



**MINISTRY OF EDUCATION  
AND TRAINING**

# FPT UNIVERSITY

## Capstone Project Document

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### Website of Law Firm Management System

#### Final Report

Website of Law Firm Management System	
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<b>Capstone Project code</b>	LFMS

- Ha Noi, 09/2014 -

## LỜI CẢM ƠN,

Chúng em xin phép được viết lời cảm ơn bằng Tiếng Việt để có thể truyền tải được trọn vẹn lời tri ân với quý Thầy Cô.

Không có thành quả nào mà không gắn liền với sự hỗ trợ, sự giúp đỡ dù ít hay nhiều, dù trực tiếp hay gián tiếp của mọi người xung quanh. Trong suốt quá trình học tập tại FU, chúng em đã nhận được rất nhiều sự quan tâm, giúp đỡ của quý Thầy Cô và bạn bè.

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**Nhóm Website of Law Firm Management System**

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## Report No.1: Introduction

### 1.1. Introduction

#### 1.1.1. Purpose

This part is the introduction for Website of Law Firm Management System (LFMS) Project – our Capstone Project in FPT University. It is included the overview of existing system, the initial idea of this project, a brief description about our expected system and some potential risks, critical assumptions, constraints, also some benefits for our group and lawyer office.

#### 1.1.2. Acronyms and definitions

Acronym & Abbreviation	Definition	Note
LFMS	Law Firm Management System	
SQL	Structured Query Language	

Table 1-1 :Acronyms and definitions

### 1.2. Abstract

A law firm system is website designed to manage a law firm's case client records, billing and bookeeping, schedules and appointments, deadlines, computer files and to facilitate any compliance requirements such as with document retention policies.

The benefits of law firm system is remind lawyer every day by notify in every day. Now we no need to store document in cabinet, lawyer can easily find it by storage systems.

It might be hard for accounting in law firm. System will provide some way for do this like statistical in every year.

As all of benefits of law firm system, we think this system will be great. We want to develop a website where lawyer can easily use it.

## 1.3. Literature review

Thuan Nguyen Lawyer Office currently has a management software that runs on Windows, but it's not good enough.

- **Advantages:**

- User interface is very nice and easy to use
- Quick response for user's action
- Can store the related document
- Can add billing for each case.

- **Disadvantages:**

- Many errors occur during the use.
- Difficult to maintain.
- Limit the number of computer can use
- Lack of some function like statistical and schedules.
- Manage with only text information.

## 1.4. Proposal

### 1.4.1. Initial idea of the LFMS

This project get requirements from "Thuan Nguyen Lawyer Office" in Vinh Long City. The majority of this project is to use internal systems used to manage Office, Service, Staff, Customer, Case Management, Consulting, Contract and Reports...

Existing solution is to go for the actual project, met the manager of law office, Mr. Thuan. And then get actual requirements for project.

### 1.4.2. Objectives

This project is the Capstone Project for all team members. Firstly, we do this project to fulfill the requirements from FPT University studying program. During the time do this, we can learn how to develop a project, how to communicate with other team members, how to control time, how to do teamwork effectively. Therefore, after finishing this project, we can practice what we have learnt in university and learn so many new things. It is very necessary for our future work after graduating from FPT University.

Secondly, we want to create a website for law firm that help lawyers can work more effective, easier and simpler way without remember schedule and operation event.

### 1.4.3. System features

About the feature of LFMS website, it has main features of existing website such as easy to manage than traditional methods, online data storage and centralized etc... Besides, it has some extra functions: schedule notify each time event occur and statistic in every year. There are the detailed functions of this application:

- **Manage seven components below:**

- Case Management: Manage all information of Case by customers, general information, operation event, lawyer viewpoint, people related, document related and Used Service. Assign one or many lawyer into Case.
- Customer Management: Add new, edit customer information and delete customer. Stored for use in later Cases.
- Staff Management: Add new, edit staff information and deactivate staff. Division of roles in the system used.
- Service Management: Add new, edit service information and delete service. Use for Used Service.
- Office Management: Add new, edit office information and deactivate office.
- Statistical: Statistic revenue each office in every year.
- Schedule: Notify to lawyer when had an event occurred.

## 1.5. Benefit from project

If this application will be developed and implemented successfully, our group and lawyers will get some benefits from it.

### 1.5.1. For our group

After developing and implementing this project, our group will get some benefits:

- We have more experiences of managing a software project: how to manage plan, time, and risk. These experiences help us a lot in our future work.
- Know how to communicate with other team members and how to do teamwork efficiently
- If this application is developed, we will get a good mark in Capstone Project. It makes our grade better.

### 1.5.2. For Law firm

After developing and sending to law firm, lawyer can use it from local host in personal computer.

- Lawyers can work more effective, easier and simpler way without remember schedule and operation event.
- Law firm can manage all information like case, customer, staff service and office easier.
- Accounting easier with auto statistical in every year.

### 1.6. Critical assumption and constraints

There are some critical assumptions that we realize after analyzing this project. The first assumption is about team members. We assume that all the team members can work with MVC and C#. We do not know anything about it before this project, but we have to study hard for not missing any deadline of project plan. Besides, we also assume all our members do not have any health problems, so they are not absent and can do their works.

There are also some constraints of our project. Firstly, about the time and deadline, we have to finish project on time. It has no extra time for us to complete developing and deliver application to teachers. Besides, the reports need to be submitted before the deadline. Secondly, about the quality, the application must be well enough for users to do main function. Finally, about the technique, our knowledge in C# and MVC is not in the high level. Therefore, with all the expected features that we gave before, we do not know if we can solve all of those or not. However, we will try our best to make our project successfully.

### 1.7. Potential risks

After analyzing this project, we may be facing some risks:

- With the short duration - about 3 months – we will not have enough time to do all things and miss the delivery deadline.
- We do not have any experiences in software project management such as time management, risk management etc. So maybe we will miss the deadline or have some unknown risks.
- It is the first time we manage big project like this, we do not have much experiences in communicating between the team. So maybe in the

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future, we will have conflict and argument and we will not finish all the works in time.

- Maybe we will lose source code or device during the developed time.

## Report No.2: Software Management Plan

### 2.1. Problem Definition

#### 2.1.1 Name of this Capstone Project

English: Website of Law Firm Management System

Vietnamese: Trang web hệ thống quản lý hồ sơ án tại văn phòng luật sư

Abbreviation: LFMS

#### 2.1.2 Problem Abstract

Today, the emergence of the law office is very popular. Every industry, every job when disputes occur are needed to the law office to advice and resolve. However, current law office management system, mostly using traditional methods. No digitization and no online. Cause difficulties and time-consuming to manage. So, to help law offices can easily manage and store Cases, LFMS born.

#### 2.1.3 Project Overview

##### 2.1.3.1 The Current System

Below are current system of Thuan Nguyen Law Office:

- Advantages:
  - Online data storage and centralized
  - Easy to manage than traditional methods
- Disadvantages:
  - Many errors occur during the use
  - Difficult to maintain
  - Limit the number of computers can use
  - Manage only 1 office.
  - Manage with only text information.

##### 2.1.3.2 The Proposed System

The new system will have seven components:

- Case Management: Manage all information of Case by customers, general information, operation event, lawyer viewpoint, people related, document

related and Used Service. Assign one or many lawyer into Case, payments of each case.

- Manage Calendar: Manage all calendar work of staff.
- Customer Management: Add new, edit customer information and delete customer. Stored for use in later Cases.
- Staff Management: Add new, edit staff information and deactivate staff. Division of roles in the system used.
- Service Management: Add new, edit service information and delete service. Use for Used Service.
- Office Management: Add new, edit office information and deactivate office. Can only be used by “super admin” – the admin user role have StaffId is 1.
- Statistics Management: View all Statistics of system about revenue, number of case received and compare revenue, number of case between offices, staffs.

Advantages over the old system:

- More stable
- Easy upgrade and maintenance
- Multiple computers can use at the same time by web platform
- Many other customer support function
- Manage multiple data.
- Can be used for many types of office.

#### **2.1.3.3    Boundaries of the System**

- The system is designed for Thuan Nguyen law offices and the same law office.
- System used internally.
- The language of the system is Vietnamese.
- The system does not include human resource management, budget and attendance.

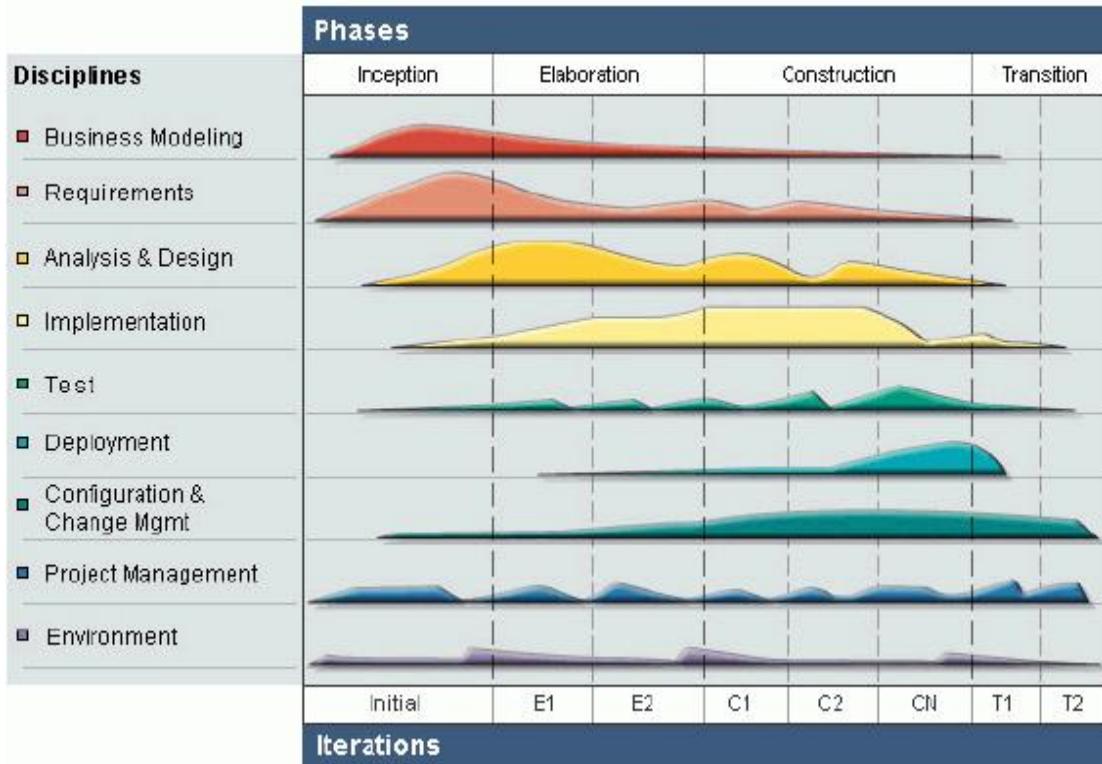
#### **2.1.3.4    Development Environment**

N/A

## 2.2 Project organization

### 2.2.1 System Process Model

With the schedule of weekly reports and a huge of information every week, the software will be developed by using Rational Unified Process model which is very simple and easy for a new group want to make a big project. With RUP model, developing process will include four main phases:



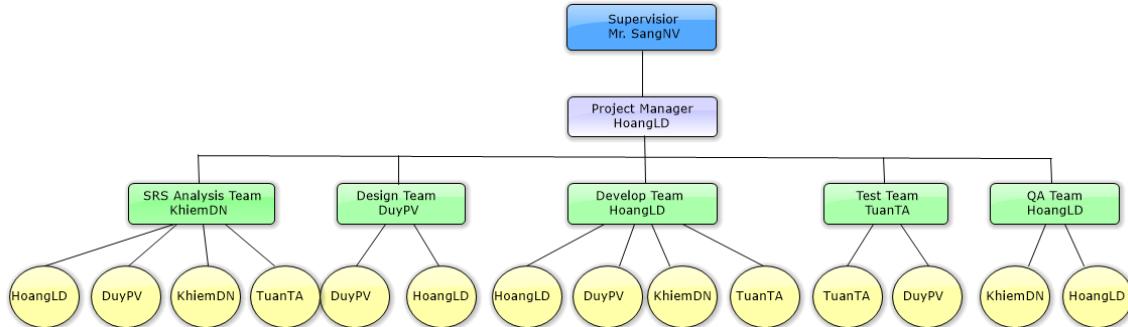
**Figure 2-1: Rational Unified Process Process Model**

- ❖ **Inception Phase:** This is the first phase of process. In this startup phase, we should provide business case of the system and determine the scope of project. Besides, we have to create the project management plan that has project schedule, effort estimation and risk management etc. At the end of this phase, we should check the objectives of project and decide whether to continue development or not. Hence, Inception phase must be properly planned and done. Based activities of this phase:
  - Study business case and feasibility study of project.
  - Complete draft ERD of system.
  - Complete draft screen prototypes.
  - Complete draft requirements.

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- Determine project scopes.
  - Complete project management plan.
- ❖ **Elaboration Phase:** The objectives of this phase are to determine appropriate architectural and construction plan for the project. The architectural decision needs to be made for the entire system, and to describe most of the requirements of system. At the end of this phase, we must examine the objectives and scopes, the choice of architecture and decide whether to proceed to the next phase. Based activities of this phases:
- Complete user requirement specification.
  - Complete ERD, final prototypes.
  - Complete Software Requirement Specification.
  - Complete database model.
  - Complete System Architecture Design.
- ❖ **Construction Phase:** Construction is the third phase of RUP lifecycle. In this phase, we must have done all the coding and testing work. After coding, developers will do unit test themselves, then test team will do functional test and regression test when finishing all. Based activities of this phase:
- Complete coding and unit test.
  - Complete functional and regression test.
  - Complete user manual.
- ❖ **Transition Phase:** Transition is the final phase of the RUP lifecycle. In this phase, project team has to deploy the application and give it to users. The next step is receiving feedback from users to identify the problems and then complete the system. Based activities of this phase:
- Deploy the system.
  - Deliver source code.
  - Complete all reports and documents.

## 2.2.2 Roles and Responsibilities



**Figure 2-2: Roles and Responsibilities**

#	Name	Role	Responsibilities
1	Nguyễn Văn Sang	Supervisor	Support business and solution Tracking and review project
2	Lê Duy Hoàng	Project Manager SRS Analysis Designer Developer Leader QA Leader	<ul style="list-style-type: none"> <li>- PM has responsibilities to develop the project plan and manage project stakeholders, project team, project risk, project schedule, project budget, project conflicts.</li> <li>- Analyze business.</li> <li>- Ensure that the Project Team completes the project.</li> <li>- Provide suitable technology solutions, tools for project development process.</li> <li>- Design and develop interface.</li> <li>- Create coding guidelines, coding convention and standards.</li> <li>- Cooperate with Developer to create software specification requirement (SRS), architectural design (SAD) and software detailed design (SDD).</li> <li>- Review document, product, and reports.</li> </ul>

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			<ul style="list-style-type: none"> <li>- Support other team members.</li> </ul>
3	Đặng Nguyễn Khiêm	Member SRS Analysis Leader Developer QA	<ul style="list-style-type: none"> <li>- Analyze business. Understand business related to project topic.</li> <li>- Present and explain business information to other members.</li> <li>- Create and review SRS, SAD and SDD documents.</li> <li>- Coding function.</li> <li>- Writing report.</li> </ul>
4	Trần Anh Tuấn	Member SRS Analysis Developer Tester Leader	<ul style="list-style-type: none"> <li>- Create software specification requirement (SRS).</li> <li>- Coding function.</li> <li>- Develop the test plan based on project plan and SRS, SDD documents.</li> <li>- Create test data for all functions.</li> <li>- Create test cases for the system, both in document and script.</li> <li>- Execute test to ensure all functions fulfill requirements and make test report.</li> </ul>
5	Phạm Văn Duy	Member Designer Leader Developer SRS Analysis Tester	<ul style="list-style-type: none"> <li>- Analyze business, create software specification requirement (SRS).</li> <li>- Develop a plan to draw and control architectural design.</li> <li>- Create and review SRS, SAD and SDD documents.</li> <li>- Design and create database.</li> <li>- Coding function</li> <li>- Execute test to ensure all functions fulfill requirements and make test report.</li> <li>- Support other team members.</li> </ul>

**Table 2-1: Roles and Responsibilities**

### **2.2.3 Tools and Techniques**

#### **2.2.3.1 Tools**

- Microsoft Visual Studio 2012: Integrated Development Environment (IDE)
- Microsoft SQL Server 2008: Database Management System (DBMS)
- Microsoft Office: Create documents and reports
- Software Ideas Modeler: Draw diagrams
- TortoiseSVN: Subversion repository for controlling source code
- Firefox: Environment to use and testing project

#### **2.2.3.2 Techniques**

- ASP .NET MVC4
- Entity Framework (EF) 5
- Ajax, Jquery

# Capstone Project: LFMS

## 2.3 Schedule

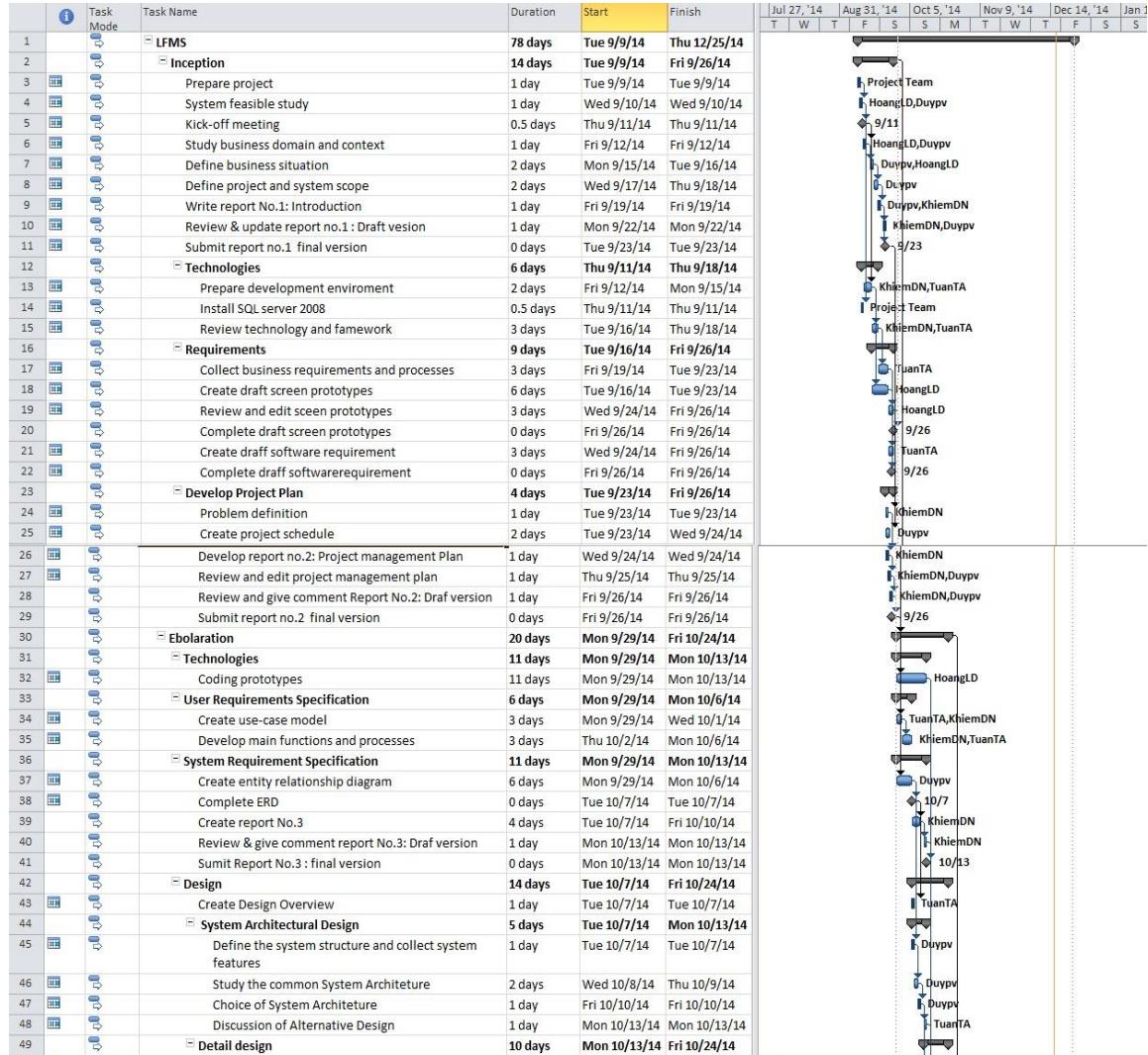


Figure 2-3: Project plan - 1

## Capstone Project: LFMS

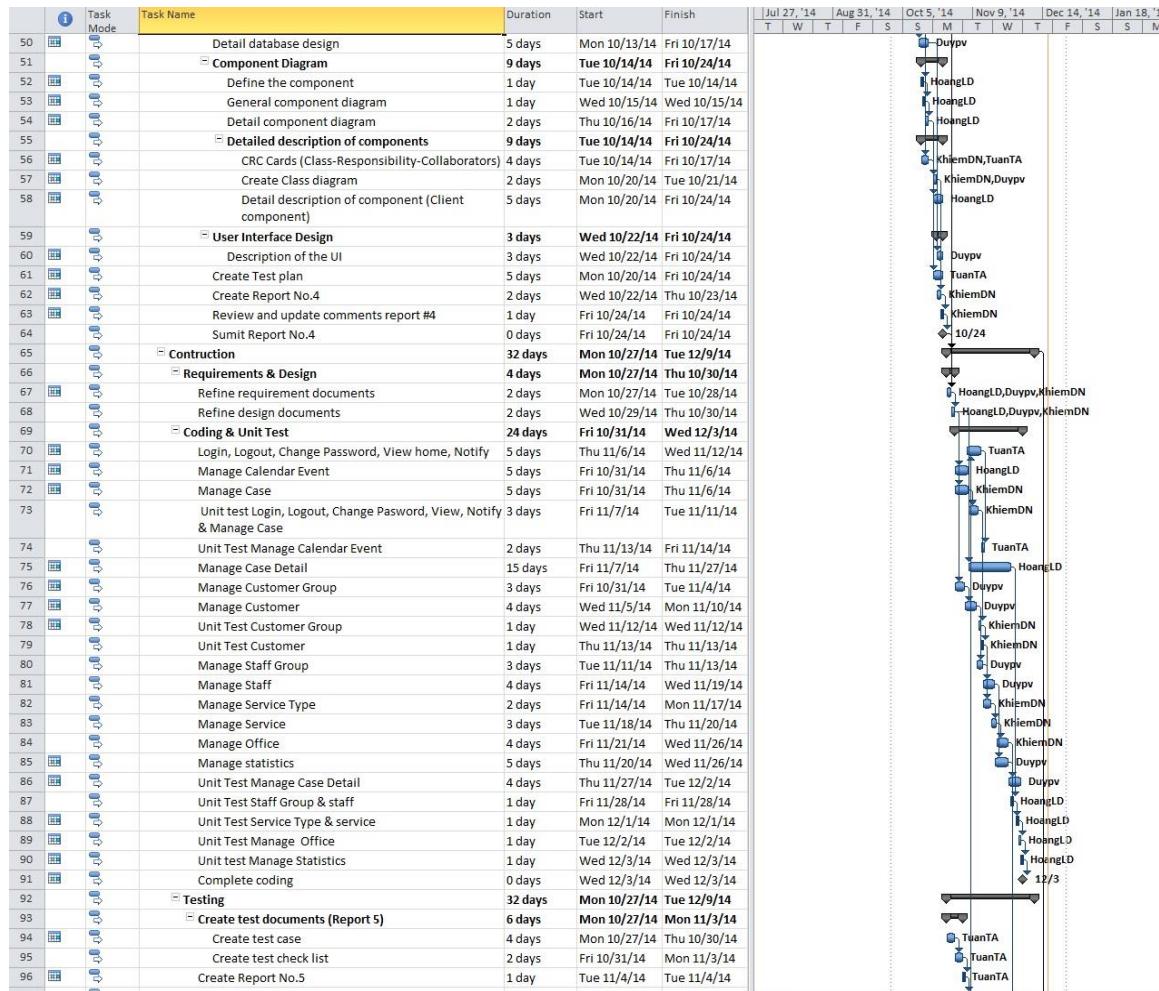


Figure 2-4: Project plan - 2

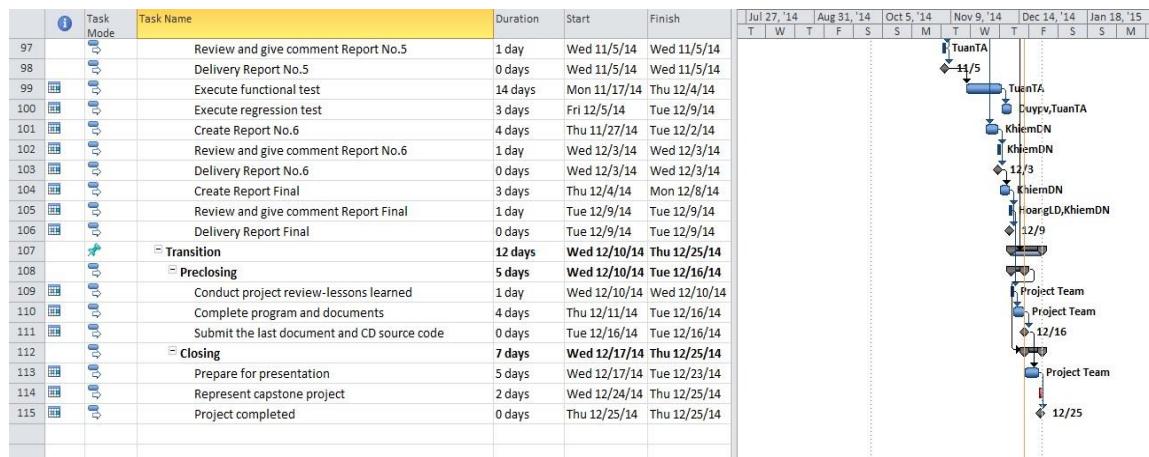


Figure 2-5: Project plan - 3

## 2.4 Convention Rules

Summary:

- Naming Convention.
- Indentation.
- Declaration.
- Code Examples.

Follow “Code Conventions for the C# Programming Language, by Microsoft:

<http://msdn.microsoft.com/en-us/library/ff926074.aspx>

# Report No.3: Software Requirement Specification

## 3.1. User Requirement Specification

### 3.1.1. Functional Requirements

#### 3.1.1.1. Case Management:

**Access right: All users**

- Manage all information of Case by customers, general information, operation event, lawyer viewpoint, people related, document related and Used Service. Assign one or many lawyer into Case, payments of each case.

#### 3.1.1.2. Manage Calendar:

**Access right: All users**

- Manage all calendar work of staff.

#### 3.1.1.3. Customer Management:

**Access right: Administrator**

- Add new, edit customer information and delete customer. Stored for use in later Cases.

#### 3.1.1.4. Staff Management:

**Access right: Administrator**

- Add new, edit staff information and deactivate staff. Division of roles in the system used.

#### 3.1.1.5. Service Management:

**Access right: Administrator**

- Add new, edit service information and delete service. Use for Used Service.

#### 3.1.1.6. Office Management:

**Access right: Administrator**

- Add new, edit office information and deactivate office. Can only be used by “super admin” – the admin user role have StaffId is 1.

### 3.1.1.7. Statistics Management:

#### Access right: Administrator

- View all Statistics of system about revenue, number of case received and compare revenue, number of case between offices, staffs.

## 3.1.2. Non-Functional Requirements

The Law Firm Management System (LFMS) is an internal website, which allows management law office system.

- **Learnable:** The user interface must be easy to learn, even at the first time looking at the screen, user may immediately understand the function of each button or icon.
- **Efficiency:** The user interface must minimize the number of steps that the system takes to complete its task.
- **Memorable:** System contains some complex screens. Therefore, interface should be easier to use each time the user interacts with it.
- **Visibility:** Important information (example: text in nodes) should be clearly visible.
- **Consistency:** Like-items should always be displayed and act the same way through the entire application.

## 3.2. System Requirement Specification (Specific Requirements)

### 3.2.1. External Interface Requirements

#### 3.2.1.1. User Interfaces

System is designed so friendly and easy to use with users. Home page list all the records of reception Cases. Besides have the calendar, prompted by notification bar at the top.

All functions in menu must be grouped in a meaningful way to make it easy for users to locate and access the features.

#### 3.2.1.2. Communications Protocol

The system is web base so it's should be applied Hypertext Transfer Protocol (HTTP) is main communication protocol.

### 3.2.2. Functional Requirements

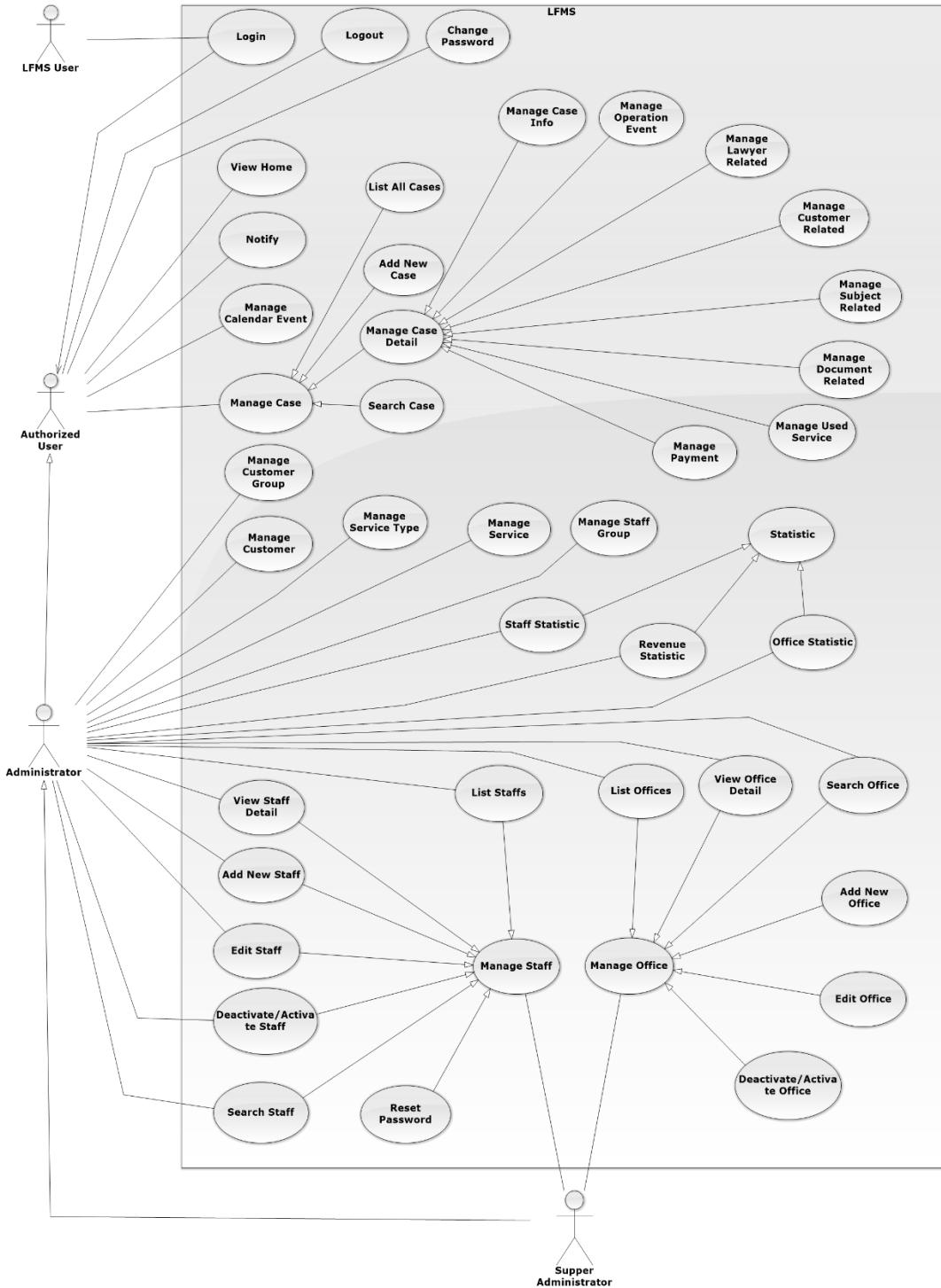


Figure 3-1: Overview Use-Case Diagram

### 3.2.2.1. UC0001 - Login

#### 3.2.2.1.1. Use-Case Diagram



Figure 3-2: Login Use-Case Diagram

#### 3.2.2.1.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0001	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Login		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Staff.			
<b>Summary:</b> This use case allows staff to log on into the system.			
<b>Goal:</b> Authenticate user.			
<b>Triggers:</b> User access website area that is intended staff.			
<b>Preconditions:</b> User has an account and has not logged in yet.			
<b>Post Conditions:</b> <b>Success:</b> User logged in. System redirects user to “Home” page. <b>Failure:</b> System redirects to “Login” page.			

<b>Main Success Scenario:</b>		
<b>Step</b>	<b>User</b>	<b>System</b>
1	User go to website page	Website will show [Login] page
2	User input information into username field and password field	
3	Presses “Đăng nhập” button or click “Enter” key	Checks username and password. Redirect to “Home” page. [Exception 1] [Exception 2]

<b>Alternative Scenario:</b>		
N/A		

<b>Exceptions:</b>		
#	<b>User</b>	<b>System</b>
1	Presses “Login” button. If invalid username or password.	System redirect to “Login” page and display error message “Tên đăng nhập hoặc mật khẩu không đúng!”
2	Presses “Login” button. If have error when connect database	System redirect to “Login” page and display error message “Lỗi kết nối đến máy chủ!”

<b>Business Rules:</b>		
<ul style="list-style-type: none"> <li>- Password must be longer than 6 characters</li> </ul>		

### 3.2.2.2. UC0002 - Logout

#### 3.2.2.2.1. Use-Case Diagram



Figure 3-3: Logout Use-Case Diagram

### 3.2.2.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0003	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	Logout								
<b>Author</b>	Trần Anh Tuấn								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<p><b>Actor:</b> Authorized User.</p> <p><b>Summary:</b> This use case allows staff to logout the system.</p> <p><b>Goal:</b> The users can log out successful from their roles.</p> <p><b>Triggers:</b> Staff click on “Đăng xuất” on User Control Panel.</p> <p><b>Preconditions:</b> Staff has logged in to the website.</p> <p><b>Post Conditions:</b> Success: Back to login screen Failure: An error message is displayed.</p> <p><b>Main Success Scenario:</b></p> <table border="1"> <thead> <tr> <th>Step</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Staff click “Đăng xuất” button on User Control Panel</td><td>The user name of user will be disappeared on website, Redirect to “Login” page.</td></tr> </tbody> </table>				Step	User	System	1	Staff click “Đăng xuất” button on User Control Panel	The user name of user will be disappeared on website, Redirect to “Login” page.
Step	User	System							
1	Staff click “Đăng xuất” button on User Control Panel	The user name of user will be disappeared on website, Redirect to “Login” page.							

### 3.2.2.3. UC0004 - Change Password

#### 3.2.2.3.1. Use-Case Diagram

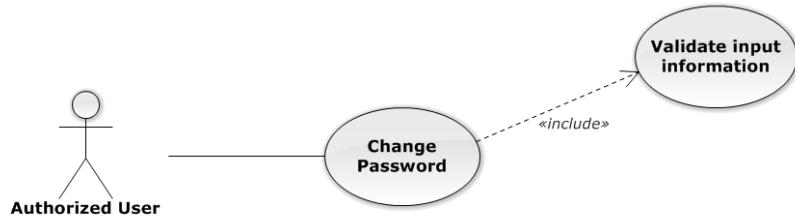


Figure 3-4: Change Password Use-Case Diagram

#### 3.2.2.3.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0005	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Change Password		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User.			
<b>Summary:</b> This use case allows staff can change password of them.			
<b>Goal:</b> Change password.			
<b>Triggers:</b> User access website area and click on “Đổi mật khẩu”.			
<b>Preconditions:</b> User has logged in.			

**Post Conditions:**

**Success:** The password is changed and display message “Cập nhật mật khẩu nhân viên thành công!”

**Failure:** Password is not changed. Display error message.

**Main Success Scenario:**

Step	User	System
1	Staff has logged in, click on “Đổi mật khẩu” on User Control Panel.	Modal Popup “Thay đổi mật khẩu” is display with three fields: “Mật khẩu cũ”, “Mật khẩu mới” and “Lặp lại mật khẩu mới”. Two button “Đóng”, “Đổi mật khẩu”
2	User input information, Click “Đổi mật khẩu” button [Alternative 1] [Exception 1]	Check information validity and change password

**Alternative Scenario:**

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close

**Exceptions:**

#	User	System
1	Field “Mật khẩu cũ” are blank	Shows error message “Hãy nhập lại mật khẩu cũ”
	Field “Mật khẩu mới”, are blank	Shows error message “Hãy nhập mật khẩu mới”
	Field “Lặp lại mật khẩu mới” are blank	Shows error message “Hãy nhập lại mật khẩu mới”
	Input to field “Mật khẩu cũ”, “Mật khẩu mới” and field “Lặp lại mật khẩu mới” regular expression.	Shows error message “Mật khẩu không được có kí tự đặc biệt”
	Input to field “Mật khẩu mới” and field “Lặp lại mật khẩu mới” not enough 6 character	Shows error message “Mật khẩu mới phải có ít nhất 6 kí tự”

	<p>Input to field “Mật khẩu mới” and field “Lặp lại mật khẩu mới” are different</p> <p>Input to field “Mật khẩu cũ” not the same with database</p>	<p>Shows error message “Mật khẩu 2 không trùng khớp”</p> <p>Shows error message “Mật khẩu cũ không đúng!”.</p>
<b>Business Rules:</b>		
<ul style="list-style-type: none"> <li>- Password must be longer than 6 characters</li> </ul>		

### 3.2.2.4. UC0006 - View Home

#### 3.2.2.4.1. Use-Case Diagram



Figure 3-5: View Home Use-Case Diagram

#### 3.2.2.4.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0007	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View Home		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Authorized User		
<b>Summary:</b>			

User must be Login before and then redirect them to “Trang Chủ” page.

### Goal:

To allowing user to view some information of all Cases, which is operating and assigned by Staff related.

### Triggers:

- User click on logo LFMS
- Click on “Trang Chủ” link.

### Preconditions:

- Must be logged-in
- The page is fully loaded

### Post Conditions:

Success: System redirect user to “Trang Chủ” page and list cases

Failure: Do nothing.

### Main Success Scenario:

Step	User	System
1	Click on logo LFMS or “Trang Chủ” link	<ul style="list-style-type: none"><li>• Redirect to “Trang Chủ” page</li><li>• List Cases by Office filter</li></ul>

### 3.2.2.5. UC0008 - Notify

#### 3.2.2.5.1. Use-Case Diagram



Figure 3-6: Notify Use-Case Diagram

#### 3.2.2.5.2. Use-Case Specification

### USE-CASE SPECIFICATION

## Capstone Project: LFMS

<b>Use-case No.</b>	UC0009	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Notify		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal

**Actor:**  
Authorized User

**Summary:**  
User must be login before and then the system will be show notification in navigation bar.

**Goal:**  
User can see all Today's events.

**Triggers:**  
The notification is always to show.

**Preconditions:**

- Must be logged-in
- The page is fully loaded

**Post Conditions:**  
Success: Show to user  
Failure: Do nothing.

**Main Success Scenario:**

Step	User	System
1	Login into the system	User can see notification about all Today's events

### 3.2.2.6. Manage Calendar Event

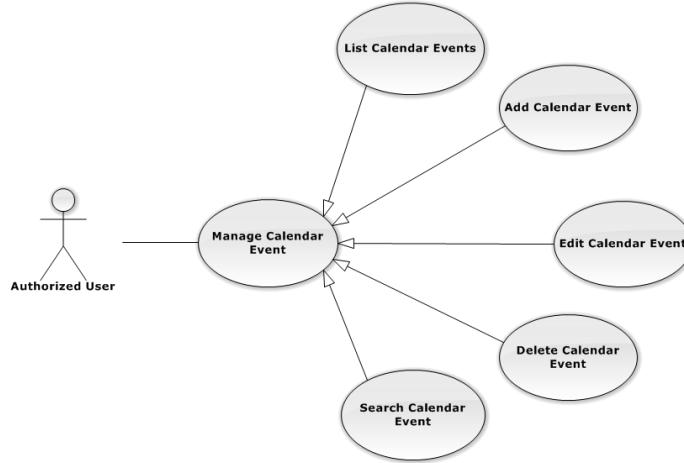


Figure 3-7: Manage Calendar Event Use-Case Diagram

#### 3.2.2.6.1. UC0010 - List Calendar Events

##### 3.2.2.6.1.1. Events Use-Case Diagram



Figure 3-8: List Calendar Event Use-Case Diagram

##### 3.2.2.6.1.2. Events Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0011	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	List Calendar Events		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal

<b>Actor:</b> Authorized User.						
<b>Summary:</b> List All Calendar Event.						
<b>Goal:</b> The purpose of List Calendar Event use case is allowing User to view all Events in full-calendar.						
<b>Triggers:</b> User choose “Lịch làm việc” tab in Homepage.						
<b>Preconditions:</b> User is authenticated.						
<b>Post Conditions:</b> Success: All Calendar Events are listed. Failure: N/A						
<b>Main Success Scenario:</b> <table border="1"><thead><tr><th>Step</th><th>User</th><th>System</th></tr></thead><tbody><tr><td>1</td><td>Click “Lịch làm việc” tab in home page.</td><td>All Calendar Events are loaded.</td></tr></tbody></table>	Step	User	System	1	Click “Lịch làm việc” tab in home page.	All Calendar Events are loaded.
Step	User	System				
1	Click “Lịch làm việc” tab in home page.	All Calendar Events are loaded.				
<b>Relationships:</b> Manage Calendar Event						

### 3.2.2.6.2. UC0012 - Add New Calendar Event

#### 3.2.2.6.2.1. Use-Case Diagram



Figure 3-9: Add New Calendar Event

### 3.2.2.6.2.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>															
<b>Use-case No.</b>	UC0013	<b>Use-case Version</b>	1.0												
<b>Use-case Name</b>	Add New Calendar Event														
<b>Author</b>	Trần Anh Tuấn														
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal												
<b>Actor:</b> Authorized User.															
<b>Summary:</b> Add new Calendar Event.															
<b>Goal:</b> The purpose of Add Calendar Event use case is allowing User to add new Calendar Event.															
<b>Triggers:</b> User choose “Lịch làm việc” tab in home page.															
<b>Preconditions:</b> User is authenticated.															
<b>Post Conditions:</b> Success: New Calendar Event is created. Failure: N/A															
<b>Main Success Scenario:</b> <table border="1"> <thead> <tr> <th>Step</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Click anywhere in calendar.</td><td>Show Add new calendar event pop-up.</td></tr> <tr> <td>2</td><td>Enters the Calendar Event Name</td><td></td></tr> <tr> <td>3</td><td>Presses “Thêm Sự kiện” button. [Alternative: 1]</td><td>Add new Calendar Event to database.</td></tr> </tbody> </table>				Step	User	System	1	Click anywhere in calendar.	Show Add new calendar event pop-up.	2	Enters the Calendar Event Name		3	Presses “Thêm Sự kiện” button. [Alternative: 1]	Add new Calendar Event to database.
Step	User	System													
1	Click anywhere in calendar.	Show Add new calendar event pop-up.													
2	Enters the Calendar Event Name														
3	Presses “Thêm Sự kiện” button. [Alternative: 1]	Add new Calendar Event to database.													

