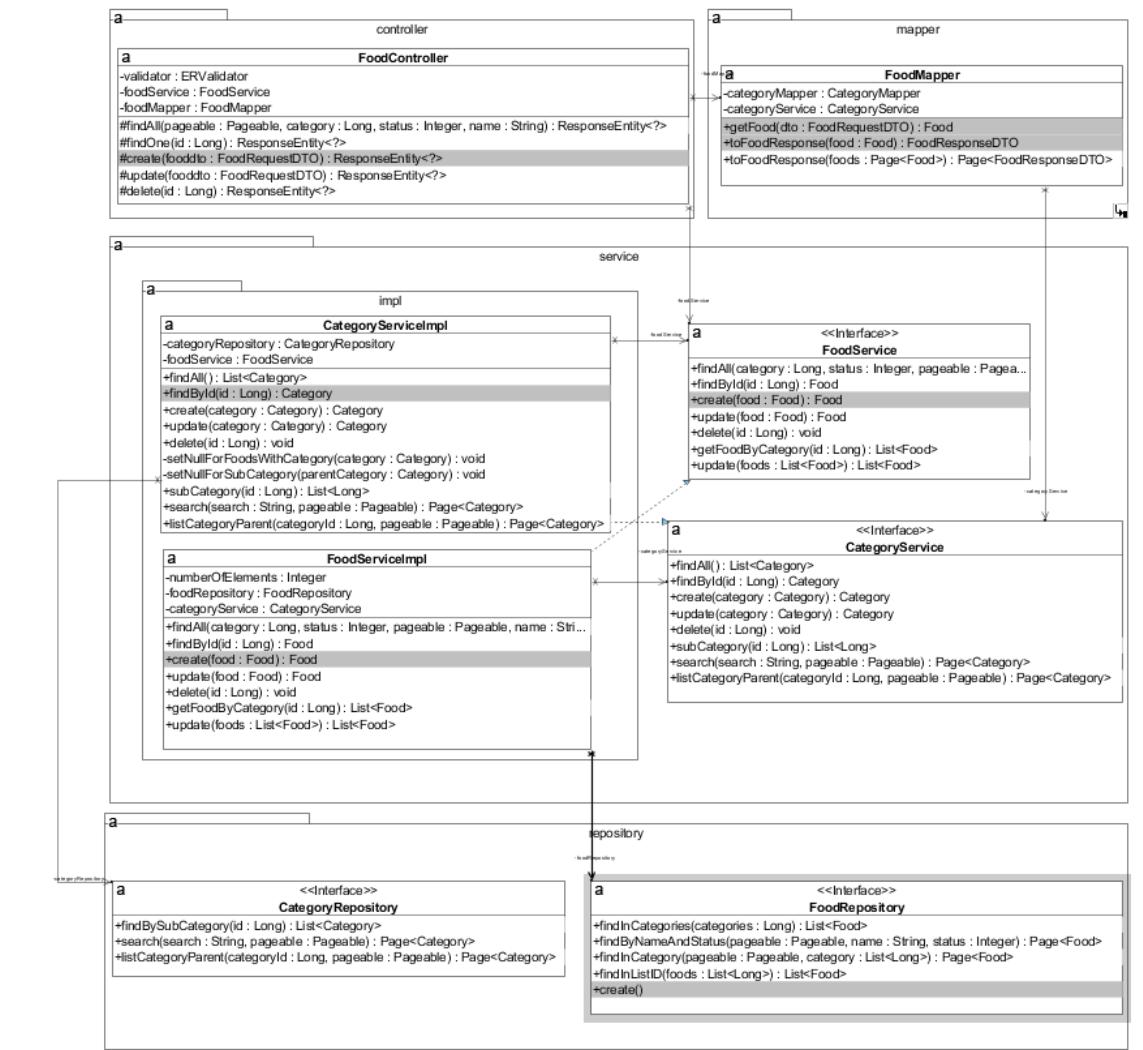
# THE CAPSTONE PROJECT

*Check out*

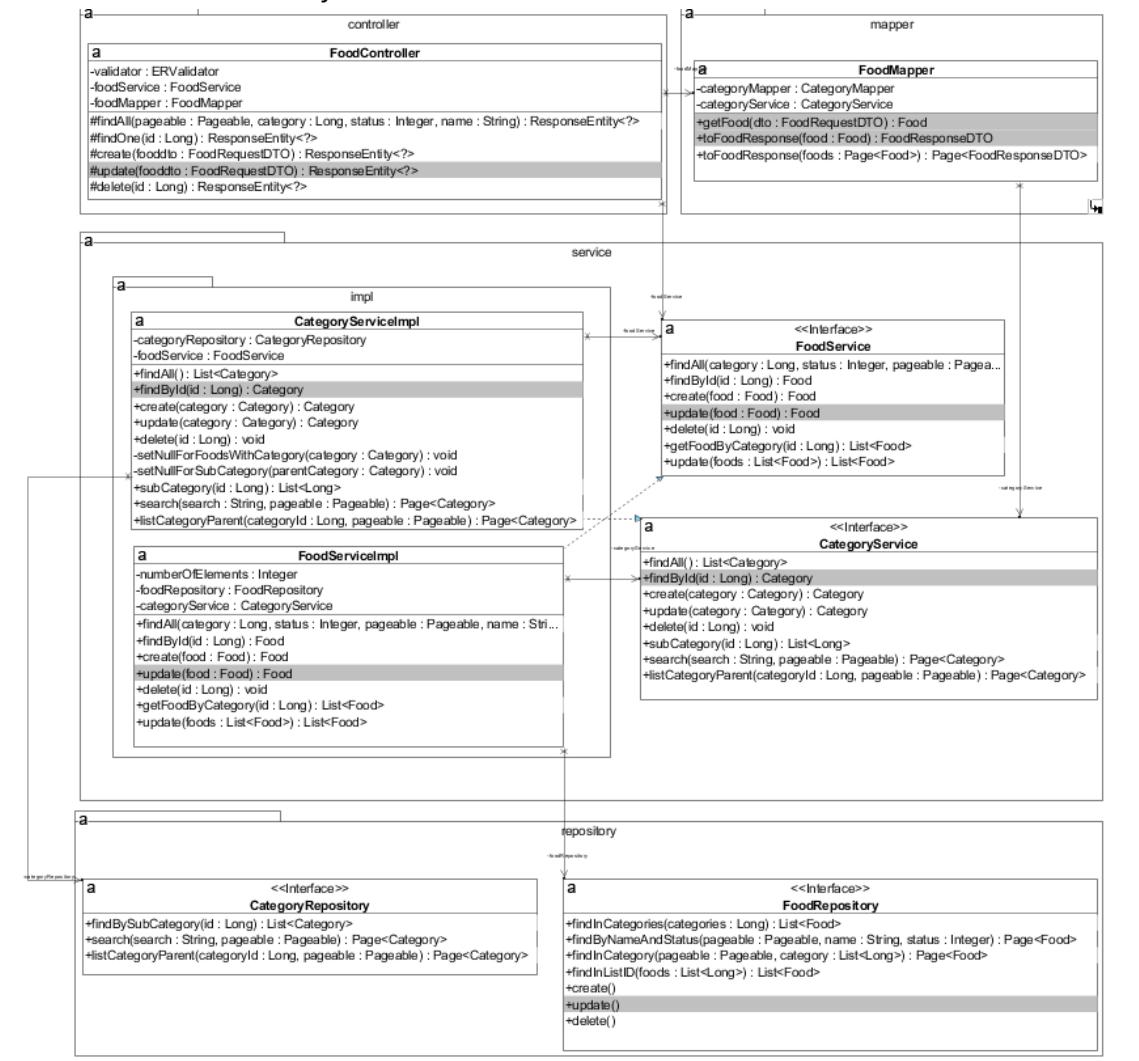


## Manage food

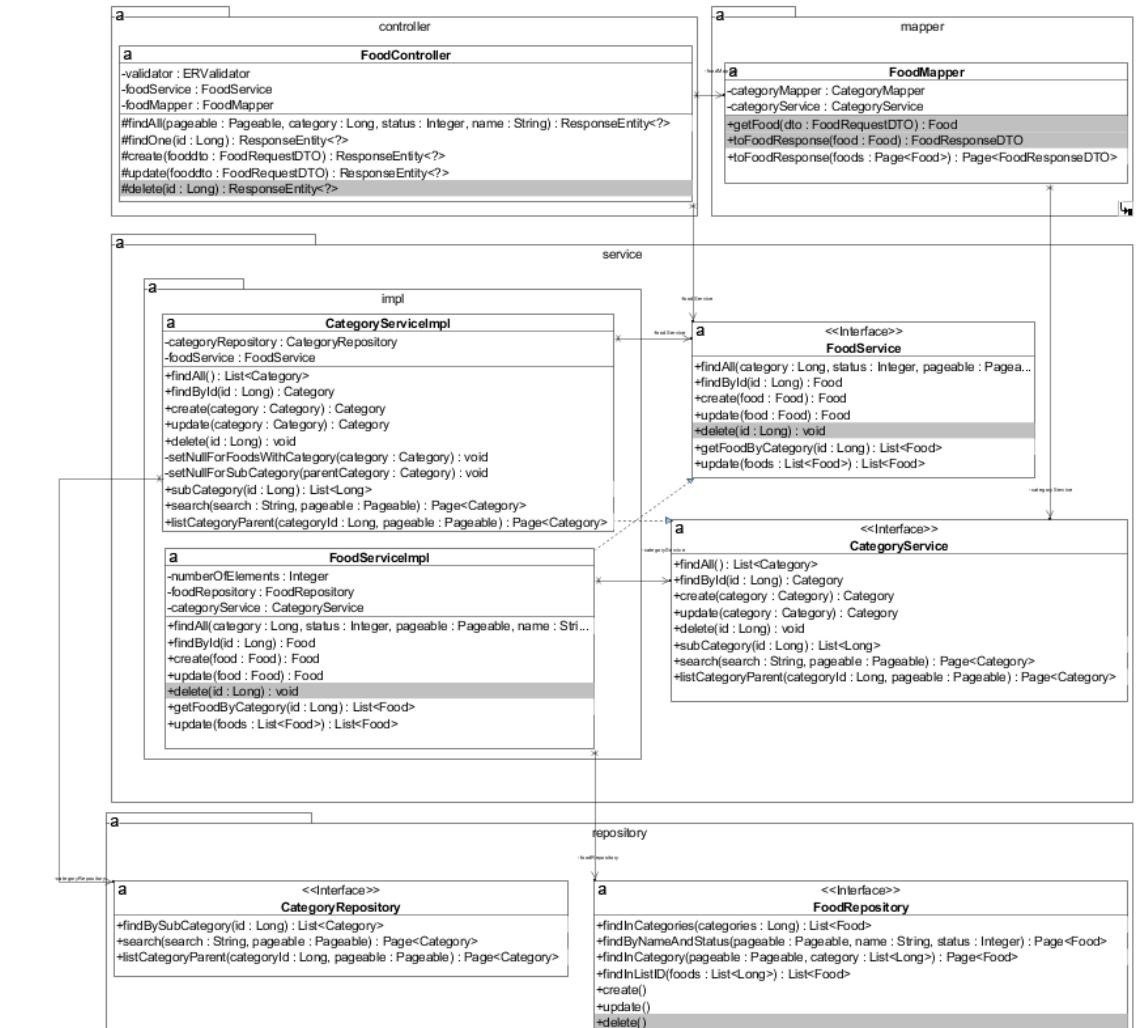
### 4.6.2.1.1 Add food



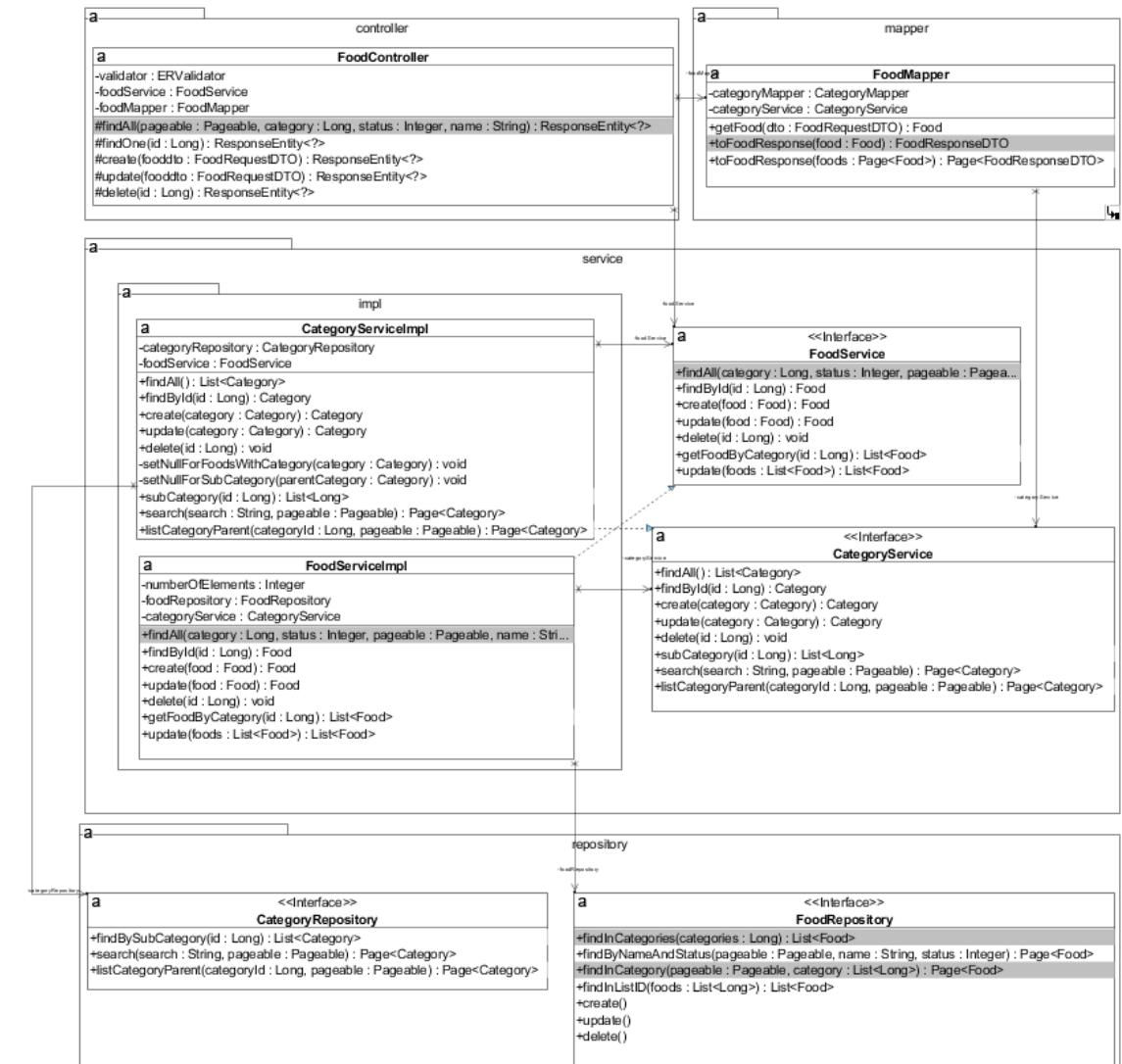
#### 4.6.2.1.2 Edit food



#### 4.6.2.1.3 Delete food

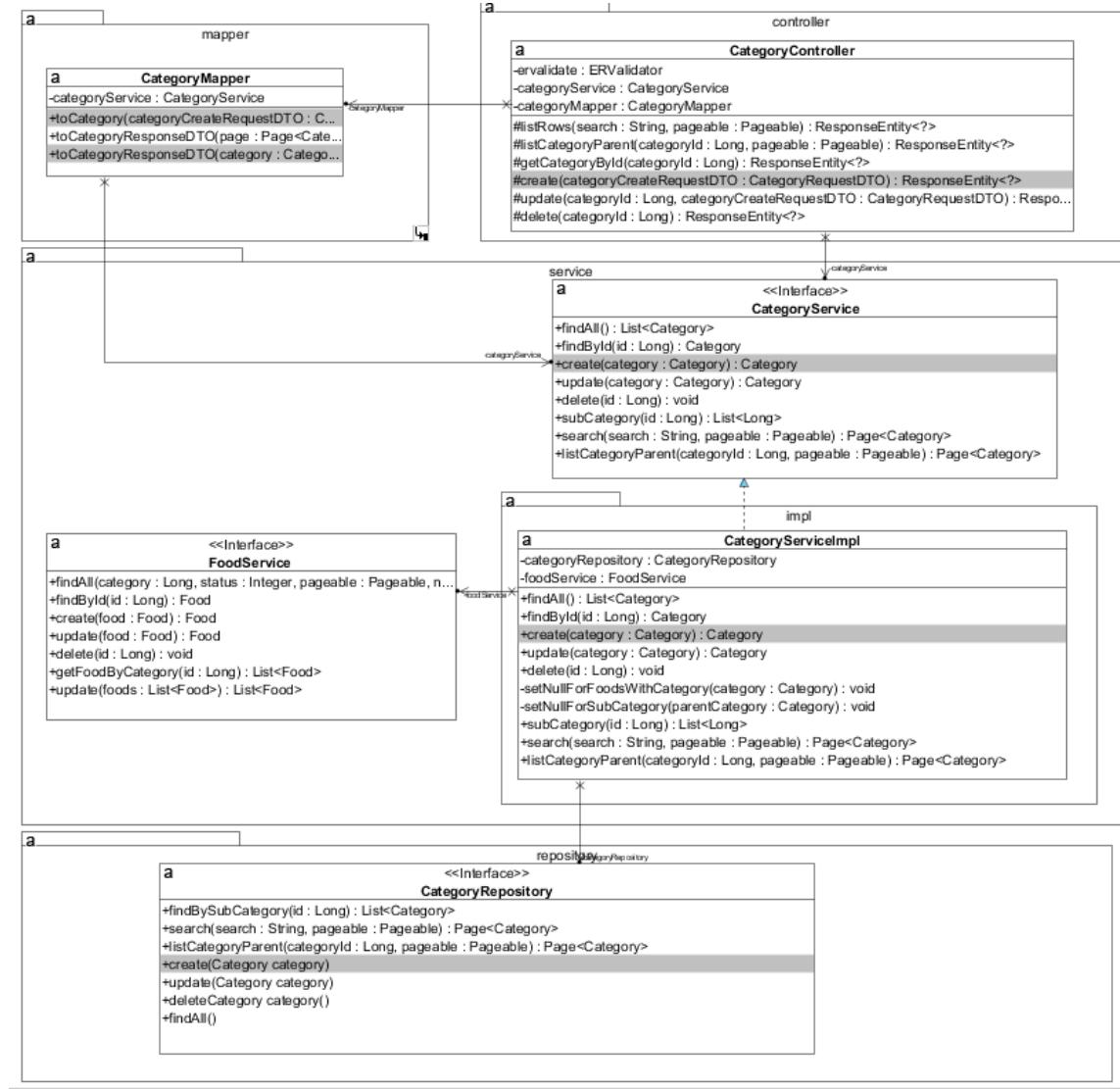


#### 4.6.2.1.4 View food

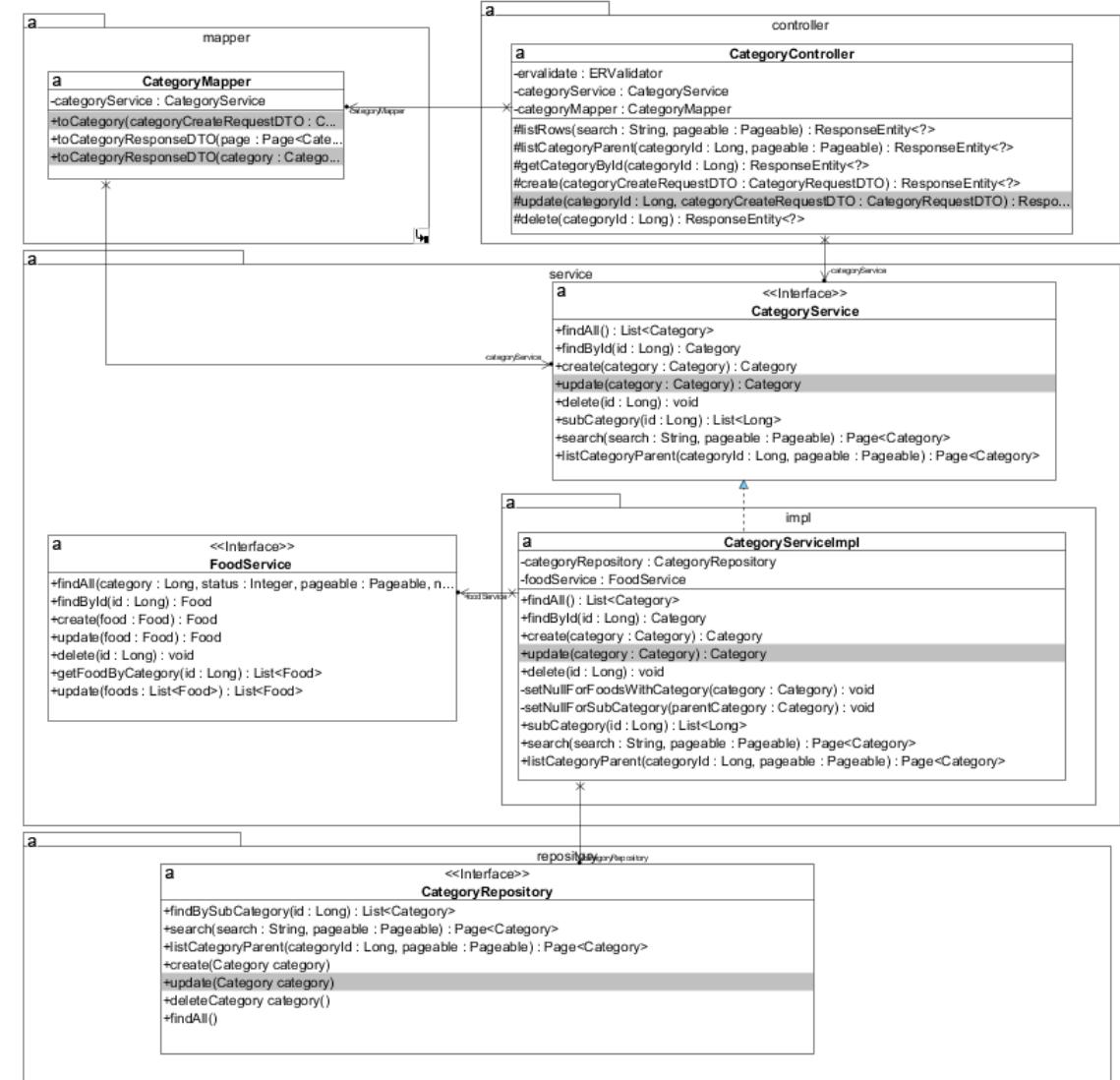


## Manage category

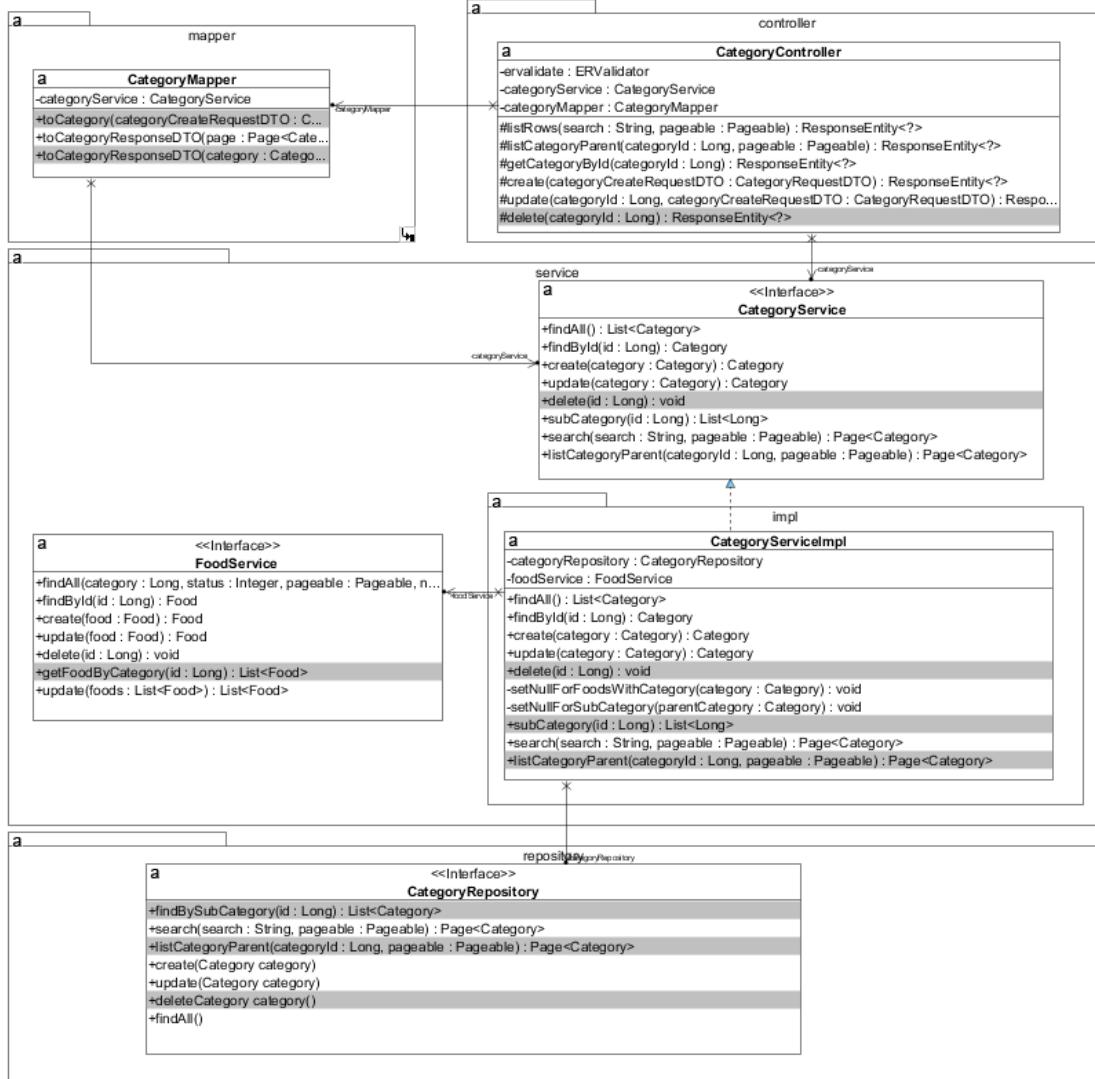
### 4.6.2.1.5 Add category



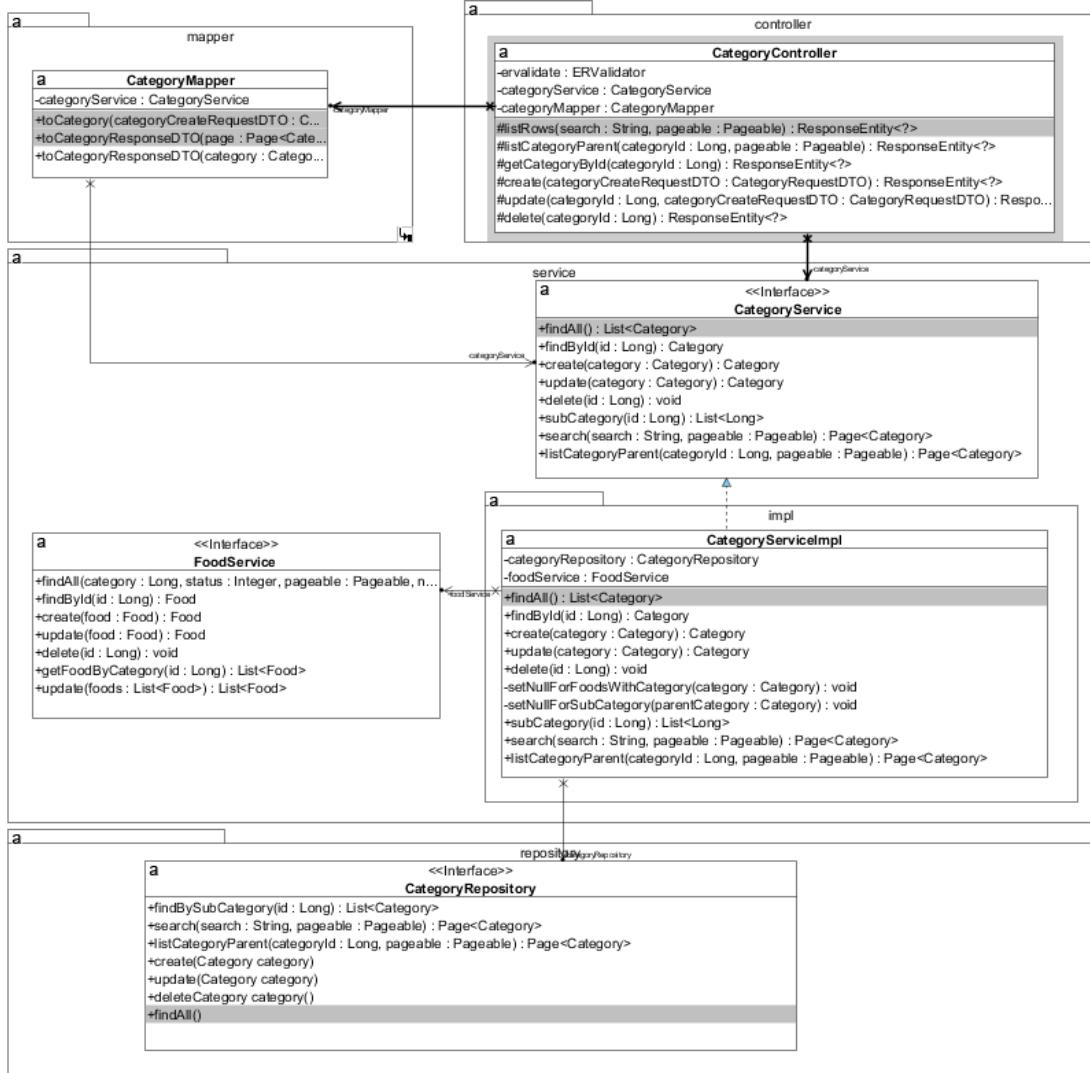
#### 4.6.2.1.6 Edit category



#### 4.6.2.1.7 Delete category

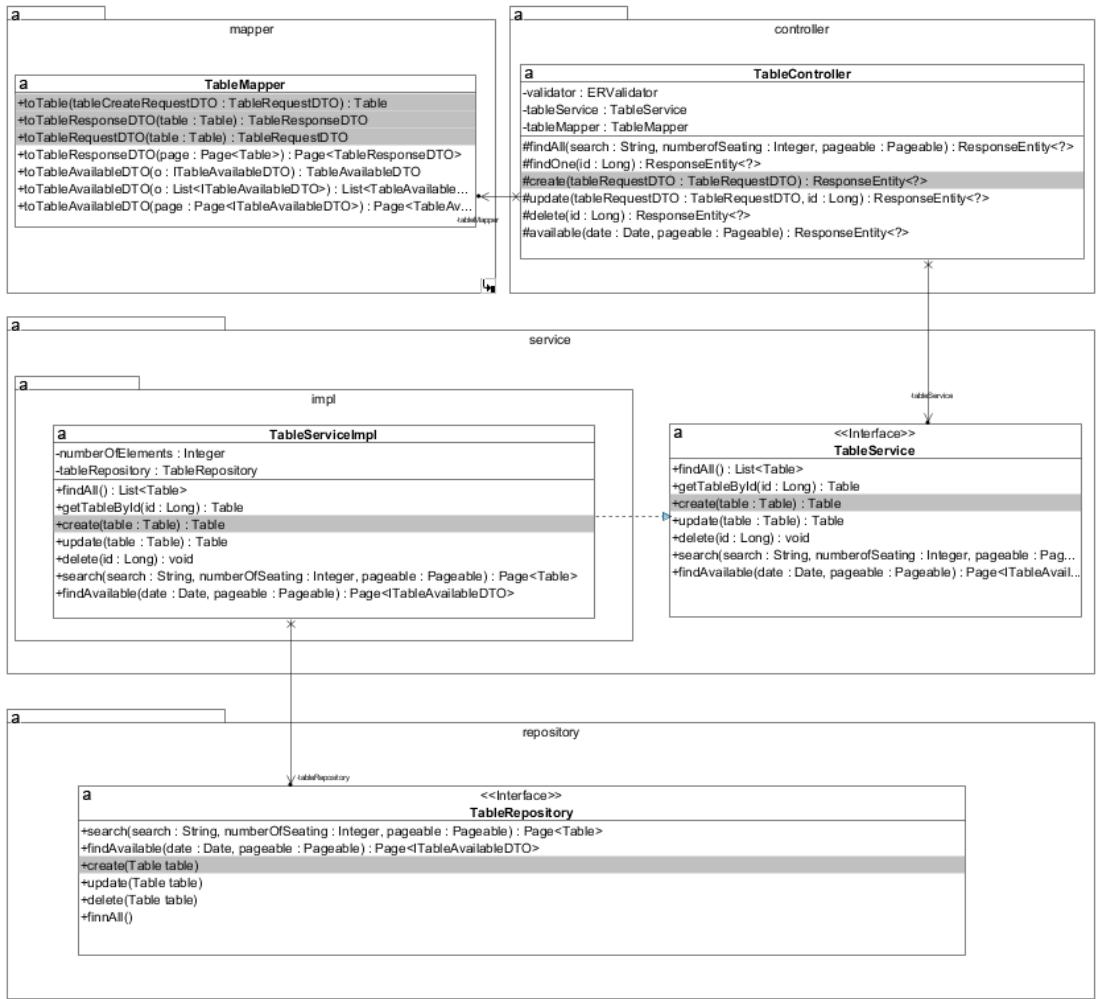


#### 4.6.2.1.8 View category

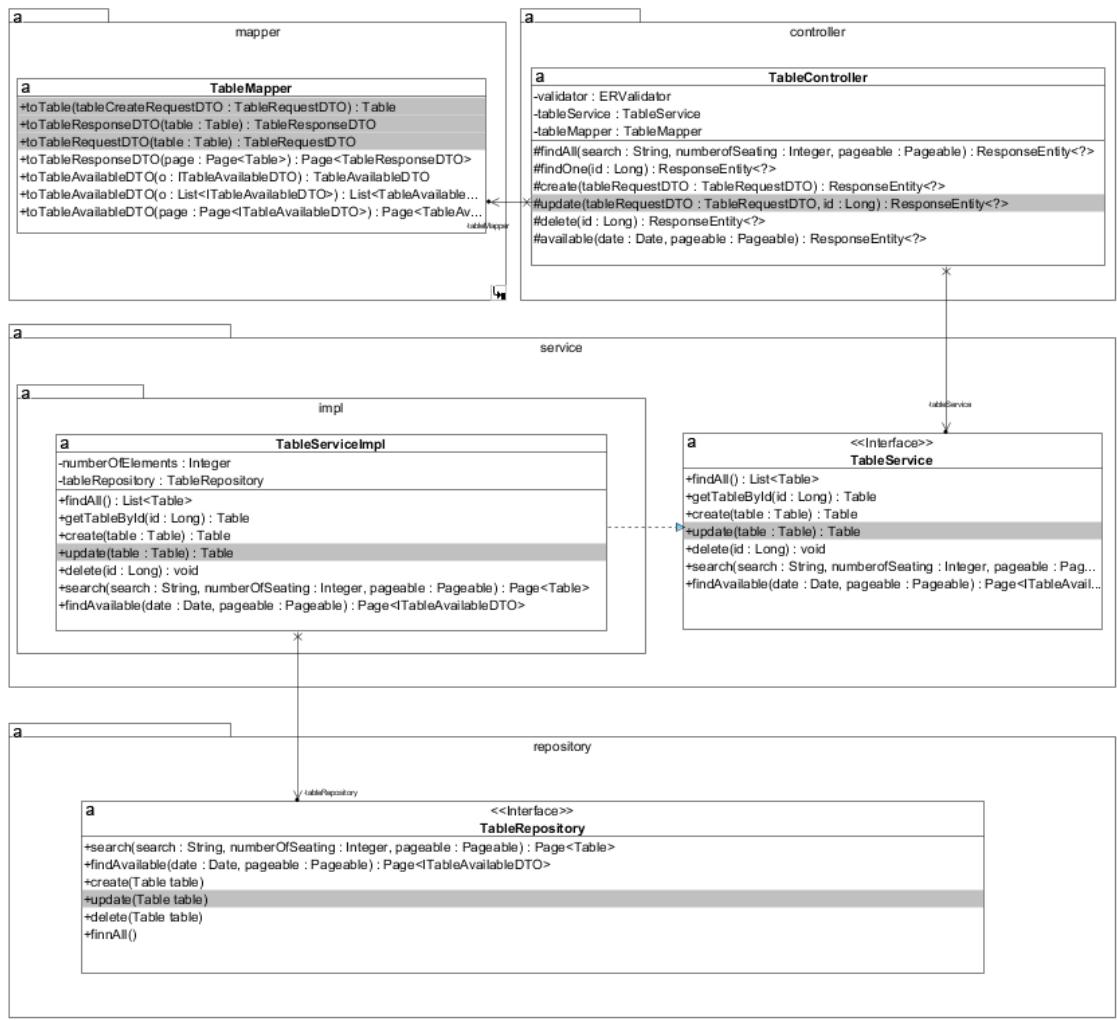


## Manage table

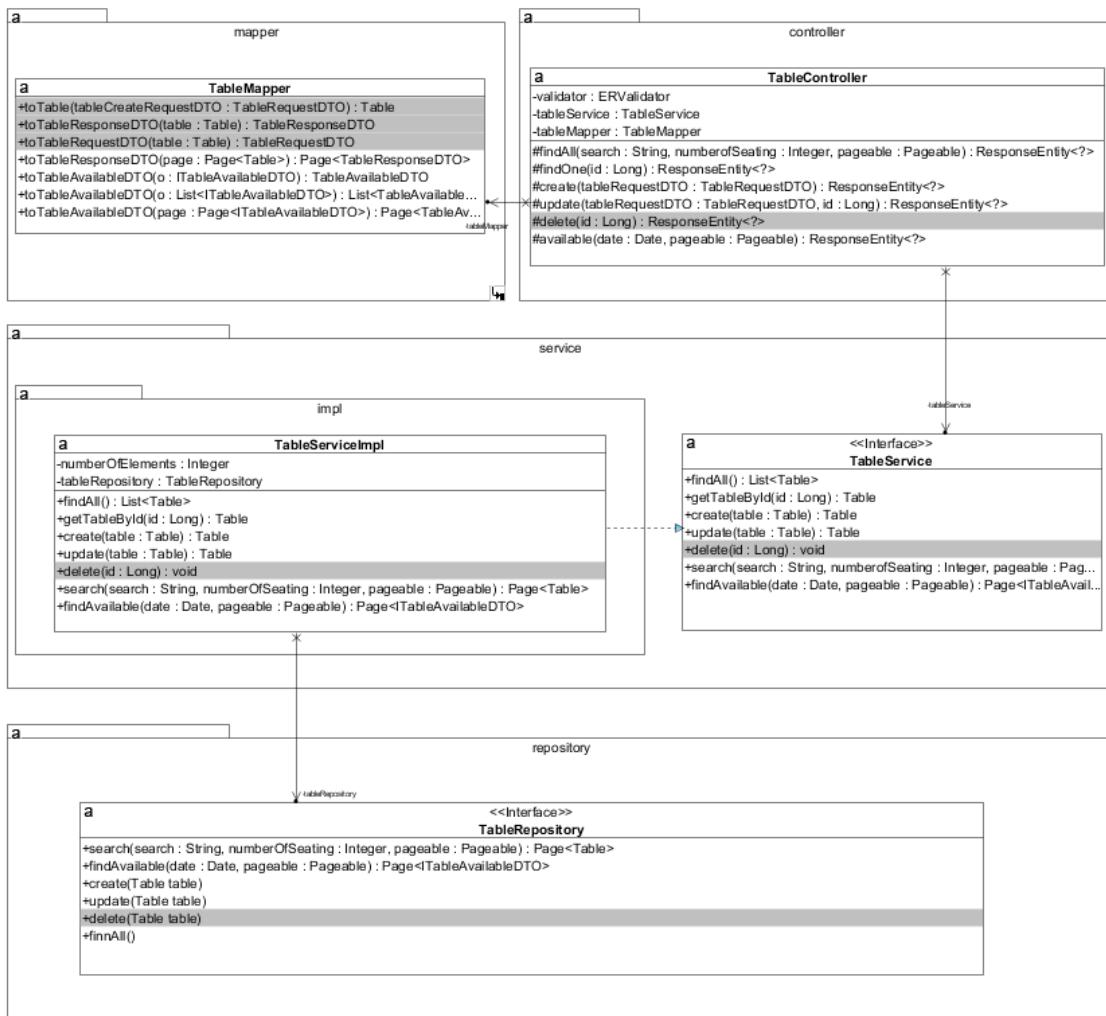
### 4.6.2.1.9 Add table



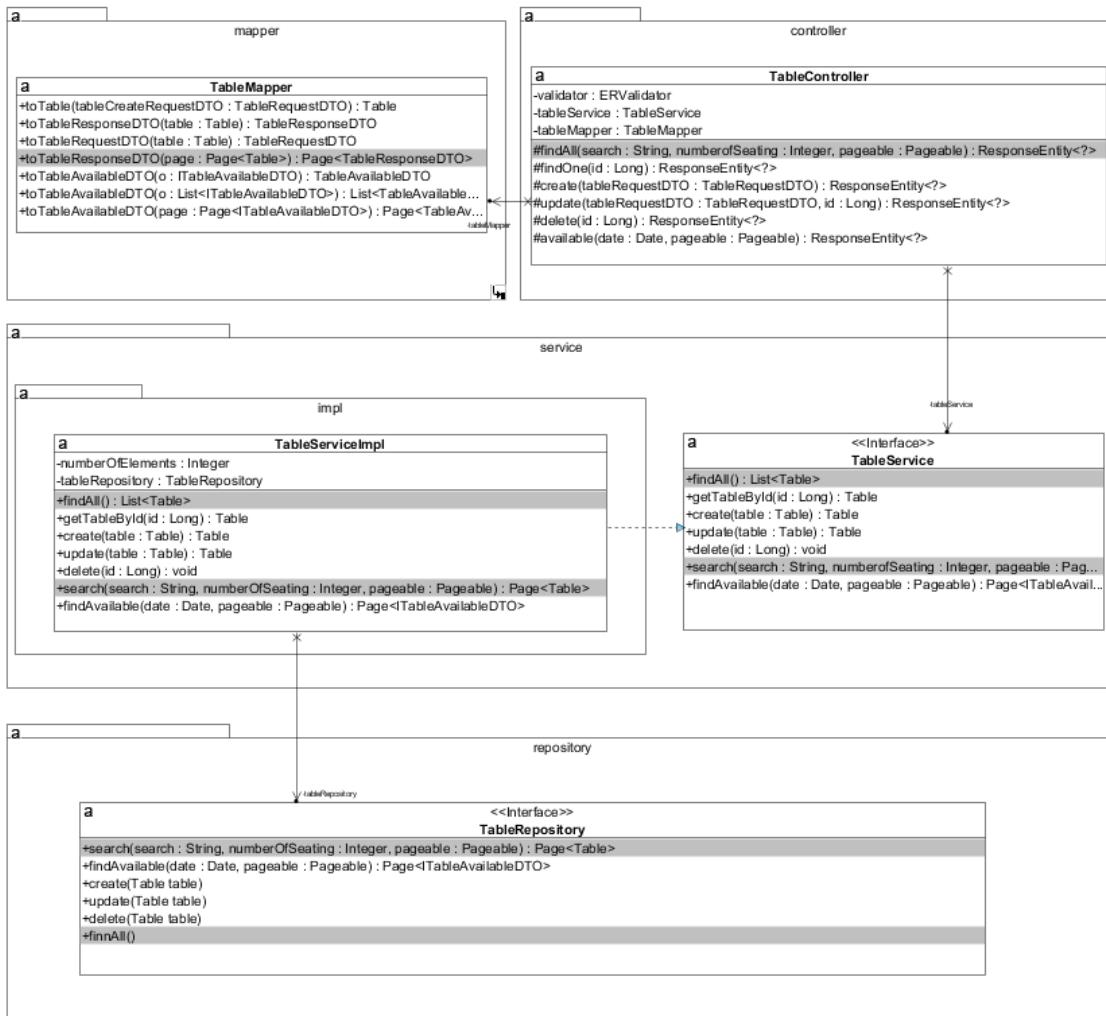
#### 4.6.2.1.10 Edit table



#### 4.6.2.1.11 Delete table

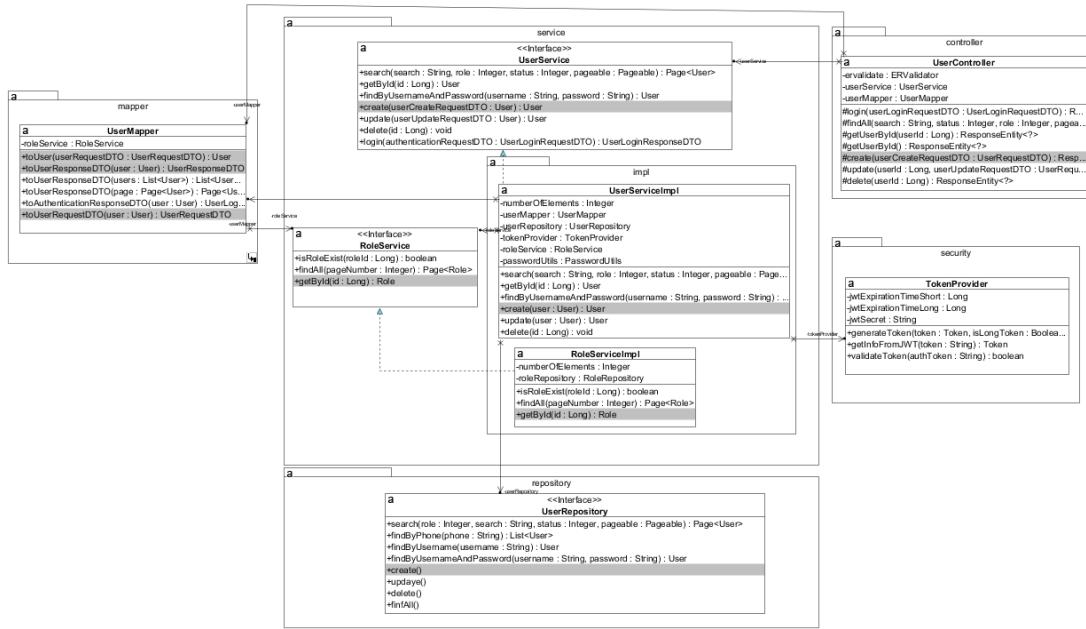


#### 4.6.2.1.12 View table

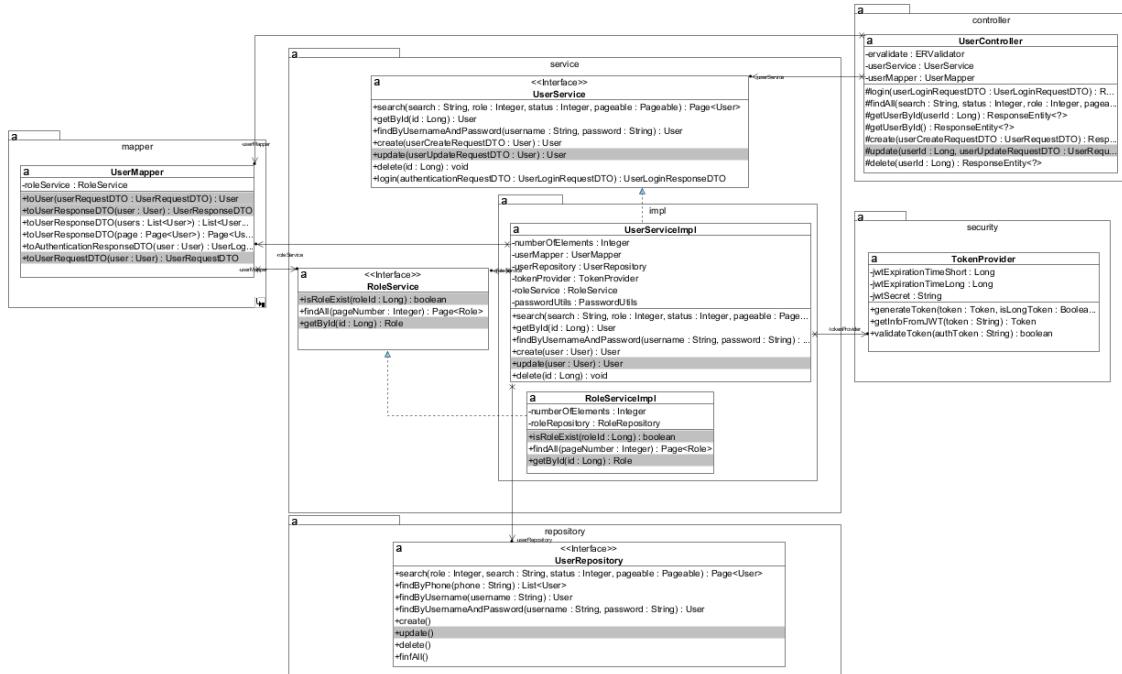


## Manage agent account

### Add account

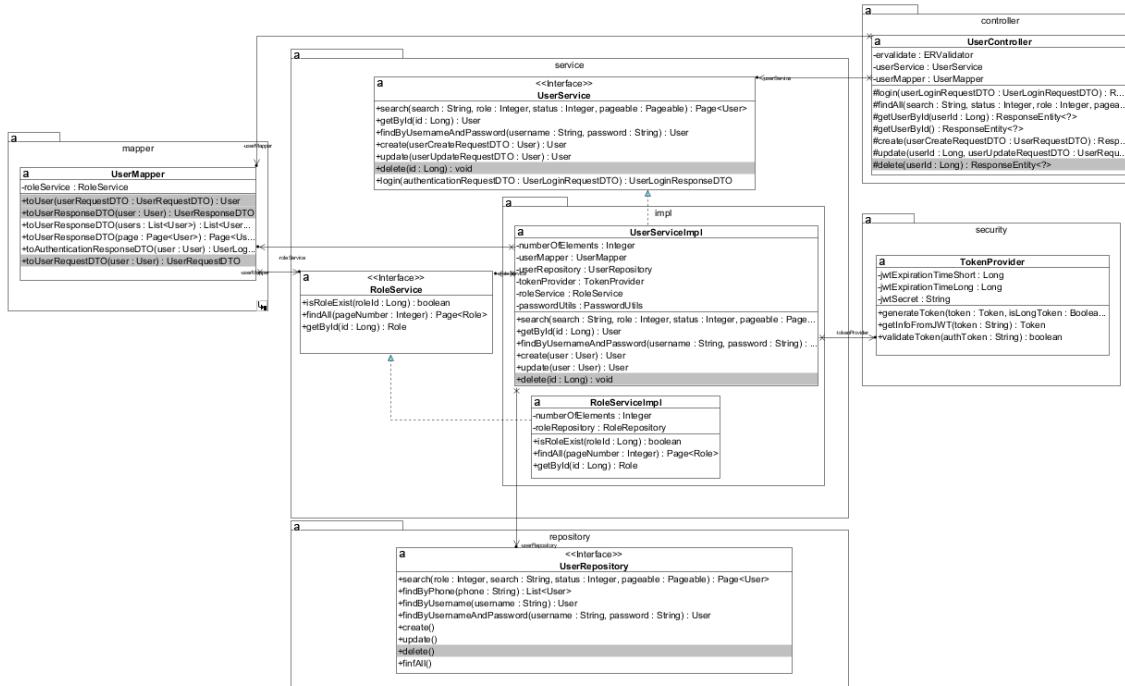


### 4.6.2.1.13 Edit account

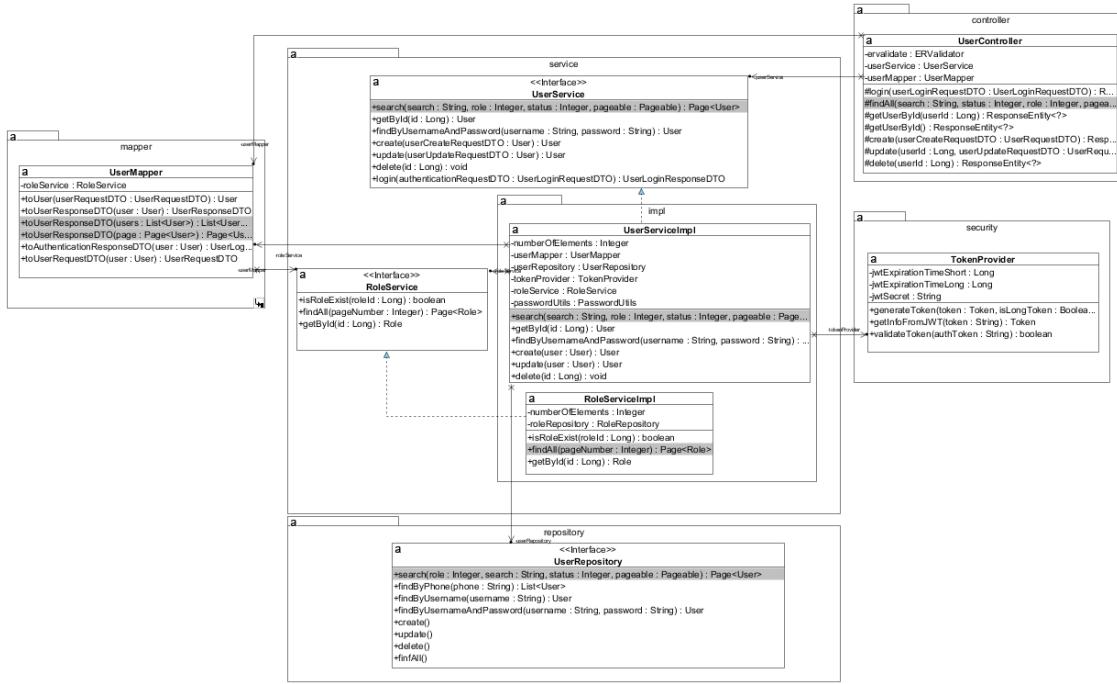


# THE CAPSTONE PROJECT

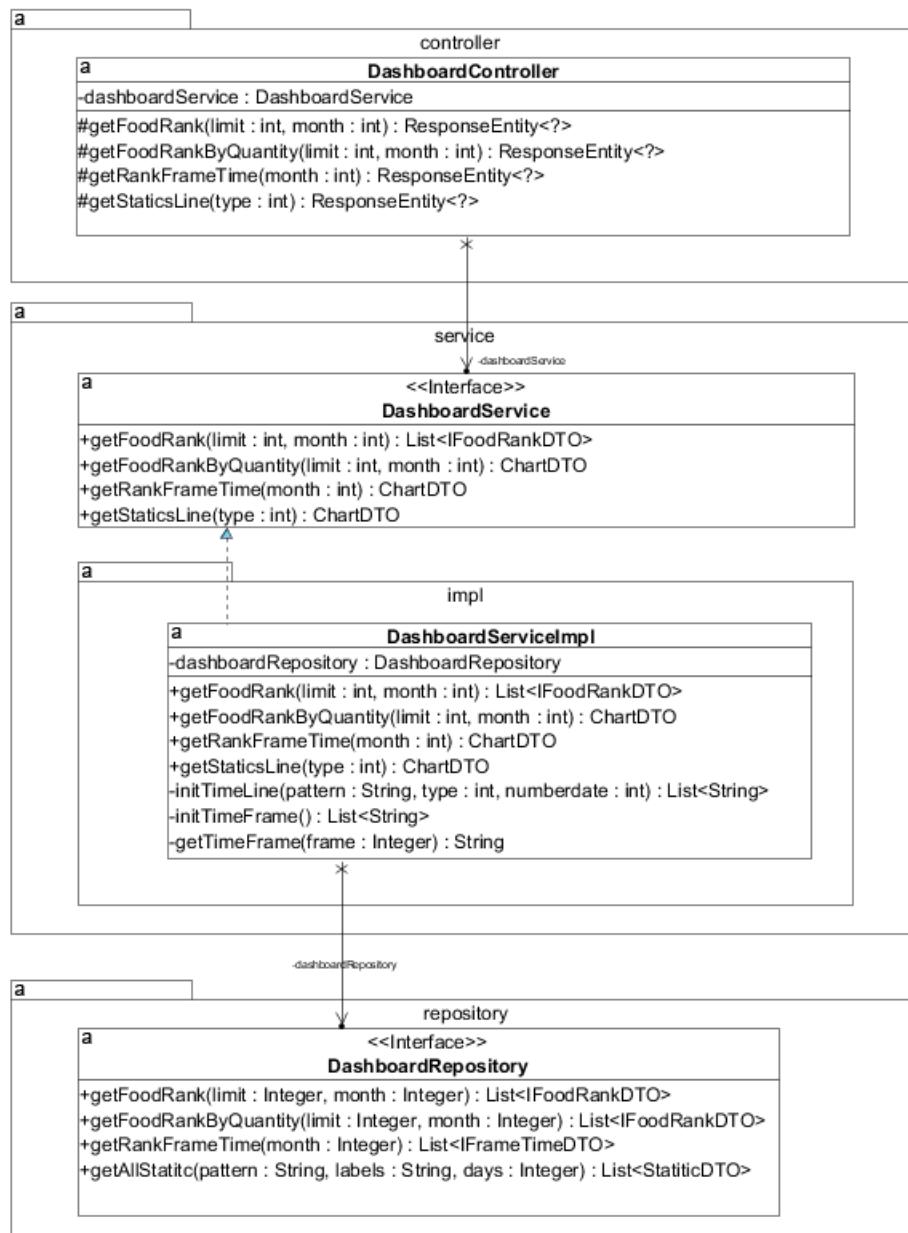
## 4.6.2.1.14 Delete account



## 4.6.2.1.15 View account



*View statistics*

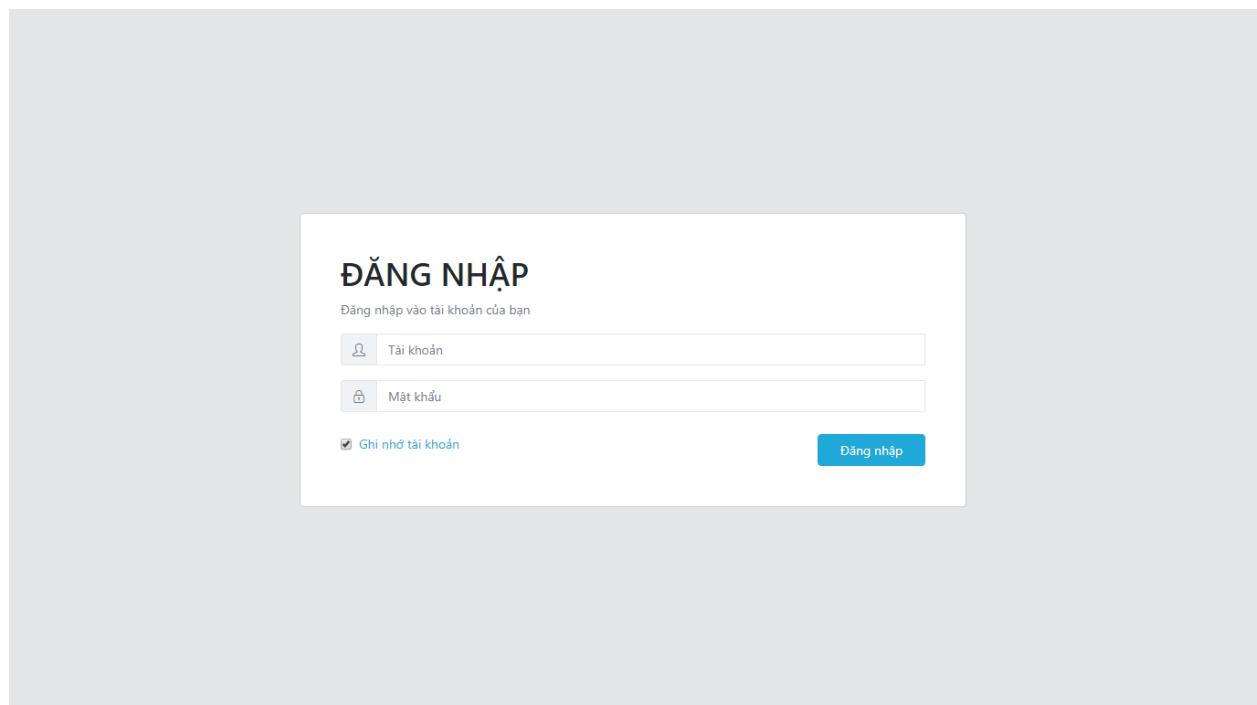


## 4.7 Use Interface Design

### 4.7.1 Home page

### 4.7.2 Restaurant's Info

#### 4.7.3 Login(by staff)



#### 4.7.4 Agent account management

The screenshot displays a user interface for managing agent accounts. The left sidebar shows navigation options like Dashboard, Staff Management, Add New, Table Management, Category