

FPT UNIVERSITY

CAPSTONE PROJECT DOCUMENT

AGC101

Report #4 – Software Design Description

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Hanoi, May 2016 – August 2016

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1 ARCHITECTURE DESIGN

1.1 Choice of Architecture Design

In this project we follow Model View Viewmodel (MVVM) architecture and use CodeIgniter framework to implement the system.

1.1.1 Introduction to CodeIgniter

CodeIgniter is an Application Development Framework - a toolkit - for people who build web sites using PHP. Its goal is to enable you to develop projects much faster than you could if you were writing code from scratch, by providing a rich set of libraries for commonly needed tasks, as well as a simple interface and logical structure to access these libraries. CodeIgniter lets you creatively focus on your project by minimizing the amount of code needed for a given task.

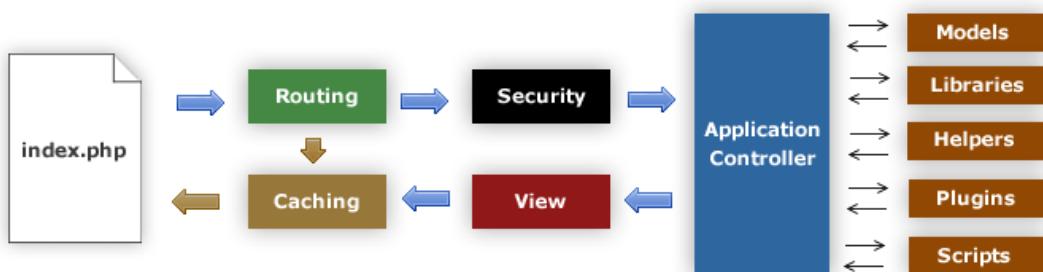


Figure 1: CodeIgniter flow chart

1.1.2 Model-View-Controller in CodeIgniter

CodeIgniter is based on the Model-View-Controller development pattern. MVC is a software approach that separates application logic from presentation. In practice, it permits your web pages to contain minimal scripting since the presentation is separate from the PHP scripting.

- The Model represents your data structures. Typically your model classes will contain functions that help you retrieve, insert, and update information in your database.
- The View is the information that is being presented to a user. A View will normally be a web page, but in CodeIgniter, a view can also be a page fragment like a header or footer. It can also be an RSS page, or any other type of “page”.

- The Controller serves as an intermediary between the Model, the View, and any other resources needed to process the HTTP request and generate a web page.

CodeIgniter has a fairly loose approach to MVC since Models are not required. If you don't need the added separation, or find that maintaining models requires more complexity than you want, you can ignore them and build your application minimally using Controllers and Views. CodeIgniter also enables you to incorporate your own existing scripts, or even develop core libraries for the system, enabling you to work in a way that makes the most sense to you.

1.2 Architectural Presentation

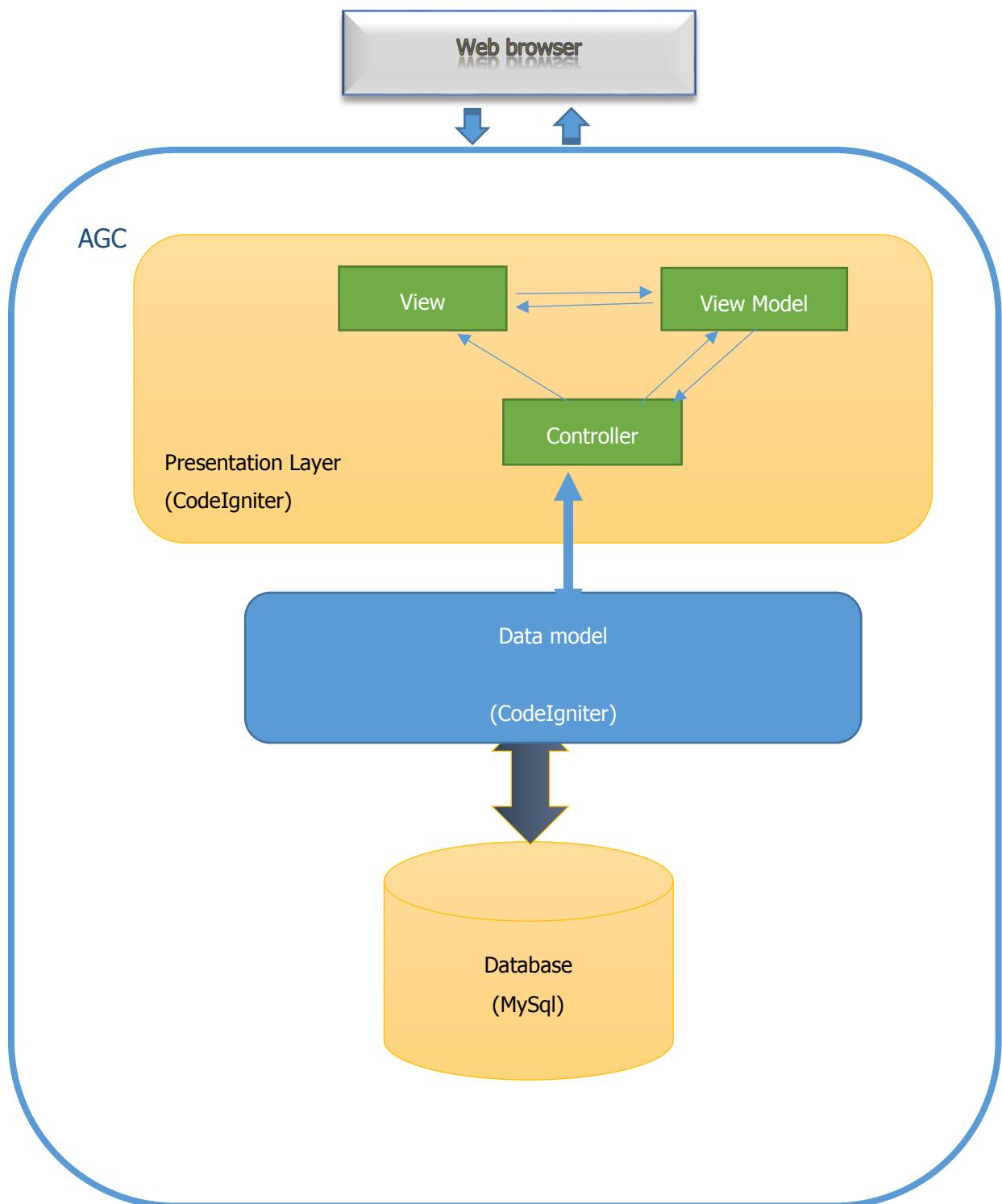


Figure 2: AGC101 System overview

1.3 Package Design

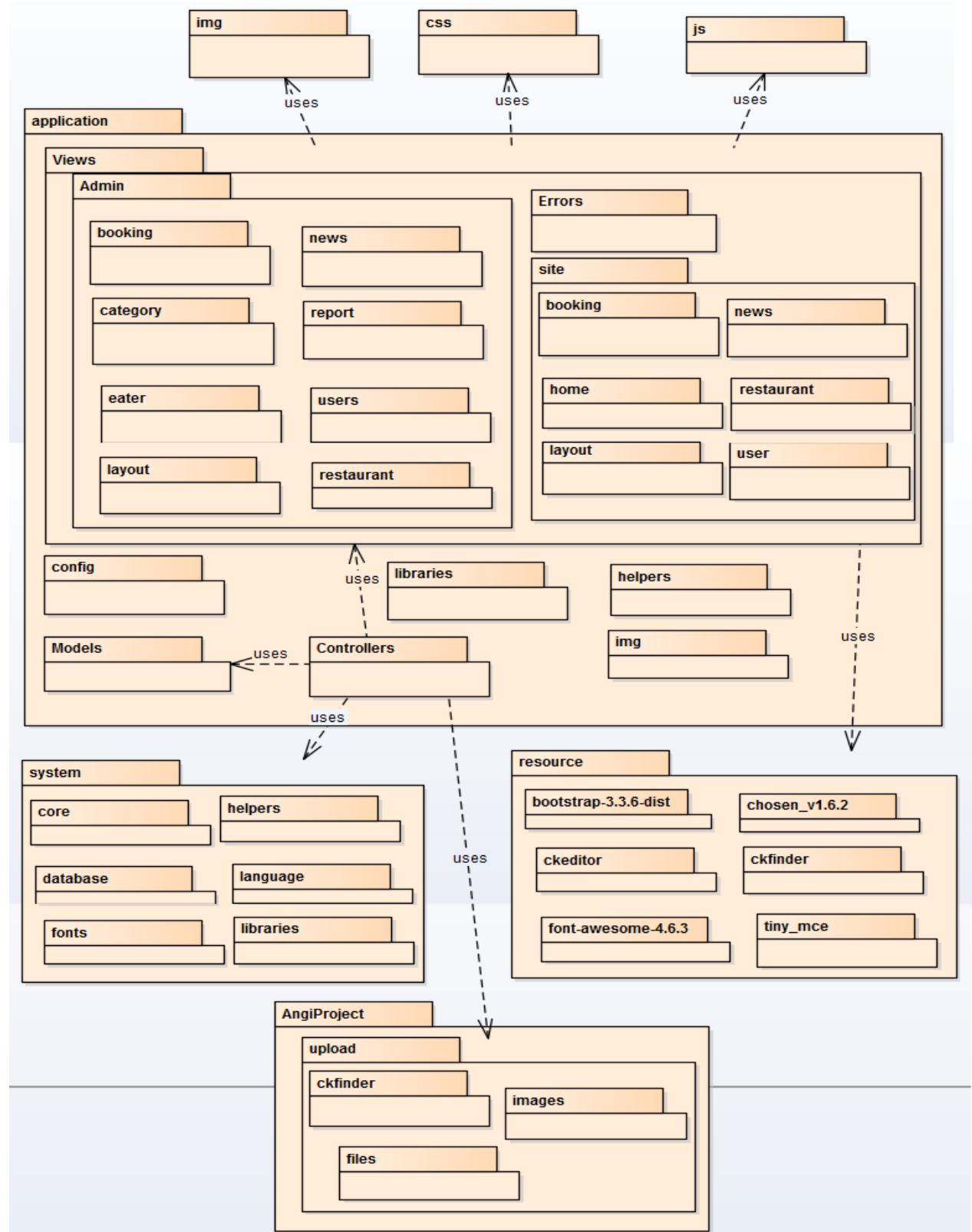


Figure 3: AGC Package Diagram

2 DETAILED DESIGN

2.1 Class Description

2.1.1 Admin

Class	Admin			
Description	Include all functions and display screen of administrator.			
Base Class	CI_Controller			
Constructor	<code>__construct</code>			
Prototype	N/A			
Source File	Admin.php			
Namespace	N/A			
Attributes	N/A			
Methods	Name	Input	Output	Description
	index	N/A	Null	Display main screen of administrator.
	news	offset	Null	Display list news screen.
	add_news	N/A	Null	Display screen to add new news and insert into database
	edit_news	newsID	Null	Display screen to update a news and update into database

	delete_news	newsID	Null	Delete a news in database
	restaurant	offset	Null	Display list restaurants screen
	validateRestaurant	data, error	String	Check input data.
	edit_restaurant	restaurantID	Null	Display screen to active and rate a restaurant and update into database
	delete_restaurant	restaurantID	Null	Delete a restaurant in database
	info_food	foodID	Null	Display informations foods of restaurant
	returnError	msg	String	Return error message
	returnSuccess	msg	String	Return success message
	getDistrictByProvinceId	provinceID	Null	Get information of district by province's id
	getWardByDistrictId	districtID	Null	Get information of ward by district's id
	eater	level, offset	Null	Display list accounts of eaters and restaurants
	edit_eater	eaterID	Null	Display screen to active accounts of

				eaters or restaurants and update into database
delete_eater	eaterID,level	Null		Delete a account in database
categories	N/A	Null		Display list categories screen.
add_category	N/A	Null		Display screen to add a category and insert into database
edit_category	categoryID	Null		Display screen to edit a category and update into database
booking	offset	Null		Display list booking of restaurants screen.
show_booking	bookingID	Null		Display detail booking screen.
report_statistics	N/A	Null		Display statistics report of website screen.
getConfig	N/A	Array		Paging for website
setting	N/A	Null		Setting website
check_id	id,uri	Null		Check account's id
Error	value	String		Display error on screen.

Table 1: Admin class description

2.1.2 Home

Class	Home			
Description	Include all functions and display screen of the homepage.			
Base Class	CI_Controller			
Constructor	__construct			
Prototype	N/A			
Source File	Home.php			
Namespace	N/A			
Attributes	N/A			
Methods	Name	Input	Output	Description
	getConfig	N/A	Array	Paging for website
	index	N/A	Null	Display home screen of website.
	search	categoryID, districtID, keyword, offset	Null	Display all restaurants by searched keyword.
	category	categoryID, offset	Null	Display all restaurants by category
	home_view_all	title, type, offset	Null	Display all restaurants sort by rating or discount.

	news	categoryID, offset	Null	Display all news in website
	newsDetails	newsID	Null	Display news detail.
	login	N/A	Null	Display login dialog.
	logout	N/A	Null	Logout account.
	signup	N/A	Null	Display signup screen and insert account into database.
	getDistrictByProv inceId	provinceID	Null	Get information of district by province's id
	getWardByDistrictId	districtID	Null	Get information of ward by district's id
	returnError	msg	Array	Return error message.
	returnSuccess	msg	Array	Return success message.
	GetNameOfType News	categoryID	String	Return type of news.

Table 2: Home class description

2.1.3 Restaurant

Class	Restaurant
Description	Include all functions and display screen of restaurant.
Base Class	CI_Controller

Constructor	<code>__construct</code>			
Prototype	N/A			
Source File	Restaurant.php			
Namespace	N/A			
Attributes	N/A			
Methods	Name	Input	Output	Description
	view	restaurantID	Null	Display restaurant detail screen
	sendBooking	N/A	String	Send table booking to restaurant and insert into database.
	returnError	msg	Array	Return error message.
	returnSuccess	msg	Array	Return success message.

Table 3: Restaurant class description

2.1.4 User_profile

Class	User_profile
Description	Include all functions and display screen of user profile.
Base Class	CI_Controller
Constructor	<code>__construct</code>
Prototype	N/A
Source File	User_profile.php

Namespace	N/A			
Attributes	N/A			
Methods	Name	Input	Output	Description
	getConfig	N/A	Array	Paging for website
	index	N/A	Null	Display profile screen of user.
	restaurant_add	N/A	Null	Display information of restaurant for restaurant account to add new information and insert into database.
	restaurant_edit	N/A	Null	Display information of restaurant for restaurant account to edit and update information restaurant into database
	add_food	N/A	Null	Display screen to add food for restaurant and insert into database.
	info_food	foodID	Null	Display food's information screen.
	delete_food	foodID	Null	Delete food in restaurant and delete food in database.

	edit_food	foodID	Null	Display food's information screen, edit and update information of food in database.
	addoreedit_food	foodID	Null	Check action add or edit food.
	validateRestaurant	data, error	String	Check input data of restaurant and return warning message.
	change_Password	N/A	Null	Display screen to change password and update into database.
	changeAvatar	N/A	Null	Change avatar for account.
	Restaurant_Banner	offset	Null	Display screen to change banner for restaurant account
	delete_restaurant_banner	bannerID	Null	Delete banner of restaurant.
	add_restaurant_banner	N/A	Null	Add banner for restaurant
	restaurant_manage_booking	offset	Null	Display screen to manage booking of customer for restaurant account.

	user_manage_booking	offset	Null	Display history of booking for customer
	edit_booking	bookingID	Null	Display screen to edit information of booking and update into database for restaurant account.
	info_booking	bookingID	Null	Display booking's information screen.
	check_id	id, uri	Null	Check id is number.
	Success	value	String	Return success message with html.
	Error	value	String	Return error message with html.
	returnError	msg	Array	Return error message without html.
	returnSuccess	msg	Array	Return error message without html.

Table 4: User_profile class description

2.1.5 Ckfinder

Class	Ckfinder
Description	Include all commands of ckfinder, which is tool to upload image.
Base Class	N/A

Constructor	N/A			
Prototype	N/A			
Source File	Ckfinder.php			
Namespace	N/A			
Attributes	N/A			
Methods	Name	Input	Output	Description
	setProjectPath	path	Null	Create name of project.
	setCkfinderSourcePath	path	Null	Create link into folder
	setAuthentication	status	Null	Check authentication.
	setConnectorPath	path	Null	Create connection.
	setFolderUpload	path	Null	Create folder to upload and save image
	startConnector	N/A	Null	Start connector.
	getHTML	N/A	Null	Get html code of ckfinder.

Table 5: Ckfinder class description

2.2 UC001: Admin Management

2.2.1 Class diagram

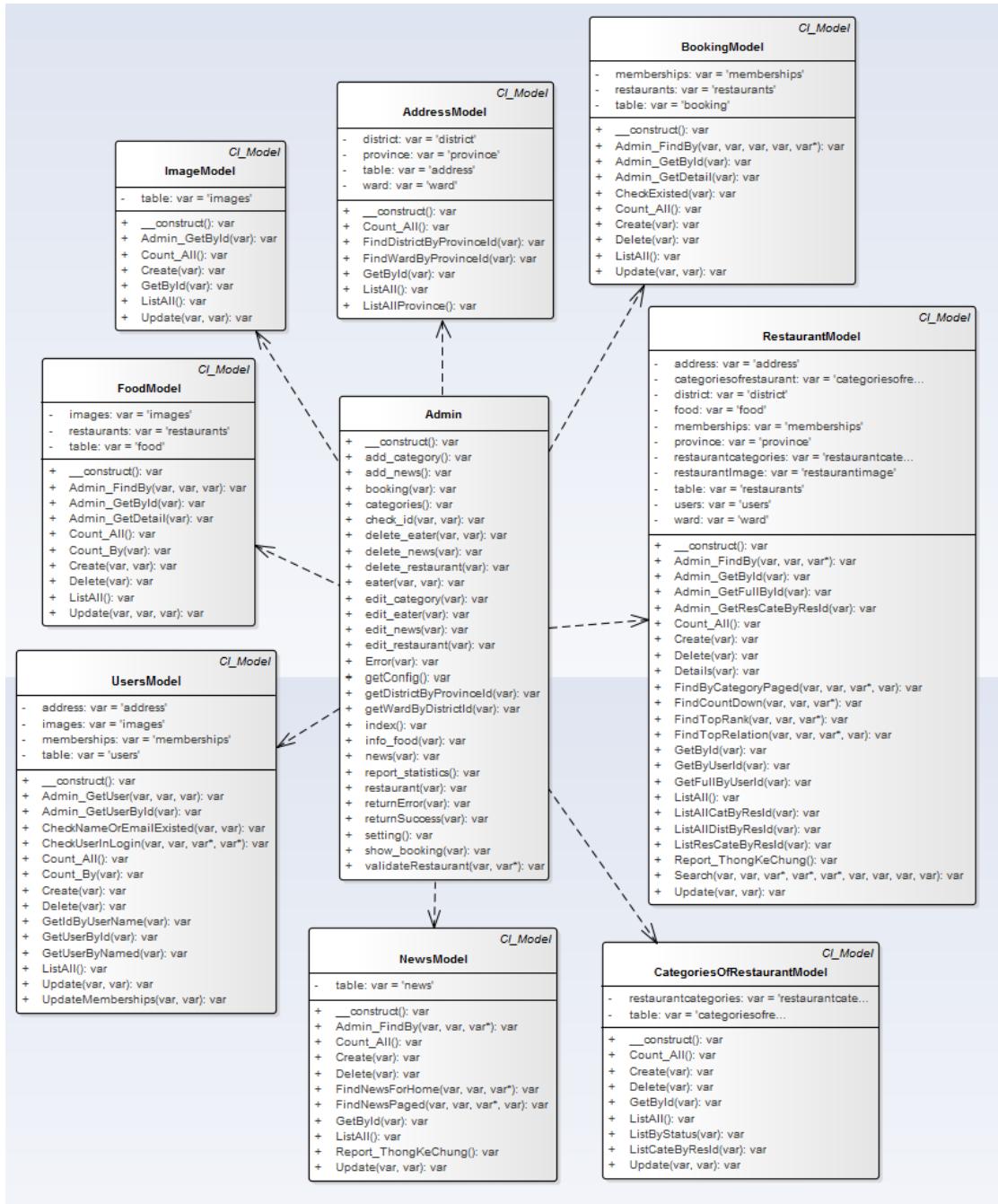


Figure 4: Class diagram

2.2.2 UC001 – 01 Write news

2.2.2.1 Screen Design

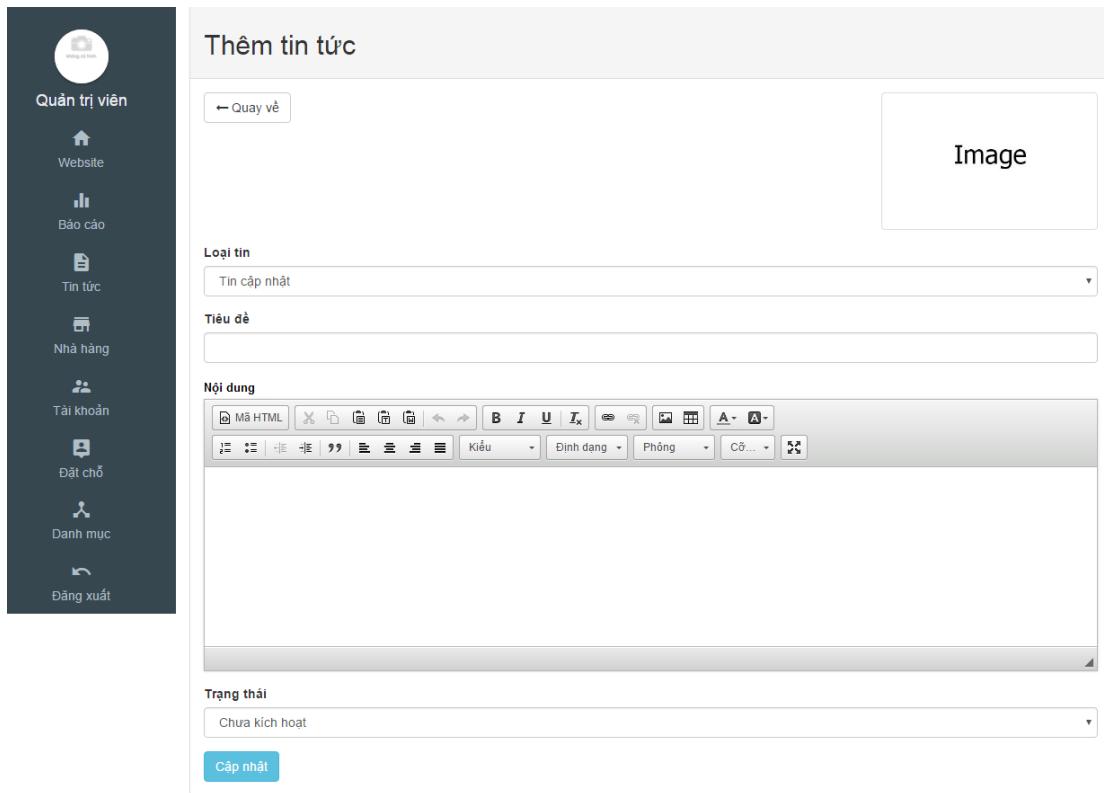


Figure 5: Write news screen design

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Image	Image	Image	Yes	N/A	Image of news
2	Loại tin	Type of news	Text- box	Yes	N/A	Type of news
3	Tiêu đề	Title	Text- box	Yes	N/A	Title of news
4	Nội dung	Content	Text- box	Yes	N/A	Content of news
5	Trạng thái	Status	Comb obox	Yes	N/A	Status of news

6	Cập nhật	Update	Button	Yes	N/A	Click to add a news
7	Quay về	Back	Button	Yes	N/A	Return to list news

Table 6: Write news screen description

2.2.2.2 Sequence Diagram

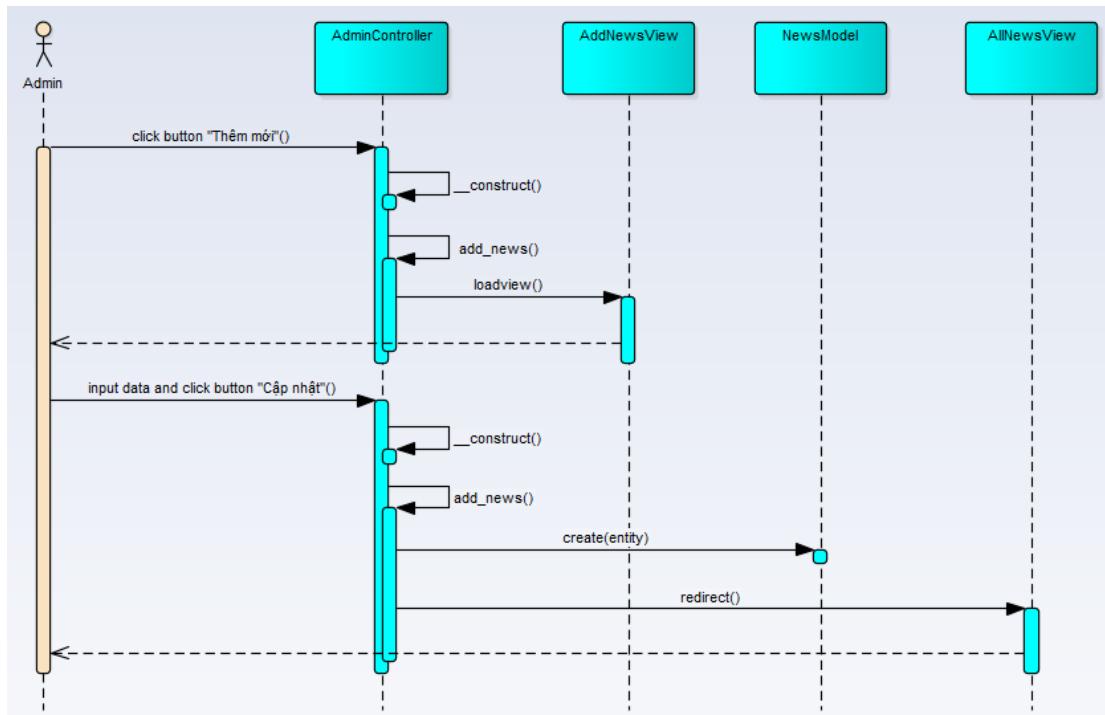


Figure 6: Write news sequence diagram

2.2.3 UC001 – 02 Create category

2.2.3.1 Screen Design

The screenshot shows a user interface for adding a new category. On the left is a dark sidebar with icons and labels: Website, Báo cáo, Tin tức, Nhà hàng, Tài khoản, and Đặt chỗ. The main area has a 'Quay về' (Back) button at the top right. Below it are two text input fields: 'Tên' (Name) and 'Mô tả' (Description). A checked checkbox labeled 'Kích hoạt' (Active) is present. At the bottom is a blue 'Lưu' (Save) button.