<b>Alternative Scenario:</b>		
#	User	System
1	Presses “Đóng”, “X” button or click outside pop-up.	The Add New Calendar event pop-up is close.
<b>Relationships:</b>		
Manage Calendar Event		

### 3.2.2.6.3. UC0014 - Edit Calendar Event

#### 3.2.2.6.3.1. Use-Case Diagram



Figure 3-10: Edit Calendar Event Use-Case Diagram

#### 3.2.2.6.3.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>			
<b>Use-case No.</b>	UC0015	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Calendar Event		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal

# Capstone Project: LFMS

**Actor:**

Authorized User.

**Summary:**

Update Calendar Event.

**Goal:**

The purpose of Update Calendar Event use case is allowing User to edit Calendar Event.

**Triggers:**

User choose “Lịch làm việc” tab in Homepage.

**Preconditions:**

User is authenticated.

**Post Conditions:**

Success: The Calendar Event is Updated.

Failure: N/A

**Main Success Scenario:**

Step	User	System
1	Click at an exist event.	Show edit calendar event pop-up.
2	Enters the new Calendar Event Name	
3	Presses “Lưu chỉnh sửa” button. [Alternative: 1]	Update Calendar event to database.
1	Drag and drop an exist event.	Update Calendar event to database.
1	Reside an exist event.	Update Calendar event to database.

**Alternative Scenario:**

#	User	System
1	Presses “Đóng”, “X” button or click outside pop-up.	The Update Cledar event pop-up is close.

**Relationships:**

Manage Calendar Event

### 3.2.2.6.4. UC0009 - Delete Calendar Event

#### 3.2.2.6.4.1. Use-Case Diagram



Figure 3-11: Delete Calendar Event Use-Case Diagram

#### 3.2.2.6.4.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0016	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Calendar Event		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User.			
<b>Summary:</b> Delete Calendar Event.			
<b>Goal:</b> The purpose of Delete Calendar Event use case is allowing User to delete Calendar Event.			
<b>Triggers:</b> User choose “Lịch làm việc” tab in Homepage.			
<b>Preconditions:</b>			

User is authenticated.									
<b>Post Conditions:</b>									
Success: The Calendar Event is deleted.									
Failure: N/A									
<b>Main Success Scenario:</b>									
<table border="1"> <thead> <tr> <th>Step</th> <th>User</th> <th>System</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Click at an exist event.</td> <td>Show confirm pop-up</td> </tr> <tr> <td>2</td> <td>Presses “Xóa sự kiện” button. [Alternative: 1]</td> <td>Delete Calendar Event from database.</td> </tr> </tbody> </table>	Step	User	System	1	Click at an exist event.	Show confirm pop-up	2	Presses “Xóa sự kiện” button. [Alternative: 1]	Delete Calendar Event from database.
Step	User	System							
1	Click at an exist event.	Show confirm pop-up							
2	Presses “Xóa sự kiện” button. [Alternative: 1]	Delete Calendar Event from database.							
<b>Alternative Scenario:</b>									
<table border="1"> <thead> <tr> <th>#</th> <th>User</th> <th>System</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Presses “Đóng”, “X” button or click outside pop-up.</td> <td>The confirm pop-up is close.</td> </tr> </tbody> </table>	#	User	System	1	Presses “Đóng”, “X” button or click outside pop-up.	The confirm pop-up is close.			
#	User	System							
1	Presses “Đóng”, “X” button or click outside pop-up.	The confirm pop-up is close.							
<b>Relationships:</b>									
Manage Calendar Event									

### 3.2.2.6.5. UC0017 - Search Calendar Event

#### 3.2.2.6.5.1. Use-Case Diagram



Figure 3-12: Search Calendar Event Use-Case Diagram

#### 3.2.2.6.5.2. Use-Case Specification

USE CASE SPECIFICATION			
Use-case No.	UC0018	Use-case Version	1.0

## Capstone Project: LFMS

<b>Use-case Name</b>	Search Calendar Event											
<b>Author</b>	Trần Anh Tuấn											
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal									
<b>Actor:</b> Authorized User.												
<b>Summary:</b> Show all Calendar Event of a Staff.												
<b>Goal:</b> The purpose of Search Calendar Event use case is allowing User to view Calendar event of other staff.												
<b>Triggers:</b> Click at “Lịch làm việc luật sư khác” button.												
<b>Preconditions:</b> User is authenticated.												
<b>Post Conditions:</b> Success: The Calendar Event is showed. Failure: Do nothing.												
<b>Main Success Scenario:</b>												
<table border="1"> <thead> <tr> <th>Step</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Click at “Lịch làm việc luật sư khác” button.</td><td>Show helper frame.</td></tr> <tr> <td>2</td><td>Choose a staff in combo-box</td><td>Show al Calendar Event of these Staff.</td></tr> </tbody> </table>				Step	User	System	1	Click at “Lịch làm việc luật sư khác” button.	Show helper frame.	2	Choose a staff in combo-box	Show al Calendar Event of these Staff.
Step	User	System										
1	Click at “Lịch làm việc luật sư khác” button.	Show helper frame.										
2	Choose a staff in combo-box	Show al Calendar Event of these Staff.										
<b>Relationships:</b> Manage calendar event												

### 3.2.2.7. Manage Case

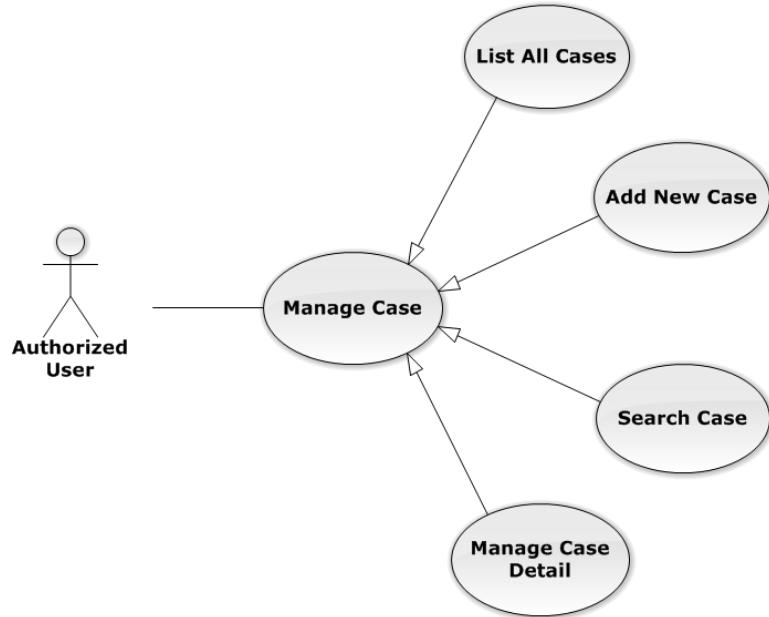


Figure 3-13: Manage Case Use-Case Diagram

#### 3.2.2.7.1. UC0019 - List All Cases

##### 3.2.2.7.1.1. Use-Case Diagram

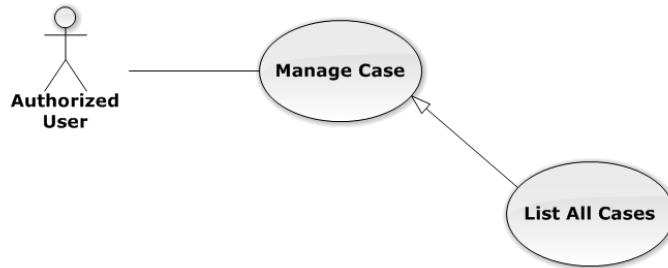


Figure 3-14: List All Cases Use-Case Diagram

### 3.2.2.7.1.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0020	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	List All Cases								
<b>Author</b>	Trần Anh Tuấn								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<p><b>Actor:</b> Authorized User</p> <p><b>Summary:</b> Redirect to “Danh sách hồ sơ” page and list all cases.</p> <p><b>Goal:</b> To allowing customer to view any detail information of all Cases</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>User click on User Control Panel and then click on “Danh sách hồ sơ” link</li> <li>Click on “Danh sách hồ sơ” link in Case Detail of each Case</li> </ul> <p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>Must be logged-in</li> <li>The page is fully loaded</li> </ul> <p><b>Post Conditions:</b></p> <p>Success: System redirects user to “Danh sách hồ sơ” page. Failure: Do nothing.</p> <p><b>Main Success Scenario:</b></p> <table border="1"> <thead> <tr> <th>Step</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Click on “Danh sách hồ sơ” link</td><td> <ul style="list-style-type: none"> <li>Redirect to “Danh sách hồ sơ” page</li> <li>Show all Cases by searching condition</li> </ul> </td></tr> </tbody> </table>				Step	User	System	1	Click on “Danh sách hồ sơ” link	<ul style="list-style-type: none"> <li>Redirect to “Danh sách hồ sơ” page</li> <li>Show all Cases by searching condition</li> </ul>
Step	User	System							
1	Click on “Danh sách hồ sơ” link	<ul style="list-style-type: none"> <li>Redirect to “Danh sách hồ sơ” page</li> <li>Show all Cases by searching condition</li> </ul>							

**Relationships:**

Manage Case

### 3.2.2.7.2. UC0021 - Add New Case

#### 3.2.2.7.2.1. Use-Case Diagram

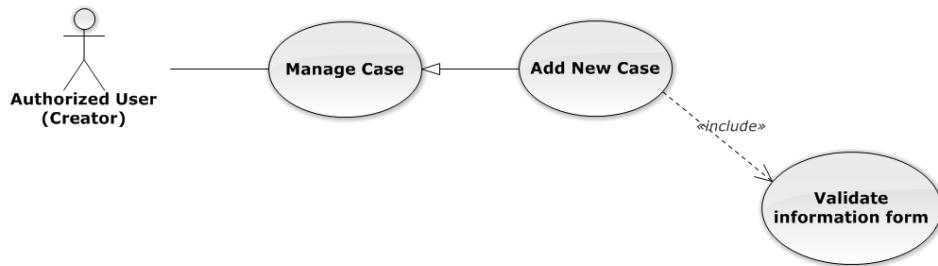


Figure 3-15: Add New Case Use-Case Diagram

#### 3.2.2.7.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0022	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Add New Case		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	High
<b>Actor:</b>	Authorized User have “Creator” role		
<b>Summary:</b>	Staff can add new case by input data on form modal		
<b>Goal:</b>	Helps Staff input information of a case when they add new one		
<b>Triggers:</b>			

# Capstone Project: LFMS

Staff click on “Thêm mới” button in modal

## Preconditions:

- Must be logged-in with “Creator” role
- The page is fully loaded

## Post Conditions:

Success:

- Add new case successful
- Add current Staff to Lawyer Related of the new Case
- Redirect to view detail page of new case

Failure: System display error message “Thêm hồ sơ thất bại!”

## Main Success Scenario:

Step	User	System
1	<ul style="list-style-type: none"> <li>• Staff click on icon-plus button in “Trang chủ” page</li> <li>• Click on “Thêm hồ sơ tác nghiệp” button in “Danh sách hồ sơ” page</li> </ul>	Modal popup is displayed with fields for input information of new case
2	Input corresponding information in form then click “Thêm mới” button [Alternative 1] [Exception 1]	<ul style="list-style-type: none"> <li>• Modal popup is close</li> <li>• System display successful message “Thêm hồ sơ thành công!”</li> <li>• Update list case on page</li> </ul>

## Alternative Scenario:

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close

## Exceptions:

#	User	System
1	Leave empty require fields then click on “Thêm mới” button	Modal popup display validation for needed to input field

## Relationships:

Manage Case

**Business Rules:**

- Authorized User must have “Creator” role to use this function
- After create case successfully, system will be automatically assign Creator into that new case

### 3.2.2.7.3. UC0023 - Search Case

#### 3.2.2.7.3.1. Use-Case Diagram

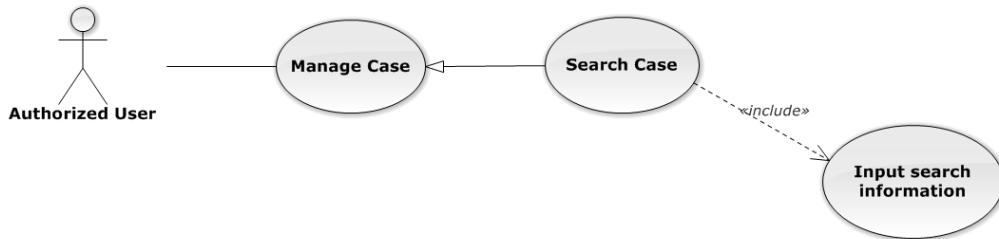


Figure 3-16: Search Case Use-Case Diagram

#### 3.2.2.7.3.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0024	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Case		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Authorized User		
<b>Summary:</b>	Staff can search Cases by multi condition		
<b>Goal:</b>			

## Capstone Project: LFMS

Helps Staff to search Cases of system more easy												
<b>Triggers:</b> Staff inputs key words on “Tìm kiếm” textbox at the top right of case list table to search follow key words inputted. When the key up, system will be automatic search.												
<b>Preconditions:</b> <ul style="list-style-type: none"><li>• Must be logged-in</li><li>• The page is fully loaded</li><li>• Inputs key words on “Tìm kiếm” textbox</li></ul>												
<b>Post Conditions:</b> Success: Cases of the system are displayed page by page Failure: Do nothing												
<b>Main Success Scenario:</b> <table border="1"><thead><tr><th>Step</th><th>User</th><th>System</th></tr></thead><tbody><tr><td>1</td><td>Input key words into textbox and then key up [Alternative 1] [Alternative 2] [Alternative 3]</td><td>Display cases matches key words and multi condition</td></tr></tbody></table>	Step	User	System	1	Input key words into textbox and then key up [Alternative 1] [Alternative 2] [Alternative 3]	Display cases matches key words and multi condition						
Step	User	System										
1	Input key words into textbox and then key up [Alternative 1] [Alternative 2] [Alternative 3]	Display cases matches key words and multi condition										
<b>Alternative Scenario:</b> <table border="1"><thead><tr><th>#</th><th>User</th><th>System</th></tr></thead><tbody><tr><td>1</td><td>Select number result in page</td><td>Display many cases follow number result in page</td></tr><tr><td>2</td><td>Click on another page number</td><td>Display many cases result in another page</td></tr><tr><td>3</td><td>Click on “Mã hồ sơ” link</td><td>Redirect to view Case detail</td></tr></tbody></table>	#	User	System	1	Select number result in page	Display many cases follow number result in page	2	Click on another page number	Display many cases result in another page	3	Click on “Mã hồ sơ” link	Redirect to view Case detail
#	User	System										
1	Select number result in page	Display many cases follow number result in page										
2	Click on another page number	Display many cases result in another page										
3	Click on “Mã hồ sơ” link	Redirect to view Case detail										
<b>Relationships:</b> Manage Case												

#### 3.2.2.7.4. Manage Case Detail

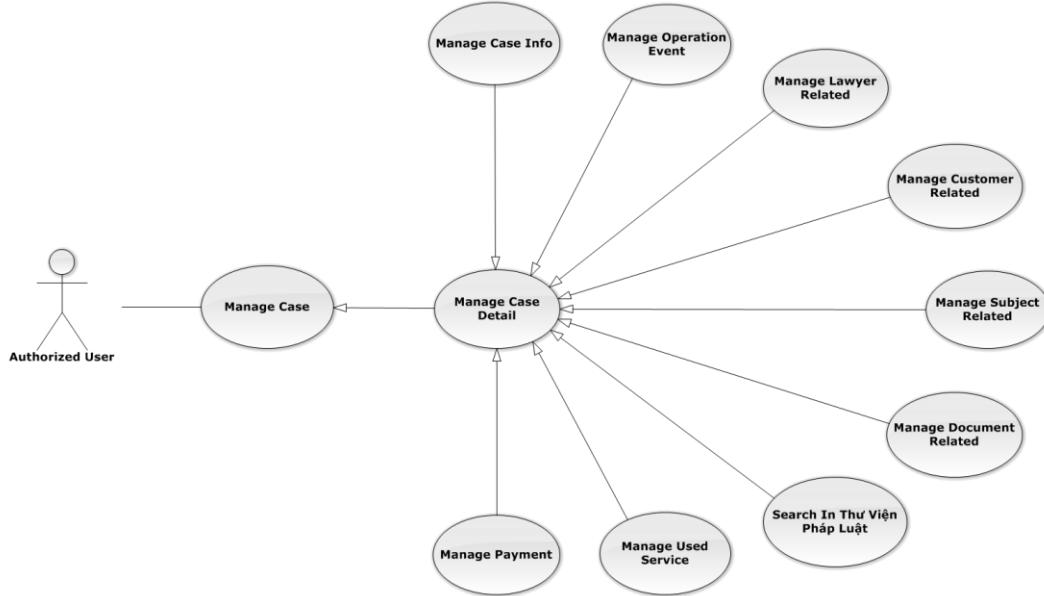


Figure 3-17: Manage Case Detail Use-Case Diagram

#### 3.2.2.7.4.1. Manage Case Info

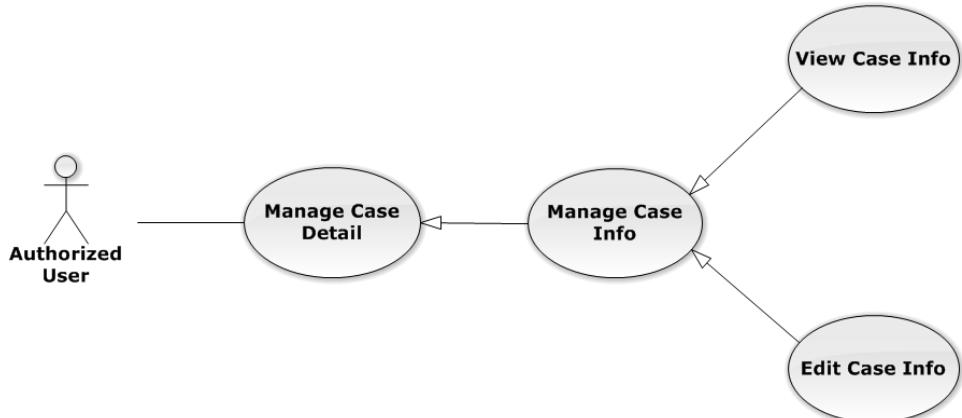


Figure 3-18: Manage Case Info Use-Case Diagram

### 3.2.2.7.4.1.1. UC0025 - View Case Info

#### 3.2.2.7.4.1.1.1. Use-Case Diagram

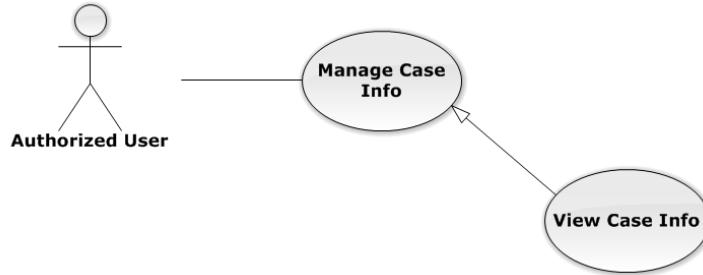


Figure 3-19: View Case Info Use-Case Diagram

#### 3.2.2.7.4.1.1.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0026	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View Case Info		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User			
<b>Summary:</b> Staff can view current case's information			
<b>Goal:</b> Helps staff to get detail and main content of the case quickly			
<b>Triggers:</b> <ul style="list-style-type: none"><li>• Staff click on “Mã hồ sơ” link in “Danh sách hồ sơ”</li><li>• Staff click on big button corresponding with each case on “Trang chủ”</li></ul>			
<b>Preconditions:</b>			

- Must be logged-in
- The page is fully loaded
- Must be in Case Detail page

**Post Conditions:**

Success: The case's detail is displayed correctly and successfully

Failure: Do nothing

**Main Success Scenario:**

Step	User	System
1	<ul style="list-style-type: none"> <li>• Staff click on “Mã hồ sơ” link in “Danh sách hồ sơ”</li> <li>• Staff click on big button on “Trang chủ”</li> </ul>	<ul style="list-style-type: none"> <li>• System redirect to Case Detail page</li> <li>• Show detail of main case content</li> </ul>

**Relationships:**

Manage Case Info

### 3.2.2.7.4.1.2. UC0027 - Edit Case Info

#### 3.2.2.7.4.1.2.1. Use-Case Diagram

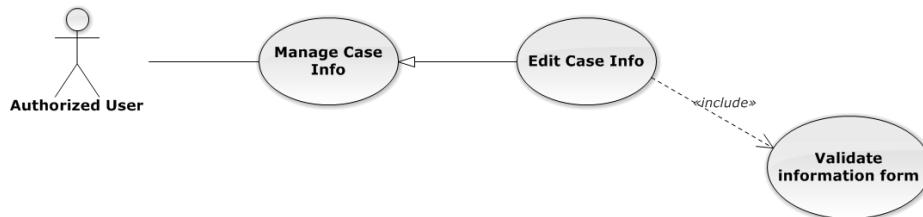


Figure 3-20: Edit Case Info Use-Case Diagram

### 3.2.2.7.4.1.2.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>						
<b>Use-case No.</b>	UC0028	<b>Use-case Version</b>	1.0			
<b>Use-case Name</b>	Edit Case Info					
<b>Author</b>	Trần Anh Tuấn					
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal			
<b>Actor:</b> Authorized User who is assigned in current case						
<b>Summary:</b> Staff can edit and update case detail						
<b>Goal:</b> Helps Staff easy to update case information						
<b>Triggers:</b> Staff click on “Lưu chỉnh sửa” button						
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in Case Detail page</li> <li>• Click on edit icon beside “Thông tin chung” label before and the case have “Đang thụ lý” status</li> </ul>						
<b>Post Conditions:</b> <p>Success: The case detail will be updated and system display message “Cập nhật chi tiết hồ sơ thành công!”</p> <p>Failure: System display message “Cập nhật chi tiết hồ sơ thất bại!”</p>						
<b>Main Success Scenario:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 2px;">Step</th><th style="text-align: center; padding: 2px;">User</th><th style="text-align: center; padding: 2px;">System</th></tr> </thead> </table>				Step	User	System
Step	User	System				

1	Click on edit icon beside “Thông tin chung” label [Exception 1]	<ul style="list-style-type: none"> <li>• All off fields will enable to input</li> <li>• “Hủy chỉnh sửa” and “Lưu chỉnh sửa” button is display</li> </ul>
2	Input information and then click “Lưu chỉnh sửa” button [Alternative 1] [Exception 2]	<ul style="list-style-type: none"> <li>• The case detail will be updated</li> <li>• System display message “Cập nhật chi tiết hồ sơ thành công!”</li> <li>• All off fields will disable</li> <li>• “Hủy chỉnh sửa” and “Lưu chỉnh sửa” button is hidden</li> </ul>

**Alternative Scenario:**

#	User	System
1	Click on “Hủy chỉnh sửa” button	<ul style="list-style-type: none"> <li>• The case detail will be reloaded</li> <li>• All off fields will disable</li> <li>• “Hủy chỉnh sửa” and “Lưu chỉnh sửa” button is hidden</li> </ul>

**Exceptions:**

#	User	System
1	Click on edit icon when the case have “Đã thụ lý” status	System display message “Hồ sơ đã thụ lý!”
2	Leave empty require fields then click on “Lưu chỉnh sửa” button	Display validation message for needed to input field

**Relationships:**

Manage Case Info

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.2. Manage Operation Event

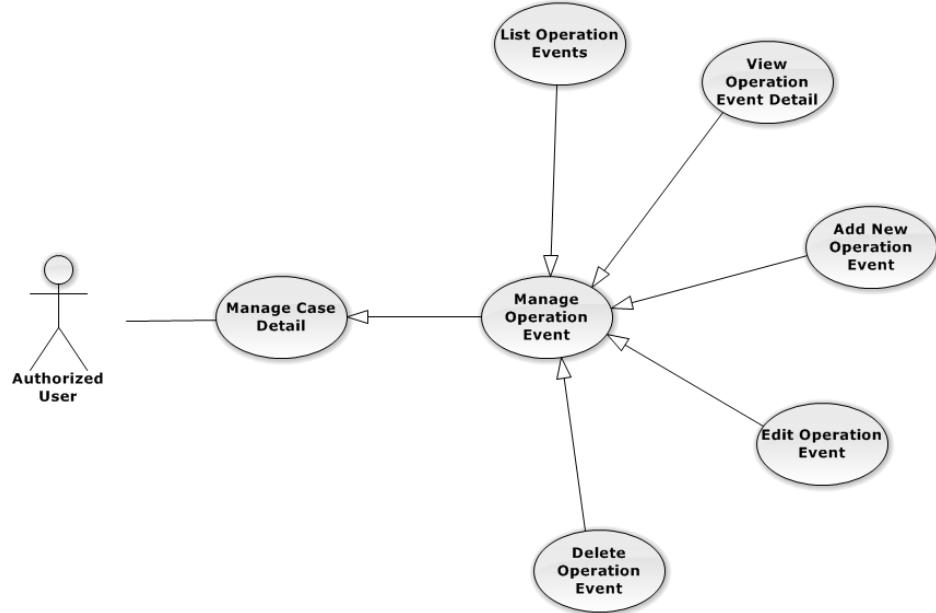


Figure 3-21: Manage Operation Event Use-Case Diagram

#### 3.2.2.7.4.2.1. UC0029 - List Operation Events

##### 3.2.2.7.4.2.1.1. Use-Case Diagram



Figure 3-22: List Operation Events Use-Case Diagram

##### 3.2.2.7.4.2.1.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0030	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	List Operation Events								
<b>Author</b>	Trần Anh Tuấn								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<p><b>Actor:</b> Authorized User</p> <p><b>Summary:</b> Show all event of case.</p> <p><b>Goal:</b> Help staff to view all event of case.</p> <p><b>Triggers:</b> User click on “Sự kiện” link in Case Detail page</p> <p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in Case Detail page</li> </ul> <p><b>Post Conditions:</b></p> <p>Success: List all event in current case Failure: Do nothing</p> <p><b>Main Success Scenario:</b></p> <table border="1"> <thead> <tr> <th>Step</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Click on “Sự kiện” link</td><td>Show all event in current case</td></tr> </tbody> </table> <p><b>Relationships:</b> Manage Operation Event</p>				Step	User	System	1	Click on “Sự kiện” link	Show all event in current case
Step	User	System							
1	Click on “Sự kiện” link	Show all event in current case							

### 3.2.2.7.4.2.2. UC0031 - View Operation Event Detail

### 3.2.2.7.4.2.2.1. Use-Case Diagram



Figure 3-23: View Operation Event Detail Use-Case Diagram

### 3.2.2.7.4.2.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0032	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View operation event detail		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Authorized User		
<b>Summary:</b>	Staff can view detail of event information		
<b>Goal:</b>	Helps staff to view event information		
<b>Triggers:</b>	<ul style="list-style-type: none"> <li>• Staff click on “Sự kiện” link</li> <li>• Click on one event</li> <li>• Click on “Mở rộng” button</li> </ul>		
<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> </ul>		

- Must be in Lawyer related page

**Post Conditions:**

Success: The detail event information is displayed

Failure: Do nothing

**Main Success Scenario:**

Step	User	System
1	Staff click on event day's link [Alternative 1], [Alternative 2]	The detail event information is displayed

**Alternative Scenario:**

#	User	System
1	Click on “Mở rộng” button	Display detail of all event of current case
2	Click on “Thu nhỏ” button	Close all detail event of current case, back to list event screen.

**Relationships:**

Manage Operation Event

### 3.2.2.7.4.2.3. UC0033 - Add New Operation Event

#### 3.2.2.7.4.2.3.1. Use-Case Diagram



Figure 3-24: Add New Operation Event Use-Case Diagram

### 3.2.2.7.4.2.3.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>			
<b>Use-case No.</b>	UC0034	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Add New Operation Event		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	High
<p><b>Actor:</b> Authorized User, who is assigned in current case</p> <p><b>Summary:</b> Staff can add new event into Case</p> <p><b>Goal:</b> Helps Staff create event into Case</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Staff click on “Sự kiện” link in Case Detail page</li> <li>• Click on edit icon beside “Sự kiện tác nghiệp” button</li> <li>• Click on “Thêm mới” button to add new event to current case.</li> </ul> <p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in event page</li> <li>• Click on edit icon beside “Sự kiện tác nghiệp” label before</li> </ul> <p><b>Post Conditions:</b></p> <p>Success:</p> <ul style="list-style-type: none"> <li>• Add new event into current Case</li> <li>• Show message successfully: “Thêm sự kiện thành công!”</li> </ul> <p>Failure: System display error message “Thêm sự kiện thất bại!”, “hãy kiểm tra lại kết nối database!”</p>			

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Sự kiện tác nghiệp” label	Form, “Thêm sự kiện” and “Hoàn thành” button is display
2	Click on the “Thêm sự kiện” button	Input form display , “Đóng” and “Tạo sự kiện” button is display
3	Input information into fields and click button “Hoàn thành” button [Alternative 1], [Exception 1]	System display message “Thêm sự kiện thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Đóng” button	Input form close back to list all event screen.

**Exceptions:**

#	User	System
1	System cannot insert event to data base.	Shows error message “Tạo sự kiện thất bại, hãy kiểm tra lại kết nối database”.

**Relationships:**

Manage Operation Event

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.2.4. UC0035 - Edit Operation Event

#### 3.2.2.7.4.2.4.1. Use-Case Diagram



Figure 3-25: Edit Operation Event Use-Case Diagram

### 3.2.2.7.4.2.4.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>			
<b>Use-case No.</b>	UC0036	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Operation Event		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User, who is assigned in current case			
<b>Summary:</b> Staff can update event into Case			
<b>Goal:</b> Helps Staff update event into Case			
<b>Triggers:</b> <ul style="list-style-type: none"> <li>• Staff click on “Sự kiện” link in Case Detail page</li> <li>• Click on edit icon beside “Sự kiện tác nghiệp” button</li> <li>• Click on “Edit” button to update event.</li> </ul>			
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in event page</li> <li>• Click on edit icon beside “Sự kiện tác nghiệp” label before</li> </ul>			
<b>Post Conditions:</b> <b>Success:</b> <ul style="list-style-type: none"> <li>• Update event into current Case</li> <li>• Show message successfully: “Sửa sự kiện thành công!”</li> </ul> <b>Failure:</b> System display error message “Sửa sự kiện thất bại!”, “hãy kiểm tra lại kết nối database!”			

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Sự kiện tác nghiệp” label	List all event in current case, “Edit” and “Delete” icon is display, “Thêm sự kiện” and “Hoàn thành” button is display
2	Click on the “Edit” button	Input form display , “Đóng” and “Lưu chỉnh sửa” button is display
3	Edit information into fields and click button “Lưu chỉnh sửa” button [Alternative 1] , [Exception 1]	System display message “Sửa sự kiện thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Đóng” button	Input form close back to list all event screen.

**Exceptions:**

#	User	System
1	While edit information of event click edit icon beside “Sự kiện tác nghiệp” button	Shows error message “Chỉnh sửa chưa hoàn thành! Hãy lưu hoặc đóng chỉnh sửa”.
	System cannot insert event to database.	Shows error message “Chỉnh sửa sự kiện thất bại, hãy kiểm tra lại kết nối database”.

**Relationships:**

Manage Operation Event

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.2.5. UC0037 - Delete Operation Event

#### 3.2.2.7.4.2.5.1. Use-Case Diagram



Figure 3-26: Delete Operation Event Use-Case Diagram

#### 3.2.2.7.4.2.5.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0038	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Operation Event		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User, who is assigned in current case			
<b>Summary:</b> Staff can remove Event in Case			
<b>Goal:</b> Helps Staff remove Event in Case			
<b>Triggers:</b> Staff click on delete icon in the end table list			
<b>Preconditions:</b> <ul style="list-style-type: none"><li>• Must be logged-in</li><li>• The page is fully loaded</li></ul>			

- Must be in Lawyer related page
- Click on edit icon beside “Sự kiện tác nghiệp” label before

**Post Conditions:**

Success:

- Remove the Event out of current Case
- Show message remove successfully: “Xóa sự kiện thành công!”

Failure: System display error message “Xóa sự kiện thất bại!”

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Sự kiện tác nghiệp” label	Icon delete is display
2	Click on icon delete corresponding with Event want to remove	Show a modal popup to confirm
3	Click on “Xác nhận” button [Alternative 1]	System display message “Xóa sự kiện thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Bỏ qua” button	Modal popup is close and system do not remove the Event

**Relationships:**

Manage Operation Event

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.3. Manage Lawyer Related

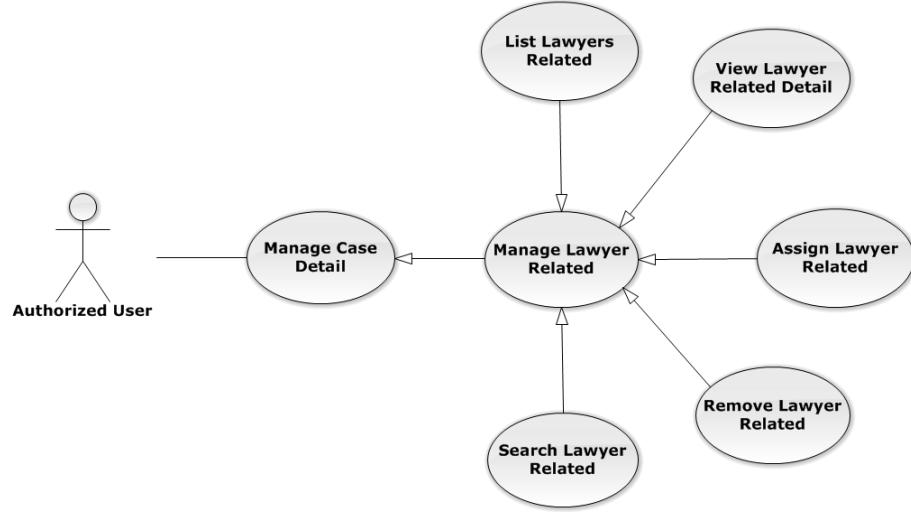


Figure 3-27: Manage Lawyer Related Use-Case Diagram

#### 3.2.2.7.4.3.1. UC0039 - List Lawyers Related

##### 3.2.2.7.4.3.1.1. Use-Case Diagram

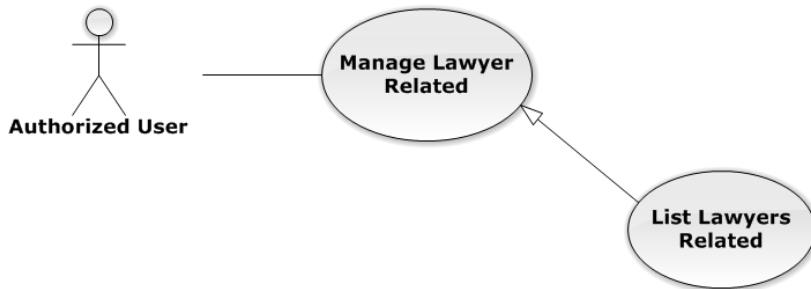


Figure 3-28: List Lawyers Related Use-Case Diagram

##### 3.2.2.7.4.3.1.2. Use-Case Specification

USE-CASE SPECIFICATION			
Use-case No.	UC0040	Use-case Version	1.0
Use-case Name	List Lawyers Related		

<b>Author</b>	Đặng Nguyễn Khiêm								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<b>Actor:</b>									
Authorized User									
<b>Summary:</b>									
Show all Lawyers, who is assigned in current case									
<b>Goal:</b>									
Help to view all Lawyers, who is assigned in current case									
<b>Triggers:</b>									
<ul style="list-style-type: none"> <li>• User click on “Người liên quan” link in Case Detail page</li> <li>• Click on “Luật sư” link at right top page</li> </ul>									
<b>Preconditions:</b>									
<ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in Case Detail page</li> </ul>									
<b>Post Conditions:</b>									
Success: List all Staffs is assigned in current case									
Failure: Do nothing									
<b>Main Success Scenario:</b>									
<table border="1"> <thead> <tr> <th>Step</th> <th>User</th> <th>System</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Click on “Người liên quan” link or “Luật sư” link</td> <td>Show all Lawyers is assigned in current case</td> </tr> </tbody> </table>				Step	User	System	1	Click on “Người liên quan” link or “Luật sư” link	Show all Lawyers is assigned in current case
Step	User	System							
1	Click on “Người liên quan” link or “Luật sư” link	Show all Lawyers is assigned in current case							
<b>Relationships:</b>									
Manage Lawyer Related									

### 3.2.2.7.4.3.2. UC0041 - View Lawyer Related Detail

#### 3.2.2.7.4.3.2.1. Use-Case Diagram

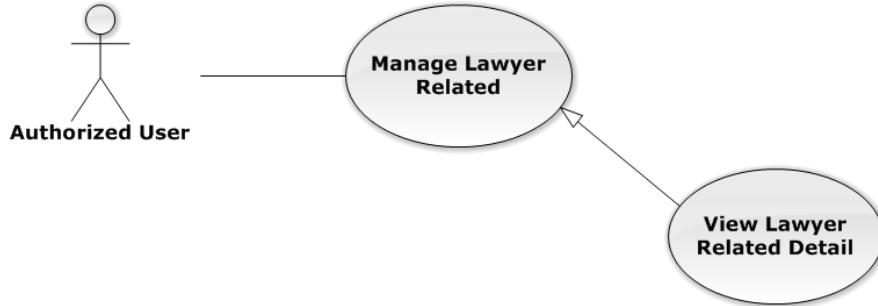


Figure 3-29: View Lawyer Related Detail Use-Case Diagram

#### 3.2.2.7.4.3.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0042	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View Lawyer Related Detail		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User			
<b>Summary:</b> Staff can view Lawyer related information			
<b>Goal:</b> Helps staff to view Lawyer related information			
<b>Triggers:</b> <ul style="list-style-type: none"><li>• Staff click on “Họ và tên” link</li><li>• Click on avatar image</li></ul>			

**Preconditions:**

- Must be logged-in
- The page is fully loaded
- Must be in “Người liên quan” page

**Post Conditions:**

Success: The popup modal have lawyer information is displayed

Failure: Do nothing

**Main Success Scenario:**

Step	User	System
1	Staff click on “Họ và tên” link or avatar image	The popup modal have lawyer information is displayed [Alternative 1]

**Alternative Scenario:**

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close

**Relationships:**

Manage Lawyer Related

### 3.2.2.7.4.3.3. UC0043 - Assign Lawyer Related

#### 3.2.2.7.4.3.3.1. Use-Case Diagram

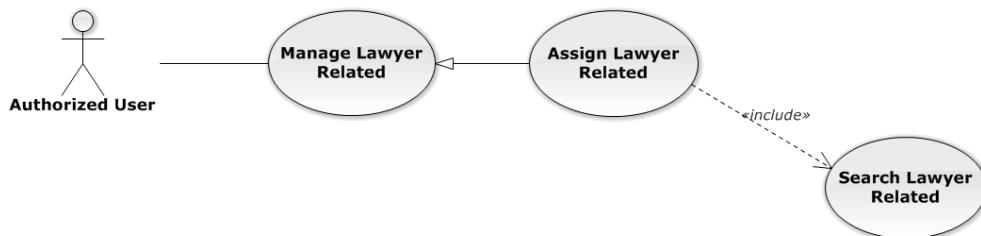


Figure 3-30: Assign Lawyer Related Use-Case Diagram

### 3.2.2.7.4.3.3.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>						
<b>Use-case No.</b>	UC0044	<b>Use-case Version</b>	1.0			
<b>Use-case Name</b>	Assign Lawyer Related					
<b>Author</b>	Đặng Nguyễn Khiêm					
<b>Date</b>	09/10/2014	<b>Priority</b>	High			
<p><b>Actor:</b> Authorized User, who create the current Case</p> <p><b>Summary:</b> Staff can assign Lawyer into Case</p> <p><b>Goal:</b> Helps Staff assign any Lawyers into Case</p> <p><b>Triggers:</b> Staff click on “Thêm vào danh sách” button after choose Lawyer in search form beside</p> <p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in “Người liên quan” page</li> <li>• Click on edit icon beside “Luật sư phụ trách” label and used Search Lawyer Related function before</li> </ul> <p><b>Post Conditions:</b></p> <p>Success:</p> <ul style="list-style-type: none"> <li>• Assign the Lawyer in search form to current Case</li> <li>• Show message assign successfully: “Đã phân công luật sư!”</li> </ul> <p>Failure: System display error message “Phân công luật sư thất bại!”</p> <p><b>Main Success Scenario:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 2px;">Step</th><th style="text-align: center; padding: 2px;">User</th><th style="text-align: center; padding: 2px;">System</th></tr> </thead> </table>				Step	User	System
Step	User	System				

1	Click on edit icon beside “Luật sư phụ trách” label	Search form, “Thêm vào danh sách” and “Hoàn thành” button is display
2	After search and choose a Lawyer, Staff click on “Thêm vào danh sách” button [Alternative 1] [Exception 1] [Exception 2]	System display message “Đã phân công luật sư!”

**Alternative Scenario:**

#	User	System
1	Click on “Hoàn thành” button	Search form, “Thêm vào danh sách” and “Hoàn thành” button is hidden

**Exceptions:**

#	User	System
1	Not search lawyer then click on “Thêm vào danh sách” button	Display validation message for needed to search lawyer before: “Hãy chọn 1 luật sư!”
2	Lawyer is exist in list lawyer related	Display message “Đã tồn tại luật sư!”

**Relationships:**

Manage Lawyer Related

**Business Rules:**

Only Administrator or Authorized User, who create the current Case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.3.4. UC0045 - Remove Lawyer Related

#### 3.2.2.7.4.3.4.1. Use-Case Diagram



Figure 3-31: Remove Lawyer Related Use-Case Diagram

#### 3.2.2.7.4.3.4.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0046	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Remove Lawyer Related		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Authorized User, who create the current Case		
<b>Summary:</b>	Staff can remove Lawyer related in Case		
<b>Goal:</b>	Helps Staff remove Lawyer related in Case		
<b>Triggers:</b>	Staff click on delete icon in the end table list		
<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>• Must be logged-in</li> </ul>		

- The page is fully loaded
- Must be in “Người liên quan” page
- Click on edit icon beside “Luật sư phụ trách” label before

**Post Conditions:**

Success:

- Remove the Lawyer out of current Case
- Show message remove successfully: “Loại bỏ luật sư thành công!”

Failure: System display error message “Loại bỏ luật sư thất bại!”