Management, and Food Management. The main area is titled "Danh sách nhân viên" (Staff List) and includes search filters for "Tim kiếm" (Search), "Chức vụ" (Position), and "Trạng thái" (Status). A table lists six staff members with columns for STT (ID), Tài khoản (Account), Tên (Name), Số điện thoại (Phone Number), Chức vụ (Position), and Status. Each row includes edit and delete buttons.

STT	Tài khoản	Tên	Số điện thoại	Chức vụ	Status
> 1	ADMIN	ADM	0989123456	Quản lý	<span>Hoạt động</span>
> 2	Thinh	Au Van Thinh @	01652919852	Phục vụ	<span>Không hoạt động</span>
> 3	Nhat	Duong Tuan Nhat	0912293302	Phục vụ	<span>Hoạt động</span>
> 4	waiter	waiter	0958667784	Phục vụ	<span>Hoạt động</span>
> 5	cashier	cashier	09876564534	Thu ngân	<span>Hoạt động</span>
> 6	chef	chef	0956744343	Đầu bếp	<span>Hoạt động</span>

#### 4.7.5 Create/update agent account

The screenshot shows a 'Create Agent Account' form. The left sidebar has a dark theme with white text and icons. The main area has a light gray background. The form title is 'Tạo nhân viên' (Create Employee). It contains fields for 'Chức vụ' (Position) with a dropdown menu showing 'Phục vụ' (Service), 'Trạng thái' (Status) with a dropdown menu showing 'Hoạt động' (Active), 'Tài khoản' (Account) with a dropdown menu showing 'Tài khoản', 'Họ và tên' (Name) with a dropdown menu showing 'Họ và tên', 'Mật khẩu' (Password) with a dropdown menu showing 'Mật khẩu', 'Nhập lại mật khẩu' (Re-enter password) with a dropdown menu showing 'Nhập lại mật khẩu', 'Số điện thoại' (Phone number) with a dropdown menu showing 'Số điện thoại', and 'Địa chỉ' (Address) with a dropdown menu showing 'Địa chỉ'. A blue 'Lưu' (Save) button is at the bottom.