Figure 7: Add new category

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Tên	Name	Text-box	Yes	N/A	Name of category
2	Mô tả	Description	Text-box	Yes	N/A	Content of category
3	Kích hoạt	Active	Check-box	Yes	N/A	Status of category
4	Lưu	Save	Button	Yes	N/A	Click to add a category
5	Quay về	Back	Button	Yes	N/A	Return to list category

Table 7: Add new category

2.2.3.2 Sequence Diagram

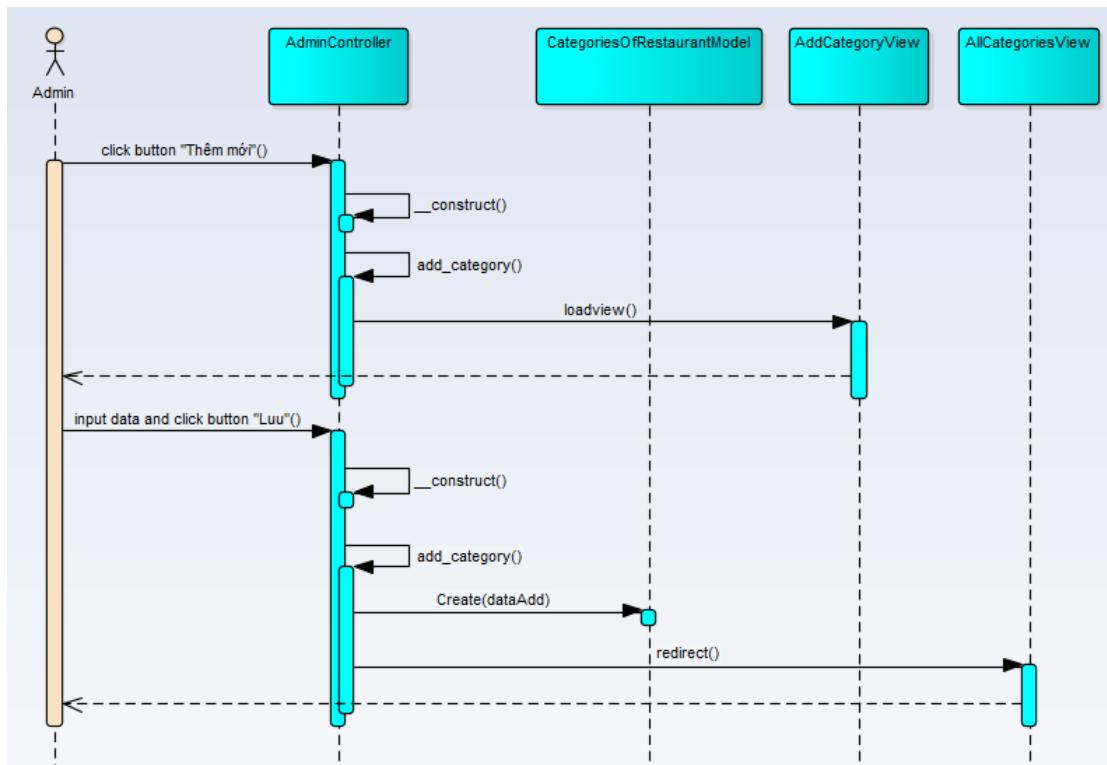


Figure 8: Create category sequence diagram

2.2.4 UC001 – 03 Update news

2.2.4.1 Screen Design

Figure 9: Add news

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Image	Image	Image	Yes	N/A	Image of news
2	Loại tin	Type of news	Text-box	Yes	N/A	Type of news
3	Tiêu đề	Title	Text-box	Yes	N/A	Title of news
4	Nội dung	Content	Text-area	Yes	N/A	Content of news
5	Trạng thái	Status	Check-box	Yes	N/A	Status of news

6	Cập nhật	Update	Button	Yes	N/A	Click to update news
7	Quay về	Back	Button	Yes	N/A	Return to list news

Table 8: Add news

2.2.4.2 Sequence Diagram

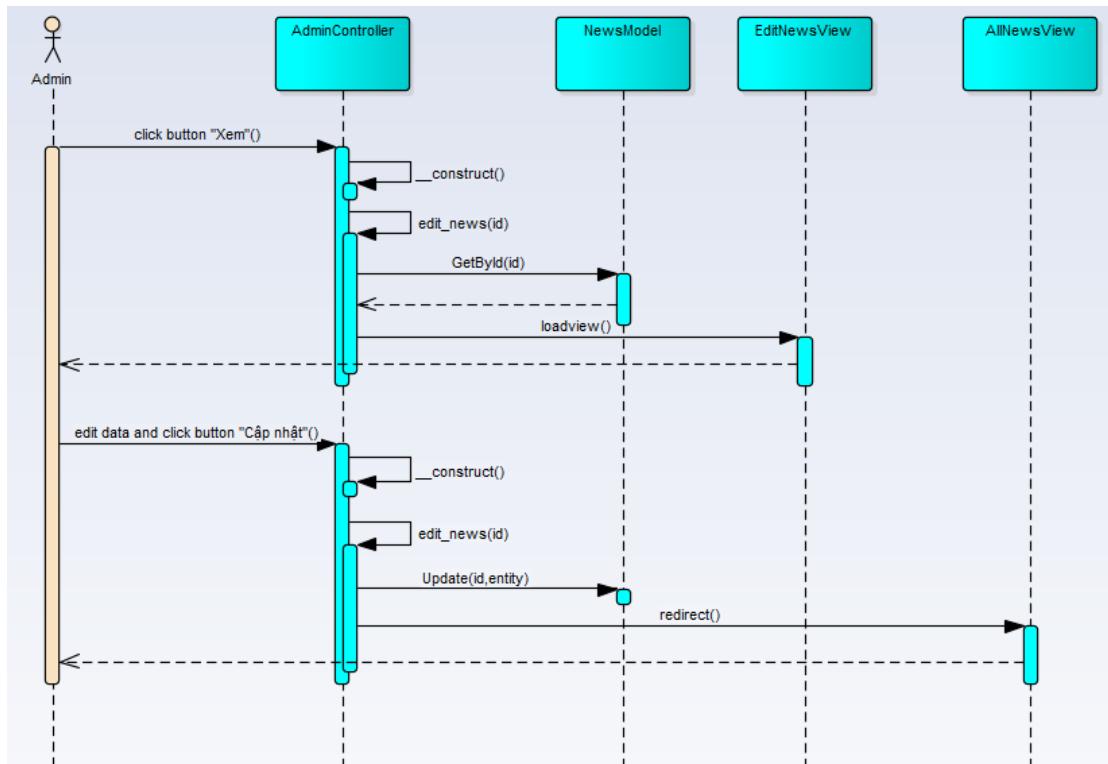


Figure 10: Update news sequence diagram

2.2.5 UC001 – 04 Update category

2.2.5.1 Screen Design

The screenshot shows a user interface for updating a category. On the left is a dark sidebar with various menu items. The main area contains input fields for category name and description, a checked checkbox for activation, and a save button.

Figure 11: Update category

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Tên	Name	Text-box	Yes	N/A	Name of category
2	Mô tả	Description	Text-box	Yes	N/A	Content of category
3	Kích hoạt	Active	Check-box	Yes	N/A	Status of category
4	Lưu	Save	Button	Yes	N/A	Click to update category
5	Quay về	Back	Button	Yes	N/A	Return to list category

Table 9: Update category

2.2.5.2 Sequence Diagram

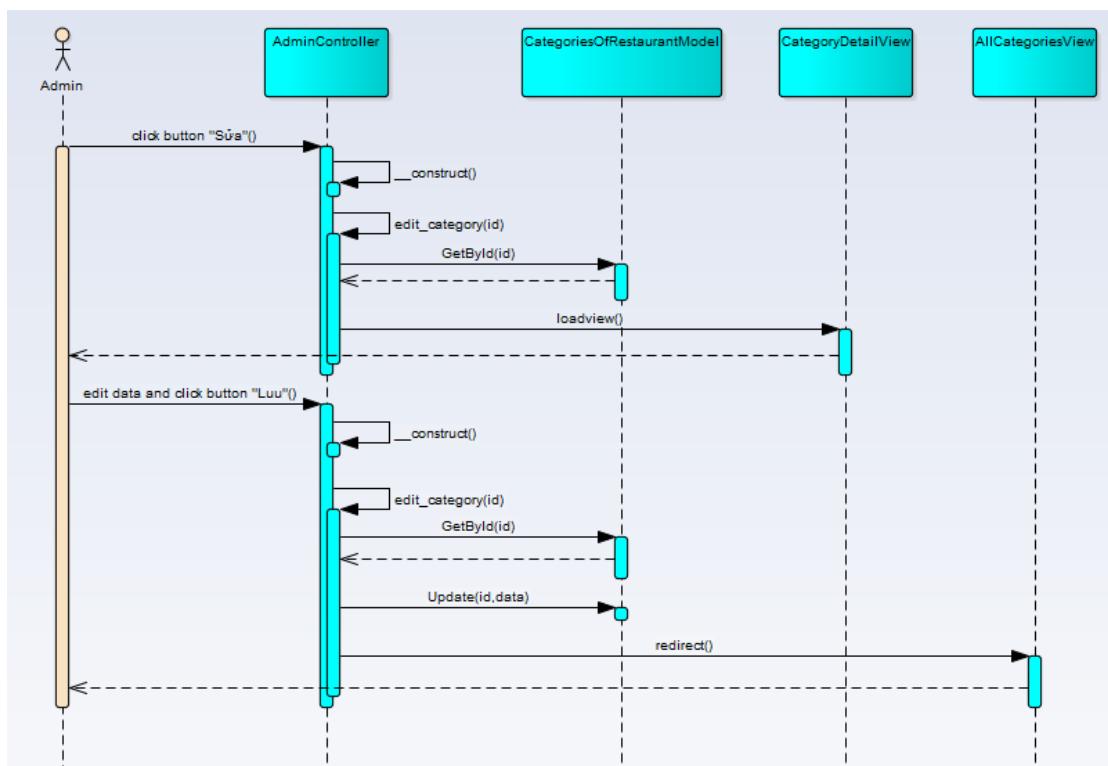


Figure 12: Update category sequence diagram

2.2.6 UC001 – 05 Delete category

2.2.6.1 Screen Design

The screenshot shows the 'Danh mục nhà hàng' (Category Management) screen. On the left, there is a sidebar with a navigation menu:

- Quản trị viên
- Website
- Báo cáo
- Tin tức
- Nhà hàng
 (highlighted in blue)
- Tài khoản
- Đặt chỗ
- Danh mục

The main content area displays a table titled 'Danh mục nhà hàng' with the following data:

ID	Tên	Trạng thái	Sửa	Xóa
8	Buffet	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
9	Lẩu & Nướng	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
10	Hải sản	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
11	Nhật Bản	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
12	Hàn Quốc	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
13	Địa điểm nhậu	Hoạt động	<button>Sửa</button>	<button>Xóa</button>

A green 'Thêm mới' (Add New) button is located at the top right of the table.

Figure 13: Delete category

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	ID	ID	Integer	Yes	N/A	Id of category
2	Tên	Name	Text	Yes	N/A	Name of category
3	Trạng thái	Status	Text	Yes	N/A	Status of category
4	Xóa	Delete	Button	Yes	N/A	Click to delete category

Table 10: Delete category

2.2.6.2 Sequence Diagram

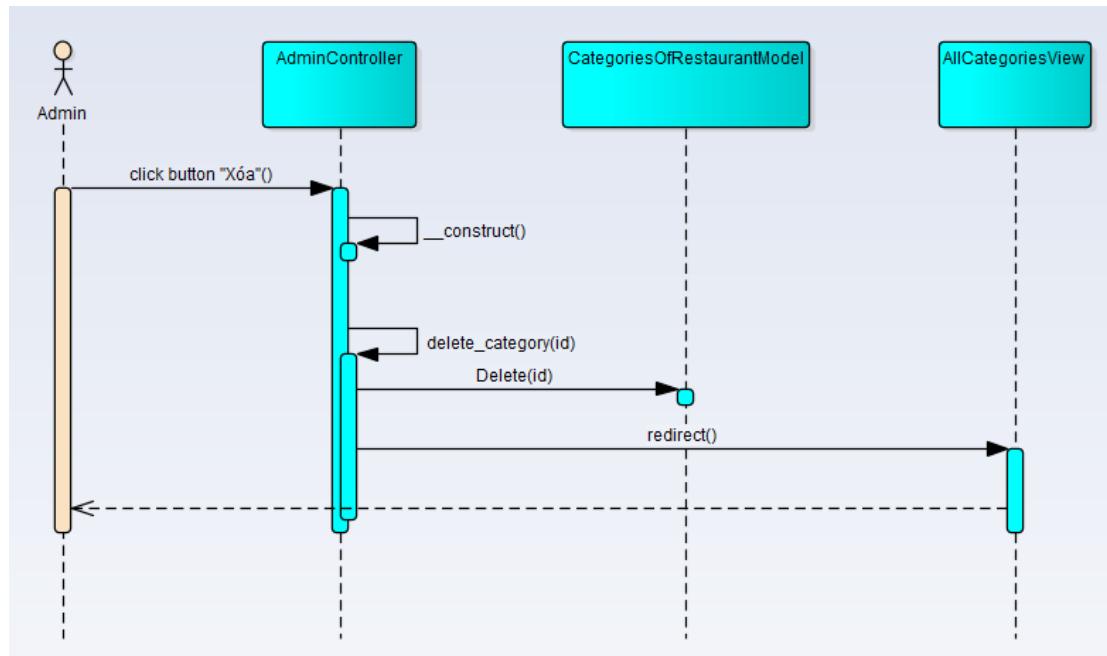


Figure 14: Delete category sequence diagram

2.2.7 UC001 – 06 Delete news

2.2.7.1 Screen Design

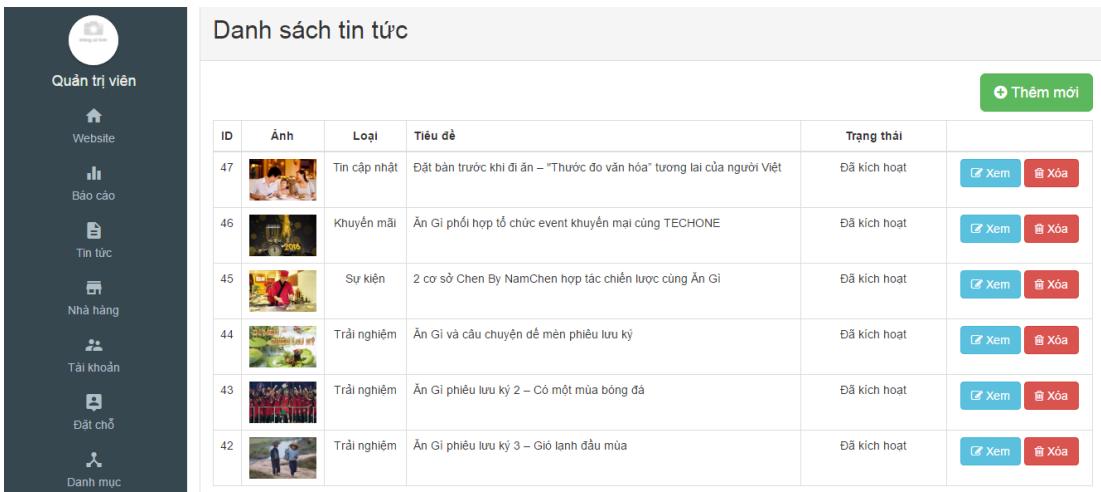


Figure 15: Delete news

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	ID	ID	Integer	Yes	N/A	Id of category
2	Ảnh	Image	Image	Yes	N/A	Image of news
3	Loại	Category	Text	Yes	N/A	Category of news
4	Tiêu đề	Title	Text	Yes	N/A	Title of news
5	Trạng thái	Status	Text	Yes	N/A	Status of news
6	Xóa	Delete	Button	Yes	N/A	Click to delete news

Table 11: Delete news

2.2.7.2 Sequence Diagram

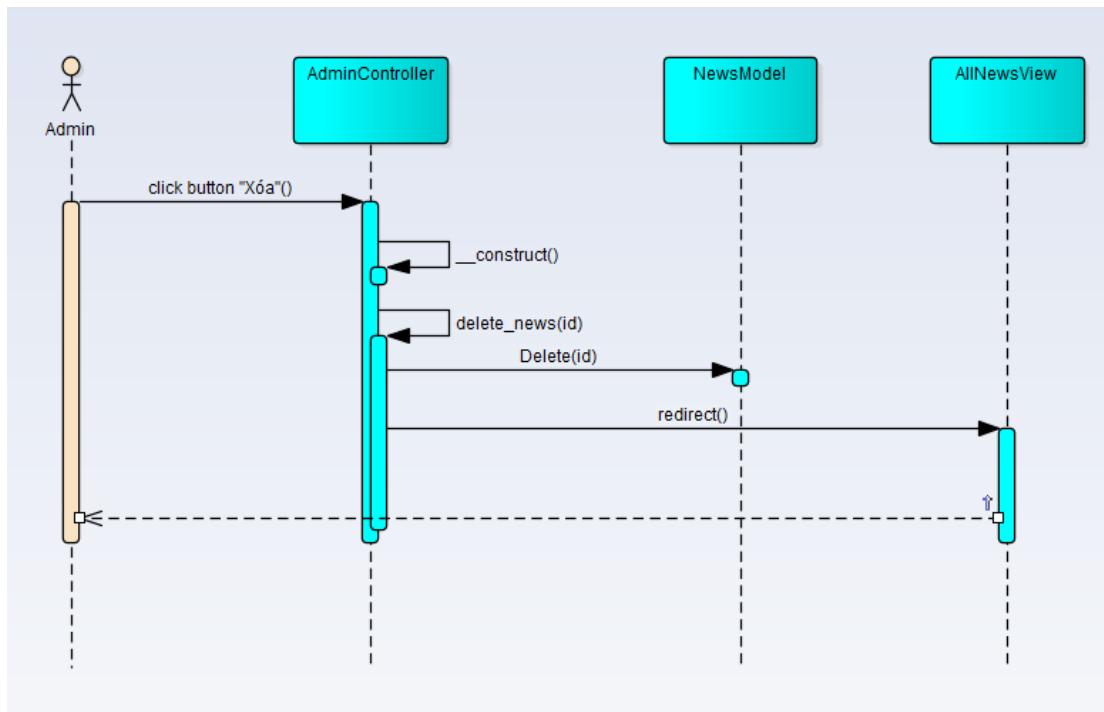


Figure 16: Delete news sequence diagram

2.2.8 UC001 – 07, 09 Activate/deactivate and rate restaurant

2.2.8.1 Screen Design

The screenshot shows a dark-themed administrative interface. On the left, a sidebar lists various management functions: Website, Báo cáo, Tin tức, Nhà hàng, Tài khoản, Đặt chỗ, and Danh mục. The main content area is a form for managing a restaurant. At the top, there are buttons for Quay về (Back) and Lưu (Save). Below these are tabs for Thông tin chung, Địa chỉ, Mô tả, and Món ăn. Under the Thông tin chung tab, there is a section for Danh mục nhà hàng with buttons for Buffet, Lẩu & Nướng, and Nhật Bản. To the right, there are fields for Tên nhà hàng (LẨU NẤM MURU), Điện thoại (0435380778), and Người dùng (muru). Further down, there are sections for Món ăn đặc sắc (listing items like 20 loại nấm ngon và bổ dưỡng, Gỏi cá hồi Nauy, Ba chỉ Bò Mỹ nhúng, Cá Basa cuộn...), Không gian nhà hàng (Phong cách kiến trúc hiện đại, Sức chứa 100 khách), Điểm đặc trưng khác (Lẩu nấm Muru là chuỗi nhà hàng chuyên về lẩu nấm, ngoài nước lẩu nấm đặc trưng chiết xuất từ các loài nấm quý, nhà hàng luôn phục vụ thực khách khoắng), Giờ mở cửa (09:00 - 21:00), and Giờ đóng cửa (21:00). A checkbox for Kích hoạt is also present.

Figure 17: Activate/deactivate and rate restaurant

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Đánh giá nhà hàng	Rate for restaurant	Combo -box	Yes	N/A	Rate for restaurant
2	Kích hoạt	Active/Deactive	Check-box	Yes	N/A	Active/Deactive for restaurant
3	Loại	Category	Integer	Yes	N/A	Category of restaurant
4	Lưu	Save	Button	Yes	N/A	Click to update restaurant
5	Quay về	Back	Button	Yes	N/A	Return to list restaurant

Table 12: Activate/deactivate and rate restaurant

2.2.8.2 Sequence Diagram

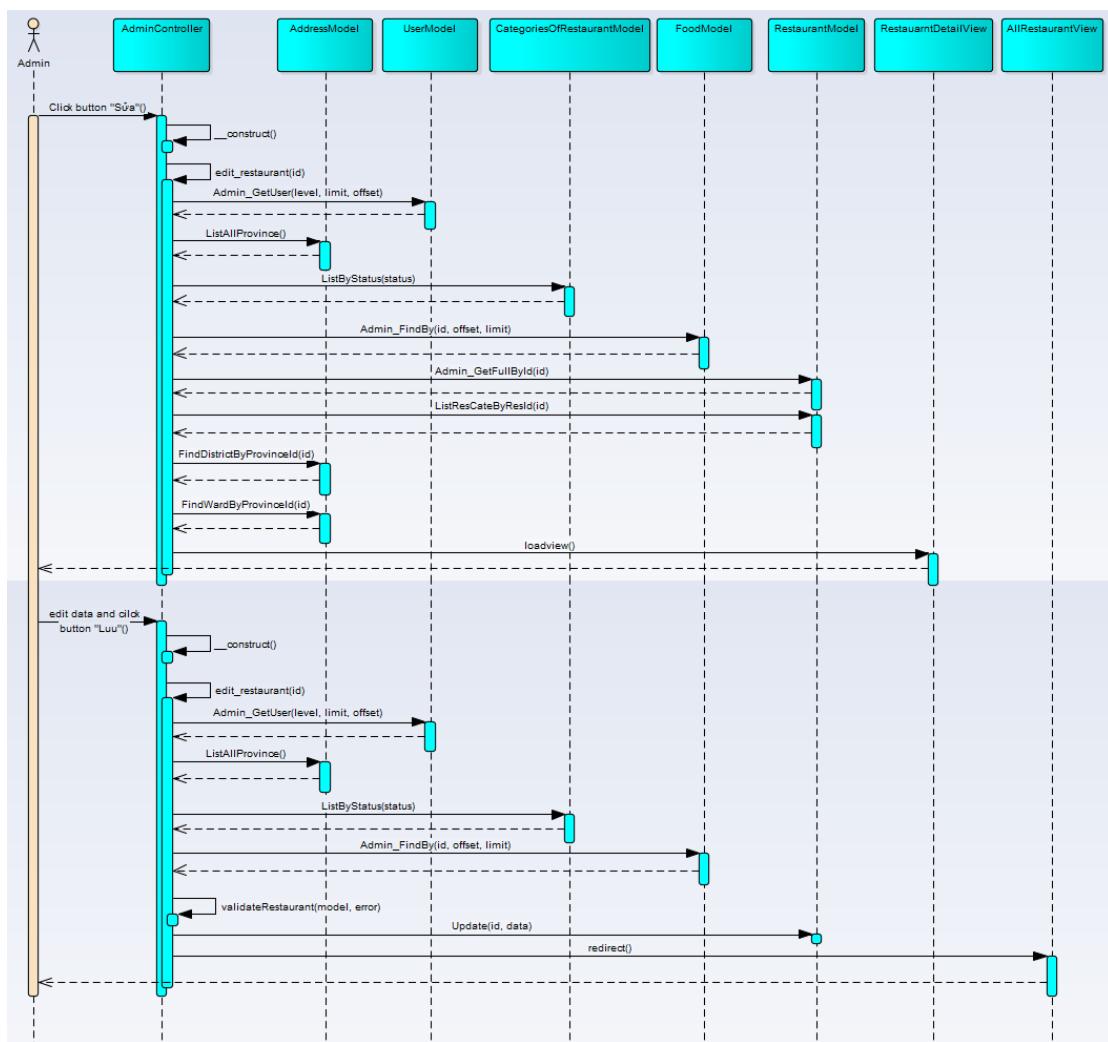


Figure 18: Activate/deactivate and rate restaurant sequence diagram

2.2.9 UC001 – 08 Delete restaurant

2.2.9.1 Screen Design

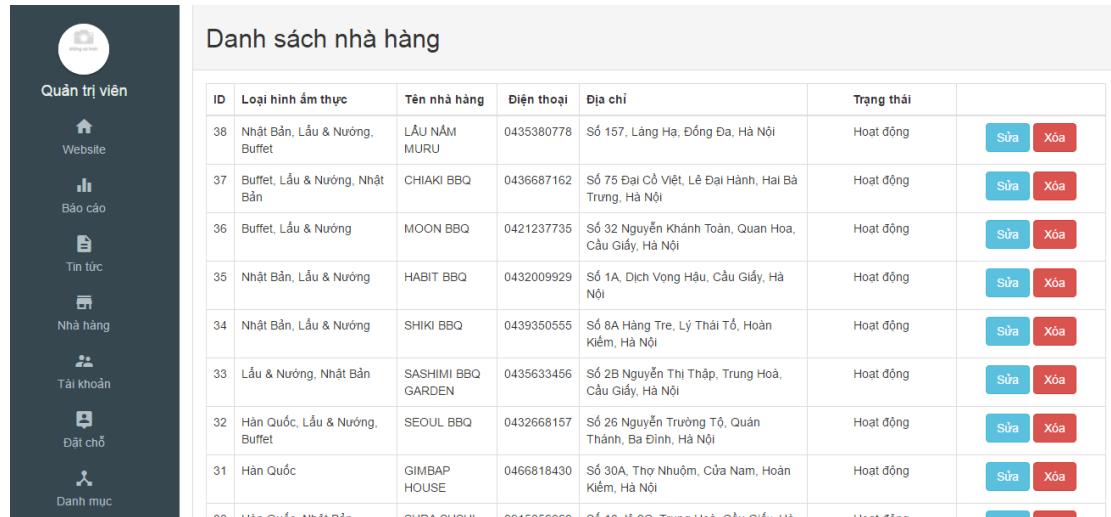


Figure 19: Delete restaurant

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	ID	ID	Integer	Yes	N/A	Id of category
2	Loại hình ẩm thực	Categories of restaurant	Text	Yes	N/A	Categories of restaurant
3	Tên nhà hàng	Name of restaurant	Text	Yes	N/A	Name of restaurant
4	Điện thoại	Phone of restaurant	Integer	Yes	N/A	Phone of restaurant
5	Địa chỉ	Address of restaurant	Text	Yes	N/A	Address of restaurant
6	Trạng thái	Status	Text	Yes	N/A	Status of restaurant

7	Xóa	Delete	Button	Yes	N/A	Click to delete restaurant
---	-----	--------	--------	-----	-----	----------------------------

Table 13: Delete restaurant

2.2.9.2 Sequence Diagram

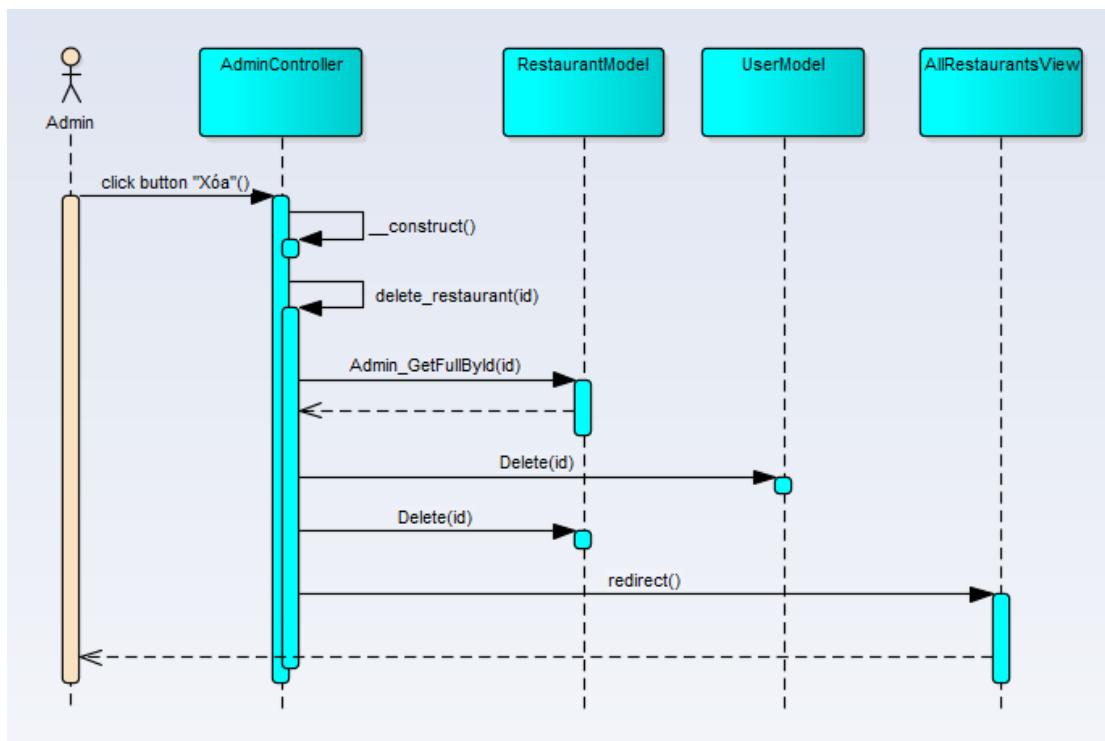


Figure 20: Delete restaurant sequence diagram

2.2.10UC001 – 10 Delete user

2.2.10.1 Screen Design

ID	Tên đăng nhập	Tên đầy đủ	Email	Địa chỉ	Trạng thái	Sửa	Xóa
55	Thao	ThaoTest	Thao		Hoạt động	<button>Sửa</button>	<button>Xóa</button>
54	ThaoNguyen1	ThaoTest2	thaonhse03334@gmail.com	Test, Dịch Vọng Hậu, Cầu Giấy, Hà Nội	Chưa kích hoạt	<button>Sửa</button>	<button>Xóa</button>
35	hoangnguyen	Nguyễn Hoàng	hoangnguyen@gmail.com	22, Nghĩa Tân, Cầu Giấy, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
34	thaonguyen	Nguyễn Hữu Thảo	thaonguyen@gmail.com	29, Hàng Bạc, Hoàn Kiếm, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
33	vuhoanghieu	Vũ Hoàng Hiếu	vuhoanghieu@gmail.com	68, Bùi Thị Xuân, Hai Bà Trưng, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
32	hoangcanh	Hoàng Văn Cảnh	hoangcanh@gmail.com	55, Hàng Bồ, Hoàn Kiếm, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>

Figure 21: Delete user

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	ID	ID	Integer	Yes	N/A	Id of category
2	Tên đăng nhập	Name	Text	Yes	N/A	Name of user use to login
3	Tên đầy đủ	Fullname	Text	Yes	N/A	Fullname of user
4	Email	Email	Text	Yes	N/A	Email of user
5	Địa chỉ	Address	Text	Yes	N/A	Address of user
6	Trạng thái	Status	Text	Yes	N/A	Status of user
7	Xóa	Delete	Button	Yes	N/A	Click to delete users

Table 14: Delete user

2.2.10.2 Sequence Diagram

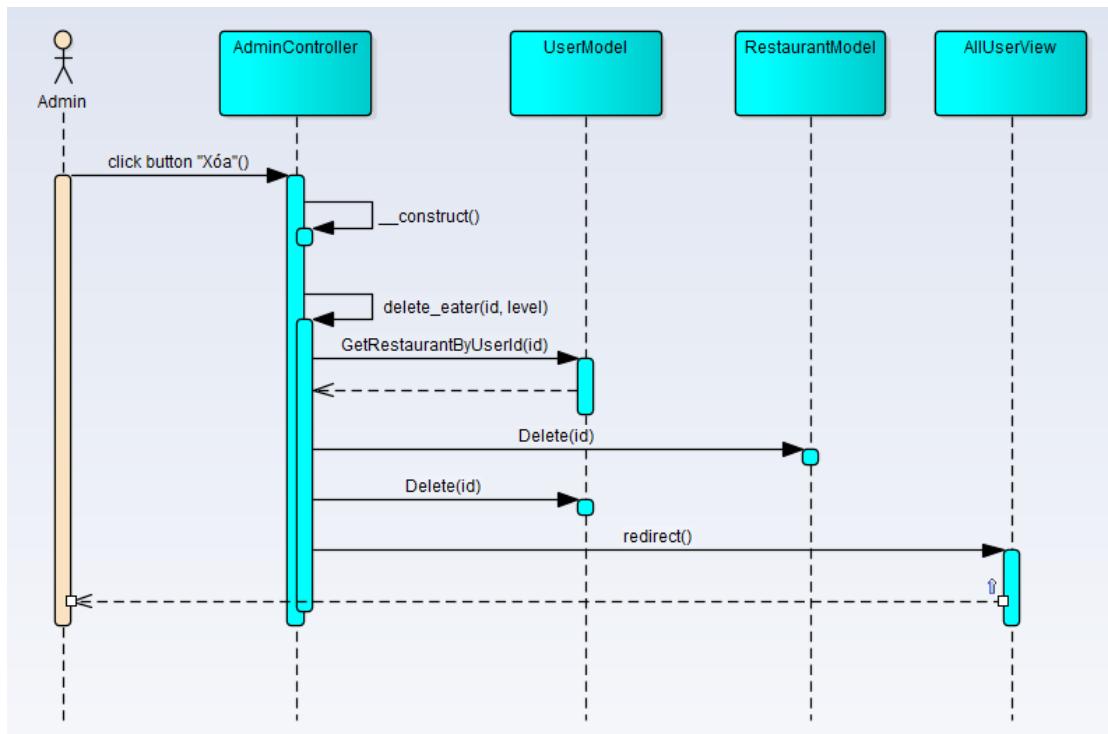


Figure 22: Delete user sequence diagram

2.2.11 UC001 – 11 Activate/deactivate user

2.2.11.1 Screen Design

The screenshot shows a user interface for managing users. On the left is a sidebar with navigation links: Website, Báo cáo, Tin tức, Nhà hàng, Tài khoản, Đặt chỗ, and Danh mục. The main area has a header with "Quản trị viên" and two buttons: "Quay về" and "Cập nhật". Below the header, there are several input fields and dropdown menus:

- Tên đầy đủ:** ThaoTest
- Tên đăng nhập:** Thao
- Email:** Thao
- Ngày sinh:** 19/08/2016
- Giới tính:** Nữ
- Tỉnh/Thành phố (*)**: --chọn địa chỉ--
- Quận/Huyện:** --chọn quận/ huyện--
- Xã/Phường:** --chọn xã/ phường--
- Địa chỉ:** Địa chỉ
- Điều khoản:** Duyệt

Figure 23: Activate/deactivate user

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
2	Duyệt	Active/Deactive	Check -box	Yes	N/A	Active/Deact ive for user
4	Cập nhật	Update	Button	Yes	N/A	Click to update user
5	Quay về	Back	Button	Yes	N/A	Return to list users

Table 15: Activate/deactivate user

2.2.11.2 Sequence Diagram

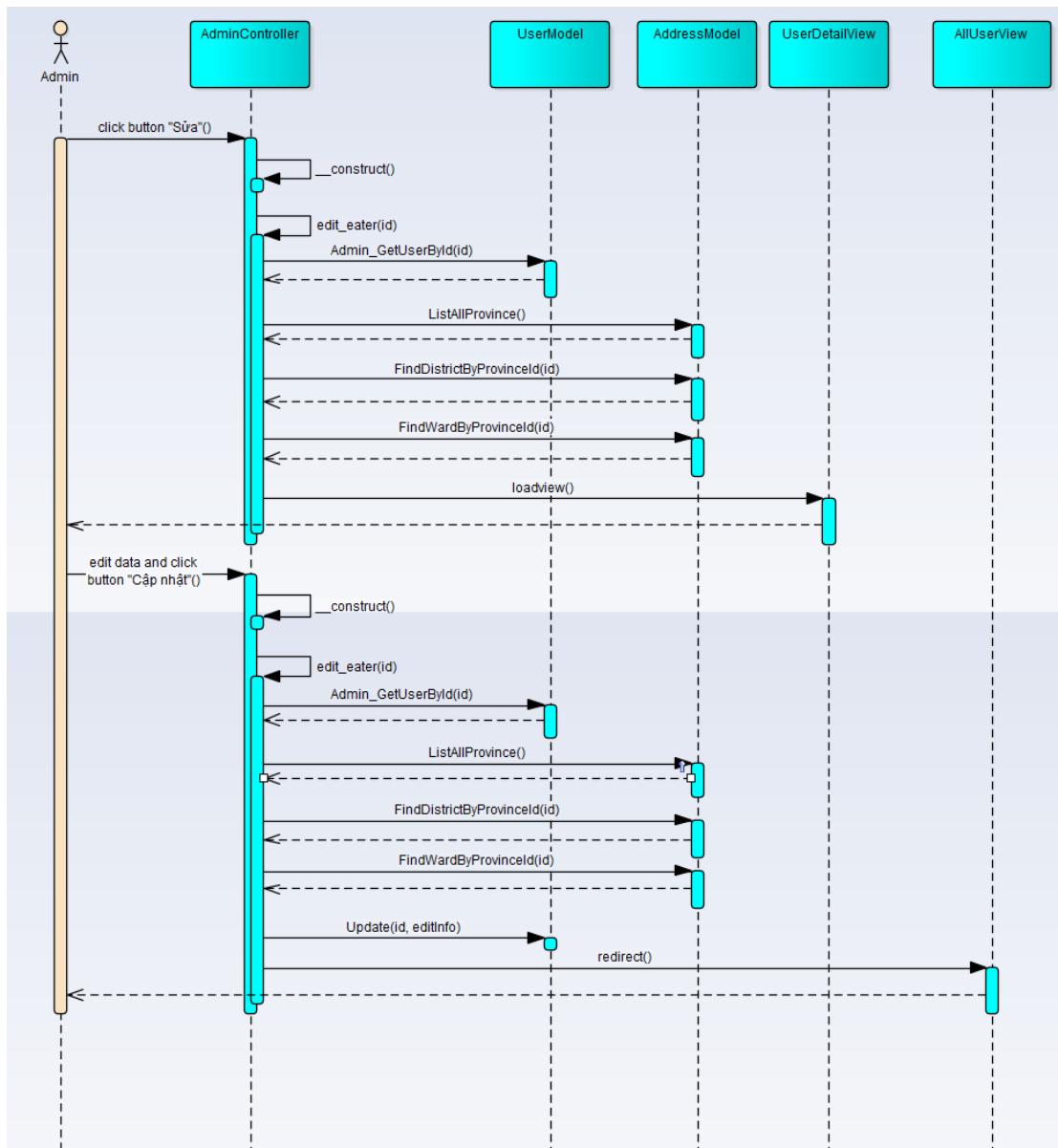


Figure 24: Activate/deactivate sequence diagram

2.2.12UC001 – 12 View all news

2.2.12.1 Screen Design

The screenshot shows a user interface for managing news. On the left is a dark sidebar with icons and labels: Quản trị viên, Website, Báo cáo, Tin tức (selected), Nhà hàng, Tài khoản, Đặt chỗ, and Danh mục. The main area has a title 'Danh sách tin tức' and a green button '+ Thêm mới'. A table lists six news items:

ID	Ảnh	Loại	Tiêu đề	Trạng thái	Xem	Xóa
47		Tin cập nhật	Đặt bàn trước khi đi ăn – "Thức ăn văn hóa" tương lai của người Việt	Đã kích hoạt	<input checked="" type="checkbox"/> Xem	Xóa
46		Khuyến mãi	Ăn Gi phối hợp tổ chức event khuyến mại cùng TECHONE	Đã kích hoạt	<input checked="" type="checkbox"/> Xem	Xóa
45		Sự kiện	2 cơ sở Chen By NamChen hợp tác chiến lược cùng Ăn Gi	Đã kích hoạt	<input checked="" type="checkbox"/> Xem	Xóa
44		Trải nghiệm	Ăn Gi và câu chuyện đế mèn phiêu lưu ký	Đã kích hoạt	<input checked="" type="checkbox"/> Xem	Xóa
43		Trải nghiệm	Ăn Gi phiêu lưu ký 2 – Có một mùa bóng đá	Đã kích hoạt	<input checked="" type="checkbox"/> Xem	Xóa
42		Trải nghiệm	Ăn Gi phiêu lưu ký 3 – Gió lạnh đầu mùa	Đã kích hoạt	<input checked="" type="checkbox"/> Xem	Xóa

Figure 25: View all news

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Tin tức	News	Button	Yes	N/A	Click to view all news

Table 16: View all news

2.2.12.2 Sequence Diagram

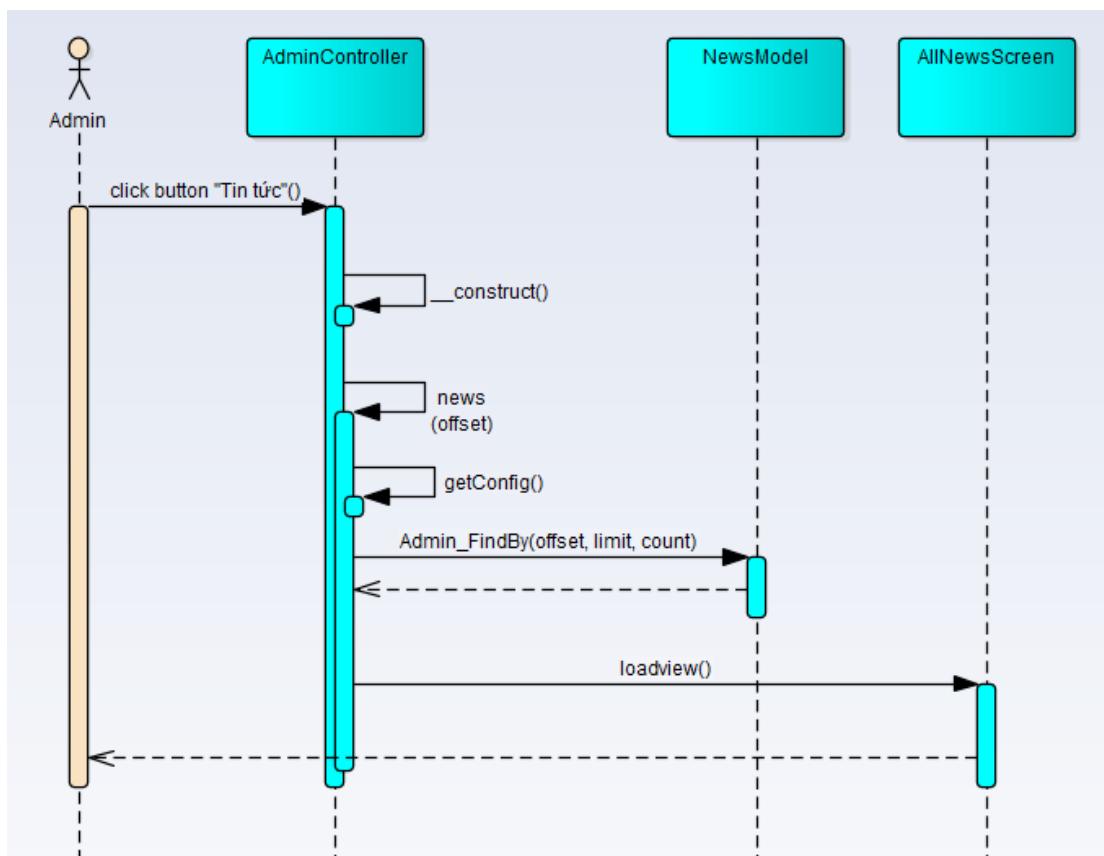


Figure 26: View all news sequence diagram

2.2.13UC001 – 13 View all categories

2.2.13.1 Screen Design

ID	Tên	Trạng thái	
8	Buffet	Hoạt động	<button>Sửa</button> <button>Xóa</button>
9	Lẩu & Nướng	Hoạt động	<button>Sửa</button> <button>Xóa</button>
10	Hải sản	Hoạt động	<button>Sửa</button> <button>Xóa</button>
11	Nhật Bản	Hoạt động	<button>Sửa</button> <button>Xóa</button>
12	Hàn Quốc	Hoạt động	<button>Sửa</button> <button>Xóa</button>
13	Địa điểm nhậu	Hoạt động	<button>Sửa</button> <button>Xóa</button>

Figure 27: View all categories

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Danh mục	Categories	Button	Yes	N/A	Click to view all categories

Table 17: View all categories

2.2.13.2 Sequence Diagram

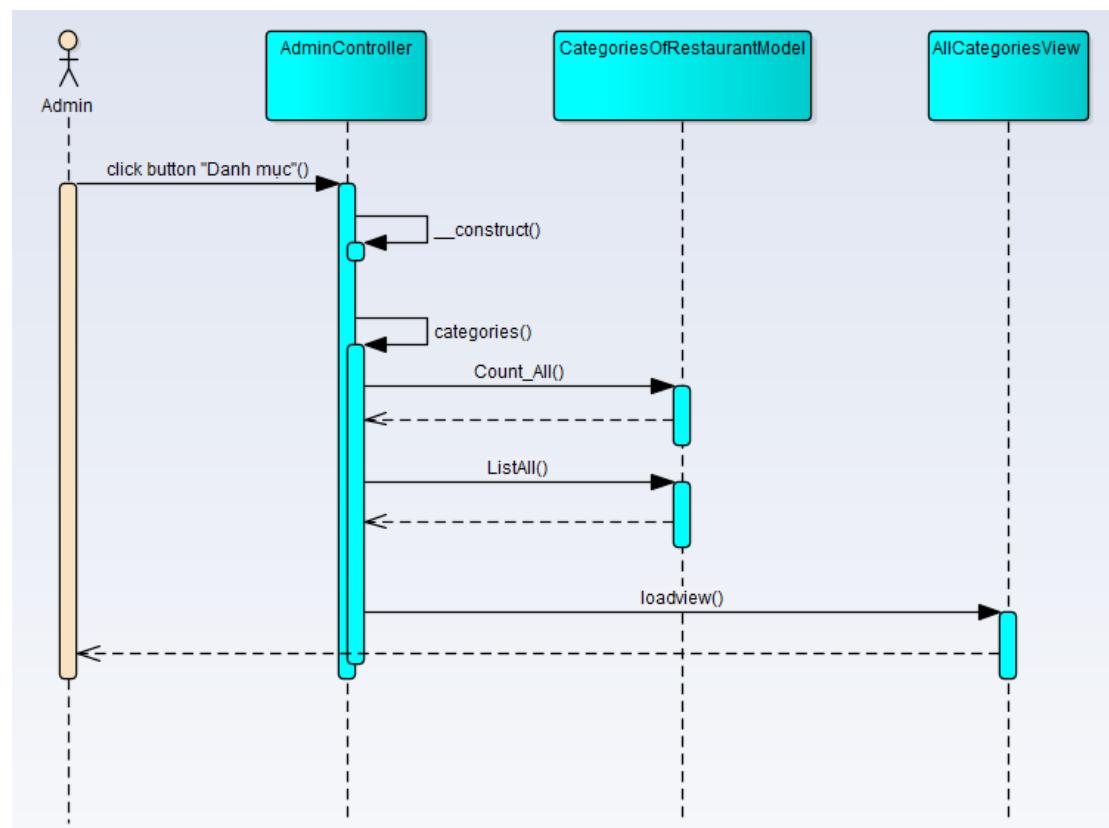


Figure 28: View all categories sequence diagram

2.2.14UC001 – 14 View all restaurants

2.2.14.1 Screen Design

ID	Loại hình ẩm thực	Tên nhà hàng	Điện thoại	Địa chỉ	Trạng thái	Sửa	Xóa
38	Nhật Bản, Lẩu & Nướng, Buffet	LẨU NẤM MURU	0435380778	Số 157, Láng Hạ, Đống Đa, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
37	Buffet, Lẩu & Nướng, Nhật Bản	CHIAKI BBQ	0436687162	Số 75 Đại Cồ Việt, Lê Đại Hành, Hai Bà Trưng, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
36	Buffet, Lẩu & Nướng	MOON BBQ	0421237735	Số 32 Nguyễn Khánh Toàn, Quan Hoa, Cầu Giấy, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
35	Nhật Bản, Lẩu & Nướng	HABIT BBQ	043200929	Số 1A, Dịch Vọng Hậu, Cầu Giấy, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
34	Nhật Bản, Lẩu & Nướng	SHIKI BBQ	0439350555	Số 8A Hàng Tre, Lý Thái Tổ, Hoàn Kiếm, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
33	Lẩu & Nướng, Nhật Bản	SASHIMI BBQ GARDEN	0435633456	Số 2B Nguyễn Thị Thập, Trung Hoà, Cầu Giấy, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
32	Hàn Quốc, Lẩu & Nướng, Buffet	SEOUL BBQ	0432668157	Số 26 Nguyễn Trường Tộ, Quận Thanh, Ba Đình, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
31	Hàn Quốc	GIMBAP HOUSE	0466818430	Số 30A, Thủ Nhuộm, Cửa Nam, Hoàn Kiếm, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>
30	Hàn Quốc, Nhật Bản	CHINA CHINE	0416666666	Cầu Giấy, Hà Nội, Thành Phố Cầu Giấy, Hà Nội	Hoạt động	<button>Sửa</button>	<button>Xóa</button>

Figure 29: View all restaurants

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Nhà hàng	Restaurant	Button	Yes	N/A	Click to view all restaurants

Table 18: View all restaurants

2.2.14.2 Sequence Diagram

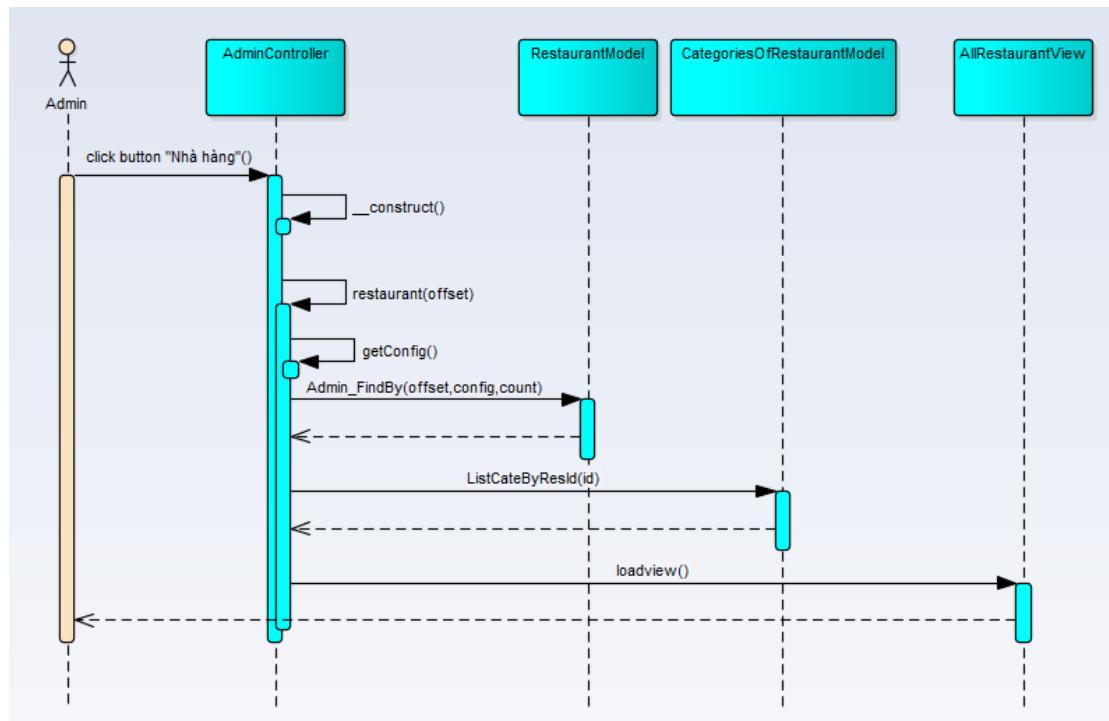


Figure 30: View all restaurants sequence diagram

2.2.15UC001 – 15 View all users

2.2.15.1 Screen Design

The screenshot shows a user interface for managing accounts. On the left is a dark sidebar menu with the following items:

- Quản trị viên
- Website
- Báo cáo
- Tin tức
- Nhà hàng
- Tài khoản
- Đặt chỗ
- Danh mục

The main content area has a header 'Danh sách tài khoản'. Below the header is a search bar labeled 'Thực khách'. The main table displays a list of users with the following columns:

ID	Tên đăng nhập	Tên đầy đủ	Email	Địa chỉ	Trạng thái	
55	Thao	ThaoTest	Thao		Hoạt động	<button>Sửa</button> <button>Xóa</button>
54	ThaoNguyen1	ThaoTest2	thaonhse0333@gmail.com	Test, Dịch Vọng Hậu, Cầu Giấy, Hà Nội	Chưa kích hoạt	<button>Sửa</button> <button>Xóa</button>
35	hoangnguyen	Nguyễn Hoàng	hoangnguyen@gmail.com	22, Nghĩa Tân, Cầu Giấy, Hà Nội	Hoạt động	<button>Sửa</button> <button>Xóa</button>
34	thaoguyen	Nguyễn Hữu Thảo	thaoguyen@gmail.com	29, Hàng Bạc, Hoàn Kiếm, Hà Nội	Hoạt động	<button>Sửa</button> <button>Xóa</button>
33	vuhuanglieu	Vũ Hoàng Hiếu	vuhuanglieu@gmail.com	68, Bùi Thị Xuân, Hai Bà Trưng, Hà Nội	Hoạt động	<button>Sửa</button> <button>Xóa</button>
32	hoangcanh	Hoàng Văn Cảnh	hoangcanh@gmail.com	55, Hàng Bồ, Hoàn Kiếm, Hà Nội	Hoạt động	<button>Sửa</button> <button>Xóa</button>

Figure 31: View all users

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Tài khoản	User	Button	Yes	N/A	Click to view all users

Table 19: View al users

2.2.15.2 Sequence Diagram

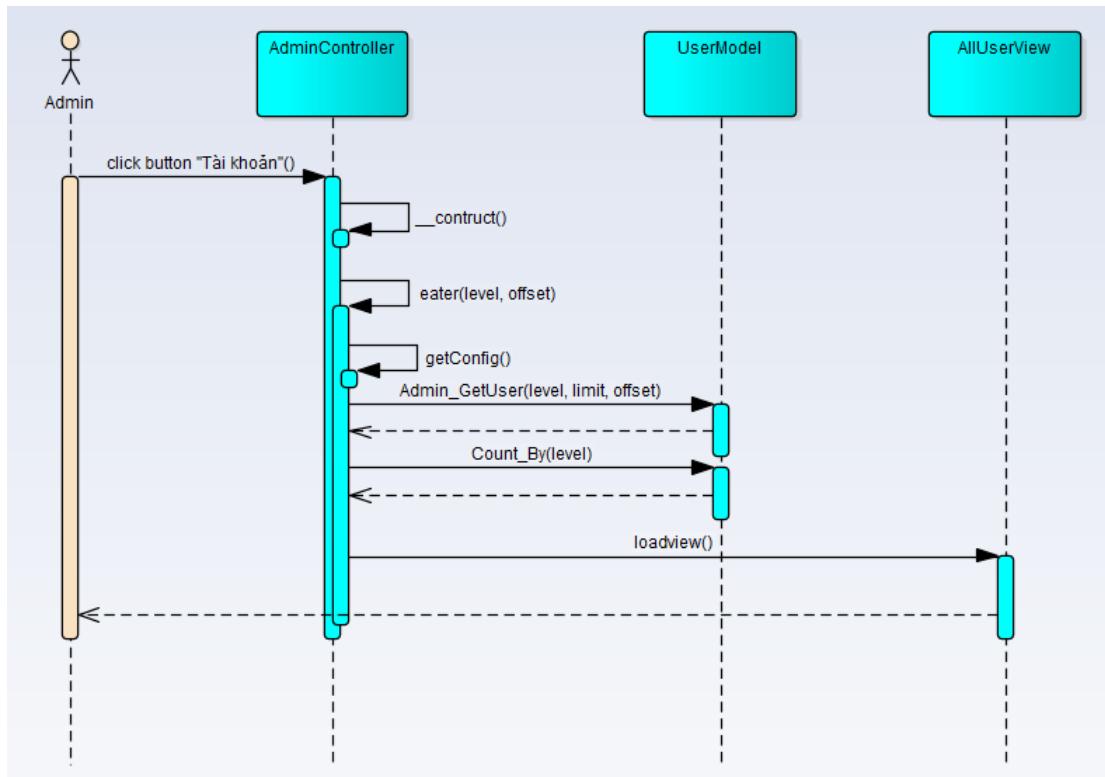


Figure 32: View all users sequence diagram

2.2.16UC001 – 16 View all booking

2.2.16.1 Screen Design

ID	Ngày đặt	Ngày tạo	Cửa hàng	Người đặt	Trạng thái	
12	2017-01-31 12:12:00	2016-08-19	SOCHU	Hoàng Văn Cảnh	Mới đặt	<button>Xem</button>
10	2016-12-12 13:00:00	2016-08-13	Sú Buffet	Hoàng Văn Cảnh	Mới đặt	<button>Xem</button>
11	2016-08-26 00:00:00	2016-08-18	Sú Buffet	Sú Buffet	Mới đặt	<button>Xem</button>

Figure 33: View all booking

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Đặt chỗ	Booking	Button	Yes	N/A	Click to view all booking

Table 20: View all booking

2.2.16.2 Sequence Diagram

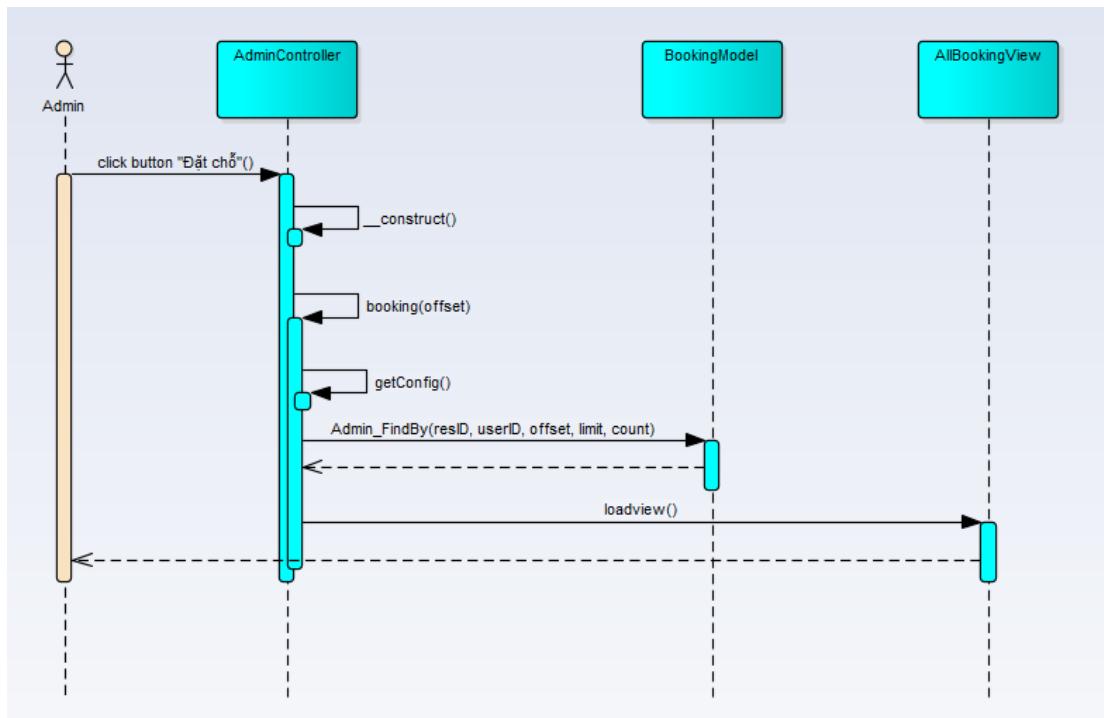


Figure 34: View all booking sequence diagram

2.2.17 UC001 – 17 View detail booking

2.2.17.1 Screen Design

The screenshot shows a user interface for viewing a booking detail. On the left is a dark sidebar menu with icons and labels: Quản trị viên, Website, Báo cáo, Tin tức, Nhà hàng, Tài khoản, Đặt chỗ, Danh mục, and Đăng xuất. The main area contains the following fields:

- Quay về (Back) button
- Mã (Code): 12
- Ngày tạo (Created Date): 2016-08-19
- Số người (Number of people): 34
- Ăn vào thời gian (Dinner time): 2017-01-31 12:12:00
- Tên quán (Restaurant name): SOCHU
- Người đặt (Booker): Hoàng Văn Cảnh
- Ghi chú (Remarks): (empty text area)
- Trạng thái (Status): Mới đặt (Newly booked)

Figure 35: View detail booking

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Quay vē	Back	Button	Yes	N/A	Click to return all booking