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Luật sư phụ trách” label	Icon delete is display
2	Click on icon delete corresponding with Lawyer want to remove	Show a modal popup to confirm
3	Click on “Xác nhận” button [Alternative 1]	System display message “Loại bỏ luật sư thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Bỏ qua” button	Modal popup is close and system do not remove the Lawyer

**Relationships:**

Manage Lawyer Related

**Business Rules:**

Only Administrator or Authorized User, who create the current Case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.3.5. UC0047 - Search Lawyer Related

#### 3.2.2.7.4.3.5.1. Use-Case Diagram



Figure 3-32: Search Lawyer Related Use-Case Diagram

#### 3.2.2.7.4.3.5.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0048	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Lawyer Related		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			
Authorized User, who create the current Case			
<b>Summary:</b>			
Staff can search Lawyer for assign into Case			
<b>Goal:</b>			
Helps Staff can assign Lawyer easily			
<b>Triggers:</b>			
Staff input key word is StaffName or Username of Lawyer. When the key up, system will be automatic search.			
<b>Preconditions:</b>			

- Must be logged-in
- The page is fully loaded
- Must be in “Người liên quan” page
- Click on edit icon beside “Luật sư phụ trách” label before

**Post Conditions:**

Success: The lawyer has been choose in search form by StaffName or Username

Failure: Do nothing

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Luật sư phụ trách” label	Search form is display
2	Input key words into search form and then key up	Display lawyers matches key words by StaffName and Username
3	Click on result have lawyer want to assign [Alternative 1]	The lawyer has been choose, wait for assign

**Alternative Scenario:**

#	User	System
1	Click out of result list	Result list is clear

**Relationships:**

Manage Lawyer Related

**Business Rules:**

Only Administrator or Authorized User, who create the current Case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.4. Manage Customer Related

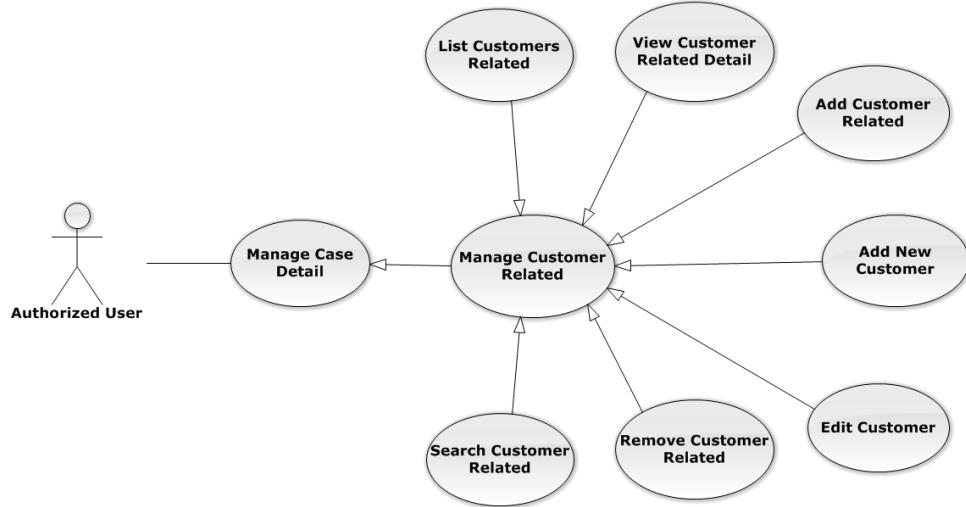


Figure 3-33: Manage Customer Related Use-Case Diagram

#### 3.2.2.7.4.4.1. UC0049 - List Customers Related

##### 3.2.2.7.4.4.1.1. Use-Case Diagram



Figure 3-34: List Customers Related Use-Case Diagram

##### 3.2.2.7.4.4.1.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0050	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	List Customers Related		

## Capstone Project: LFMS

<b>Author</b>	Đặng Nguyễn Khiêm								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<b>Actor:</b>									
Authorized User									
<b>Summary:</b>									
List all Customers of current case, each case can have one or more customers									
<b>Goal:</b>									
Help to view all Customers related									
<b>Triggers:</b>									
User click on “Khách hàng” link at right top page									
<b>Preconditions:</b>									
<ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in “Người liên quan” page</li> </ul>									
<b>Post Conditions:</b>									
Success: Show all Customers of current case in table									
Failure: Do nothing									
<b>Main Success Scenario:</b>									
<table border="1"> <thead> <tr> <th>Step</th> <th>User</th> <th>System</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Click on “Khách hàng” link</td> <td>Show all Customers of current case in table line by line</td> </tr> </tbody> </table>				Step	User	System	1	Click on “Khách hàng” link	Show all Customers of current case in table line by line
Step	User	System							
1	Click on “Khách hàng” link	Show all Customers of current case in table line by line							
<b>Relationships:</b>									
Manage Customer Related									

### 3.2.2.7.4.4.2. UC0051 - View Customer Related Detail

#### 3.2.2.7.4.4.2.1. Use-Case Diagram



Figure 3-35: View Customer Related Detail Use-Case Diagram

#### 3.2.2.7.4.4.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0052	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View Customer Related Detail		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User			
<b>Summary:</b> Staff can view Customer related information			
<b>Goal:</b> Helps staff to view Customer related information			
<b>Triggers:</b> Staff click on “Họ và tên” link			
<b>Preconditions:</b>			

- Must be logged-in
- The page is fully loaded
- Must be in “Khách hàng” page

**Post Conditions:**

Success: The popup modal have customer information is displayed

Failure: Do nothing

**Main Success Scenario:**

Step	User	System
1	Staff click on “Họ và tên” link	The popup modal have customer information is displayed [Alternative 1]

**Alternative Scenario:**

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close

**Relationships:**

Manage Customer Related

### 3.2.2.7.4.4.3. UC0053 - Add Customer Related

#### 3.2.2.7.4.4.3.1. Use-Case Diagram



Figure 3-36: Add Customer Related Use-Case Diagram

### 3.2.2.7.4.4.3.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>			
<b>Use-case No.</b>	UC0054	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Add Customer Related		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User, who is assigned in current case			
<b>Summary:</b> Staff can add a available customer on Database into Case			
<b>Goal:</b> Helps Staff add a available customer into Case			
<b>Triggers:</b> Staff click on “Thêm vào danh sách” button after choose Customer in search form beside			
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in “Khách hàng” page</li> <li>• Click on edit icon beside “Khách hàng” label and used Search Customer Related function before</li> </ul>			
<b>Post Conditions:</b> <p>Success:</p> <ul style="list-style-type: none"> <li>• Add a customer into Case</li> <li>• Show message assign successfully: “Thêm khách hàng thành công!”</li> </ul> <p>Failure: System display error message “Thêm khách hàng thất bại!”</p>			
<b>Main Success Scenario:</b>			

Step	User	System
1	Click on edit icon beside “Khách hàng” label	Search form, “Thêm vào danh sách” and “Hoàn thành” button is display
2	After search and choose a Customer, Staff click on “Thêm vào danh sách” button [Alternative 1] [Exception 1] [Exception 2]	System display message “Thêm khách hàng thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Hoàn thành” button	Search form, “Thêm vào danh sách” and “Hoàn thành” button is hidden

**Exceptions:**

#	User	System
1	Not search customer then click on “Thêm vào danh sách” button	Display validation message for needed to search lawyer before: “Hãy chọn 1 khách hàng!”
2	Customer is exist in list customer related	Display message “Đã tồn tại khách hàng!”

**Relationships:**

Manage Customer Related

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

#### 3.2.2.7.4.4.4. Add New Customer

Reference to Add New Customer function in Manage Customer

#### 3.2.2.7.4.4.5. Edit Customer

Reference to Edit Customer function in Manage Customer

### 3.2.2.7.4.4.6. UC0055 - Remove Customer Related

#### 3.2.2.7.4.4.6.1. Use-Case Diagram



Figure 3-37: Remove Customer Related Use-Case Diagram

#### 3.2.2.7.4.4.6.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0056	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Remove Customer Related		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User, who is assigned in current case			
<b>Summary:</b> Staff can remove Customer related in Case			
<b>Goal:</b> Helps Staff remove Customer related in Case			
<b>Triggers:</b> Staff click on delete icon in the end table list			
<b>Preconditions:</b>			

- Must be logged-in
- The page is fully loaded
- Must be in “Khách hàng” page
- Click on edit icon beside “Khách hàng” label before

**Post Conditions:**

Success:

- Remove the Customer out of current Case
- Show message remove successfully: “Loại bỏ khách hàng thành công!”

Failure: System display error message “Loại bỏ khách hàng thất bại!”

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Khách hàng” label	Icon delete is display
2	Click on icon delete corresponding with Customer want to remove	Show a modal popup to confirm
3	Click on “Xác nhận” button [Alternative 1]	System display message “Loại bỏ khách hàng thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Bỏ qua” button	Modal popup is close and system do not remove the Customer

**Relationships:**

Manage Customer Related

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.4.7. UC0057 - Search Customer Related

#### 3.2.2.7.4.4.7.1. Use-Case Diagram



Figure 3-38: Search Customer Related Use-Case Diagram

#### 3.2.2.7.4.4.7.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0058	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Customer Related		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User, who is assigned in current case			
<b>Summary:</b> Staff can search Customer for add customer related			
<b>Goal:</b> Helps Staff can search Customer easily			
<b>Triggers:</b> Staff input key word is CustomerName or Address of Customer. When the key up, system will be automatic search after 500ms delay time.			

**Preconditions:**

- Must be logged-in
- The page is fully loaded
- Must be in “Khách hàng” page
- Click on edit icon beside “Khách hàng” label before

**Post Conditions:**

Success: The customer has been choose in search form by CustomerName or Address

Failure: Do nothing

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Khách hàng” label	Search form is display
2	Input key words into search form and then key up	Display customers matches key words by CustomerName or Address
3	Click on result have customer want to add [Alternative 1]	The customer has been choose, wait for add

**Alternative Scenario:**

Step	User	System
1	Click out of result list	Result list is clear

**Relationships:**

Manage Customer Related

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.5. Manage Subject Related

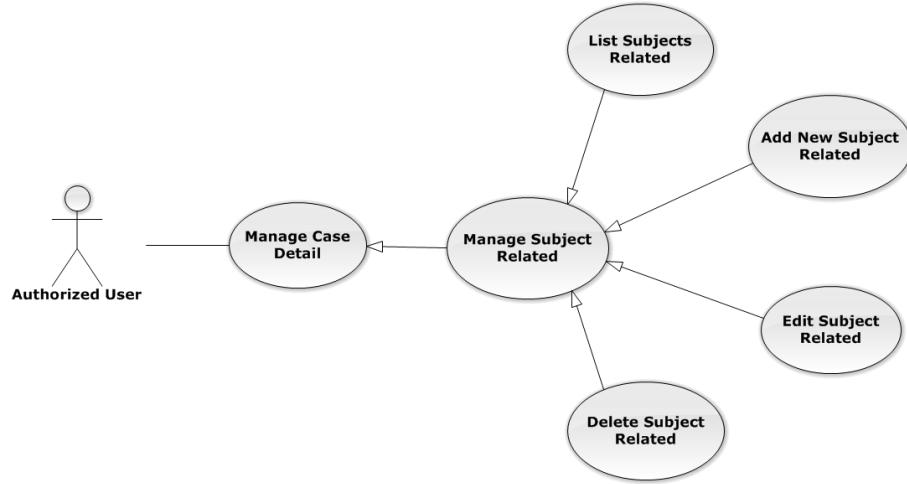


Figure 3-39: Manage Subject Related Use-Case Diagram

#### 3.2.2.7.4.5.1. UC0059 - List Subjects Related

##### 3.2.2.7.4.5.1.1. Use-Case Diagram

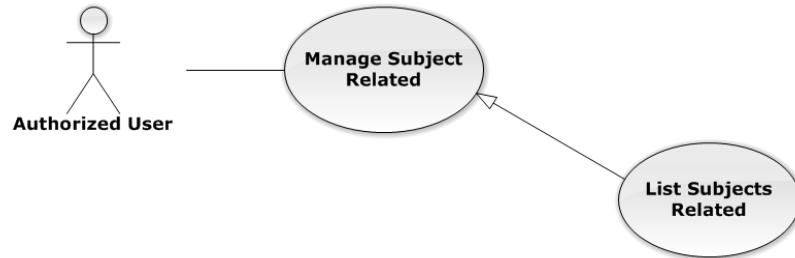


Figure 3-40: List Subjects Related Use-Case Diagram

### 3.2.2.7.4.5.1.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0060	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	List Subjects Related								
<b>Author</b>	Đặng Nguyễn Khiêm								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<b>Actor:</b> Authorized User									
<b>Summary:</b> List all Subjects of current case, each case can have one or more subjects									
<b>Goal:</b> Help to view all Subject related									
<b>Triggers:</b> User click on “Chủ đề” link at right top page									
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in “Người liên quan” page</li> </ul>									
<b>Post Conditions:</b> <p>Success: Show all Subjects of current case in table</p> <p>Failure: Do nothing</p>									
<b>Main Success Scenario:</b> <table border="1"> <thead> <tr> <th>Step</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Click on “Chủ đề” link</td><td>Show all Subjects of current case in table line by line</td></tr> </tbody> </table>				Step	User	System	1	Click on “Chủ đề” link	Show all Subjects of current case in table line by line
Step	User	System							
1	Click on “Chủ đề” link	Show all Subjects of current case in table line by line							
<b>Relationships:</b>									

Manage Subject Related
------------------------

### 3.2.2.7.4.5.2. UC0061 - Add New Subject Related

#### 3.2.2.7.4.5.2.1. Use-Case Diagram

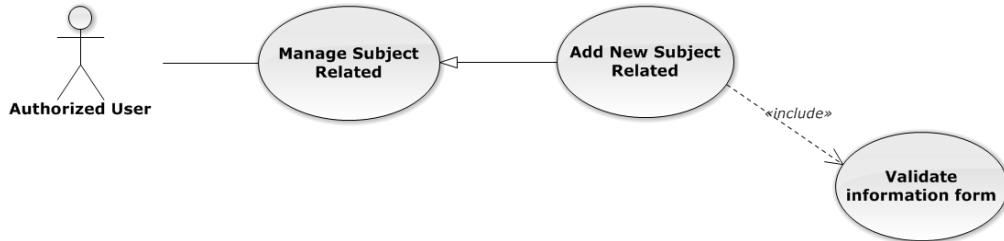


Figure 3-41: Add New Subject Related Use-Case Diagram

#### 3.2.2.7.4.5.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0062	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Add New Subject Related		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Authorized User, who is assigned in current case		
<b>Summary:</b>	Staff can create new a subject related into case		
<b>Goal:</b>	Helps Staff create new a subject easily		
<b>Triggers:</b>	Staff click on “Tạo chủ đề” button at the bottom of table		

**Preconditions:**

- Must be logged-in
- The page is fully loaded
- Must be in “Chủ đề” page
- Click on edit icon beside “Chủ đề liên quan” label before

**Post Conditions:**

Success:

- Add new a subject into Case
- Show message assign successfully: “Thêm chủ đề thành công!”

Failure: System display error message “Thêm chủ đề thất bại!”

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Chủ đề liên quan” label	“Thêm chủ đề mới” button is display
2	Staff click on “Tạo chủ đề” button	Modal popup is displayed with fields for input information of new subject [Alternative 1]
3	Input corresponding information in form then click “Thêm mới” button [Exception 1]	<ul style="list-style-type: none"> <li>• Modal popup is close</li> <li>• System display successful message “Thêm chủ đề thành công!”</li> <li>• Update list subject on page</li> </ul>

**Alternative Scenario:**

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close

**Exceptions:**

#	User	System
1	Leave empty require fields then click on “Thêm mới” button	Modal popup display validation for needed to input field

**Relationships:**

Manage Subject Related

**Business Rules:**

- Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.
- After create subject successfully, system will be automatically add new subject into that case

### 3.2.2.7.4.5.3. UC0063 - Edit Subject Related

#### 3.2.2.7.4.5.3.1. Use-Case Diagram

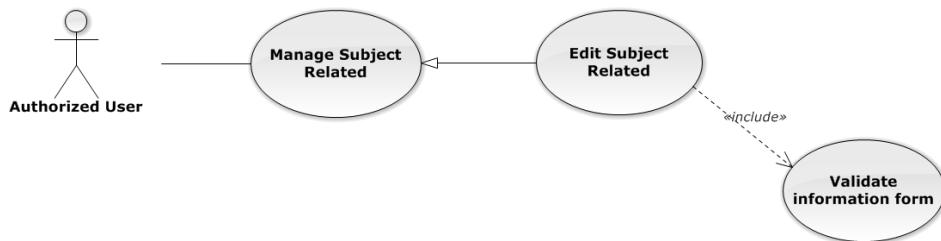


Figure 3-42: Edit Subject Related Use-Case Diagram

#### 3.2.2.7.4.5.3.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0064	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Subject Related		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Authorized User, who is assigned in current case		

**Summary:**

Staff can edit a available subject related

**Goal:**

Helps Staff edit a available subject information

**Triggers:**

Staff click on edit icon at the right table

**Preconditions:**

- Must be logged-in
- The page is fully loaded
- Must be in “Chủ đề” page
- Click on edit icon beside “Chủ đề liên quan” label before

**Post Conditions:**

Success:

- Edit a subject information
- Show message assign successfully: “Cập nhật chủ đề thành công!”

Failure: System display error message “Cập nhật chủ đề thất bại!”

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Chủ đề liên quan” label	The icon to edit subject is display
2	Staff click on edit icon	Modal popup is displayed with fields for input new information of subject [Alternative 1]
3	Input corresponding information in form then click “Lưu chỉnh sửa” button [Exception 1]	<ul style="list-style-type: none"> <li>• Modal popup is close</li> <li>• System display successful message “Cập nhật chủ đề thành công!”</li> <li>• Update list subject on page</li> </ul>

**Alternative Scenario:**

#	User	System

1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close
<b>Exceptions:</b>		
#	User	System
1	Leave empty require fields then click on “Lưu chỉnh sửa” button	Modal popup display validation for needed to input field
<b>Relationships:</b>		
Manage Subject Related		
<b>Business Rules:</b>		
Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.		

#### 3.2.2.7.4.5.4. UC0065 - Delete Subject Related

##### 3.2.2.7.4.5.4.1. Use-Case Diagram

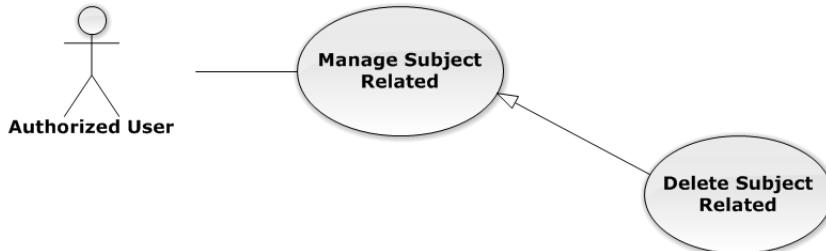


Figure 3-43: Delete Subject Related Use-Case Diagram

##### 3.2.2.7.4.5.4.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0066	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Subject Related		
<b>Author</b>	Đặng Nguyễn Khiêm		

Date	09/10/2014	Priority	Normal												
<b>Actor:</b>															
Authorized User, who is assigned in current case															
<b>Summary:</b>															
Staff can delete Subject related in Case															
<b>Goal:</b>															
Helps Staff delete Subject related															
<b>Triggers:</b>															
Staff click on delete icon in the end table list															
<b>Preconditions:</b>															
<ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in “Chủ đề” page</li> <li>• Click on edit icon beside “Chủ đề liên quan” label before</li> </ul>															
<b>Post Conditions:</b>															
Success:															
<ul style="list-style-type: none"> <li>• Delete the subject out of current Case</li> <li>• Show message remove successfully: “Xóa chủ đề thành công!”</li> </ul>															
Failure: System display error message “Xóa chủ đề hàng thát bại!”															
<b>Main Success Scenario:</b>															
<table border="1"> <thead> <tr> <th>Step</th> <th>User</th> <th>System</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Click on edit icon beside “Chủ đề liên quan” label</td> <td>Icon delete is display</td> </tr> <tr> <td>2</td> <td>Click on icon delete corresponding with Subject want to delete</td> <td>Show a modal popup to confirm</td> </tr> <tr> <td>3</td> <td>Click on “Xác nhận” button [Alternative 1]</td> <td>System display message “Xóa chủ đề thành công!”</td> </tr> </tbody> </table>				Step	User	System	1	Click on edit icon beside “Chủ đề liên quan” label	Icon delete is display	2	Click on icon delete corresponding with Subject want to delete	Show a modal popup to confirm	3	Click on “Xác nhận” button [Alternative 1]	System display message “Xóa chủ đề thành công!”
Step	User	System													
1	Click on edit icon beside “Chủ đề liên quan” label	Icon delete is display													
2	Click on icon delete corresponding with Subject want to delete	Show a modal popup to confirm													
3	Click on “Xác nhận” button [Alternative 1]	System display message “Xóa chủ đề thành công!”													
<b>Alternative Scenario:</b>															
<table border="1"> <thead> <tr> <th>#</th> <th>User</th> <th>System</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Click on “Bỏ qua” button</td> <td>Modal popup is close and system do not remove the Subject</td> </tr> </tbody> </table>				#	User	System	1	Click on “Bỏ qua” button	Modal popup is close and system do not remove the Subject						
#	User	System													
1	Click on “Bỏ qua” button	Modal popup is close and system do not remove the Subject													

**Relationships:**

Manage Subject Related

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.6. Manage Used Service

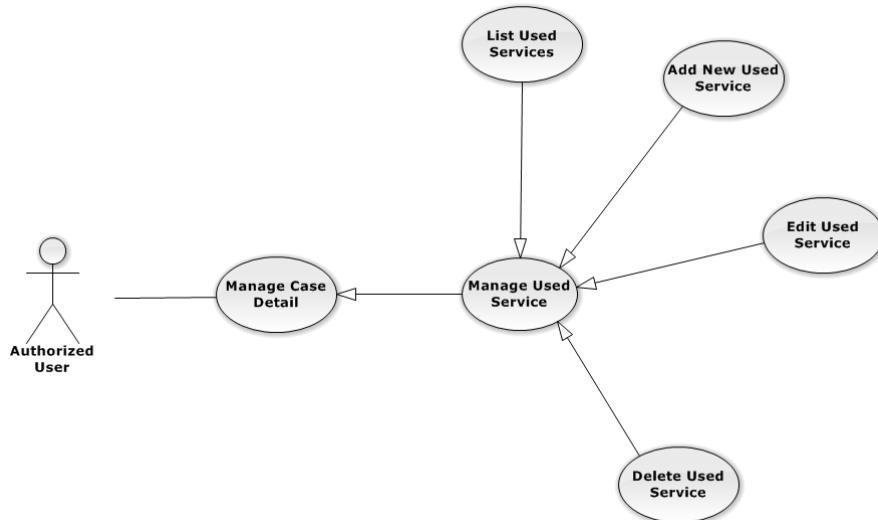


Figure 3-44: Manage Used Service Use-Case Diagram

#### 3.2.2.7.4.6.1. UC0067 - List Used Services

##### 3.2.2.7.4.6.1.1. Use-Case Diagram



Figure 3-45: List Used Services Use-Case Diagram

### 3.2.2.7.4.6.1.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>						
<b>Use-case No.</b>	UC0068	<b>Use-case Version</b>	1.0			
<b>Use-case Name</b>	List Used Services					
<b>Author</b>	Đặng Nguyễn Khiêm					
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal			
<b>Actor:</b> Authorized User						
<b>Summary:</b> Show all Used Service of case.						
<b>Goal:</b> Help staff to view all Used Service of case.						
<b>Triggers:</b> User click on “Hóa đơn” link in Case Detail page						
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in Case Detail page</li> </ul>						
<b>Post Conditions:</b> <p>Success:</p> <ul style="list-style-type: none"> <li>• List all Used Service in current case include company name and customer name.</li> <li>• Display total money of list Used Service</li> </ul> <p>Failure: Do nothing</p>						
<b>Main Success Scenario:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 2px;"><i>Step</i></th> <th style="text-align: center; padding: 2px;"><i>User</i></th> <th style="text-align: center; padding: 2px;"><i>System</i></th> </tr> </thead> </table>				<i>Step</i>	<i>User</i>	<i>System</i>
<i>Step</i>	<i>User</i>	<i>System</i>				

1	Click on “Hóa đơn” link	Show all Used Service in current case
---	-------------------------	---------------------------------------

**Relationships:**  
Manage Used Service

**Business Rules:**

- In the end of Used Service table have fill name “Tổng chi phí” display total money of all Used Service.
- In the end of table have fill name “Chưa Thanh Toán” display total money of all Used Service.

### 3.2.2.7.4.6.2. UC0069 - Add New Used Service

#### 3.2.2.7.4.6.2.1. Use-Case Diagram

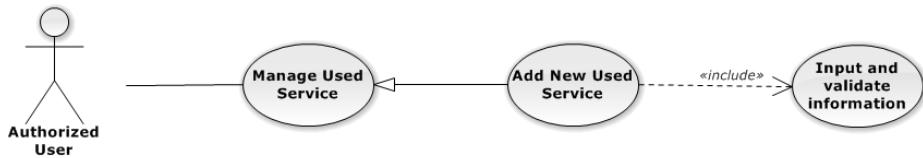


Figure 3-46: Add New Used Service Use-Case Diagram

#### 3.2.2.7.4.6.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0070	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Add New Used Service		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Authorized User, who is assigned in current case		
<b>Summary:</b>			

Staff can add new Used Service into Case

**Goal:**

Helps Staff create event into Case

**Triggers:**

- Staff click on “Hóa đơn” link in Case Detail page
- Click on edit icon beside “Chi phí dịch vụ” button
- Click on “Thêm dịch vụ” button to add new Used Service to current case.

**Preconditions:**

- Must be logged-in
- The page is fully loaded
- Must be in Used Service page
- Click on edit icon beside “Chi phí dịch vụ” label before

**Post Conditions:**

Success:

- Add new Used Service into current Case
- Calculation and display the total money of Used Service to “Tổng Chi Phí” field and “Chưa Thanh Toán” field.
- Show message successfully: “Thêm dịch vụ thành công!”

Failure: System display error message “Thêm dịch vụ thất bại!”, “hãy kiểm tra lại kết nối database!”

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Chi phí dịch vụ” label, click “Thêm dịch vụ” button	Pop-up input is display. With two button “Đóng” and “Tạo dịch vụ” is display
2	Input information into fields and click button “Tạo mới”  [Alternative 1], [Exception 1], [Exception 2]	System display message “Thêm dịch vụ thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Đóng” button	Input form close back to list all Used Service screen.

<b>Exceptions:</b>		
#	User	System
1	Field “Loại Dịch Vụ”, are blank	Shows error message “Nhập vào tên dịch vụ!”.
	Field “Tên Dịch Vụ”, are blank	Shows error message “Chọn dịch vụ!”.
	Field “Chi Phí”, are blank	Shows error message “Nhập chi phí!”.
	Field “Nội dung”, are blank	Shows error message “Nhập nội dung!”.
2	System cannot insert Used Service to data base.	Shows error message “Thêm thanh toán thất bại!”, “Hãy kiểm tra lại kết nối database”

<b>Relationships:</b>		
Manage Used Service		
<b>Business Rules:</b>		
Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.		

### 3.2.2.7.4.6.3. UC0071 - Edit Used Service

#### 3.2.2.7.4.6.3.1. Use-Case Diagram

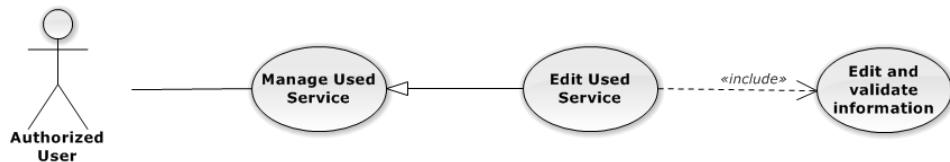


Figure 3-47: Edit Used Service Use-Case Diagram

### 3.2.2.7.4.6.3.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>			
<b>Use-case No.</b>	UC0072	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Used Service		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User, who is assigned in current case			
<b>Summary:</b> Staff can update Used Service into Case			
<b>Goal:</b> Helps Staff update Used Service into Case			
<b>Triggers:</b> <ul style="list-style-type: none"> <li>• Staff click on “Hóa đơn” link in Case Detail page</li> <li>• Click on edit icon beside “Chi phí dịch vụ” button</li> <li>• Click on “Edit” button to update event.</li> </ul>			
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in Used Service page</li> <li>• Click on edit icon beside “Chi phí dịch vụ” label before</li> </ul>			
<b>Post Conditions:</b> <b>Success:</b> <ul style="list-style-type: none"> <li>• Update Used Service into current Case</li> <li>• Show message successfully: “Sửa dịch vụ thành công!”</li> <li>• Calculation and display the total money of Used Service to “Tổng Chi Phí” field and “Chưa Thanh Toán” fileld</li> </ul>			

## Capstone Project: LFMS

Failure: System display error message “Sửa dịch vụ thất bại!”, “hãy kiểm tra lại kết nối database!”

### Main Success Scenario:

<b>Step</b>	<b>User</b>	<b>System</b>
1	Click on edit icon beside “Chi phí dịch vụ” label	List all Used Service in current case, “Edit” and “Delete” icon is display, “Thêm dịch vụ” and “Hoàn thành” button is display
2	Click on the “Edit” button	Pop-up “Sửa chi phí” is display load detail of 1 Used Service, “Đóng” and “Sửa chi phí” button is display
3	Edit information into fields and click button “Sửa chi phí” button [Alternative 1], [Exception 1], [Exception 2]	System display message “Sửa dịch vụ thành công!”

### Alternative Scenario:

<b>#</b>	<b>User</b>	<b>System</b>
1	Click on “Đóng” button	Input form close back to list all event screen.

### Exceptions:

<b>#</b>	<b>User</b>	<b>System</b>
1	Field “Chi Phí”, are blank	Shows error message “Nhập chi phí!”.
	Field “Nội dung”, are blank	Shows error message “Nhập nội dung!”.
2	System cannot insert event to database.	Shows error message “Sửa dịch vụ thất bại!”, “Hãy kiểm tra lại kết nối database”.

### Relationships:

Manage Used Service

### Business Rules:

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.6.4. UC0073 - Delete Used Service

#### 3.2.2.7.4.6.4.1. Use-Case Diagram



Figure 3-48: Delete Used Service Use-Case Diagram

#### 3.2.2.7.4.6.4.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0074	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Used Service		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User, who is assigned in current case			
<b>Summary:</b> Staff can remove Used Service in Case			
<b>Goal:</b> Helps Staff remove Used Service in Case			
<b>Triggers:</b> Staff click on delete icon in the end table list			
<b>Preconditions:</b> <ul style="list-style-type: none"><li>• Must be logged-in</li><li>• The page is fully loaded</li></ul>			

- Must be in Lawyer related page
- Click on edit icon beside “Chi phí dịch vụ” label before

**Post Conditions:**

Success:

- Remove the Event out of current Case
- Show message remove successfully: “Xóa dịch vụ thành công!”
- Calculation and display the total money of Used Service to “Tổng Chi Phí” field and “Chưa Thanh Toán” fileld

Failure: System display error message “Xóa dịch vụ thất bại!”, “Hãy kiểm tra lại kết nối database”

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	Click on edit icon beside “Chi phí dịch vụ” label	Icon delete is display
2	Click on icon delete corresponding with Used Service want to remove	Show a modal popup to confirm
3	Click on “Xác nhận” button [Alternative 1]	System display message “Xóa dịch vụ thành công!”

**Alternative Scenario:**

#	<i>User</i>	<i>System</i>
1	Click on “Bỏ qua” button	Modal popup is close and system do not remove the Event

**Relationships:**

Manage Used Service

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.7. Manage Payment

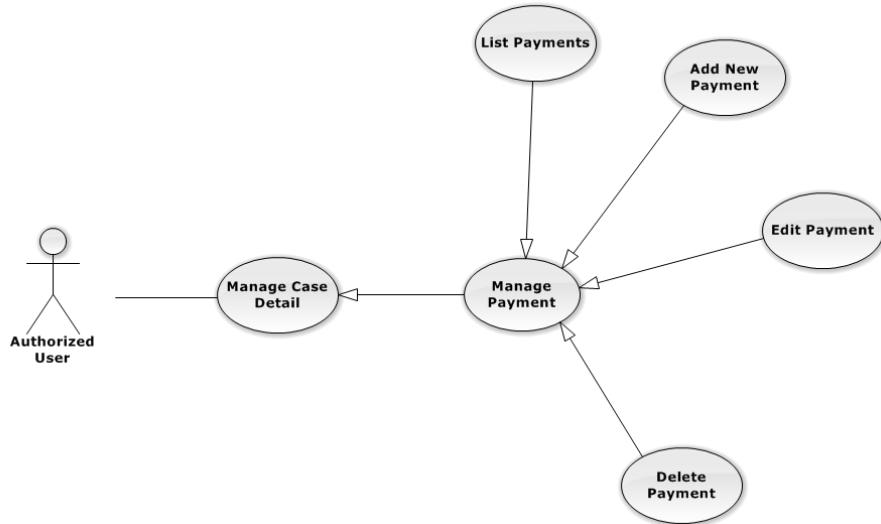


Figure 3-49: Manage Payment Use-Case Diagram

#### 3.2.2.7.4.7.1. UC0075 - List Payments

##### 3.2.2.7.4.7.1.1. Use-Case Diagram



Figure 3-50: List Payments Use-Case Diagram

##### 3.2.2.7.4.7.1.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0076	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	List Payments		
<b>Author</b>	Đặng Nguyễn Khiêm		

## Capstone Project: LFMS

<b>Date</b>	09/10/2014	<b>Priority</b>	Normal									
<b>Actor:</b>												
Authorized User												
<b>Summary:</b>												
Show all payment of case.												
<b>Goal:</b>												
Help staff to view all payment of case.												
<b>Triggers:</b>												
User click on “Hóa đơn” link in Case Detail page												
<b>Preconditions:</b>												
<ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in Case Detail page</li> </ul>												
<b>Post Conditions:</b>												
<p>Success:</p> <ul style="list-style-type: none"> <li>• List all payment in current case include</li> <li>• Display total money of list payment.</li> </ul>												
Failure: Do nothing												
<b>Main Success Scenario:</b>												
<table border="1"> <thead> <tr> <th><i>Step</i></th> <th><i>User</i></th> <th><i>System</i></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Click on “Hóa đơn” link [Alternative 1], [Alternative 2]</td> <td>Show all payment in current case</td> </tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click on “Hóa đơn” link [Alternative 1], [Alternative 2]	Show all payment in current case			
<i>Step</i>	<i>User</i>	<i>System</i>										
1	Click on “Hóa đơn” link [Alternative 1], [Alternative 2]	Show all payment in current case										
<b>Alternative Scenario:</b>												
<table border="1"> <thead> <tr> <th>#</th> <th><i>User</i></th> <th><i>System</i></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>If total Payment &gt; total Used Services</td> <td>Display total money Unpaid in field “Số dư”</td> </tr> <tr> <td>2</td> <td>If total Payment &lt; total Used Services</td> <td>Display total money balance in field “Chưa thanh toán”</td> </tr> </tbody> </table>				#	<i>User</i>	<i>System</i>	1	If total Payment > total Used Services	Display total money Unpaid in field “Số dư”	2	If total Payment < total Used Services	Display total money balance in field “Chưa thanh toán”
#	<i>User</i>	<i>System</i>										
1	If total Payment > total Used Services	Display total money Unpaid in field “Số dư”										
2	If total Payment < total Used Services	Display total money balance in field “Chưa thanh toán”										
<b>Relationships:</b>												
Manage Payment												
<b>Business Rules:</b>												

In the end of Used Service table have fill name “Tổng chi phí” display total money of all Used Service.

### 3.2.2.7.4.7.2. UC0077 - Add New Payment

#### 3.2.2.7.4.7.2.1. Use-Case Diagram

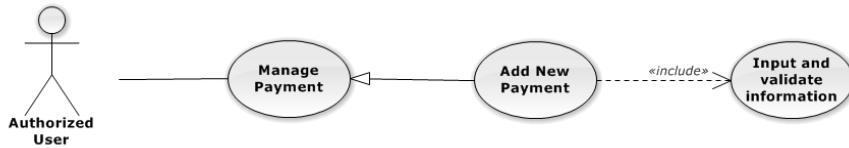


Figure 3-51: Add New Payment Use-Case Diagram

#### 3.2.2.7.4.7.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0078	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Add New Payment		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	High
<b>Actor:</b>			
Authorized User, who is assigned in current case			
<b>Summary:</b>			
Staff can add new payment into Case			
<b>Goal:</b>			
Helps Staff create payment into Case			
<b>Triggers:</b>			
<ul style="list-style-type: none"> <li>• Staff click on “Hóa đơn” link in Case Detail page</li> <li>• Click on edit icon beside “Hóa đơn thanh toán” button</li> <li>• Click on “Thêm thanh toán” button to add new payment to current case.</li> </ul>			

**Preconditions:**

- Must be logged-in
- The page is fully loaded
- Must be in payment page
- Click on edit icon beside “Hóa đơn thanh toán” label before

**Post Conditions:**

Success:

- Add new Used Service into current Case
- Calculation and display the total money of Payment and display total of money unpaid or balance in field “Chưa thanh toán”, “Số dư”.
- Show message successfully: “Thêm thanh toán thành công!”

Failure: System display error message “Thêm thanh toán thất bại!”, “hãy kiểm tra lại kết nối database!”

**Main Success Scenario:**

Step	User	System
1	Click on edit icon beside “Hóa đơn thanh toán” label, click “Thêm thanh toán” button	Pop-up input is display.
2	Input information into fields and click button “Tạo thanh toán” button [Alternative 1], [Exception 1], [Exception 2]	System display message “Thêm thanh toán thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Đóng” button	Input form close back to list all Used Service screen.

**Exceptions:**

#	User	System
1	Field “Thanh Toán”, are blank	Shows error message “Nhập số tiền thanh toán!”.
	Field “Nội dung”, are blank	Shows error message “Nhập nội dung!”.
2	System cannot insert payment to data base.	Shows error message “Thêm thanh toán thất bại!”, “Hãy kiểm tra lại kết nối database”

**Relationships:**

Manage Payment

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.7.3. UC0079 - Edit Payment

#### 3.2.2.7.4.7.3.1. Use-Case Diagram

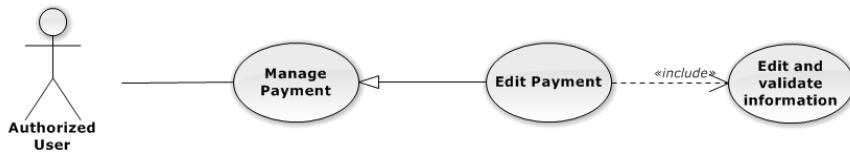


Figure 3-52: Edit Payment Use-Case Diagram

#### 3.2.2.7.4.7.3.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0080	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Payment		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Authorized User, who is assigned in current case		
<b>Summary:</b>	Staff can update payment service into Case		
<b>Goal:</b>			

Helps Staff update payment service into Case

**Triggers:**

- Staff click on “Hóa đơn” link in Case Detail page
- Click on edit icon beside “Hóa đơn thanh toán” button
- Click on “Edit” button to update event.

**Preconditions:**

- Must be logged-in
- The page is fully loaded
- Must be in Used Service page
- Click on edit icon beside “Hóa đơn thanh toán” label before

**Post Conditions:**

Success:

- Update Used Service into current Case
- Show message successfully: “Sửa thanh toán thành công!”
- Calculation and display the total money of Payment and display total of money unpaid or balance in field “Chưa thanh toán”, “Số dư”.

Failure: System display error message “Sửa thanh toán thất bại!”, “hãy kiểm tra lại kết nối database!”

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	Click on edit icon beside “Hóa đơn thanh toán” label	List all payment in current case, “Edit” and “Delete” icon is display, “Thêm dịch vụ” and “Hoàn thành” button is display
2	Click on the “Edit” button	Pop-up “Sửa thanh toán” is display load detail of 1 Used Service, “Đóng” and “Sửa chi phí” button is display
3	Edit information into fields and click button “Sửa thanh toán” button [Alternative 1], [Exception 1] ,[Exception 2]	System display message “Sửa thanh toán thành công!”

**Alternative Scenario:**

#	<i>User</i>	<i>System</i>
---	-------------	---------------

1	Click on “Đóng” button	Input form close back to list all event screen.
---	------------------------	---

**Exceptions:**

#	User	System
1	Field “Thanh Toán”, are blank	Shows error message “Nhập số tiền thanh toán!”.
	Field “Nội dung”, are blank	Shows error message “Nhập nội dung!”.
2	System cannot insert event to data base.	Shows error message “Sửa thanh toán thất bại!”, “Hãy kiểm tra lại kết nối database”.

**Relationships:**

Manage Payment

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.7.4.7.4. UC0081 - Delete Payment

#### 3.2.2.7.4.7.4.1. Use-Case Diagram



Figure 3-53: Delete Payment Use-Case Diagram

### 3.2.2.7.4.7.4.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>			
<b>Use-case No.</b>	UC0082	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Payment		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Authorized User, who is assigned in current case			
<b>Summary:</b> Staff can remove payment in Case			
<b>Goal:</b> Helps Staff remove payment in Case			
<b>Triggers:</b> Staff click on delete icon in the end table list			
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• Must be logged-in</li> <li>• The page is fully loaded</li> <li>• Must be in Lawyer related page</li> <li>• Click on edit icon beside “Hóa đơn thanh toán” label before</li> </ul>			
<b>Post Conditions:</b> <p>Success:</p> <ul style="list-style-type: none"> <li>• Remove the Event out of current Case</li> <li>• Show message remove successfully: “Xóa thanh toán thành công!”</li> <li>• Calculation and display the total money of payment</li> </ul> <p>Failure: System display error message “Xóa thanh toán thất bại!”, “Hãy kiểm tra lại kết nối database”</p>			
<b>Main Success Scenario:</b>			

Step	User	System
1	Click on edit icon beside “Chi phí dịch vụ” label	Icon delete is display
2	Click on icon delete corresponding with Used Service want to remove	Show a modal popup to confirm
3	Click on “Xác nhận” button [Alternative 1]	System display message “Xóa thành toán thành công!”

**Alternative Scenario:**

#	User	System
1	Click on “Bỏ qua” button	Modal popup is close and system do not remove the Event

**Relationships:**

Manage Payment

**Business Rules:**

Only Administrator or Authorized User is assigned in current case can be use this function when status of case is “Đang thụ lý” and Office that have current case must is active.

### 3.2.2.8. Manage Customer Group

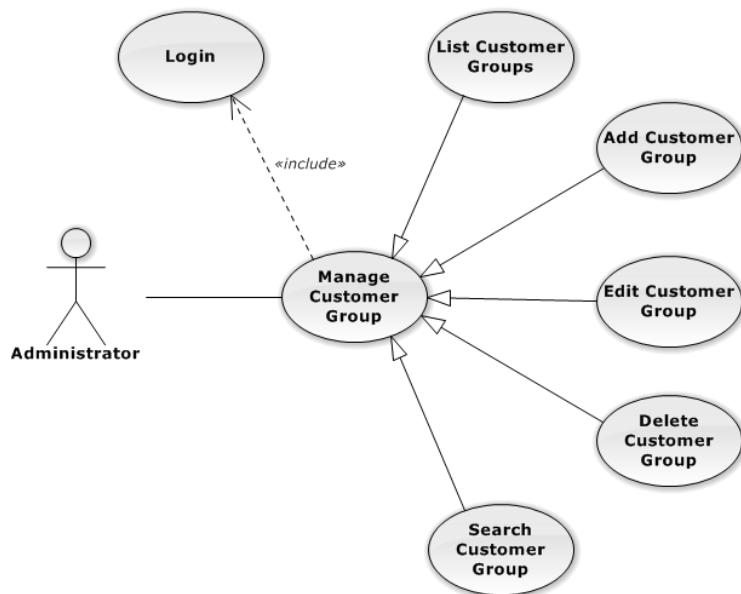


Figure 3-54: Manage Customer Group Use-Case Diagram

### 3.2.2.8.1. UC008343 - List Customer Groups

#### 3.2.2.8.1.1. Use-Case Diagram

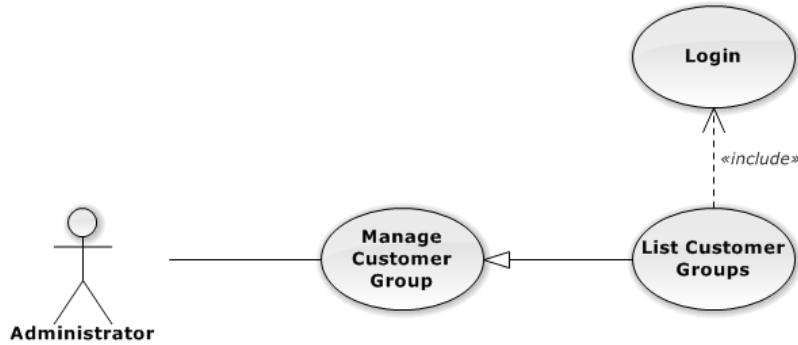


Figure 3-55: List Customer Groups Use-Case Diagram

#### 3.2.2.8.1.2. List Customer Groups Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC008443	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	List Customer Groups		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Administrator			
<b>Summary:</b> List All Customer Group.			
<b>Goal:</b> The purpose of List Customer Group use case is allowing Admin to view all Customer Groups.			