#### 4.7.6 Table management

The screenshot shows a 'Table Management' page. The left sidebar has a dark theme with white text and icons. The main area has a light gray background. The title is 'Danh sách bàn' (Table list). It features two input fields: 'Tên bàn' (Table name) with 'Nhập tên bàn' (Enter table name) and 'Số ghế' (Number of seats) with 'Nhập số ghế' (Enter number of seats). Below is a blue 'Tìm' (Search) button. A table below shows columns for 'STT' (Row number), 'Tên bàn' (Table name), 'Số ghế' (Number of seats), and 'Ghi chú' (Notes). The message 'No data to display' is shown. At the bottom, it says '0 total'. The footer includes 'eRestaurant © 2018.' and 'Powered by CTW Team'.

#### 4.7.7 Create/update table

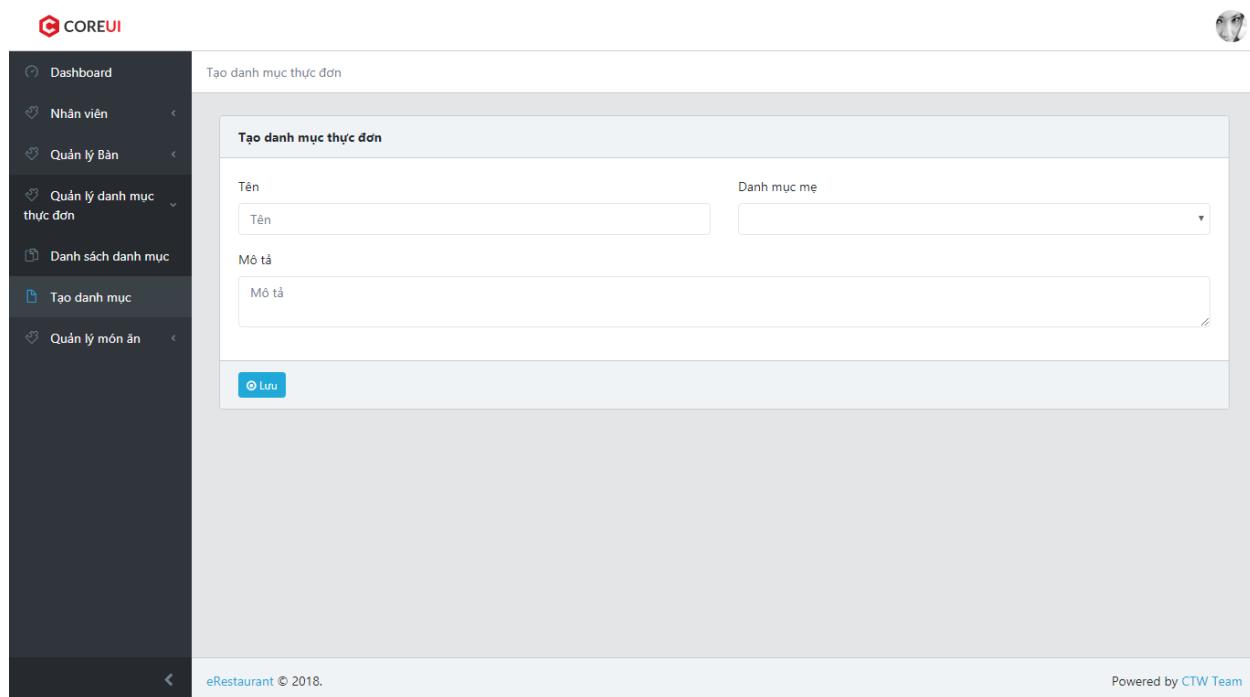
The screenshot shows a 'Create table' form. On the left is a dark sidebar with navigation links: Dashboard, Nhân viên, Quản lý Bàn, Danh sách bàn, Tạo bàn, Quản lý danh mục thực đơn, and Quản lý món ăn. The main area has a title 'Tạo bàn' and three input fields: 'Tên bàn', 'Số ghế', and 'Ghi chú'. A blue 'Lưu' (Save) button is at the bottom.

#### 4.7.8 Category management

The screenshot shows a 'Danh sách danh mục thực đơn' (List of menu categories) page. The sidebar includes links for Dashboard, Nhân viên, Quản lý Bàn, Quản lý danh mục thực đơn, Danh sách danh mục, Tạo danh mục, and Quản lý món ăn. The main content lists categories with columns: STT (ID), Tên (Name), Mô tả (Description), and Danh mục mẹ (Parent category). Each row has 'Sửa' (Edit) and 'Xóa' (Delete) buttons. The categories listed are:

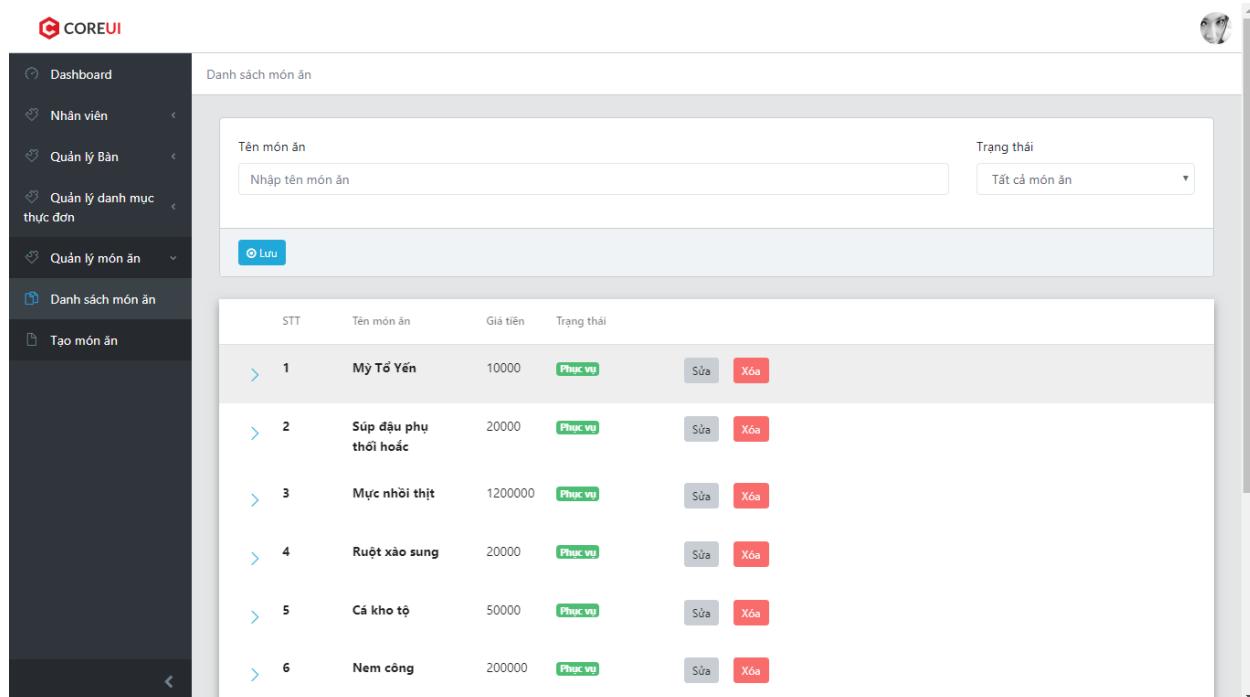
STT	Tên	Mô tả	Danh mục mẹ
1	Nước Ngọt		
2	Cafe		
3	Rượu		
4	Món chính		
5	Món phụ		
6	Món tráng miệng		
7	Món xào	Món chính	
8	Món lẩu	Món chính	
9	Món quay	Món chính	

#### 4.7.9 Create/update category



The screenshot shows the 'Tạo danh mục thực đơn' (Create category) form. The left sidebar has a 'Quản lý danh mục thực đơn' section with 'Tạo danh mục' selected. The main area has fields for 'Tên' (Name) and 'Danh mục mẹ' (Parent category), both with dropdown menus. There's also a 'Mô tả' (Description) text area and a blue 'Lưu' (Save) button.

#### 4.7.10 Food management



The screenshot shows the 'Danh sách món ăn' (Food list) page. The left sidebar has a 'Quản lý món ăn' section with 'Tạo món ăn' selected. The main area has a search bar for 'Tên món ăn' (Food name) and a dropdown for 'Trạng thái' (Status). Below is a table with columns: STT (Index), Tên món ăn (Food name), Giá tiền (Price), and Trạng thái (Status). The table lists six items:

STT	Tên món ăn	Giá tiền	Trạng thái
1	Mỳ Tố Yến	10000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
2	Súp đậu phụ thối hoắc	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
3	Mực nhồi thịt	1200000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
4	Ruột xào sung	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
5	Cá kho tộ	50000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
6	Nem công	200000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>

#### 4.7.11 Create/update food

The screenshot shows the 'Tạo món ăn' (Create food) form within the COREUI application. The left sidebar contains navigation links for Dashboard, Nhân viên, Quản lý Bàn, Quản lý danh mục thực đơn, Quản lý món ăn, Danh sách món ăn, and Tạo món ăn. The main form has fields for Food Name, Price, Category, Description, and an image upload section. A 'Lưu' (Save) button is at the bottom.

#### 4.7.12 Available table

The screenshot shows the 'Xem bàn trống' (View available tables) page. It displays a reservation for 'Customer 01' on '08/18/2018 11:45'. Below this, a list of six tables is shown, each with a seating capacity of 6 people. The tables are labeled Table1 through Table6. A navigation bar at the bottom includes buttons for 'Trước' (Previous), 'Sau' (Next), and a 'Đặt bàn' (Book table) button.

#### 4.7.13 Manage table booking

No.	Thời gian đặt bàn	Ghi chú	Trạng tl	Bật bàn bởi	Hành động
> 1	22/08/2018 07:21		<span style="background-color: #2e7131; color: white;">Đã thanh</span>	Customer 01	<span style="background-color: #d9e1f2; border: 1px solid #ccc; padding: 2px 5px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px 5px;">Hủy bàn</span>
> 2	18/08/2018 11:44		<span style="background-color: #2e7131; color: white;">Đã thanh</span>	Customer 01	<span style="background-color: #d9e1f2; border: 1px solid #ccc; padding: 2px 5px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px 5px;">Hủy bàn</span>
> 3	17/08/2018 09:07		<span style="background-color: #2e7131; color: white;">Đã thanh</span>	Customer 01	<span style="background-color: #d9e1f2; border: 1px solid #ccc; padding: 2px 5px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px 5px;">Hủy bàn</span>
> 4	15/08/2018 10:08		<span style="background-color: #ffccbc; color: black;">Ngừng</span>	Âu Thịnh	<span style="background-color: #d9e1f2; border: 1px solid #ccc; padding: 2px 5px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px 5px;">Hủy bàn</span>
> 5	14/08/2018 11:12		<span style="background-color: #2e7131; color: white;">Đã thanh</span>	Customer 01	<span style="background-color: #d9e1f2; border: 1px solid #ccc; padding: 2px 5px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px 5px;">Hủy bàn</span>
> 6	14/08/2018 11:10		<span style="background-color: #ffccbc; color: black;">Hủy bàn</span>	Customer 01	<span style="background-color: #d9e1f2; border: 1px solid #ccc; padding: 2px 5px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px 5px;">Hủy bàn</span>

#### 4.7.14 Manage order

Món ăn	Số lượng	Giá	Trạng thái	Hàng động
Rượu				
Chivas	1	250000	<span style="background-color: #2e7131; color: white; border: 1px solid #ccc; padding: 2px 5px;">Phục vụ</span>	
Jinro	3	150000	<span style="background-color: #2e7131; color: white; border: 1px solid #ccc; padding: 2px 5px;">Phục vụ</span>	
Nước Ngọt				
pepsi	1	10000	<span style="background-color: #2e7131; color: white; border: 1px solid #ccc; padding: 2px 5px;">Phục vụ</span>	

Tổng cộng : 410000 đ

Ø ĐẶT MÓN Ø LÀM MỚI

#### 4.7.15 Waiting foods to serve

The screenshot shows a software interface for managing a restaurant. On the left, there is a dark sidebar with three menu items: "Danh sách bàn trống" (Empty Table List), "Quản lý đặt bàn" (Table Reservation Management), and "Các món ăn" (All Foods). The "Các món ăn" item is currently selected, indicated by a blue background.

The main area has a header "Danh sách trạng thái món ăn" (Food Status List). Below it is a table with columns: Món ăn (Food Item), Bàn (Table), Số lượng (Quantity), Tình trạng (Status), and Hành động (Action).

In the table, there is one entry for "Ruột xào sụng" (Stir-fried pork intestine) with quantity 1. The status is "Chờ biến xong" (Ready to serve), and the action button is "Phục vụ" (Serve). There is also a link "Table7 Table8 Table9 Table10 Table11 Table12 Table13 Table14 Table15 Table16 Table17 Table18 Table19 Table20".

At the bottom of the table, it says "1 total".

At the bottom of the screen, there is a footer bar with "eRestaurant © 2018." and "Powered by CTW Team".

#### 4.7.16 Waiting foods to cook

This screenshot shows the same software interface as the previous one, but with a different selection in the sidebar: "Các món ăn" (All Foods) is now selected.

The main area has a header "Danh sách trạng thái món ăn" (Food Status List). Below it is a table with columns: Món ăn (Food Item), Bàn (Table), Số lượng (Quantity), Tình trạng (Status), and Hành động (Action).

There are three entries in the table:

- Mực nhồi thịt**: Quantity 1, Status "Đang chế biến" (Preparing), Action "Hoàn Thành" (Complete).
- Nem công**: Quantity 1, Status "Đang đợi" (Waiting), Action "Chế Biến" (Prepare).
- Thịt dê ngũ vị**: Quantity 1, Status "Đang đợi" (Waiting), Action "Chế Biến" (Prepare).

Each food item entry includes a link: "Table7 Table8 Table9 Table10 Table11 Table12 Table13 Table14 Table15 Table16 Table17 Table18 Table19 Table20".

At the bottom of the table, it says "3 total".

At the bottom of the screen, there is a footer bar with "eRestaurant © 2018." and "Powered by CTW Team".

#### 4.7.17 List order

The screenshot shows a user interface for managing orders. At the top left is the COREUI logo. The main header says "Thanh toán" (Payment) and "Cashier". Below this is a search bar with placeholder text "Nhập tên hoặc số điện thoại" (Enter name or phone number) and a "Tim" (Search) button. The main content area displays a table with two rows of order information:

No.	Tên khách hàng	Bàn	Số điện thoại	Action
> 1	<b>Customer 01</b>	<ul style="list-style-type: none"> <li>• Table7</li> <li>• Table8</li> <li>• Table9</li> <li>• Table10</li> <li>• Table11</li> <li>• Table12</li> <li>• Table13</li> <li>• Table14</li> <li>• Table15</li> <li>• Table16</li> <li>• Table17</li> <li>• Table18</li> <li>• Table19</li> <li>• Table20</li> </ul>	000	<b>CheckOut</b>
> 2	<b>Customer 01</b>	• Table11	000	<b>CheckOut</b>

#### 4.7.18 Check out

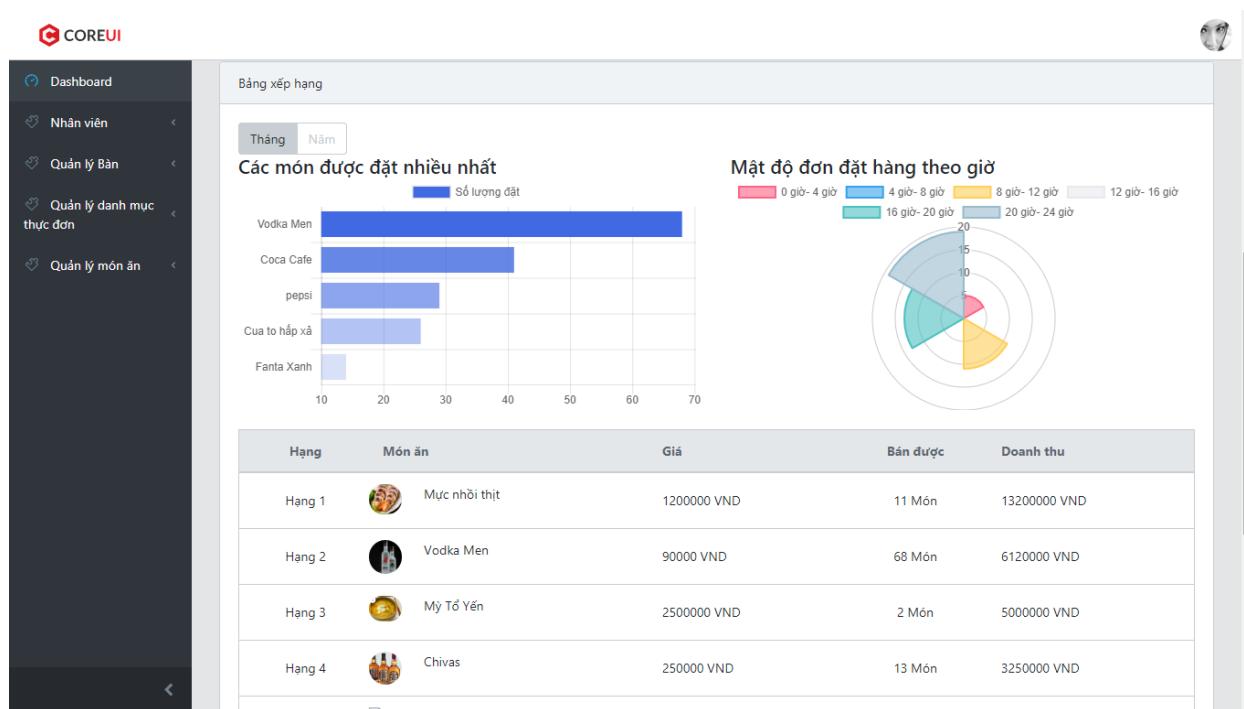
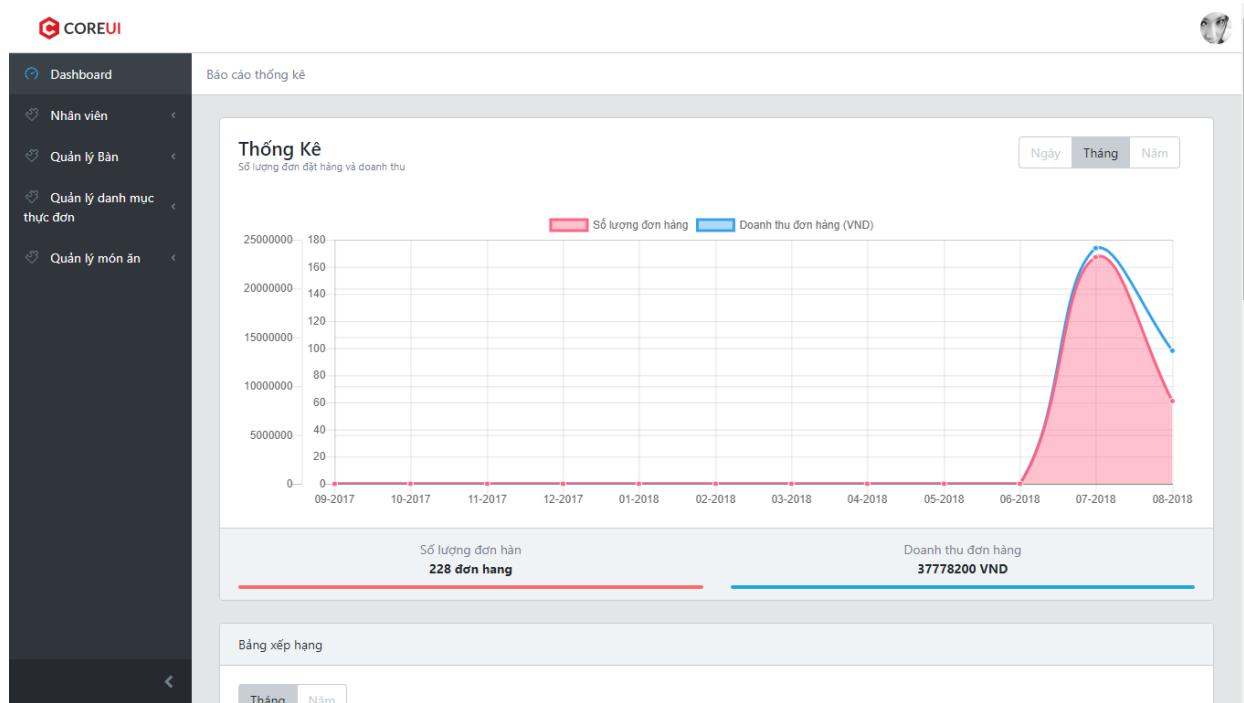
The screenshot shows a checkout screen for order number #140. The top header says "Checkout". The main content area includes the following sections:

- Hóa Đơn: #140**
- Tên khách hàng:** Customer 01  
**Số điện thoại:** 000
- Thông tin hóa đơn:** Hóa Đơn: #140  
8/18/2018, 11:56:18 AM
- Đơn hàng:** A table showing one item: Ruột xào sụng (Quantity: 1, Price: 20000, Total: 20000).
- Tổng chi phí:** 20000
- Nhận:** Receive
- Trả lại:** Return
- Thanh toán hóa đơn** (Pay invoice) button.

At the bottom, it says "eRestaurant © 2018." and "Powered by CTW Team".

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### 4.7.19 View statistic



## 4.8 Database Design

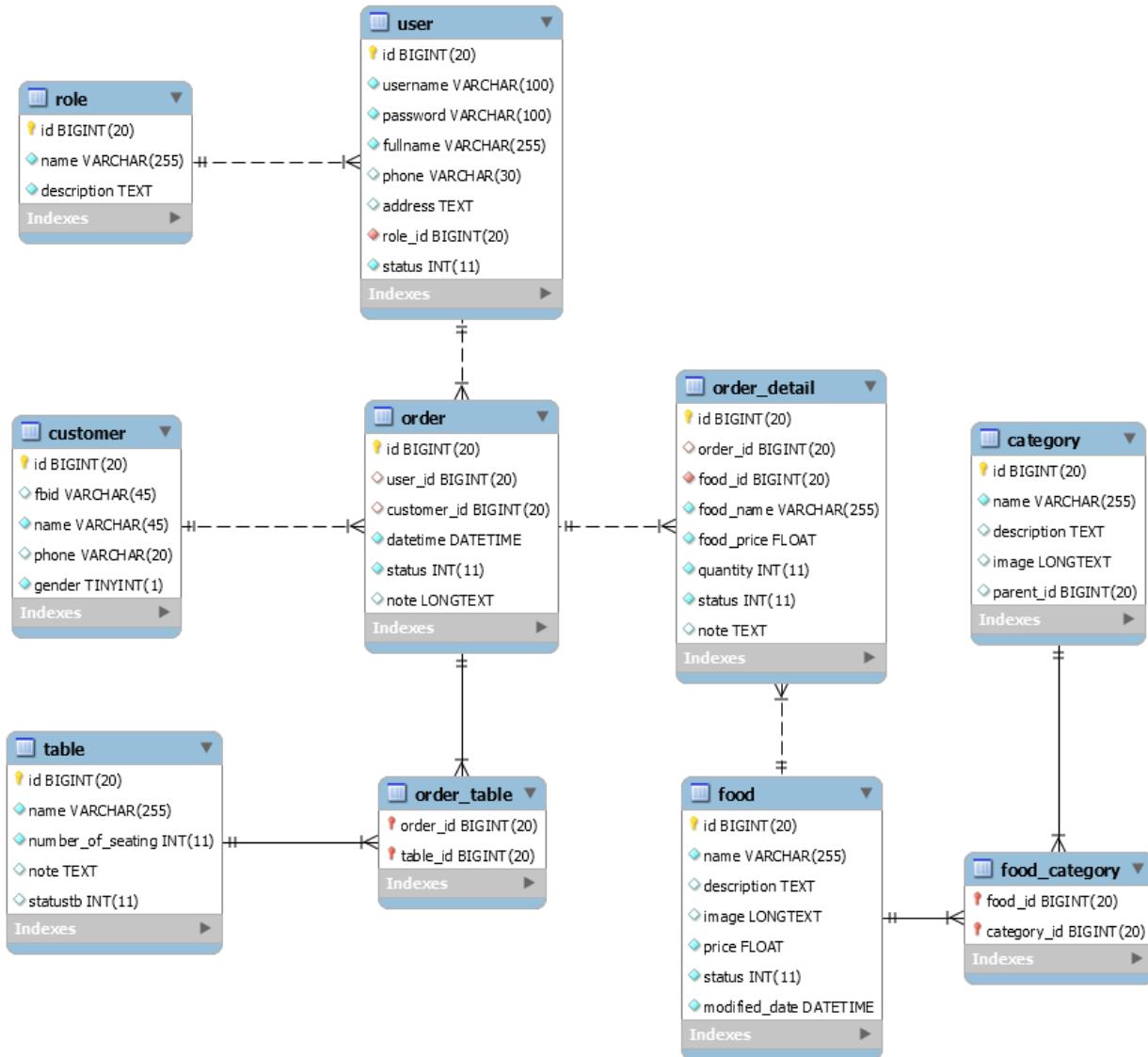


Figure 29: Database Design

### 4.8.1 Role Table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
1	id	BIGINT(20)		x		x	

### 4.8.2 User table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
1	id	BIGINT(20)		x		x	

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<b>2</b>	role_id	BIGINT(20)		x			x
<b>3</b>	status	INT(11)		x	'1'		

### 4.8.3 Food table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
<b>1</b>	id	BIGINT(20)		x		x	
<b>2</b>	price	FLOAT		x			
<b>3</b>	status	INT(11)		x	'1'		
<b>4</b>	modified_date	DATETIME		x	CURRENT_TIMESTAMP		

### 4.8.4 Category table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
<b>1</b>	id	BIGINT(20)		x		x	
<b>2</b>	parent_id	BIGINT(20)			NULL		

### 4.8.5 Food Category table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
<b>1</b>	food_id	BIGINT(20)		x		x	x
<b>2</b>	category_id	BIGINT(20)		x		x	x

### 4.8.6 Customer table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
<b>1</b>	id	BIGINT(20)		x		x	
<b>2</b>	gender	TINYINT(1)		x	'0'		

### 4.8.7 “Table” table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
<b>1</b>	id	BIGINT(20)		x		x	
<b>2</b>	number_of_seating	INT(11)		x			
<b>3</b>	statustb	INT(11)			'0'		

#### 4.8.8 Order\_table table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
1	order_id	BIGINT(20)		x		x	x
2	table_id	BIGINT(20)		x		x	x

#### 4.8.9 Order table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
1	id	BIGINT(20)		x		x	
2	user_id	BIGINT(20)			NULL		x
3	customer_id	BIGINT(20)			NULL		x
4	datetime	DATETIME		x	CURRENT_TIMESTAMP		
5	status	INT(11)		x	'0'		

#### 4.8.10 Order Detail table

No.	Field Name	Type	Description	Not Null	Default	Primary Key	Foreign Key
1	id	BIGINT(20)		x		x	
2	order_id	BIGINT(20)			NULL		x
3	food_id	BIGINT(20)		x			x
4	food_price	FLOAT		x			
5	quantity	INT(11)		x	'1'		
6	status	INT(11)		x	'0'		

## CHAPTER 5: SOFTWARE TESTING DOCUMENT

### 5.1 Introduction

#### 5.1.1 Scope of testing

The primary purpose of this report is to detect software failures so that defects may be **discovered** and correct to ensure that our project is thoroughly tested and resulting in a successful **implementation** of a new social application we are developing. It contains the following sections:

- Scope of Testing.
- Testing Tool and Environment.
- Resources and responsibilities.
- strategy: Test approach, test stages.
- Test schedule.
- Feature to be tested.
- Feature not to be tested.
- Defect Log.
- Test report.

### 5.1.2 Stages of testing

#### *Stages of testing*

There are 4 phases in Testing Process: Unit testing, Integration testing, System testing and Acceptance testing.

ID	Test Stages	Description	Implementation
1	Unit testing	Unit testing will be done by the developer and approved by the development team leader.	Development team: - Nguyen Anh Dung - Duong Tuan Nhat - Au Van Thinh - Nguyen Minh Hieu
2	Integration testing	Integration testing will be performed by testers. Requirements of the system will be tested in functional flow. Starting after unit testing complete for each flow. Focuses on specific areas of uses case when all requirements are completed, integration test should be performed to ensure all components incorporate well.	All member
3	System testing	System Testing will be performed by the tester and development team leader with assistance from the individual developers as required. No specific test tools are available for this project.	All member

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		Programs will enter into System/Integration test after all critical defects have been corrected	
4	Acceptance testing	Acceptance testing consist of Alpha Test and Beta Test will be executed by all team members, stand at end user point of view. Determine whether a system satisfies the requirements specified in the requirements analysis phase. Finding defects is not the main focus in this stage. Acceptance testing will assess the system's readiness for deployment and using.	All member

### *Types of testing*

The test team has to test the following type on Google Chrome.

- GUI test
- Function test
- Performance test
- Acceptance test

### *Range of testing*

Team performs all functions defined in the SRS based on the approved version.

## 5.2 Test Plan

### 5.2.1 Testing tools and environment

*Testing tools*



Google Chrome v68.0: Used to test size of web page and size of component on page.



Trello: Log bug ([www.trello.com](http://www.trello.com))



*Testing environment*

The contents of the Testing Environment are shown in the table below:

Software	Hardware
Testing environment consists of: Google Chrome v68.0. Mozilla Firefox v52.0 Microsoft Office Excel Microsoft Office Word	Personal computer for developing with the minimum configuration: Windows 10 Pro 64bit Intel® CoreTM i5 Install memory (RAM): 4.00GB View Sonic VX2263 Screen with resolution 1600x900 & 1366x768

## 5.2.2 Resources and responsibilities

The contents of the Testing Environment are shown in the table below:

ID	Resources	Responsibilities
1	Project Manager	Responsible for Project Schedules and overall success of the project. Review Test-case and report.
2	Tester	Preforming the actual system testing. Manage test resource and assign test tasks. Create Test Plan. Create Test Cases. Create Test Report. Execute Test. Test Log report.
3	Developer	Create Unit Test. Fix bugs.