Table 21: View detail booking

2.2.17.2 Sequence Diagram

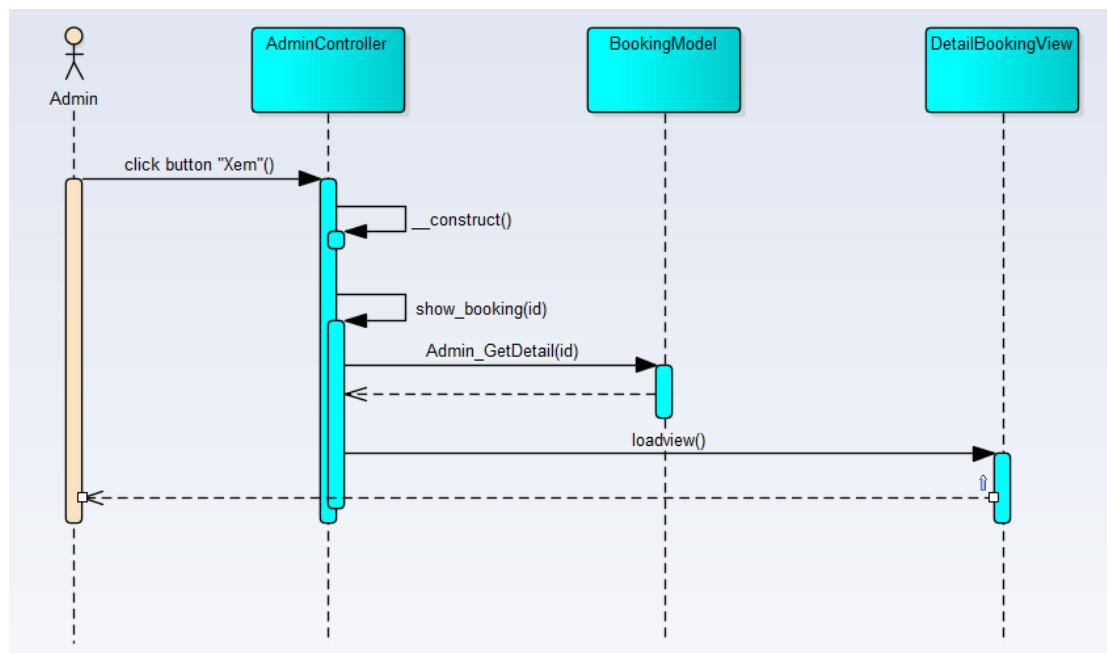


Figure 36: View detail booking sequence diagram

2.2.18UC001 – 18 Report statistics

2.2.18.1 Screen Design

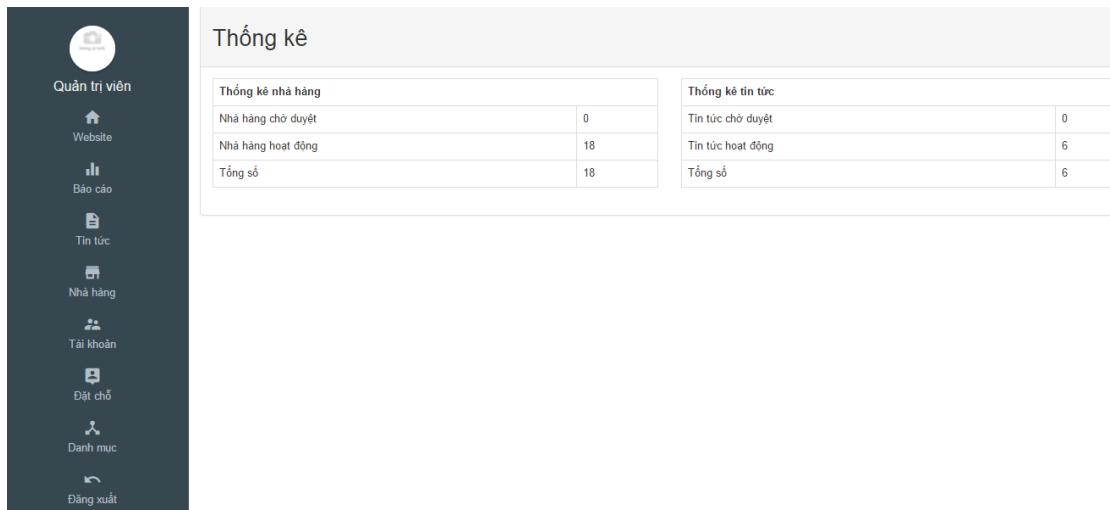


Figure 37: Report statistics

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Báo cáo	Back	Button	Yes	N/A	Click to view report statistics

Table 22: Report statistics

2.2.18.2 Sequence Diagram

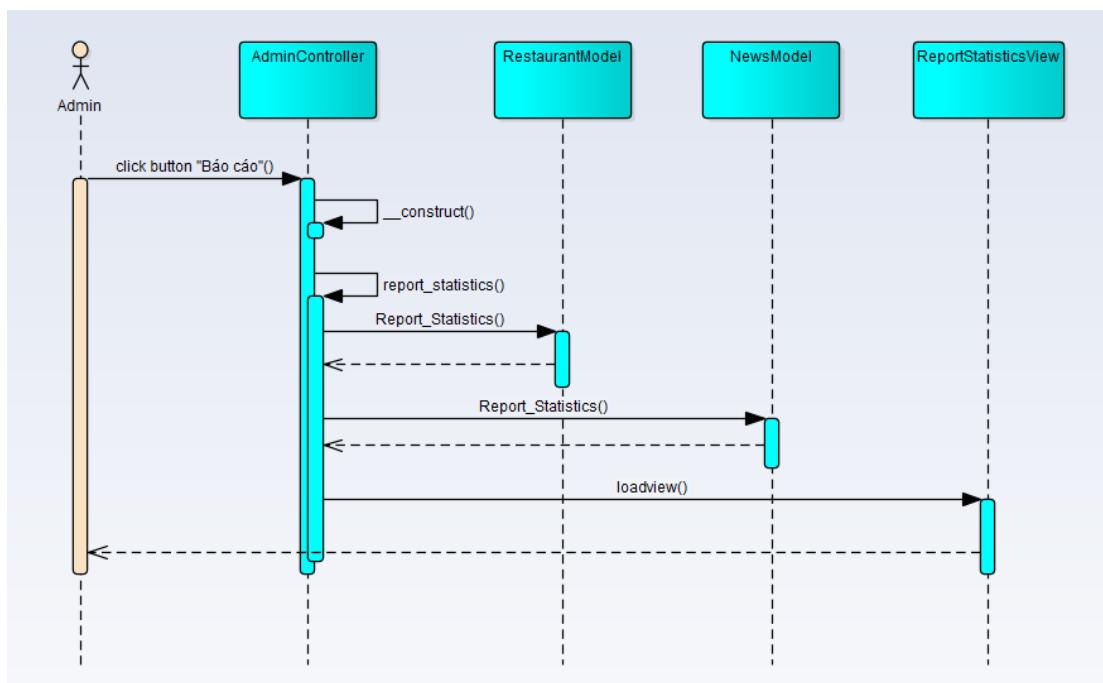


Figure 38: Report statistics sequence diagram

2.3 UC002 Customer Management

2.3.1 Class Diagram

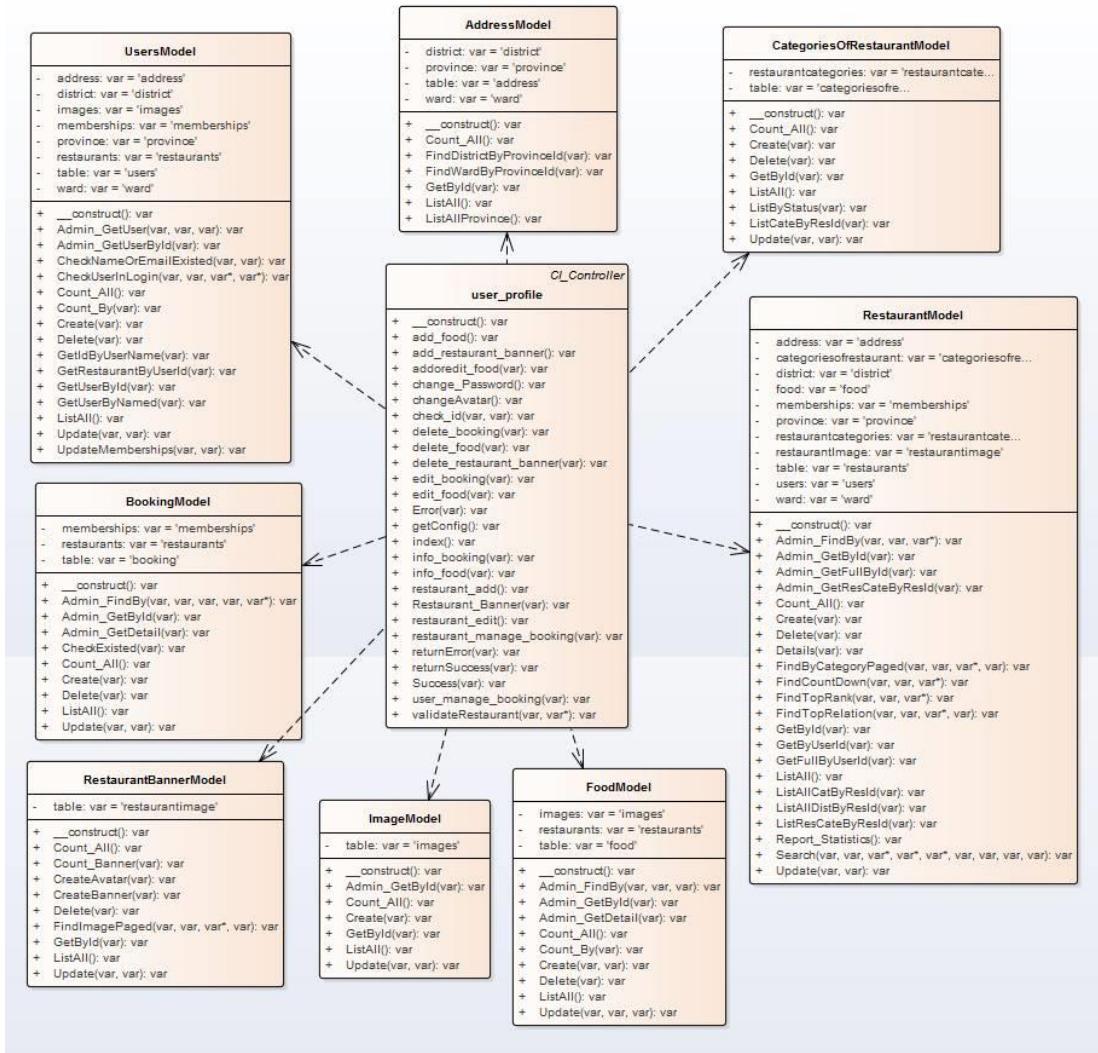


Figure 39: Customer management class diagram

2.3.2 UC002 – 01 Login

2.3.2.1 Screen Design

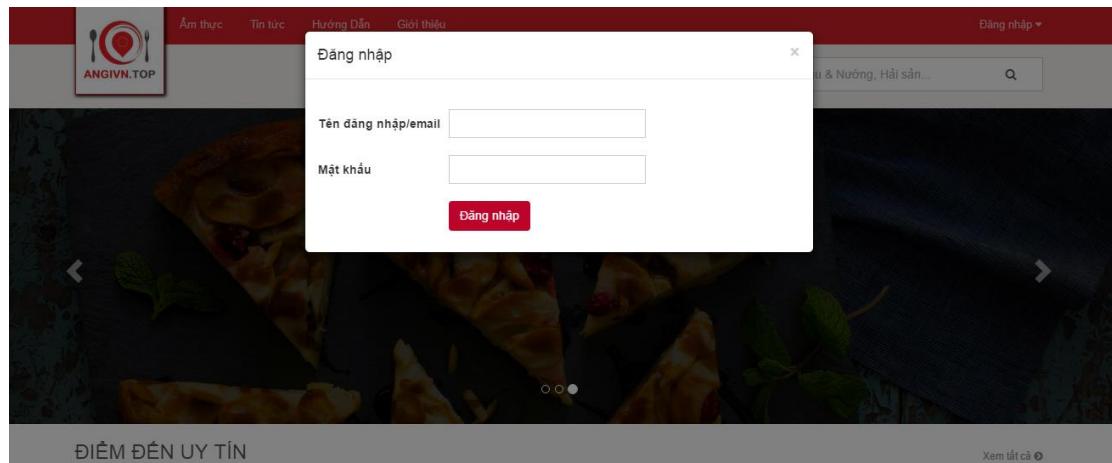


Figure 40: Login

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Tên đăng nhập/ Email	Username/Email	Text- box	Yes	N/A	Input username/ email
2	Mật khẩu	Password	Passwo rd	Yes	N/A	Input password
3	Đăng nhập	Login	Button	Yes	N/A	Click to login website

Table 23: Login

2.3.2.2 Sequence diagram

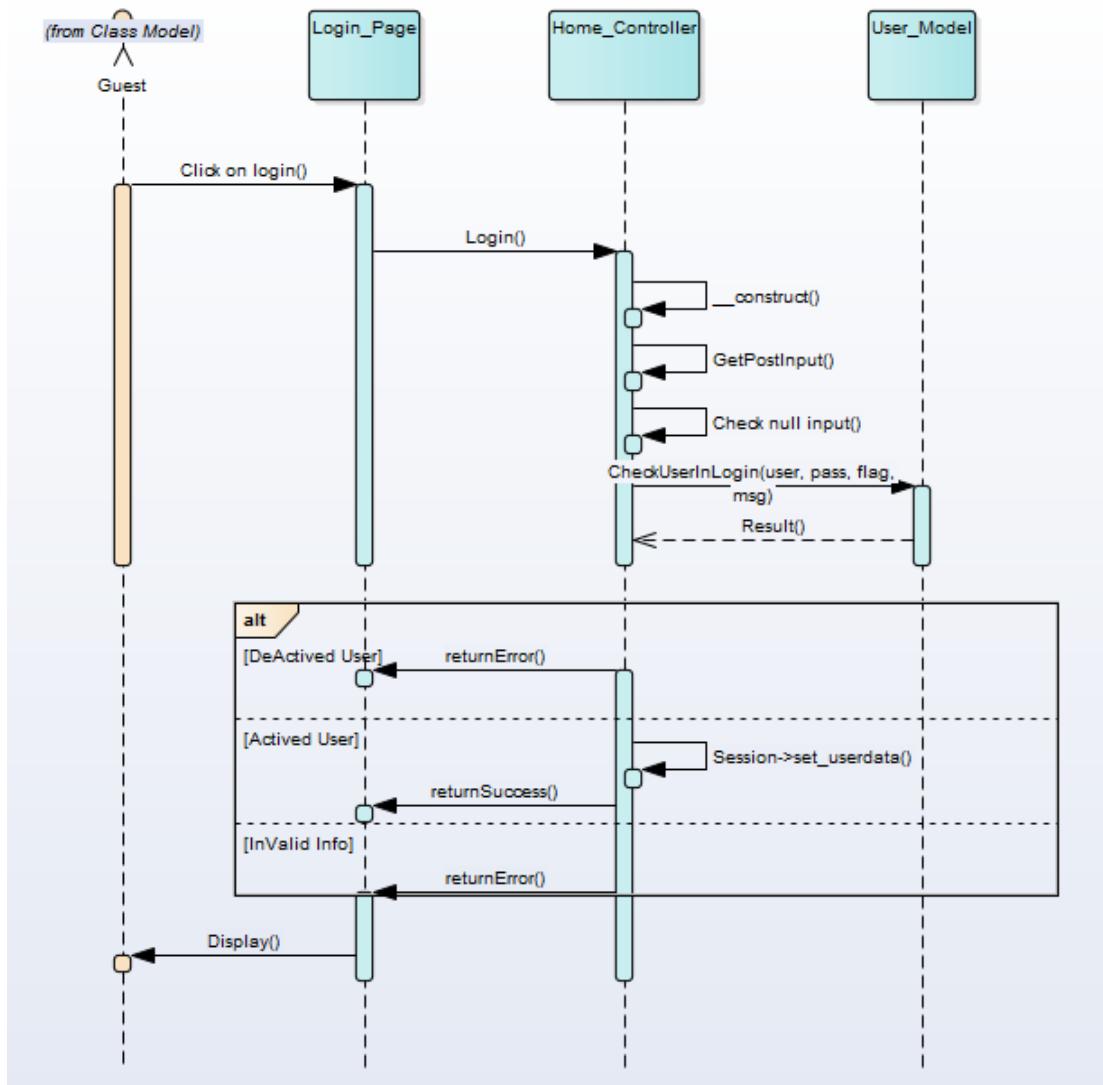


Figure 41: Login sequence diagram

2.3.3 UC002 – 02 Log out

2.3.3.1 Screen Design

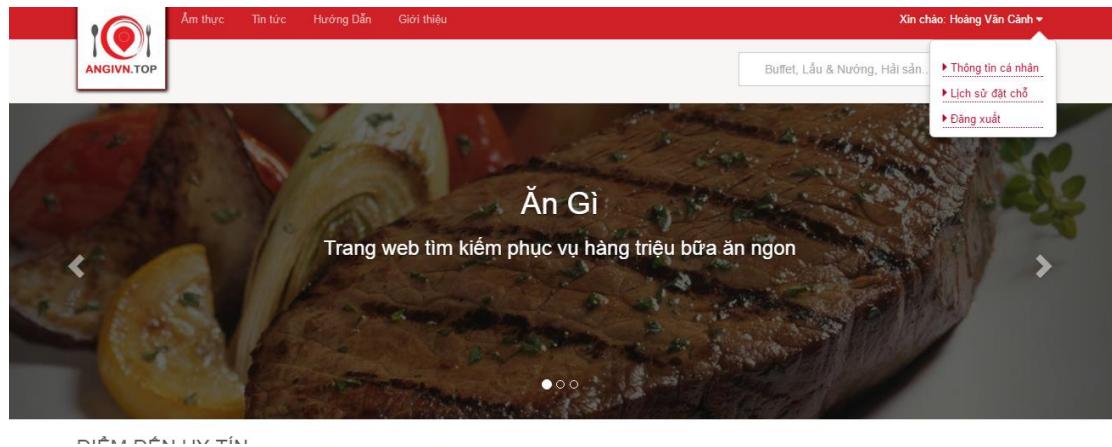


Figure 42: Logout

No	Object/ Control Name	Object/ Name in English	Control Name in English	Type	Required	Length	Description
1	Đăng xuất	Logout		Button	Yes	N/A	Click to logout website

Table 24: Logout

2.3.3.2 Sequence diagram

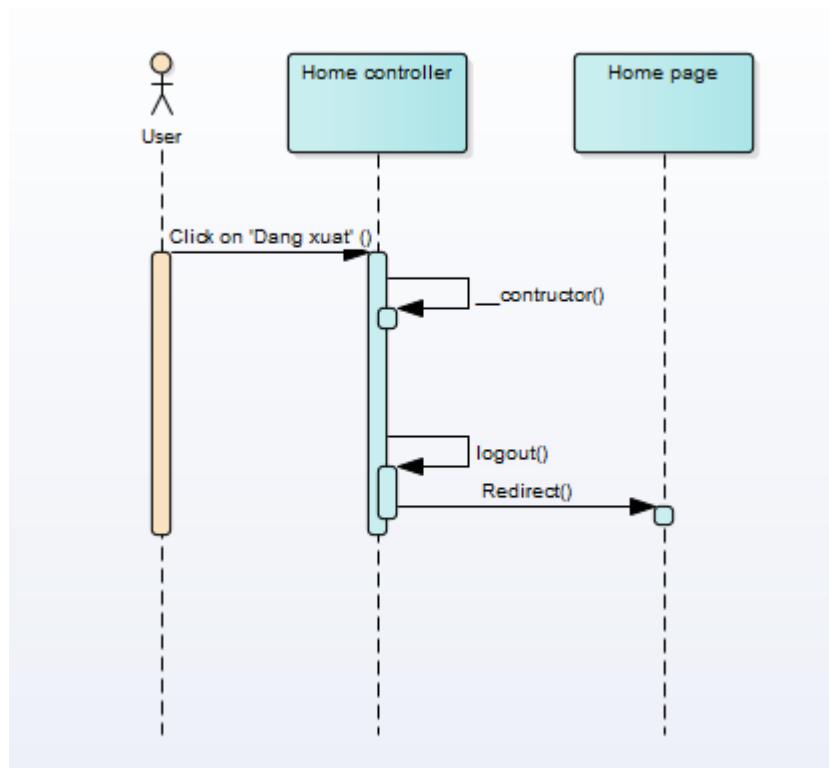


Figure 43: Logout sequence diagram

2.3.4 UC002 – 03 View account

2.3.4.1 Screen Design

The screenshot shows a mobile application interface. On the left, there is a sidebar with icons for camera, profile, account info, history, password change, and logout. The main screen displays the user's information under the heading 'Thông tin người dùng'. The fields shown are:

- Tên: Hoàng Văn Cảnh
- Email: hoangcanh@gmail.com
- Ngày sinh: 08/07/1994
- Giới tính: Nam

A red 'Cập nhật' (Update) button is located at the bottom right of the form area.

Figure 44: View account

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
----	-------------------------	------------------------------------	------	----------	--------	-------------

1	Thông tin tài khoản	Account profile	Button	Yes	N/A	Click to redirect account profile screen
2	Tên	Name	Textbox	Yes	N/A	Name of user
3	Email	Email	Textbox	Yes	N/A	Email of user
4	Ngày sinh	Date of birth	Date-picker	Yes	N/A	Date of birth of user
5	Giới tính	Gender	Combo	Yes	N/A	Gender of user
6	Cập nhật	Update	Button	Yes	N/A	Click to update information of user

Table 25: View account

2.3.4.2 Sequence diagram

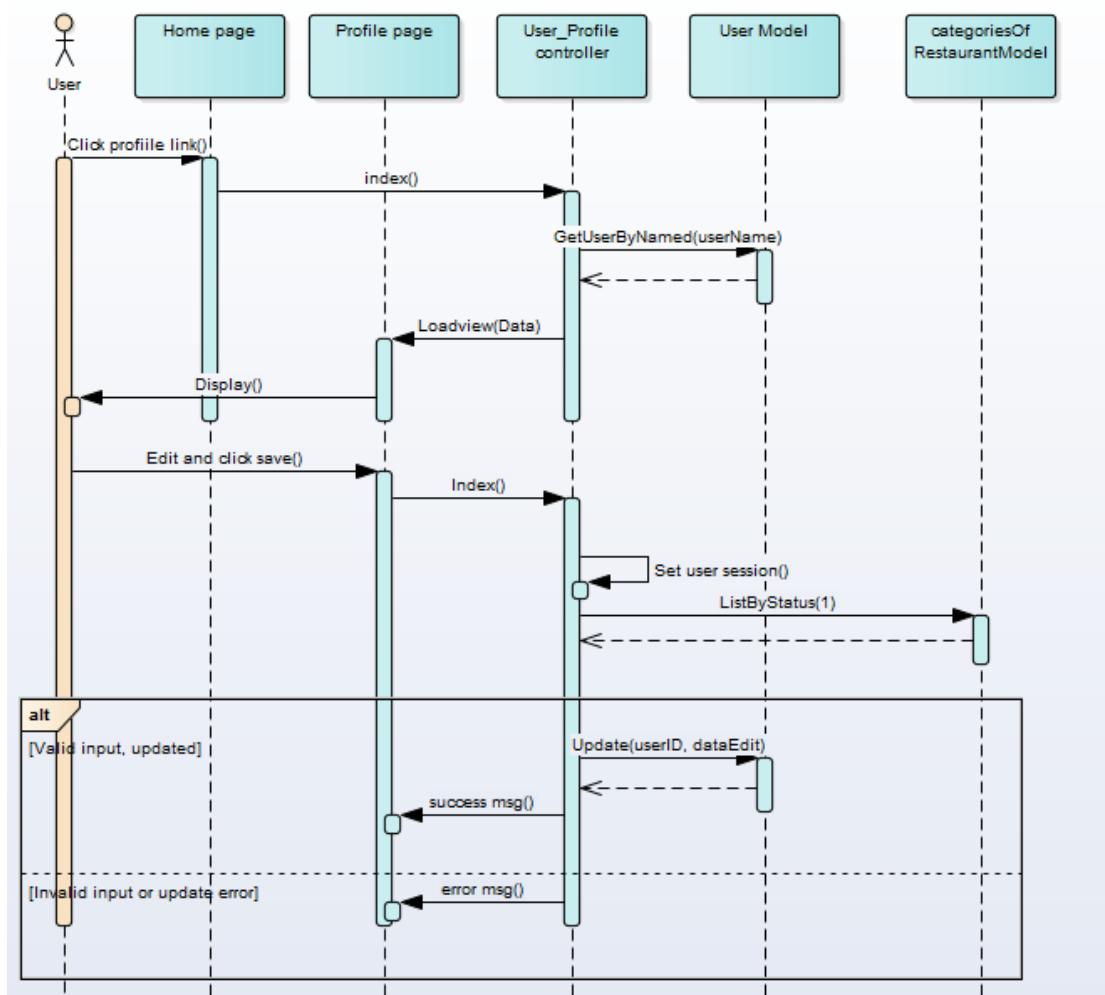


Figure 45: View account sequence diagram

2.3.5 UC002 – 04 Update account

2.3.5.1 Screen Design

Thông tin người dùng

Tên: Hoàng Văn Cảnh

Email: hoangcanh@gmail.com

Ngày sinh: 08/07/1994

Giới tính: Nam

Cập nhật

Figure 46: Update account

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Thông tin tài khoản	Account profile	Button	Yes	N/A	Click to redirect account profile screen
2	Tên	Name	Textbo x	Yes	N/A	Name of user
3	Email	Email	Textbo x	Yes	N/A	Email of user
4	Ngày sinh	Date of birth	Date- picker	Yes	N/A	Date of birth of user
5	Giới tính	Gender	Combo x	Yes	N/A	Gender of user
6	Cập nhật	Update	Button	Yes	N/A	Click to update information of user

Table 26: Update account

2.3.5.2 Sequence diagram

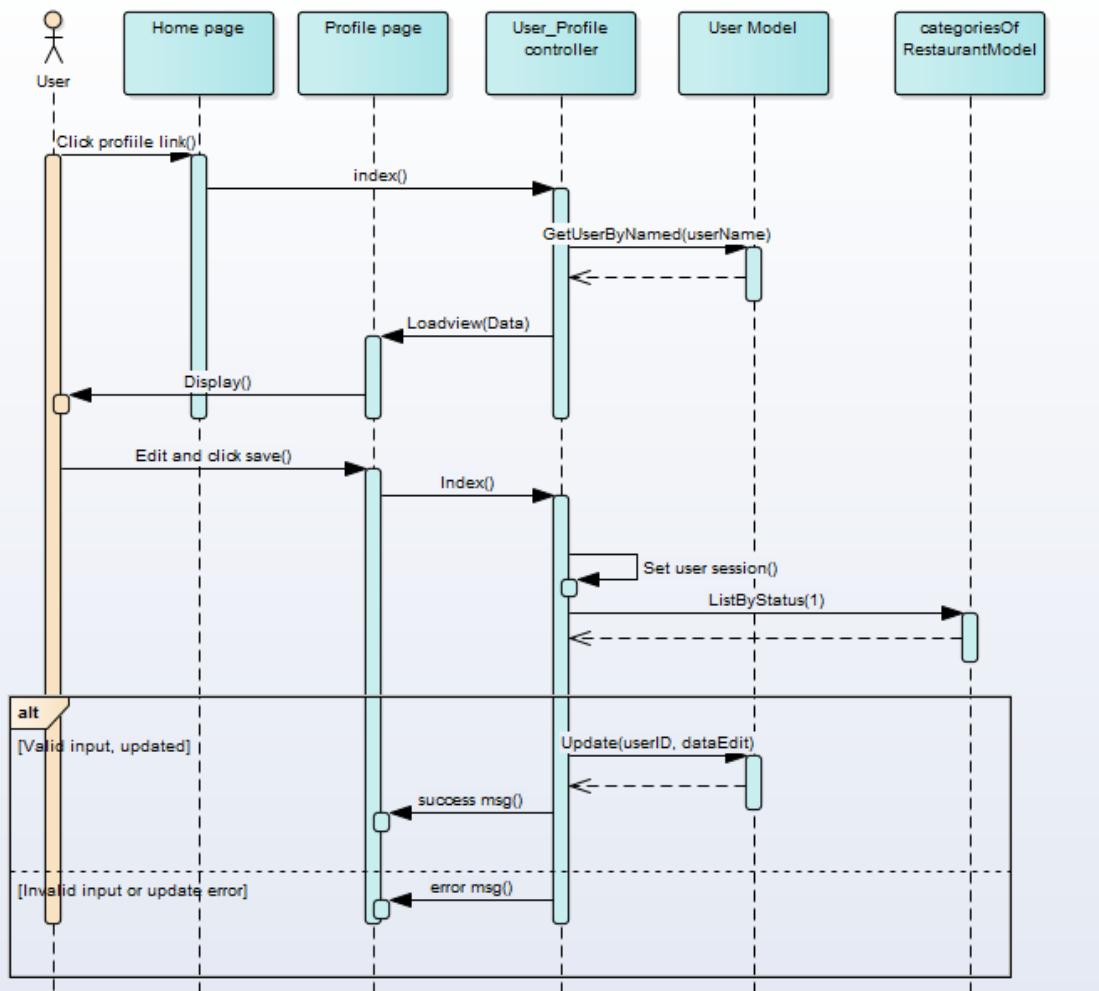


Figure 47: Update account sequence diagram

2.3.6 UC002 – 05 Update password

2.3.6.1 Screen Design

Mã khách hàng: 32
Hoàng Văn Cảnh

Đổi mật khẩu

Mật khẩu cũ:

Mật khẩu mới:

Nhập lại:

Cập nhật

Figure 48: Update password

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Đổi mật khẩu	Change password	Button	Yes	N/A	Click to redirect change password screen
2	Mật khẩu cũ	Old password	Text-box	Yes	N/A	Old password of user
3	Mật khẩu mới	New password	Text-box	Yes	>= 6 character	New password of user
4	Nhập lại	Confirm password	Date-picker	Yes	N/A	Confirm password
5	Cập nhật	Update	Button	Yes	N/A	Click to change

						password of user
--	--	--	--	--	--	------------------

Table 27: Update password

2.3.6.2 Sequence diagram

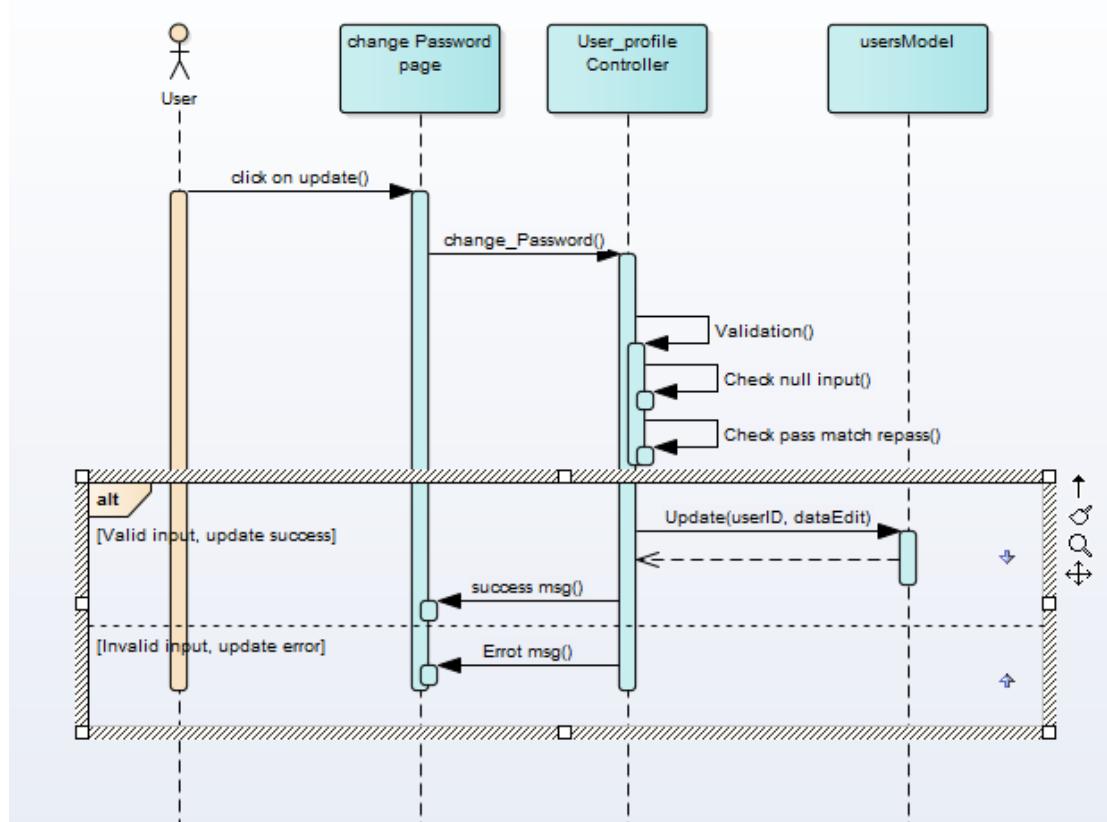


Figure 49: Update password sequence diagram

2.3.7 UC002 – 06 Book restaurant

2.3.7.1 Screen Design

HOT N TASTY



Figure 50: Book restaurant

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Số người đến	Number of customer	Textbox	Yes	N/A	Input number of customer
2	Ngày	Date	Textbox	Yes	N/A	Date of booking
3	Giờ	Time	Textbox	Yes	N/A	Time of booking
4	Đặt chỗ ngay	Booking now	Button	Yes	N/A	Click to send booking

Table 28: Booking restaurant

2.3.7.2 Sequence diagram

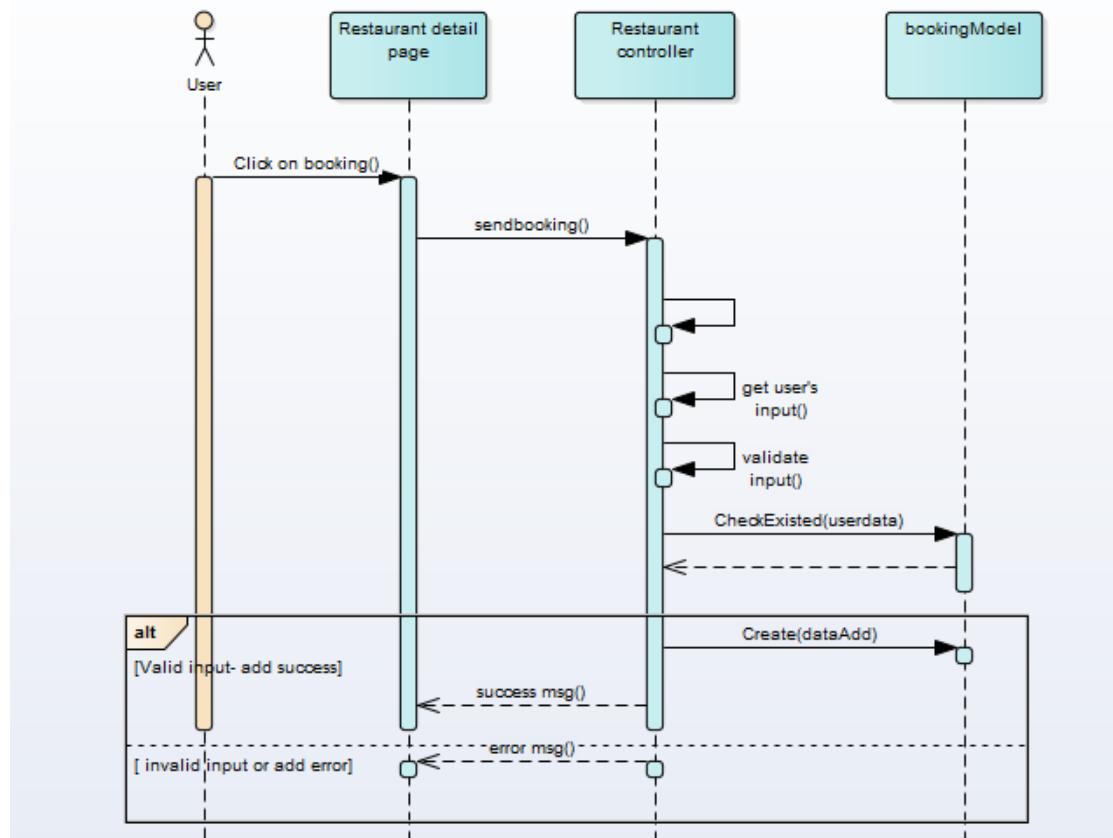


Figure 51: Booking restaurant sequence diagram

2.3.8 UC002 – 07 Upload avatar

2.3.8.1 Screen Design

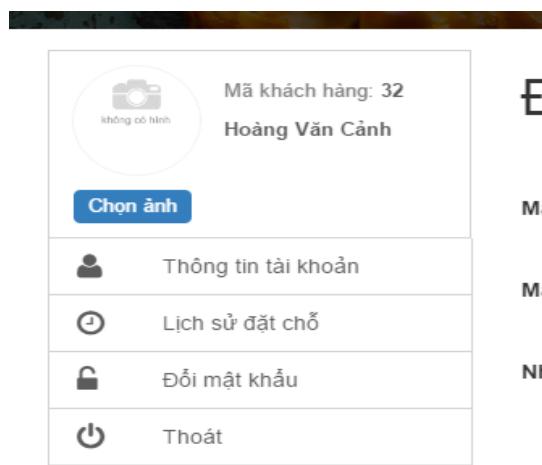


Figure 52: Select image

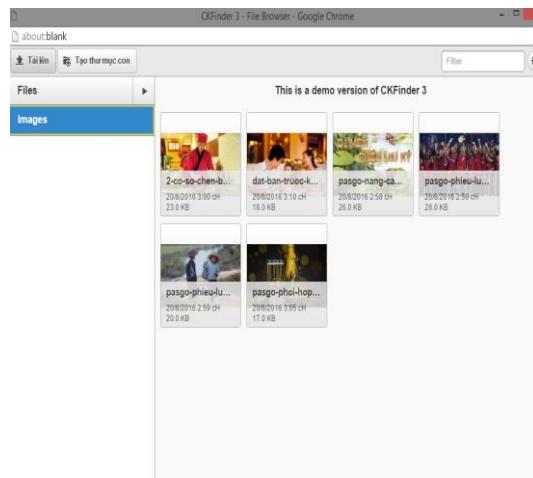


Figure 53: Upload and select image

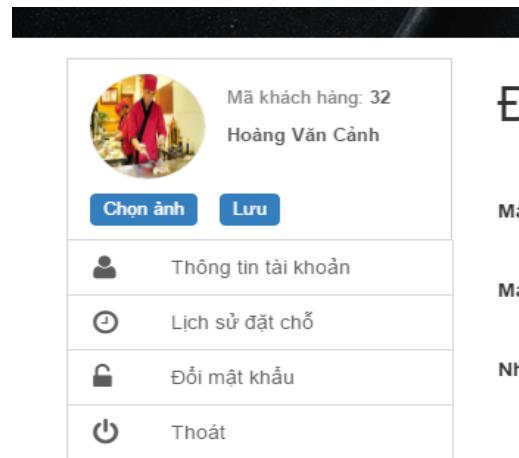


Figure 54: Save new avata

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Chọn ảnh	Choose image	Button	Yes	N/A	Click to change avatar
2	Lưu	Save	Button	Yes	N/A	Click to save new avatar

Table 29: Update avata

2.3.8.2 Sequence diagram

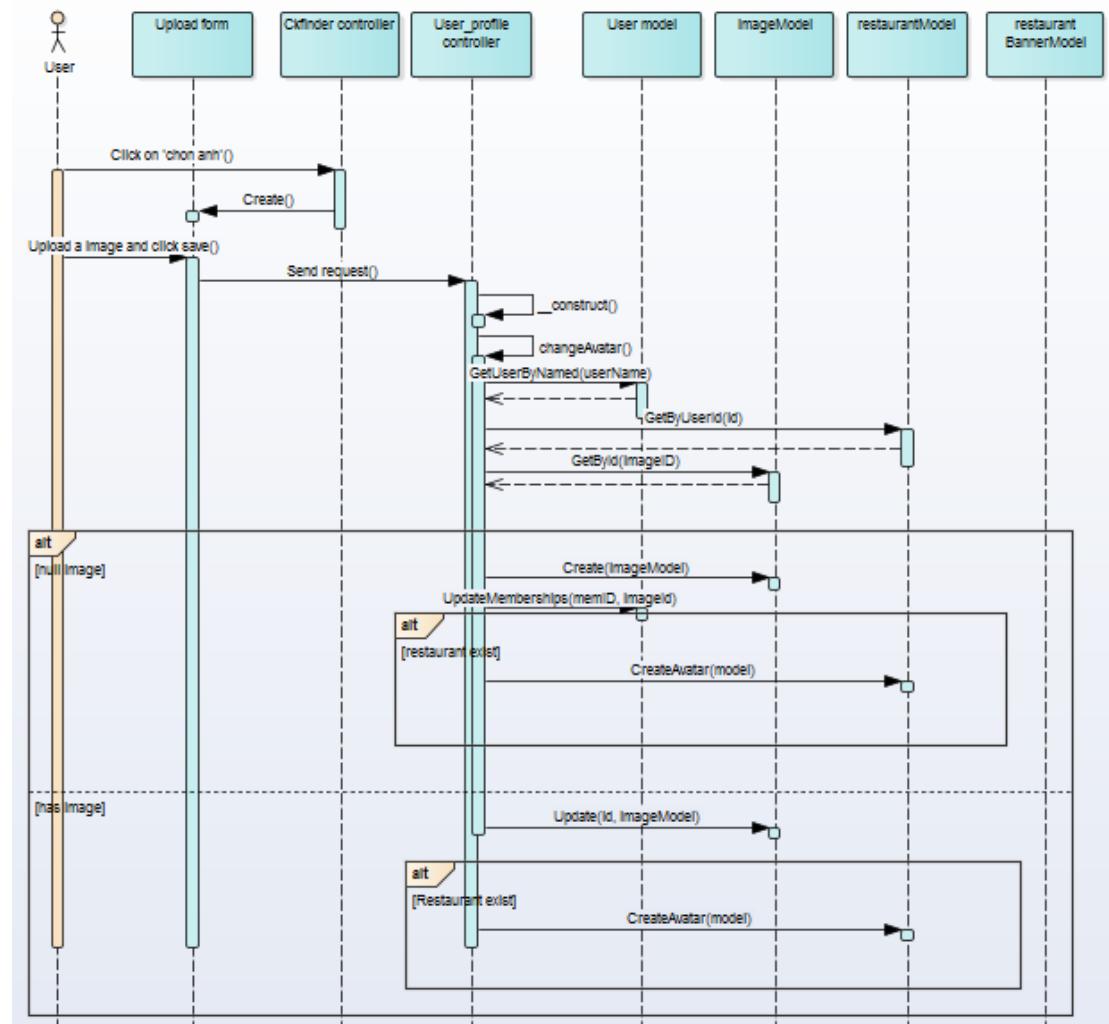


Figure 55: Upload avata sequence diagram

2.3.9 UC002 – 08 View booking history

2.3.9.1 Screen Design

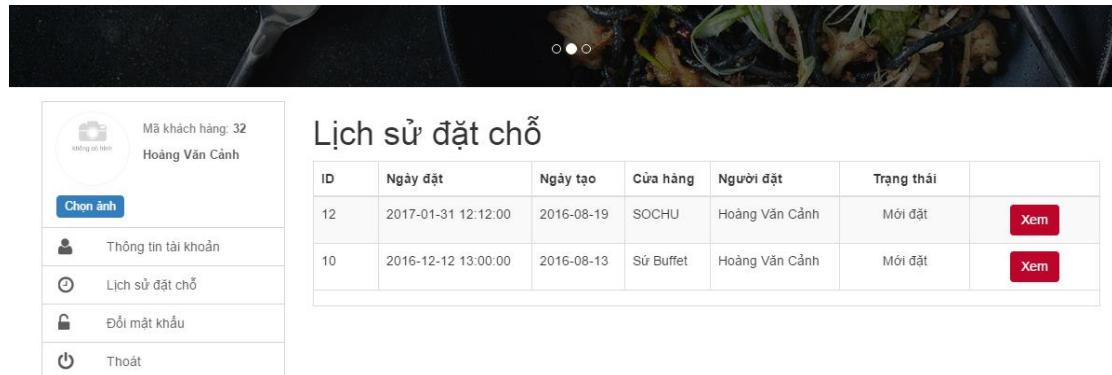


Figure 56:View booking history

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Lịch sử đặt chỗ	History of booking	Button	Yes	N/A	Click to redirect history of booking screen
2	Xem	View	Button	Yes	N/A	Click to view booking detail

Table 30: View booking history

2.3.9.2 Sequence diagram

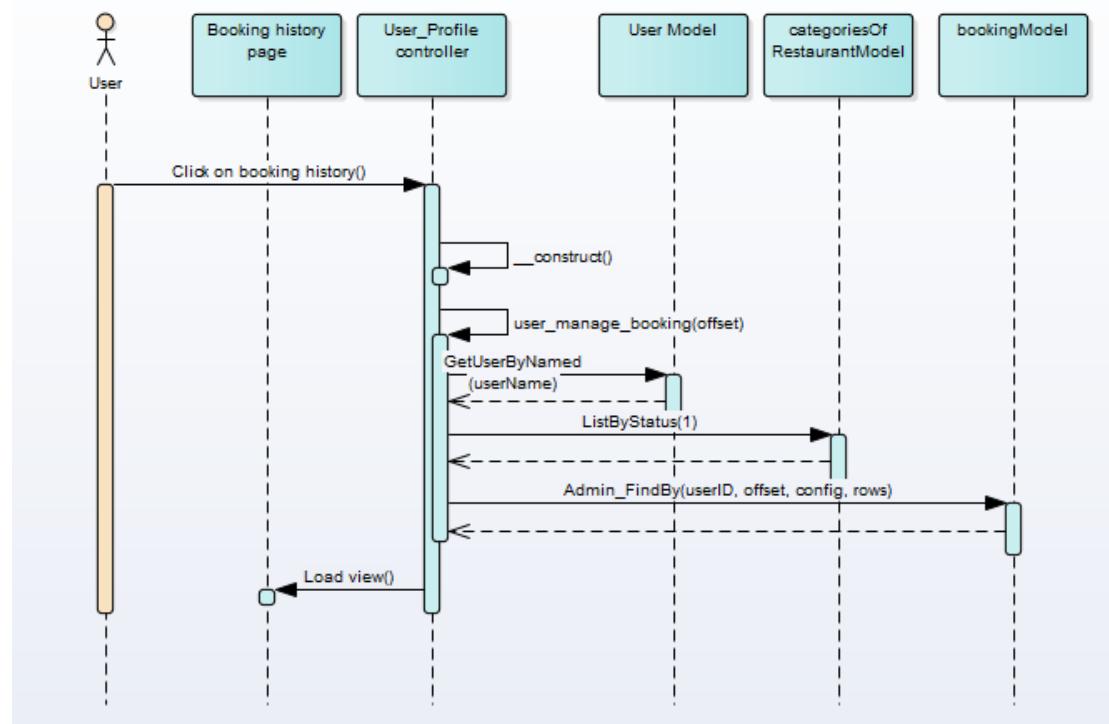


Figure 57: View booking history sequence diagram

2.4 UC003 Restaurant Owner Management

2.4.1 Class Diagram

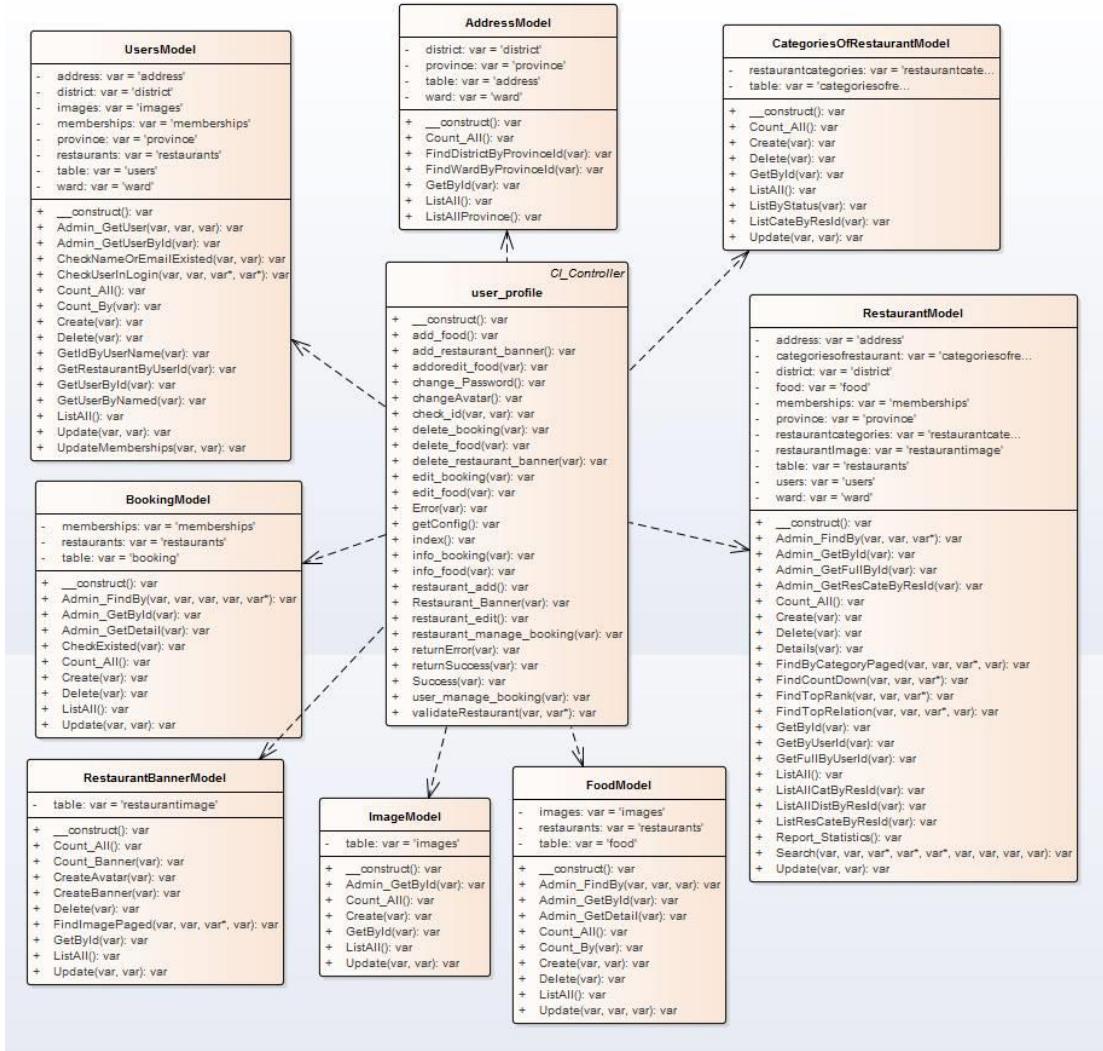


Figure 58: Restaurant Owner management

2.4.2 UC003 – 01 Add restaurant information

2.4.2.1 Screen Design

Thông tin nhà hàng

Thông tin chung Bảng giá Địa chỉ Mô tả Món ăn

Danh mục nhà hàng (*)

Tên nhà hàng(*)

Điện thoại(*)

Món ăn nổi bật(*)

Không gian nhà hàng(*)

Chỗ đỗ xe

Điểm đặc trưng khác

Giờ mở cửa

Giờ đóng cửa

Đánh giá nhà hàng

Trạng thái

Lưu

Figure 59: Add restaurant information

Thông tin nhà hàng

Thông tin chung Bảng giá Địa chỉ Mô tả Món ăn

Giá tiền (thấp-cao: vnd)(*):

Giảm giá (%)(*):

Lưu

Figure 60: Add average price

Mã khách hàng: 61
Nguyễn Văn Linh

Chọn ảnh

- Thông tin tài khoản
- Banner nhà hàng
- Thông tin nhà hàng
- Quản lý đặt chỗ
- Lịch sử đặt chỗ
- Đổi mật khẩu
- Thoát

Thông tin nhà hàng

Thông tin chung Bảng giá **Địa chỉ** Mô tả Món ăn

Tỉnh/Thành phố (*) --Chọn thành phố--

Quận/Huyện --Chọn quận/ huyện--

Xã/Phường --Chọn xã/ phường--

Địa chỉ(*)

Bán đồ(*)

Vĩ độ Kinh độ

Lưu

Figure 61: Add restaurant address

Mã khách hàng: 61
Nguyễn Văn Linh

Chọn ảnh

- Thông tin tài khoản
- Banner nhà hàng
- Thông tin nhà hàng
- Quản lý đặt chỗ
- Lịch sử đặt chỗ
- Đổi mật khẩu
- Thoát

Thông tin nhà hàng

Thông tin chung Bảng giá **Địa chỉ** Mô tả Món ăn

Mã HTML

Kiểu Định dạng Phông Cỡ...

Lưu

Figure 62: Add description for restaurant

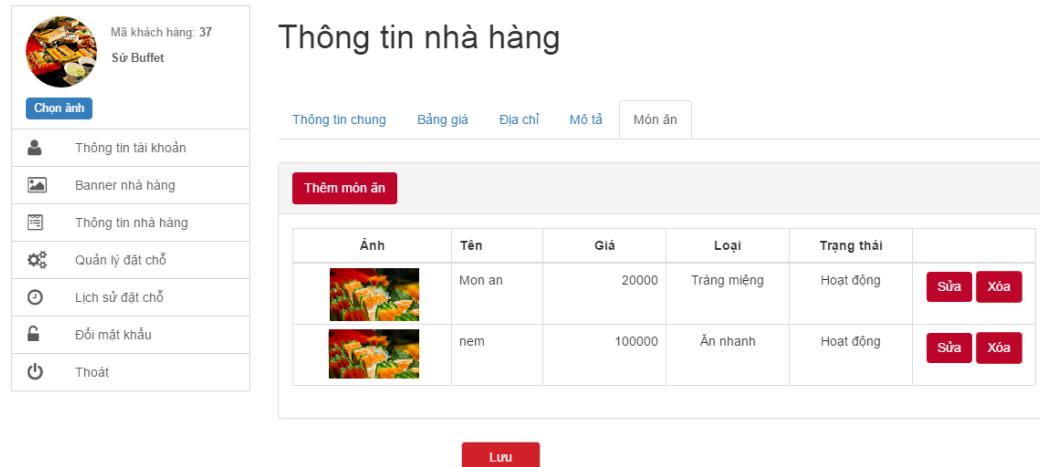


Figure 63: Add foods

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Thông tin nhà hàng	Restaurant information	Button	Yes	N/A	Click to redirect restaurant information screen
2	Danh mục nhà hàng	Categories of restaurant	Combo-box	Yes	N/A	Select categories of restaurant
3	Tên nhà hàng	Name of restaurant	Textbox	Yes	N/A	Input name of restaurant
4	Điện thoại	Phone	Textbox	Yes	N/A	Input phone of restaurant
5	Món ăn nổi bật	Favourite foods	Textbox	Yes	N/A	Input favourite foods of restaurant

6	Không gian nhà hàng	Restaurant space	Textbox	Yes	N/A	Input restaurant space
7	Chỗ đỗ xe	Parking	Combo-box	Yes	N/A	Select parking of restaurant
8	Điểm đặc trưng khác	Others	Textbox	No	N/A	Input others of restaurant
9	Giờ mở cửa	Open time	Textbox	Yes	N/A	Input open time of restaurant
10	Giờ đóng cửa	Close time	Textbox	Yes	N/A	Input close time of restaurant
11	Giá tiền (thấp - cao)	Price (min-max)	Textbox	Yes	N/A	Input price of restaurant
12	Giảm giá	Discount	Textbox	Yes	N/A	Input discount of restaurant
13	Tỉnh/ thành phố	Province	Combo-box	Yes	N/A	Select province of restaurant
14	Quận/ huyện	District	Combo-box	Yes	N/A	Select district of restaurant
15	Xã/ phường	Ward	Combo-box	Yes	N/A	Select ward of restaurant
16	Địa chỉ	Address	Textbox	Yes	N/A	Input address of restaurant

17	Bản đồ	Map	Textbox	Yes	N/A	Input latitude and longitude of restaurant
18	Mô tả	Description	TextArea	Yes	N/A	Input description of restaurant
19	Lưu	Save	Button	Yes	N/A	Click to add restaurant

Table 31: Add restaurant information

2.4.2.2 Sequence diagram

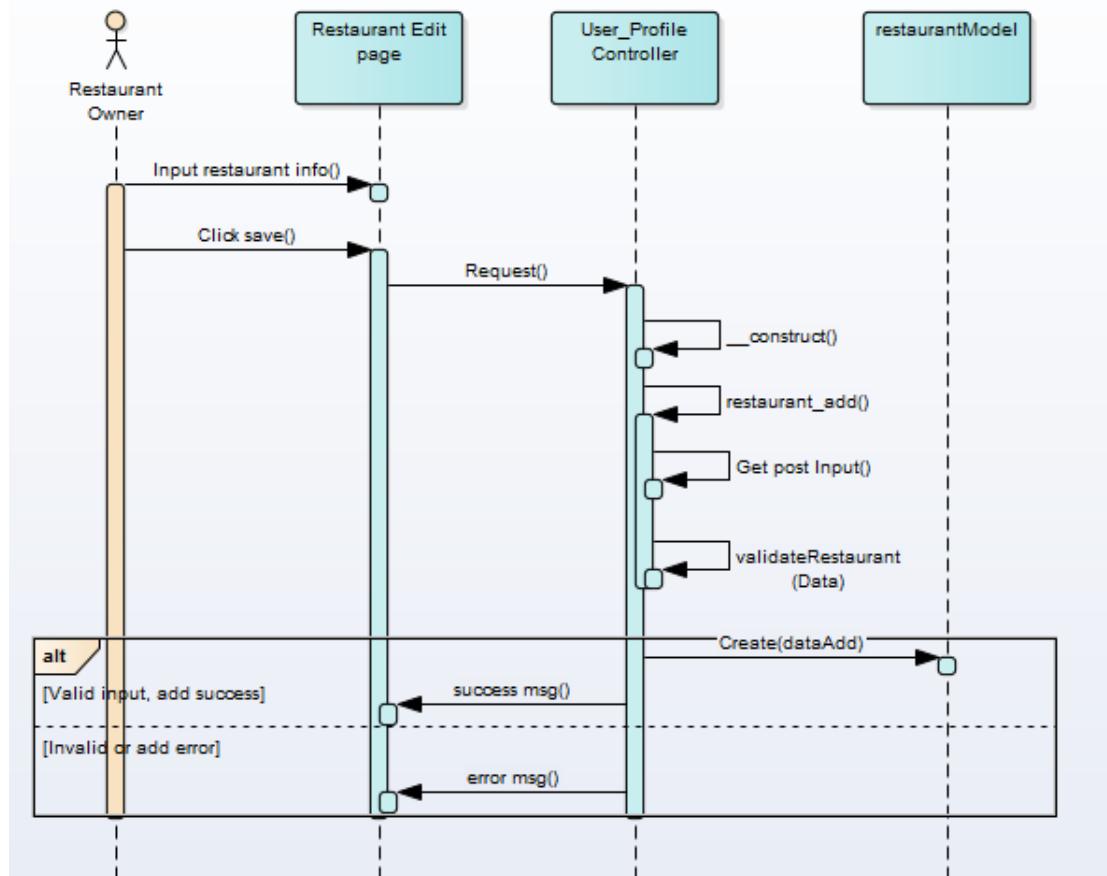


Figure 64: Add restaurant information sequence diagram

2.4.3 UC003 – 02 Update restaurant info

2.4.3.1 Screen Design

Figure 65: Update restaurant information

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Thông tin nhà hàng	Restaurant information	Button	Yes	N/A	Click to redirect restaurant information screen
2	Danh mục nhà hàng	Categories of restaurant	Combo -box	Yes	N/A	Select categories of restaurant
3	Tên nhà hàng	Name of restaurant	Textbox	Yes	N/A	Input name of restaurant
4	Điện thoại	Phone	Textbox	Yes	N/A	Input phone of restaurant

5	Món ăn nổi bật	Favourite foods	Textbox	Yes	N/A	Input favourite foods of restaurant
6	Không gian nhà hàng	Restaurant space	Textbox	Yes	N/A	Input restaurant space
7	Chỗ đỗ xe	Parking	Combo -box	Yes	N/A	Select parking of restaurant
8	Điểm đặc trưng khác	Others	Textbox	No	N/A	Input others of restaurant
9	Giờ mở cửa	Open time	Textbox	Yes	N/A	Input open time of restaurant
10	Giờ đóng cửa	Close time	Textbox	Yes	N/A	Input close time of restaurant
11	Giá tiền (thấp - cao)	Price (min-max)	Textbox	Yes	N/A	Input price of restaurant
12	Giảm giá	Discount	Textbox	Yes	N/A	Input discount of restaurant
13	Tỉnh/ thành phố	Province	Combo -box	Yes	N/A	Select province of restaurant
14	Quận/ huyện	District	Combo -box	Yes	N/A	Select district of restaurant
15	Xã/ phường	Ward	Combo -box	Yes	N/A	Select ward of restaurant