**Triggers:**

User choose “Quản lý Nhóm Khách Hàng” in menu.

**Preconditions:**

User is authenticated and has role “admin”.

The page is fully loaded.

**Post Conditions:**

Success: All Customer Groups are listed.

Failure: N/A

**Main Success Scenario:**

Step	User	System
1	Click “Quản lý Nhóm Khách Hàng” in menu.	All Customer Groups are loaded.

**Relationships:**

Manage Customer Group

### 3.2.2.8.2. UC0044 - Add New Customer Group

#### 3.2.2.8.2.1. Use-Case Diagram

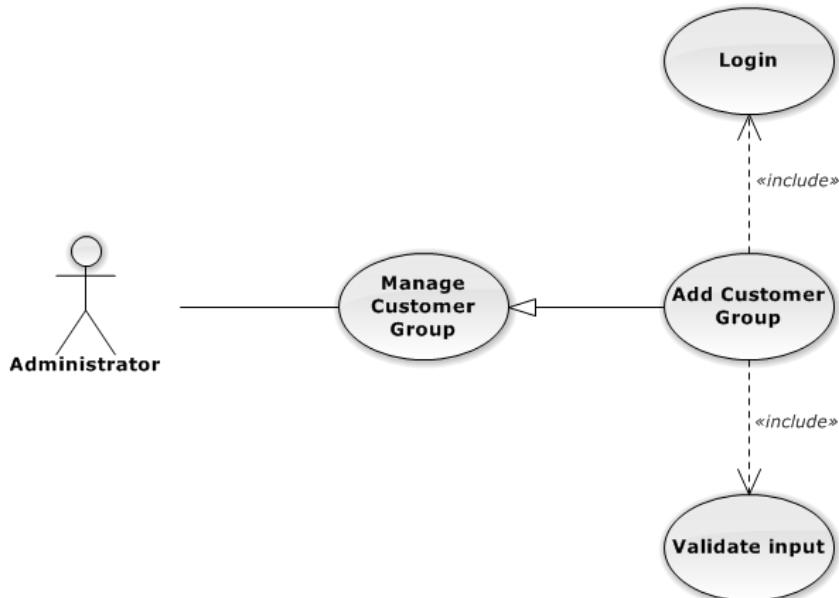


Figure 3-56: Add New Customer Group Use-Case Diagram

### 3.2.2.8.2.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>												
<b>Use-case No.</b>	UC0044	<b>Use-case Version</b>	1.0									
<b>Use-case Name</b>	Add Customer Group											
<b>Author</b>	Đặng Nguyễn Khiêm											
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal									
<b>Actor:</b> Administrator												
<b>Summary:</b> Add new Customer Group.												
<b>Goal:</b> The purpose of Add Customer Group use case is allowing Admin to add new Customer Group.												
<b>Triggers:</b> User choose “Quản lý Nhóm Khách Hàng” in menu.												
<b>Preconditions:</b> User is authenticated and has role “admin”.												
<b>Post Conditions:</b> Success: New Customer Group is created. Failure: No Customer Group is created and Error message will be showed.												
<b>Main Success Scenario:</b> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click “Thêm Nhóm Khách Hàng” button.</td><td>Show add new customer group pop-up.</td></tr> <tr> <td>2</td><td>Enters the Customer Group Name and Description</td><td></td></tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Thêm Nhóm Khách Hàng” button.	Show add new customer group pop-up.	2	Enters the Customer Group Name and Description	
<i>Step</i>	<i>User</i>	<i>System</i>										
1	Click “Thêm Nhóm Khách Hàng” button.	Show add new customer group pop-up.										
2	Enters the Customer Group Name and Description											

3	Presses “Thêm Nhóm Khách Hàng” button. [Alternative: 1]	Checks validate, add new Customer Group to database. Show success message. [Exception: 1] [Exception: 2] [Exception: 3]
<b>Alternative Scenario:</b>		
#	<i>User</i>	<i>System</i>
1 Presses “Đóng”, “X” button or click outside pop-up.		
		The Add New Customer Group pop-up is close.
<b>Exceptions:</b>		
#	<i>User</i>	<i>System</i>
1	Customer Group Name is missing.	Show error “Nhập tên nhóm khách hàng” to user.
2	Add Customer group fail.	The Add New Customer Group is closed and display error message “Tạo nhóm khách hàng thất bại!”, “Hãy kiểm tra lại kết nối database.”
3	Add Customer group error.	The Add New Customer Group is closed and display error message "Tạo nhóm khách hàng thất bại!", "Có lỗi xảy ra trong quá trình tạo nhóm khách hàng."
<b>Relationships:</b>		
Manage Customer Group		

### 3.2.2.8.3. UC0045 - Edit Customer Group

#### 3.2.2.8.3.1. Use-Case Diagram

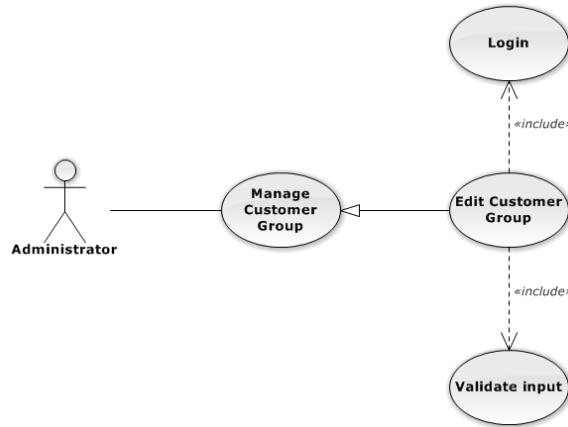


Figure 3-57: Edit Customer Group Use-Case Diagram

#### 3.2.2.8.3.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0045	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Customer Group		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Administrator			
<b>Summary:</b> Update Customer Group.			
<b>Goal:</b> The purpose of Update Customer Group use case is allowing Admin to update Customer Group.			

**Triggers:**

User choose “Quản lý Nhóm Dịch Vụ” in menu.

**Preconditions:**

User is authenticated and has role “admin”.

**Post Conditions:**

Success: The Customer Group id Updated.

Failure: The Customer Group is not updated and Error message will be showed.

**Main Success Scenario:**

Step	User	System
1	Click Update icon.	
2	Enters the new Customer Group Name and Description	
3	Presses “Lưu chỉnh sửa” button. [Alternative: 1]	Checks validate, update Customer Group to database. Show success message. [Exception: 1] [Exception: 2] [Exception: 3]

**Alternative Scenario:**

#	User	System
1	Presses “Đóng”, “X” button or click outside pop-up.	The Update Customer Group pop-up is close.

**Exceptions:**

#	User	System
1	Customer Group Name is missing.	Show error “Nhập tên nhóm khách hàng” to user.
2	Update Customer group fail.	The Update Customer Group is closed and display error message “Chỉnh sửa nhóm khách hàng thất bại!”, “Hãy kiểm tra lại kết nối database.”
3	Update Customer group error.	The Update Customer Group is closed and display error message

		"Chỉnh sửa nhóm khách hàng thất bại!", "Có lỗi xảy ra trong quá trình tạo nhóm khách hàng."
<b>Relationships:</b>		
Manage Customer Group		

### 3.2.2.8.4. UC0046 - Delete Customer Group

#### 3.2.2.8.4.1. Use-Case Diagram

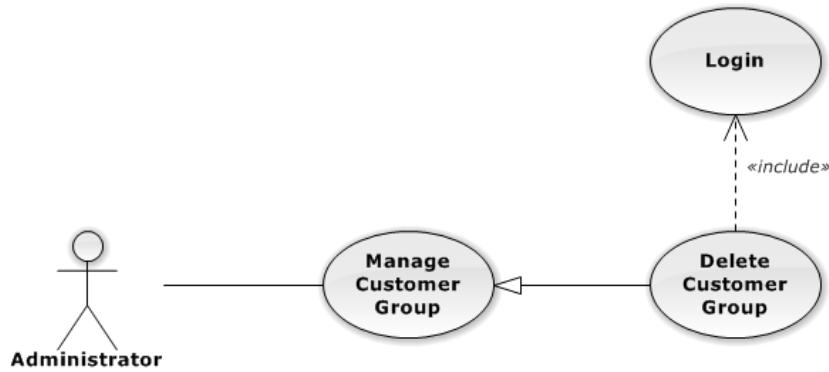


Figure 3-58: Delete Customer Group Use-Case Diagram

#### 3.2.2.8.4.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0046	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Customer Group		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			

<p>Administrator</p> <p><b>Summary:</b> Delete Customer Group.</p> <p><b>Goal:</b> The purpose of Delete Customer Group use case is allowing Admin to delete Customer Group.</p> <p><b>Triggers:</b> User choose “Quản lý Nhóm Khách Hàng” in menu.</p> <p><b>Preconditions:</b> User is authenticated and has role “admin”.</p> <p><b>Post Conditions:</b> Success: The Customer Group is deleted. Failure: The Customer Group is not delete and Error message will be showed.</p> <p><b>Main Success Scenario:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Step</i></th><th style="text-align: center;"><i>User</i></th><th style="text-align: center;"><i>System</i></th></tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td><td>Click Delete icon.</td><td>Show confirm pop-up</td></tr> <tr> <td style="text-align: center;">2</td><td>Presses “Đồng ý” button. [Alternative: 1]</td><td>Delete Customer Group from database. Show success message. [Exception: 1] [Exception: 2]</td></tr> </tbody> </table> <p><b>Alternative Scenario:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>#</i></th><th style="text-align: center;"><i>User</i></th><th style="text-align: center;"><i>System</i></th></tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td><td>Presses “Dóng”, “X” button or click outside pop-up.</td><td>The confirm pop-up is close.</td></tr> </tbody> </table> <p><b>Exceptions:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>#</i></th><th style="text-align: center;"><i>User</i></th><th style="text-align: center;"><i>System</i></th></tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td><td>Delete Customer group fail.</td><td>The Add New Customer Group is closed and display error message “Xóa nhóm khách hàng thất bại!”, “Hãy kiểm tra lại kết nối database.”</td></tr> </tbody> </table>	<i>Step</i>	<i>User</i>	<i>System</i>	1	Click Delete icon.	Show confirm pop-up	2	Presses “Đồng ý” button. [Alternative: 1]	Delete Customer Group from database. Show success message. [Exception: 1] [Exception: 2]	<i>#</i>	<i>User</i>	<i>System</i>	1	Presses “Dóng”, “X” button or click outside pop-up.	The confirm pop-up is close.	<i>#</i>	<i>User</i>	<i>System</i>	1	Delete Customer group fail.	The Add New Customer Group is closed and display error message “Xóa nhóm khách hàng thất bại!”, “Hãy kiểm tra lại kết nối database.”		
<i>Step</i>	<i>User</i>	<i>System</i>																					
1	Click Delete icon.	Show confirm pop-up																					
2	Presses “Đồng ý” button. [Alternative: 1]	Delete Customer Group from database. Show success message. [Exception: 1] [Exception: 2]																					
<i>#</i>	<i>User</i>	<i>System</i>																					
1	Presses “Dóng”, “X” button or click outside pop-up.	The confirm pop-up is close.																					
<i>#</i>	<i>User</i>	<i>System</i>																					
1	Delete Customer group fail.	The Add New Customer Group is closed and display error message “Xóa nhóm khách hàng thất bại!”, “Hãy kiểm tra lại kết nối database.”																					

2	Delete Customer group error.	The Add New Customer Group is closed and display error message "Xóa nhóm khách hàng thất bại!", "Có lỗi xảy ra trong quá xóa nhóm khách hàng."
<b>Relationships:</b>		
Manage Customer Group		

### 3.2.2.8.5. UC0047 - Search Customer Group

#### 3.2.2.8.5.1. Use-Case Diagram

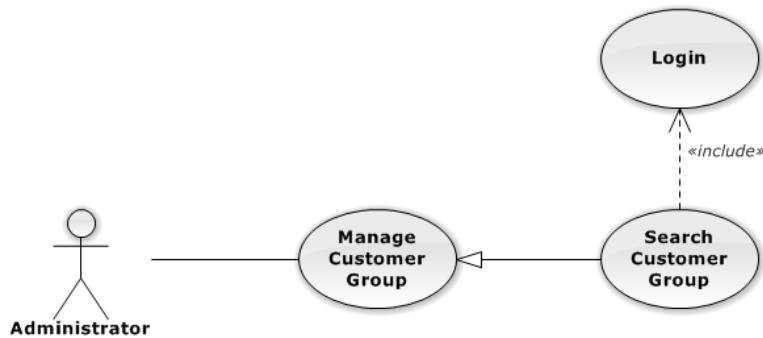


Figure 3-59: Search Customer Group Use-Case Diagram

#### 3.2.2.8.5.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0085	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Customer Group		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			

Administrator

**Summary:**

Search Customer Group.

**Goal:**

The purpose of Search Customer Group use case is allowing Admin to search Customer.

**Triggers:**

User choose “Quản lý Nhóm khách hàng” in menu.

**Preconditions:**

User is authenticated and has role “admin”.

**Post Conditions:**

Success: List of Customer Group with search key words is displayed.

Failure: No record is displayed.

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	In “Quản lý Nhóm khách hàng” screen, input key word at “Tìm kiếm” textbox.	List of Customer Group with search key words is displayed.

**Relationships:**

Manage Customer Group

### 3.2.2.9. Manage Customer

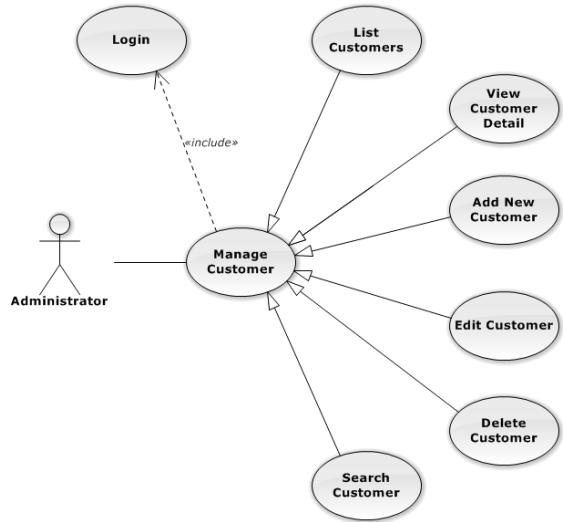


Figure 3-60: Manage Customer Use-Case Diagram

### 3.2.2.9.1. UC0048 - List Customers

#### 3.2.2.9.1.1. Use-Case Diagram

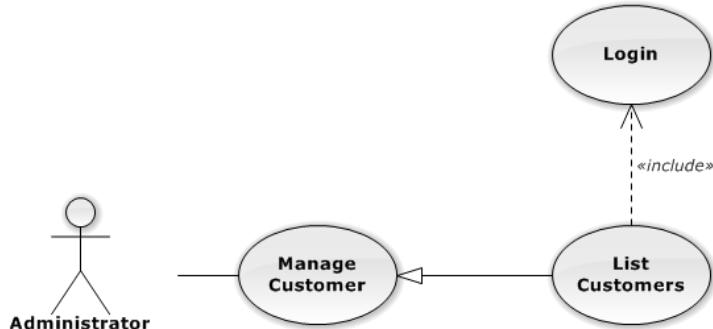


Figure 3-61: List Customers Use-Case Diagram

#### 3.2.2.9.1.2. Use-Case Specification

USE CASE SPECIFICATION			
Use-case No.	UC0048	Use-case Version	1.0
Use-case Name	List Customers		

<b>Author</b>	Đặng Nguyễn Khiêm								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<b>Actor:</b>									
Administrator									
<b>Summary:</b>									
List All Customer.									
<b>Goal:</b>									
The purpose of List Customers use case is allowing Admin to view all Customers.									
<b>Triggers:</b>									
User choose “Quản lý Khách Hàng” in menu.									
<b>Preconditions:</b>									
User is authenticated and has role “admin”.									
The page is fully loaded.									
<b>Post Conditions:</b>									
Success: All Customer is listed.									
Failure: N/A									
<b>Main Success Scenario:</b>									
<table border="1"> <thead> <tr> <th><i>Step</i></th> <th><i>User</i></th> <th><i>System</i></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Click “Quản lý Khách Hàng” in menu.</td> <td>All Customers are loaded.</td> </tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Quản lý Khách Hàng” in menu.	All Customers are loaded.
<i>Step</i>	<i>User</i>	<i>System</i>							
1	Click “Quản lý Khách Hàng” in menu.	All Customers are loaded.							
<b>Relationships:</b>									
Manage Customer									

### 3.2.2.9.2. UC0049 - View Customer Detail

#### 3.2.2.9.2.1. Use-Case Diagram

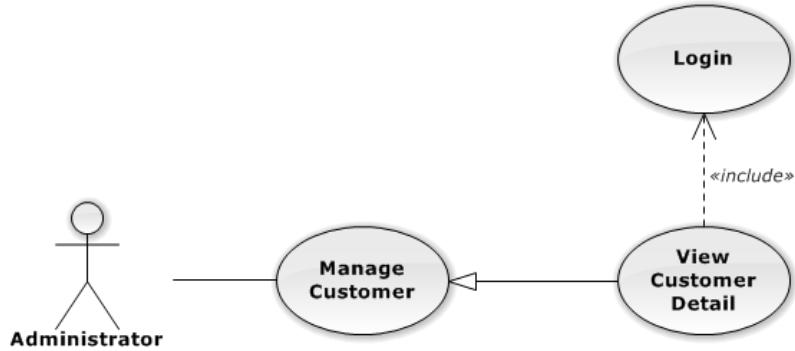


Figure 3-62: View Customer Detail Use-Case Diagram

#### 3.2.2.9.2.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0049	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View Customer Detail		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Administrator			
<b>Summary:</b> View Customer Detail.			
<b>Goal:</b> The purpose of View Customer Detail use case is allowing Admin to view a Customer detail.			
<b>Triggers:</b>			

User choose “Quản lý Khách Hàng” in menu. Then click “View detail” icon.

**Preconditions:**

User is authenticated and has role “admin”.

**Post Conditions:**

Success: Customer Detail is showed.

Failure: Do nothing.

**Main Success Scenario:**

Step	User	System
1	In Manage Customer page, click “View detail” icon	The Customer Detail is showed.

**Relationships:**

Manage Customer

### 3.2.2.9.3. UC0050 - Add New Customer

#### 3.2.2.9.3.1. Use-Case Diagram

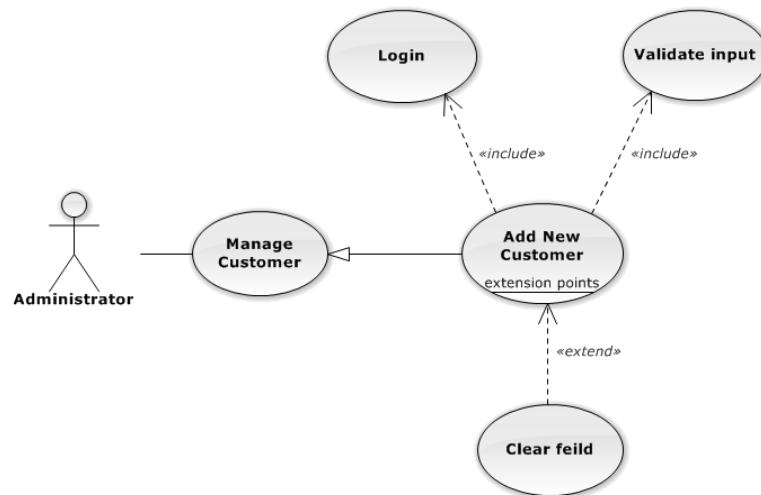


Figure 3-63: Add New Customer Use-Case Diagram

### 3.2.2.9.3.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>															
<b>Use-case No.</b>	UC0050	<b>Use-case Version</b>	1.0												
<b>Use-case Name</b>	Add New Customer														
<b>Author</b>	Đặng Nguyễn Khiêm														
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal												
<b>Actor:</b> Administrator															
<b>Summary:</b> Add Customer.															
<b>Goal:</b> The purpose of Add Customer use case is allowing Admin to add new Customer.															
<b>Triggers:</b> User choose “Quản lý Khách Hàng” in menu.															
<b>Preconditions:</b> User is authenticated and has role “admin”.															
<b>Post Conditions:</b> Success: New Customer is created. Failure: No Customer is created and Error message will be showed.															
<b>Main Success Scenario:</b> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click “Thêm Khách Hàng” button.</td><td>Show add Customer pop-up.</td></tr> <tr> <td>2</td><td>Enters the Customer detail.</td><td></td></tr> <tr> <td>3</td><td>Presses “Thêm Khách Hàng” button. [Alternative: 1]</td><td>Checks validate, add new Customer to database. Show success message. [Exception: 1]</td></tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Thêm Khách Hàng” button.	Show add Customer pop-up.	2	Enters the Customer detail.		3	Presses “Thêm Khách Hàng” button. [Alternative: 1]	Checks validate, add new Customer to database. Show success message. [Exception: 1]
<i>Step</i>	<i>User</i>	<i>System</i>													
1	Click “Thêm Khách Hàng” button.	Show add Customer pop-up.													
2	Enters the Customer detail.														
3	Presses “Thêm Khách Hàng” button. [Alternative: 1]	Checks validate, add new Customer to database. Show success message. [Exception: 1]													

		[Exception: 2] [Exception: 3]
<b>Alternative Scenario:</b>		
#	<i>User</i>	<i>System</i>
1	Presses “Đóng”, “X” button or click outside pop-up.	The Add New Customer pop-up is close.
<b>Exceptions:</b>		
#	<i>User</i>	<i>System</i>
1	Customer Name is missing.  Represent-Person is missing.  Customer Group is not chosen.  Address is missing.  Email format is wrong.  Mobile is missing.	Show error ““Nhập tên khách hàng!” to user.  Show error ““Nhập tên người đại diện!” to user.  Show error ““Chọn nhóm khách hàng!” to user.  Show error ““Nhập địa chỉ!” to user.  Show error “Email chưa đúng định dạng!” to user.  Show error “Nhập số điện thoại di động!” to user.
2	Add Customer fail.	The Add New Customer is closed and display error message “Tạo khách hàng thất bại!”, “Hãy kiểm tra lại kết nối database.”
3	Add Customer error.	The Add New Customer is closed and display error message “Tạo khách hàng thất bại!”, “Có lỗi xảy ra trong quá trình tạo khách hàng.”
<b>Relationships:</b>		
Manage Customer		

### 3.2.2.9.4. UC0051 - Edit Customer

#### 3.2.2.9.4.1. Use-Case Diagram

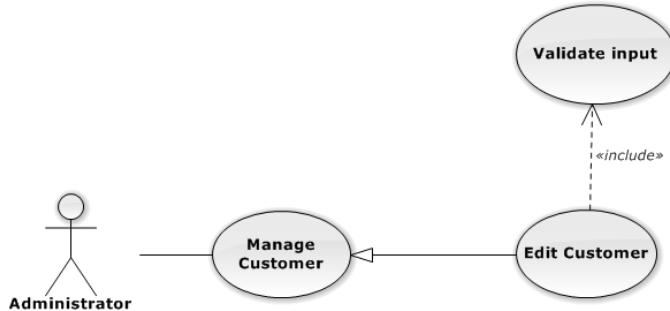


Figure 3-64: Edit Customer Use-Case Diagram

#### 3.2.2.9.4.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0051	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Customer		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Administrator		
<b>Summary:</b>	Update Customer.		
<b>Goal:</b>	The purpose of Update Customer use case is allowing Admin to update Customer.		
<b>Triggers:</b>	User choose “Quản lý Khách Hàng” in menu.		
<b>Preconditions:</b>			

User is authenticated and has role “admin”.

**Post Conditions:**

Success: The Customer is Updated.

Failure: The Customer is not updated and Error message will be showed.

**Main Success Scenario:**

Step	User	System
1	Click Update icon.	Show update Customer pop-up.
2	Enters the new Customer’s detail.	
3	Presses “Lưu chỉnh sửa” button. [Alternative: 1]	Checks validate, update Customer to database. Show success message. [Exception: 1] [Exception: 2] [Exception: 3]

**Alternative Scenario:**

#	User	System
1	Presses “Đóng”, “X” button or click outside pop-up.	The Update Customer pop-up is close.

**Exceptions:**

#	User	System
1	Customer Name is missing.	Show error “Nhập tên khách hàng!” to user.
	Represent-Person is missing.	Show error “Nhập tên người đại diện!” to user.
	Customer Group is not chosen.	Show error “Chọn nhóm khách hàng!” to user.
	Address is missing.	Show error “Nhập địa chỉ!” to user.
	Email format is wrong.	Show error “Email chưa đúng định dạng!” to user.
	Mobile is missing.	Show error “Nhập số điện thoại di động!” to user.
2	Update Customer fail.	The Update Customer pop-up is closed and display error message

		“Chỉnh sửa khách hàng thất bại!”, “Hãy kiểm tra lại kết nối database.”
3	Update Customer error.	The Update Customer pop-up is closed and display error message "Chỉnh sửa khách hàng thất bại!", "Có lỗi xảy ra trong quá trình chỉnh sửa khách hàng."

**Relationships:**  
Manage Customer

### 3.2.2.9.5. UC0052 - Delete Customer

#### 3.2.2.9.5.1. Use-Case Diagram

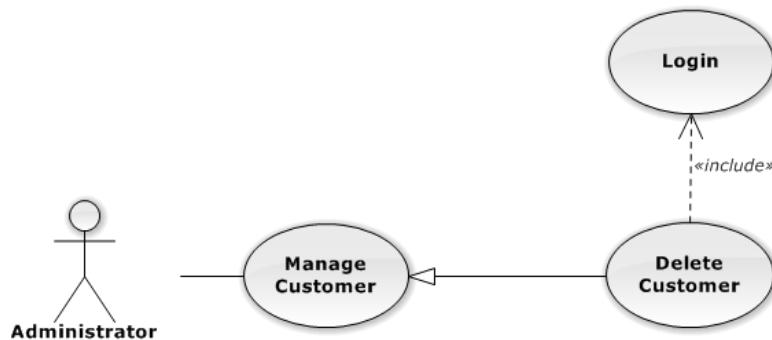


Figure 3-65: Delete Customer Use-Case Diagram

#### 3.2.2.9.5.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0052	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Customer		
<b>Author</b>	Đặng Nguyễn Khiêm		

Date	09/10/2014	Priority	Normal									
<b>Actor:</b> Administrator												
<b>Summary:</b> Delete Customer.												
<b>Goal:</b> The purpose of Delete Customer use case is allowing Admin to delete Customer.												
<b>Triggers:</b> User choose “Quản lý Khách Hàng” in menu.												
<b>Preconditions:</b> User is authenticated and has role “admin”.												
<b>Post Conditions:</b> Success: The Customer is deleted. Failure: The Customer is not deleted and Error message will be showed.												
<b>Main Success Scenario:</b>												
<table border="1"> <thead> <tr> <th>Step</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Click Delete icon.</td><td>Show confirm pop-up</td></tr> <tr> <td>2</td><td>Presses “Đồng ý” button. [Alternative: 1]</td><td>Delete Customer from database. Show success message. [Exception: 1] [Exception: 2]</td></tr> </tbody> </table>				Step	User	System	1	Click Delete icon.	Show confirm pop-up	2	Presses “Đồng ý” button. [Alternative: 1]	Delete Customer from database. Show success message. [Exception: 1] [Exception: 2]
Step	User	System										
1	Click Delete icon.	Show confirm pop-up										
2	Presses “Đồng ý” button. [Alternative: 1]	Delete Customer from database. Show success message. [Exception: 1] [Exception: 2]										
<b>Alternative Scenario:</b>												
<table border="1"> <thead> <tr> <th>#</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Presses “Đóng”, “X” button or click outside pop-up.</td><td>The confirm pop-up is closed.</td></tr> </tbody> </table>				#	User	System	1	Presses “Đóng”, “X” button or click outside pop-up.	The confirm pop-up is closed.			
#	User	System										
1	Presses “Đóng”, “X” button or click outside pop-up.	The confirm pop-up is closed.										
<b>Exceptions:</b>												
<table border="1"> <thead> <tr> <th>#</th><th>User</th><th>System</th></tr> </thead> <tbody> <tr> <td>1</td><td>Delete Customer fail.</td><td>The confirm pop-up is closed and display error message “Xóa nhóm dịch vụ thất bại!”, “ Hãy kiểm tra lại kết nối database.”</td></tr> </tbody> </table>				#	User	System	1	Delete Customer fail.	The confirm pop-up is closed and display error message “Xóa nhóm dịch vụ thất bại!”, “ Hãy kiểm tra lại kết nối database.”			
#	User	System										
1	Delete Customer fail.	The confirm pop-up is closed and display error message “Xóa nhóm dịch vụ thất bại!”, “ Hãy kiểm tra lại kết nối database.”										

2	Delete Customer error.	The confirm pop-up is closed and display error message “Xóa nhóm dịch vụ thất bại!”, "Có lỗi xảy ra trong quá trình xóa khách hàng."
<b>Relationships:</b>		
Manage Customer		

### 3.2.2.9.6. UC0053 - Search Customer

#### 3.2.2.9.6.1. Use-Case Diagram

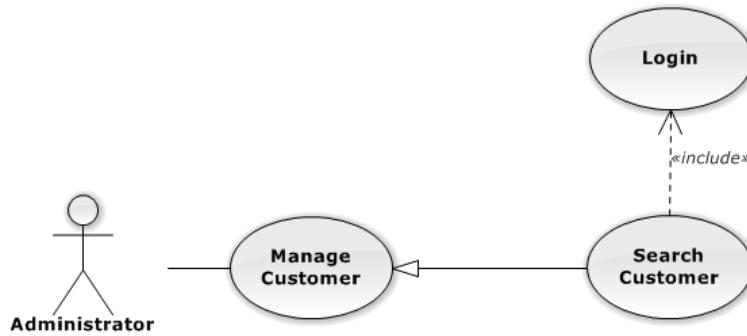


Figure 3-66: Search Customer Use-Case Diagram

#### 3.2.2.9.6.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0053	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Customer		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			

<p><b>Administrator</b></p> <p><b>Summary:</b> Search Customer.</p> <p><b>Goal:</b> The purpose of Search Customer use case is allowing Admin to search Customer.</p> <p><b>Triggers:</b> User choose “Quản lý Khách hàng” in menu.</p> <p><b>Preconditions:</b> User is authenticated and has role “admin”.</p> <p><b>Post Conditions:</b> Success: List of Customer with search key words is displayed. Failure: No record is displayed.</p> <p><b>Main Success Scenario:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #cccccc; padding: 5px;"><b>Step</b></th><th style="background-color: #cccccc; padding: 5px;"><b>User</b></th><th style="background-color: #cccccc; padding: 5px;"><b>System</b></th></tr> </thead> <tbody> <tr> <td style="padding: 5px;">1</td><td style="padding: 5px;">In “Quản lý Khách hàng” screen, input key word at “Tìm kiếm” textbox.</td><td style="padding: 5px;">List of Customer with search key words is displayed.</td></tr> </tbody> </table>	<b>Step</b>	<b>User</b>	<b>System</b>	1	In “Quản lý Khách hàng” screen, input key word at “Tìm kiếm” textbox.	List of Customer with search key words is displayed.
<b>Step</b>	<b>User</b>	<b>System</b>				
1	In “Quản lý Khách hàng” screen, input key word at “Tìm kiếm” textbox.	List of Customer with search key words is displayed.				

### 3.2.2.10. Manage Staff Group

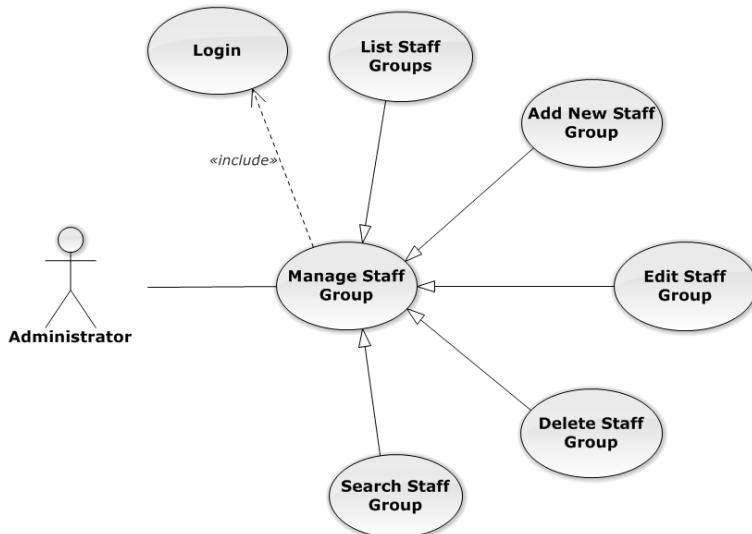


Figure 3-67: Manage Staff Group Use-Case Diagram

### 3.2.2.10.1. UC0054 - List Staff Groups

#### 3.2.2.10.1.1. Use-Case Diagram

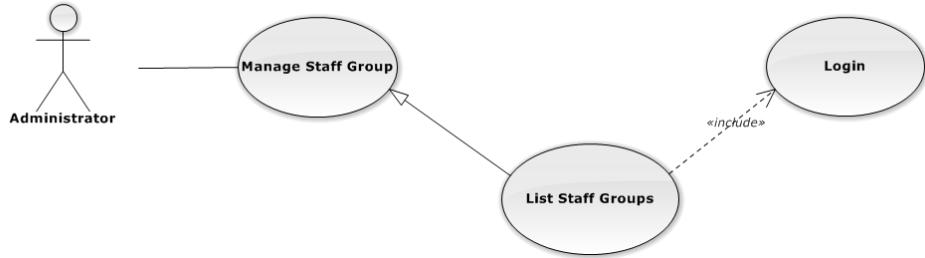


Figure 3-68: List Staff Groups Use-Case Diagram

#### 3.2.2.10.1.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0054	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	List Staff Groups		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			
Administrator			
<b>Summary:</b>			
Redirect user to “Quản lý nhóm nhân viên” page and list all staff group.			
<b>Goal:</b>			
To allowing Administrator view any detail information of all staff group.			
<b>Triggers:</b>			
<ul style="list-style-type: none"> <li>• User click on User Control Panel and then click on “Quản lý nhân viên” link</li> <li>• On sub menu click on “nhóm nhân viên”.</li> </ul>			
<b>Preconditions:</b>			

- Must be logged-in with “Admin” role.
- The page is fully loaded

**Post Conditions:**

Success: System redirects user to “Quản lý nhóm nhân viên” page.

Failure: Do nothing.

**Main Success Scenario:**

Step	User	System
1	Click on “Quản lý nhóm nhân viên” link	Redirect to “Quản lý nhóm nhân viên” page Show all staff group.

**Relationships:**

Manage Staff Group

**Business Rules:**

Only Staff with role =”Admin” can be use this function.

### 3.2.2.10.2. UC0055 - Add New Staff Group

#### 3.2.2.10.2.1. Use-Case Diagram

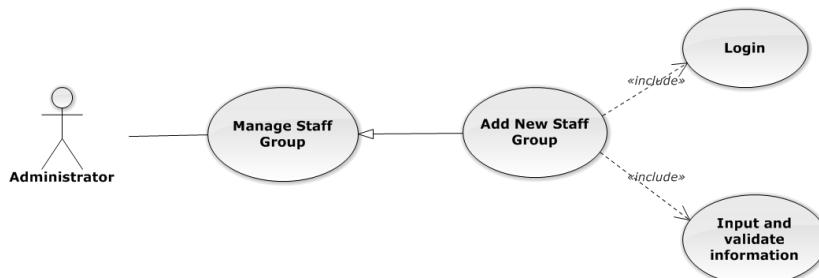


Figure 3-69: Add New Staff Group Use-Case Diagram

#### 3.2.2.10.2.2. Use-Case Specification

USE CASE SPECIFICATION			
Use-case No.	UC0055	Use-case Version	1.0

<b>Use-case Name</b>	Add New Staff Group		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Administrator.			
<b>Summary:</b> Administrator can insert new staff group in the system.			
<b>Goal:</b> Add new staff group.			
<b>Triggers:</b> At “Quản lý nhóm nhân viên” page click “Thêm nhóm nhân viên” button, fill information and click button “Thêm mới”.			
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>Logged-in as “Admin” role.</li> <li>The page is fully loaded</li> </ul>			
<b>Post Conditions:</b> Success: New staff group is inserted into database, message show “Tạo nhóm nhân viên mới thành công!” and display on “Quản lý nhân viên” screen. Failure: Show message “Tạo nhóm nhân viên mới thất bại!”			
<b>Main Success Scenario:</b>			
<b>Step</b>	<b>User</b>	<b>System</b>	
1	Administrator click on “Thêm nhóm nhân viên” button at “Quản lý Nhóm nhân viên” page.	Modal popup is displayed with fields for input information of new staff group.	
	Fill information into fields and click button “Thêm mới”  [Alternative 1] [Exception 1], [Exception 2], [Exception 3]	Modal popup is close  System display successful message “Tạo nhóm nhân viên mới thành công!”  Update list staff group on page	

<b>Alternative Scenario:</b>		
#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close
<b>Exceptions:</b>		
#	User	System
1	Field “Tên nhóm nhân viên” are blank	Shows error message “Nhập tên nhóm nhân viên!”.
	Field “Chi tiết nhóm nhân viên”, are blank	Shows error message “Nhập chi tiết nhân viên!”
2	System cannot insert staff group to data base.	Shows error message “Tạo nhóm nhân viên thất bại!”
3	System fail insert staff group to data base.	Shows error message “Tạo nhóm nhân viên thất bại!”, “Hãy kiểm tra lại kết nối database!”.

**Relationships:**  
Manage Staff Group

**Business Rules:**  
Only Staff with role="Admin" can be use this function.

### 3.2.2.10.3. UC0056 - Edit Staff Group

#### 3.2.2.10.3.1. Use-Case Diagram

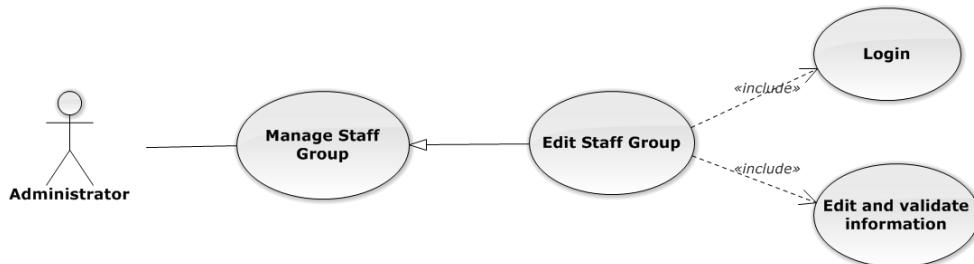


Figure 3-70: Edit Staff Group Use-Case Diagram

### 3.2.2.10.3.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>			
<b>Use-case No.</b>	UC0056	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Staff Group		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<p><b>Actor:</b> Administrator.</p> <p><b>Summary:</b> Administrator can update information of staff group.</p> <p><b>Goal:</b> Administrator can update information of staff group and save to database system.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>• Administrator goes to “Chi tiết nhóm nhân viên” Popup and click “Chỉnh Sửa” button and modify information, after that click button “Lưu Chính Sửa”.</li> <li>• Administrator goes to “Nhóm nhân viên” screen, click “Chỉnh Sửa” button and modify information, after that click button “Lưu Chính Sửa”.</li> </ul> <p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>• User has logged-in as “Admin” role.</li> <li>• The page is fully loaded</li> </ul> <p><b>Post Conditions:</b></p> <p>Success: Information of staff group is updated and saves to database, message show “Cập nhật chi tiết nhóm nhân viên thành công!” and display information after update on “Quản lý nhóm nhân viên” screen.</p> <p>Failure: Show message “Cập nhật chi tiết nhóm nhân viên thất bại!”</p> <p><b>Main Success Scenario:</b></p>			

<b>Step</b>	<b>User</b>	<b>System</b>
1	Manager click on “Chỉnh sửa” button at “Quản lý nhóm nhân viên” screen.	Modal popup is displayed with fields for detail information of staff group.
2	Edit information into fields and click button “Lưu chỉnh sửa” [Alternative 1] [Exception 1], [Exception 1], [Exception 3]	Modal popup is closed System display successful message “Cập nhật chi tiết nhóm nhân viên thành công!” Update list staff group on page

**Alternative Scenario:**

#	<b>User</b>	<b>System</b>
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is closed

**Exceptions:**

#	<b>User</b>	<b>System</b>
1	Field “Tên nhóm nhân viên” are blank	Shows error message “Nhập tên nhóm nhân viên!”.
	Field “Chi tiết nhóm nhân viên”, are blank	Shows error message “Nhập chi tiết chi tiết nhân viên!”.
2	System cannot update staff to data base.	Shows error message “Cập nhật chi tiết nhóm nhân viên thất bại!”.
3	System fail insert staff to data base.	Shows error message “Cập nhật chi tiết nhóm nhân viên thất bại!”, “Hãy kiểm tra lại kết nối database!”.

**Relationships:**  
Manage Staff Group

**Business Rules:**  
Only Staff with role=“Admin” can be use this function.

### 3.2.2.10.4. UC0057 - Delete Staff Group

#### 3.2.2.10.4.1. Use-Case Diagram

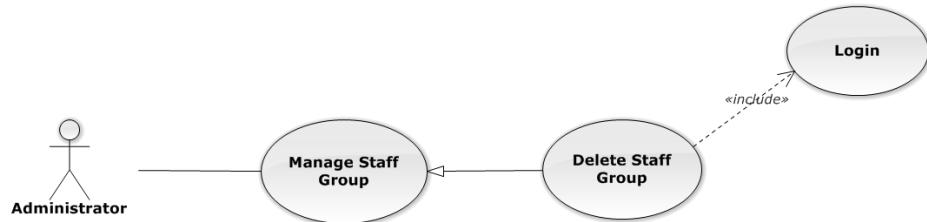


Figure 3-71: Delete Staff Group Use-Case Diagram

#### 3.2.2.10.4.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0057	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Staff Group		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Administrator.		
<b>Summary:</b>	Administrator can delete staff group.		
<b>Goal:</b>	Helps Administrator delete staff group if it didn't use in Staff manager and save to database system.		
<b>Triggers:</b>	Administrator goes to “Quản lý nhóm nhân viên” page click button “Xóa”. After that click on “Bỏ qua” or “Xác nhận” button to confirm delete staff group.		
<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>User has logged-in as Admin role.</li> </ul>		

- The page is fully loaded

**Post Conditions:**

Success:

Delete staff group and save to database system, display message “Xóa nhóm nhân viên thành công!”

Failure:

Show message “Xóa nhóm nhân viên thất bại!”, “Nhóm nhân viên này hiện đang được sử dụng!”.