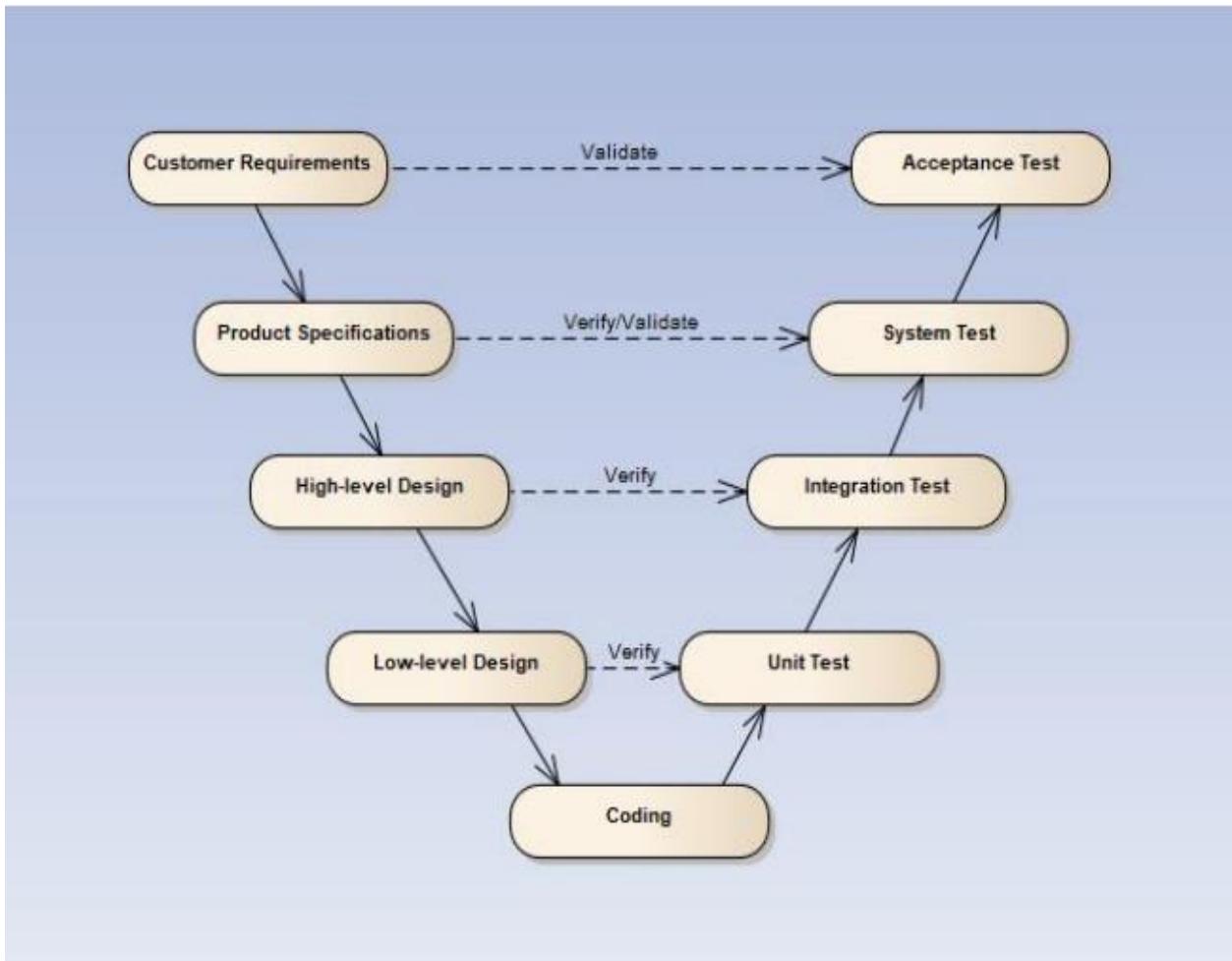
## 5.2.3 Test strategy

### *Test Model*

This project follows V-Model process to implement testing. The V model takes the bottom half of the waterfall model and bends it upward into the form of a V, so that the activities on the right verify or validate the work products of the activity on the left. Below figure demonstrates the relationships between each phase of the development life cycle and its associated phase of testing.

More specifically, the left side of the V represents the analysis activities that decompose the users' needs into small, manageable pieces, while the right side of the V shows the corresponding synthesis activities that aggregate (and test) these pieces into a system that meets the users' needs.

The V-Model demonstrates the relationships between each phase of the development life cycle and its associated phase of testing. The horizontal and vertical axes represent time or project completeness (left-to-right) and level of abstraction. Advances in the production of executable requirements, architectures, and designs enable testing to begin much earlier on the left side of the V so that requirements, architecture, and design defects can be found and fixed early before they can spread into downstream work products.



### *Test Type*

Testing eRestaurant Project will be carry out in each release package as defined in project plan and depends on internal delivery by development side. Critical test will be defined as any new or modified test for the eRestaurant system. Project Manager will decide which closed defects which the test team cannot determine.

The different types of testing that will be carry out this project are.

- **Function Test:**

- Testing of all implemented functions on the eRestaurant system.
- The testing that will be covered for those functions in function test is verification the validation of the behavior according to requirements.
- Test cases will have to be designed to cover all the above and executed.

- Implemented function's error message will be included under this test.

- **Gui Test:**

Graphical User Interface (GUI) Testing verifies a user's interaction with the software. The goal of GUI testing is to ensure that the GUI provides the user with the appropriate access and navigation through the functions of the target-of-test.

In addition, GUI testing ensures that the objects within the GUI function as expected and conform to requirement.

- GUI test will be performed fully on 1600x900 & 1366x768 screen resolution.
- This test is targeted to cover the verification of the overall look and feel of the eRestaurant system including initial position, font, text size, color, focus, initial button, tab order, label, screen sizes and sentences width.
- Check all the GUI elements for size, position, width, length and acceptance of characters or numbers. For instance, it must be able to provide inputs to the input fields.
  - Check if Error Messages are displayed correctly.
  - Check if font used in application is readable.
  - Check if the alignment of the text is proper.
  - Check if the color of the font and warning messages is clear and not confusing.
  - Check if the images have good clarity.
  - Check if the images are properly aligned.
  - Check the positioning of GUI elements for HD screen resolution.

- **Acceptance test:**

The testing is a test conducted to determine if the requirements of a specification are met.

- It involves alpha testing and beta testing. Alpha testing takes place at developers' environments, and involves testing of the operational system by internal member, before it is released to external users. Beta testing takes place at user's environments, and involves testing by a group of users who use the

system at their locations and provide feedback, before the system is released to all users.

#### *Test Stage*

Table below are the stages in which common test are executed:

Type of Tests	Stage of Test		
	Unit	Integration	System
Function Tests	✓	✓	✓
GUI Tests		✓	✓
Acceptance Tests			✓

#### *Test Schedule*

Test Schedule	Start Date	End Date
Iteration 1: Main features	18/06/2018	15/07/2018
Unit Testing	18/06/2018	05/07/2018
Functional Testing	05/07/2018	15/07/2018
Iteration 2: Other features	31/07/2018	18/08/2018
Unit Testing	31/07/2018	10/08/2018
Functional Testing	10/08/2018	15/08/2018
Acceptance testing	15/08/2018	18/08/2018

#### *Deliverables*

Deliverables	Responsibilities	Completion date
Test Plan	Tester	15/06/2018
Test Cases	Tester	15/08/2018
Test case review	Tester + PM	16/08/2018
Test Data (Data Set)	Tester	17/08/2018
Defect report	All members	18/08/2018
Final test Summary report	PM	18/08/2018

#### 5.2.4 Feature to be tested

All features represented by use cases will be tested.

#### 5.2.5 Feature not to be tested

Out of scope features will not to be tested.

## 5.3 Test Approach

### 5.3.1 Unit Test

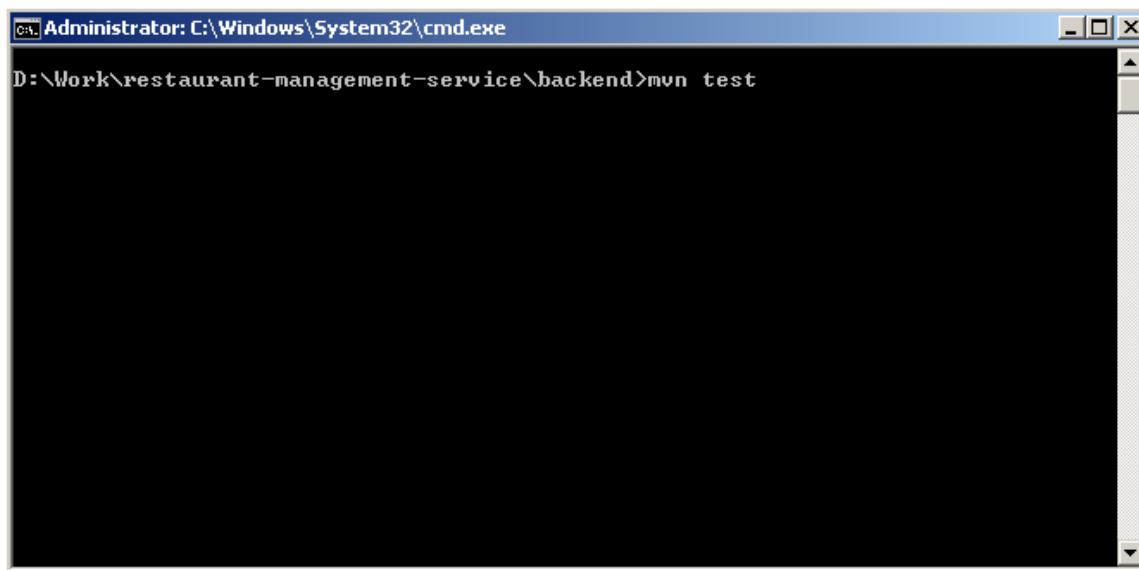
Unit testing will be done by the developer and approved by the development team leader. eRestaurant uses Junit and Springtest to execute unit test.

eRestaurant embrace this feature in order to gain the following advantages:

- High frequency of automation test
- Reduce the level of bugs in production code
- Save development time
- Easier to change and refactor code
- Improve the design of code especially with Test-Driven Development

The greatest thing is every time you change a block of code, you can always re-run all the test functions to make sure everything is still ok. This would take huge effort if you do it manually.

#### Run Unit Test



```
Administrator: C:\Windows\System32\cmd.exe
D:\Work\restaurant-management-service\backend>mvn test
```

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## Integration and System Test

<b>Module Code</b>	<i>Customer</i>			
<b>Test requirement</b>	<i>&lt;Brief description about requirements which are tested in this sheet&gt;</i>			
<b>Tester</b>	<b>Pass</b>	<b>Fail</b>	<b>Untested</b>	<b>N/A</b>
	4	0	0	0
				<b>Number of Test cases</b>
				4

OBJECT	ID	Test Case Description	Test Case Procedure	Expected Output	Inter-test case Dependence	Result
Customer	UC.17.01	Open Menu	Open website	1. Menu show immediately 2. Category show correctly. 3. Food and drink will be show correctly and splitted into category		Pass
	UC.17.02	Open Introduction page	On website. 1. Click on "Giới Thiệu"	1. Change to introduction page. 2. Introduction page have all expected information.		Pass
	UC.17.03	Register	On website. 1. Click on "Đăng ký/ Đăng nhập" 2. Browser redirect to FB login automatically 3. Input by new Facebook account. 4. Browser redirect to addition information page automatically. 5. Input information. 6.Click "Submit"	1. In step 4, Addition information page be show correctly. 2. User login and become customer. 3. On navigation bar, "Đăng ký/Đăng nhập" change to "Đặt bàn", username, user's avatar...		Pass
	UC.17.04	Login	On website. 1. Click on "Đăng ký/ Đăng nhập" 2. Browser redirect to FB login automatically 3. Login by Facebook account 4. Browser redirect to website automatically	1. User login and become customer. 2. On navigation bar, "Đăng ký/Đăng nhập" change to "Đặt bàn", username, user's avatar...		Pass

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<b>Module Code</b>	<i>Chef</i>				
<b>Test requirement</b>	<i>&lt;Brief description about requirements which are tested in this sheet&gt;</i>				
<b>Tester</b>	<b>Pass</b>	<b>Fail</b>	<b>Untested</b>	<b>N/A</b>	<b>Number of Test cases</b>
	4	0	0	0	4

OBJECT	ID	Test Case Description	Test Case Procedure	Expected Output	Inter-test case Dependence	Result
Chef	UC.19.01	Chef login	Open website. 1. Click "Quản lý đăng nhập" 2. Input chef username and password 3. Press Enter or click login	1. Website load to Chef page. 2. Chef page display currently processing food		Pass
	UC.19.02	Chef cook a food	Open website. 1. Login with chef account 2. Click cook in a food	1. Food status change to cooking. 2. Food status on database be change.		Pass
	UC.19.03	Chef done cooking food	Open website. 1. Login with chef account 2. Click done in a food	1. Food status change to Done. 2. Food status on database be change.		Pass
	UC.19.04	Chef realtime with other	Open website. 1. Login with chef account 2. Click done in a food	1. When click done, this food will be display to waiter immediately.		Pass

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<b>Module Code</b>	<i>Cashier</i>				
<b>Test requirement</b>	<Brief description about requirements which are tested in this sheet>				
<b>Tester</b>	<b>Pass</b>	<b>Fail</b>	<b>Untested</b>	<b>N/A</b>	<b>Number of Test cases</b>
	6	0	0	0	6

OBJECT	ID	Test Case Description	Test Case Procedure	Expected Output	Inter-test case Dependence	Result
View Order	UC.24.01	Cashier login	Open website. 1. Click "Quản lý đăng nhập" 2. Input cashier username and password 3. Press Enter or click login	1. Website load to Cashier page. 2. Cashier page display currently order		Pass
	UC.24.02	Cashier Search customer by phone	Open website. 1. Login with cashier account 2. Input phone number in search form. 3. Click "Tim"	1. Only order has customer phone number like search number be displayed		Pass
	UC.24.03	Cashier search customer by name	Open website. 1. Login with cashier account 2. Input customer name in search form. 3. Click "Tim"	1. Only order has customer name like search number be displayed		Pass
CheckOut	UC.25.01	Checkout Normal	Open website. 1. Login with cashier account 2. Click Checkout in order. 3. Click "Thanh toán"	1. Order detail be showed correctly 2. Total be calculated correctly 3. After checkout Order status change to close, table be free for booking		Pass
	UC.25.02	Checkout with uncompleted order	Open website. 1. Login with cashier account 2. Click Checkout in order uncompleted. 3. Click "Thanh toán"	1. Only served order detail be showed correctly 2. Total be calculated correctly 3. After checkout Order status change to close, table be free for booking		Pass
	UC.25.03	Checkout closed order	Open website. 1. Login with cashier account 2. Click Checkout in order. 3. Save copy url in browser 4. Click "Thanh toán" 5. Paste Url copied in browser and go to this url.	1. After step 4, order be close. 2. After all, order be showed but checkout button not be showed.		Pass

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<b>Module Code</b>	Waiter				
<b>Test requirement</b>	<Brief description about requirements which are tested in this sheet>				
<b>Tester</b>					
Pass	Fail	Untested	N/A	Number of Test cases	
26	0	0	0	26	

OBJECT	ID	Test Case Description	Test Case Procedure	Expected Output	Inter-test case Dependence	Result
View available table	UC18.1	Display available table	Open website. 1. Login by user waiter 2. Click "Danh sách bàn trống"	1. List of available tables is displayed 2. Each row has 6 tables 3. Each page has no more than 20 tables		Pass
	UC18.2	Choose date time to see available table	Open website. 1. Login by user waiter 2. Click "Danh sách bàn trống" 3. Click in Datetime box belows "Hẹn giờ đặt bàn" 4. Choose Date and time	1. Datetime box displays date and time that user has chosen 2. List of available tables in chosen date time is displayed 3. Each row has 6 tables 4. Each page has no more than 20 tables		Pass
	UC18.3	Choose date time which is previous day of current day	Open website. 1. Login by user waiter 2. Click "Danh sách bàn trống" 3. Click in Datetime box belows "Hẹn giờ đặt bàn" 4. Choose Date and time	1. Datetime box displays date and time that user has chosen 2. Do not show any table		Pass
Book Table	UC19.1	Books tables normally	Open website. 1. Login by user waiter 2. Click "Danh sách bàn trống" 3. Click in Checkbox belows each table 4. Clicks in "Đặt bàn" button	1. Redirect user to Order management screen 2. Display message: "Book table successfully"		Pass
	UC19.2	Books tables without choose table	Open website. 1. Login by user waiter 2. Click "Danh sách bàn trống" 3. Clicks in "Đặt bàn" button	Display message: "Bạn cần chọn ít nhất 1 bàn"		Pass
Manage Table Booking	UC20.1	View List Booking	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn"	Display Manage Table Booking screen which includes: 1. Customer's phone number (text field) 2. Button "Kiểm tra" 3. List Booking and each booking contains 6 columns: "No.", "Thời gian đặt bàn", "Ghi chú", "Trạng thái", "Đặt bàn bởi", "Hành động" and "Danh sách bàn"		Pass
	UC20.2	Find booking by customer's phone number	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Enter customer's phone number in "Số điện thoại của khách" field 4. Click "Kiểm tra" button	Display current booking of customer has the phonenumber which matches with phonenumber has entered		Pass
	UC20.3	Find booking without phone numer	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Kiểm tra" button	Display all booking		Pass
	UC20.3	Cancel booking	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Hủy bàn" button 4. Click "Đồng ý" button in confirm dialog	1. Remove chosen booking from booking list and remove from database 2. Display message: "Hủy bàn thành công"		Pass
	UC20.4	Cancel booking and do not confirm	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Hủy bàn" button 4. Click "Không" button in confirm dialog	Chosen booking table is not removed from booking list and database		Pass

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Manage Order	UC21.1	View order	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món"	Display Manage order screen		Pass
	UC21.2	View menu	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu	Display foods which matches with each category		Pass
	UC21.3	Pick food from menu	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click "Chọn" in each food	1. Chosen food has added to current order 2. Foods are group by their category in order		Pass
	UC21.4	Pick food from recommend list	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click "Chọn" in each food in recommend list	1. Chosen food has added to current order 2. Foods are group by their category in order		Pass
	UC21.5	Pick Food already existed in order	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click "Chọn" in each food 6. Click "Chọn" in food which has been chosen	The quantity of chosen food increase by 1		Pass
	UC21.6	Change quantity of food in order	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click "Chọn" in each food 6. Change the quantity of food in order	Price of food and total price of order has been changed		Pass
	UC21.7	Change quantity of food which has status "Ché biến" in order	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click "Chọn" in each food 6. Change the quantity of "Ché biến" food in order	Can not change the quantity of "Ché biến" food		Pass
	UC21.8	Remove food from order	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click "Chọn" in each food 6. Click on recycle bin icon in "Hành động" column in order 7. Click "Đồng ý" in confirm dialog	The chosen food has been removed from order		Pass
	UC21.9	Remove food from order but not confirm	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click "Chọn" in each food 6. Click on recycle bin icon in "Hành động" column in order 7. Click "Không" in confirm dialog	Do not remove food from order		Pass
	UC21.10	Refresh order	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click "Chọn" in each food 6. Click "Làm mới" button 7. Click "Đồng ý" button in confirm dialog	Remove all food from order		Pass
	UC21.11	Refresh order but not confirm	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click "Chọn" in each food 6. Click "Làm mới" button 7. Click "Không" button in confirm dialog	Do not remove any food from order		Pass
	UC21.12	Send order to chef	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu	1. Send order to chef 2. Display message: "Đặt món thành công"		Pass

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Notified order	UC22	Notified order	Open website. 1. Login by user waiter 2. Click "Quản lý đặt bàn" 3. Click "Quản lý đặt món" 4. Click in each category in menu 5. Click on Pop-up "Có món nấu xong"	Redirect to "Danh sách trạng thái món ăn" screen		Pass
Served order	UC23.1	View food are waiting to be served	Open website. 1. Login by user waiter 2. Click "Các món ăn"	Display all food are waiting to be served		Pass
	UC23.2	Serve food	Open website. 1. Login by user waiter 2. Click "Các món ăn" 3. Click "Phục vụ" button 4. Click "Đồng ý" button	1. Serve the chosen food 2. Remove the chosen food from list waiting food		Pass
	UC23.3	Serve food but not confirm	Open website. 1. Login by user waiter 2. Click "Các món ăn" 3. Click "Phục vụ" button 4. Click "Không" button	Do not serve the chosen food		Pass

<b>Module Code</b>	<i>Guest</i>			
<b>Test requirement</b>	<Brief description about requirements which are tested in this sheet>			
<b>Tester</b>				
<b>Pass</b>	<b>Fail</b>	<b>Untested</b>	<b>N/A</b>	<b>Number of Test cases</b>
4	0	0	0	4

OBJECT	ID	Test Case Description	Test Case Procedure	Expected Output	Inter-test case Dependence	Result
Guest	UC.16.01	Open Menu	Open website	1. Menu show immediately 2. Category show correctly. 3. Food and drink will be show correctly and split into category		Pass
	UC.16.02	Open Introduction page	On website. 1. Click on "Giới Thiệu"	1. Change to introduction page. 2. Introduction page have all expected information.		Pass
	UC.16.03	Register	On website. 1. Click on "Đăng ký/ Đăng nhập" 2. Browser redirect to FB login automatically 3. Input by new Facebook account. 4. Browser redirect to additional information page automatically. 5. Input information. 6. Click "Submit"	1. In step 4, Additional information page be show correctly. 2. User login and become customer. 3. On navigation bar, "Đăng ký/Đăng nhập" change to "Đặt bàn", username, user's avatar...		Pass
	UC.16.04	Login	On website. 1. Click on "Đăng ký/ Đăng nhập" 2. Browser redirect to FB login automatically 3. Login by Facebook account 4. Browser redirect to website automatically	1. User login and become customer. 2. On navigation bar, "Đăng ký/Đăng nhập" change to "Đặt bàn", username, user's avatar...		Pass

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<b>Module Code</b>	Admin			
<b>Test requirement</b>	<Brief description about requirements which are tested in this sheet>			
<b>Tester</b>				
Pass	Fail	Untested	N/A	Number of Test cases
40	0	0	0	40

UserCase	ID	Test Case Description	Test Case Procedure	Expected Output	Inter-test case Dependence	Result
Add Category	UC.01.01	Add nomal category	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Click "Tạo danh mục" 4. Input name and describe 5. Click "Lưu"	1. Message "Danh mục đã được tạo" 2. Redirect to ".manage/category/list" 3. Category be create in database.		Pass
	UC.01.02	Add category without name	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Click "Tạo danh mục" 4. Input describe 5. Click "Lưu"	1. Message "Trường này không được bỏ trống" bellow input name.		Pass
	UC.01.03	Add category with sub category	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Click "Tạo danh mục" 4. Input name, describe and subCategory 5. Click "Lưu"	1. User login and become customer. 2. On navigation bar, "Đăng ký/Đăng nhập" change to "Đặt bàn", username, user's avatar...		Pass
Edit Category	UC.02.01	Edit Category name	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Click "Sửa" 4. Change name 5. Click "Lưu"	1. Message "Danh mục đã được sửa" 2. Redirect to ".manage/category/list" 3. Category be edited in database.		Pass
	UC.02.02	Edit sub category	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Click "Sửa" 4. Change Subcategory 5. Click "Lưu"	1. Message "Danh mục đã được sửa" 2. Redirect to ".manage/category/list" 3. Category be edited in database.		Pass
Delete Category	UC.03.01	Delete category	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Click "Xóa" 4. Click "Xóa" on confirm board	1. Message "Danh mục bị xóa" 2. Category be remove in database		Pass
	UC.03.02	Delete category no confirm	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Click "Xóa" 4. Click "Quay lại" on confirm board	1. Redirect to page before 2. Category not be remove in database		Pass
	UC.03.03	Delete category has subCategory	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Click "Xóa" with category has sub 4. Click "Xóa" on confirm board	1. Message "Danh mục bị xóa" 2. Category be remove in database 3. Sub Category be move to parent		Pass

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	UC.04.01	View Category	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn"	1. Category be showed 2. Has paging when list too long 3. Has edit and remove button		Pass
View Category	UC.04.02	Search Category	Open website. 1. Login by user admin 2. Click "Quản lý danh mục thực đơn" 3. Input Category name in "Tim kiem" 4. Click "Tim"	1. Category has search name be showed 2. Has paging when list too long 3. Has edit and remove button		Pass
Add Food	UC.05.01	Add normal food	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Tạo món ăn" 4. Input food name, status, price 5. Click "Lưu"	1. Message "Món ăn đã được tạo" 2. Redirect to ".manage/food/list" 3. Food be create in database.		Pass
	UC.05.02	Add food with image and category	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Tạo món ăn" 4. Input food name, status, price, image, category 5. Click "Lưu"	1. Message "Món ăn đã được tạo" 2. Redirect to ".manage/food/list" 3. Food be create in database.		Pass
	UC.05.03	Add food without price	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Tạo món ăn" 4. Input food name, status 5. Click "Lưu"	1. Message "Giá không hợp lệ" 3. Food not be create in database.		Pass
Edit Food	UC.06.01	Edit Food Name	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Sửa" 4. Input new food name 5. Click "Lưu"	1. Message "Món ăn đã được sửa" 2. Redirect to ".manage/food/list" 3. Food be edited in database.		Pass
	UC.06.02	Edit food name to empty	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Sửa" 4. Input food name empty 5. Click "Lưu"	1. Message "Tên không hợp lệ" 3. Food not be edited in database.		Pass
	UC.06.03	Edit food with category	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Sửa" 4. Input category 5. Click "Lưu"	1. Message "Món ăn đã được sửa" 2. Redirect to ".manage/food/list" 3. Food be edited in database.		Pass
Delete Food	UC.07.01	Delete Normal Food	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Xóa" 4. Click "Xóa" on confirm dialog	1. Message "Món ăn đã được xóa" 2. Food be deleted in database		Pass
	UC.07.02	Not confirm when delete food	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Xóa" 4. Click "quay lại" on confirm dialog	1. Food not be deleted in database		Pass
View Food	UC.08.01	View Food	Open website. 1. Login by user admin 2. Click "Quản lý món ăn" 3. Click "Danh sách món ăn"	1. Foods show correctly. 2. Food be paging if has many items		Pass
	UC.08.02	View Food by name	0. Do UC.8.01 1. Enter food name in search form to search 2. Click "Tim"	1. Only food has name like search term be showed. 2. Food be paging if has many items		Pass
	UC.08.03	View Food by status	0. Do UC.8.01 1. Enter status in search form to search 2. Click "Tim"	1. Only food has search status be showed. 2. Food be paging if has many items		Pass

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Add Table	UC.09.01	Add normal table	Open website. 1. Login by user admin 2. Click "Quản lý bàn" 3. Click "Tạo bàn" 4. Input table name, number of sitting 5. Click "Lưu"	1. Message "Bàn đã được tạo" 2. Redirect to ".manage/table/list" 3. Table be create in database.		Pass
	UC.09.02	Add table without name	Open website. 1. Login by user admin 2. Click "Quản lý bàn" 3. Click "Tạo bàn" 4. Only number of sitting 5. Click "Lưu"	1. Message "Trường này không được bỏ trống" bellow input name. 2. Table not be create in database.		Pass
	UC.09.03	Add table without sitting number	Open website. 1. Login by user admin 2. Click "Quản lý bàn" 3. Click "Tạo bàn" 4. Only table name 5. Click "Lưu"	1. Message "Trường này không được bỏ trống" bellow input number of sitting. 2. Table not be create in database.		Pass
Edit Table	UC.10.01	Edit normal table	Open website. 1. Login by user admin 2. Click "Quản lý bàn" 3. Click "Danh sách bàn" 4. Click "Sửa" 5. Input new table name 6. Click "Lưu"	1. Message "Bàn đã được Sửa" 2. Redirect to ".manage/table/list" 3. Table be edited in database.		Pass
	UC.10.02	Edit table remove name	Open website. 1. Login by user admin 2. Click "Quản lý bàn" 3. Click "Danh sách bàn" 4. Click "Sửa" 5. Input new table name is empty 6. Click "Lưu"	1. Message "Trường này không được bỏ trống" bellow input name. 2. Table not be edited in database.		Pass
	UC.10.03	Edit table negative sitting	Open website. 1. Login by user admin 2. Click "Quản lý bàn" 3. Click "Danh sách bàn" 4. Click "Sửa" 5. Input new table name 6. Click "Lưu"	1. Message "Số ghế từ 0 đến 40". 2. Table not be edited in database.		Pass
Delete table	UC.11.01	Delete table	Open website. 1. Login by user admin 2. Click "Quản lý bàn" 3. Click "Danh sách bàn" 4. Click "Xóa" 5. Click "Xóa" on confirm dialog	1. Message "Bàn đã được xóa" 2. Table be deleted in database		Pass
	UC.11.02	Not confirm when delete table	Open website. 1. Login by user admin 2. Click "Quản lý bàn" 3. Click "Danh sách bàn" 4. Click "Xóa" 5. Click "Quay lại" on confirm dialog	1. Table not be deleted in database. 2. Confirm dialog hide		Pass
Add staff	UC.12.01	Add normal staff	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Thêm mới" 4. Add correct info 5. Click "Lưu"	1. Message "Nhân viên đã được tạo" 2. Redirect to ".manage/user/list" 3. Staff be create in database.		Pass
	UC.12.02	Add staff with exist username	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Thêm mới" 4. Add username exist in database 5. Add correct info 6. Click "Lưu"	1. Message "Tên đăng nhập đã tồn tại" 2. Staff not be create.		Pass
	UC.12.03	Add staff password not correct	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Thêm mới" 4. Add password and repassword difference 5. Add correct info 6. Click "Lưu"	1. Message "Mật khẩu và nhập lại không khớp" 2. Staff not be create.		Pass

## THE CAPSTONE PROJECT

Edit staff	UC.13.01	Edit staff change valid name	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Danh sách" 4. Click "Sửa" 5. Edit name 6. Click "Lưu"	1. Message "Nhân viên đã được sửa" 2. Redirect to ".manage/user/list" 3. Staff be edited in database.		Pass
	UC.13.02	Edit staff remove phone	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Danh sách" 4. Click "Sửa" 5. Remove phone number 6. Click "Lưu"	1. Message "Trường này không được bỏ trống" bellow phone input 2. Staff not be edited in database.		Pass
	UC.13.03	Edit staff password	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Danh sách" 4. Click "Sửa" 5. Edit password. 6. Edit repassword same with password 6. Click "Lưu"	1. Message "Nhân viên đã được sửa" 2. Redirect to ".manage/user/list" 3. Staff be edited in database.		Pass
Delete staff	UC.14.01	Delete staff normal	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Danh sách" 4. Click "Xóa" 5. Click "Xóa" on confirm dialog	1. Message "Nhân viên đã được xóa" 2. Redirect to ".manage/user/list" 3. Staff be deleted in database.		Pass
	UC.14.02	Delete staff itself	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Danh sách" 4. Click "Xóa" in this self username 5. Click "Xóa" on confirm dialog	1. Message "Bạn không thể xóa chính mình" 2. Staff not be deleted in database.		Pass
View staff	UC.15.01	View staff	Open website. 1. Login by user admin 2. Click "Nhân viên" 3. Click "Danh sách"	1. Staff be showed correctly 2. Has paging if staff too many		Pass
	UC.15.02	Search staff by name	Do UC.15.01 1. Enter name in search form. 2. Click "Tìm"	1. Only staff has name like search key be showed correctly 2. Has paging if staff too many		Pass
	UC.15.03	Search staff by status	Do UC.15.01 1. Change status in search form. 2. Click "Tìm"	1. Only staff has search status be showed correctly 2. Has paging if staff too many		Pass

### 5.3.2 Acceptance Test

- Acceptance Testing is a level of the software testing process where a system is tested for acceptability. The purpose of this test is to evaluate the system's compliance with the business requirements and assess whether it is acceptable for delivery.
- Our project will use the Check Lists as a substitute for Acceptance testing.
- The contents of the Checklist be shown in the table below.