16	Địa chỉ	Address	Textbox	Yes	N/A	Input address of restaurant
17	Bản đồ	Map	Textbox	Yes	N/A	Input latitude and longitude of restaurant
18	Mô tả	Description	TextArea	Yes	N/A	Input description of restaurant
19	Lưu	Save	Button	Yes	N/A	Click to add restaurant

Table 32: Update restaurant information

2.4.3.2 Sequence diagram

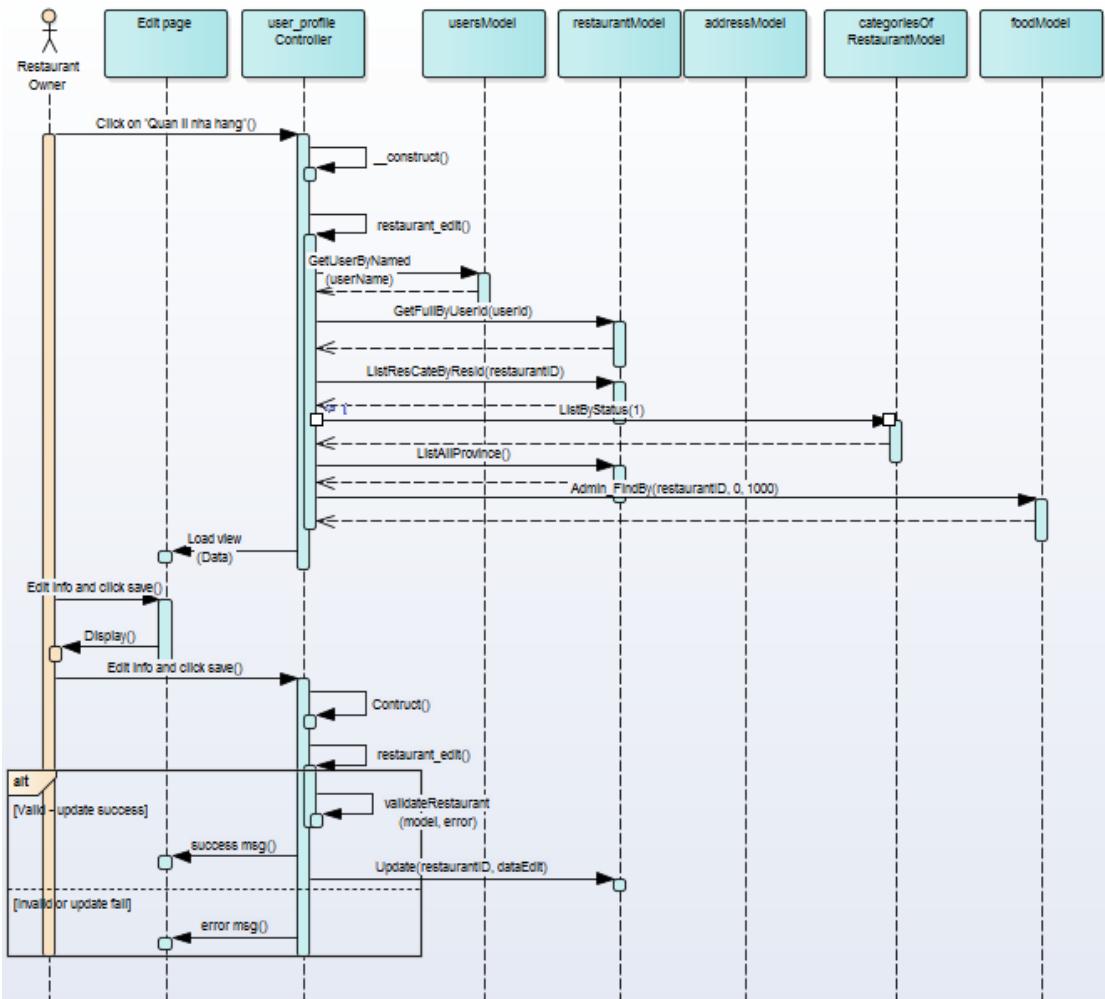


Figure 66: Update restaurant information sequence diagram

2.4.4 UC003 – 03 Add restaurant banner

2.4.4.1 Screen Design

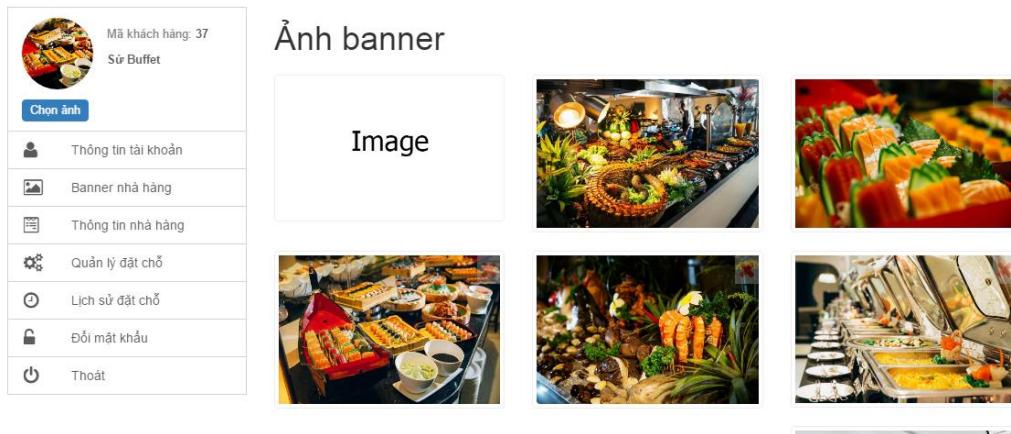


Figure 67: Add restaurant banner

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Banner nhà hàng	Banner of restaurant	Button	Yes	N/A	Click to view all banners of restaurant
2	Image	Image	Button	Yes	N/A	Click to add banner of restaurant

Table 33: Add restaurant banner

2.4.4.2 Sequence diagram

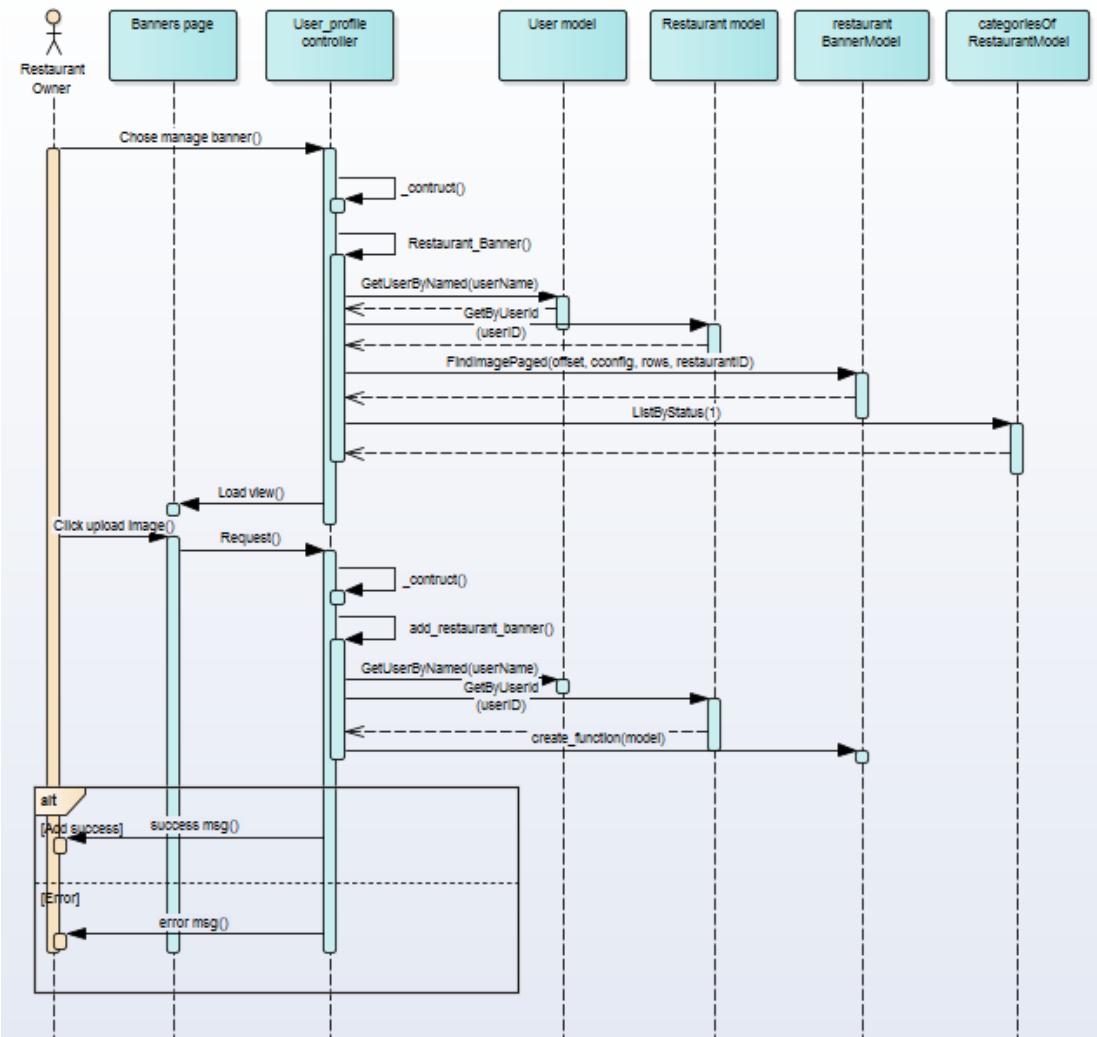


Figure 68: Add restaurant banner sequence diagram

2.4.5 UC003 – 04 Delete restaurant banner

2.4.5.1 Screen Design

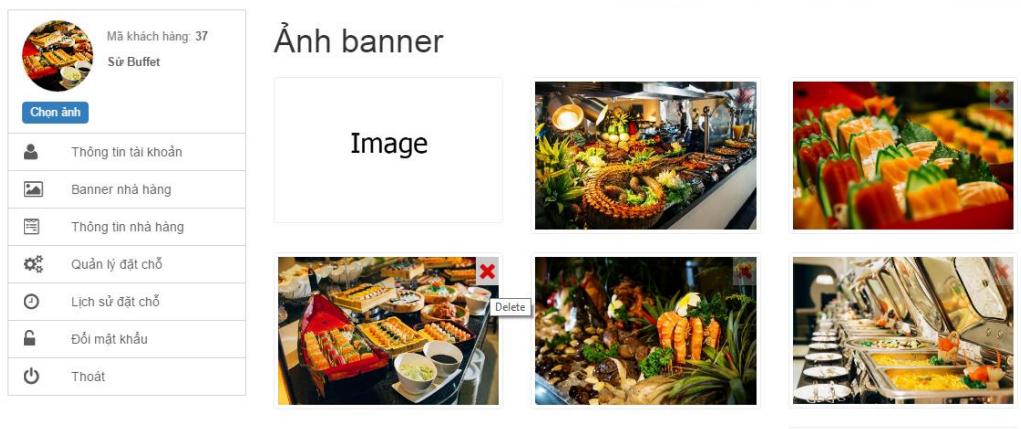


Figure 69: Delete restaurant banner

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Delete (X)	Delete (X)	Button	Yes	N/A	Click to delete banners of restaurant

Table 34: Delete restaurant banner

2.4.5.2 Sequence diagram

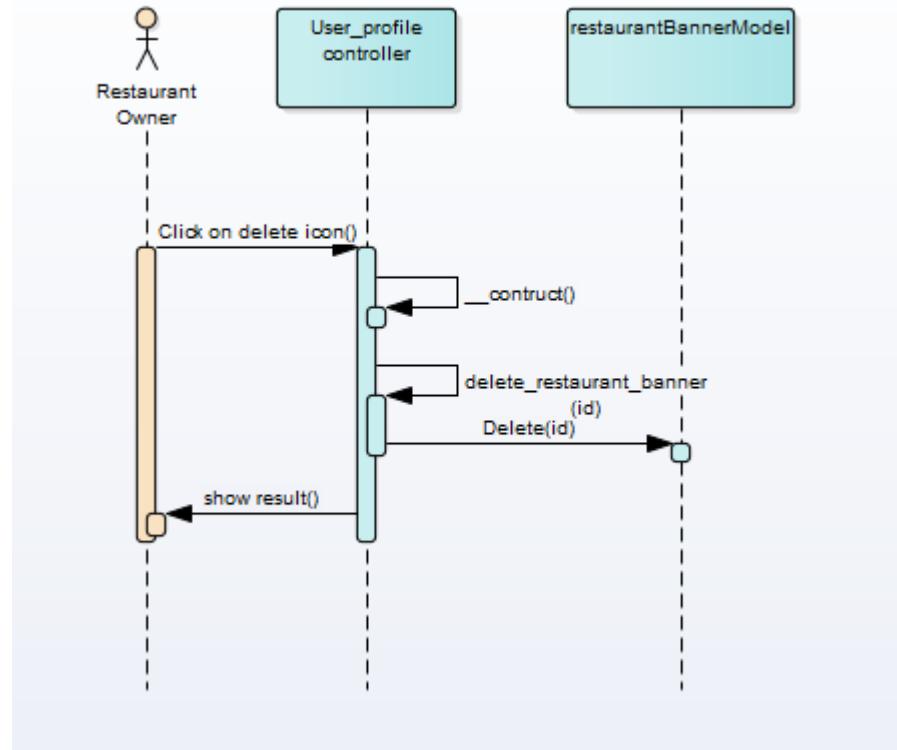


Figure 70: Delete restaurant banenr

2.4.6 UC003 – 05 Add food

2.4.6.1 Screen Design

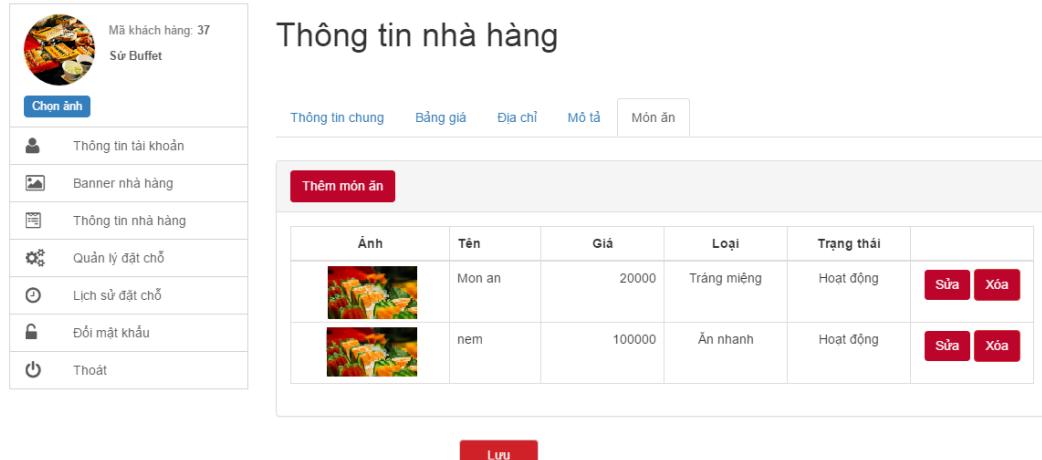


Figure 71: List of foods

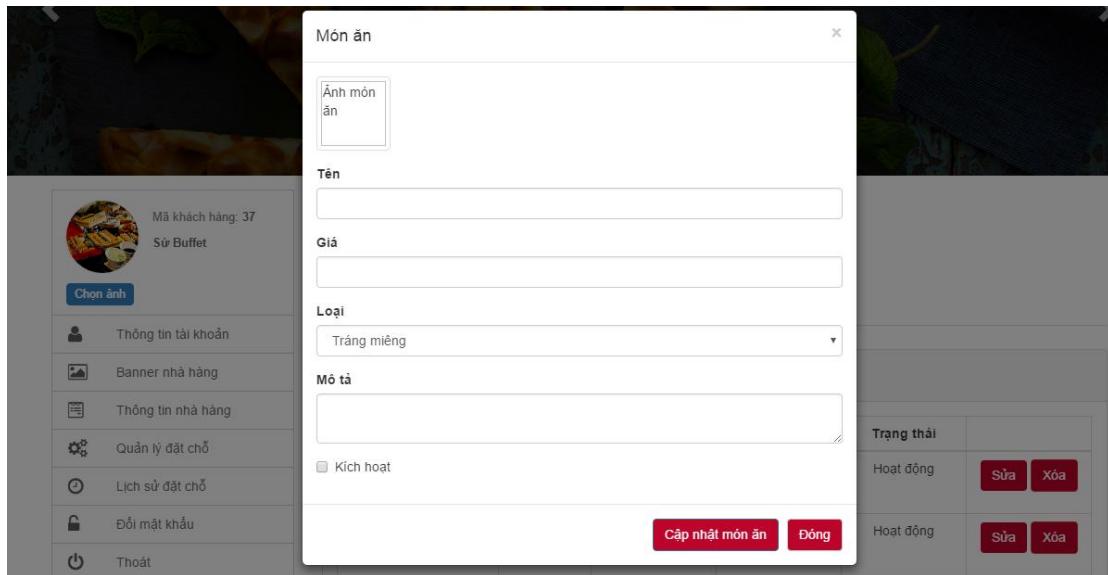


Figure 72: Add new food

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Ảnh món ăn	Image	Button	Yes	N/A	Click to add image of food
2	Tên	Name	Textbo x	Yes	N/A	Input name of food
3	Giá	Price	Textbo x	Yes	N/A	Input price of food
4	Loại	Category	Combo -box	Yes	N/A	Select category of food
5	Mô tả	Description	Textbo x	No	N/A	Input description of food
6	Kích hoạt	Active	Check- box	Yes	N/A	Select to active/deactive food

7	Cập nhật món ăn	Update food	Button	Yes	N/A	Click to add food
8	Đóng	Close	Button	Yes	N/A	Click to return list foods screen

Table 35: Add new food

2.4.6.2 Sequence diagram

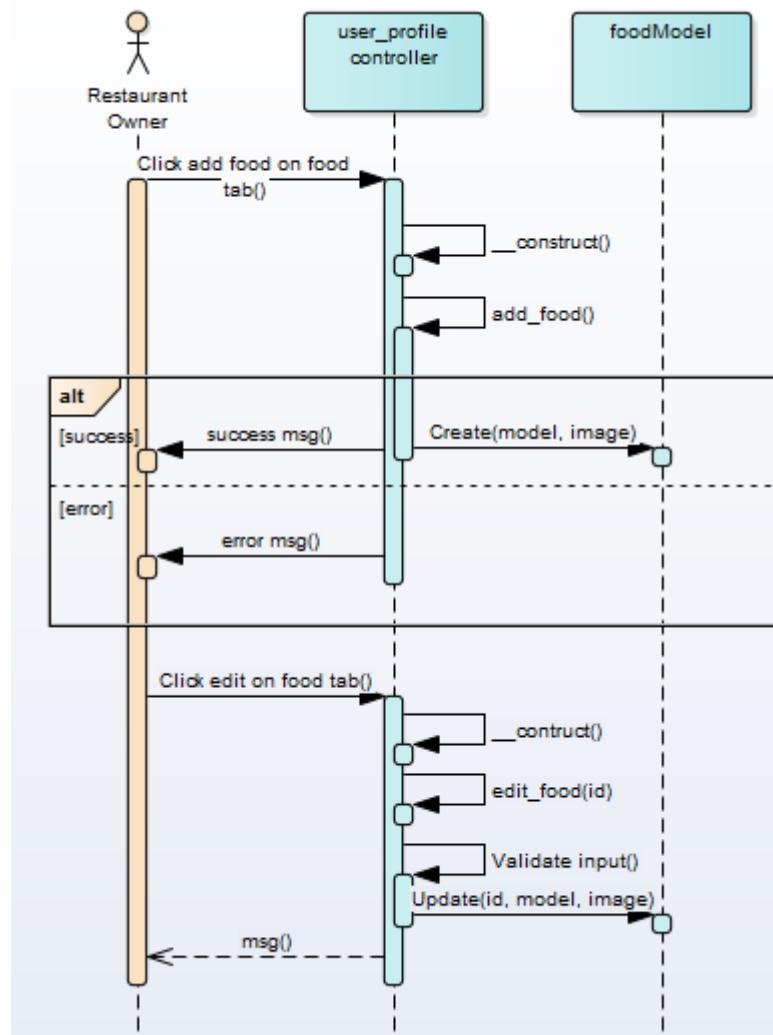


Figure 73: Add new food sequence diagram

2.4.7 UC003 – 06 Update food information

2.4.7.1 Screen Design

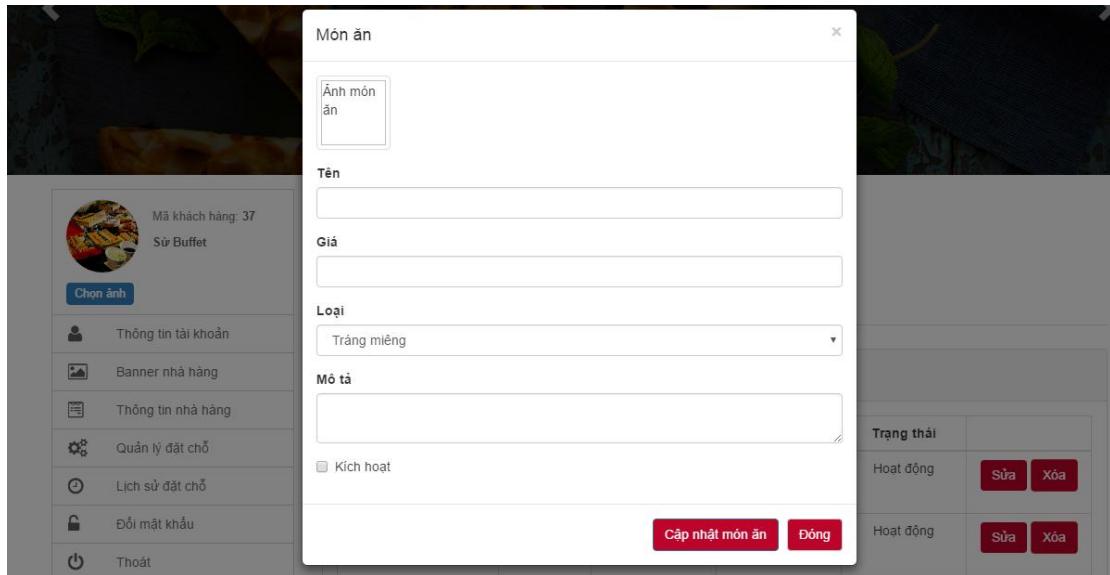


Figure 74: Update food's information

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Ảnh món ăn	Image	Button	Yes	N/A	Click to add image of food
2	Tên	Name	Textbo x	Yes	N/A	Input name of food
3	Giá	Price	Textbo x	Yes	N/A	Input price of food
4	Loại	Category	Combo -box	Yes	N/A	Select category of food
5	Mô tả	Description	Textbo x	No	N/A	Input description of food

6	Kích hoạt	Active	Check-box	Yes	N/A	Select to active/deactive food
7	Cập nhật món ăn	Update food	Button	Yes	N/A	Click to add food
8	Đóng	Close	Button	Yes	N/A	Click to return list foods screen

Table 36: Update food's information

2.4.7.2 Sequence diagram

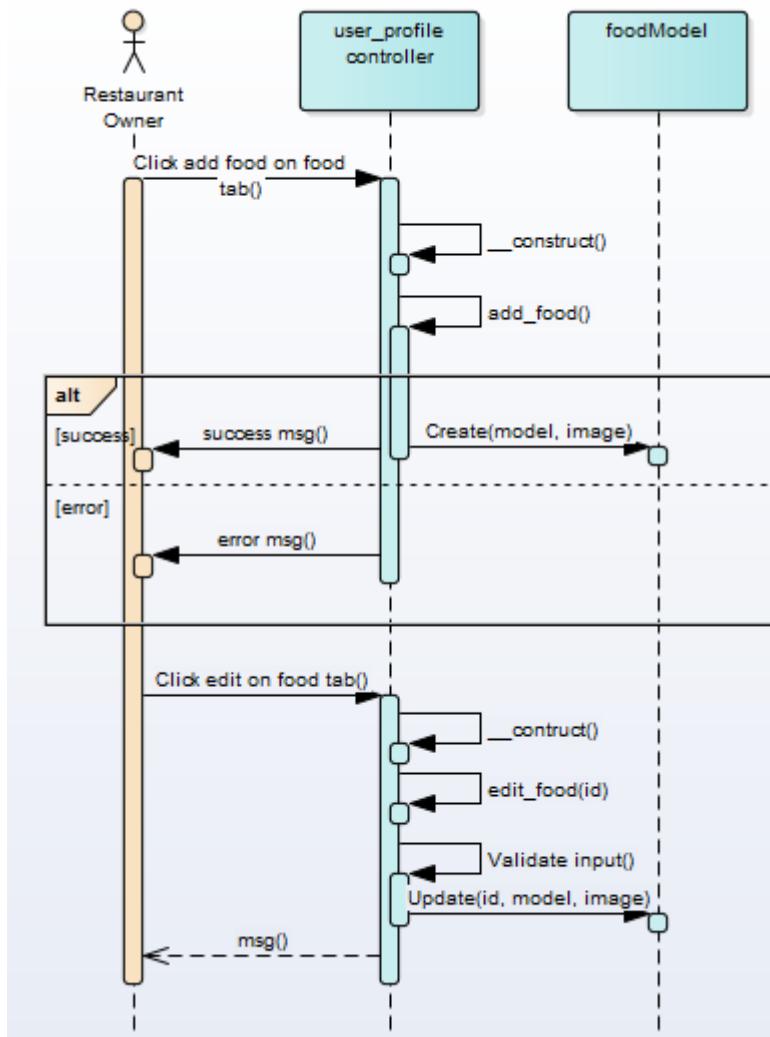


Figure 75: Update food's information sequence diagram

2.4.8 UC003 – 07 Update booking status

2.4.8.1 Screen Design

Mã khách hàng: 37
Sứ Buffet

Thông tin đặt chỗ

Chọn ảnh	Tên quán	Sứ Buffet
Thông tin tài khoản	Mã	10
Banner nhà hàng	Ngày tạo	13/08/2016
Thông tin nhà hàng	Số người	4
Quản lý đặt chỗ	Ăn vào thời gian	13:00 12/12/2016
Lịch sử đặt chỗ	Người đặt	Hoàng Văn Cảnh
Đổi mật khẩu	Trạng thái	Mới đặt
Thoát	Ghi chú	edited

Cập nhật trạng thái

Figure 76: Update booking status

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Trạng thái	Status	Combo -box	Yes	N/A	Select status of booking
2	Ghi chú	Note	TextAr ea	No	N/A	Input note of booking
3	Cập nhật trạng thái	Update status	Button	Yes	N/A	Click to update booking

Table 37: Update booking status

2.4.8.2 Sequence diagram

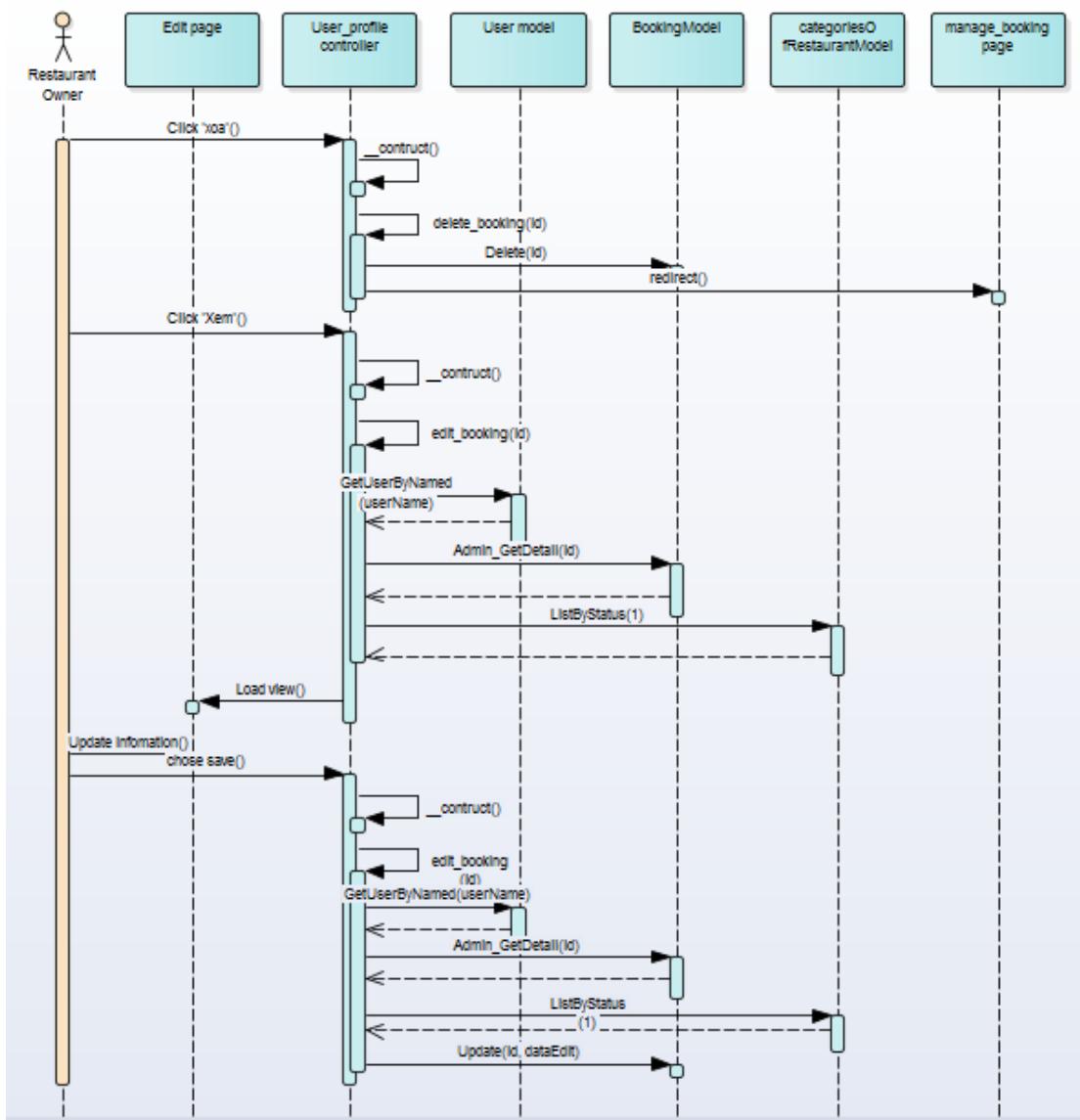


Figure 77: Update booking status sequence diagram

2.4.9 UC002 – 08 View booking history

2.4.9.1 Screen Design

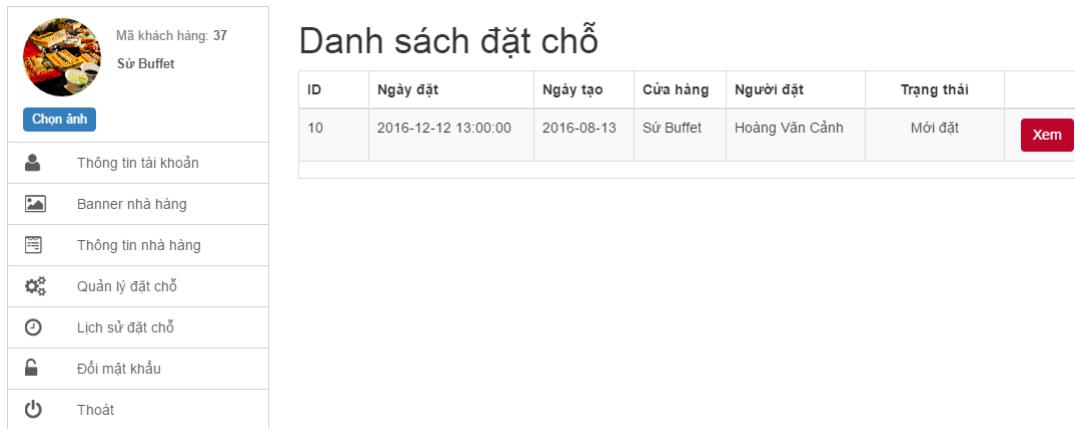


Figure 78: View booking history

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Quản lý đặt chỗ	Booking manager	Button	Yes	N/A	Click to display list booking of restaurant