**Main Success Scenario:**

Step	User	System
1	Supper admin click on “Xóa” button at “Quản lý nhóm nhân viên” screen.	Show Pop-up confirm “Bạn có muốn thực hiện thao tác này” with two button “Xác nhận” and “Bỏ qua”
2	User click “Bỏ qua” button	Staff group not delete, comeback to “Chi tiết nhóm nhân viên” screen.
3	User click “ Xác nhận” button [Exception 1], [Exception 2]	Show message “Xóa nhóm nhân viên thành công!”

**Exceptions:**

#	User	System
1	Delete staff group fail because staff group is use.	Shows error message “Xóa nhóm nhân viên thất bại!”, “Nhóm nhân viên này hiện đang được sử dụng!”
2	Delete staff group error because staff group is use.	Shows error message “Xóa nhóm nhân viên thất bại!”, “Có lỗi xảy ra trong quá trình xóa nhóm nhân viên”.

**Relationships:**

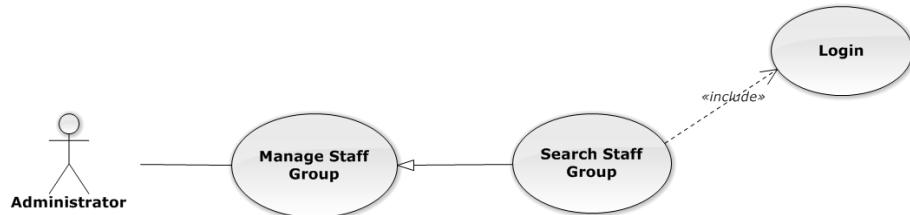
Manage Staff Group

**Business Rules:**

Only Staff with role=“Admin” can be use this function.

### **3.2.2.10.5. UC0058 - Search Staff Group**

### **3.2.2.10.5.1. Use-Case Diagram**



**Figure 3-72: Search Staff Group Use-Case Diagram**

### **3.2.2.10.5.2. Use-Case Specification**

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0058	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Staff Group		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Administrator.			
<b>Summary:</b> Administrator search staff in list of staff group.			
<b>Goal:</b> Helps Administrator search staff group.			
<b>Triggers:</b> <ul style="list-style-type: none"><li>Administrator wants to search staff group.</li><li>Administrator goes to “Quản lý nhóm nhân viên” screen, input word into “Tìm Kiếm” textbox.</li></ul>			

**Preconditions:**

- User has logged-in as Admin role.
- The page is fully loaded

**Post Conditions:**

Success:

List of staff group map with word search is displayed.

Failure:

Do nothing

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	In “Quản lý nhóm nhân viên” screen, input key word at “Tìm kiếm” textbox.	List of staff group mapping with word search is display.

**Relationships:**

Manage Staff Group

**Business Rules:**

Only Staff with role="Admin" can be use this function.

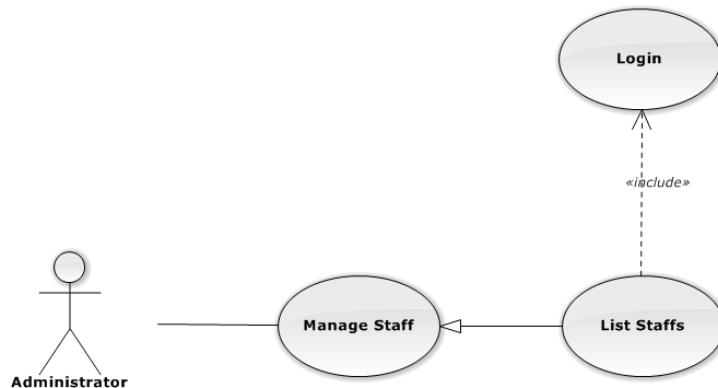
### 3.2.2.11. Manage Staff



**Figure 3-73: Manage Staff Use-Case Diagram**

#### 3.2.2.11.1. UC0059 - List Staffs

##### 3.2.2.11.1.1. Use-Case Diagram



**Figure 3-74: List Staffs Use-Case Diagram**

### 3.2.2.11.1.2. Use-Case Specification

<b>USE-CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0059	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	List Staffs								
<b>Author</b>	Đặng Nguyễn Khiêm								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<b>Actor:</b> Administrator									
<b>Summary:</b> Redirect user to “Quản lý nhân viên” page and list all staff.									
<b>Goal:</b> To allowing Administrator view any detail information of all staff.									
<b>Triggers:</b> User click on User Control Panel and then click on “Quản lý nhân viên” link									
<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• Must be logged-in with “Admin” role.</li> <li>• The page is fully loaded</li> </ul>									
<b>Post Conditions:</b> Success: System redirects user to “Quản lý nhân viên” page. Failure: Do nothing.									
<b>Main Success Scenario:</b> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click on “Quản lý nhân viên” link</td><td>Redirect to “Quản lý nhân viên” page. Show all staff.</td></tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click on “Quản lý nhân viên” link	Redirect to “Quản lý nhân viên” page. Show all staff.
<i>Step</i>	<i>User</i>	<i>System</i>							
1	Click on “Quản lý nhân viên” link	Redirect to “Quản lý nhân viên” page. Show all staff.							
<b>Relationships:</b> Manage Staff									

**Business Rules:**

Only Staff login with role “Admin” can be use this function.

### 3.2.2.11.2. UC0060 - View Staff Detail

#### 3.2.2.11.2.1. Use-Case Diagram

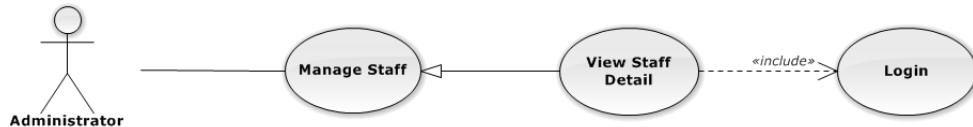


Figure 3-75: View Staff Detail Use-Case Diagram

#### 3.2.2.11.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0060	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View Staff Detail		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			
Administrator			
<b>Summary:</b>			
Administrator can view detail of staff information			
<b>Goal:</b>			
Helps Administrator view staff information			
<b>Triggers:</b>			
• On User Control Panel click on “Quản lý nhân viên”,			

- Click click on “Chi tiết” button
- Click on image staff.

**Preconditions:**

- Must be logged-in with “Admin” role
- The page is fully loaded

**Post Conditions:**

Success: The detail staff information is displayed

Failure: Do nothing

**Main Success Scenario:**

Step	User	System
1	Staff click on “chi tiết” button or click on image link [Alternative 1] ,[Alternative 2] [Alternative 3] ,[Alternative 4]	The detail staff information is displayed.

**Alternative Scenario:**

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close
2	If staff login with Id=”1”, Click on “Chỉnh sửa” button	Administrator can update information of office (ref 3.2.2.2.4. Update staff)
3	If staff login with Id=”1”, Click on “Hoạt động lại” or “Ngừng hoạt động” link	Administrator can Deactivate/Activate staff (ref 3.2.2.2.5. Deactivate/Activate staff)
4	If staff login with Id=”1”, Click on “Đặt lại mật khẩu” link	Administrator can reset password staff (ref 3.2.2.2.7. Reset Password staff)

**Relationships:**

Manage Staff

**Business Rules:**

Only Staff login with role “Admin” can be use this function.

### 3.2.2.11.3. UC0061 - Add New Staff

#### 3.2.2.11.3.1. Use-Case Diagram

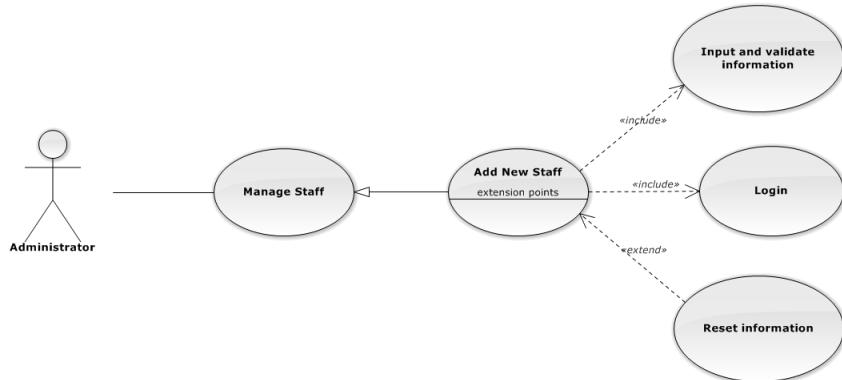


Figure 3-76: Add New Staff Use-Case Diagram

#### 3.2.2.11.3.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0061	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Add New Staff		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	High
<b>Actor:</b>	Administrator.		
<b>Summary:</b>	Administrator can insert new staff into the system.		
<b>Goal:</b>	Add new staff.		
<b>Triggers:</b>			

At “Quản lý nhân viên” page, Administrator click on “Thêm nhân viên” button and fill information after that click button “Thêm mới” button.

**Preconditions:**

- User has logged-in as “Admin” role.
- The page is fully loaded

**Post Conditions:**

Success:

- Add new case successful and message show “Thêm nhân viên thành công”.
- Add current staff’s office to data system.
- New staff’s status is “Đang hoạt động”.
- Add current with username and default password is “123456” to data system.

Failure:

Show message “Thêm nhân viên thất bại, hãy kiểm tra lại kết nối database”.

**Main Success Scenario:**

Step	User	System
1	Administrator click on “Thêm nhân viên” button at “Quản lý nhân viên” page.	Modal popup is displayed with fields for input information of new staff.
2	Fill information into fields and click button “Thêm mới” [Alternative 1] [Exception 1], [Exception 2], [Exception 3], [Exception 4]	Modal popup is closed. System display successful message “Thêm nhân viên thành công!” Update list staff on page

**Alternative Scenario:**

#	User	System
1	Click “Làm trống” button	All input field reset to blank.

**Exceptions:**

#	User	System
1	Field “Tên nhân viên” are blank	Shows error message “Nhập tên nhân viên!”.
	Field “Tên đăng nhập”, are blank	Shows error message “Nhập vào tên đăng nhập!”.

	Field “Nhóm nhân viên” are blank	Shows error message “Chọn nhóm cho nhân viên!”.
	Field “Ngày sinh” are blank	Shows error message “Chọn ngày sinh của nhân viên!”.
	Field “Điện thoại di động” are blank	Shows error message “Nhập vào số điện thoại nhân viên!”.
	Field “Email” are blank	Shows error message “Hãy nhập Email của nhân viên!”.
	Input “Email” not follow the rule	Shows error message “Hãy nhập địa chỉ email đúng!”.
	Field “Địa chỉ liên hệ” are blank	Shows error message “Nhập địa chỉ của nhân viên!”.
	Field “Thuộc văn phòng” are blank	Shows error message “Chọn một văn phòng!”.
	Field “Vai trò nhân viên” are blank	Shows error message “Chọn vai trò cho nhân viên!”.
	Field “CMND” are blank	Shows error message “Nhập vào số chứng minh nhân dân!”.
	Field “Ngày cấp CMND” are blank	Shows error message “Chọn ngày cấp chứng minh nhân dân!”.
	Field “Nơi cấp CMND” are blank	Shows error message “Nhập vào nơi cấp chứng minh nhân dân!”.
	Input “Tên đăng nhập” not follow the rule	Shows error message “Tên đăng nhập không được chứa ký tự đặc biệt!”.
2	Input “Tên đăng nhập” is existed in Database	Shows error message “Tên đăng nhập nhân viên đã tồn tại!”.
3	System cannot insert staff to data base.	Shows error message “Tạo nhân viên thất bại!”
4	System error insert staff to data base.	Shows error message “Tạo nhân viên thất bại!”, “Hãy kiểm tra lại kết nối database!”.

**Relationships:**

- Manage Staff.
- Manage Staff Group

**Business Rules:**

- Only Staff login with role “Admin” can be use this function.

### 3.2.2.11.4. UC0062 - Edit Staff

#### 3.2.2.11.4.1. Use-Case Diagram

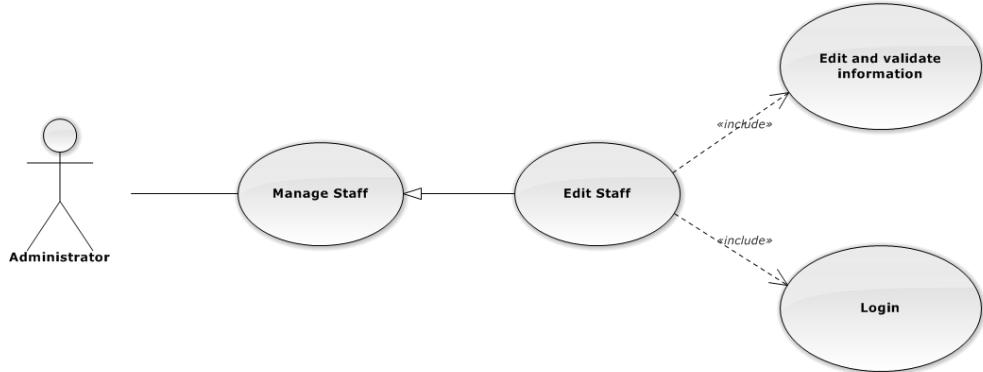


Figure 3-77: Edit Staff Use-Case Diagram

#### 3.2.2.11.4.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0062	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Staff		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Administrator.			
<b>Summary:</b> Administrator can update information of staff.			
<b>Goal:</b> Administrator can update information of staff and save to database system.			

**Triggers:**

- Administrator goes to “Quản lý nhân viên” screen, click button “Chỉnh Sửa” button and modify information, after that click button “Lưu Chính Sửa”.
- Manager goes to “Chi tiết nhân viên” Popup screen, click on “Chỉnh Sửa” button and modify information, after that click button “Lưu Chính Sửa”.

**Preconditions:**

- Logged-in as “Admin” role.
- The page is fully loaded

**Post Conditions:**

Success:

- Information of Office is updated and saves to database
- Message show “Cập nhật chi tiết nhân viên thành công” and display information after update on “Quản lý nhân viên” screen.

Failure:

Show message “Cập nhật chi tiết nhân viên thất bại!”, “Hãy kiểm tra lại kết nối database.”

**Main Success Scenario:**

Step	User	System
1	Manager click on “Chỉnh sửa” button at “Quản lý nhân viên” screen.	Modal popup is displayed with fields for detail information of new staff.
2	Edit information into fields and click button “Lưu chỉnh sửa” [Alternative 1] [Exception 1], [Exception 2], [Exception 3]	Modal popup is close System display successful message “Cập nhật chi tiết nhân viên thành công!” Update list staff on page

**Alternative Scenario:**

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close

**Exceptions:**

#	User	System

1	Field “Tên nhân viên” are blank	Shows error message “Nhập tên nhân viên!”.
	Field “Tên đăng nhập”, are blank	Shows error message “Nhập vào tên đăng nhập!”.
	Field “Nhóm nhân viên” are blank	Shows error message “Chọn nhóm cho nhân viên!”.
	Field “Ngày sinh” are blank	Shows error message “Chọn ngày sinh của nhân viên!”.
	Field “Điện thoại di động” are blank	Shows error message “Nhập vào số điện thoại nhân viên!”.
	Field “Email” are blank	Shows error message “Hãy nhập Email của nhân viên!”
	Input “Email” not a regular expression	Shows error message “Hãy nhập địa chỉ email đúng!”
	Field “Địa chỉ liên hệ” are blank	Shows error message “Nhập địa chỉ của nhân viên!”.
	Field “Thuộc văn phòng ” are blank	Shows error message “Chọn một văn phòng!”.
	Field “Vai trò nhân viên” are blank	Shows error message “Chọn vai trò cho nhân viên!”.
	Field “CMND” are blank	Shows error message “Nhập vào số chứng minh nhân dân!”
	Field “Ngày cấp CMND” are blank	Shows error message “Chọn ngày cấp chứng minh nhân dân!”
	Field “Nơi cấp CMND” are blank	Shows error message “Nhập vào nơi cấp chứng minh nhân dân!”
2	System cannot insert staff to data base.	Shows error message “Cập nhật chi tiết nhân viên thất bại!”
3	System error insert staff to data base.	Shows error message “Cập nhật chi tiết nhân viên thất bại!”, “Hãy kiểm tra lại kết nối database!”

**Relationships:**  
Manage Staff

**Business Rules:**

Only Staff login with role “Admin” can be use this function.

### 3.2.2.11.5. UC0063 - Deactivate/Activate staff

#### 3.2.2.11.5.1. Use-CaseDiagram

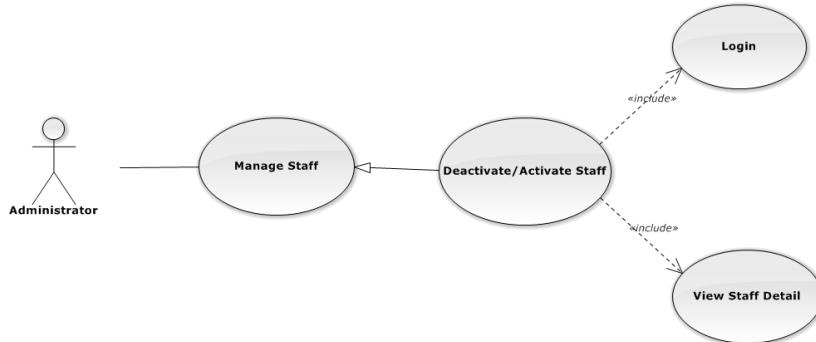


Figure 3-78: Deactivate/Activate Staff Use-Case Diagram

#### 3.2.2.11.5.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0063	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Deactivate/Activate staff		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Administrator.		
<b>Summary:</b>	Administrator can change status of Staff.		
<b>Goal:</b>			

Helps Administrator update Status of staff and save to database system.

**Triggers:**

Administrator goes “Chi tiết nhân viên” Pop-Up screen , Click button “Ngừng hoạt động” or “Hoạt động lại”. After that click on “Bỏ qua” or “Xác nhận” button to confirm change status Staff.

**Preconditions:**

- Logged-in as “Admin” role
- The page is fully loaded

**Post Conditions:**

Success:

Information of Staff is updated and saves to database, message show “[...] đã hoạt động lại!” or “[...] đã ngừng hoạt động!” and display information after update on “Quản lý nhân viên” screen.

Failure:

Show message “Thay đổi hoạt động nhân viên thất bại!”, “Hãy kiểm tra lại kết nối database”.

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	Supper admin click on “Chỉnh sửa” button at “Quản lý nhân viên” screen.	Show “Chi tiết nhân viên” Pop-up information.
2	On “Chi tiết văn phòng” Pop-up click button “Ngừng hoạt động ” if Staff have status “Đang hoạt động” or Click button “Hoạt động lại” if staff have status “Ngừng hoạt động”. [Alternative 1]	Display message box confirm “Bạn có muốn thực hiện thao tác này” with two button “Xác nhận” and “Bỏ qua”
3	User click “Bỏ qua” button	Status of staff not change comeback to “Chi tiết nhân viên” Pop-up screen.

4	User click “ Xác nhận” button [Exception 1] , [Exception 2]	Status of staff is change and comeback to “Quản lý nhân viên” screen
---	--	--

**Alternative Scenario:**

Alternative:

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close

**Exceptions:**

#	User	System
1	System fail change status of staff	Shows error message “Thay đổi hoạt động nhân viên thất bại!”, “Có lỗi xảy ra trong quá trình xóa nhân viên.”.
2	System error change status of staff.	Shows error message “Thay đổi hoạt động nhân viên thất bại!”, “Hãy kiểm tra lại kết nối database”.

**Relationships:**

Manage Staff

**Business Rules:**

Only Staff login with role “Admin” can be use this function.

### 3.2.2.11.6. UC0064 - Search Staff

#### 3.2.2.11.6.1. Use-Case Diagram

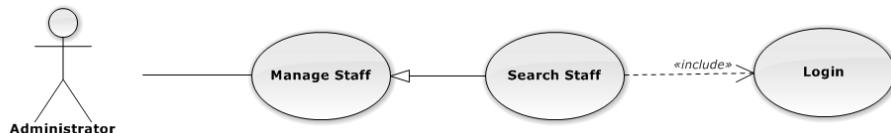


Figure 3-79: Search Staff Use-Case Diagram

### 3.2.2.11.6.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0064	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	Search Staff								
<b>Author</b>	Đặng Nguyễn Khiêm								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<p><b>Actor:</b> Administrator.</p> <p><b>Summary:</b> Administrator search staff in list of staff</p> <p><b>Goal:</b> Helps Administrator search staff.</p> <p><b>Triggers:</b></p> <ul style="list-style-type: none"> <li>Administrator wants to search staff.</li> <li>Administrator input key word is StaffName. When the key up, system will be automatic search.</li> </ul> <p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>Logged-in as “Admin” role.</li> <li>The page is fully loaded</li> </ul> <p><b>Post Conditions:</b></p> <p>Success: List of staff map with word search is displayed. Failure: Do nothing.</p> <p><b>Main Success Scenario:</b></p> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>In “Quản lý nhân viên” screen, input key word at “Tìm kiếm” textbox.</td><td>List of staff mapping with word search is display.</td></tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	In “Quản lý nhân viên” screen, input key word at “Tìm kiếm” textbox.	List of staff mapping with word search is display.
<i>Step</i>	<i>User</i>	<i>System</i>							
1	In “Quản lý nhân viên” screen, input key word at “Tìm kiếm” textbox.	List of staff mapping with word search is display.							

**Relationships:**

Manage Staff

**Business Rules:**

Only Staff with role="Admin" can be use this function.

### 3.2.2.11.7. UC0065 - Reset Password

#### 3.2.2.11.7.1. Use-Case Diagram

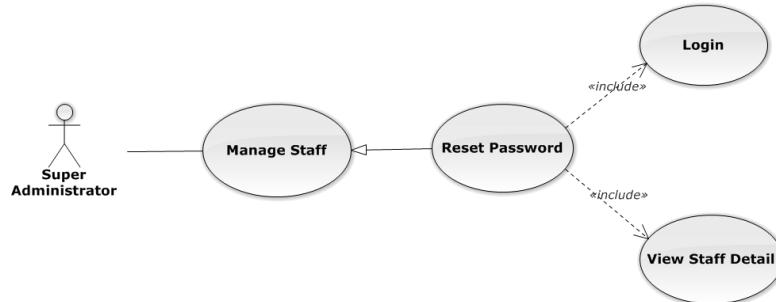


Figure 3-80: Reset Password Use-Case Diagram

#### 3.2.2.11.7.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0065	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Reset Password		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Supper Administrator.		
<b>Summary:</b>			

Supper Administrator can reset password of all staff to default.

**Goal:**

Helps Supper Administrator reset password to default is “123456”.

**Triggers:**

Supper Supper Administrator wants to reset password staff.

Supper Administrator goes to “Staff detail” screen, and click to button “Đặt lại mật khẩu”

**Preconditions:**

- Logged-in to system.
- The page is fully loaded

**Post Conditions:**

Success: Default password “123456” is save to database, message show “Khôi phục mật khẩu thành công”

Failure:

- The user is presented with an error message on screen.
- Show message “Khôi phục mật khẩu thất bại!”.

**Main Success Scenario:**

Step	User	System
1	Supper admin click on “Chi tiết” button at “Quản lí nhân viên” screen.	Show “Chi tiết nhân viên” Pop-up information.
2	On “Chi tiết văn phòng” Pop-up click button “Đặt lại mật khẩu” [Alternative 1]	Display message box confirm “Bạn muốn khôi phục mật khẩu nhân viên này về mặc định?” with two button “Xác nhận” and “Bỏ qua”
3	User click “Bỏ qua” button	Password of staff not change comeback to “Chi tiết nhân viên” Pop-up screen.
4	User click “ Xác nhận” button [Exception 1], [Exception 2]	Password of staff is reset to default “123456” and comeback to “Quản lí nhân viên” screen

<b>Alternative Scenario:</b>		
#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close
<b>Exceptions:</b>		
#	User	System
1	System cannot reset password staff.	Shows error message “Khôi phục mật khẩu thất bại!”
2	System fail reset password staff.	Shows error message “"Khôi phục mật khẩu thất bại", "Hãy kiểm tra lại kết nối database.".

**Relationships:**  
Manage Staff

**Business Rules:**  
Only Staff with id="1" (Super Administrator) can be use this function.

### 3.2.2.12. Manage Service Type

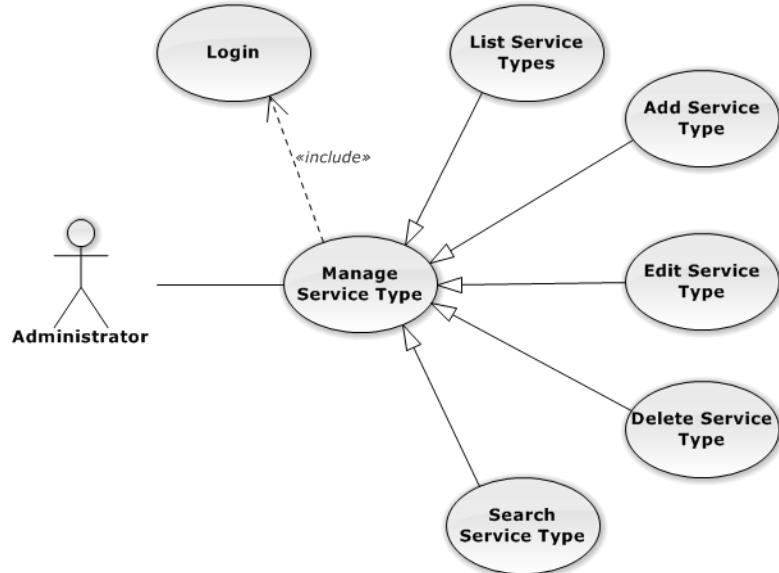


Figure 3-81: Manage Service Type Use-Case Diagram

### 3.2.2.12.1. UC0066 - List Service Types

#### 3.2.2.12.1.1. Use-Case Diagram

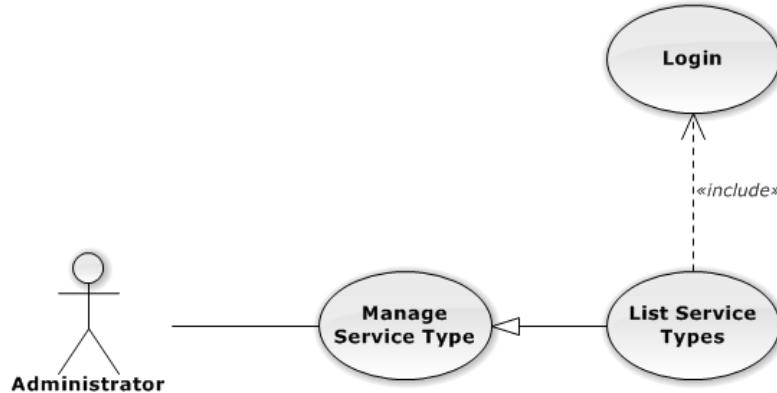


Figure 3-82: List Service Types Use-Case Diagram

#### 3.2.2.12.1.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0066	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	List Service Types		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			
Administrator			
<b>Summary:</b>			
List All Service Type.			
<b>Goal:</b>			
The purpose of List Service Type use case is allowing Admin to view all Services Type.			
<b>Triggers:</b>			

User choose “Quản lý Loại Dịch Vụ” in menu.						
<b>Preconditions:</b>						
User is authenticated and has role “admin”. The page is fully loaded.						
<b>Post Conditions:</b>						
Success: All Services Type is listed. Failure: Do nothing.						
<b>Main Success Scenario:</b>						
<table border="1"><thead><tr><th>Step</th><th>User</th><th>System</th></tr></thead><tbody><tr><td>1</td><td>Click “Quản lý Loại Dịch Vụ” in menu.</td><td>All Service Types are loaded.</td></tr></tbody></table>	Step	User	System	1	Click “Quản lý Loại Dịch Vụ” in menu.	All Service Types are loaded.
Step	User	System				
1	Click “Quản lý Loại Dịch Vụ” in menu.	All Service Types are loaded.				
<b>Relationships:</b> Manage Service Type						

### 3.2.2.12.2. UC0067 - Add New Service Type

#### 3.2.2.12.2.1. Use-Case Diagram

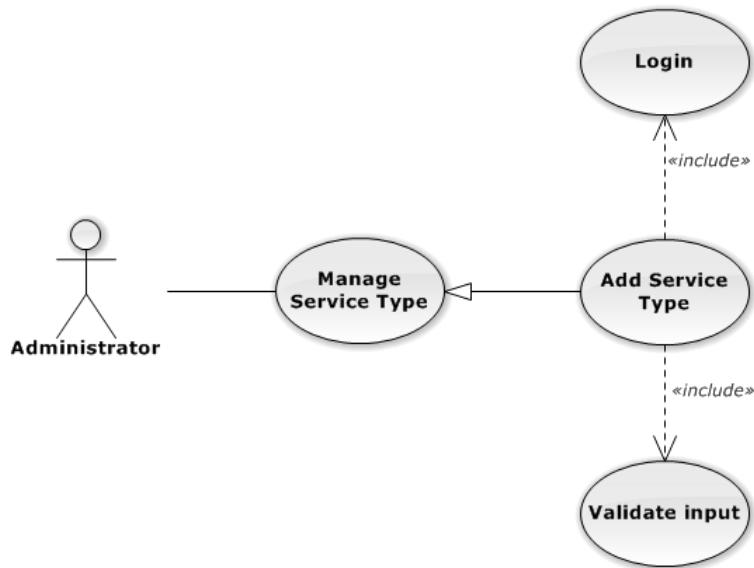


Figure 3-83: Add New Service Type Use-Case Diagram

### 3.2.2.12.2.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>															
<b>Use-case No.</b>	UC0067	<b>Use-case Version</b>	1.0												
<b>Use-case Name</b>	Add New Service Type														
<b>Author</b>	Trần Anh Tuấn														
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal												
<b>Actor:</b> Administrator															
<b>Summary:</b> Add Service Type.															
<b>Goal:</b> The purpose of Add Service Type use case is allowing Admin to add Service Type.															
<b>Triggers:</b> User choose “Quản lý Nhóm Dịch Vụ” in menu. Then click “Thêm loại dịch vụ” button.															
<b>Preconditions:</b> User is authenticated and has role “admin”.															
<b>Post Conditions:</b> Success: New Service Type is created. Failure: No Service Type is created and Error message will be showed.															
<b>Main Success Scenario:</b> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click “Thêm loại dịch vụ” button.</td><td>Show add Service type pop-up.</td></tr> <tr> <td>2</td><td>Enters the Service Type Name and Description</td><td></td></tr> <tr> <td>3</td><td>Presses “Thêm mới” button. [Alternative: 1]</td><td>Checks validate, add new Service Type to database.</td></tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Thêm loại dịch vụ” button.	Show add Service type pop-up.	2	Enters the Service Type Name and Description		3	Presses “Thêm mới” button. [Alternative: 1]	Checks validate, add new Service Type to database.
<i>Step</i>	<i>User</i>	<i>System</i>													
1	Click “Thêm loại dịch vụ” button.	Show add Service type pop-up.													
2	Enters the Service Type Name and Description														
3	Presses “Thêm mới” button. [Alternative: 1]	Checks validate, add new Service Type to database.													

		Show success message. [Exception: 1] [Exception: 2] [Exception: 3]
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**Alternative Scenario:**

#	User	System
1	Presses “Đóng”, “X” button or click outside pop-up.	The Add New Service Type pop-up is close.

**Exceptions:**

#	User	System
1	Service Type Name is missing.	Show error “Nhập tên loại dịch vụ”
2	Add Service type fail.	The Add New Service Type is closed and display error message “Tạo loại dịch vụ thất bại!”, “Hãy kiểm tra lại kết nối database.”
1	Add Service type error.	The Add New Service Type is closed and display error message "Tạo loại dịch vụ thất bại!", "Có lỗi xảy ra trong quá trình tạo loại dịch vụ."

**Relationships:**

Manage Service Type

### 3.2.2.12.3. UC0068 - Edit Service Type

#### 3.2.2.12.3.1. Use-Case Diagram

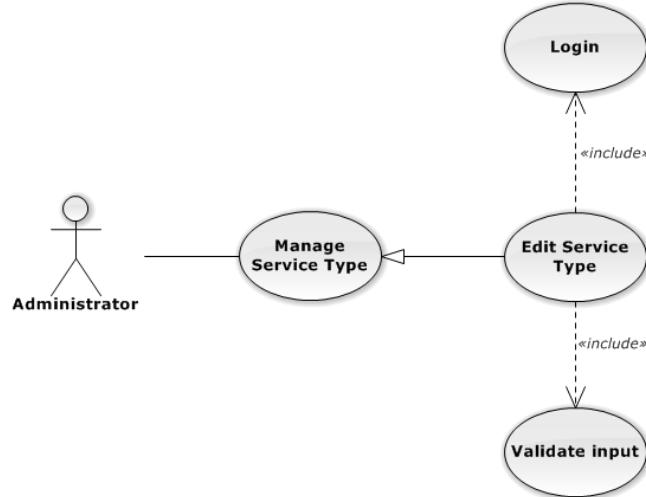


Figure 3-84: Edit Service Type Use-Case Diagram

#### 3.2.2.12.3.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0068	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Service Type		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Administrator		
<b>Summary:</b>	Update Service Type.		
<b>Goal:</b>			

The purpose of Update Service Type use case is allowing Admin to update Service Type.

**Triggers:**

User choose “Quản lý Loại Dịch Vụ” in menu. Then click update icon.

**Preconditions:**

User is authenticated and has role “admin”.

**Post Conditions:**

Success: The Service Type is Updated.

Failure: The Service Type is not updated and Error message will be showed.

**Main Success Scenario:**

Step	User	System
1	Click Update icon.	Show update Service type pop-up.
2	Enters the new Service Type Name and Description	
3	Presses “Lưu chỉnh sửa” button. [Alternative: 1]	Checks validate, update Service Type to database. Show success message. [Exception: 1] [Exception: 2] [Exception: 3]

**Alternative Scenario:**

#	User	System
1	Presses “Đóng”, “X” button or click outside pop-up.	The Update Service Type pop-up is close.

**Exceptions:**

#	User	System
1	Service Type Name is missing.	Show error “Nhập tên loại dịch vụ!” to user.
2	Update Service type fail.	The Add New Service Type is closed and display error message “Chỉnh sửa loại dịch

		vụ thất bại!", "Hãy kiểm tra lại kết nối database."
3	Update Service type error.	The Add New Service Type is closed and display error message "Chỉnh sửa loại dịch vụ thất bại!", "Có lỗi xảy ra trong quá trình tạo loại dịch vụ."

**Relationships:**  
Manage Service Type

#### 3.2.2.12.4. UC0069 - Delete Service Type

##### 3.2.2.12.4.1. Use-Case Diagram

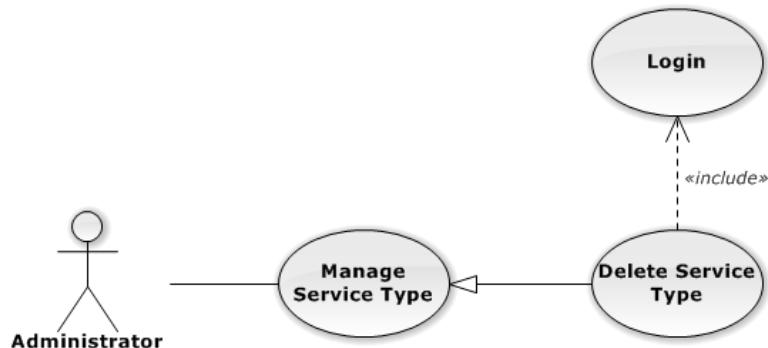


Figure 3-85: Delete Service Type Use-Case Diagram

##### 3.2.2.12.4.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0069	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Service Type		
<b>Author</b>	Trần Anh Tuấn		

## Capstone Project: LFMS

<b>Date</b>	09/10/2014	<b>Priority</b>	Normal									
<b>Actor:</b> Administrator												
<b>Summary:</b> Delete Service Type.												
<b>Goal:</b> The purpose of Delete Service Type use case is allowing Admin to delete Service Type.												
<b>Triggers:</b> User choose “Quản lý Dịch Vụ” in menu.												
<b>Preconditions:</b> User is authenticated and has role “admin”.												
<b>Post Conditions:</b> Success: The Service Type is deleted. Failure: The Service Type is not delete and Error message will be showed.												
<b>Main Success Scenario:</b>												
<table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click Delete icon.</td><td>Show confirm pop-up</td></tr> <tr> <td>2</td><td>Presses “Đồng ý” button. [Alternative: 1]</td><td>Delete Service Type from database. Show success message. [Exception: 1] [Exception: 2]</td></tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click Delete icon.	Show confirm pop-up	2	Presses “Đồng ý” button. [Alternative: 1]	Delete Service Type from database. Show success message. [Exception: 1] [Exception: 2]
<i>Step</i>	<i>User</i>	<i>System</i>										
1	Click Delete icon.	Show confirm pop-up										
2	Presses “Đồng ý” button. [Alternative: 1]	Delete Service Type from database. Show success message. [Exception: 1] [Exception: 2]										
<b>Alternative Scenario:</b>												
<table border="1"> <thead> <tr> <th>#</th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Presses “Hủy bỏ”, “X” button.</td><td>The confirm pop-up is close.</td></tr> </tbody> </table>				#	<i>User</i>	<i>System</i>	1	Presses “Hủy bỏ”, “X” button.	The confirm pop-up is close.			
#	<i>User</i>	<i>System</i>										
1	Presses “Hủy bỏ”, “X” button.	The confirm pop-up is close.										
<b>Exceptions:</b>												
<table border="1"> <thead> <tr> <th>#</th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Delete Service type fail.</td><td>The Add New Service Type is closed and display error message “Xóa loại dịch vụ thất</td></tr> </tbody> </table>				#	<i>User</i>	<i>System</i>	1	Delete Service type fail.	The Add New Service Type is closed and display error message “Xóa loại dịch vụ thất			
#	<i>User</i>	<i>System</i>										
1	Delete Service type fail.	The Add New Service Type is closed and display error message “Xóa loại dịch vụ thất										

		bại!", "Hãy kiểm tra lại kết nối database."
2	Delete Service type error.	The Add New Service is closed and display error message "Xóa loại dịch vụ thất bại!", "Có lỗi xảy ra trong quá trình xóa loại dịch vụ."

**Relationships:**  
Manage Service Type

### 3.2.2.12.5. UC0070 - Search Service Type

#### 3.2.2.12.5.1. Use-Case Diagram

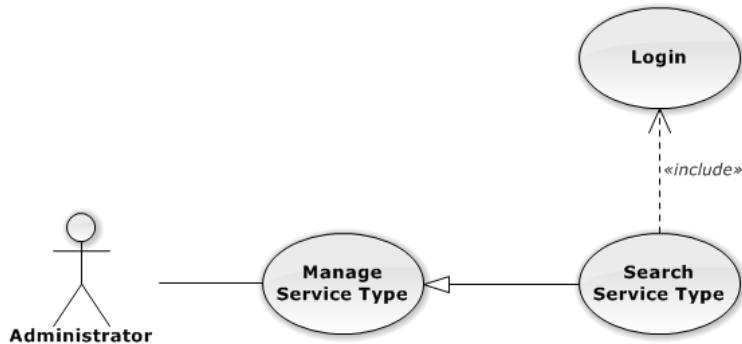


Figure 3-86: Search Service Type Use-Case Diagram

#### 3.2.2.12.5.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0070	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Service Type		
<b>Author</b>	Trần Anh Tuấn		

<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<b>Actor:</b> Administrator									
<b>Summary:</b> Search Service Type.									
<b>Goal:</b> The purpose of Search Service Type use case is allowing Admin to search Service Type.									
<b>Triggers:</b> User choose “Quản lý Dịch Vụ” in menu.									
<b>Preconditions:</b> User is authenticated and has role “admin”.									
<b>Post Conditions:</b> Success: List of Service Type with search key words is displayed. Failure: No record is displayed.									
<b>Main Success Scenario:</b>									
<table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>In “Quản lý loại dịch vụ” screen, input key word at “Tìm kiếm” textbox.</td><td>List of Service Type with search key words is displayed.</td></tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	In “Quản lý loại dịch vụ” screen, input key word at “Tìm kiếm” textbox.	List of Service Type with search key words is displayed.
<i>Step</i>	<i>User</i>	<i>System</i>							
1	In “Quản lý loại dịch vụ” screen, input key word at “Tìm kiếm” textbox.	List of Service Type with search key words is displayed.							
<b>Relationships:</b> Manage Service Type									

### 3.2.2.13. Manage Service

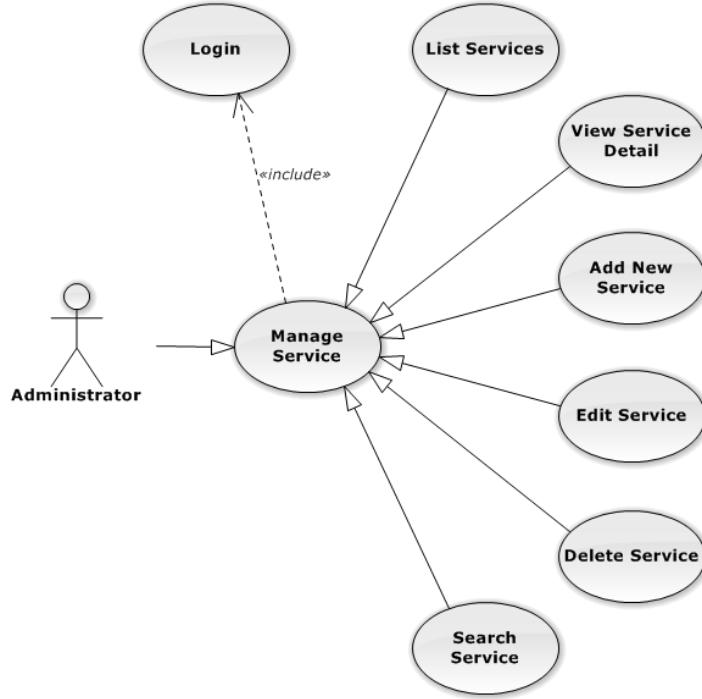


Figure 3-87: Manage Service Use-Case Diagram

#### 3.2.2.13.1. UC0071 - List Services

##### 3.2.2.13.1.1. Use-Case Diagram

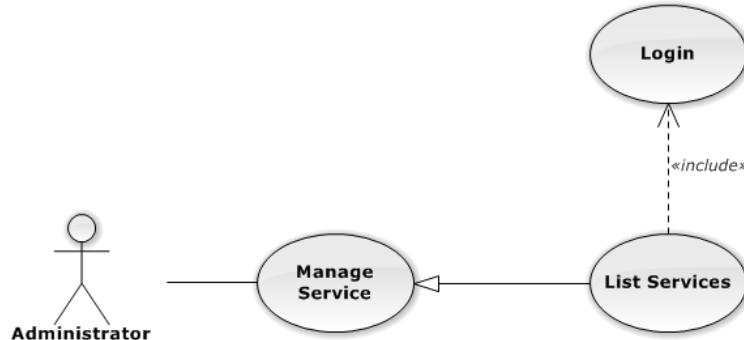


Figure 3-88: List Services Use-Case Diagram

### 3.2.2.13.1.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0071	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	List Services								
<b>Author</b>	Trần Anh Tuấn								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<p><b>Actor:</b> Administrator</p> <p><b>Summary:</b> List All Service.</p> <p><b>Goal:</b> The purpose of List Service use case is allowing Admin to view all Services.</p> <p><b>Triggers:</b> User choose “Quản lý Dịch Vụ” in menu.</p> <p><b>Preconditions:</b> User is authenticated and has role “admin”. The page is fully loaded.</p> <p><b>Post Conditions:</b> Success: All Services is listed. Failure: Do nothing.</p> <p><b>Main Success Scenario:</b></p> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click “Quản lý Dịch Vụ” in menu.</td><td>All Services are loaded.</td></tr> </tbody> </table> <p><b>Relationships:</b> Manage Service</p>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Quản lý Dịch Vụ” in menu.	All Services are loaded.
<i>Step</i>	<i>User</i>	<i>System</i>							
1	Click “Quản lý Dịch Vụ” in menu.	All Services are loaded.							