ID	Checklists	Yes	No
<b>General</b>			
CL-01	Text on all pages for spelling and grammatical errors.	✓	
CL-02	Functionality of buttons available on all pages.	✓	
CL-03	All mandatory fields are validated and indicated by asterisk symbol.	✓	
CL-04	All error messages are displayed in same CSS style, using red color.	✓	
CL-05	Delete functionality for any record on page are asked for confirmation.	✓	
CL-06	All numeric values are formatted properly.	✓	
<b>GUI and Usability</b>			
CL-07	Screens are designed follow project standards.	✓	
CL-08	The screen well organized and easy to use.	✓	
CL-09	All fields on page (e.g. text box, radio options, dropdown lists) should be aligned properly.	✓	
CL-10	The most important fields are located where they are easy to see.	✓	
CL-11	Information is presented in the order that the user needs it.	✓	
CL-12	The static text is clear, concise, and meaningful.	✓	
CL-13	All static text words are spelled out (correctly!) and abbreviations used only when space is limited.	✓	
CL-14	All icons and elements are flat	✓	
CL-15	Pop-up menus are provided for the user to access information about an object's properties or perform specific tasks on the object.	✓	
CL-16	Command buttons are used to trigger application processes.	✓	
CL-17	Checkboxes are used to show independent on/off choices. Can tick on more different answer.	✓	
CL-18	Radio buttons are used to show sets of two or more mutually exclusive choices. Only allow tick on 1 answer.	✓	
CL-19	System display notification message when meet trouble, error.	✓	
<b>Window Components</b>			

## THE CAPSTONE PROJECT

CL-20	The correct primary window type is used.	✓	
CL-21	The correct dialog box type is used.	✓	
CL-22	Available cancel button functionality for dialog box.	✓	
<b>Database</b>			
CL-23	Correct data is getting saved in database upon successful page submit.	✓	
CL-24	Values columns are not accepting null values.	✓	
CL-25	Radio button options are saved correctly in database.	✓	
CL-26	Database fields are designed with correct data type and data length.	✓	
CL-27	Null values are not allowed for Primary key column.	✓	
<b>Security</b>			
CL-28	Password information should be stored in encrypted format only.	✓	

### 5.3.3 Defect Log

- eRestaurant project uses [www.trello.com](http://www.trello.com) to manager bug list.
- Every member of eRestaurant project creates an account in [www.trello.com](http://www.trello.com) to get bug and fix bug.
- Processes:
- Testers log bug to trello.com under Bugs list and assign developer who's in charge of the functions that have bugs.
- Developers fix bug and move bug to Fixed bug list and assign tester who logs the bug.
- Tester checks the bug again:
  - o If bug fixed, Tester checks the test case and change percent of completeness to 100% and close bug.
  - o If bugs are not fixed, Tester move bug back to Bugs list and assign developer again

## 5.4 Test Report

### 5.4.1 Bug list report

Bug ID	TestCase	Log Date	Description	Owner	Assignee	Status	Retest date
1	TC.03.01	7/24/2018	whenDeleteCategory_thenReturnSuccess : status expected 200- but was 400	Duong Nhat	Au Thinh	Done	8/12/2018
2	TC.02.01	7/24/2018	whenUpdateCategoryNotFound_thenReturnError: status expected 404- but was 200	Duong Nhat	Au Thinh	Done	7/24/2018

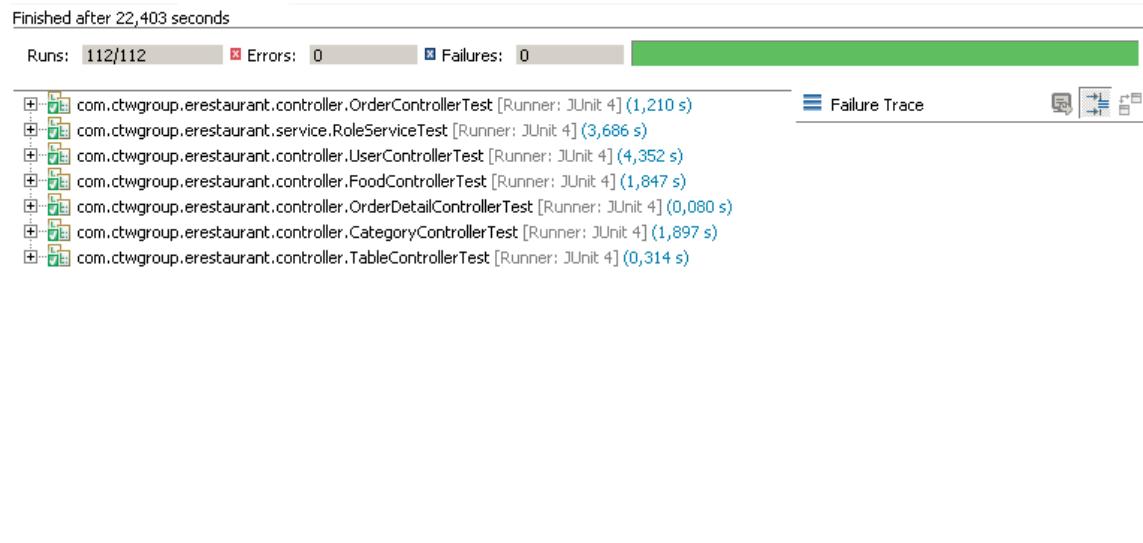
## THE CAPSTONE PROJECT

<b>3</b>	TC.01.03	7/24/2018	whenAddCategoryWithParentIsChild_the nReturnError: status expected 404- but was 200	Duong Nhat	Au Thinh	Done	8/12/2018
<b>4</b>	TC.08.02	7/24/2018	whenGetFoodByName_thenReturnArray status expected Array has content "test" but was has not	Duong Nhat	Duong Nhat	Done	7/24/2018
<b>5</b>	TC.07.01	7/24/2018	henDelete_thenReturnSuccess: status expected 200 but was 400	Duong Nhat	Duong Nhat	Done	7/24/2018
<b>6</b>	TC.09.01	7/24/2018	whenCreateWithoutName_thenReturn40 4 status expected 404 but was 200	Duong Nhat	Minh Hieu	Done	7/24/2018
<b>7</b>	TC.09.03	7/24/2018	whenCreateWithNumberOfSeatIsNegativ e_thenReturn404 status expected 404 but was 200	Duong Nhat	Duong Nhat	Done	7/24/2018
<b>8</b>	TC.13.01	7/24/2018	whenUpdateWithIDNotExist_thenReturn NotFoundId status expected 404 but was 200	Au Thinh	Minh Hieu	Done	7/24/2018
<b>9</b>	TC.19.01	7/24/2018	whenAvailabeBookOneTable_thenReturn ArrayJson status expected 400 but was 200	Au Thinh	Minh Hieu Anh Dung	Done	7/24/2018
<b>10</b>	TC.15.01	7/24/2018	whenFindAll_thenReturnArrayJson status expected 200 but was 400	Au Thinh	Anh Dung	Done	7/24/2018
<b>11</b>	TC.02.01	7/24/2018	whenUpdateWithIDNotExist_thenReturn NotFoundId status expected 404 but was 405	Au Thinh	Au Thinh	Done	7/24/2018
<b>12</b>	TC.01.01	7/24/2018	whenCreate_thenReturnBadRequest status expected status expected 400 but was 404	Au Thinh	Au Thinh	Done	7/24/2018
<b>13</b>	TC.18.02	8/8/2018	fix bug thiếu bàn khi đặt hàng - mảng hình quản lý book	Au Thinh	Minh Hieu	Done	8/17/2018
<b>14</b>	TC.13.02	8/8/2018	fix bug trong user unit test	Au Thinh	Anh Dung	Done	8/17/2018
<b>15</b>	TC.16.01	8/8/2018	fix bug hiện 2 sản phẩm giống nhau trong menu	Au Thinh	Duong Nhat	Done	8/13/2018
<b>16</b>	TC.25.02	8/8/2018	fix bug không chọn đặt bàn vẫn đặt được món	Au Thinh	Minh Hieu	Done	8/17/2018
<b>17</b>	TC.26.06	8/12/2018	lỗi phân trang màn hình manager order	Au Thinh	Minh Hieu	Done	8/17/2018
<b>18</b>	TC.20.12	8/12/2018	lỗi manager order. khi order 3 sản phẩm báo thành công nhưng reload thì chỉ còn 1 sản phẩm	Au Thinh	Minh Hieu Anh Dung	Done	8/17/2018
<b>19</b>	TC.16.02	8/12/2018	homepage bị mất thanh topbar khi co nhỏ màn hình	Au Thinh	Minh Hieu	Done	8/15/2018
<b>20</b>	TC.26.01	8/14/2018	realtime: khi đặt bộ bàn mới từ màn hình khác thì màn hình quản lý đặt bàn chưa reload	Au Thinh	Minh Hieu Anh Dung	Done	8/14/2018
<b>21</b>	TC.01.01	8/14/2018	manage category: không lưu được category khi tạo mới hoặc edit	Au Thinh	Au Thinh	Done	8/14/2018

## THE CAPSTONE PROJECT

<b>22</b>	TC.26.01	8/14/2018	Realtime: bật 2 màn hình manager order với order id giống nhau: khi pick món manager order rồi submit. màn hình thứ 2 không reload	Au Thinh	Minh Hieu Anh Dung	Done	8/14/2018
<b>23</b>	TC.21.04	8/14/2018	Realtime: bật màn hình chef, manager order với order id giống nhau: khi đổi trạng thái món ăn in chef, màn hình manager order ko reload	Au Thinh	Minh Hieu Anh Dung Duong Nhat	Done	8/14/2018
<b>24</b>	TC.05.01	8/14/2018	Manage Food: không lưu đc food khi tạo mới hoặc edit	Au Thinh	Duong Nhat	Done	8/15/2018
<b>25</b>	TC.24.01	8/14/2018	Manage Table: danh sách bàn ko hiển thị	Au Thinh	Minh Hieu	Done	8/15/2018
<b>26</b>	TC.21.04	8/14/2018	realtime: ko pick món nào rồi ấn submit (manager order) vẫn hiện thông báo có món cần nấu ở màn hình chef	Au Thinh	Minh Hieu Anh Dung	Done	8/14/2018
<b>27</b>	TC.13.01	8/14/2018	Manage Agent Account: không lưu đc nhân viên khi tạo mới hoặc sửa	Au Thinh	Anh Dung	Done	8/14/2018
<b>28</b>	TC.22.04	8/14/2018	Realtime: màn hình cashier, manager booking: khi checkout 1 order màn hình manager booking không reload status	Au Thinh	Anh Dung	Done	8/14/2018
<b>29</b>	TC.22.04	8/14/2018	Realtime: màn hình cashier, manager booking: khi hủy một order (manager book), màn hình cashier ko reload	Au Thinh	Anh Dung	Done	8/14/2018
<b>30</b>	TC.24.01	8/16/2018	fix available table (khong hien thi table vs status = 2)	Au Thinh	Minh Hieu	Done	8/17/2018
<b>31</b>	TC.20.07	8/16/2018	fix bug không tương thích event ở các browser khác nhau	Au Thinh	Minh Hieu	Done	8/17/2018
<b>32</b>	TC.13.03	8/20/2018	Repassword không giống password vẫn update đc	Duong Nhat	Minh Hieu Anh Dung	Done	8/22/2018
<b>33</b>	TC.13.03	8/21/2018	Màn hình quản lý nhân viên: ko cần pass vẫn tạo được account	Duong Nhat	Minh Hieu	Done	8/23/2018

### 5.4.2 Iteration 1



### 5.4.3 Iteration 2

No	Module Code	Pass	Fail	Untested	N/A	Number of testcase
1	Admin	40	0	0	0	40
2	Guest	4	0	0	0	4
3	Customer	24	0	0	0	24
4	Chef	4	0	0	0	4
5	Cashier	8	0	0	0	8
6	Waiter	26	0	0	0	26
7	Authen	25	0	0	0	25
	Total	131	0	0	0	131

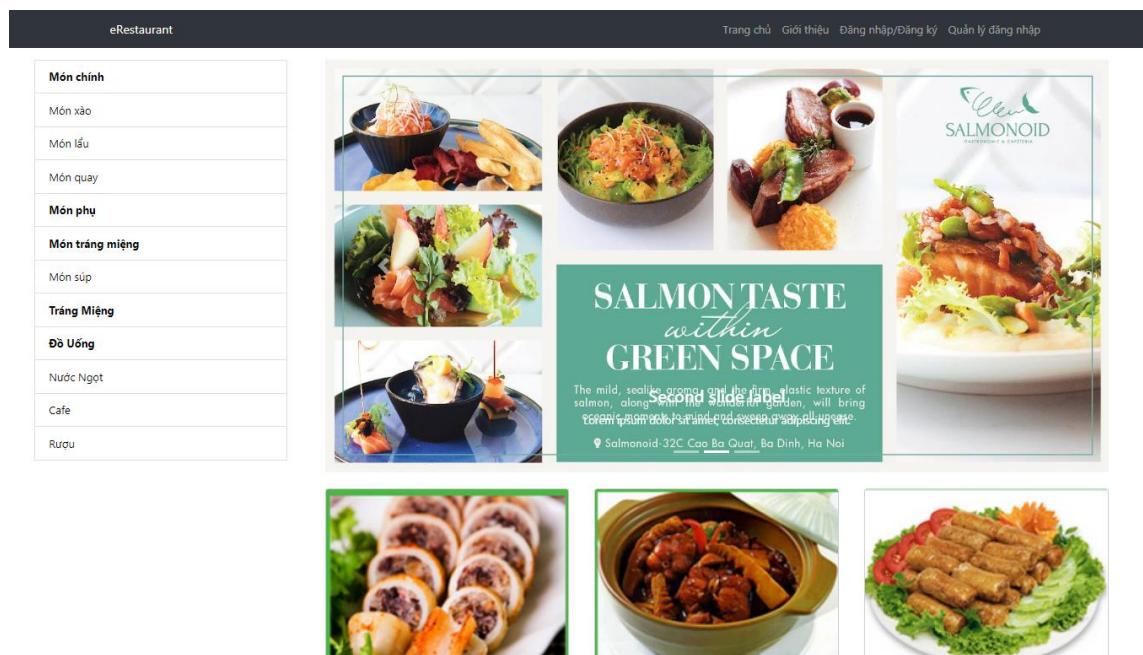
Test Coverage 100.00%

Test Success Coverage 100.00%

## CHAPTER 6: SOFTWARE USER'S MANUAL

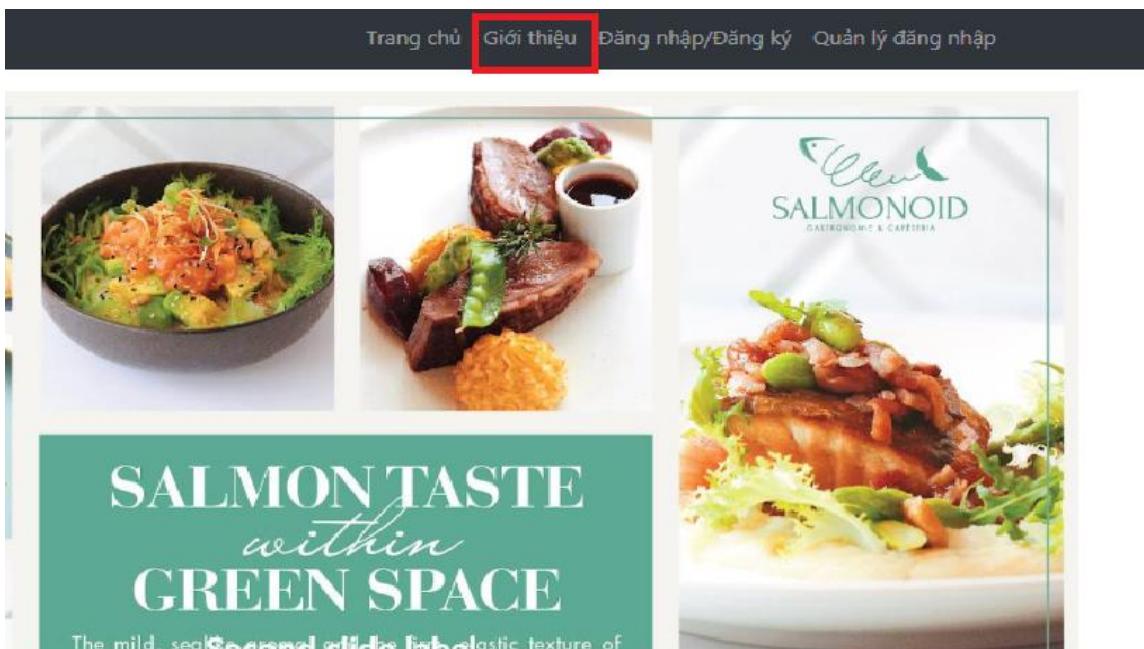
### 6.1 User Guidelines

#### 6.1.1 HomePage



#### 6.1.2 Information page

1. In HomPage click on “Giới thiệu” button



## 2. ER System displays Infomation page

**eRestaurant**

Chào mừng bạn đến với nhà hàng CTW 409 Kim Mã. Chúng tôi chuyên phục vụ đặt tiệc cưới, sinh nhật, tiếp khách... Với đội ngũ nhân viên nhiệt tình và cung cách phục vụ chuyên nghiệp, ứng dụng công nghệ nhằm tạo thuận lợi tối đa cho khách hàng, chúng tôi rất hân hạnh được phục vụ bạn.

<b>Địa chỉ</b> 409 Kim Mã Ngọc Khánh, Ba Đình Hà Nội, Vietnam	<b>Điện thoại</b> Số máy bàn trong giờ từ 7 giờ đến 21 giờ +33 555 444 333	<b>Hỗ trợ trực tuyến</b> Nếu có bất cứ thắc mắc hay ý kiến đóng góp, vui lòng gửi mail đến địa chỉ: Chủ nhà hàng: <a href="mailto:duongthanh@gmail.com">duongthanh@gmail.com</a> Quản lý: <a href="mailto:ThinhLuuAE@gmail.com">ThinhLuuAE@gmail.com</a>
--	--	---

Trang chủ | Giới thiệu | Đăng nhập/Đăng ký | Quản lý đăng nhập

[Map data ©2018 Google](#) [Terms of Use](#) [Report a map error](#)

eRestaurant

Trang chủ Giới thiệu Đăng nhập/Đăng ký Quản lý đăng nhập

Chào mừng bạn đến với nhà hàng CTW 409 Kim Mã. Chúng tôi chuyên phục vụ đám tiệc cưới, sinh nhật, tiếp khách... Với đội ngũ nhân viên nhiệt tình và cung cách phục vụ chuyên nghiệp. Ứng dụng công nghệ nhằm tạo thuận lợi tối đa cho khách hàng, chúng tôi rất hân hạnh được phục vụ bạn.

**Địa chỉ:**  
409 Kim Mã  
Ngõ Khánh, Ba Đình  
Hà Nội, Vietnam

**Điện thoại:**  
Số máy bàn trong giờ từ 7 giờ đến 21 giờ  
+33 555 444 333

**Hỗ trợ trực tuyến:**  
Nếu có bất cứ thắc mắc hay ý kiến đóng góp, vui lòng gửi mail đến địa chỉ:  
Chủ nhà hàng: duongnhnhat@gmail.com  
Quản lý: ThịnhLúaAE@gmail.com

**Map:**

Direction from user's location to the restaurant

### 6.1.3 Login by staff

1. In HomePage click on “Quản lý đăng nhập” button

Trang chủ Giới thiệu Đăng nhập/Đăng ký **Quản lý đăng nhập**

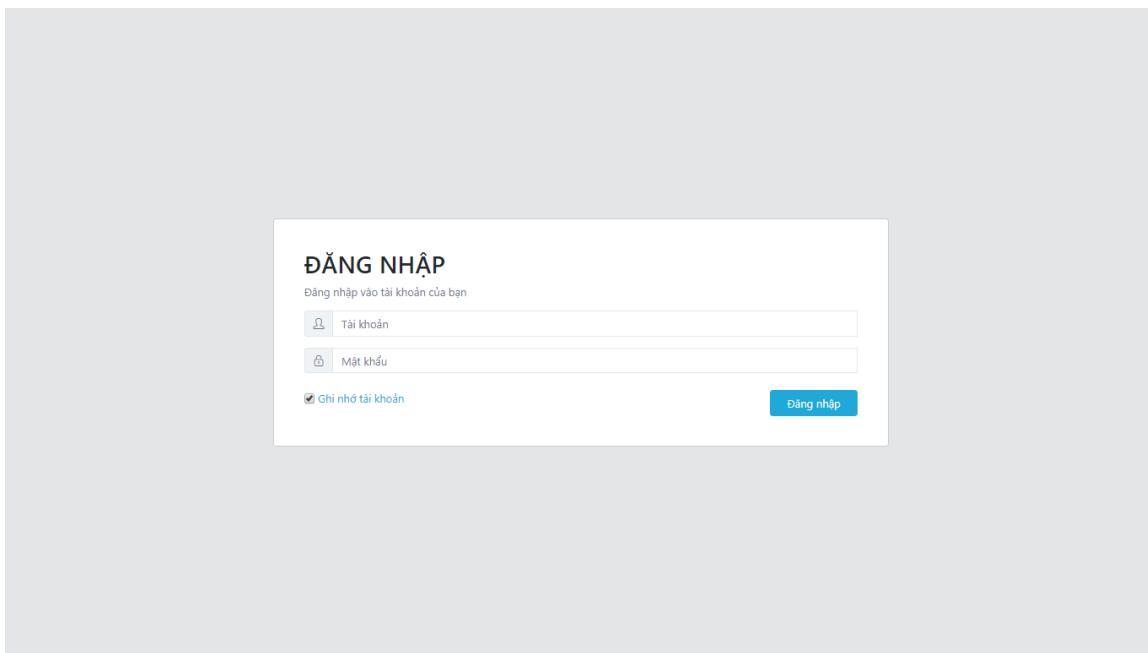
Foody.vn

Ă HÀNG, KHÁCH SẠN

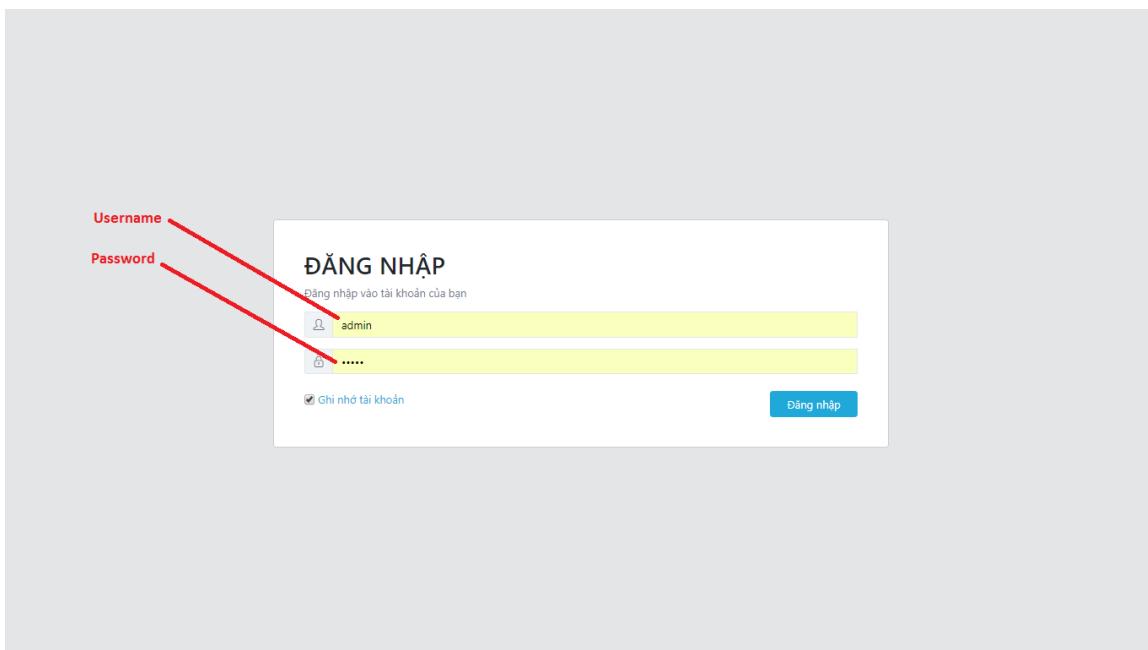
ĐI KHÔNG  
ĐI THUỐC LÁ

Third slide label

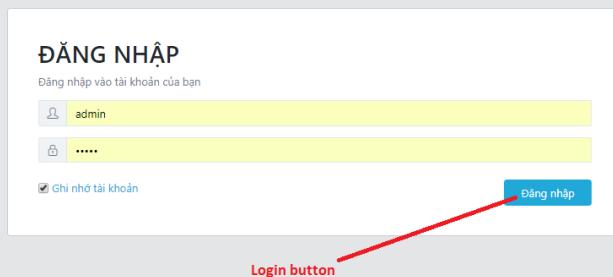
2. ER System display login page



3. Enter Username and Password



4. Click on “Đăng nhập” button



5. ER System redirect user to page which matches user's role

COREUI

Dashboard

Nhân viên

Quản lý Bàn

Quản lý danh mục thực đơn

Quản lý món ăn

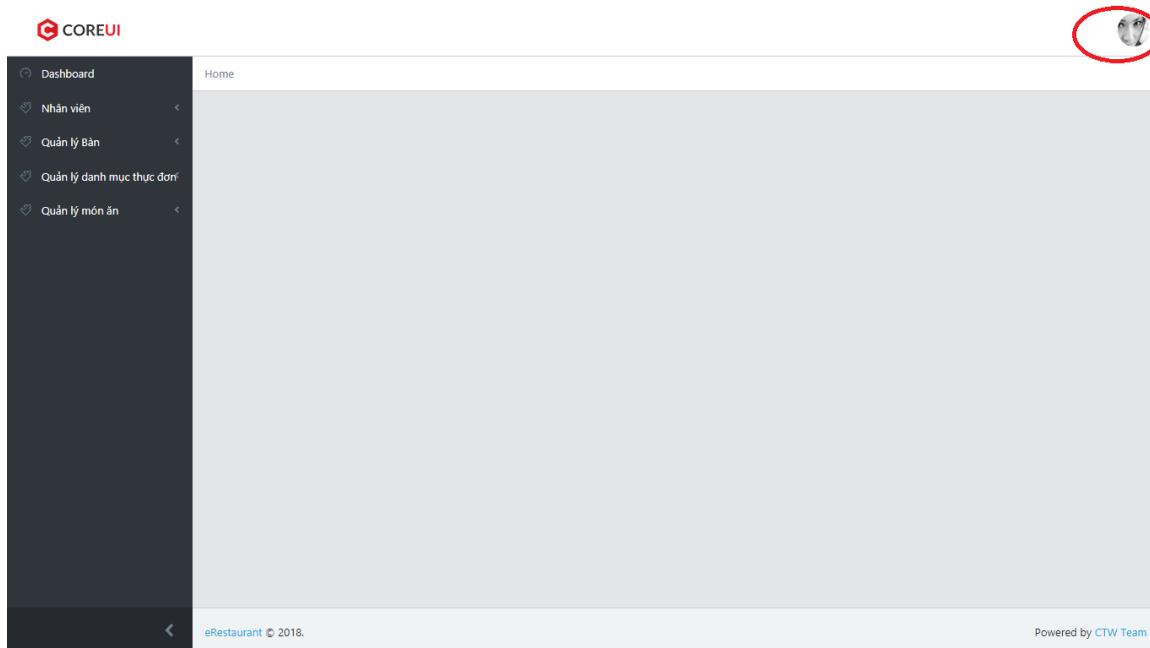
Home

eRestaurant © 2018.

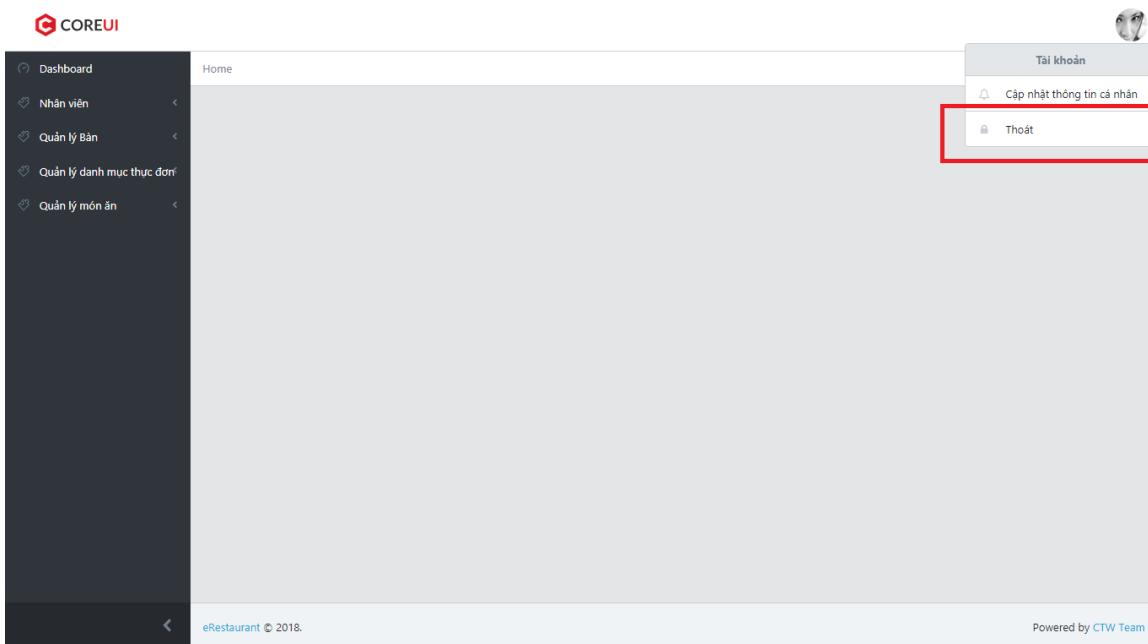
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#### 6.1.4 Logout

1. Click on avatar in top-right



2. Click on “Thoát” button



### 3. ER System log user out and redirect to homepage

#### 6.1.5 List account

1. Login as Admin
2. Click on “Nhân viên” in sidebar
3. Click on “Danh sách”

The screenshot shows the 'Danh sách nhân viên' (Employee List) page. The left sidebar has the 'Nhân viên' item selected and highlighted with a red box. The main content area displays a table of employee records:

STT	Tài khoản	Tên	Số điện thoại	Chức vụ	Status	Sửa	Xoá
> 1	ADMIN	ADM	0989123456	Quản lý	Hoạt động	<button>Sửa</button>	<button>Xoá</button>
> 2	Thinh	Au Van Thinh @	01652919852	Phục vụ	Không hoạt động	<button>Sửa</button>	<button>Xoá</button>
> 3	Nhat	Duong Tuan Nhat	0912293302	Phục vụ	Hoạt động	<button>Sửa</button>	<button>Xoá</button>
> 4	waiter	waiter	0958667784	Phục vụ	Hoạt động	<button>Sửa</button>	<button>Xoá</button>
> 5	cashier	cashier	09876564534	Thu ngân	Hoạt động	<button>Sửa</button>	<button>Xoá</button>
> 6	chef	chef	0956744343	Đầu bếp	Hoạt động	<button>Sửa</button>	<button>Xoá</button>
> 7	nghia_waiter	Nghia 1	0989123456	Phục vụ	Hoạt động	<button>Sửa</button>	<button>Xoá</button>

### 4. ER System display list account

### 6.1.6 Search account

1. Enter search condition in “Tìm kiếm”, choose role and status form “Chức vụ” and “Status” combo box
2. Click on “Tìm” button

STT	Tài khoản	Tên	Số điện thoại	Chức vụ	Status
> 1	ADMIN	ADM	0989123456	Quản lý	<span>Hoạt động</span>
> 2	Thinh	Au Van Thinh @	01652919852	Phục vụ	<span>Không hoạt động</span>
> 3	Nhat	Duong Tuan Nhat	0912293302	Phục vụ	<span>Hoạt động</span>
> 4	waiter	waiter	0958667784	Phục vụ	<span>Hoạt động</span>
> 5	cashier	cashier	09876564534	Thu ngân	<span>Hoạt động</span>
> 6	chef	chef	0956744343	Đầu bếp	<span>Hoạt động</span>
> 7	nghia_waiter	Nghia 1	0989123456	Phục vụ	<span>Hoạt động</span>

3. ER System display all result matching with search condition

STT	Tài khoản	Tên	Số điện thoại	Chức vụ	Status
> 1	waiter	waiter	0958667784	Phục vụ	<span>Hoạt động</span>
> 2	nghia_waiter	Nghia 1	0989123456	Phục vụ	<span>Hoạt động</span>
> 3	test	waiter @@	0967554455	Phục vụ	<span>Hoạt động</span>
> 4	test_waiter	waiter	0123456789	Phục vụ	<span>Hoạt động</span>
> 5	waiter1	waiter	0153467896	Phục vụ	<span>Hoạt động</span>

5 total

### 6.1.7 Delete account

#### 1. Clicks on “Xóa” button

STT	Tài khoản	Tên	Số điện thoại	Chức vụ	Status
1	ADMIN	ADM	0989123456	Quản lý	<span>Hoạt động</span>
2	Thinh	Au Van Thinh @	01652919852	Phục vụ	<span>Không hoạt động</span>
3	Nhat	Duong Tuan Nhat	0912293302	Phục vụ	<span>Hoạt động</span>
4	waiter	waiter	0958667784	Phục vụ	<span>Hoạt động</span>
5	cashier	cashier	09876564534	Thu ngân	<span>Hoạt động</span>
6	chef	chef	0956744343	Đầu bếp	<span>Hoạt động</span>
7	nghia_waiter	Nghia 1	0989123456	Phục vụ	<span>Hoạt động</span>

#### 2. ER system display a confirm box

Bạn chắc chắn muốn xóa Thinh?