Table 38: View booking history

2.4.9.2 Sequence diagram

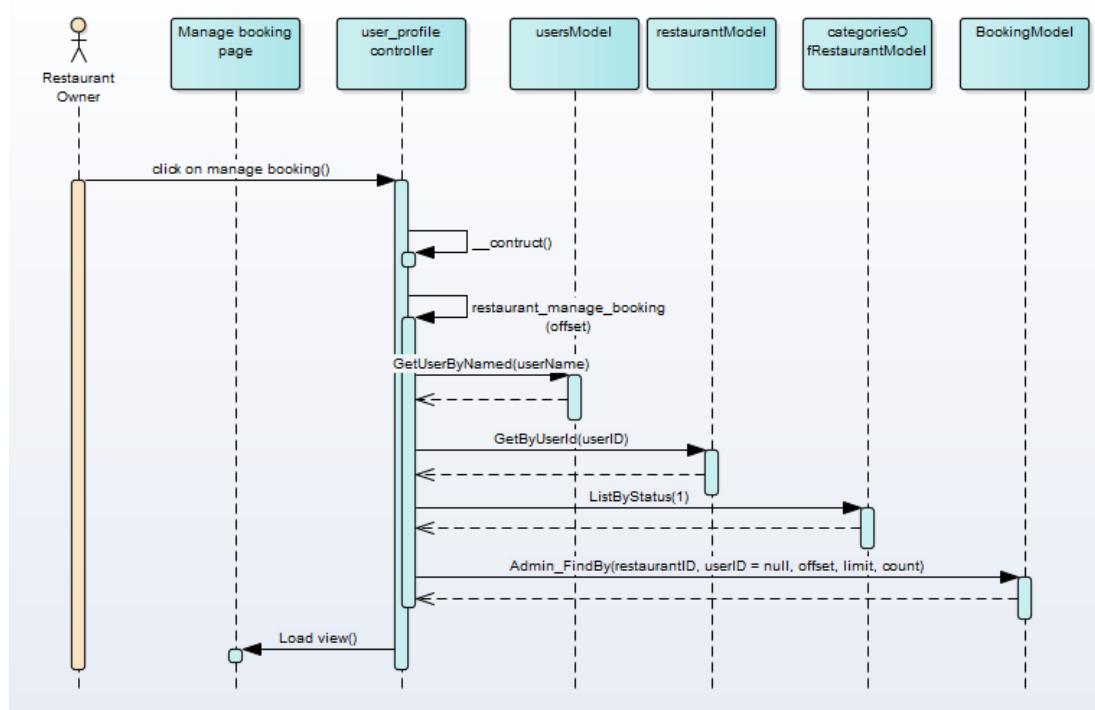


Figure 79: View booking history sequence diagram

2.5 UC004 Guest

2.5.1 Class Diagram

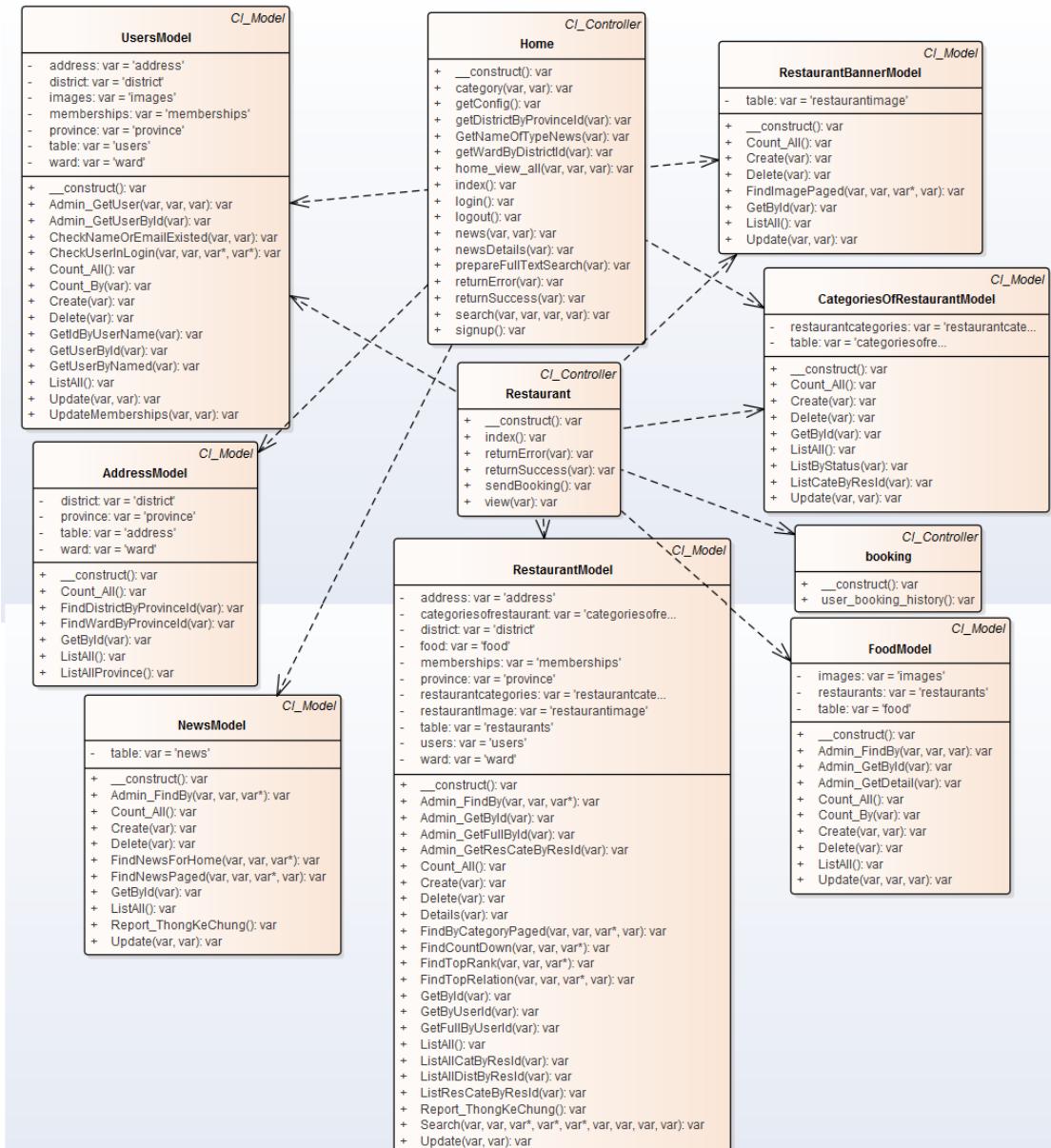


Figure 80: Guest class diagram

2.5.2 UC004 – 01 Register

2.5.2.1 Screen Design

The screenshot shows a registration form titled 'Đăng kí người dùng'. It includes fields for full name, username, email, password, and confirmation. There are dropdown menus for province, district, and commune. Other fields include address, date of birth, gender, and account type. A red 'Đăng ký' button is at the bottom.

Figure 81: Register

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Tên đầy đủ	Full name	Textbo x	Yes	N/A	Input full name
2	Tên đăng nhập	Username	Textbo x	Yes	>=6 characters	Input username
3	Email	Email	Textbo x	Yes	N/A	Input email
4	Mật khẩu	Password	Textbo x	Yes	>=6 characters	Input password
5	Mật khẩu(Re)	Confirm password	Textbo x	Yes	N/A	Input confirm password
6	Tỉnh/ thành phố	Province	Combo -box	No	N/A	Select province

7	Quận/ huyêñ	District	Combo-box	No	N/A	Select district
8	Xã/ phường	Ward	Combo-box	No	N/A	Select ward
9	Ngày sinh	Date of birth	Date-picker	No	N/A	Select date of birth
10	Giới tính	Gender	Combo-box	No	N/A	Select gender
11	Loại tài khoản	Type of account	Combo-box	No	N/A	Select type of account
12	Đăng ký	Register	Button	Yes	N/A	Click to register

Table 39: Register

2.5.2.2 Sequence diagram

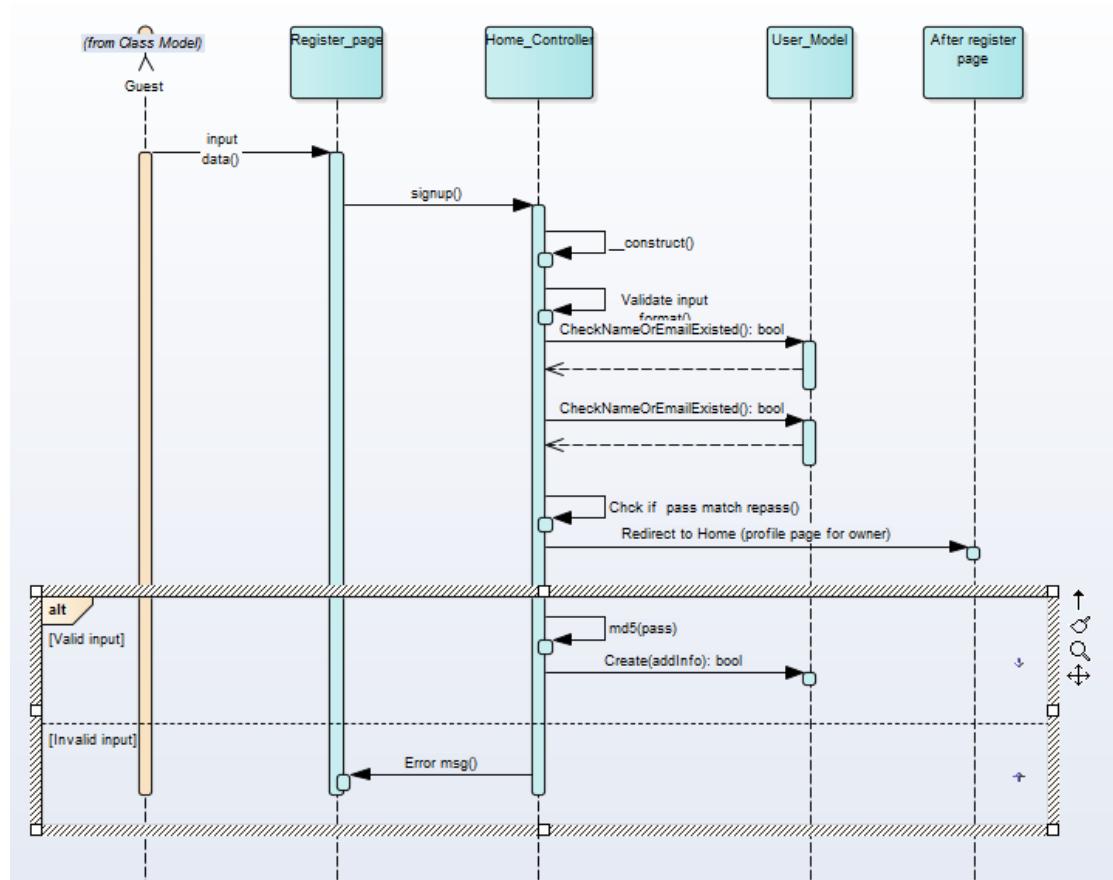


Figure 82: Register diagram

2.5.3 UC004 – 02 View news by category

2.5.3.1 Screen Design

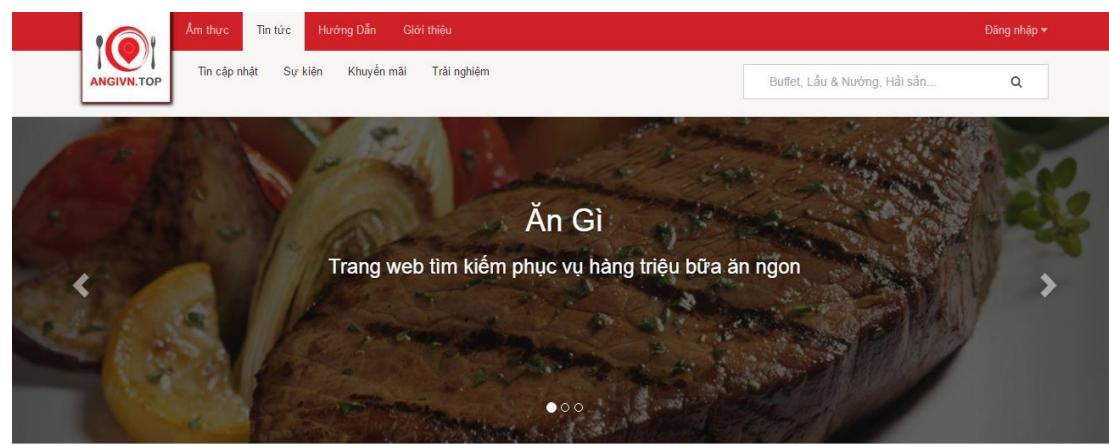


Figure 83: View news by category

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Tin tức	News	Button	Yes	N/A	Click to display categories of news

Table 40: View news by category

2.5.3.2 Sequence diagram

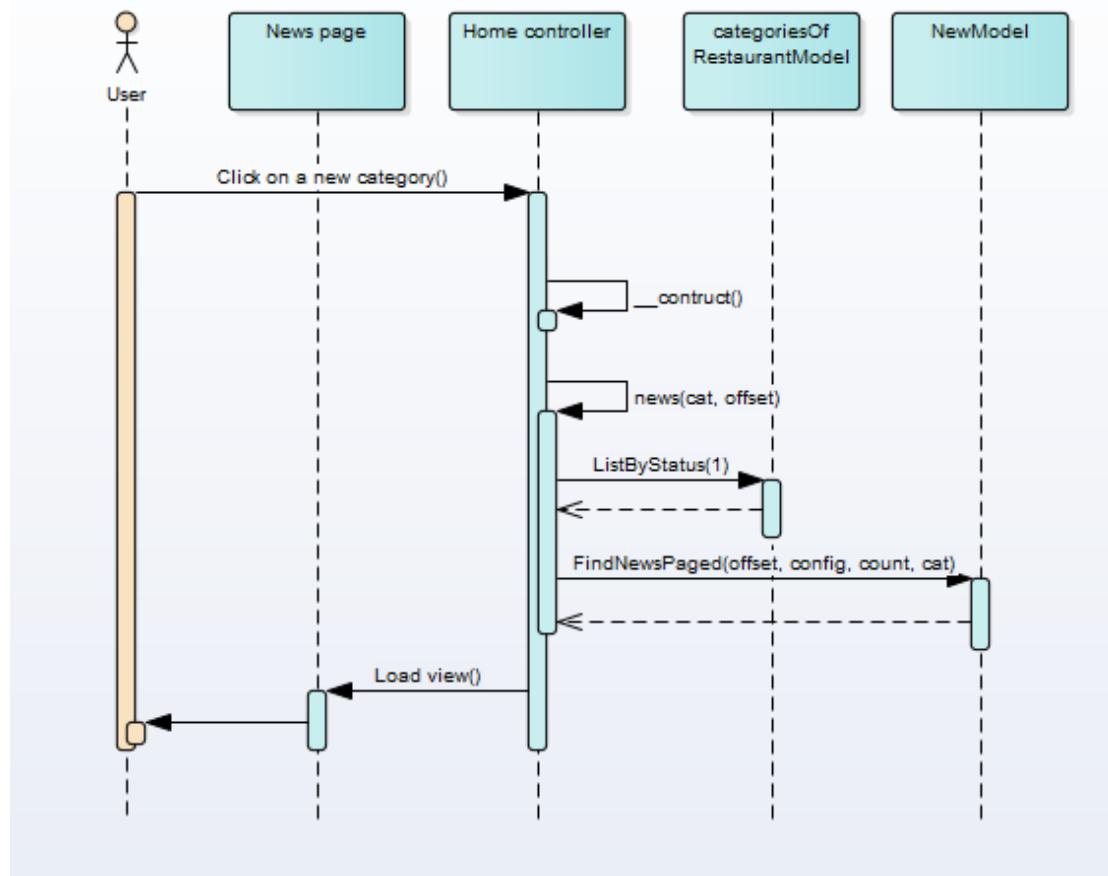


Figure 84: View news by category sequence diagram

2.5.4 UC004 – 03 View news detail

2.5.4.1 Screen Design

Đặt bàn trước khi đi ăn – "Thuốc đeo văn hóa" tương lai của người Việt

Những dịp lễ lớn trong năm như: 8/3, 20/10, hay những ngày cuối tuần, lượng khách đến ăn tại nhà hàng luôn tăng đột biến từ 10-30% và câu chuyện "cháy chỗ" lại là đề tài muôn thuở. Chưa đặt trước, hết chỗ khi tới, nhiều "thương đế" đã dùng lời lẽ rất khó nghe, thậm chí buông tục, chửi bới nhân viên phục vụ cho hả giận.

1. Người Việt Nam: Đặt bàn làm gì? Đi ăn, thích lúc nào thì đi lúc đó!

Các quán ăn, nhà hàng trên phố vào dịp cuối tuần luôn nập nardi ra vào. Phòng viên chúng tôi dừng lại ở nhà hàng Quán Ăn Ngon – một nhà hàng khá nổi tiếng – để thực hiện một cuộc khảo sát nhỏ thì phát hiện một đoàn người đang đứng trước quán và buông ra những lời lẽ rất khó nghe trong khi nhân viên phục vụ mặt tái mét và ra sức xin lỗi khách.

Qua tìm hiểu, chúng tôi mới biết rằng đoàn khách đó không đặt bàn trước tại quán, lại đến đúng vào giờ cao điểm, nhà hàng không còn chỗ trống nên buộc lòng phải từ chối khách để đảm bảo chất lượng phục vụ.

Dù tôi rất thông cảm với sự khó chịu khi đã đến tận nhà hàng mà lại không được phục vụ, nhưng thiết nghĩ, tại sao khách hàng lại không bớt chút thời gian, dành ra chỉ khoảng 1 phút đồng hồ để gọi một cuộc điện thoại đặt bàn trước, chẳng phải như thế nhất định sẽ nhận được sự tiếp đón và chuẩn bị tốt nhất của nhà hàng hay sao? Hay nói đi cũng phải nói lại, vẫn là do văn hóa đặt bàn, đặt chỗ trước vẫn chưa được phổ cập đến một bộ phận không nhỏ người Việt?



Figure 85: View news detail

2.5.4.2 Sequence diagram

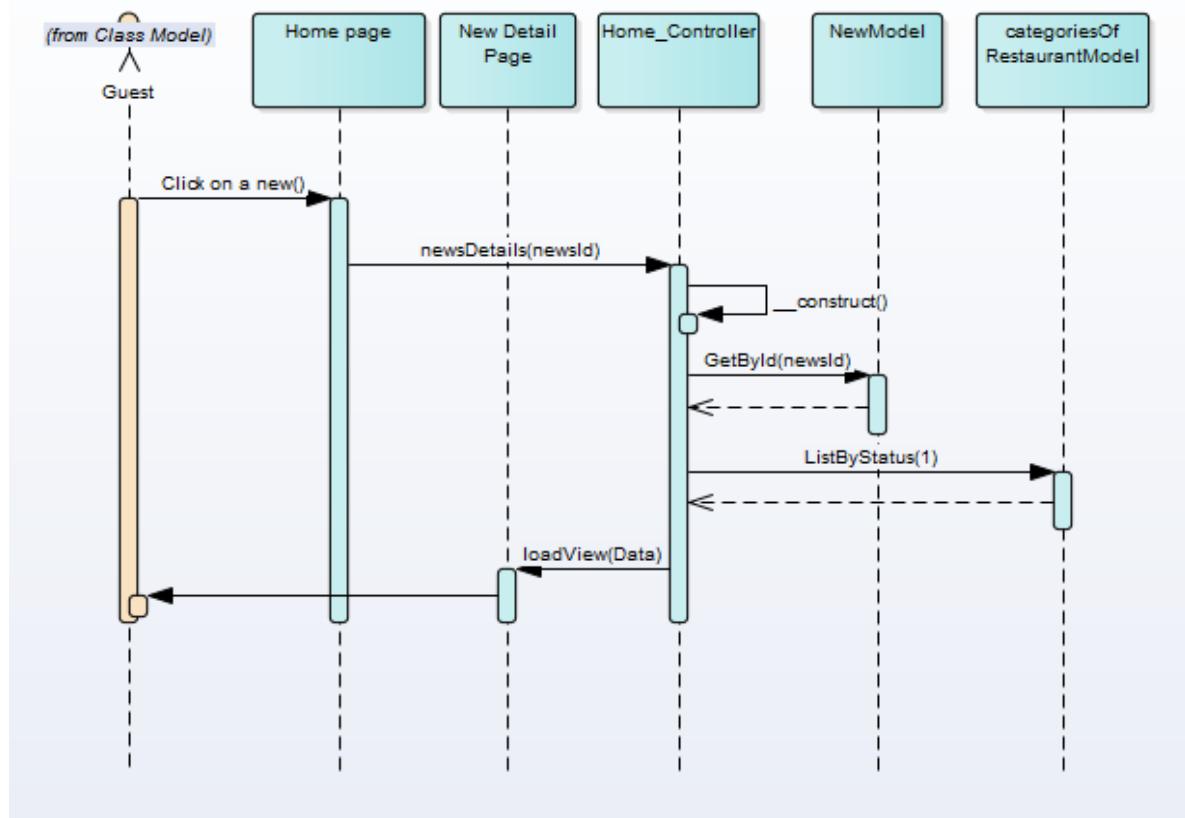


Figure 86: View news detail seqence diagram

2.5.5 UC004 – 04 Filter restaurant by category

2.5.5.1 Screen Design

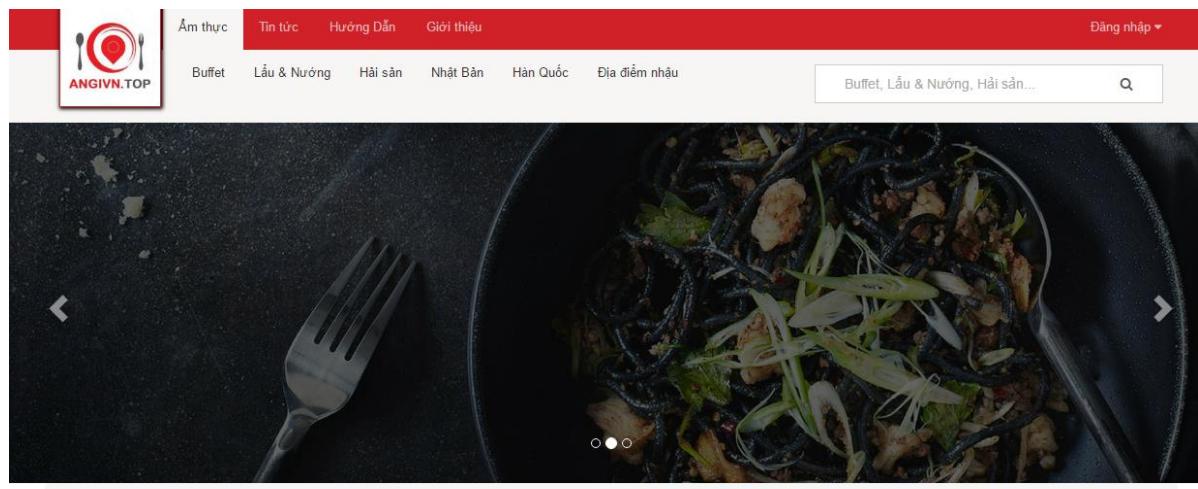


Figure 87: Filter restaurant by category

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Âm thực	Cuisine	Button	Yes	N/A	Click to display categories of restaurant

Table 41: Filter restaurant by category

2.5.5.2 Sequence diagram

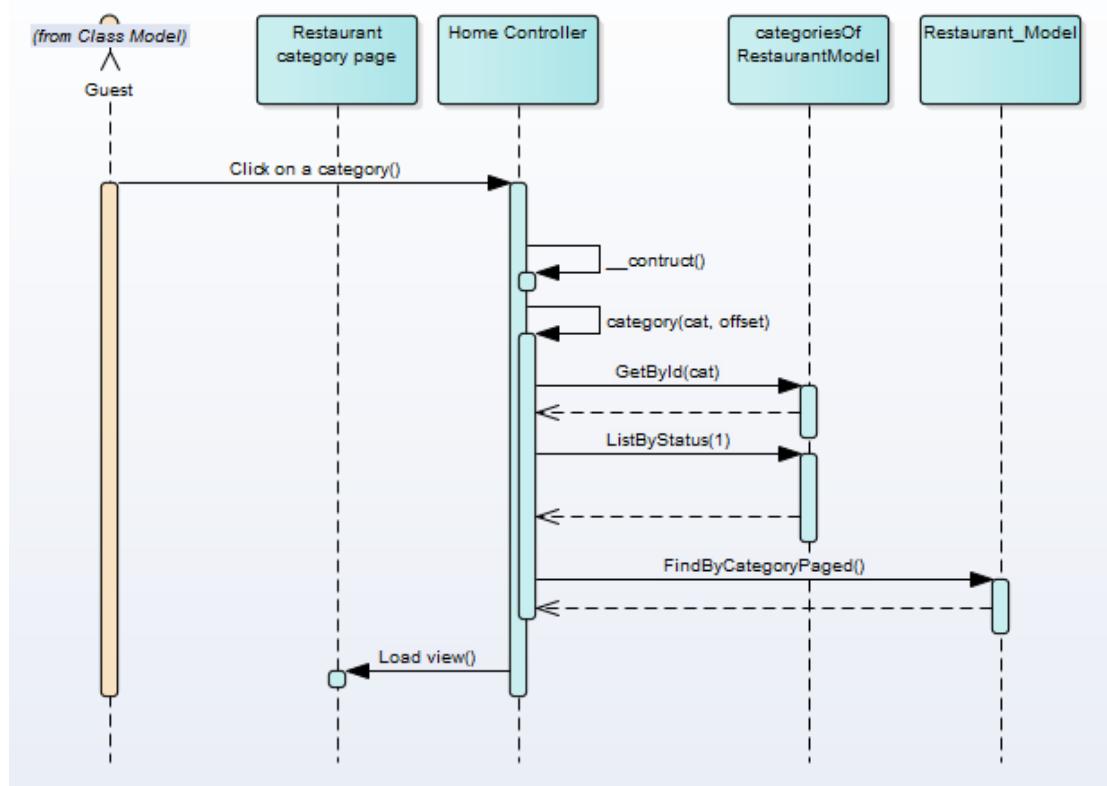


Figure 88: Filter restaurant by category sequence diagram

2.5.6 UC004 – 05 View restaurant detail

2.5.6.1 Screen Design

HOT N TASTY



DIỆM ĐẶC TRƯNG - HOT N TASTY

Loại hình ẩm thực: Lẩu & Nướng, Buffet

Món đặc sắc: Lẩu Thái cay, lẩu cá hồi, đê suôn/ba chỉ bò Mỹ/hàu bò lò/sốt phomai

Giá trung bình/người: 99500 - 499000 VND

Giờ mở cửa: 09:00:00 đến 22:20:00

Không gian nhà hàng: Phòng cách Nhật giản dị, sức chứa: 300 khách (3 tầng).

Chỗ để ô tô: Có

Điểm đặc trưng Khác: Thực phẩm tươi sống được nhập khẩu trực tiếp từ Mỹ, Úc, Nauy.

Tin đồn lẩu nướng trên đường Láng Hạ, Đống Đa, Hà Nội chắc hẳn không ai là không biết đến nhà hàng Hot N Tasty nằm tại số nhà 81. Là nhánh hiệu thứ 6 của tập đoàn Al Fresco's Group, dù chỉ vừa ra đời vào tháng 5 năm 2014 nhưng Hot N Tasty đã nhanh chóng thu hút được sự ủng hộ và yêu mến của đông đảo các thực khách Hà Nội, những người đam mê ẩm thực bên bếp lửa hồng.