### 3.2.2.13.2. UC0072 - View Service Detail

#### 3.2.2.13.2.1. Use-Case Diagram

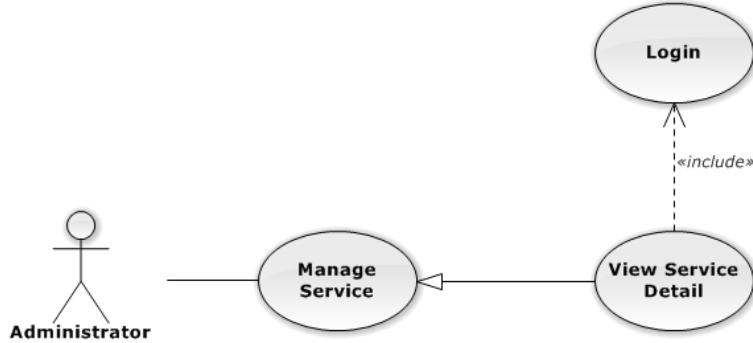


Figure 3-89: View Service Detail Use-Case Diagram

#### 3.2.2.13.2.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0072	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View Service Detail		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Administrator			
<b>Summary:</b> View Service Detail.			
<b>Goal:</b> The purpose of View Service Detail use case is allowing Admin to view a Service detail.			
<b>Triggers:</b>			

User choose “Quản lý Dịch Vụ” in menu. Then click “View detail” icon.

**Preconditions:**

User is authenticated and has role “admin”.

**Post Conditions:**

Success: Service Detail is showed.

Failure: Do nothing.

**Main Success Scenario:**

Step	User	System
1	In Manage Service page, click “View detail” icon	The Service Detail is showed.

**Relationships:**

Manage Service

### 3.2.2.13.3. UC0073 - Add New Service

#### 3.2.2.13.3.1. Use-Case Diagram

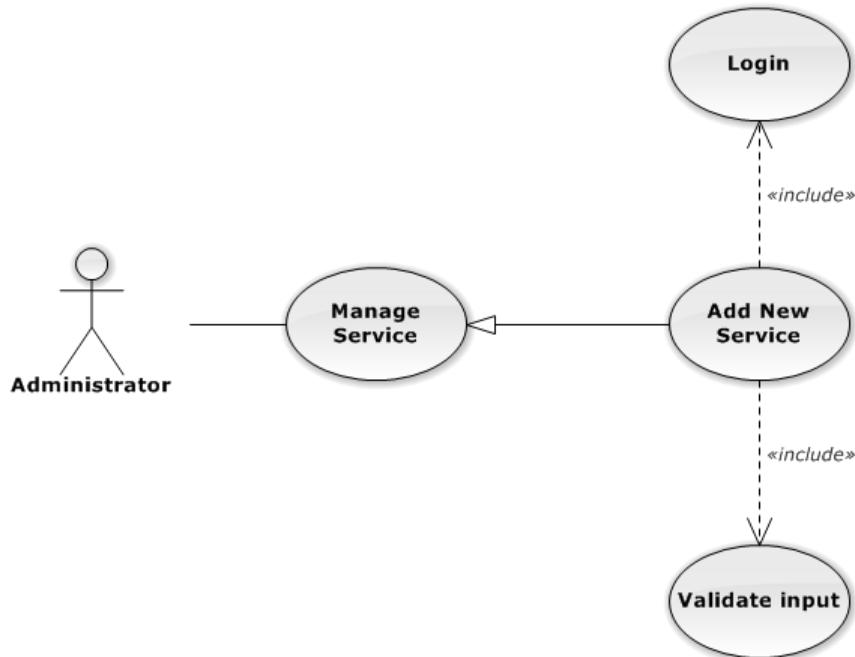


Figure 3-90: Add New Service Use-Case Diagram

### 3.2.2.13.3.2. Use-Case Specification

<b>USE CASE-n SPECIFICATION</b>															
<b>Use-case No.</b>	UC0073	<b>Use-case Version</b>	1.0												
<b>Use-case Name</b>	Add New Service														
<b>Author</b>	Trần Anh Tuấn														
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal												
<p><b>Actor:</b> Administrator</p> <p><b>Summary:</b> Add new Service.</p> <p><b>Goal:</b> The purpose of Add Service use case is allowing Admin to add new Service.</p> <p><b>Triggers:</b> User choose “Quản lý Dịch Vụ” in menu. Then click “Thêm dịch vụ mới” button.</p> <p><b>Preconditions:</b> User is authenticated and has role “admin”.</p> <p><b>Post Conditions:</b> Success: New Service is created. Failure: No Service is created and Error message will be showed.</p> <p><b>Main Success Scenario:</b></p> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click “Thêm dịch vụ mới” button.</td><td>Show add Service pop-up.</td></tr> <tr> <td>2</td><td>Enters the Service Name and Description</td><td></td></tr> <tr> <td>3</td><td>Presses “Thêm mới” button. [Alternative: 1]</td><td>Checks validate, add new Service to database. Show success message.</td></tr> </tbody> </table>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Thêm dịch vụ mới” button.	Show add Service pop-up.	2	Enters the Service Name and Description		3	Presses “Thêm mới” button. [Alternative: 1]	Checks validate, add new Service to database. Show success message.
<i>Step</i>	<i>User</i>	<i>System</i>													
1	Click “Thêm dịch vụ mới” button.	Show add Service pop-up.													
2	Enters the Service Name and Description														
3	Presses “Thêm mới” button. [Alternative: 1]	Checks validate, add new Service to database. Show success message.													

		[Exception: 1] [Exception: 2] [Exception: 3]
<b>Alternative Scenario:</b>		
#	<i>User</i>	<i>System</i>
1	Presses “Đóng”, “X” button or click outside pop-up.	The Add New Service pop-up is closed.
<b>Exceptions:</b>		
#	<i>User</i>	<i>System</i>
1	Service Name is missing.	Show error “Nhập tên dịch vụ!” to user.
	Service Group is not chosen.	Show error “Chọn loại dịch vụ!” to user.
2	Add Service fail.	The Add New Service is closed and display error message “Tạo dịch vụ thất bại!”, “Hãy kiểm tra lại kết nối database.”
3	Add Service error.	The Add New Service is closed and display error message "Tạo dịch vụ thất bại!", "Có lỗi xảy ra trong quá trình tạo dịch vụ."
<b>Relationships:</b>		
Manage Service		

### 3.2.2.13.4. UC0074 - Edit Service

#### 3.2.2.13.4.1. Use-Case Diagram

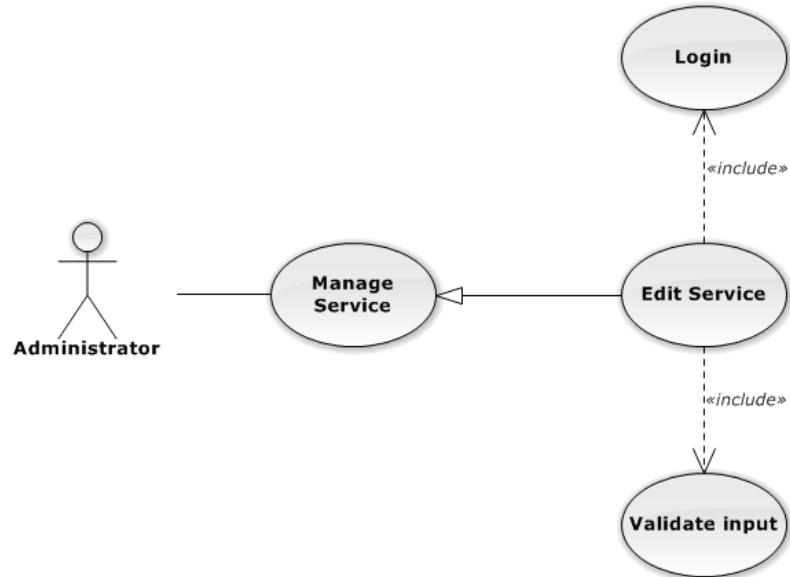


Figure 3-91: Edit Service Use-Case Diagram

#### 3.2.2.13.4.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0074	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Service		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b> Administrator			
<b>Summary:</b> Update Service.			

**Goal:**

The purpose of Update Service use case is allowing Admin to update Service.

**Triggers:**

User choose “Quản lý Dịch Vụ” in menu. Then click update icon.

**Preconditions:**

User is authenticated and has role “admin”.

**Post Conditions:**

Success: The Service is Updated.

Failure: The Service is not updated and Error message will be showed.

**Main Success Scenario:**

Step	User	System
1	Click Update icon.	Show update Service pop-up.
2	Enters the new Service Name and Description	
3	Presses “Lưu chỉnh sửa” button. [Alternative: 1]	Checks validate, update Service to database. Show success message. [Exception: 1] [Exception: 2] [Exception: 3]

**Alternative Scenario:**

#	User	System
1	Presses “Đóng”, “X” button or click outside pop-up.	The Update Service pop-up is close.

**Exceptions:**

#	User	System
1	Service Name is missing.	Show error “Nhập tên dịch vụ!” to user.
2	Update Service fail.	The Add New Service is closed and display error message “Chỉnh sửa dịch vụ thất bại!”, “Hãy kiểm tra lại kết nối database.”

1	Update Service error.	The Add New Service is closed and display error message "Chỉnh sửa dịch vụ thất bại!", "Có lỗi xảy ra trong quá trình chỉnh sửa dịch vụ."
<b>Relationships:</b>		
Manage Service		

### 3.2.2.13.5. UC0075 - Delete Service

#### 3.2.2.13.5.1. Use-Case Diagram

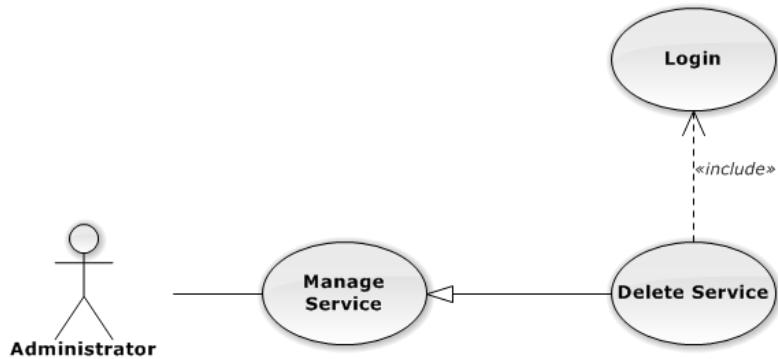


Figure 3-92: Delete Service Use-Case Diagram

#### 3.2.2.13.5.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0075	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Delete Service		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			

Administrator

**Summary:**

Delete Service.

**Goal:**

The purpose of Delete Service use case is allowing Admin to delete Service.

**Triggers:**

User choose “Quản lý Dịch Vụ” in menu. Then click delete icon.

**Preconditions:**

User is authenticated and has role “admin”.

**Post Conditions:**

Success: The Service is deleted.

Failure: The Service is not delete and Error message will be showed.

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	Click Delete icon.	Show confirm pop-up
2	Presses “Xác nhận” button. [Alternative: 1]	Delete Service from database. Show success message. [Exception: 1] [Exception: 2]

**Alternative Scenario:**

#	<i>User</i>	<i>System</i>
1	Presses “Bỏ qua” or “X” button.	The confirm pop-up is close.

**Exceptions:**

#	<i>User</i>	<i>System</i>
1	Delete Service fail.	The Add New Service is closed and display error message “Xóa dịch vụ thất bại!”, “Hãy kiểm tra lại kết nối database.”
2	Delete Service error.	The Add New Service is closed and display error message “Xóa dịch vụ thất bại!”, “Có lỗi xảy ra trong quá trình xóa dịch vụ.”

**Relationships:**

Manage Service

### 3.2.2.13.6. UC0076 - Search Service

#### 3.2.2.13.6.1. Use-Case Diagram

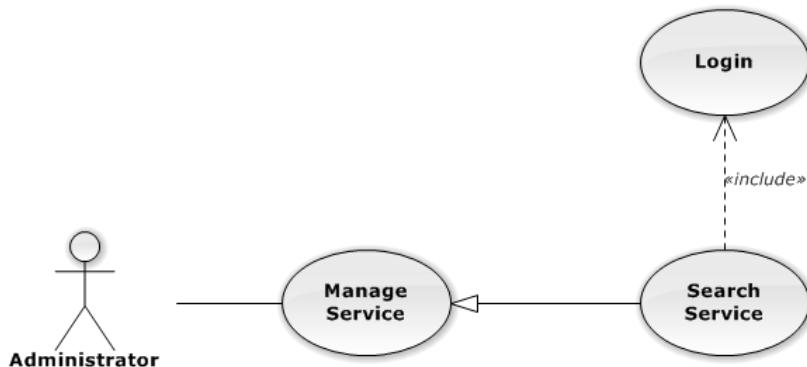


Figure 3-93: Search Service Use-Case Diagram

#### 3.2.2.13.6.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0076	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Service		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Administrator		
<b>Summary:</b>	Search Service.		

**Goal:**

The purpose of Search Service use case is allowing Admin to search Service.

**Triggers:**

User choose “Quản lý Dịch Vụ” in menu.

**Preconditions:**

User is authenticated and has role “admin”.

**Post Conditions:**

Success: List of Service with search key words is displayed.

Failure: No record is displayed.

**Main Success Scenario:**

Step	User	System
1	In “Quản lý dịch vụ” screen, input key word at “Tìm kiếm” textbox.	List of Service with search key words is displayed.

**Relationships:**

Manage Service

### 3.2.2.14. Manage Office

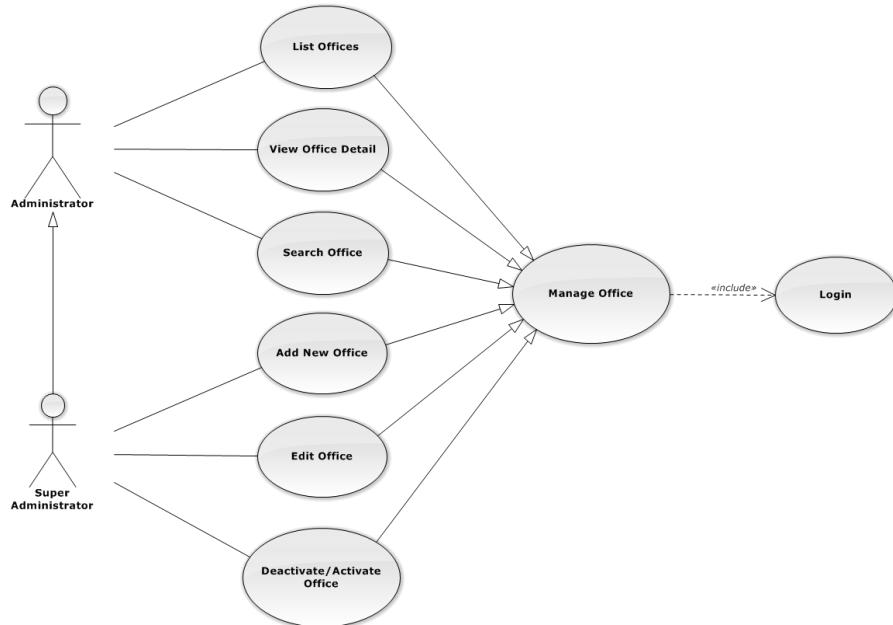


Figure 3-94: Manage Office Use-Case Diagram

### 3.2.2.14.1. UC0077 - List Offices

#### 3.2.2.14.1.1. Use-Case Diagram

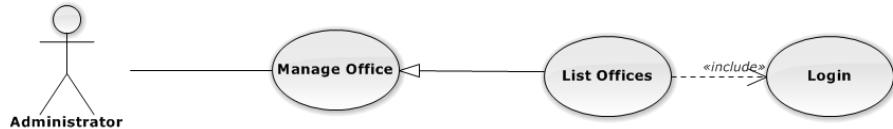


Figure 3-95: List Offices Use-Case Diagram

#### 3.2.2.14.1.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0077	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	List Offices		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Administrator		
<b>Summary:</b>	Redirect user to “Quản lý văn phòng” page and list all office.		
<b>Goal:</b>	To allowing Administrator view any detail information of all Office.		
<b>Triggers:</b>	<ul style="list-style-type: none"> <li>User click on User Control Panel and then click on “Quản lý văn phòng” link</li> </ul>		
<b>Preconditions:</b>	<ul style="list-style-type: none"> <li>Must be logged-in with “Admin” role.</li> <li>The page is fully loaded</li> </ul>		
<b>Post Conditions:</b>			

Success: System redirects user to “Quản lý văn phòng” page.  
 Failure: Do nothing.

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	Click on “Quản lý văn phòng” link	Redirect to “Quản lý văn phòng” page. Show all Office

**Relationships:**

Management Office

**Business Rules:**

Only Staff with role =”Admin” can be use this function.

### 3.2.2.14.2. UC0078 - View Office Detail

#### 3.2.2.14.2.1. Use-Case Diagram

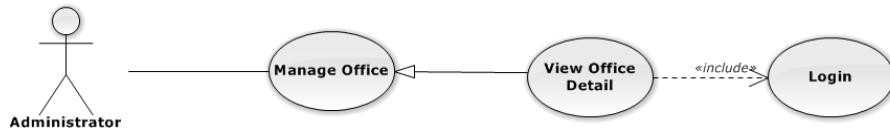


Figure 3-96: View Office Detail Use-Case Diagram

#### 3.2.2.14.2.2. Use-Case Specification

USE-CASE SPECIFICATION			
<b>Use-case No.</b>	UC0078	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	View Office Detail		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			

Administrator

**Summary:**

Staff can view detail of office information

**Goal:**

Helps staff to view office information

**Triggers:**

- On User Control Panel click on “Quản lý văn phòng”,
- Click click on “Chi tiết” button
- Click on name’s office link.

**Preconditions:**

- Must be logged-in
- The page is fully loaded

**Post Conditions:**

Success: The detail office information is displayed

Failure: Do nothing

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	Staff click on “chi tiết” button or click on name’s office link [Alternative 1], [Alternative 2], [Alternative 3]	The detail office information is displayed

**Alternative Scenario:**

#	<i>User</i>	<i>System</i>
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close
2	If staff login with Id=”1”, Click on “Chỉnh sửa” button	Staff can update information of office (ref 3.2.2.2.4. Update office)
3	If staff login with Id=”1”, Click on “Hoạt động lại” or “Ngừng hoạt động” link	Staff can Deactivate/Activate office (ref 3.2.2.2.5. Deactivate/Activate office)

**Relationships:**

Management office.

**Business Rules:**

Only Staff login with role “Admin” can use this function.

### 3.2.2.14.3. UC0079 - Add New Office

#### 3.2.2.14.3.1. Use-Case Diagram

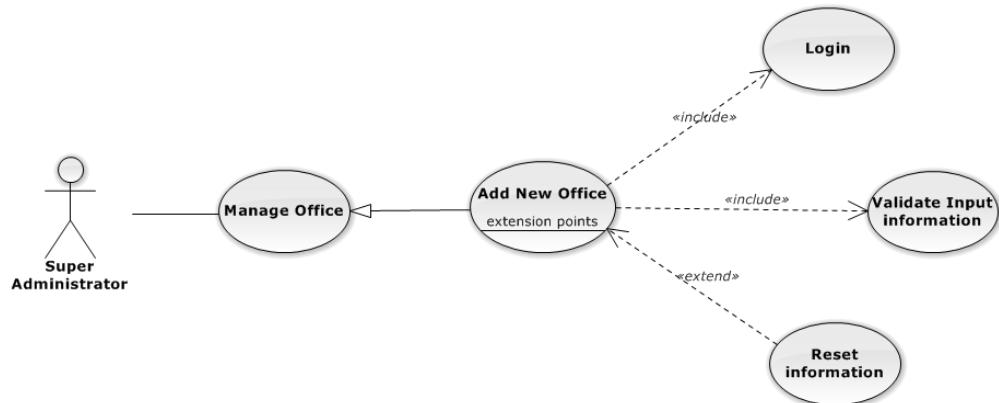


Figure 3-97: Add New Office Use-Case Diagram

#### 3.2.2.14.3.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0079	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Add New Office		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			
Supper Administrator.			
<b>Summary:</b>	Insert new office in the system.		

**Goal:**

Add new office.

**Triggers:**

On User Control Panel click on “Quản lý nhân viên” link, at “Quản lý nhân viên” page click on “Thêm văn phòng” button.

**Preconditions:**

- Logged-in to system.
- The page is fully loaded

**Post Conditions:**

Success:

- New office is inserted into database, message show “Thêm văn phòng thành công” and display on “Quản lý văn phòng” screen.
- New office’s status is “Đang hoạt động”.

Failure:

Show error message “Thêm văn phòng thất bại, hãy kiểm tra lại kết nối database”.

**Main Success Scenario:**

<i>Step</i>	<i>User</i>	<i>System</i>
1	Administrator click on “Thêm văn phòng” button at “Quản lý văn phòng” page.	Modal popup is displayed with fields for input information of new office.
2	Fill information into fields and click button “Thêm mới” [Alternative 1] [Exception 2], [Exception 3]	Modal popup is closed System display successful message “Thêm văn phòng thành công!” Update list office on page

**Alternative Scenario:**

#	<i>User</i>	<i>System</i>
1	Click “Làm trống” button	All input field reset to blank.

**Exceptions:**

<i>Step</i>	<i>User</i>	<i>System</i>

1	Field “Tên văn phòng” are blank	Shows error message “Nhập tên văn phòng!”
	Field “Địa chỉ văn phòng”, are blank	Shows error message “Nhập địa chỉ văn phòng!”
	Field “Người quản lí” are blank	Shows error message “Nhập tên người quản lí văn phòng!”
	Field “Điện thoại” are blank	Shows error message “Nhập số điện thoại văn phòng!”
	Field “Email” are blank	Shows error message “Hãy nhập Email của văn phòng!”
	Input “Email” not follow the rule	Shows error message “Hãy nhập địa chỉ email đúng!”
2	System cannot insert office to data base.	Shows error message “Thêm văn phòng thất bại!”
3	System error insert office to data base.	Shows error message “Thêm văn phòng thất bại!”, “Hãy kiểm tra lại kết nối data base”.

**Relationships:**  
Manage Office

**Business Rules:**  
Only Staff with id=”1” (Supper Administrator) can be use this function.

### 3.2.2.14.4. UC0080- Edit Office

#### 3.2.2.14.4.1. Use-Case Diagram

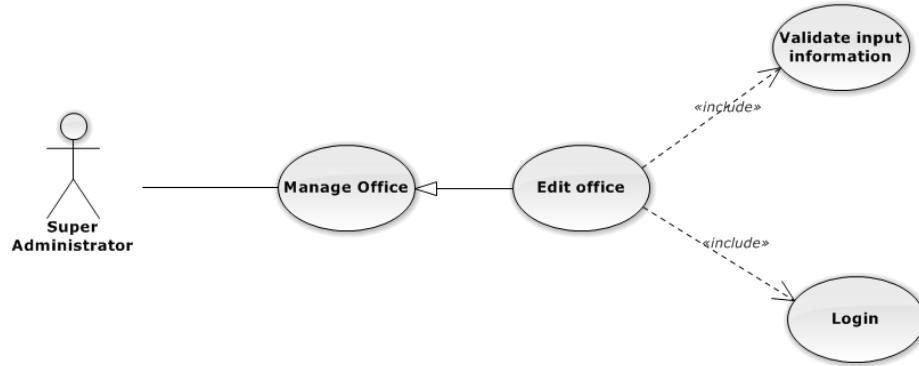


Figure 3-98: Edit Office Use-Case Diagram

#### 3.2.2.14.4.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0080	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Edit Office		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			
Supper Administrator.			
<b>Summary:</b>			
Supper Administrator can update information of office.			
<b>Goal:</b>			
Helps Supper Administrator update information of office and save to database system.			
<b>Triggers:</b>			

- Supper Administrator goes to “Quản lý văn phòng” screen, click button “Chỉnh Sửa” and modify information, after that click button “Lưu Chính Sửa”.
- Supper Administrator goes to “Chi tiết nhân viên” Popup screen, click on “Chỉnh Sửa” button and modify information, after that click button “Lưu Chính Sửa”.

**Preconditions:**

- Logged-in to system.
- The page is fully loaded

**Post Conditions:**

Success:

Information of office is updated and saves to database, message show “Cập nhật chi tiết văn phòng thành công” and display information after update on “Quản lý văn phòng” screen.

Failure:

Show error message “Cập nhật chi tiết văn phòng thất bại!”

**Main Success Scenario:**

Step	User	System
1	Administrator click on “Chỉnh sửa” button at “Quản lý văn phòng” screen.	Modal popup is displayed with fields for input information of new office.
2	Edit information into fields and click button “Lưu chỉnh sửa” [Alternative 1] [Exception 1], [Exception 2], [Exception 3]	Modal popup is close System display successful message “Cập nhật chi tiết văn phòng thành công!” Update list office on page

**Alternative Scenario:**

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close.

**Exceptions:**

Step	User	System

1	Field “Tên văn phòng” are blank	Shows error message “Nhập tên văn phòng!”
	Field “Địa chỉ văn phòng”, are blank	Shows error message “Nhập địa chỉ văn phòng!”
	Field “Người quản lí” are blank	Shows error message “Nhập tên người quản lí văn phòng!”
	Field “Điện thoại” are blank	Shows error message “Nhập số điện thoại văn phòng!”
	Field “Email” are blank	Shows error message “Hãy nhập Email của văn phòng!”
	Input “Email” not follow the rule	Shows error message “Hãy nhập địa chỉ email đúng!”
2	System cannot update office to data base.	Shows error message “Cập nhật chi tiết văn phòng thất bại!”
3	System error update office to data base.	Shows error message “Cập nhật chi tiết văn phòng thất bại! ”, “Hãy kiểm tra lại kết nối database”.

**Relationships:**

Manage Office

**Business Rules:**

Only Staff with id=”1”( Supper Administrator) can be use this function.

### 3.2.2.14.5. UC0081 - Deactivate/Activate Office

#### 3.2.2.14.5.1. Use-Case Diagram

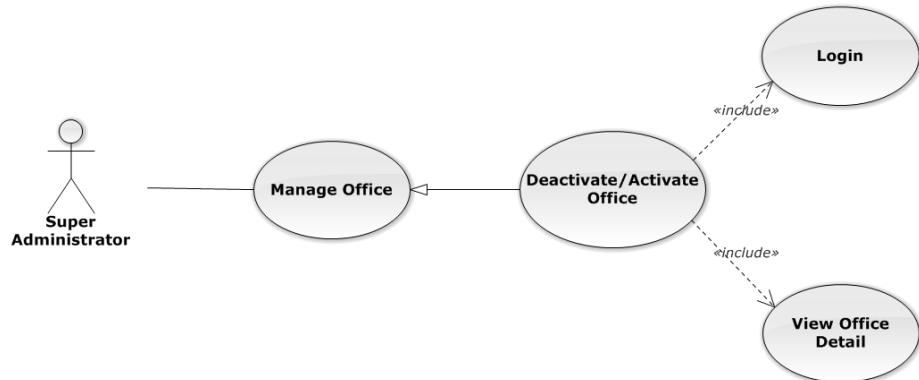


Figure 3-99: Deactivate/Activate Office Use-Case Diagram

#### 3.2.2.14.5.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0081	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Deactivate/Activate office		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>			
Supper Administrator.			
<b>Summary:</b>			
Supper Administrator can change status of Office to De active or Active.			
<b>Goal:</b>			
Helps Supper Administrator update Status of Office and save to database system.			
<b>Triggers:</b>			
<ul style="list-style-type: none"> <li>• Supper Administrator wants to update Status of office.</li> </ul>			

- Supper Administrator goes “Chi tiết văn phòng” screen Pop-Up, Click button “Ngừng hoạt động văn phòng” or “Hoạt động lại”. After that click on “Bỏ qua” or “Xác nhận” button to confirm change status Office.

**Preconditions:**

- Logged-in to system.
- The page is fully loaded

**Post Conditions:**

Success:

Information of Office is updated and saves to database, message show “Văn phòng đã hoạt động lại!” or “Văn phòng đã ngừng hoạt động!” and display information after update on “Quản lý văn phòng” screen.

Failure:

Show error message “Chỉnh hoạt động văn phòng thất bại!

**Main Success Scenario:**

Step	User	System
1	Administrator click on “Chỉnh sửa” button at “Quản lý văn phòng” screen.	Show “Chi tiết văn phòng” Pop-up information.
2	On “Chi tiết văn phòng” Pop-up click button “Ngừng hoạt động văn phòng” if Office have status “Đang hoạt động” or Click button “Hoạt động lại” if Office have status “Ngừng hoạt động”. [Alternative 1]	Display message box confirm “Bạn có muốn thực hiện thao tác này” with two button “Xác nhận” and “Bỏ qua”
3	User click “Bỏ qua” button	Status of Office not change comeback to “Chi tiết văn phòng” Pop-up screen.
4	User click “ Xác nhận” button [Exception 1], [Exception 2]	Status of Office is change and comeback to “Quản lý văn phòng” screen

**Alternative Scenario:**

#	User	System
1	Click on [X] button, “Đóng” button, or click out of modal	Modal popup is close

**Exceptions:**

#	User	System
1	System error update status office to data base.	Shows error message “Chỉnh hoạt động văn phòng thất bại!”, “Hãy kiểm tra lại kết nối database!”.
2	System error update status office to data base.	Shows error message “Chỉnh hoạt động văn phòng thất bại!”, “Có lỗi xảy ra trong quá trình xóa văn phòng!”.

**Relationships:**

Manage Office

**Business Rules:**

Only Staff with id=’1’( Supper Administrator) can be use this function.

### 3.2.2.14.6. UC0082 - Search Office

#### 3.2.2.14.6.1. Use-Case Diagram

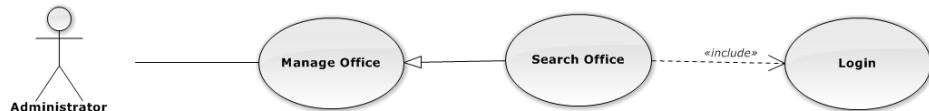


Figure 3-100: Search Office Use-Case Diagram

#### 3.2.2.14.6.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0082	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Search Office		
<b>Author</b>	Trần Anh Tuấn		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal

<b>Actor:</b> Administrator.						
<b>Summary:</b> Administrator search Office in list of office						
<b>Goal:</b> Helps Administrator search Office.						
<b>Triggers:</b> <ul style="list-style-type: none"><li>• Manager wants to search office.</li><li>• Manager goes to “Quản lý văn phòng” screen, input word into “Tìm Kiếm” textbox.</li></ul>						
<b>Preconditions:</b> <ul style="list-style-type: none"><li>• Logged-in as “Admin” role.</li><li>• The page is fully loaded</li></ul>						
<b>Post Conditions:</b> <p>Success: List of Office map with word search is displayed. Failure: Do nothing</p>						
<b>Main Success Scenario:</b> <table border="1"><thead><tr><th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr></thead><tbody><tr><td>1</td><td>In “Quản lý văn phòng” screen, input key word at “Tìm kiếm” textbox.</td><td>List of office mapping with word search is display.</td></tr></tbody></table>	<i>Step</i>	<i>User</i>	<i>System</i>	1	In “Quản lý văn phòng” screen, input key word at “Tìm kiếm” textbox.	List of office mapping with word search is display.
<i>Step</i>	<i>User</i>	<i>System</i>				
1	In “Quản lý văn phòng” screen, input key word at “Tìm kiếm” textbox.	List of office mapping with word search is display.				
<b>Relationships:</b> Manage Office						

### 3.2.2.15. Statistic

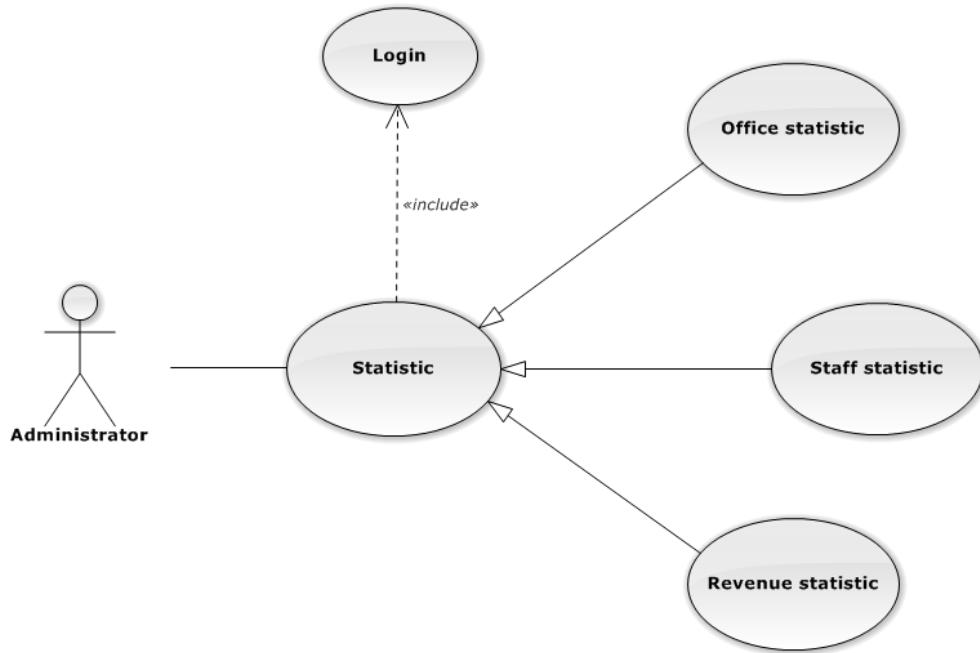


Figure 3-101: Statistic Use-Case Diagram

#### 3.2.2.15.1. UC0083 - Office Statistic

##### 3.2.2.15.1.1. Use-Case Diagram

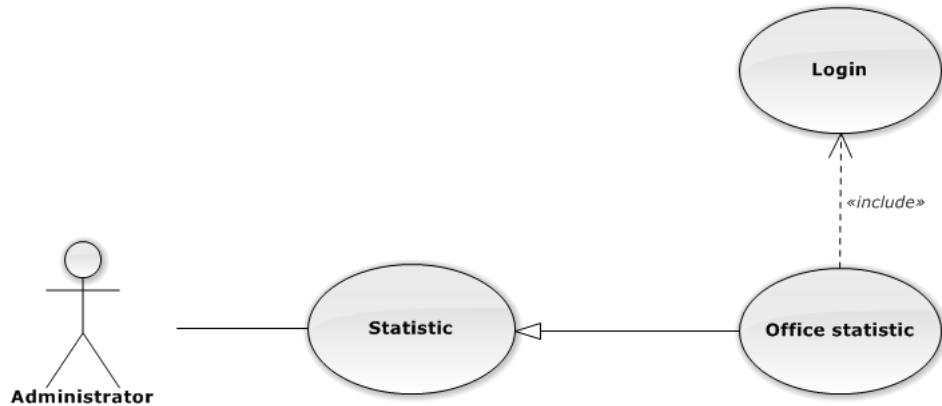


Figure 3-102: Office Statistic Use-Case Diagram

### 3.2.2.15.1.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0083	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	Office Statistic								
<b>Author</b>	Đặng Nguyễn Khiêm								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<p><b>Actor:</b> Administrator.</p> <p><b>Summary:</b> The statistic about office.</p> <p><b>Goal:</b> The purpose of Office Statistic use case is allowing User to view Office index in graphs.</p> <p><b>Triggers:</b> User choose “Thống kê” link in menu.</p> <p><b>Preconditions:</b> User is authenticated.</p> <p><b>Post Conditions:</b> Success: The graphs are showed. Failure: N/A</p> <p><b>Main Success Scenario:</b></p> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click “Văn phòng” tab in statistic page.</td><td>The graphs are loaded.</td></tr> </tbody> </table> <p><b>Relationships:</b> Statistic</p>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Văn phòng” tab in statistic page.	The graphs are loaded.
<i>Step</i>	<i>User</i>	<i>System</i>							
1	Click “Văn phòng” tab in statistic page.	The graphs are loaded.							

### 3.2.2.15.2. UC0084 - Staff Statistic

#### 3.2.2.15.2.1. Use-Case Diagram

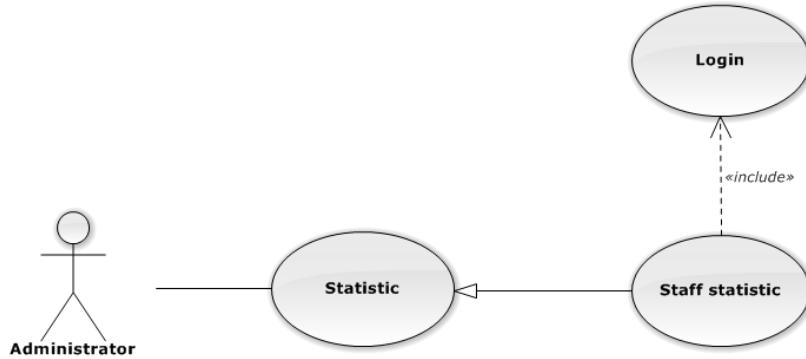


Figure 3-103: Staff Statistic Use-Case Diagram

#### 3.2.2.15.2.2. Use-Case Specification

USE CASE SPECIFICATION			
<b>Use-case No.</b>	UC0084	<b>Use-case Version</b>	1.0
<b>Use-case Name</b>	Staff Statistic		
<b>Author</b>	Đặng Nguyễn Khiêm		
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal
<b>Actor:</b>	Administrator.		
<b>Summary:</b>	The statistic about staffs.		
<b>Goal:</b>	The purpose of Staff Statistic use case is allowing User to view Staff index in graphs.		
<b>Triggers:</b>	User choose “Thống kê” link in menu.		

<b>Preconditions:</b> User is authenticated.						
<b>Post Conditions:</b> Success: The graphs are showed. Failure: N/A						
<b>Main Success Scenario:</b>						
<table border="1"><thead><tr><th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr></thead><tbody><tr><td>1</td><td>Click “Nhân viên” tab in statistic page.</td><td>The graphs are loaded.</td></tr></tbody></table>	<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Nhân viên” tab in statistic page.	The graphs are loaded.
<i>Step</i>	<i>User</i>	<i>System</i>				
1	Click “Nhân viên” tab in statistic page.	The graphs are loaded.				
<b>Relationships:</b> Statistic						

### 3.2.2.15.3. UC0085 - Revenue Statistic

#### 3.2.2.15.3.1. Use-Case Diagram

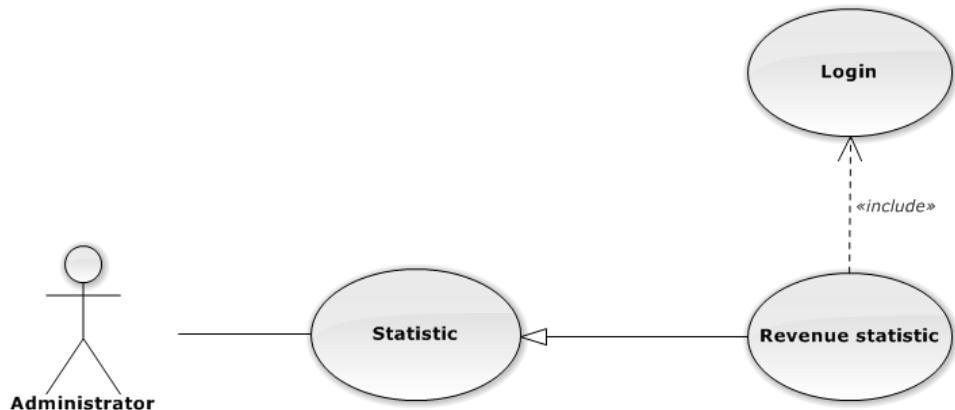


Figure 3-104: Revenue Statistic Use-Case Diagram

### 3.2.2.15.3.2. Use-Case Specification

<b>USE CASE SPECIFICATION</b>									
<b>Use-case No.</b>	UC0085	<b>Use-case Version</b>	1.0						
<b>Use-case Name</b>	Revenue Statistic								
<b>Author</b>	Đặng Nguyễn Khiêm								
<b>Date</b>	09/10/2014	<b>Priority</b>	Normal						
<p><b>Actor:</b> Administrator.</p> <p><b>Summary:</b> The statistic about revenue.</p> <p><b>Goal:</b> The purpose of Revenue Statistic use case is allowing User to view Revenue index in graphs.</p> <p><b>Triggers:</b> User choose “Thống kê” link in menu.</p> <p><b>Preconditions:</b> User is authenticated.</p> <p><b>Post Conditions:</b> Success: The graphs are showed. Failure: N/A</p> <p><b>Main Success Scenario:</b></p> <table border="1"> <thead> <tr> <th><i>Step</i></th><th><i>User</i></th><th><i>System</i></th></tr> </thead> <tbody> <tr> <td>1</td><td>Click “Doanh thu” tab in statistic page.</td><td>The graphs are loaded.</td></tr> </tbody> </table> <p><b>Relationships:</b> Statistic</p>				<i>Step</i>	<i>User</i>	<i>System</i>	1	Click “Doanh thu” tab in statistic page.	The graphs are loaded.
<i>Step</i>	<i>User</i>	<i>System</i>							
1	Click “Doanh thu” tab in statistic page.	The graphs are loaded.							

### **3.2.3. Non-Functional Requirements**

#### **3.2.3.1. Reliability**

The systems with high reliability, can be used like “always on” system. However, if exist accident, it's not need require immediate repair. All information and Cases can be updated later.

#### **3.2.3.2. Availability**

The system always responds to every user who got permission. The expected downtime for maintenance is about 5 minutes each time.

#### **3.2.3.3. Security**

Users must login for using the system. The user passwords are MD5 encrypted before being put into Database. Staff are restricted to view other user's information and any function. Super Administrator has full permission to use the system.

#### **3.2.3.4. Maintainability**

Each component only perform specific functions so the modification of a component will not affect other components.

#### **3.2.3.5. Portability**

The system can be accessed anywhere with a web browser and Internet connection. It can be run on any browser, but recommend for user is Mozilla Firefox with highest version.