Xóa      Quay lại

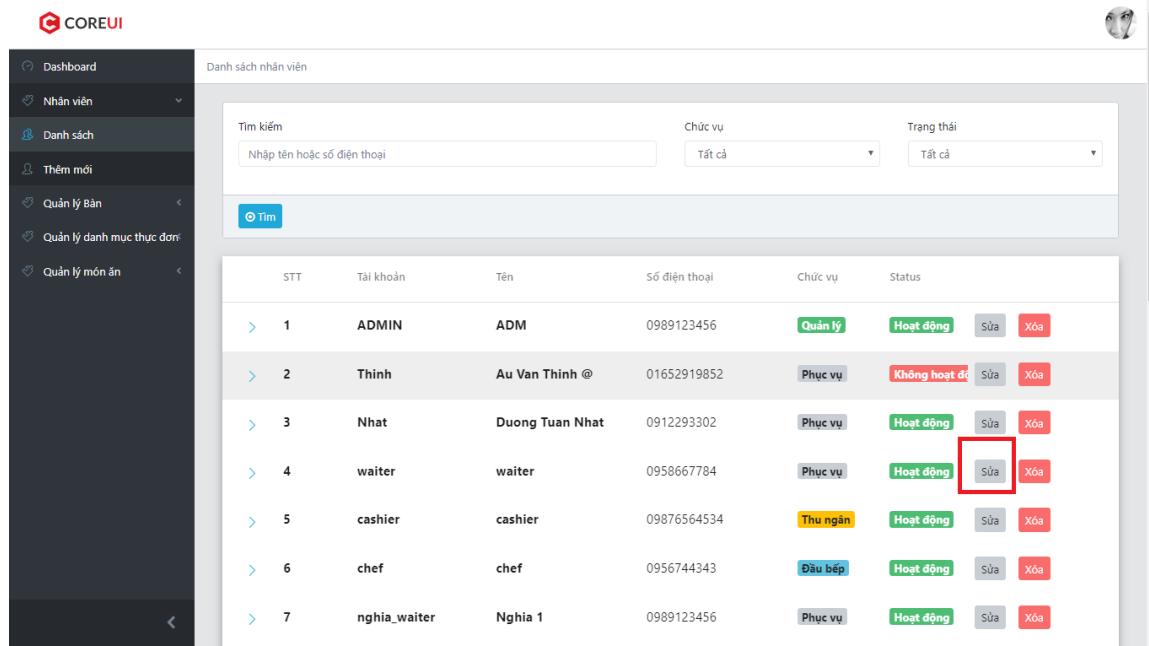
STT	Tài khoản	Tên	Số điện thoại	Chức vụ	Status
1	ADMIN	ADM	0989123456	Quản lý	<span>Hoạt động</span>
2	Thinh	Au Van Thinh @	01652919852	Phục vụ	<span>Không hoạt động</span>
3	Nhat	Duong Tuan Nhat	0912293302	Phục vụ	<span>Hoạt động</span>
4	waiter	waiter	0958667784	Phục vụ	<span>Hoạt động</span>
5	cashier	cashier	09876564534	Thu ngân	<span>Hoạt động</span>
6	chef	chef	0956744343	Đầu bếp	<span>Hoạt động</span>
7	nghia_waiter	Nghia 1	0989123456	Phục vụ	<span>Hoạt động</span>

#### 3. User can choose “Xóa” to delete account or “Quay lại” to back to list account screen

4. If user choose “Xóa” instep 3, ER System delete chosen account then display list account

### 6.1.8 Edit account

- Click on “Sửa” button



The screenshot shows a user interface for managing staff members. On the left is a sidebar with navigation links: Dashboard, Nhân viên (Employee), Danh sách (List), Thêm mới (New), Quản lý Bàn (Table Management), Quản lý danh mục thực đơn (Menu Category Management), and Quản lý món ăn (Food Item Management). The main area is titled "Danh sách nhân viên" (Employee List). It includes search fields for "Tim kiếm" (Search), "Chức vụ" (Position), and "Trạng thái" (Status), along with a "Tim" (Search) button. A table lists 7 employees with columns: STT (ID), Tài khoản (Account), Tên (Name), Số điện thoại (Phone Number), Chức vụ (Position), and Status. The 4th employee, "waiter", has a row with a red box around the "Sửa" (Edit) button in the "Hoạt động" (Action) column.

STT	Tài khoản	Tên	Số điện thoại	Chức vụ	Status
> 1	ADMIN	ADM	0989123456	Quản lý	<span>Hoạt động</span>
> 2	Thinh	Au Van Thinh @	01652919852	Phục vụ	<span>Không hoạt động</span>
> 3	Nhat	Duong Tuan Nhat	0912293302	Phục vụ	<span>Hoạt động</span>
> 4	waiter	waiter	0958667784	Phục vụ	<span>Hoạt động</span>
> 5	cashier	cashier	09876564534	Thu ngân	<span>Hoạt động</span>
> 6	chef	chef	0956744343	Đầu bếp	<span>Hoạt động</span>
> 7	nghia_waiter	Nghia 1	0989123456	Phục vụ	<span>Hoạt động</span>

- ER System redirect user to Edit Account
- Fill Account's information to all fields
- Click on “Lưu” button

## 5. ER System redirect user to List Account

### 6.1.9 Create account

#### 1. Click on “Thêm mới” in side bar

STT	Tài khoản	Tên	Số điện thoại	Chức vụ	Status
> 1	ADMIN	ADM	0989123456	Quản lý	<span>Hoạt động</span> Sửa Xóa
> 2	Thinh	Au Van Thinh @	01652919852	Phục vụ	<span>Không hoạt động</span> Sửa Xóa
> 3	Nhat	Duong Tuan Nhat	0912293302	Phục vụ	<span>Hoạt động</span> Sửa Xóa
> 4	waiter	waiter	0958667784	Phục vụ	<span>Hoạt động</span> Sửa Xóa
> 5	cashier	cashier	09876564534	Thu ngân	<span>Hoạt động</span> Sửa Xóa
> 6	chef	chef	0956744343	Đầu bếp	<span>Hoạt động</span> Sửa Xóa
> 7	nghia_waiter	Nghia 1	0989123456	Phục vụ	<span>Hoạt động</span> Sửa Xóa

#### 2. ER System redirect user to Create Account

3. Fill Account's information to all fields
4. Click on “Lưu” button

6. ER System redirect user to List Account

#### 6.1.10 List table

1. Click on “Quản lý bàn” in side bar
2. Click on “Danh sách bàn”
3. ER System display list table

#### 6.1.11 Delete table

1. Click on “Xóa” button
2. ER System display a confirm box
3. User can choose “Xóa” to delete account or “Quay lại” to back to list tables screen
4. If user choose “Xóa” instep 3, ER System delete chosen table then display list tables

#### 6.1.12 Edit table

1. Click on “Sửa” button
2. ER System redirect to Edit Page
3. Fill Account's information to all fields

4. Click on “Lưu” button
5. ER System redirect user to List Table

#### 6.1.13 Create table

1. Click on “Tạo bàn” in side bar

The image consists of two vertically stacked screenshots of a web-based application interface. Both screenshots feature a dark sidebar on the left with various menu items. In the top screenshot, the 'Nhân viên' item is expanded, showing a sub-menu with 'Tạo nhân viên'. In the bottom screenshot, the 'Danh sách bàn' item is selected, and its sub-menu includes 'Tạo bàn', which is highlighted with a red box. The main content area for both screenshots is titled 'Tạo bàn'. It contains three input fields: 'Tên bàn', 'Số ghế', and 'Ghi chú', each with a corresponding text input box. At the bottom of the form is a blue button labeled 'Lưu'.

2. ER System redirect user to Create Table
3. Fill Table's information to all fields
4. Click on “Lưu” button

## 5. ER System redirect user to List Table

### 6.1.14 List category

1. Click on “Quản lý danh mục thực đơn” in sidebar
2. Click on “Danh sách danh mục”

STT	Tên	Mô tả	Danh mục mẹ
> 1	Nước Ngọt		Đồ Uống
> 2	Cafe		Đồ Uống
> 3	Rượu		Đồ Uống
> 4	Món chính		
> 5	Món phụ		
> 6	Món tráng miệng		
> 7	Món xào		Món chính

### 3. ER System display list category

#### 6.1.15 Search category

1. Enter search condition in search field
2. Click “Tìm” button
3. ER System display all category matching with search condition

STT	Tên	Mô tả	Danh mục mẹ	Sửa	Xóa
> 1	Nước Ngọt	Đồ Uống		Sửa	Xóa
> 2	Cafe	Đồ Uống		Sửa	Xóa
> 3	Rượu	Đồ Uống		Sửa	Xóa
> 4	Món chính			Sửa	Xóa
> 5	Món phụ			Sửa	Xóa
> 6	Món tráng miệng			Sửa	Xóa
> 7	Món xào	Món chính		Sửa	Xóa

#### 6.1.16 Delete category

1. Click on “Xóa” button

Danh sách danh mục thực đơn

STT	Tên	Mô tả	Danh mục mẹ	Sửa	Xóa
> 1	<b>Nước Ngọt</b>		Đồ Uống	Sửa	Xóa
> 2	Cafe		Đồ Uống	Sửa	Xóa
> 3	Rượu		Đồ Uống	Sửa	Xóa
> 4	Món chính			Sửa	Xóa
> 5	Món phụ			Sửa	Xóa
> 6	Món tráng miệng			Sửa	Xóa
> 7	Món xào		Món chính	Sửa	Xóa

## 2. ER System display a confirm box

Bạn có chắc chắn muốn xóa **Nước Ngọt**?

**Xóa** **Quay lại**

3. User can choose “Xóa” to delete account or “Quay lại” to back to list categories screen
4. If user choose “Xóa” instep 3, ER System delete chosen category then display list categories

### 6.1.17 Edit category

1. Click on “Sửa” button

STT	Tên	Mô tả	Danh mục mẹ	Sửa	Xóa
> 1	<b>Nước Ngọt</b>		Đồ Uống	Sửa	Xóa
> 2	Cafe		Đồ Uống	Sửa	Xóa
> 3	Rượu		Đồ Uống	Sửa	Xóa
> 4	Món chính			Sửa	Xóa
> 5	Món phụ			Sửa	Xóa
> 6	Món tráng miệng			Sửa	Xóa
> 7	Món xào		Món chính	Sửa	Xóa
> 8	Món lẩu		Món chính	Sửa	Xóa

- 2 ER System redirect to Edit Page

Sửa danh mục thực đơn

Tên: Nước Ngọt

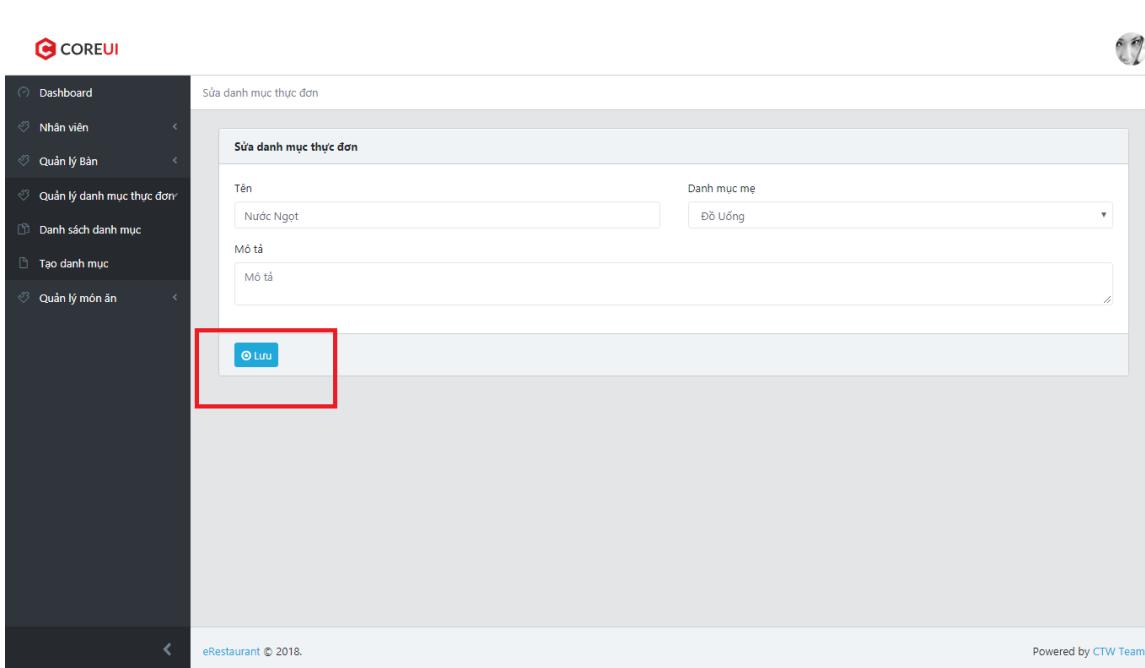
Danh mục mẹ: Đồ Uống

Mô tả:

Lưu

- 3 Fill Category's information to all fields

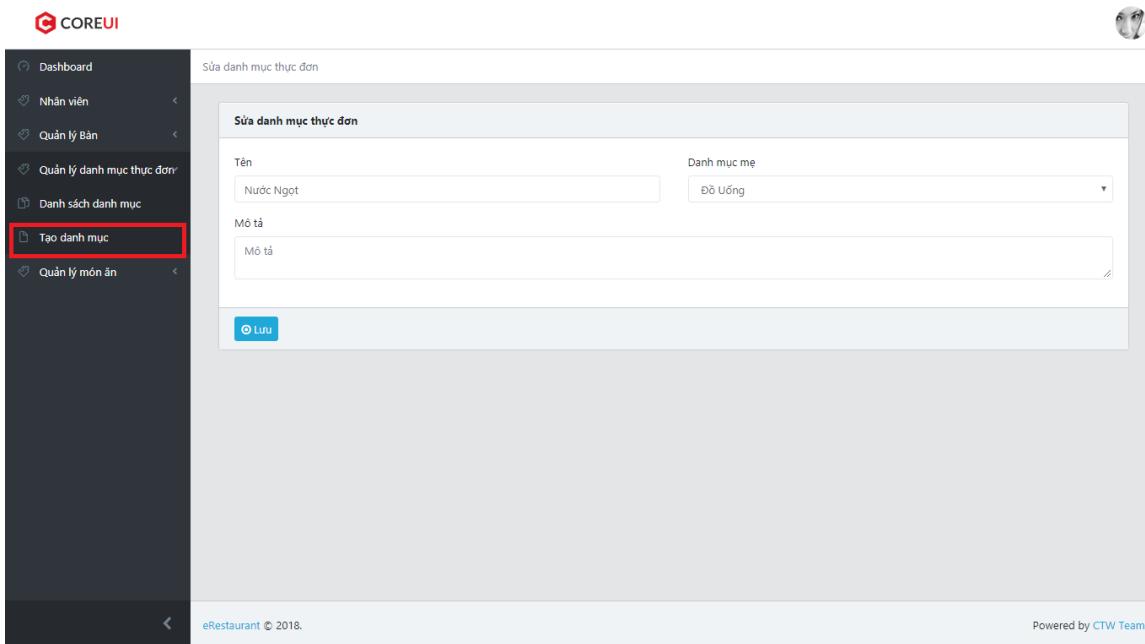
4. Click on “Lưu” button



## 5. ER System redirect user to List Category

### 6.1.18 Create category

- Click on “Tạo danh mục” in side bar



## 2. ER System redirect user to Create Category

Tạo danh mục thực đơn

Tên

Mô tả

Lưu

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3. Fill Category's information to all fields

4. Click on “Lưu” button

Tạo danh mục thực đơn

Tên

Mô tả

Lưu

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5. ER System redirect user to List Categories

### 6.1.19 List food

1. Click on “Quản lý món ăn” in sidebar
2. Click on “Danh sách món ăn”

STT	Tên món ăn	Giá tiền	Trạng thái
> 1	Dưa Hải	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
> 2	Súp đậu phụ thối	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
> 3	Mỳ Tố Yến	10000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
> 4	Mực nhồi thịt	1200000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
> 5	Ruột xào sung	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
> 6	Cá kho tộ	50000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
> 7	Nem công	200000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>

3. ER System display list foods

### 6.1.20 Search food

1. Enter search condition in search field
2. Click “Tìm” button

Danh sách món ăn

Tên món ăn: Nhập tên món ăn

Trạng thái: Tất cả món ăn

Lưu

STT	Tên món ăn	Giá tiền	Trạng thái
1	Dưa Hấu	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
2	Súp đậu phụ thối	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
3	Mỳ Tố Yến	10000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
4	Mực nhồi thịt	1200000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
5	Ruột xào sung	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
6	Cá kho tộ	50000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
7	Nem công	200000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>

3. ER System display all food matching with search condition

#### 6.1.21 Delete food

1. Click on “Xóa” button

Danh sách món ăn

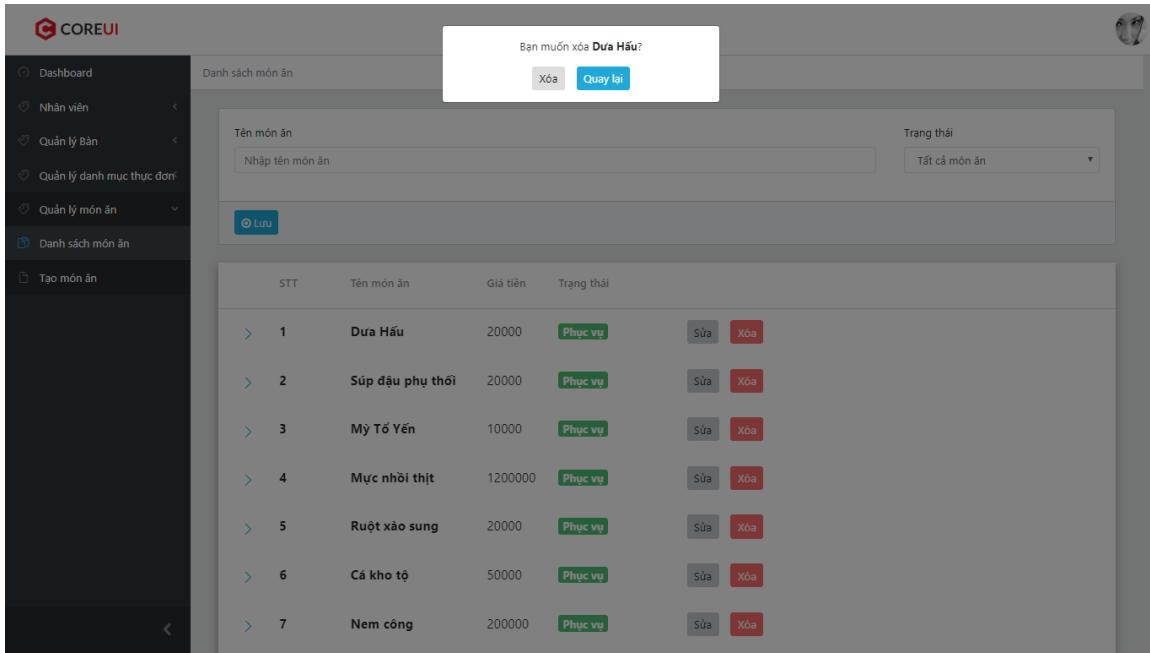
Tên món ăn: Nhập tên món ăn

Trạng thái: Tất cả món ăn

Lưu

STT	Tên món ăn	Giá tiền	Trạng thái
1	Dưa Hấu	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
2	Súp đậu phụ thối	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
3	Mỳ Tố Yến	10000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
4	Mực nhồi thịt	1200000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
5	Ruột xào sung	20000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
6	Cá kho tộ	50000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>
7	Nem công	200000	<span>Phục vụ</span> <span>Sửa</span> <span>Xóa</span>

## 2. ER System display a confirm box



3. User can choose “Xóa” to delete food or “Quay lại” to back to list food screen
4. If user choose “Xóa” instep 3, ER System delete chosen food then display list foods

### 6.1.22 Edit food

1. Click on “Sửa” button

# THE CAPSTONE PROJECT

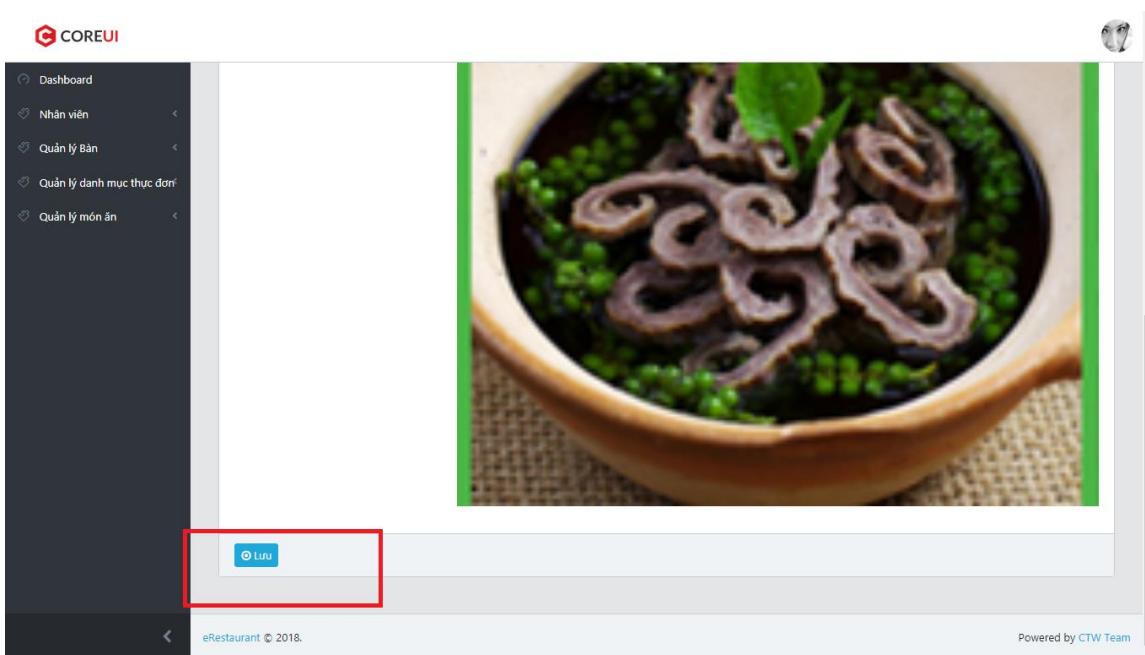
The screenshot shows a food management application interface. On the left is a dark sidebar with navigation links: Dashboard, Nhân viên, Quản lý Bàn, Quản lý danh mục thực đơn, Quản lý món ăn, and Danh sách món ăn. The main area is titled "Danh sách món ăn". It contains a search bar for "Tên món ăn" and a dropdown for "Trạng thái". Below is a table with columns: STT, Tên món ăn, Giá tiền, and Trạng thái. The table lists seven dishes: Dưa Hấu, Súp đậu phụ thối, Mỳ Tổ Yến, Mực nhồi thịt, Ruột xào sung, Cá kho tộ, and Nem công. Each row has "Phục vụ" and "Sửa/Xóa" buttons. The "Sửa" button for the first dish is highlighted with a red box.

## 2. ER System redirect to Edit Page

The screenshot shows the "Chỉnh sửa thông tin món ăn" (Edit dish information) page. The sidebar is identical to the previous screen. The main form includes fields for "Tên món" (Ruột xào sung), "Trạng thái" (Phục vụ), "Giá tiền" (20000), "Danh mục thực đơn" (Món xào/Món tráng miệng), "Mô tả" (empty), and an "Ảnh" (Image) section with a file input field and a preview image of a bowl of stir-fried intestines.

3. Fill Food's information to all fields

4. Click on “Lưu” button



## 5. ER System redirect user to List Foods

### 6.1.23 Create food

- Click on “Tạo món ăn” in sidebar

 A screenshot of the eRestaurant application's 'Create food' form. The sidebar on the left shows the 'Danh sách món ăn' section, and the 'Tạo món ăn' button is highlighted with a red rectangular box. The main form has fields for 'Tên món ăn' (Food name) and 'Trang thái' (Status), with a 'Lưu' (Save) button. Below the form is a table listing seven food items with columns: STT, Tên món ăn, Giá tiền, and Trang thái. Each row includes edit ('Sửa') and delete ('Xóa') buttons. The table data is as follows:
 

STT	Tên món ăn	Giá tiền	Trang thái
1	Dưa Hấu	20000	<span>Phục vụ</span>
2	Súp đậu phu thối	20000	<span>Phục vụ</span>
3	Mỳ Tố Yến	10000	<span>Phục vụ</span>
4	Mực nhồi thịt	1200000	<span>Phục vụ</span>
5	Ruột xào sung	20000	<span>Phục vụ</span>
6	Cá kho tộ	50000	<span>Phục vụ</span>
7	Nem công	200000	<span>Phục vụ</span>

## 2. ER System redirect user to Create Food

The screenshot shows a 'Create Food' form titled 'Tạo món ăn'. The left sidebar has a 'Tạo món ăn' section selected. The main form fields include: 'Tên món' (Food Name) with placeholder 'Food Name', 'Trạng thái' (Status) with placeholder 'Phục vụ', 'Giá tiền' (Price) with placeholder 'Price', 'Danh mục thực đơn' (Menu Category), 'Mô tả' (Description), and an 'Ảnh' (Image) input field with a 'Choose File' button and a 'No file chosen' message. A blue 'Lưu' (Save) button is at the bottom.

3. Fill Food's information to all fields

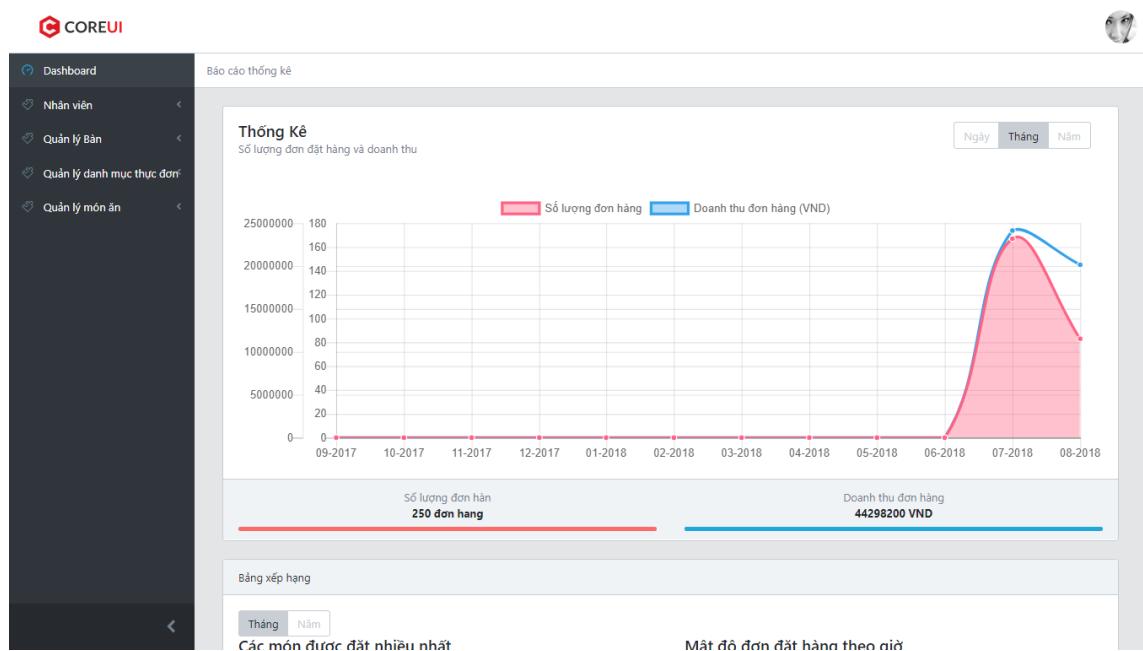
4. Click on “Lưu” button

This screenshot is identical to the previous one, showing the 'Create Food' form. However, the blue 'Lưu' (Save) button at the bottom is now highlighted with a red box to indicate it is the next step to be clicked.