Hot N Tasty Láng Hạ - Tận hưởng những món nướng bên bếp lửa cháy

Figure 89: View restaurant detail

2.5.6.2 Sequence diagram

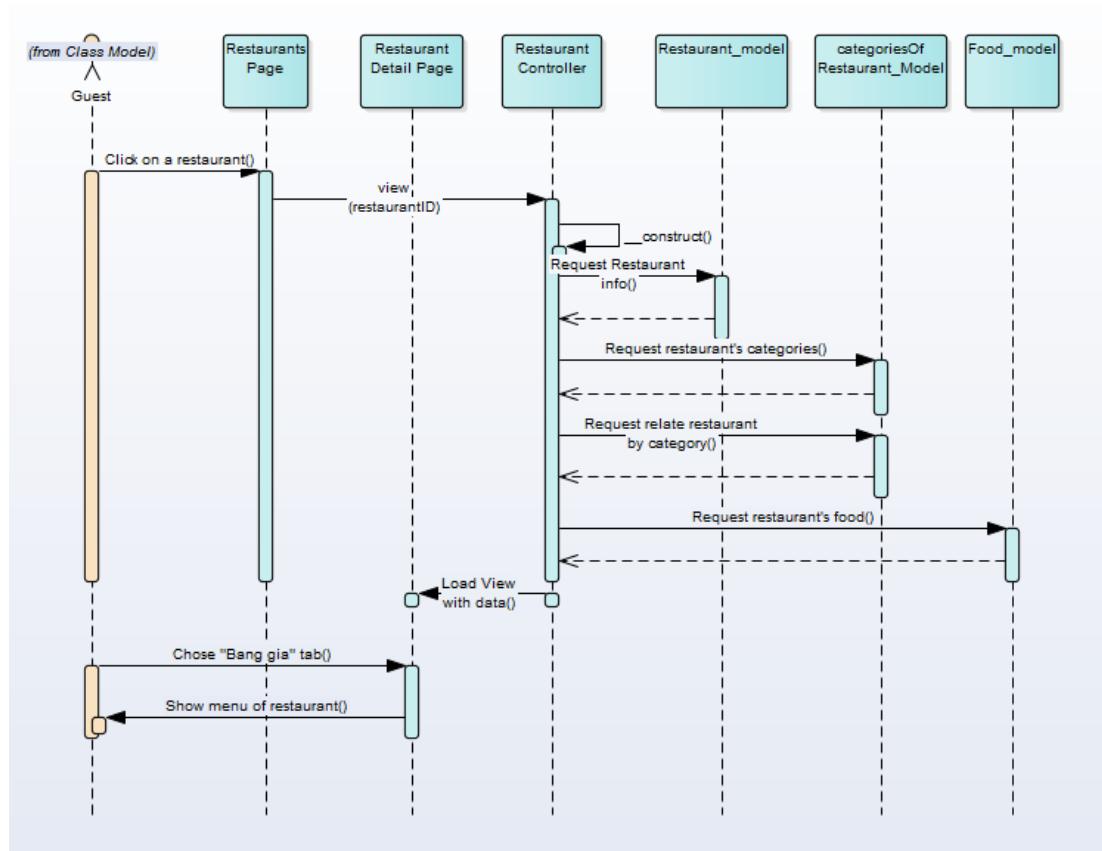


Figure 90: View restaurant detail sequence diagram

2.5.7 UC004 – 06 Like/Unlike

2.5.7.1 Screen Design

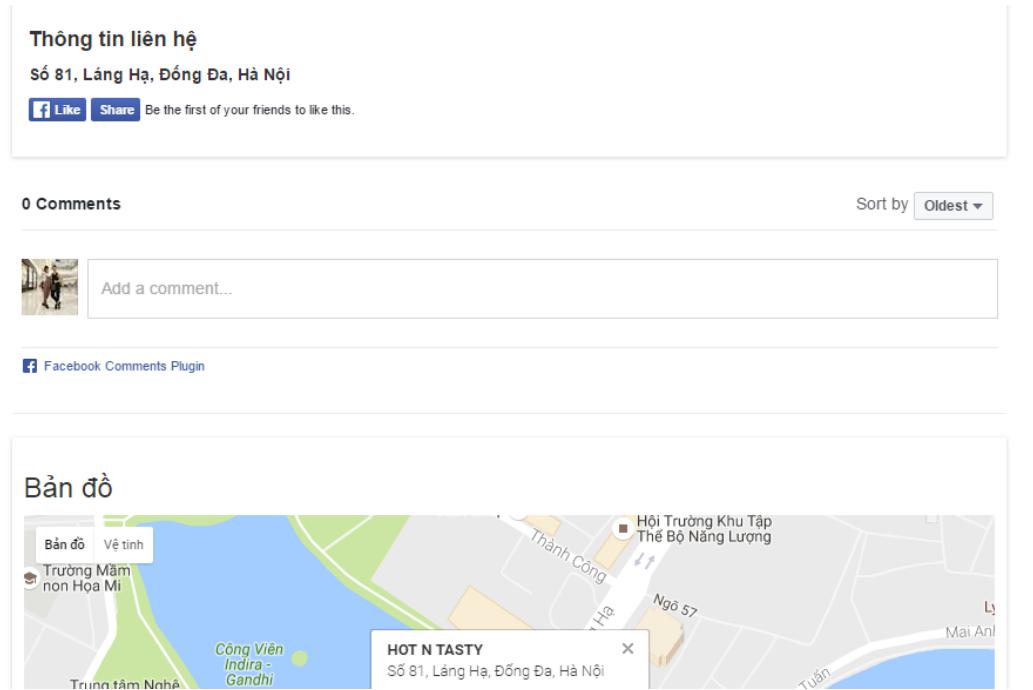


Figure 91: Like/unlike by Facebook

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Like	Like	Button	Yes	N/A	Click to like/unlike restaurant

Table 42: Like/unlike by Facebook

2.5.7.2 Sequence diagram

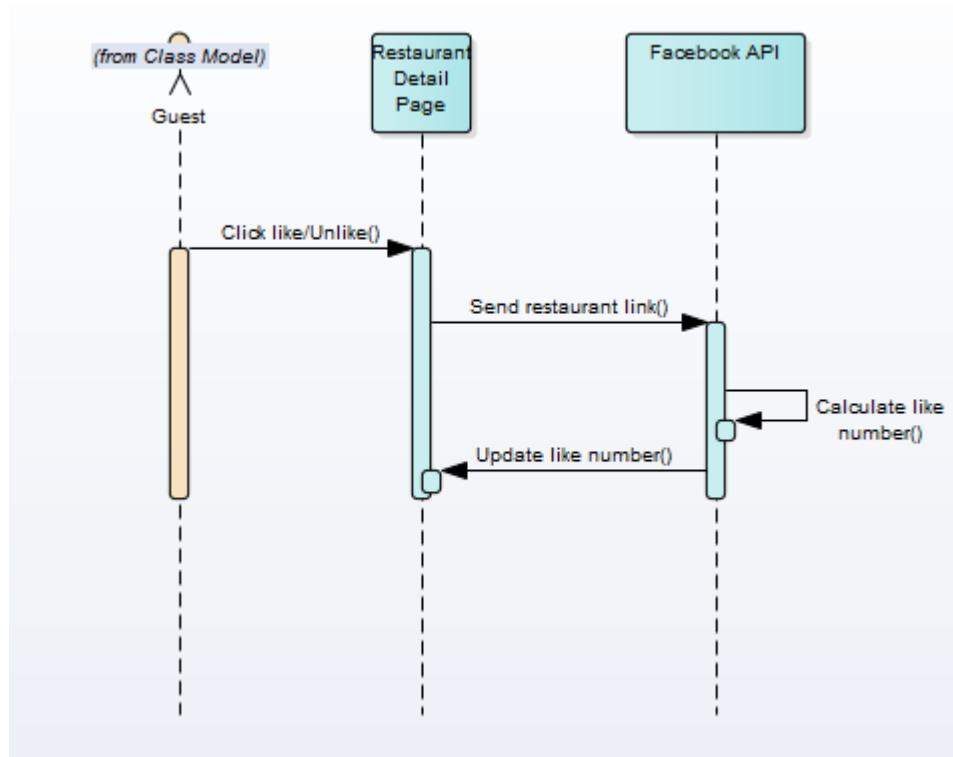


Figure 92: Like/unlike sequence diagram

2.5.8 UC004 – 07 Comment

2.5.8.1 Screen Design

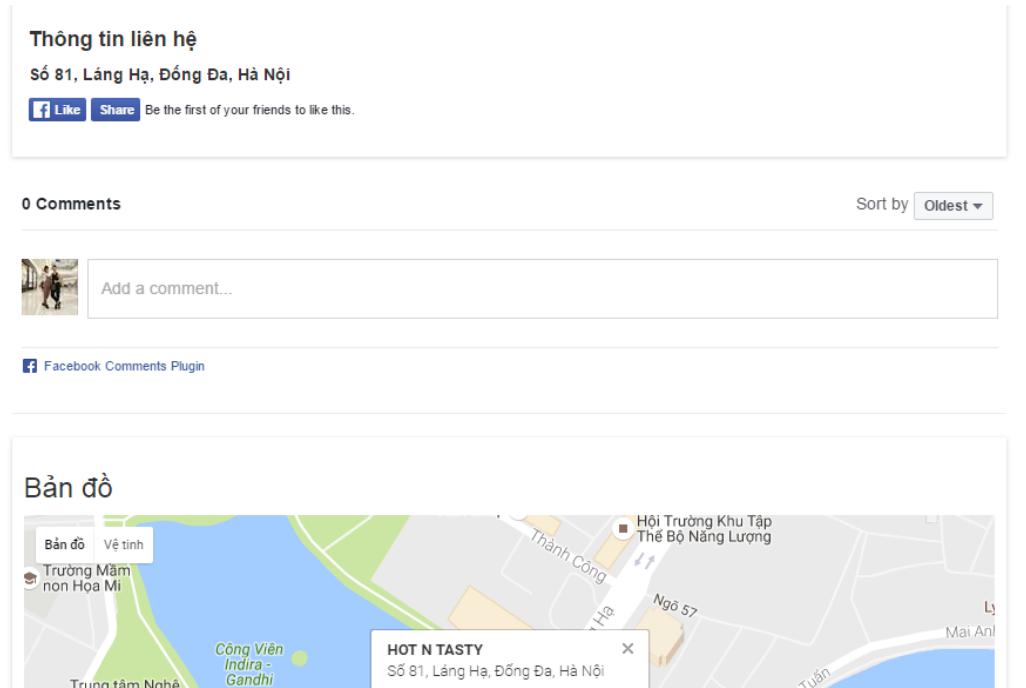


Figure 93: Comment by Facebook

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Add a comment	Add a comment	Textbox	Yes	N/A	Input comment of guest

Table 43: Comment by Facebook

2.5.8.2 Sequence diagram

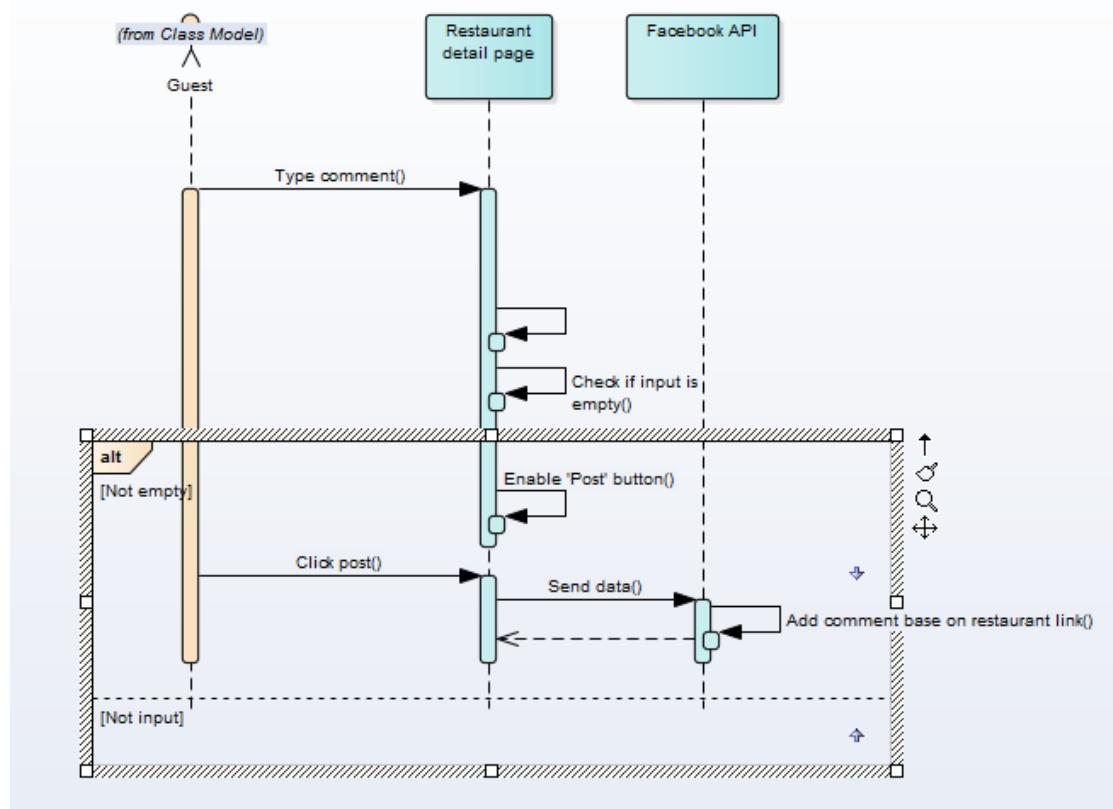


Figure 94: Comment sequence diagram

2.5.9 UC004 – 08 Share

2.5.9.1 Screen Design

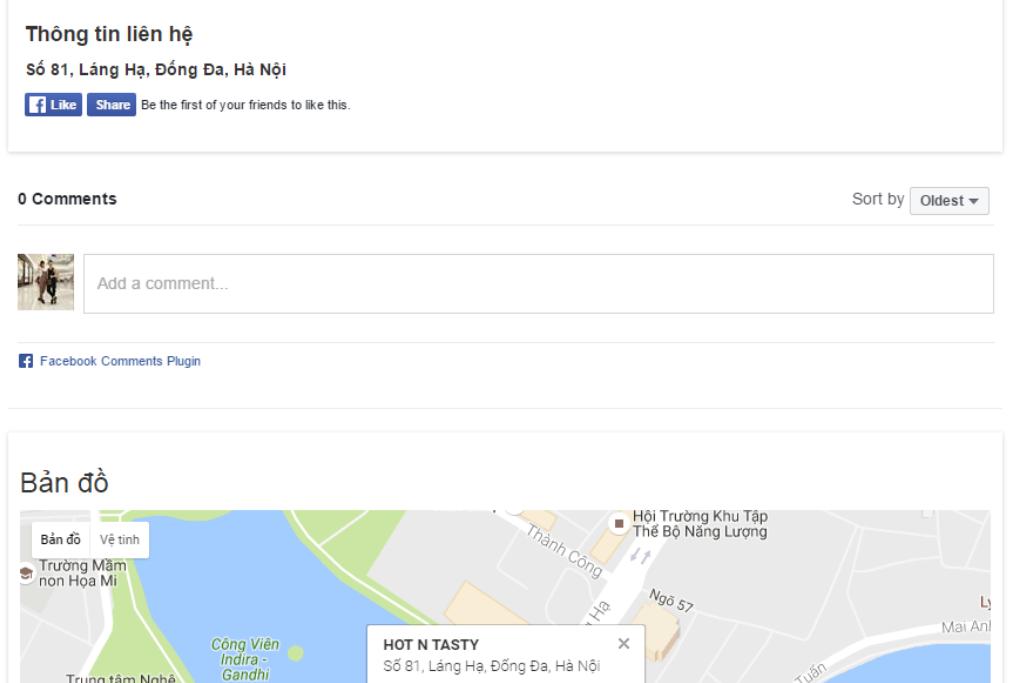


Figure 95: Social network share

No	Object/ Control Name	Object/ Control Name in English	Type	Required	Length	Description
1	Share	Share	Button	Yes	N/A	Click to share restaurant

Table 44: Social network share

2.5.9.2 Sequence diagram

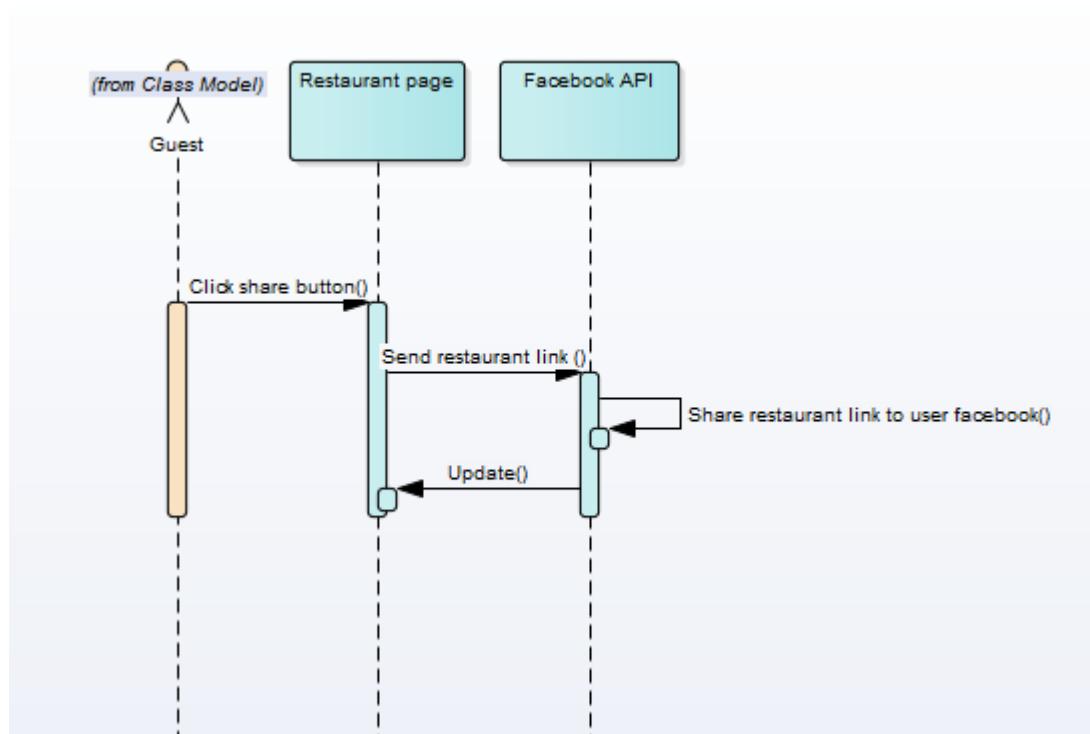


Figure 96: Social network share sequence diagram

3 DATABASE DESIGN

3.1 Database Diagram

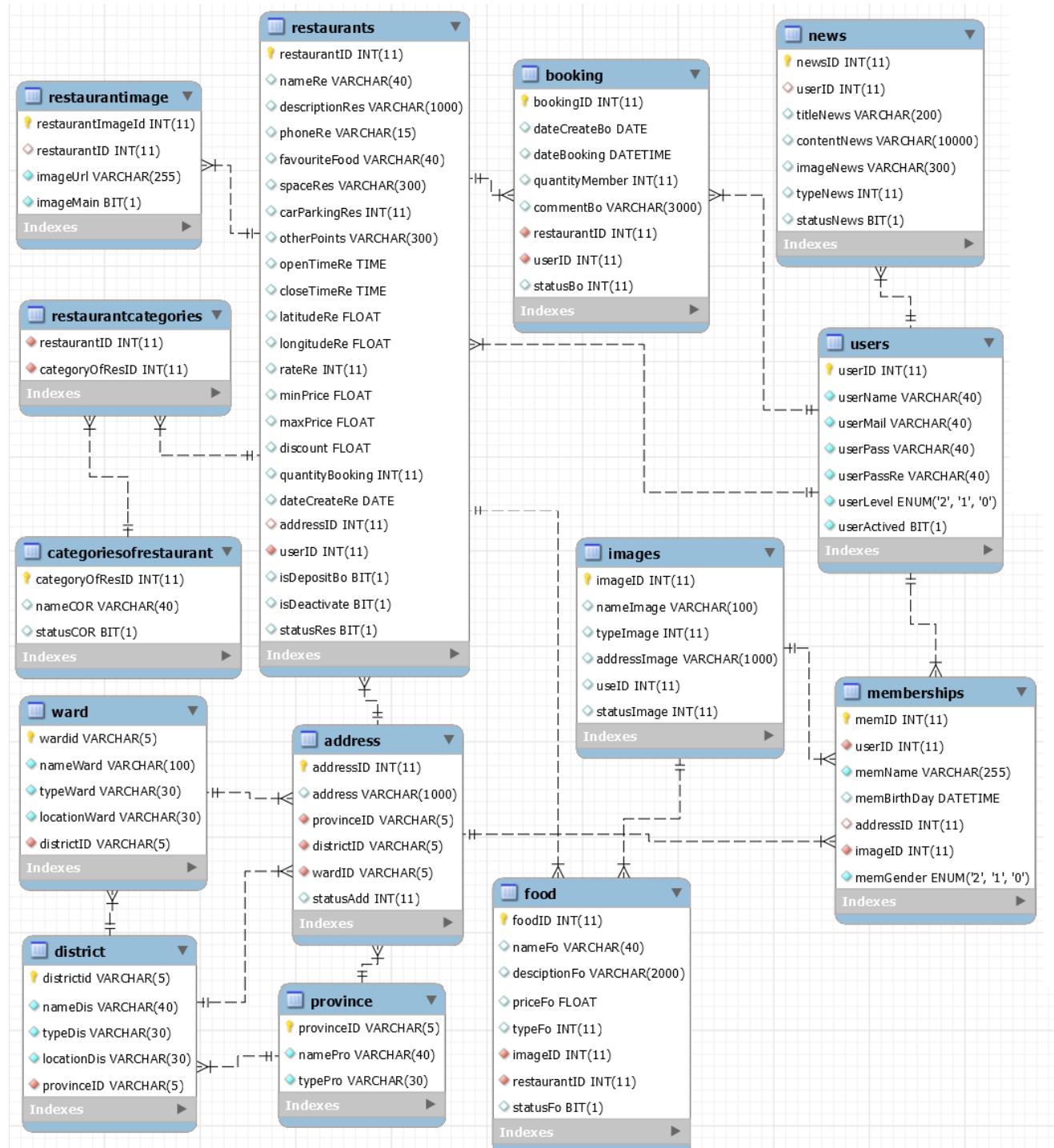


Figure 97: AGC database diagram

3.2 Table Descriptions

3.2.1 Table address

No	Attribute	Type	Size	Null able	Constraints	Description
1	addressID	int		no	primary key	unique value identifies address, auto increment
2	address	nvarchar	100	no		specific address
3	provinceID	nvarchar	5	no	foreign key constraint, referral table province	unique value identifies province
4	districtID	nvarchar	5	no	foreign key constraint, referral table district	unique value identifies district
5	wardID	nvarchar	5	no	foreign key constraint, referral table ward	unique value identifies ward

Table 45: Address table

3.2.2 Table booking

No	Attribute	Type	Size	Null able	Constraints	Description
1	bookingID	int		no	primary key	unique value identifies booking, auto increment

2	dateCreateBo	date		yes		the date that customers make reservation
3	dateBooking	dateTime		no		date and time that customers will visit restaurant
4	quantityMember	int		no		number of people
5	commentBo	nvarchar	300	yes		other feedback or request
6	restaurantID	int		no	foreign key constraint, referral table restaurants	unique value identifies restaurant
7	userID	int		no	foreign key constraint, referral table users	unique value identifies user

Table 46: Booking table

3.2.3 Table categoriesofrestaurant

No.	Attribute	Type	Size	Null able	Constraints	Description
1	categoryOfResID	int		no	primary key	unique value identifies restaurant category, auto increment
2	nameCOR	nvarchar	300	no		restaurant category name

Table 47: CategoriesofRestaurant

3.2.4 Table district

No	Attribute	Type	Size	Nullable	Constraints	Description
1	districtID	nvarchar	5	no	primary key	unique value identifies district
2	nameDis	nvarchar	100	no		district name
3	typeDis	nvarchar	30	no		type of districts in Vietnam
4	locationDis	nvarchar	30	yes		latitude and longitude of the district

Table 48: District table

3.2.5 Table food

No	Attribute	Type	Size	Nullable	Constraints	Description
1	foodID	int		no	primary key	unique value identifies food, auto increment
2	nameFo	nvarchar	30	no		food name
3	descriptionFo	nvarchar	2000	yes		description of food
4	priceFo	float		yes		food price
5	typeFo	int		yes		type of food 0 to be “tráng miêng”, 1 to be “ăn nhanh” 2 to be “bữa chính”

6	imageID	int		no	foreign key constraint, referral table images	unique identifies food's image,	value
7	restaurantID	int		no	foreign key constraint, referral table restaurants	unique identifies restaurant	value

Table 49: Food table

3.2.6 Table images

No	Attribute	Type	Size	Nullable	Constraints	Description
1	imageID	int		no	primary key	unique value identifies image, auto increment
2	nameImage	nvarchar	100	no		image name
3	typeImage	int		no		type of image
4	addressImage	nvarchar	200	no		url or path to images' files

Table 50: Image table

3.2.7 Table memberships

No	Attribute	Type	Size	Nullable	Constraints	Description
1	memID	int		no	primary key	unique value identifies membership, auto increment

2	userID	int		no	foreign key constraint, referral table users	unique value identifies user
3	memName	nvarchar	40	no		membership name
4	addressID	int		no	foreign key constraint, referral table address	unique value identifies address
5	imageID	int		no	foreign key constraint, referral table images	unique value identifies image
6	memGender	enum('2', '1', '0')		no		gender 2 to be male 1 to be female and 0 to be other

Table 51: Membership table

3.2.8 Table news

No	Attribute	Type	Size	Null able	Constraints	Description
1	newsID	int		no	primary key	unique value identifies news, auto increment
2	userID	int		no	foreign key constraint, referral table users	unique value identifies user
3	titleNews	nvarchar	100	no		news title

4	contentNews	nvarchar	10000	no		content of news
5	imageNews	nvarchar		yes		images used in news content
6	typeNews	int		yes		type of news 0 is “tin cập nhật” 1 is “sự kiện” 2 is “khuyên mãi” 3 is “trải nghiệm”

Table 52: News table

3.2.9 Table province

No.	Attribute	Type	Size	Null able	Constraints	Description
1	provinceID	nvarchar	5	no	primary key	unique value identifies province, auto increment
2	namePro	nvarchar	40	no		province name
3	typePro	nvarchar	30	no		province type

Table 53: Province table

3.2.10 Table restaurantcategories

No	Attribute	Type	Size	Null able	Constraints	Description
1	restaurantID	int		no	foreign key constraint, referral table restaurants	unique value identifies restaurant
2	categoryOfResID	int		no	foreign key constraint, referral	unique value identifies restaurant category

					table categoriesofrestaurant	
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Table 54: Restaurantcategory table

3.2.11 Table restaurantImage

No	Attribute	Type	Size	Null able	Constraints	Description
1	restaurantImageID	int		no	primary key	unique value identifies restaurant image, auto increment
2	restaurantID	int		no	foreign key constraint, referral table restaurants	unique value identifies restaurant
3	imageUrl	nvarchar	200	no		url or path to the images' files
4	imageMain	bit		yes		is the image is as restaurant profile 1 is used 0 is not

Table 55: RestaurantImage table

3.2.12 Table restaurants

No.	Attribute	Type	Size	Null able	Constraints	Description
1	restaurantID	int		no	primary key	unique value identifies

						restaurant, auto increment
2	nameRe	nvarchar	40	no		name of the restaurant
3	descriptionRes	nvarchar	1000	yes		restaurant description
4	phoneRe	nvarchar	15	no		phone number
5	favouriteFood	nvarchar	40	yes		special of famous dishes
6	spaceRes	nvarchar	300	yes		how big the restaurant is
7	carparkingRes	int		yes		is there a car parking 0 is yes 1 is no
8	openTimeRe	time		yes		restaurant opening time
9	closeTimeRe	time		yes		restaurant closing time
10	latitudeRe	float		yes		latitude of the restaurant
11	longitudeRe	float		yes		longitude of the restaurant
12	rateRe	int		no		restaurant rating
13	minPrice	float		yes		minimum price per meal
14	maxPrice	float		yes		max price per meal

15	discount	float		yes		restaurant discount for customer
16	quantityBooking	int		no		number of booking times
17	dateCreateRe	date		no		date restaurant register on the system
18	addressID	int		no	foreign key constraint, referral table address	unique value identifies address
19	userID	int		no	foreign key constraint, referral table users	unique value identifies user
20	statusRes	bit		no		is restaurant is active or not 0 is active 1 is inactive

Table 56: Restaurants table

3.2.13 Table users

No.	Attribute	Type	Size	Nullable	Constraints	Description
1	userID	int		no	primary key	unique value identifies user
2	userName	nvarchar	40	no		unique user name
3	userMail	nvarchar	40	no		user email
4	userPass	nvarchar	40	no		user password

5	userPassRe	nvarchar	40	no		user confirm password
6	userLevel	enum('2','1','0')		no		level of user 2 is admin 1 is restaurant owner 0 is customer
7	userActived	bit		no		is user is active or not 0 is yes 1 is not

Table 57: User table

3.2.14 Table ward

No	Attribute	Type	Size	Null able	Constraints	Description
1	wardID	nvarchar	5	no	primary key	unique value identifies district
2	nameWard	nvarchar	40	no		village name
3	typeWard	nvarchar	40	yes		type of villages in Vietnam
4	locationWard	nvarchar	40	no		latitude and longitude
5	districtID	nvarchar	5	no	foreign key constraint, referral table district	unique value identifies district

Table 58: Ward table

4 References

<http://www.codeigniter.com/>