#### **3.2.3.6. Performance**

N/A

### 3.3. Entity Relationship Diagram

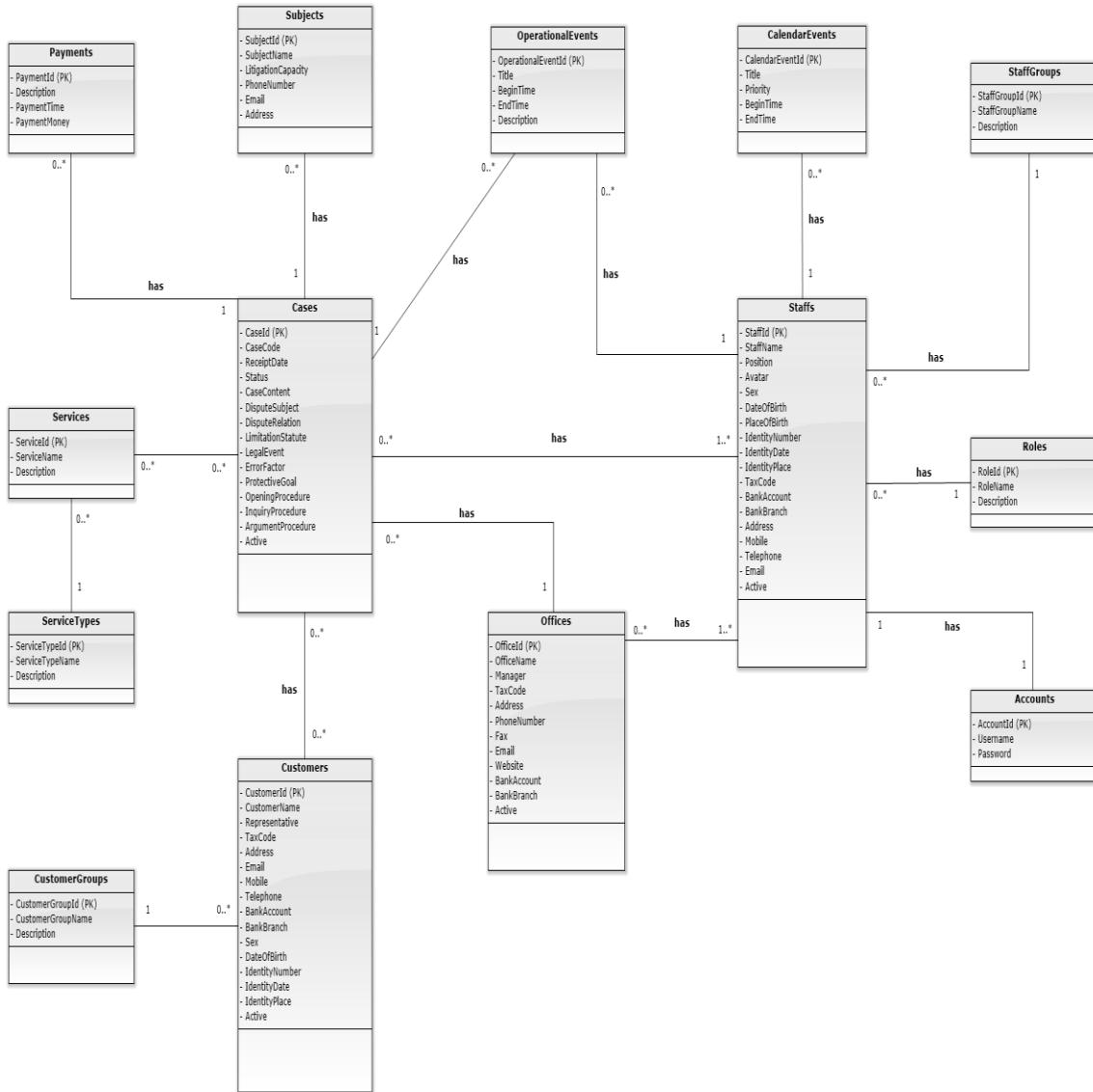


Figure 3-105: Entity Relationship Diagram

## Report No.4: Software Design Specification

### 4.1. Design Overview

This document describes the detailed design for both architectural and user interface design of the Law Firm Management System. It includes the architectural design and the detailed design of common functions and business functions. It also includes the design of database model. Each section in this report will describe a perspective of the system specifically.

The architectural design describes the overall architecture of the system, and the architecture of each main component and subsystem. It will describe the patterns being used, the role of each component and the role of the system in the working environment, gives you an overview how the system is about to work.

The detailed design describes static and dynamic structure for each component and function. It includes class diagrams, class explanations, and sequence diagrams of the main use cases.

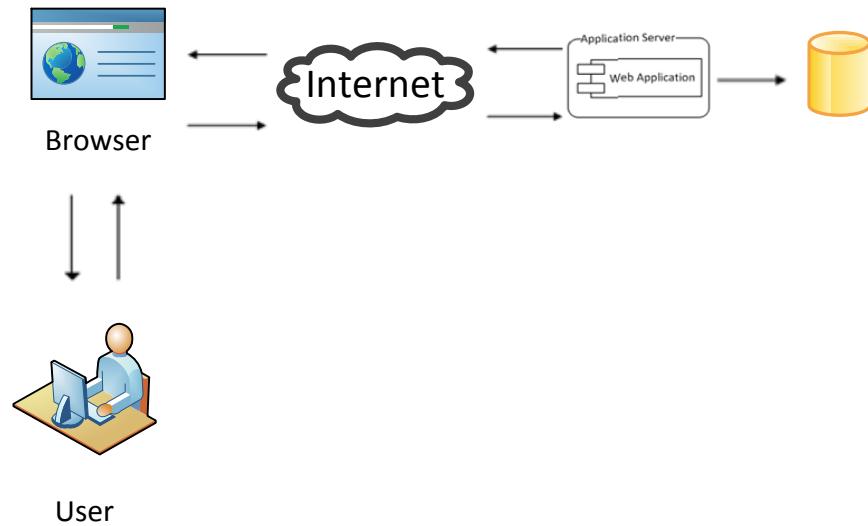
The database design describes the relationship between entities, and details of each entity.

The user interface design describes the layout of the system, and some design for the screens.

## 4.2. System Architectural Design

### 4.2.1. Choice of System Architecture

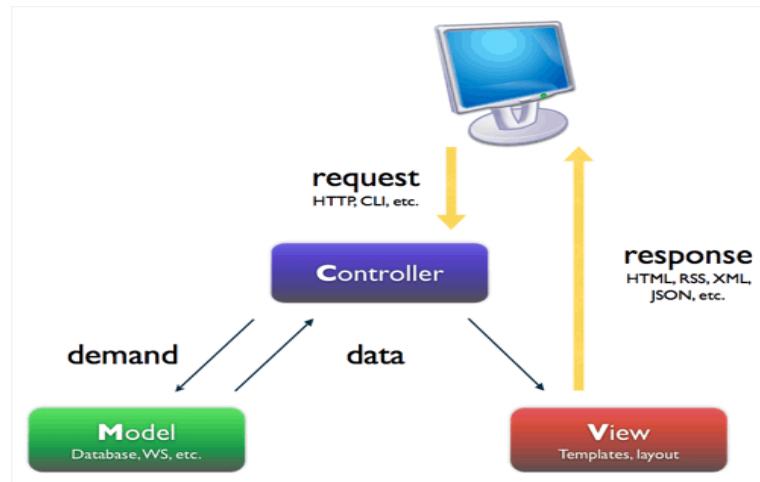
#### 4.2.1.1. System Architecture



**Figure 4-1: System Architecture**

- Database: This is the central data storage for the system.
- Management site: This is the website to manage Case, Customer, Staff, Service, Office.

#### 4.2.1.2. MVC Architecture



**Figure 4-2: MVC Architecture**

- Model: Functions that interact with the database or perform complex operations. In this architecture, model includes business logic and data access in one layer.
- View: The view displays the data and also takes input from user. It renders the model data into a form, such as graphics, buttons, and tables, and so on to display to the user.
- Controller: The controller handles all requests coming from the view or user interface. The data flows to whole application are controlled by controller.

#### **4.2.2. Discussion of Alternative Designs**

#### **4.2.3. Description of System Interface**

##### **4.2.3.1. User Interfaces**

- UI should be simple, model and easy to use.
- Support drag & drop easy for using Calendar Event.

##### **4.2.3.2. Hardware Interfaces**

The site should be deployed and available to many devices can be used online.

- Server hardware: Support Windows hosting
- Client hardware: Can be desktop, laptop, smart phone, tablet,.. have internet connection

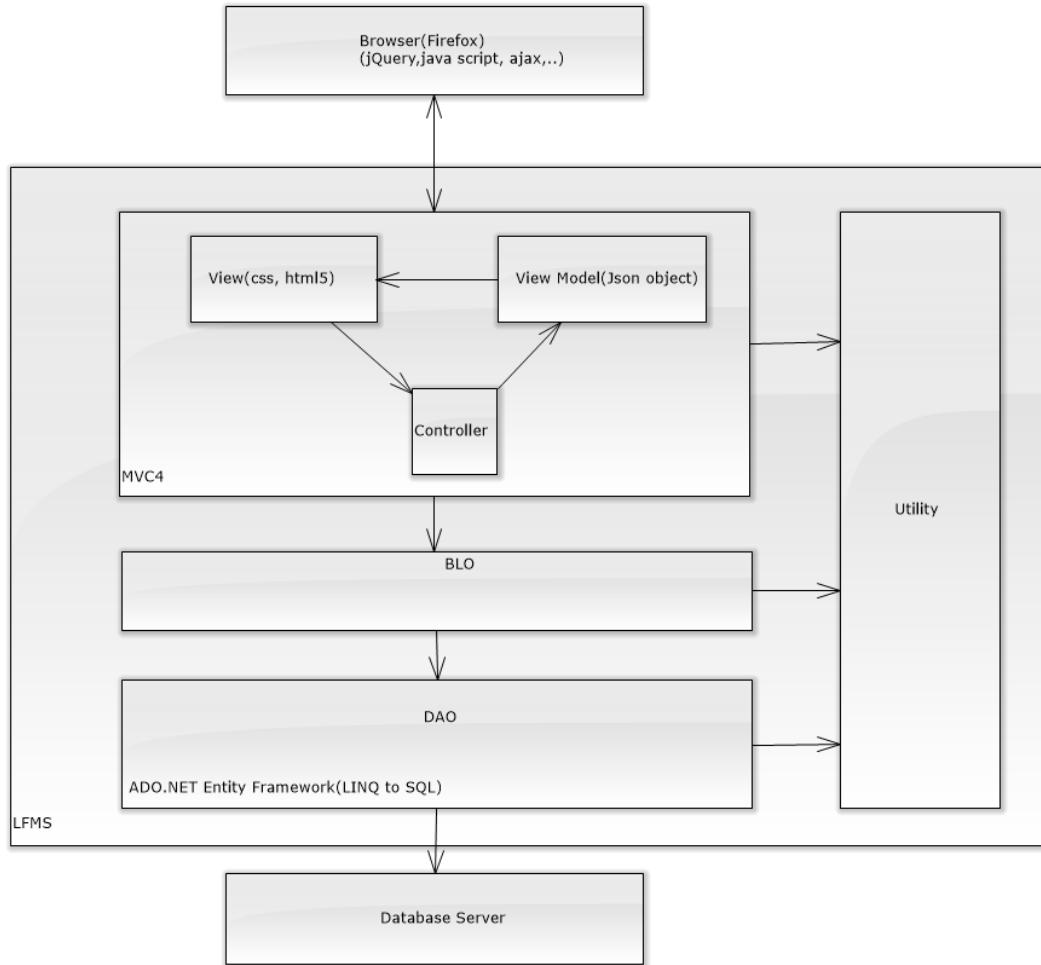
##### **4.2.3.3. Software Interfaces**

Run best on FireFox browser.

##### **4.2.3.4. Communication Interfaces**

The system uses HTTP protocol to communicate between server and clients.

#### 4.2.4. Architectural Presentation



**Figure 4-3: System overview**

- The view knows how to display, and might allow users to edit the data from the Database Server
- The controller receives all the action from view or by system calling, the controller will send request to business logic layer of system (BLO) and call to DAO from this. DAO is a layer will execute all query data to database. Finally, the controller will use Model (Json Object) and return it to view.
- Utility layer is used to parse data

#### 4.2.5. Package Diagram

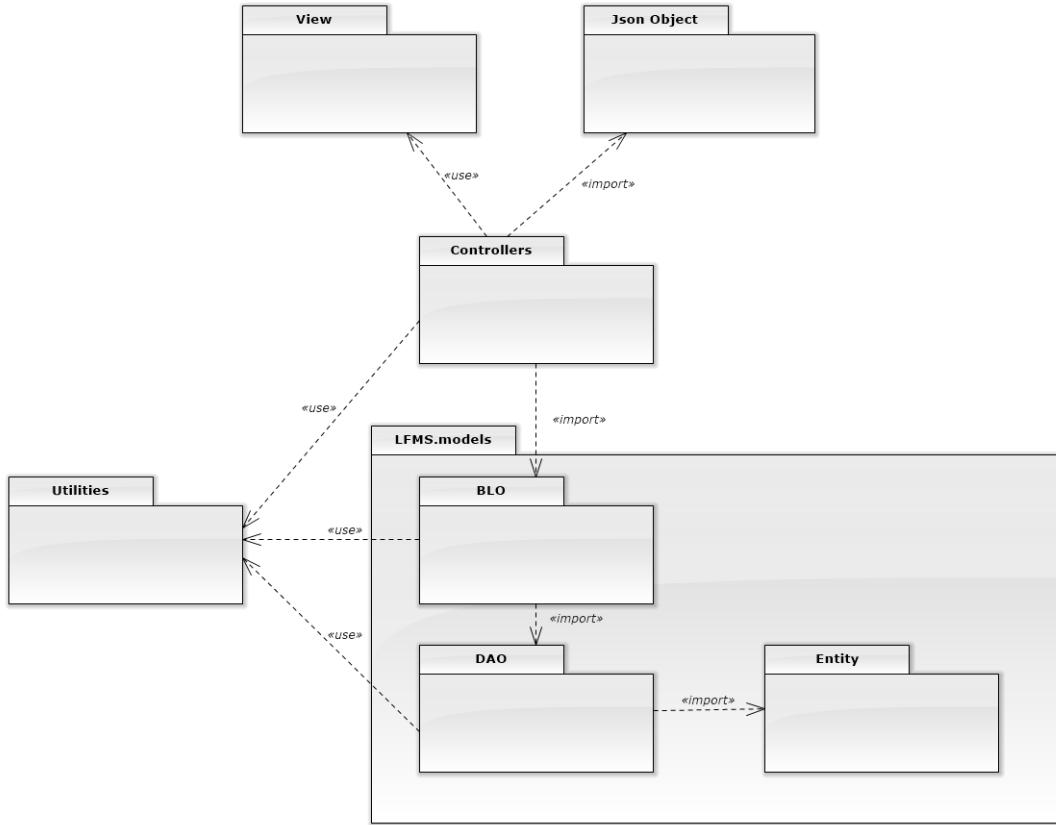


Figure 4-4: Package Diagram

## 4.3. Detailed Design

### 4.3.1. Data Model

#### 4.3.1.1. Data Model Class Diagram

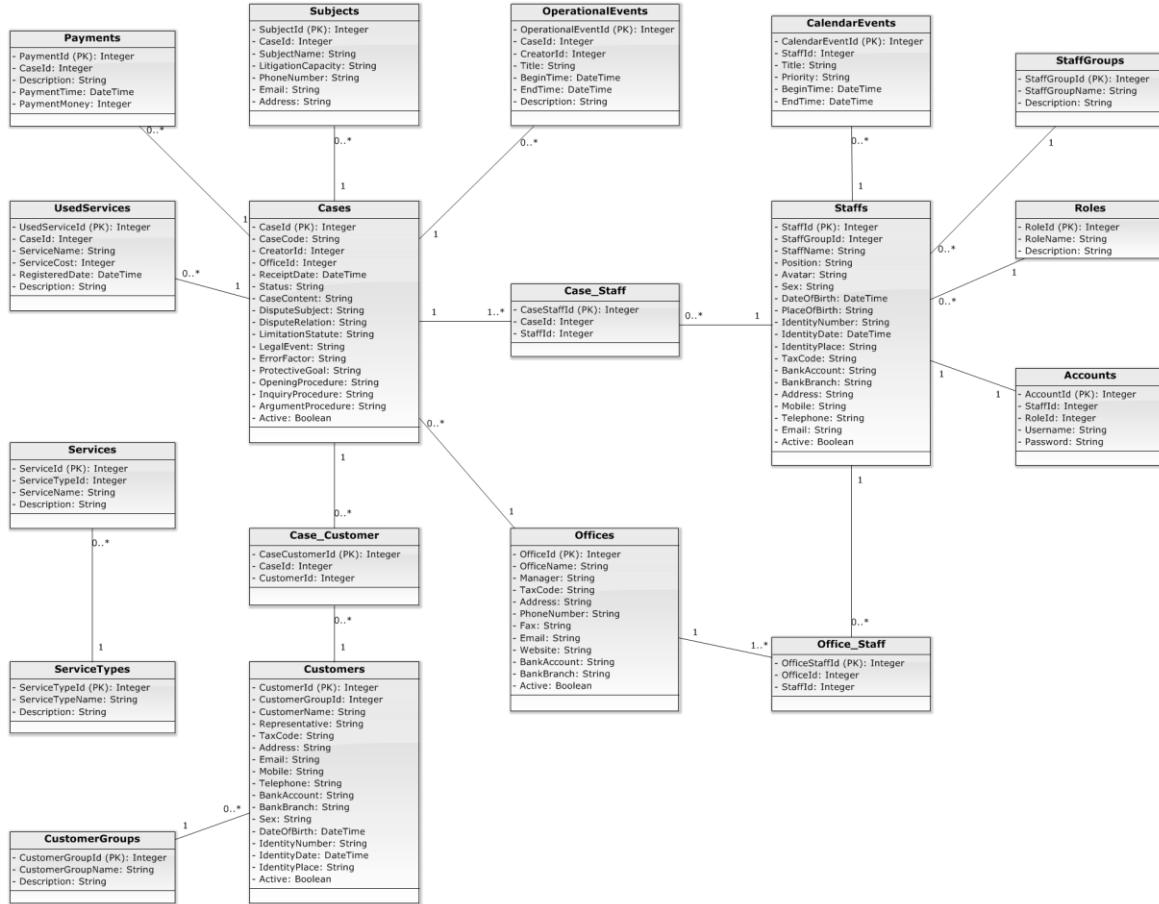


Figure 4-5: Data Model Class Diagram

# Capstone Project: LFMS

### 4.3.2. Controller

#### 4.3.2.1. Controller Class Diagram



**Figure 4-6: Controller Class Diagram**

#### 4.3.2.2. Controller Class Diagram Explanation

Reference to DVD: <root>/Documents/LFMS Project Document - Full Report.docx

# Capstone Project: LFMS

## 4.3.3. Business

### 4.3.3.1. Business Logic Class Diagram



Figure 4-7: Business Class Diagram

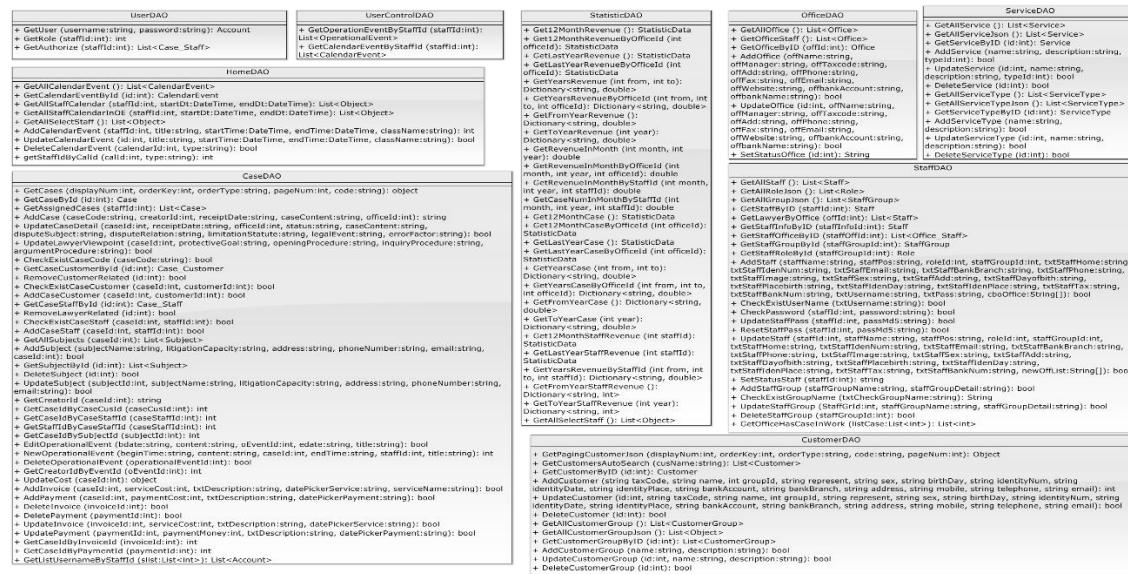
### 4.3.3.2. Business Logic Class Diagram Explanation

Reference to DVD: <root>/Documents/LFMS Project Document - Full Report.docx

## Capstone Project: LFMS

#### 4.3.4. Data Access

#### **4.3.4.1. Data Access Class Diagram**



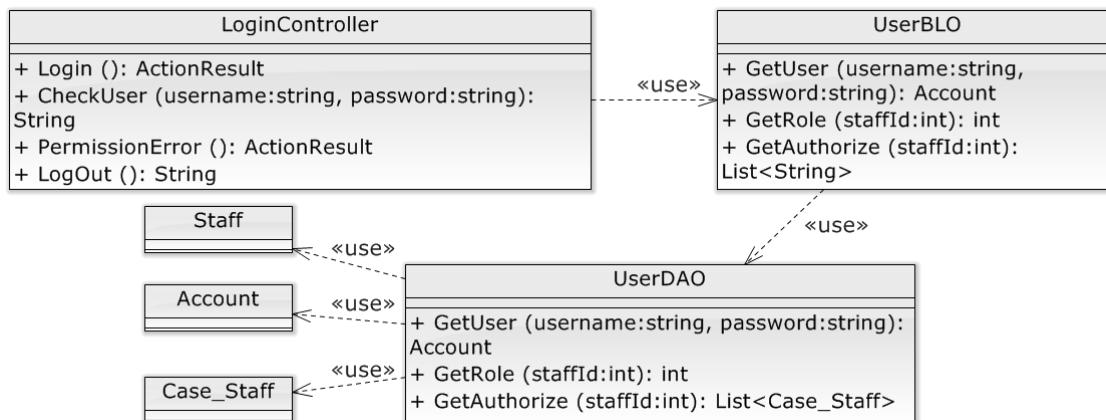
**Figure 4-8: Data Access Class Diagram**

#### **4.3.4.2. Data Access Class Diagram Explanation**

Reference to DVD: <root>/Documents/LFMS Project Document - Full Report.docx

#### 4.3.5. Login

#### 4.3.5.1. Class diagram



**Figure 4-9: Login Class Diagram**

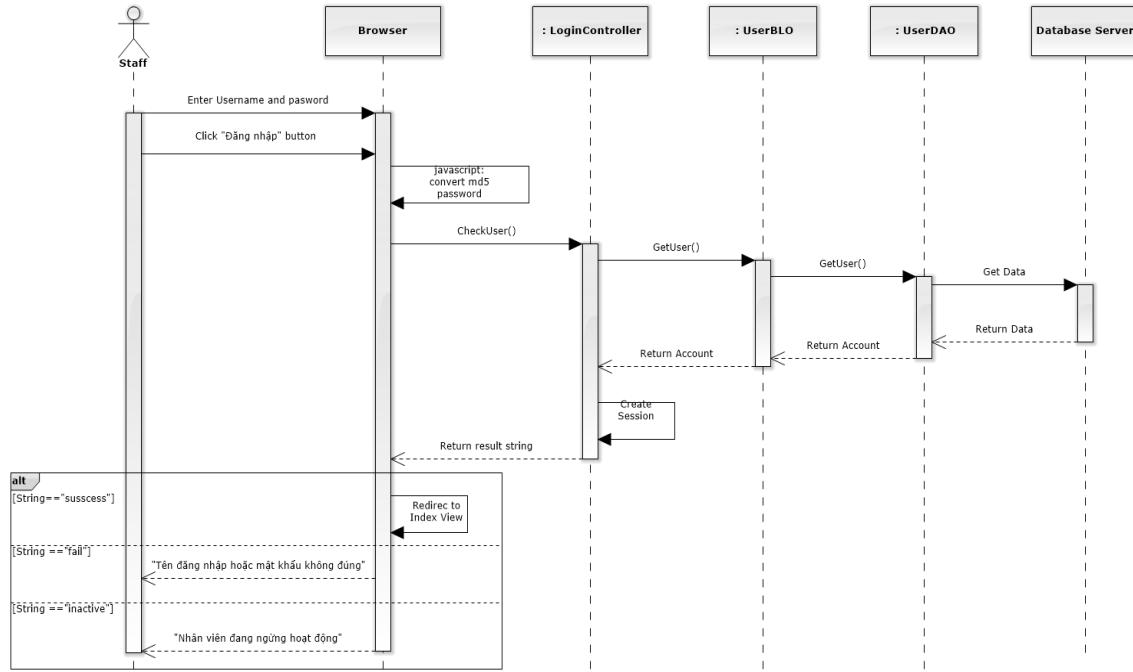
#### 4.3.5.2. Screen design



Figure 4-10: Login Image

No	Object/Control Name	Type	Required	Description
1	Tên đăng nhập	Textbox	Yes	Username for login
2	Mật khẩu	Textbox	Yes	Password for login
3	Đăng nhập	Button	Yes	Click for login to website

### 4.3.5.3. Sequence diagram



**Figure 4-11: Login Sequence Diagram**

### 4.3.6. Change password

#### 4.3.6.1. Class diagram

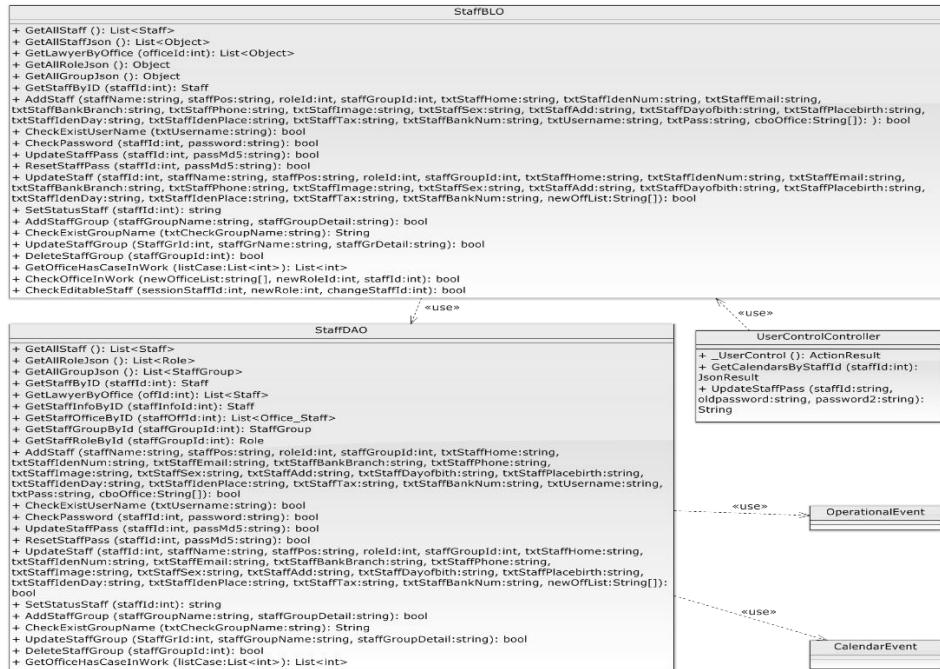


Figure 4-12: Change password class diagram

#### 4.3.6.2. Screen design

The screenshot shows a user interface for changing a password. The title bar says "Thay đổi mật khẩu". The form contains three fields with masked input:

- Mật khẩu cũ: \* (1)
- Mật khẩu mới: \* (2)
- Lặp lại mật khẩu mới: \* (3)

At the bottom left is a button labeled "Đóng" (Close) with a red X icon. At the bottom right is a green button labeled "Đổi mật khẩu" (Change password) with a checkmark icon.

Figure 4-13: Change password Image

No	Object/Control Name	Type	Required	Description
1	Mật khẩu cũ	Textbox	Yes	Your old password
2	Mật khẩu mới	Textbox	Yes	Your new password
3	Lặp lại mật khẩu mới	Textbox	Yes	Re-input your new password

#### 4.3.6.3. Sequence diagram

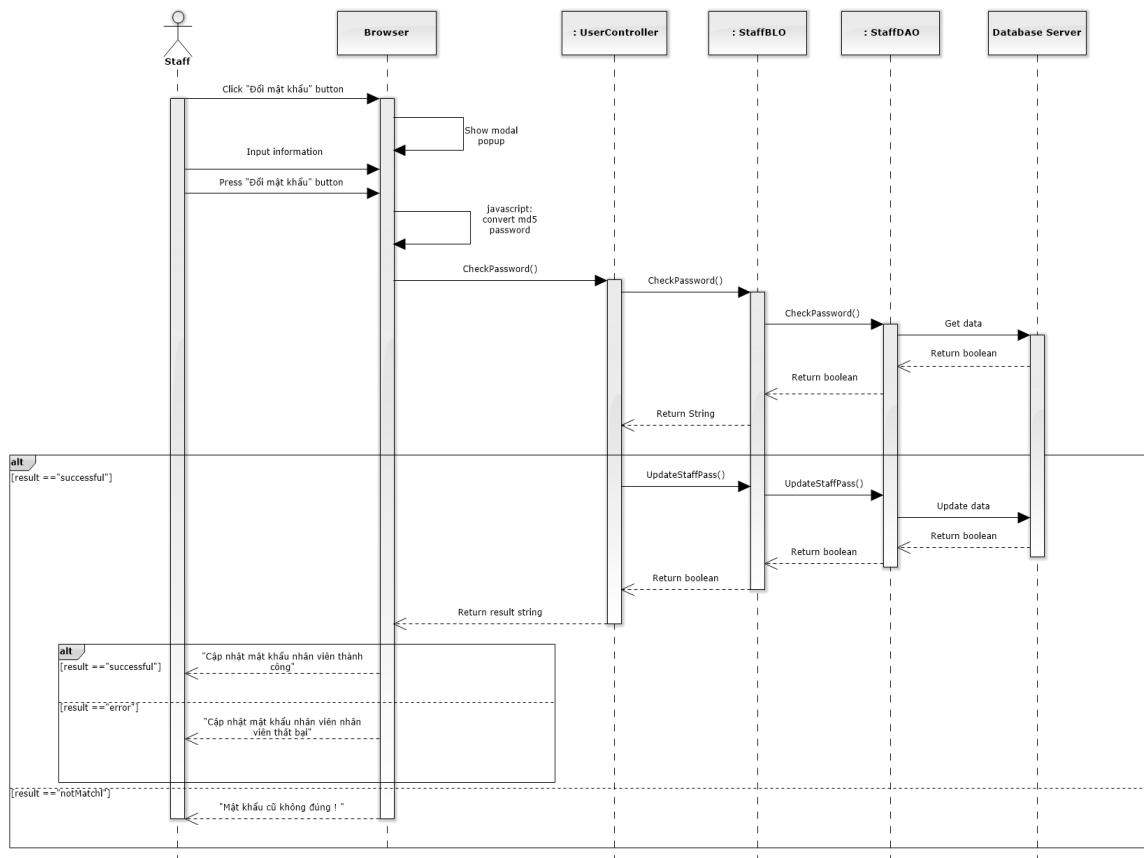


Figure 4-14: Change Password Sequence Diagram

# Capstone Project: LFMS

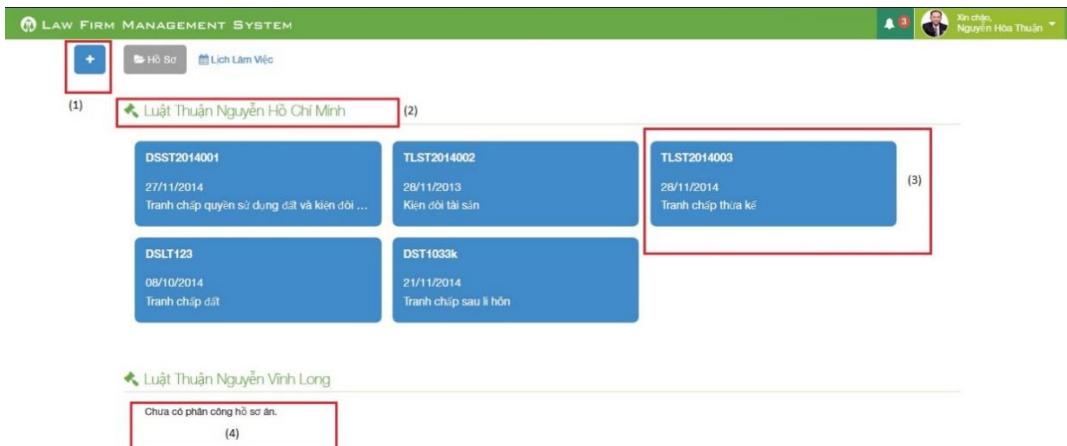
### 4.3.7. View Home

#### 4.3.7.1. Class diagram



**Figure 4-15:** View Home class diagram

#### **4.3.7.2. Screen design**



**Figure 4-16:** View Home image

Capstone Project: LFMS

No	Object/Control Name	Type	Required	Description
1	Plus	Button	Yes	Click to show popup for add new case
2	Office name	Label	Yes	Show name of office the staff work in
3	Case information	Button	Yes	Show important information of the case, click and redirect to view case detail page
4	“Chưa có phân công hồ sơ án”	Label	Yes	If the office have no “Đang thụ lý” case, message will be show

#### 4.3.7.3. Sequence diagram

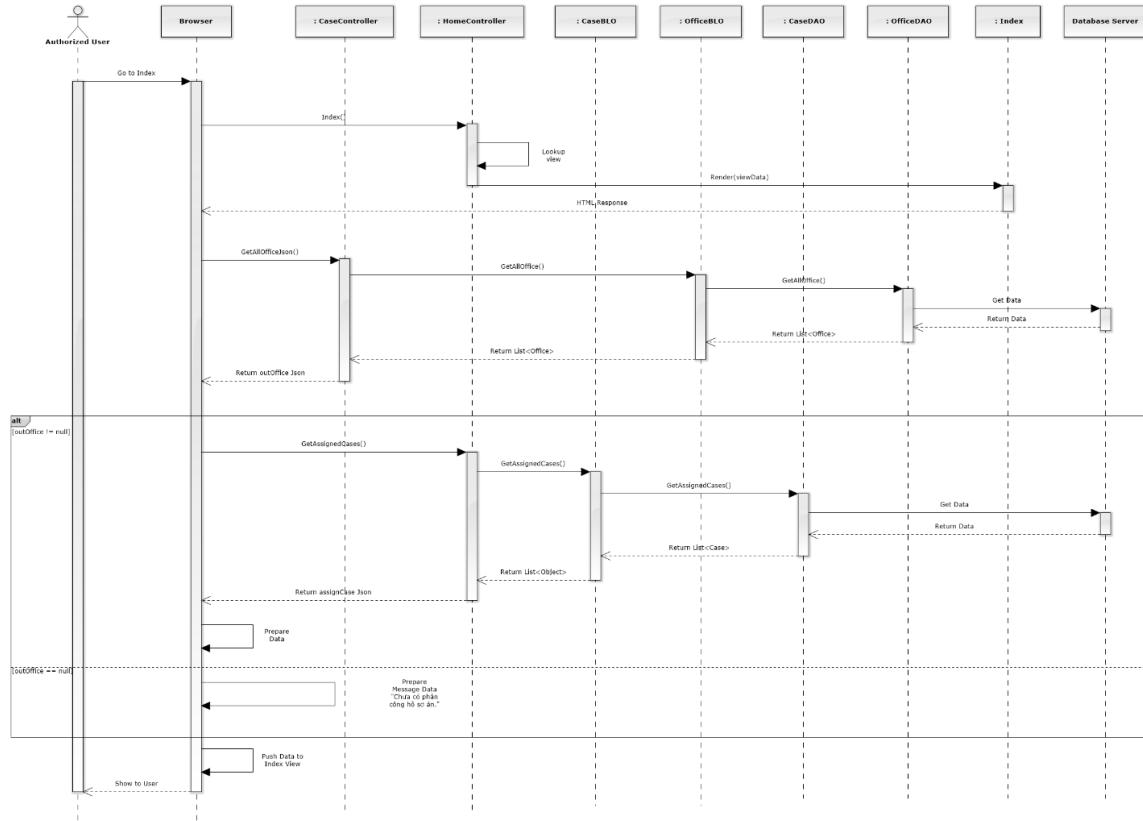


Figure 4-17: View Home Sequence Diagram

#### 4.3.8. Notify

##### 4.3.8.1. Class diagram

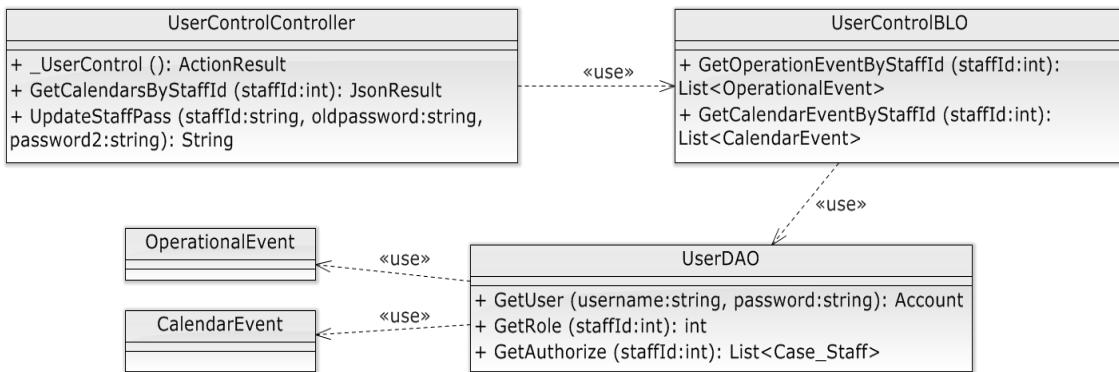


Figure 4-18: Notify event class diagram

#### 4.3.8.2. Screen design



Figure 4-19: Notify Event Screen Image

No	Object/Control Name	Type	Required	Description
1	Event count	Label	Yes	Event quantity in “today” need to do. If there is at least 1 event, ring the bell
2	Priority	Icon	Yes	Show priority of event
3	Title	Label	Yes	Show title and time range of event

### 4.3.8.3. Sequence diagram

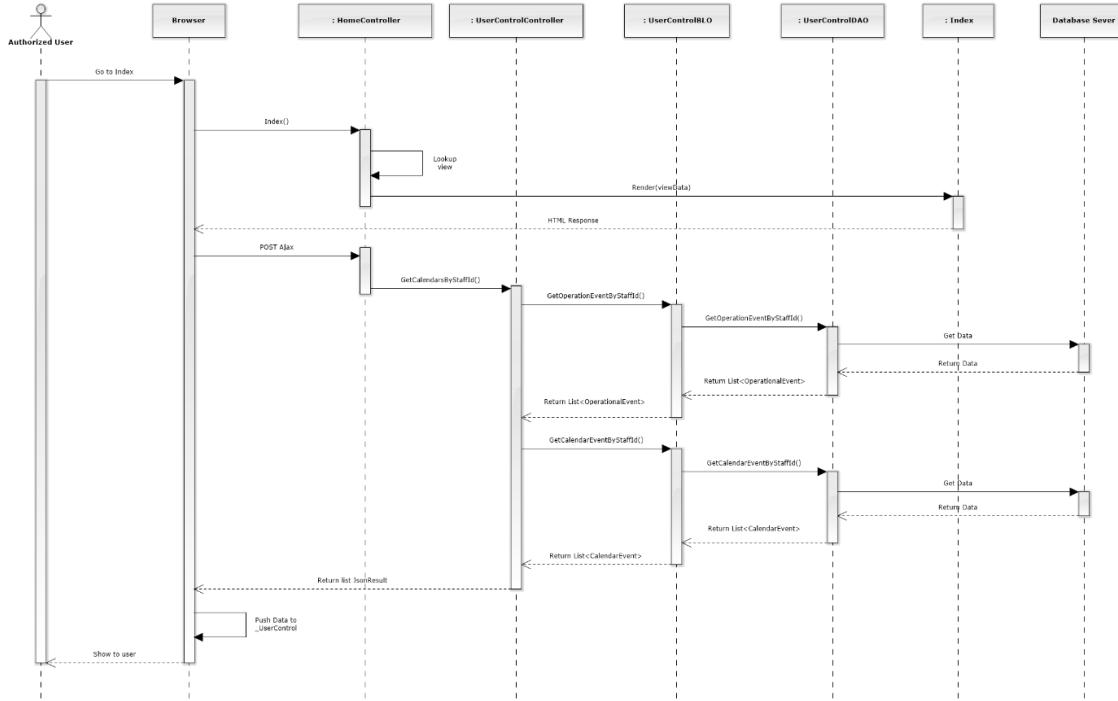


Figure 4-20: Notify Sequence Diagram

### 4.3.9. Manage Calendar Event

#### 4.3.9.1. List Calendar Events

##### 4.3.9.1.1. Class diagram

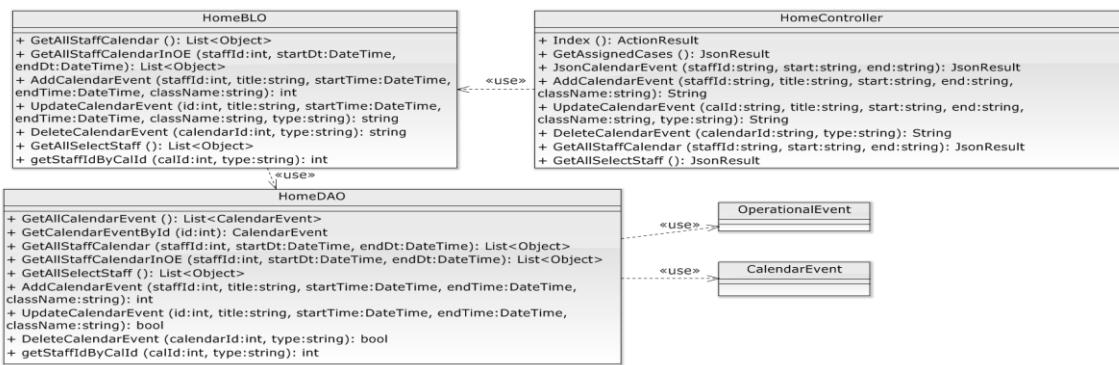


Figure 4-21: List calendar events class diagram

#### 4.3.9.1.2. Screen design

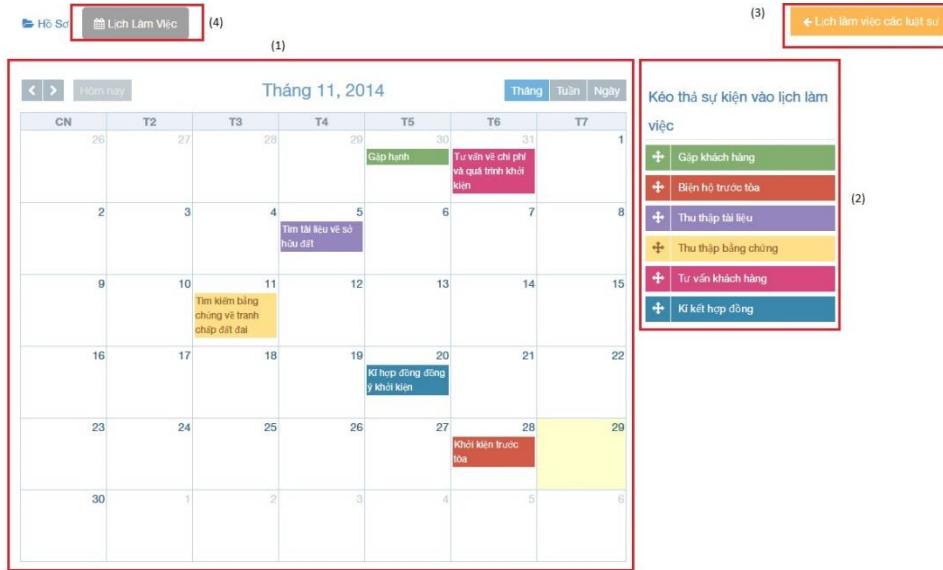


Figure 4-22: :List calendar events image

No	Object/Control Name	Type	Required	Description
1	Calendar	Full Calendar	Yes	Show all event of Staff on calendar
2	Dropable event	Object	Yes	Drag and drop into calendar to create new event
3	Lịch làm việc của các luật sư	Button	Yes	Show other staff calendar pop-up
4	“Lịch làm việc”	Label	Yes	Tab for view calendar events