5. ER System redirect user to List Foods

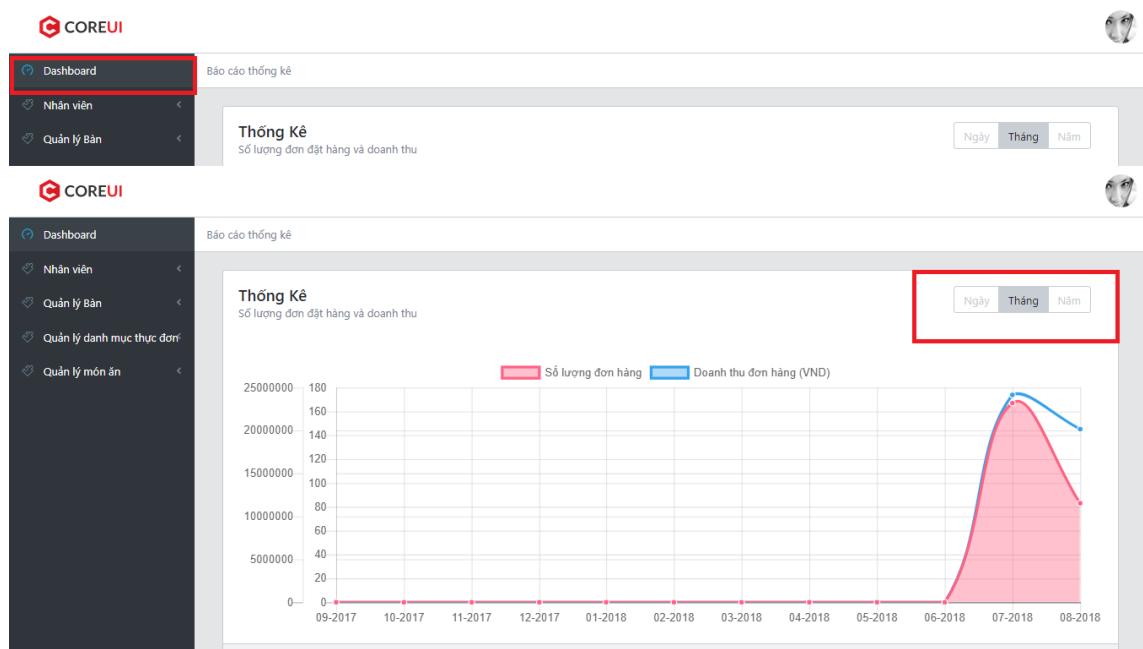
### 6.1.24 View statistic

- Click on “Dashboard” in sidebar

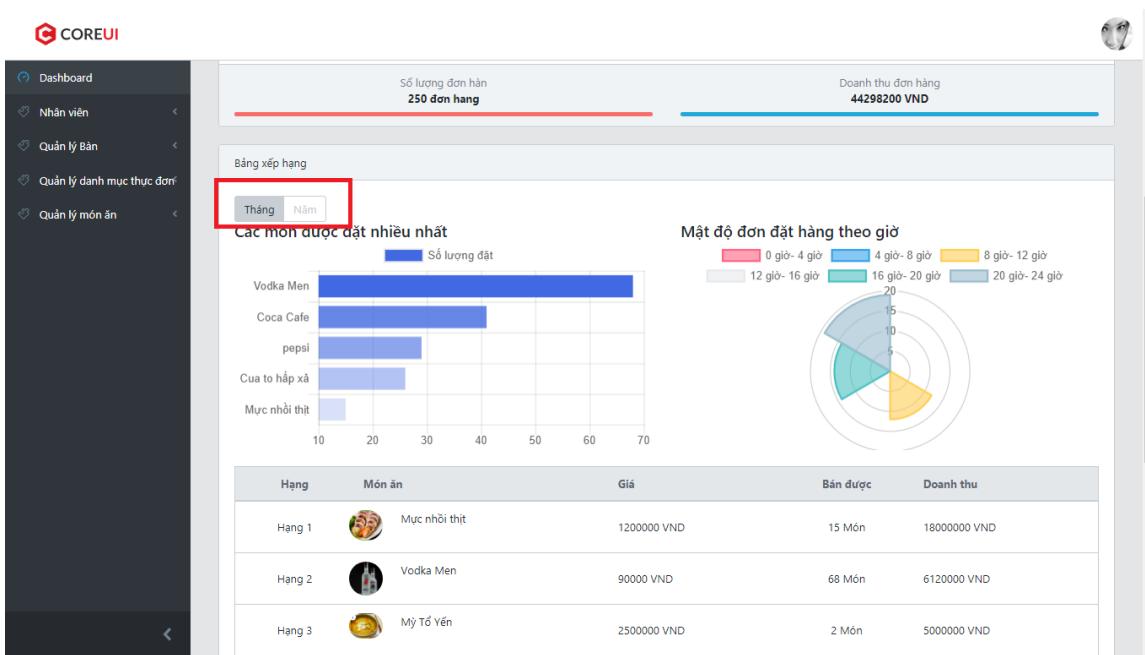


- ER System display dashboard

- Click on “Ngày”, “Tháng”, “Năm” to view statistic by Day, Month, Year

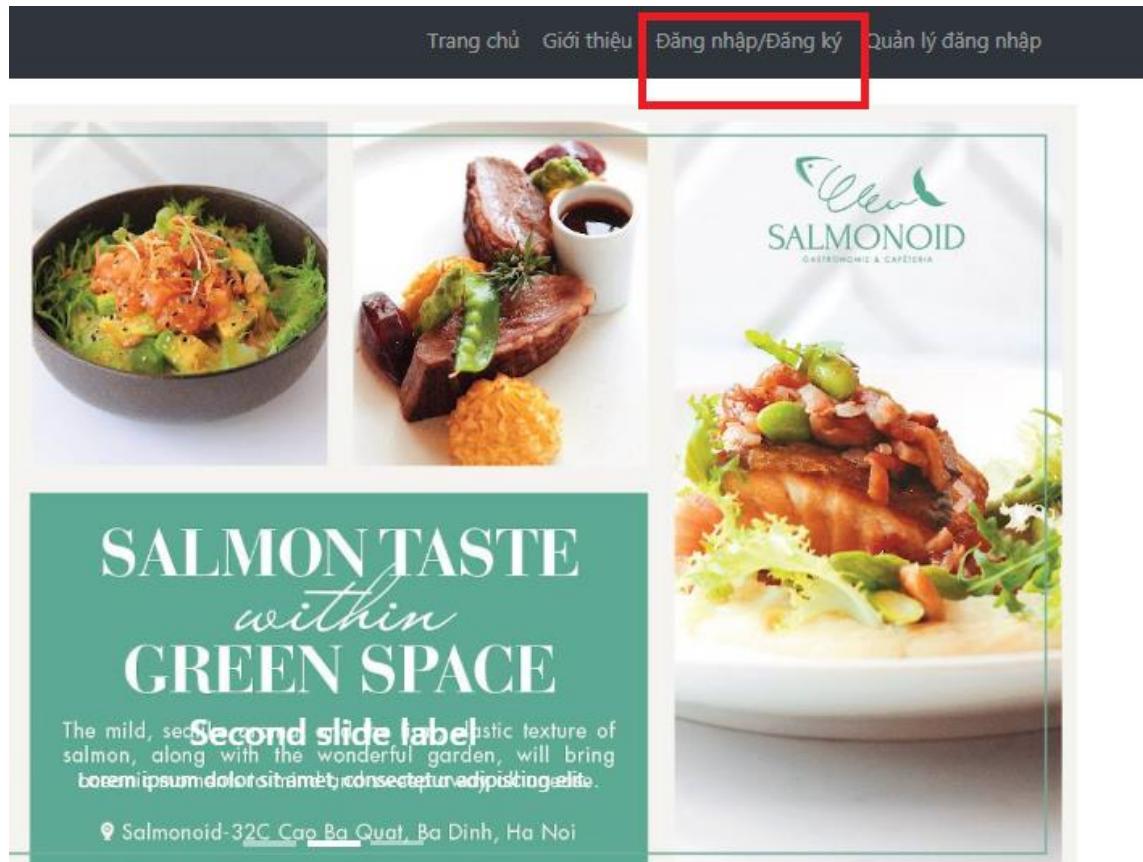


# THE CAPSTONE PROJECT



### 6.1.25 Login/Register

- Click on “Đăng nhập/Đăng ký” in homepage



- ER system log user in system by Facebook Account

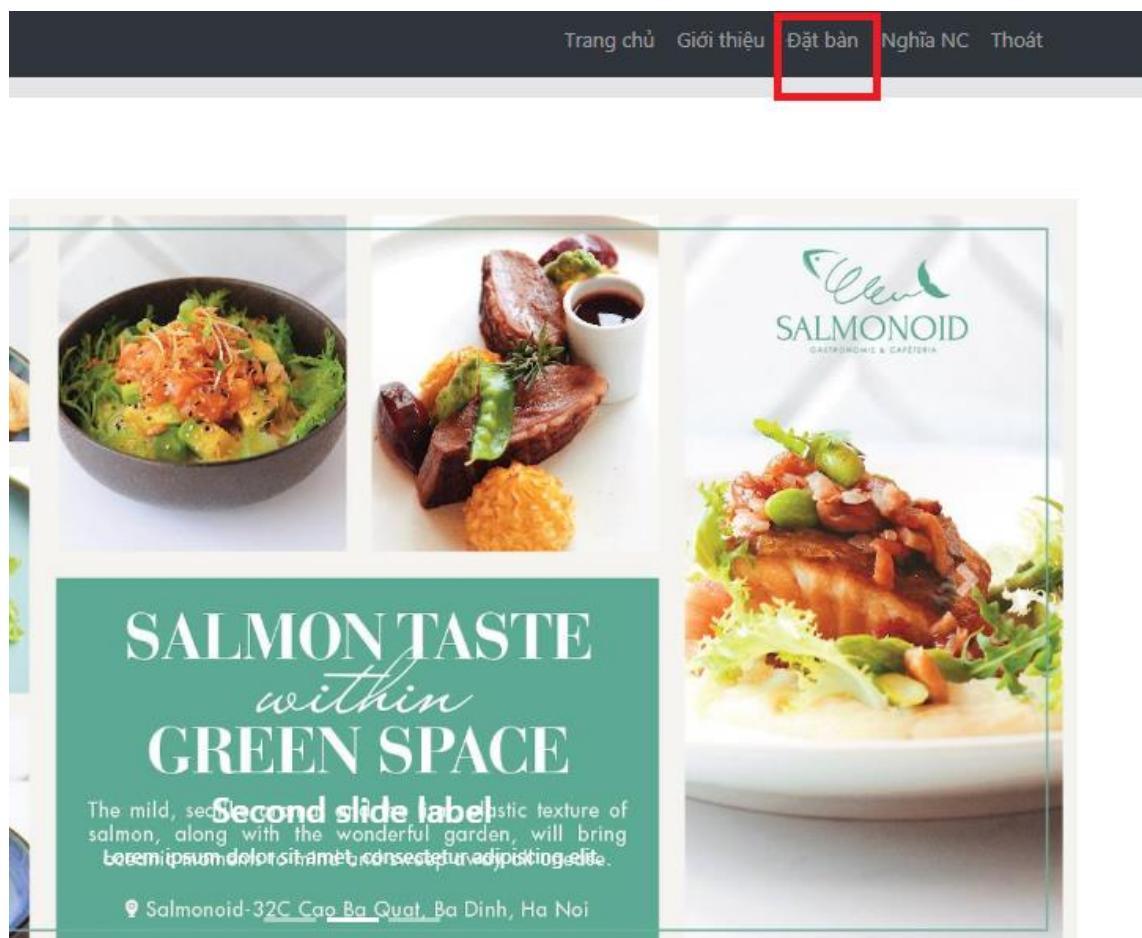
eRestaurant

Trang chủ Giới thiệu Đặt bàn Nghĩa NC Thoát

The screenshot shows the eRestaurant homepage. On the left, there is a sidebar menu with categories like Món chính, Món xào, Món lẩu, Món quay, Món phụ, Món tráng miệng, Món súp, Tráng Miệng, Đồ Uống, Nước Ngọt, Café, and Rượu. The main content area features a large image of a salmon dish with the text "SALMON TASTE within GREEN SPACE". Below this are three smaller images of other dishes: a roll, a stew, and another roll. The top right corner of the main content area has a red box around the "Nghĩa NC" link in the header.

## 6.1.26 List available table

1. Click on “Đặt bàn” in homepage

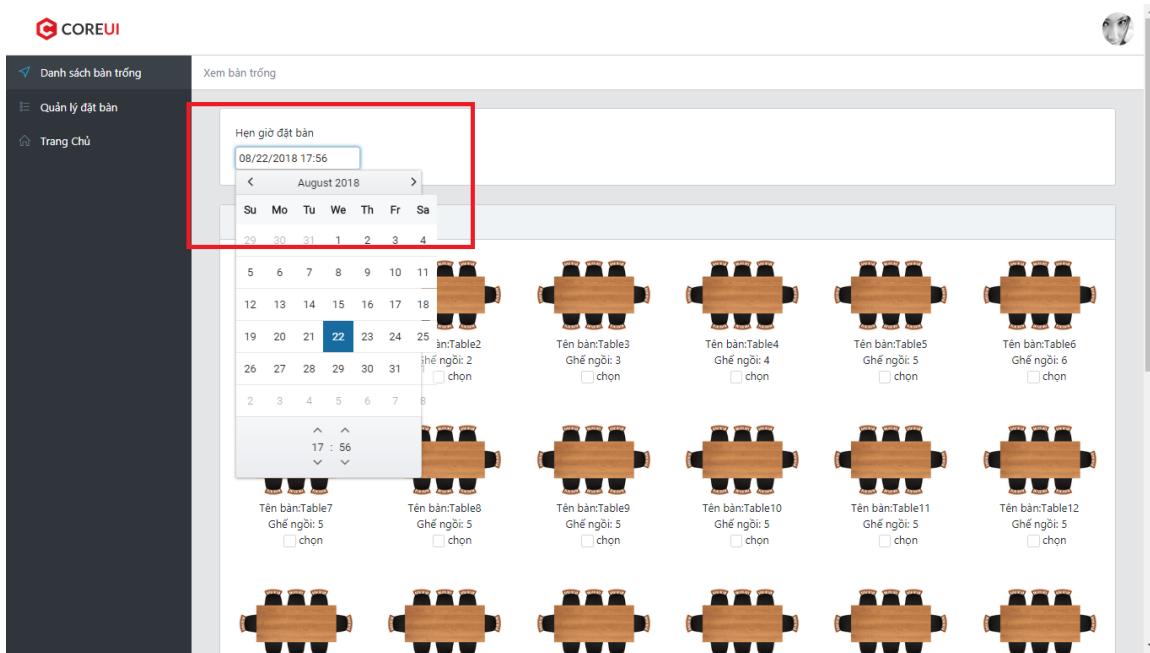


## 2. ER System display all available table

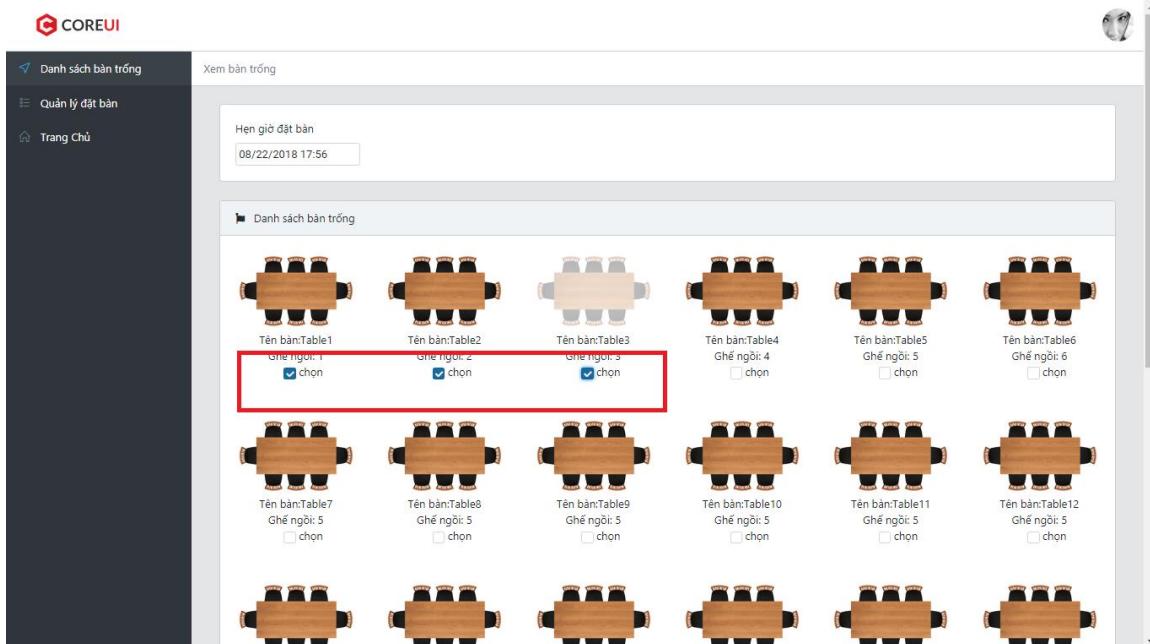
Tên bàn:Table1	Ghế ngồi: 1	<input type="checkbox"/> chọn
Tên bàn:Table2	Ghế ngồi: 2	<input type="checkbox"/> chọn
Tên bàn:Table3	Ghế ngồi: 3	<input type="checkbox"/> chọn
Tên bàn:Table4	Ghế ngồi: 4	<input type="checkbox"/> chọn
Tên bàn:Table5	Ghế ngồi: 5	<input type="checkbox"/> chọn
Tên bàn:Table6	Ghế ngồi: 6	<input type="checkbox"/> chọn
Tên bàn:Table7	Ghế ngồi: 5	<input type="checkbox"/> chọn
Tên bàn:Table8	Ghế ngồi: 5	<input type="checkbox"/> chọn
Tên bàn:Table9	Ghế ngồi: 5	<input type="checkbox"/> chọn
Tên bàn:Table10	Ghế ngồi: 5	<input type="checkbox"/> chọn
Tên bàn:Table11	Ghế ngồi: 5	<input type="checkbox"/> chọn
Tên bàn:Table12	Ghế ngồi: 5	<input type="checkbox"/> chọn

### 6.1.27 Book table

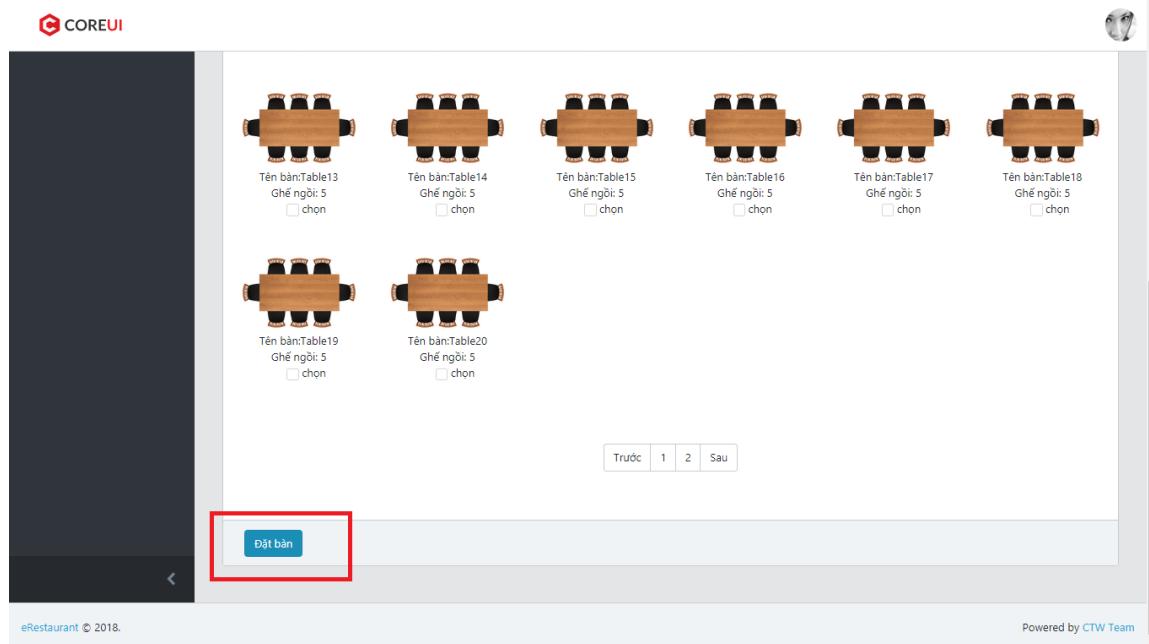
#### 1. Choose date and time for table booking



#### 2. Click in checkbox to choose tables



3. Click “Đặt bàn” to book tables



4. ER System redirect user to Manage Order Screen

#### 6.1.28 Manage booking table (customer)

1. Click on “Quản lý đặt bàn”

The screenshot shows a management interface for booking tables. At the top, there is a header with a back arrow, the title 'Quản lý đặt bàn', and a search bar with placeholder text 'Nhập số điện thoại'. Below the header is a search button 'Kiểm tra'.

The main area displays a table of booking records:

No.	Thời gian đặt bàn	Ghi chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 05:56		<span style="background-color: green; color: white; padding: 2px;">Đã đặt</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>
> 2	19/08/2018 01:46		<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Đã thanh toán</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>
> 3	27/07/2018 11:28		<span style="background-color: yellow; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>

3 total

eRestaurant © 2018. https://ctwgroup.net/#/manage/manage-table-booking Powered by CTW Team

## 2. ER System display Manage Booking screen

No.	Thời gian đặt bàn	Ghép chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 05:56		<span style="background-color: green; color: white; padding: 2px;">Đã đặt</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>
> 2	19/08/2018 01:46		<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Đã thanh toán</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>
> 3	27/07/2018 11:28		<span style="background-color: yellow; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>

3 total

eRestaurant © 2018. Powered by CTW Team

## 3. Click on “Hủy bàn” to cancel table booking

No.	Thời gian đặt bàn	Ghép chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 05:56		<span style="background-color: green; color: white; padding: 2px;">Đã đặt</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>
> 2	19/08/2018 01:46		<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Đã thanh toán</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>
> 3	27/07/2018 11:28		<span style="background-color: yellow; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>	Nghĩa NC	<span style="background-color: grey; border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid #ccc; padding: 2px;">Hủy bàn</span>

3 total

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#### 4. ER System display confirm box

No.	Thời gian đặt bàn	Ghi chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 06:18		<b>Đã đặt</b>	Nghĩa NC	<b>Quản lý đặt món</b> <b>Hủy bàn</b>
> 2	22/08/2018 05:56		<b>Hủy bàn</b>	Nghĩa NC	<b>Quản lý đặt món</b> <b>Hủy bàn</b>
> 3	19/08/2018 01:46		<b>Đã thanh toán</b>	Nghĩa NC	<b>Quản lý đặt món</b> <b>Hủy bàn</b>
> 4	27/07/2018 11:28		<b>Hủy bàn</b>	Nghĩa NC	<b>Quản lý đặt món</b> <b>Hủy bàn</b>

4 total

5. User can choose “Đồng ý” to cancel booking or “Không” to back to list booked tables

6. If user choose “Xóa” instep 3, ER System change status of chosen booked table to “Hủy bàn” then display list booked tables

No.	Thời gian đặt bàn	Ghi chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 05:56		<b>Hủy bàn</b>	Nghĩa NC	<b>Quản lý đặt món</b> <b>Hủy bàn</b>
> 2	19/08/2018 01:46		<b>Đã thanh toán</b>	Nghĩa NC	<b>Quản lý đặt món</b> <b>Hủy bàn</b>
> 3	27/07/2018 11:28		<b>Hủy bàn</b>	Nghĩa NC	<b>Quản lý đặt món</b> <b>Hủy bàn</b>

3 total

7. Click on “Quản lý đặt món”

No.	Thời gian đặt bàn	Ghi chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 06:18		<span style="background-color: green; color: white; padding: 2px;">Đã đặt</span>	Nghĩa NC	<span style="border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px;">Hủy bàn</span>
> 2	22/08/2018 05:56		<span style="background-color: yellow; color: black; border: 1px solid black; padding: 2px;">Hủy bàn</span>	Nghĩa NC	<span style="border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px;">Hủy bàn</span>
> 3	19/08/2018 01:46		<span style="background-color: yellow; color: black; border: 1px solid black; padding: 2px;">Đã thanh toán</span>	Nghĩa NC	<span style="border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px;">Hủy bàn</span>
> 4	27/07/2018 11:28		<span style="background-color: yellow; color: black; border: 1px solid black; padding: 2px;">Hủy bàn</span>	Nghĩa NC	<span style="border: 1px solid #ccc; padding: 2px;">Quản lý đặt món</span> <span style="background-color: red; color: white; border: 1px solid red; padding: 2px;">Hủy bàn</span>

8. ER System redirect user to Manage Order Screen

#### 6.1.29 Manage booking table (waiter)

1. Click on “Quản lý đặt bàn”

The screenshot shows a user interface for managing table bookings. The sidebar on the left has three tabs: 'Danh sách bàn trống' (highlighted with a grey arrow), 'Quản lý đặt bàn' (highlighted with a red box), and 'Các món ăn'. The main content area is titled 'Quản lý đặt bàn'. It features a search bar with placeholder 'Nhập số điện thoại' and a 'Kiểm tra' button. Below is a table with columns: No., Thời gian đặt bàn, Ghi chú, Trạng thái, Bật bàn bởi, and Hành động. The table contains 8 rows of booking data.

No.	Thời gian đặt bàn	Ghi chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 07:21		<span>Hủy bàn</span>	Customer 01	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 2	22/08/2018 06:18		<span>Đã đặt</span>	Nghĩa NC	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 3	22/08/2018 05:56		<span>Hủy bàn</span>	Nghĩa NC	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 4	22/08/2018 04:23		<span>Đã thanh toán</span>	Âu Thịnh	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 5	22/08/2018 03:05		<span>Ngừng hoạt động</span>	Nguyễn Minh Hiếu	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 6	22/08/2018 09:21		<span>Ngừng hoạt động</span>	Âu Thịnh	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 7	21/08/2018 05:00		<span>Hủy bàn</span>	Nguyễn Minh Hiếu	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 8	20/08/2018 03:42		<span>Đã thanh toán</span>	Customer 01	<span>Quản lý đặt món</span> <span>Hủy bàn</span>

<https://ctwgroup.net/#/manage/manage-table-booking>

## 2. ER System display Manage Booking screen

This screenshot is identical to the one above, showing the 'Manage Booking' screen with the 'Quản lý đặt bàn' tab selected. The sidebar, search bar, and table of bookings are all the same.

## 3. Click on “Hủy bàn” to cancel table booking

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No.	Thời gian đặt bàn	Ghi chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 07:21		<span>Hủy bàn</span>	Customer 01	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 2	22/08/2018 06:18		<span>Đã đặt</span>	Nghĩa NC	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 3	22/08/2018 05:56		<span>Hủy bàn</span>	Nghĩa NC	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 4	22/08/2018 04:23		<span>Đã thanh toán</span>	Áu Thịnh	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 5	22/08/2018 03:05		<span>Ngừng hoạt động</span>	Nguyễn Minh Hiếu	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 6	22/08/2018 09:21		<span>Ngừng hoạt động</span>	Áu Thịnh	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 7	21/08/2018 05:00		<span>Hủy bàn</span>	Nguyễn Minh Hiếu	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 8	20/08/2018 03:42		<span>Đã thanh toán</span>	Customer 01	<span>Quản lý đặt món</span> <span>Hủy bàn</span>

## 4. ER System display confirm box

Bạn muốn xóa?

Đồng ý Không

No.	Thời gian đặt bàn	Ghi chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 07:21		<span>Hủy bàn</span>	Customer 01	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 2	22/08/2018 06:18		<span>Đã đặt</span>	Nghĩa NC	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 3	22/08/2018 05:56		<span>Hủy bàn</span>	Nghĩa NC	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 4	22/08/2018 04:23		<span>Đã thanh toán</span>	Áu Thịnh	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 5	22/08/2018 03:05		<span>Ngừng hoạt động</span>	Nguyễn Minh Hiếu	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 6	22/08/2018 09:21		<span>Ngừng hoạt động</span>	Áu Thịnh	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 7	21/08/2018 05:00		<span>Hủy bàn</span>	Nguyễn Minh Hiếu	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 8	20/08/2018 03:42		<span>Đã thanh toán</span>	Customer 01	<span>Quản lý đặt món</span> <span>Hủy bàn</span>

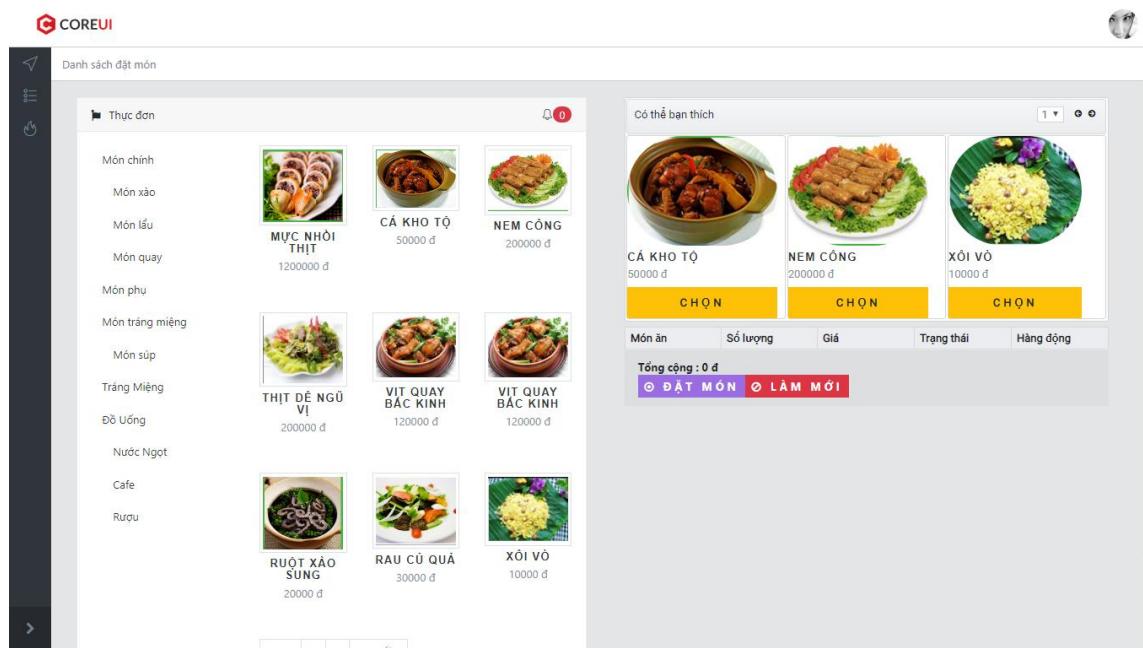
## 5. User can choose “Đồng ý” to cancel booking or “Không” to back to list booked tables

6. If user choose “Xóa” instep 3, ER System change status of chosen booked table to “Hủy bàn” then display list booked tables
7. Click on “Quản lý đặt món”

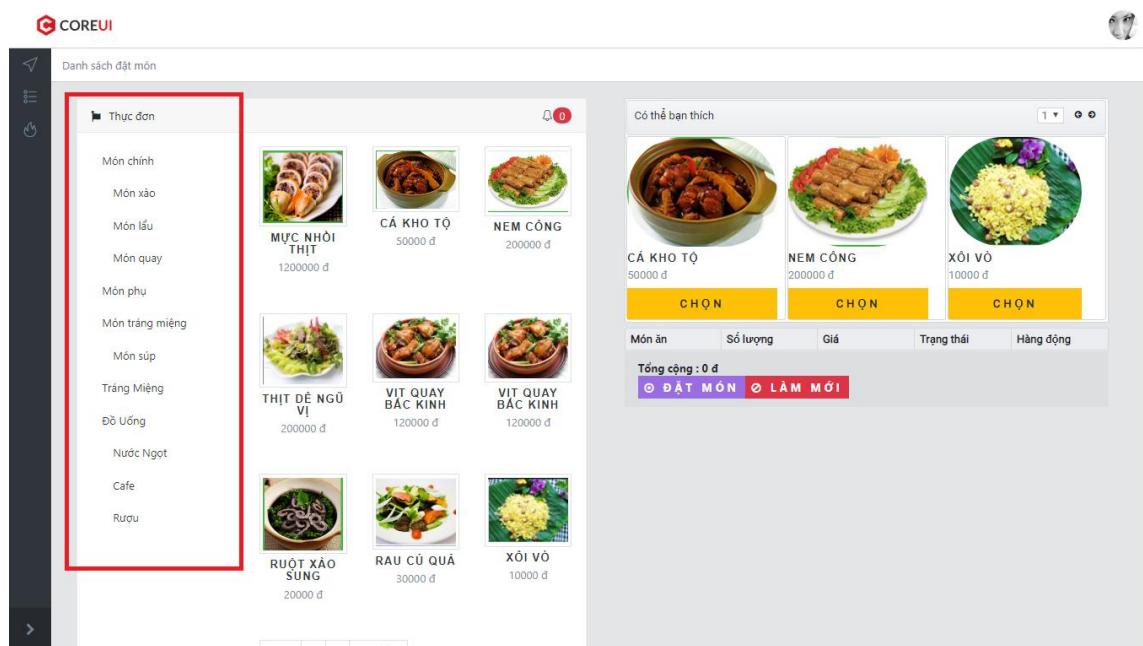
No.	Thời gian đặt bàn	Ghi chú	Trạng thái	Bật bàn bởi	Hành động
> 1	22/08/2018 07:21		<span>Hủy bàn</span>	Customer 01	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 2	22/08/2018 06:18		<span>Đã đặt</span>	Nghĩa NC	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 3	22/08/2018 05:56		<span>Hủy bàn</span>	Nghĩa NC	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 4	22/08/2018 04:23		<span>Đã thanh toán</span>	Âu Thịnh	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 5	22/08/2018 03:05		<span>Ngừng hoạt động</span>	Nguyễn Minh Hiếu	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 6	22/08/2018 09:21		<span>Ngừng hoạt động</span>	Âu Thịnh	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 7	21/08/2018 05:00		<span>Hủy bàn</span>	Nguyễn Minh Hiếu	<span>Quản lý đặt món</span> <span>Hủy bàn</span>
> 8	20/08/2018 03:42		<span>Đã thanh toán</span>	Customer 01	<span>Quản lý đặt món</span> <span>Hủy bàn</span>

8. ER System redirect user to Manage Order Screen

### 6.1.30 Manage order



1. Click on menu in left side to view foods



2. Click “Chọn” food

The screenshot shows a restaurant ordering interface. On the left, a sidebar lists categories like Món chính, Món xào, Món lẩu, etc. The main area displays a grid of food items with their names and prices. A specific item, "MỰC NHỒI THỊT" (1200000 đ), is highlighted with a red box and a green "Chọn" button. To the right, a modal window titled "Có thể bạn thích" (You might like) shows recommended dishes: BÚN CHUA CAY (25000 đ), CƠM RANG TRỨNG (30000 đ), and COCA CAFE (10000 đ). Below this is a table for adding items to the cart, with a row for "Mực nhồi thịt" selected. The total price at the bottom is 1200000 đ.

### 3. Click “Chọn” food from recommend list

This screenshot shows the same interface after the user has clicked the "Chọn" button for the recommended dish "BÚN CHUA CAY". The dish is now listed in the cart table. The total price at the bottom is now 1200000 đ.

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The screenshot shows a food ordering interface. On the left, a sidebar lists categories like Món chính, Món xào, Món lẩu, etc., each with a thumbnail and name. On the right, a cart window displays items with a trash can icon. A red box highlights the cart table.

Món ăn	Số lượng	Giá	Trạng thái	Hàng động
Bún chua cay	1	25000	Đang đợi	
Món chính				
Mực nhồi thịt	1	1200000	Đang đợi	

Tổng cộng : 1225000 đ

**Ø ĐẶT MÓN Ø LÀM MỚI**

4. Click on ‘garbage can’ icon to remove food from order

The screenshot shows the same food ordering interface after an item has been removed. The cart table now only contains the 'Bún chua cay' item. A red box highlights the trash can icon in the cart table.

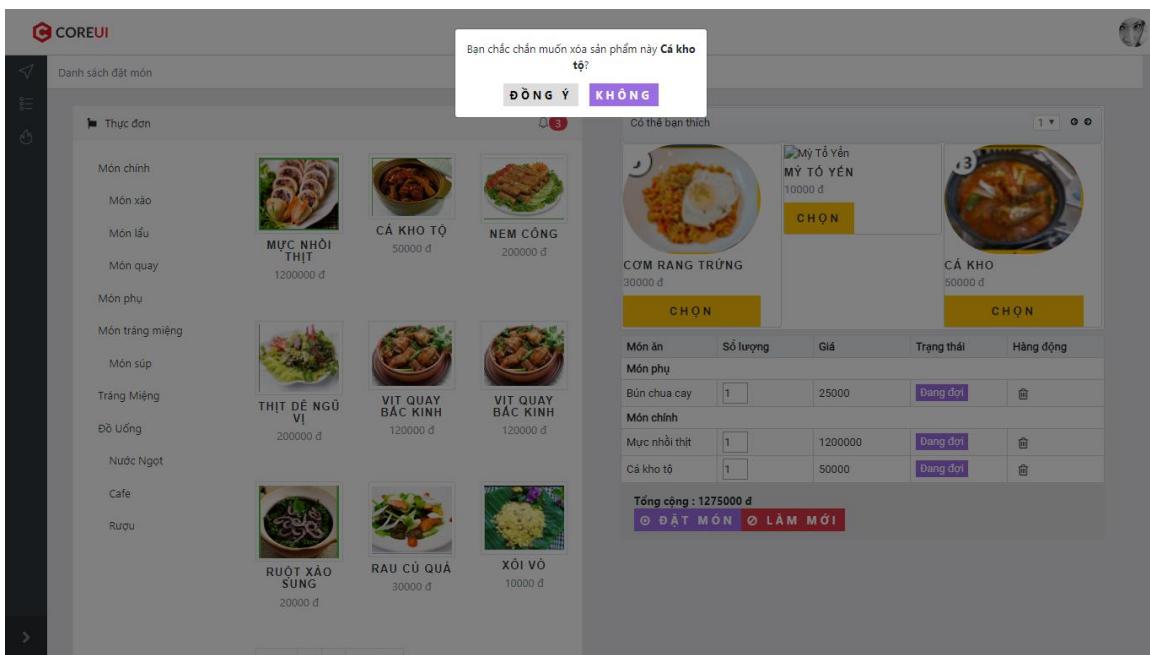
Món ăn	Số lượng	Giá	Trạng thái	Hàng động
Bún chua cay	1	25000	Đang đợi	
Món chính				
Mực nhồi thịt	1	1200000	Đang đợi	
Cá kho tộ	1	50000	Đang đợi	

Tổng cộng : 1275000 đ

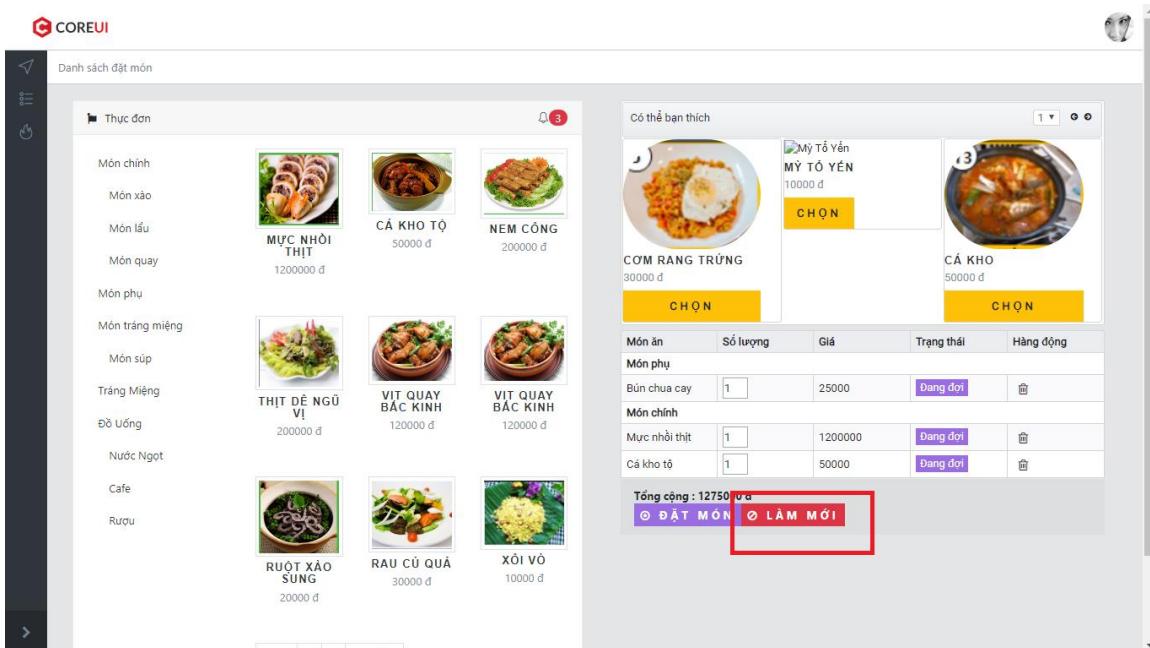
**Ø ĐẶT MÓN Ø LÀM MỚI**

5. ER System display a confirm box

# THE CAPSTONE PROJECT

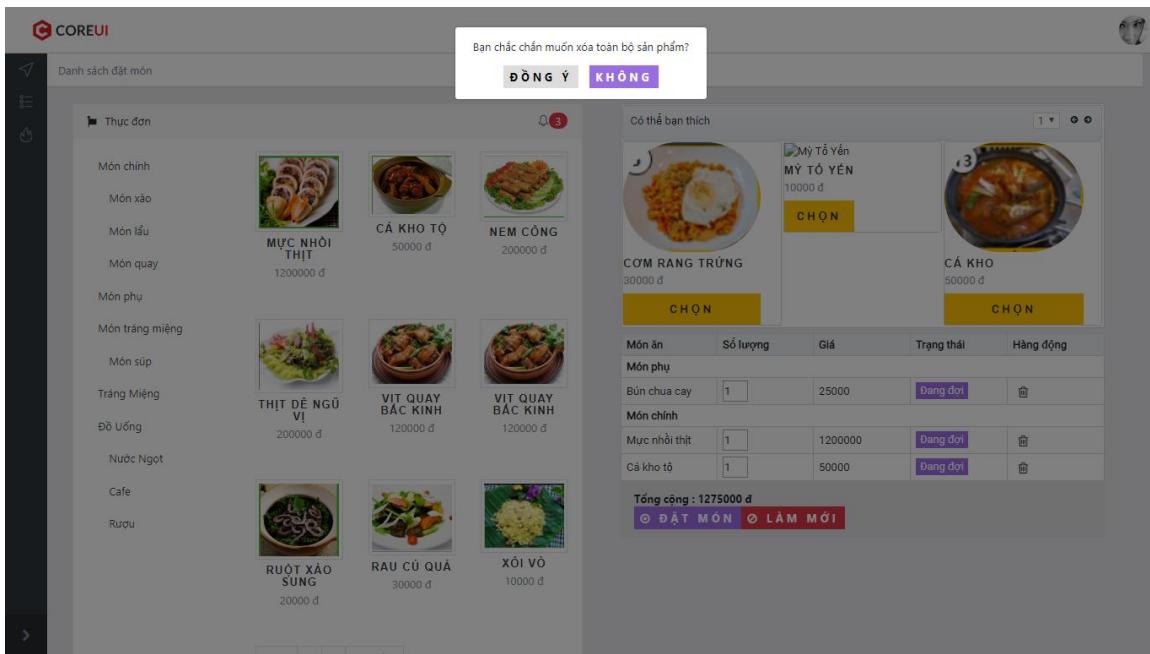


6. User can choose “Đồng ý” to remove food or “Không” to back
7. If user choose “Xóa” instep 3, ER System remove chosen food from order list
8. Click on “Làm mới” button

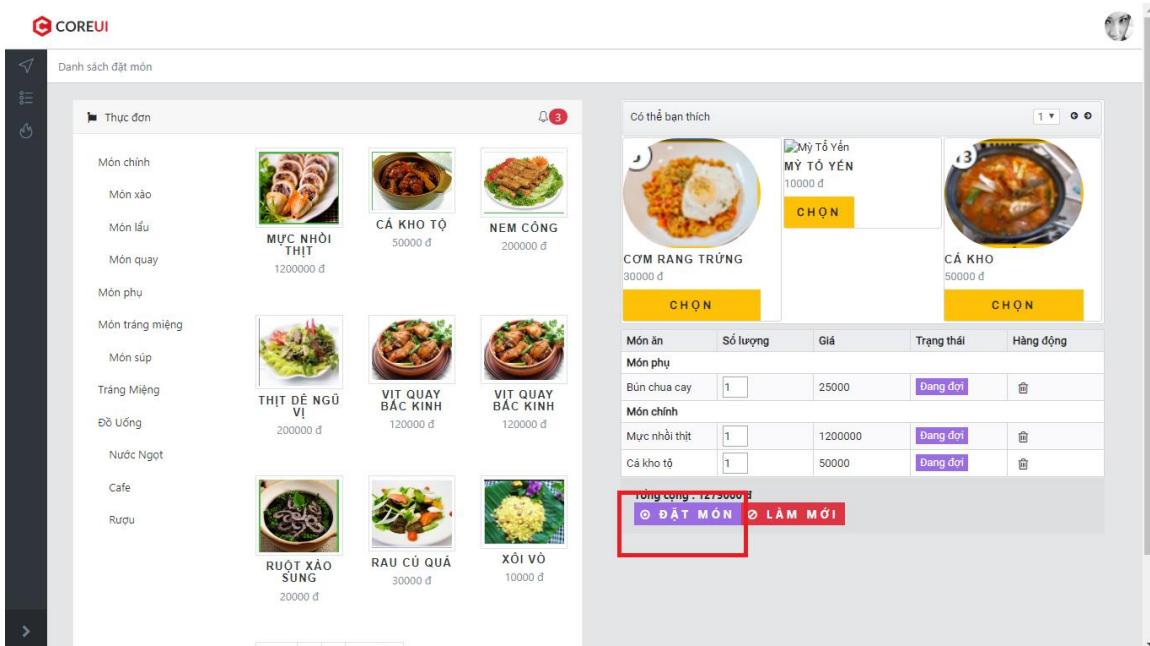


9. ER System display a confirm box

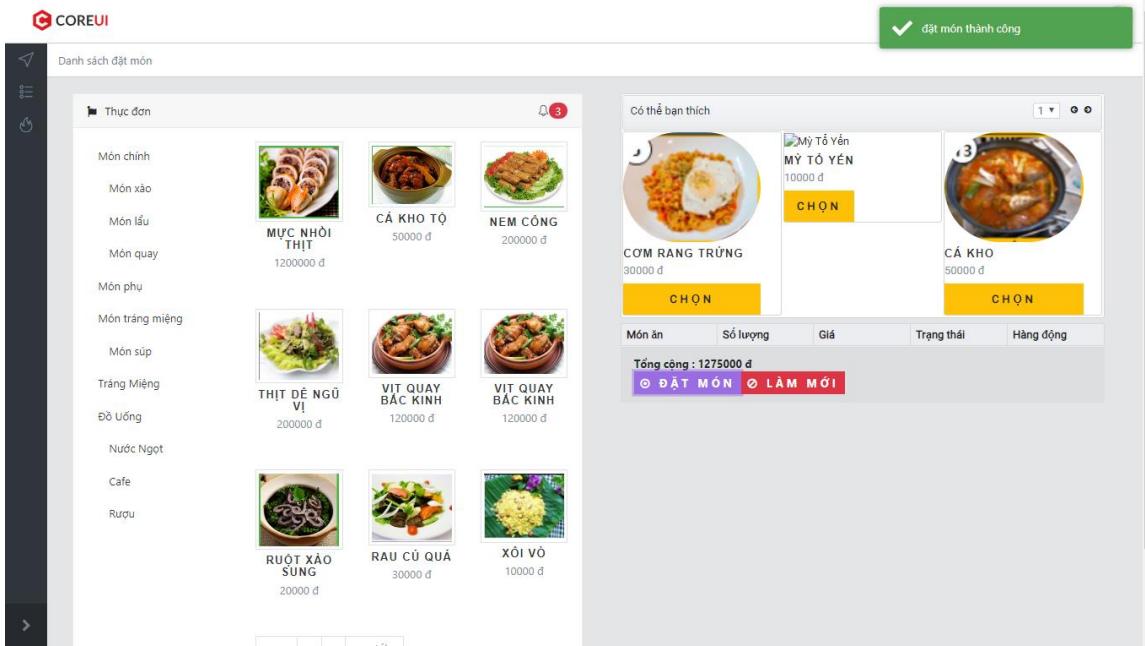
# THE CAPSTONE PROJECT



10. User can choose “Đồng ý” to remove all food or “Không” to back
11. If user choose “Xóa” instep 3, ER System remove all food from order list
12. Click on “Đặt món”



### 13. Order has been submitted



#### 6.1.31 List food waiting to cook

1. Login as Chef
2. Click on “Các món ăn”
3. ER System displays all food waiting to cook

Danh sách trạng thái món ăn

Món ăn	Bàn	Số lượng	Tình trạng	Hành động
Bún chua cay	Northern Summer	1	<span>Đang đợi</span>	<span>Chế Biến</span>
Mực nhồi thịt	Northern Summer	1	<span>Đang đợi</span>	<span>Chế Biến</span>
Cá kho tộ	Northern Summer	1	<span>Đang đợi</span>	<span>Chế Biến</span>

3 total

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### 6.1.32 Change status of food

- Click on “Chế biến” button

Danh sách trạng thái món ăn

Món ăn	Bàn	Số lượng	Tình trạng	Hành động
Bún chua cay	Northern Summer	1	<span>Đang đợi</span>	<span>Chế Biến</span>
Mực nhồi thịt	Northern Summer	1	<span>Đang đợi</span>	<span>Chế Biến</span>
Cá kho tộ	Northern Summer	1	<span>Đang đợi</span>	<span>Chế Biến</span>

3 total

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- ER System display confirm box

## THE CAPSTONE PROJECT

The screenshot shows a list of food items in a table. One item, 'Bún chua cay', is highlighted. A modal dialog box is overlaid on the page, asking 'Bạn muốn chuyển trạng thái món ăn Bún chua cay?' (Do you want to change the status of the dish Bún chua cay?). It contains two buttons: 'Đồng ý' (Yes) and 'Không' (No).

Món ăn	Bàn	Số lượng	Tình trạng	Hành động
Bún chua cay	Northern Summer	1	Đang đợi	Chế biến
Mực nhồi thịt	Northern Summer	1	Đang đợi	Chế biến
Cá kho tộ	Northern Summer	1	Đang đợi	Chế biến

3 total

3. User choose “Đồng ý” to change status or “Không” to back
4. Food has 2 status: “Đang đợi”, “Đang chế biến”
5. If click on “Hoàn thành”, food is removed from list

The screenshot shows the same list of food items. The 'Mực nhồi thịt' row has been updated. The 'Tình trạng' (Status) column for this item now shows a green button labeled 'Hoàn Thành' (Completed), which is highlighted with a red box. The other items remain the same.

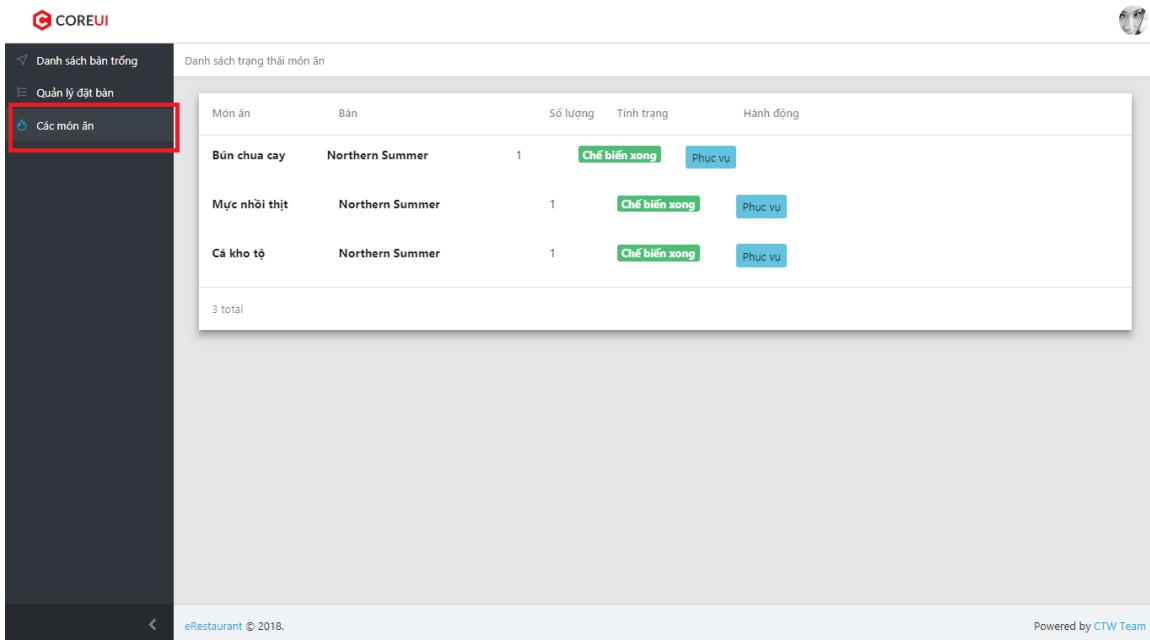
Món ăn	Bàn	Số lượng	Tình trạng	Hành động
Mực nhồi thịt	Northern Summer	1	Đang chế biến	Hoàn Thành
Cá kho tộ	Northern Summer	1	Đang đợi	Chế biến

2 total

### 6.1.33 List food waiting to be served

1. Login system as Waiter
2. Click on “Các món ăn”

### 3. ER System display all food waiting to be served



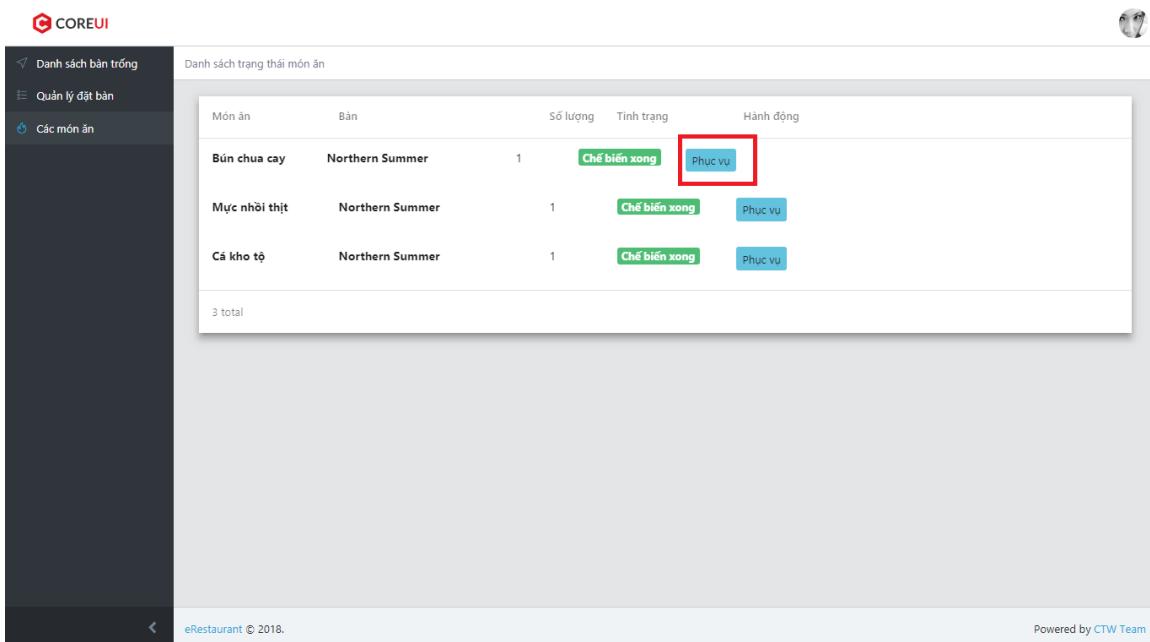
The screenshot shows a user interface for managing food orders. On the left, a sidebar menu includes 'Danh sách bàn trống', 'Quản lý đặt bàn', and 'Các món ăn'. The 'Các món ăn' item is highlighted with a red box. The main content area is titled 'Danh sách trạng thái món ăn' and displays a table of food items:

Món ăn	Bàn	Số lượng	Tình trạng	Hành động
Bún chua cay	Northern Summer	1	<span>Chế biến xong</span>	<span>Phục vụ</span>
Mực nhồi thịt	Northern Summer	1	<span>Chế biến xong</span>	<span>Phục vụ</span>
Cá kho tộ	Northern Summer	1	<span>Chế biến xong</span>	<span>Phục vụ</span>
3 total				

At the bottom of the page, there is a footer with 'eRestaurant © 2018.' and 'Powered by CTW Team'.

#### 6.1.34 Serve food

##### 1. Click on “Phục vụ”



This screenshot is similar to the previous one, showing the list of food items. The 'Phục vụ' button for the first item, 'Bún chua cay', is highlighted with a red box. The rest of the interface and data are identical to the first screenshot.

##### 2. ER System display confirm box

# THE CAPSTONE PROJECT

Bạn muốn chuyển trạng thái món ăn **Bún chua cay**?  
Đồng ý Không

Món ăn	Bàn	Số lượng	Tình trạng	Hành động
Bún chua cay	Northern Summer	1	<b>Chế biến xong</b>	Phục vụ
Mực nhồi thịt	Northern Summer	1	<b>Chế biến xong</b>	Phục vụ
Cá kho tộ	Northern Summer	1	<b>Chế biến xong</b>	Phục vụ

3 total

3. User choose “Đồng ý” to serve order or “Không” to back

## 6.1.35 List order has been served

1. Login as Cashier
2. Click on “Thanh toán”
3. ER display List order has been served

Tim kiếm:  
Nhập tên hoặc số điện thoại

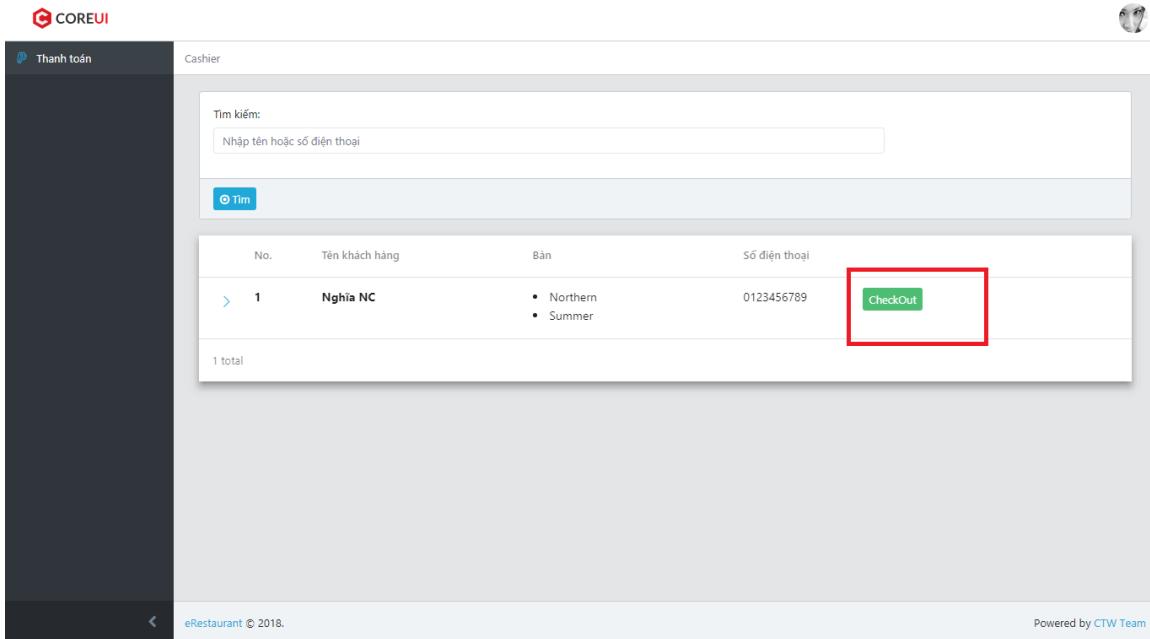
Tim

No.	Tên khách hàng	Bàn	Số điện thoại
> 1	<b>Nghĩa NC</b>	• Northern • Summer	0123456789 <b>CheckOut</b>

1 total

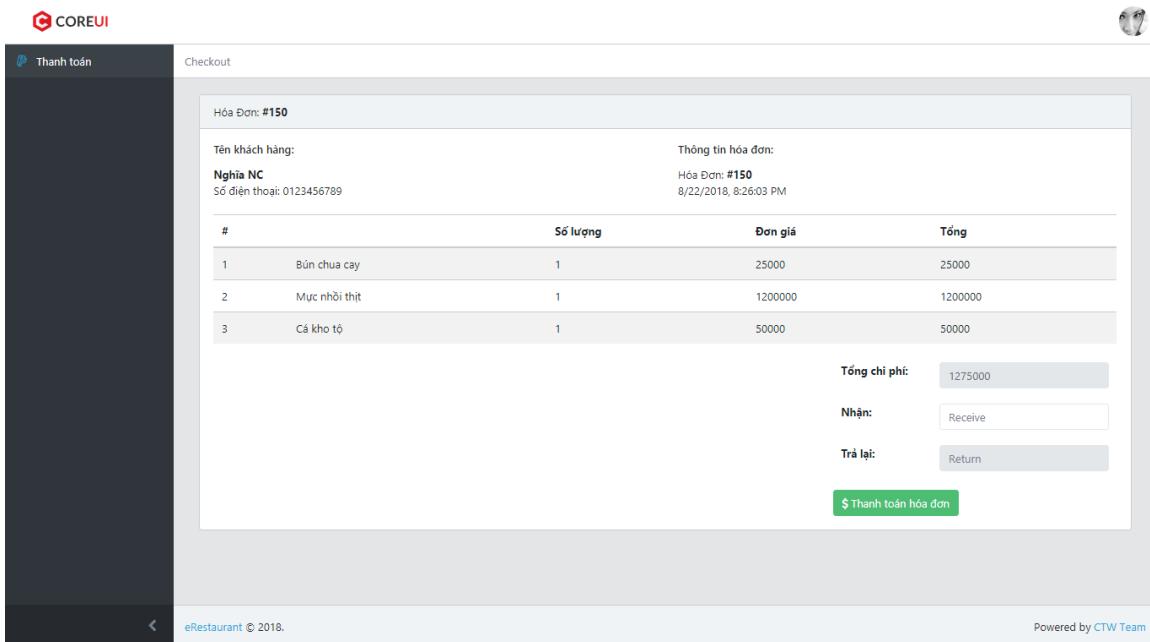
### 6.1.36 CheckOut

#### 1. Click on “CheckOut”



The screenshot shows the eRestaurant software's cashier interface. On the left is a dark sidebar with a logo and the text "Thanh toán". The main area is titled "Cashier". At the top, there is a search bar with placeholder text "Nhập tên hoặc số điện thoại" and a "Tim" button. Below the search bar is a table listing a customer. The table columns are "No.", "Tên khách hàng", "Bàn", and "Số điện thoại". The first row shows "1", "Nghĩa NC", "Northern Summer", and "0123456789". To the right of the table is a green "CheckOut" button, which is highlighted with a red rectangular box. At the bottom of the table, it says "1 total". The footer of the screen includes the text "eRestaurant © 2018." and "Powered by CTW Team".

#### 2. Redirect user to CheckOut screen



The screenshot shows the eRestaurant software's checkout interface. On the left is a dark sidebar with a logo and the text "Thanh toán". The main area is titled "Checkout". At the top, it displays "Hóa Đơn: #150" and "Thông tin hóa đơn: Hóa Đơn: #150, 8/22/2018, 8:26:03 PM". Below this is a table of items with columns "#", "Tên khách hàng", "Số lượng", "Đơn giá", and "Tổng". The table contains three rows: "Bún chua cay" (1 unit, 25000), "Mực nhồi thịt" (1 unit, 1200000), and "Cá kho tộ" (1 unit, 50000). The total amount "Tổng chi phí:" is listed as 1275000. To the right of the table are input fields for "Nhận:" (Receive) and "Trả lại:" (Return), both currently set to their respective values. At the bottom right is a green button labeled "\$ Thanh toán hóa đơn". The footer of the screen includes the text "eRestaurant © 2018." and "Powered by CTW Team".

#### 3. Enter receive cash

# THE CAPSTONE PROJECT

The screenshot shows a dark-themed user interface for a restaurant's payment system. On the left, a sidebar has a 'Thanh toán' button. The main area is titled 'Checkout' and displays a bill summary for 'Hóa Đơn: #150'. The summary includes:

#	Số lượng	Đơn giá	Tổng	
1	Bún chua cay	1	25000	25000
2	Mực nhồi thịt	1	1200000	1200000
3	Cá kho tộ	1	50000	50000

Below the table, there are fields for 'Tổng chi phí:' (1275000), 'Nhận:' (2000000), and 'Trả lại:' (725000). A green button at the bottom right labeled '\$ Thanh toán hóa đơn' is highlighted with a red box.

4. Click on “\$ Thanh toán hóa đơn”

This screenshot shows the same interface after the payment button was clicked. The 'Nhận:' field now contains '2000000' and the 'Trả lại:' field contains '725000'. The '\$ Thanh toán hóa đơn' button is still highlighted with a red box.

# THE CAPSTONE PROJECT

The screenshot shows a POS system interface for 'THE CAPSTONE PROJECT'. The top navigation bar includes 'COREUI', 'Thanh toán' (Payment), and 'Checkout'. A green button on the right says 'Hóa đơn thanh toán thành công' (Invoice paid successfully). The main area displays an invoice summary for 'Hóa Đơn: #150' and details for a customer named 'Nghia NC' with phone number '0123456789'. The invoice information includes the date '8/22/2018, 8:26:03 PM' and a note 'Thông tin hóa đơn: Hóa Đơn: #150'. Below this is a table of items:

#	Tên sản phẩm	Số lượng	Đơn giá	Tổng
1	Bún chả cay	1	25000	25000
2	Mực nhồi thịt	1	1200000	1200000
3	Cá kho tộ	1	50000	50000

Below the table, there are input fields for 'Tổng chi phí:' (Total cost: 1275000), 'Nhận:' (Received: 200000), and 'Trả lại:' (Change: 725000). A green button at the bottom right says '\$ Thanh toán hóa đơn' (Pay invoice).

At the bottom left, it says 'eRestaurant © 2018.' and at the bottom right, 'Powered by CTW Team'.