#### 4.3.9.1.3. Sequence diagram

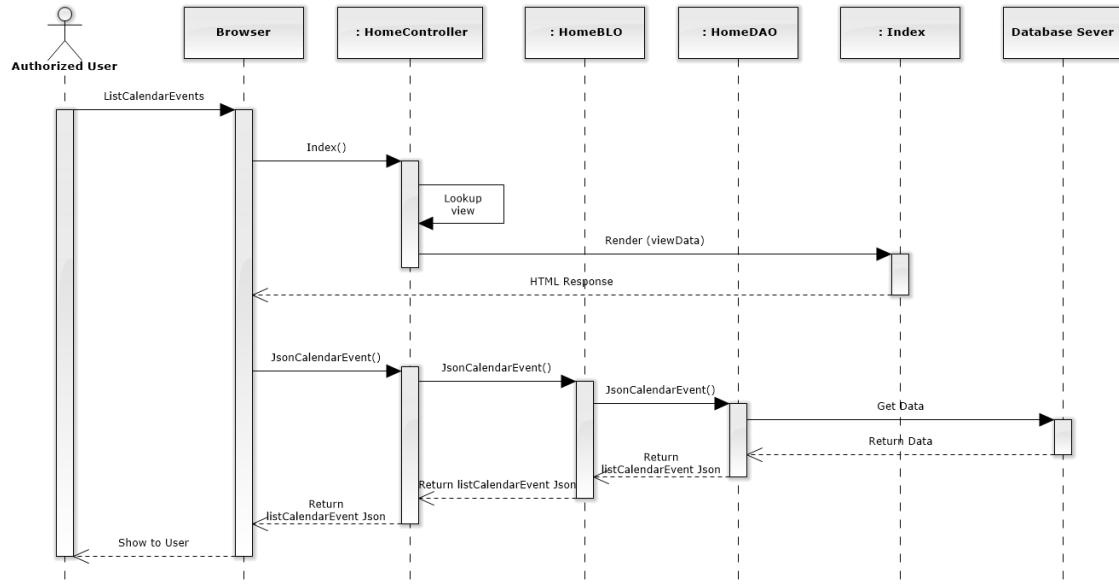


Figure 4-23: List Calendar Events Sequence Diagram

#### 4.3.9.2. Add new calendar event

##### 4.3.9.2.1. Screen design

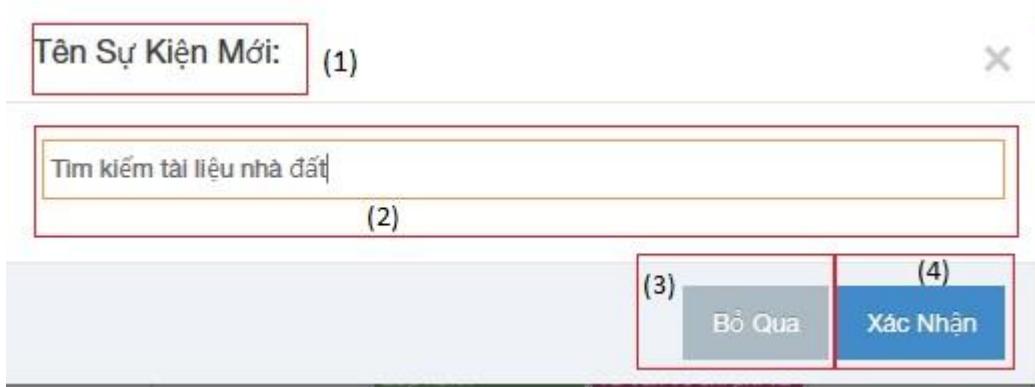


Figure 4-24 :Add new calendar events image

No	Object/Control Name	Type	Required	Description
1	“Tên Sự Kiện Mới:”	Label	Yes	View name event
2	“Tên sự kiện”	Textbox	Yes	Name event
3	“Bỏ Qua”	Button	Yes	Click to close Add new calendar event pop-up
4	“Xác Nhận”	Button	Yes	Click to create a new calendar event

#### 4.3.9.2.2. Sequence diagram

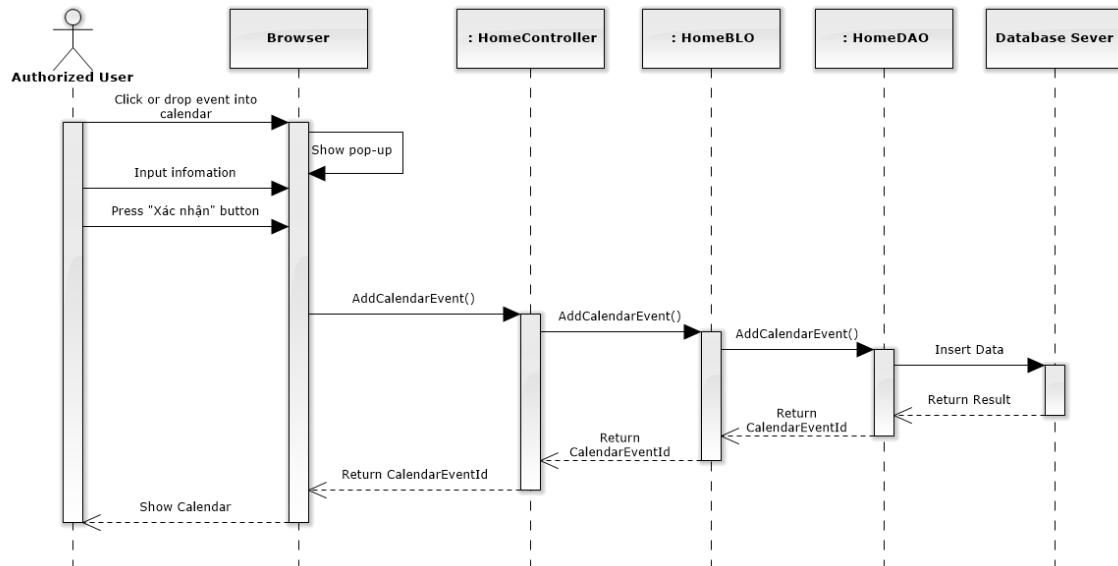


Figure 4-25: Add New Calendar Event Sequence Diagram

#### 4.3.9.3. Edit calendar event

##### 4.3.9.3.1. Screen design



Figure 4-26 :Edit calendar events image

No	Object/Control Name	Type	Required	Description
1	“Tên sự kiện”	Textbox	Yes	Name event
2	“Lưu”	Button	Yes	Click to save edit new calendar event
3	“Đóng”	Button	Yes	Click to close Edit new calendar event pop-up

#### 4.3.9.3.2. Sequence diagram

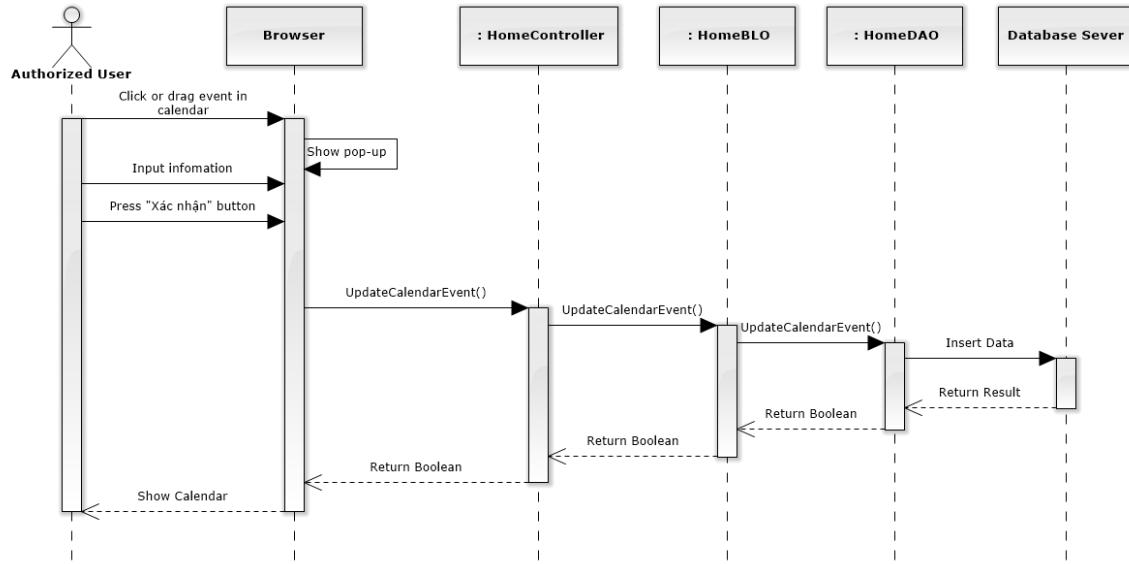


Figure 4-27: Edit Calendar Event Sequence Diagram

#### 4.3.9.4. Delete calendar event

##### 4.3.9.4.1. Screen design



Figure 4-28 :Delete calendar events image

No	Object/Control Name	Type	Required	Description
1	“Tên sự kiện”	Textbox	Yes	Name event

2	“Xóa sự kiện”	Button	Yes	Click to delete calendar event
3	“Đóng”	Button	Yes	Click to close Delete calendar event pop-up

#### 4.3.9.4.2. Sequence diagram

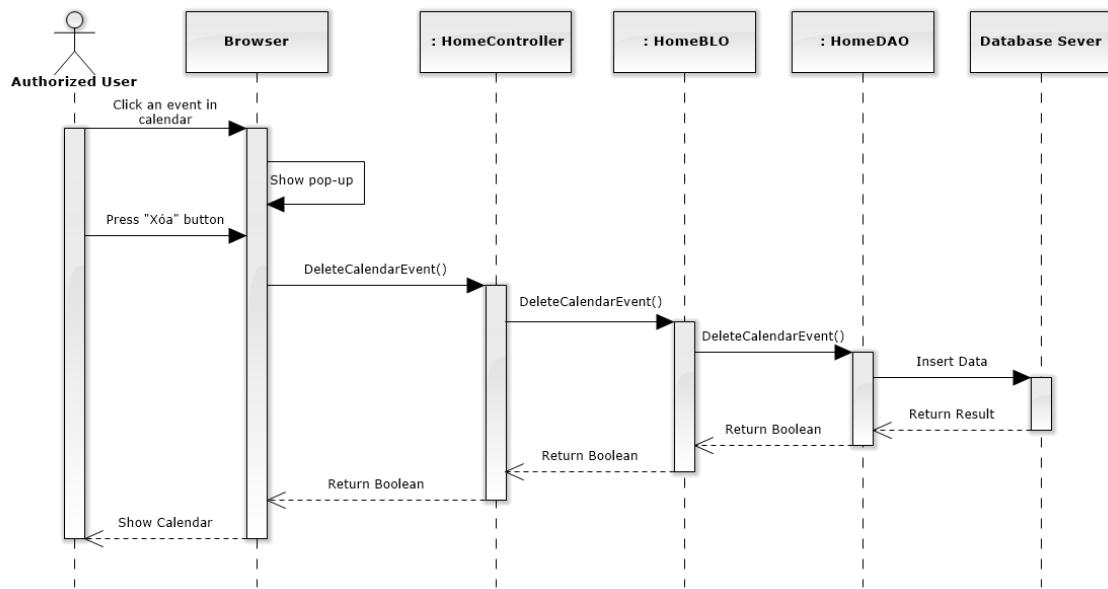


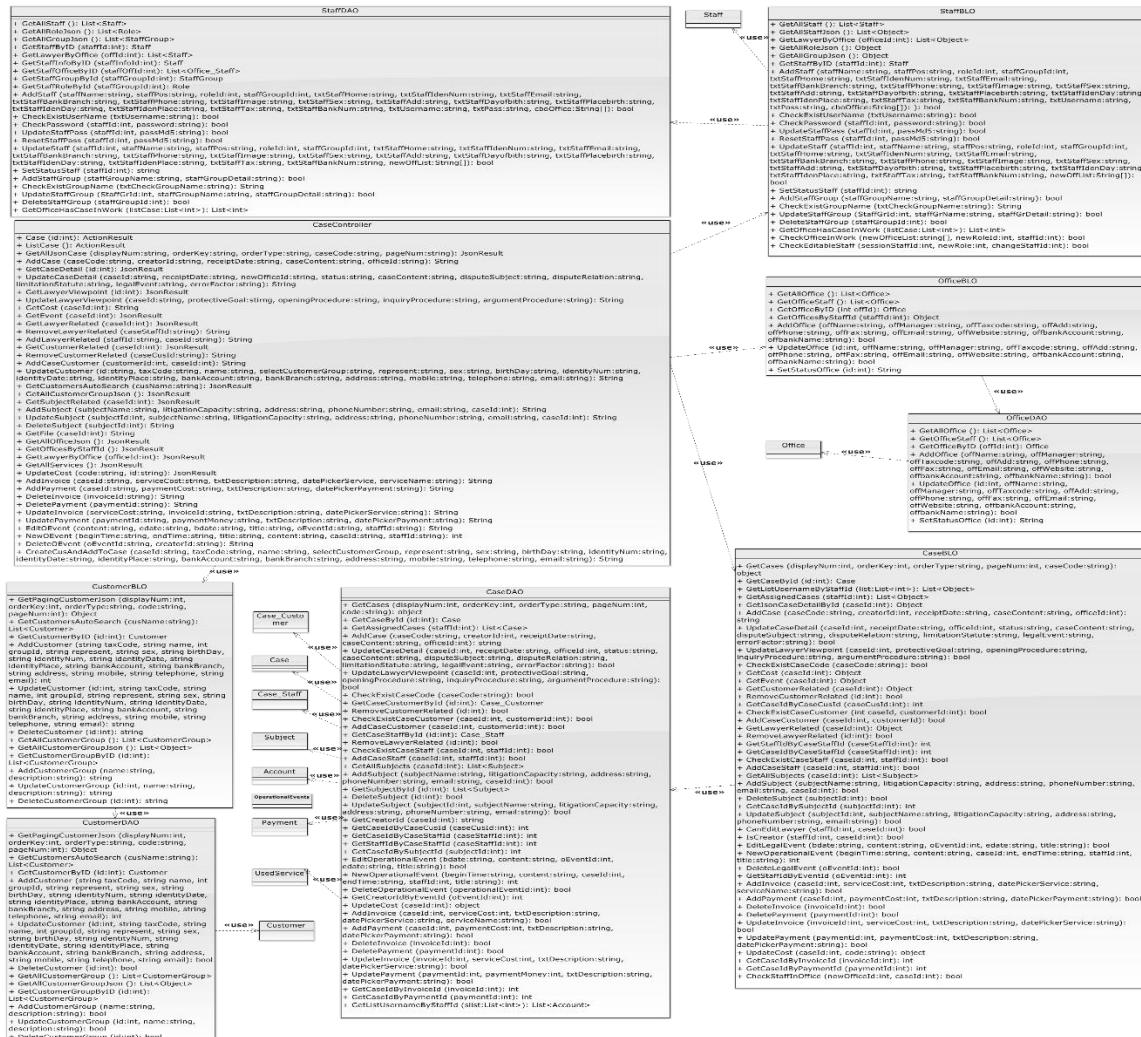
Figure 4-29: Delete Calendar Event Sequence Diagram

## Capstone Project: LFMS

#### **4.3.10. Manage Case**

### 4.3.10.1. List all cases

#### 4.3.10.1.1. Class diagram



**Figure 4-30 :Manage class diagram**

#### 4.3.10.1.2. Screen design

Danh sách hồ sơ					
<input type="button" value="Thêm hồ sơ tác nghiệp"/> (1)					
Hiển thị: 10 <input type="button" value="hồ sơ"/> (2) <input type="text" value="Tim kiem:"/> (3)					
Mã hồ sơ	Nội dung	Ngày thu lý	Thuộc văn phòng	Trạng thái	
TLST2014003	Tranh chấp thừa kế (4)	28/11/2014	Luật Thuận Nguyễn Hồ Chí Minh	<span style="background-color: red;">Đang thu lý</span>	
DSST2014001	Tranh chấp quyền sử dụng đất và kiện đòi tài sản	27/11/2014	Luật Thuận Nguyễn Hồ Chí Minh	<span style="background-color: red;">Đang thu lý</span>	
HS20140002	Tranh chấp quyền sở hữu nhà hàng	21/11/2014	Luật Thuận Nguyễn Vinh Long	<span style="background-color: green;">Đã thu lý</span>	
DST1033K	Tranh chấp sau li hôn	21/11/2014	Luật Thuận Nguyễn Hồ Chí Minh	<span style="background-color: red;">Đang thu lý</span>	
AB-SB	hello	06/11/2014	Luật Thuận Nguyễn Vinh Long	<span style="background-color: red;">Đang thu lý</span>	
DSL123	Tranh chấp đất	08/10/2014	Luật Thuận Nguyễn Hồ Chí Minh	<span style="background-color: red;">Đang thu lý</span>	
123	123	08/10/2014	Luật Thuận Nguyễn Hồ Chí Minh	<span style="background-color: red;">Đang thu lý</span>	
DSST2014002	Tranh chấp đất đai và mâu thuẫn dân sự	16/04/2014	Luật Thuận Nguyễn Hồ Chí Minh	<span style="background-color: red;">Đang thu lý</span>	
TLST2014001	Tranh chấp hợp đồng vay tài sản.	20/03/2014	Luật Thuận Nguyễn Hồ Chí Minh	<span style="background-color: red;">Đang thu lý</span>	
HS20140001	Tranh chấp tài sản thừa kế	20/01/2014	Luật Thuận Nguyễn Hồ Chí Minh	<span style="background-color: green;">Đã thu lý</span>	

Figure 4-31 :List all case image

No	Object/Control Name	Type	Required	Description
1	“Thêm hồ sơ tác nghiệp”	Button	Yes	Click to show popup for add new case
2	Line count	Dropdown list	Yes	Select line quantity in table
3	“Tìm kiếm”	Textbox	Yes	Search case automatically
4	View all cases	Table	Yes	Show all of case
5	Case count	Label	Yes	Show case quantity of page in table

6	Paging	Button	Yes	List case page by page
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#### 4.3.10.1.3. Sequence diagram

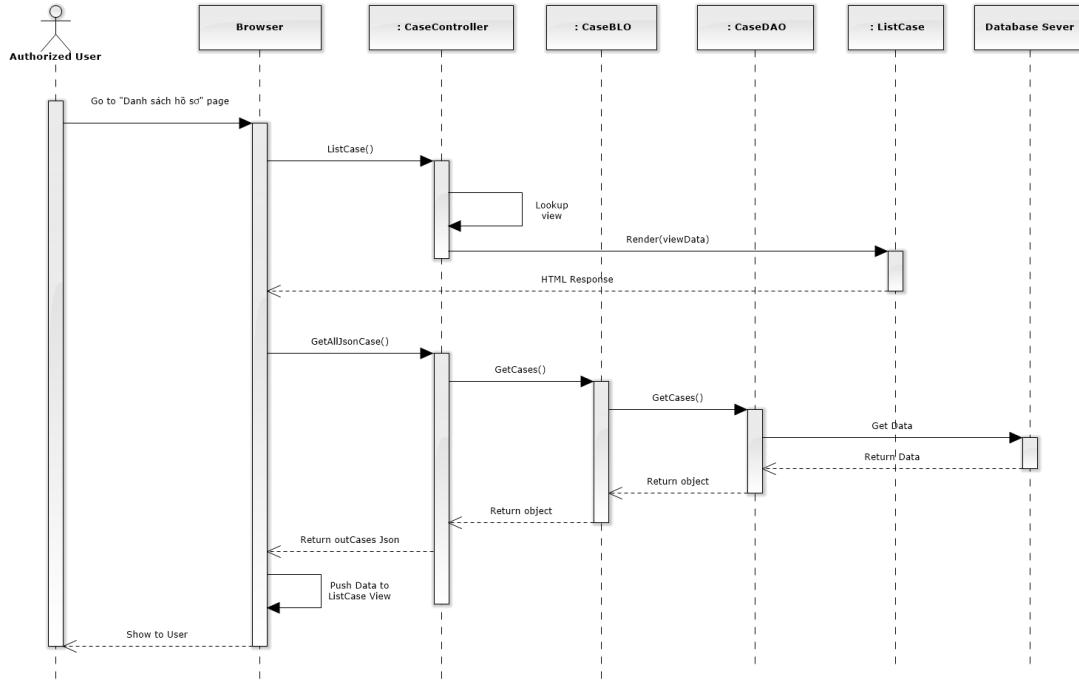


Figure 4-32: List All Cases Sequence Diagram

#### 4.3.10.2. Add new case

##### 4.3.10.2.1. Screen design

Figure 4-33 :Add new case image

No	Object/Control Name	Type	Required	Description
1	“Mã hồ sơ”	Textbox	Yes	Case code
2	“Ngày thụ lý”	Textbox list	Yes	Receipt date
3	“Thuộc văn phòng”	Textbox	Yes	Choose one office
4	“Nội dung”	Textbox	Yes	Case content
5	“Đóng”	Button	Yes	Click to close modal popup

6	“Thêm mới”	Button	Yes	Click to create a new case
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#### 4.3.10.2.2. Sequence diagram

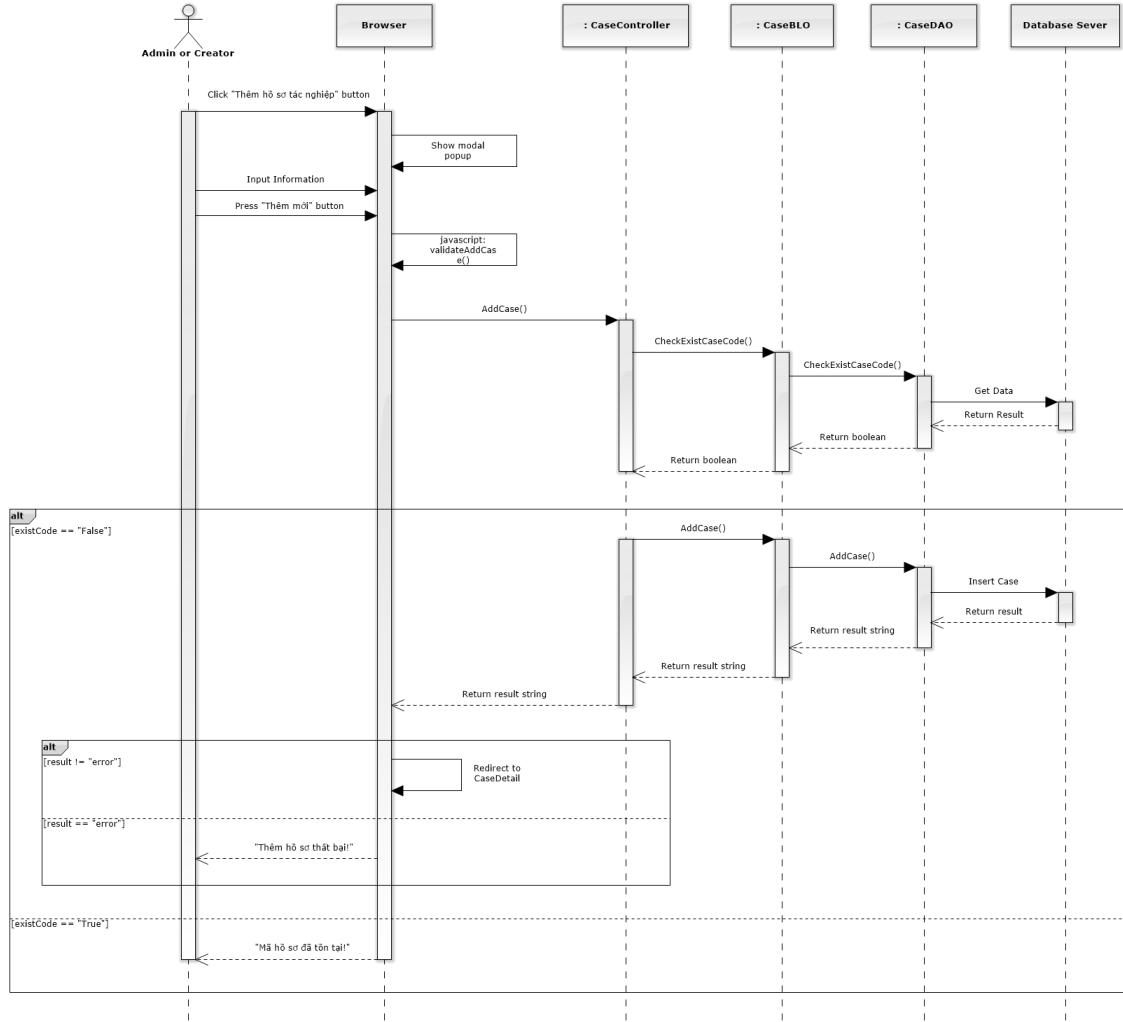


Figure 4-34: Add New Case Sequence Diagram

### 4.3.10.3. Manage Case Detail

#### 4.3.10.3.1. View case detail

##### 4.3.10.3.1.1. Screen design

Figure 4-35: View case detail image

No	Object/Control Name	Type	Required	Description
1	“Danh sách hồ sơ”	Link	Yes	Redirect to view all cases
2	Edit	Button	Yes	Must be click to edit infor
3	“Mã hồ sơ”	Textbox	Yes	Case code
4	“Ngày thụ lý”	Textbox	Yes	Receipt date
5	“Thuộc văn phòng”	Textbox	Yes	Choose one office
6	“Trạng thái”	Textbox	Yes	Case status

7	“Nội dung tranh chấp”	Textbox	Yes	The contents of dispute
8	“Đối tượng tranh chấp”	Textbox	Yes	The subject of dispute
9	“Quan hệ tranh chấp”	Textbox	Yes	The relation of dispute
10	“Thời hiệu”	Textbox	Yes	The statute of limitations
11	“Sự kiện pháp lý”	Textbox	Yes	Legal event
12	“Yêu tố lỗi”	Textbox	Yes	Error factor

#### 4.3.10.3.1.2. Sequence diagram

#### 4.3.10.3.2. Update case detail

##### 4.3.10.3.2.1. Screen design

Chỉ tiết hồ sơ

Trang chủ | Hồ sơ tác nghiệp > Danh sách hồ sơ > DSST2014001

Sự kiện

Người liên quan

Tài liệu liên quan

Hóa đơn

(2)

Thông tin chung

Mã hồ sơ

Nội dung

Thông tin khác

(1)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

(11)

(12)

(13)

(14)

Thứ tự

Figure 4-36: Update case detail image

No	Object/Control Name	Type	Required	Description
1	“Danh sách hồ sơ”	Link	Yes	Redirect to view all cases
2	Edit	Button	Yes	Must be click to edit infor
3	“Mã hồ sơ”	Textbox	Yes	Case code
4	“Ngày thu lý”	Textbox	Yes	Receipt date
5	“Thuộc văn phòng”	Textbox	Yes	Choose one office
6	“Trạng thái”	Textbox	Yes	Case status
7	“Nội dung tranh chấp”	Textbox	Yes	The contents of dispute
8	“Đối tượng tranh chấp”	Textbox	Yes	The subject of dispute
9	“Quan hệ tranh chấp”	Textbox	Yes	The relation of dispute
10	“Thời hiệu”	Textbox	Yes	The statute of limitations
11	“Sự kiện pháp lý”	Textbox	Yes	Legal event
12	“Yêu tố lỗi”	Textbox	Yes	Error factor
13	“Hủy chỉnh sửa”	Button	Yes	Cancel edit infor

14	“Lưu chỉnh sửa”	Button	Yes	Save new infor
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#### 4.3.10.3.2.2. Sequence diagram

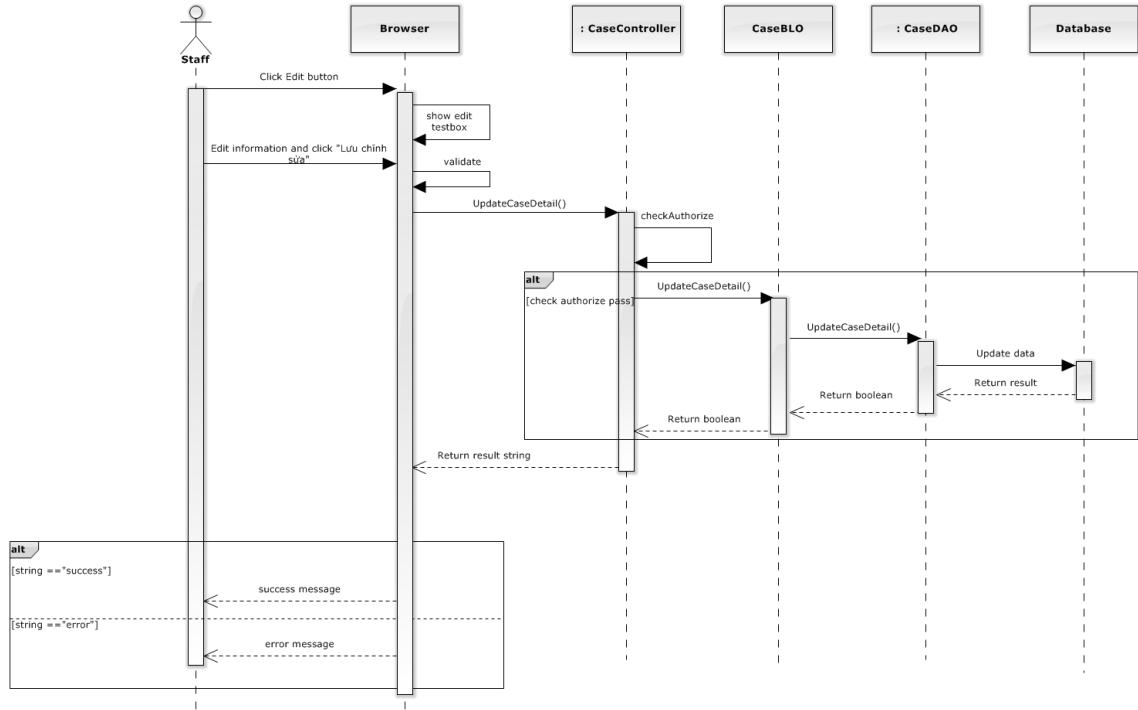


Figure 4-36: Update case detail sequence diagram

#### 4.3.10.3.3. Manage Operation Event

##### 4.3.10.3.3.1. List operation events

###### 4.3.10.3.3.1.1. Screen design

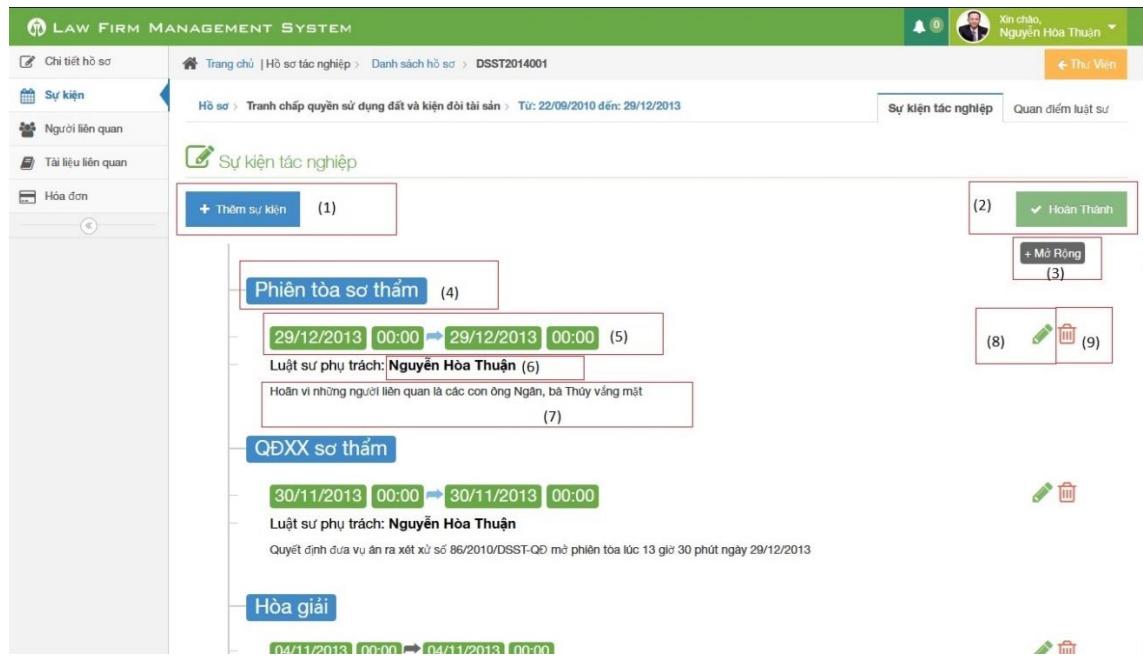


Figure 4-37: List operation event image

No	Object/Control Name	Type	Required	Description
1	Thêm sự kiện	Button	Yes	Click to add new operation event
2	Hoàn thành	Button	Yes	Click to finish edit operation event
3	Thu nhỏ / Mở rộng	Button	Yes	Reduce / Expand

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4	Title	Label	Yes	Title of Operation Event
5	Time range	Label	Yes	Click to choose begin time and end time of event
6	Staff username	Label	Yes	The lawyer who create a case
7	Content	Information	Yes	Content of Operation Event
8	Pencil	Button	Yes	Edit operation event
9	Trash	Button	Yes	Delete operation event

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### 4.3.10.3.3.1.2. Sequence diagram

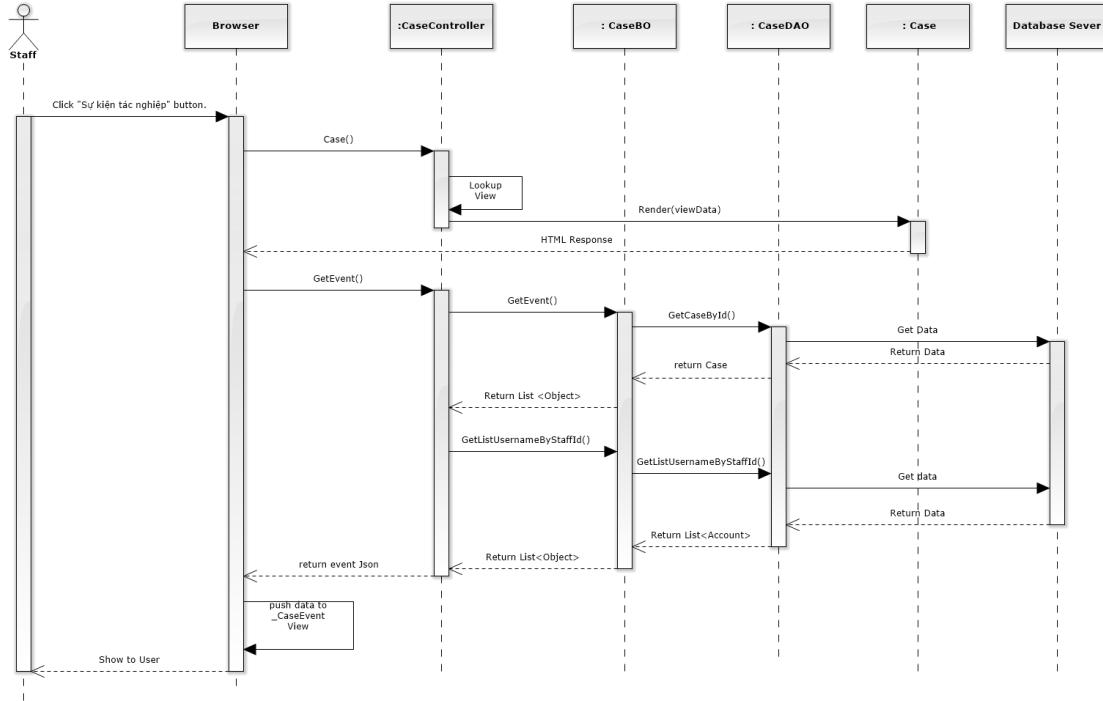


Figure 4-38: List Operation Events Sequence Diagram

### 4.3.10.3.3.2. Add new operation event

#### 4.3.10.3.3.2.1. Screen design

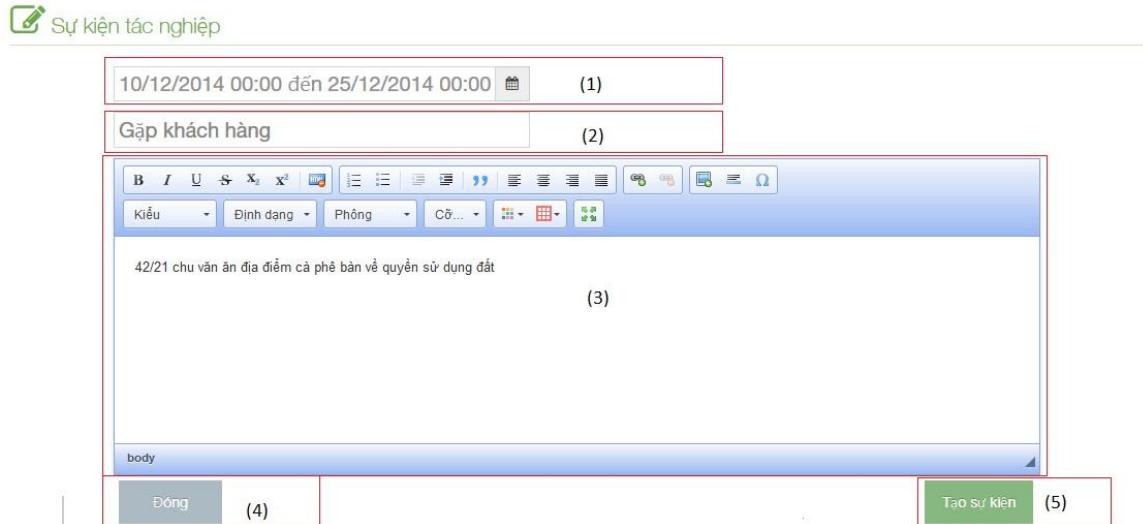


Figure 4-39: Add new operation event image

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No	Object/Control Name	Type	Required	Description
1	Time range	Button	Yes	Click to choose begin time and end time of event
2	Title	Table	Yes	Title of Operation Event
3	Content	Label	Yes	Content of Operation Event
4	“Đóng”	Button	Yes	Click to close add new operation event
5	“Tạo sự kiện”	Button	Yes	Click to add new operation event

#### 4.3.10.3.3.2.2. Sequence diagram

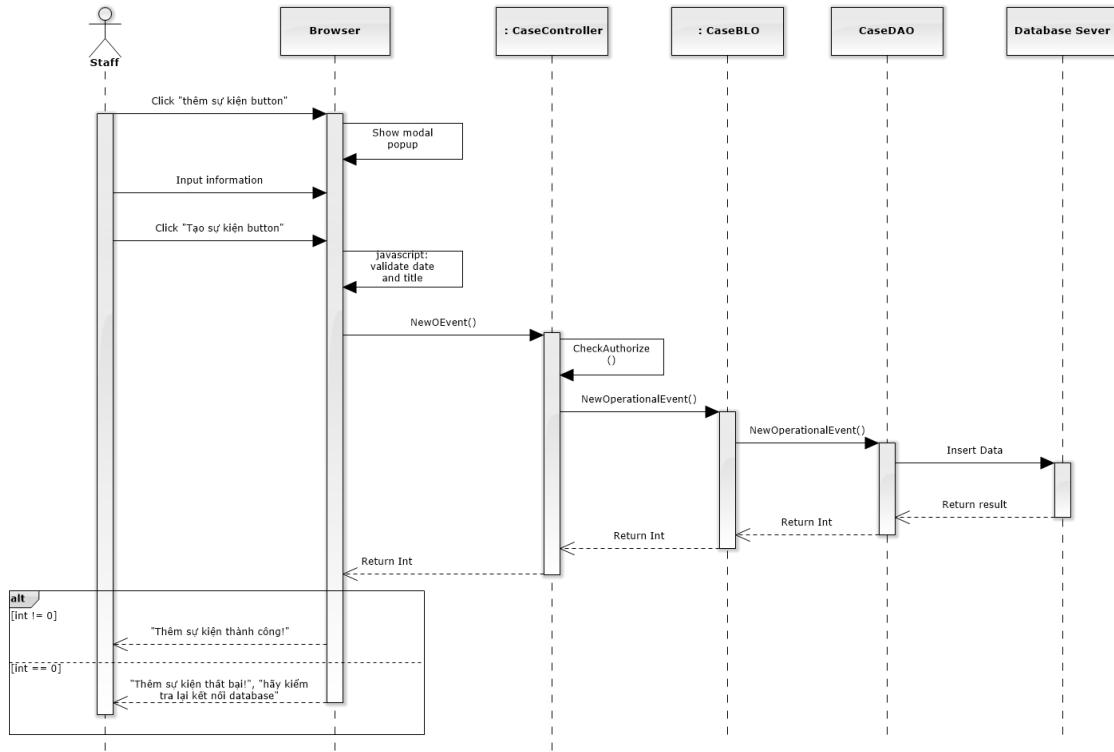


Figure 4-40: Add New Operation Event Sequence Diagram

#### 4.3.10.3.3.3. Edit operation event

##### 4.3.10.3.3.3.1. Screen design

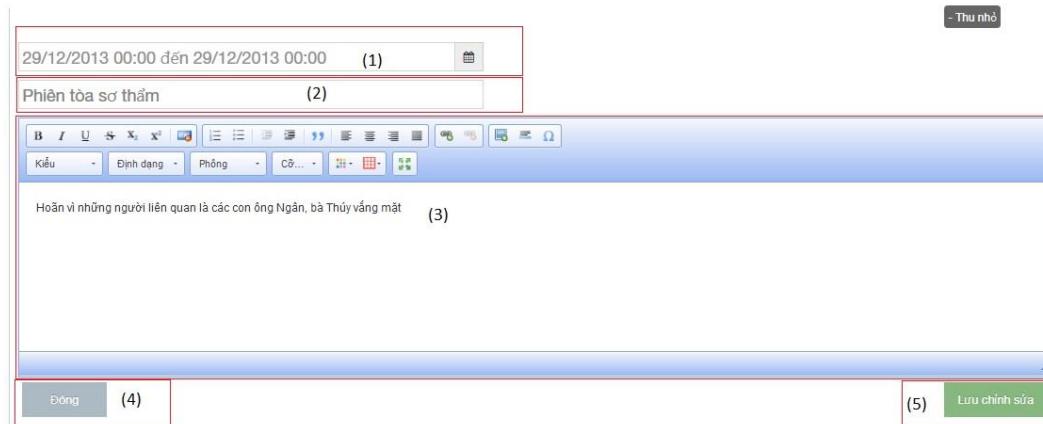


Figure 4-41: Edit operation event image

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No	Object/Control Name	Type	Required	Description
1	Time range	Button	Yes	Click to choose begin time and end time of event
2	Title	Table	Yes	Title of Operation Event
3	Content	Label	Yes	Content of Operation Event
4	“Đóng”	Button	Yes	Click to close edit operation event
5	“Lưu chỉnh sửa”	Button	Yes	Click to edit operation event

#### 4.3.10.3.3.3.2. Sequence diagram

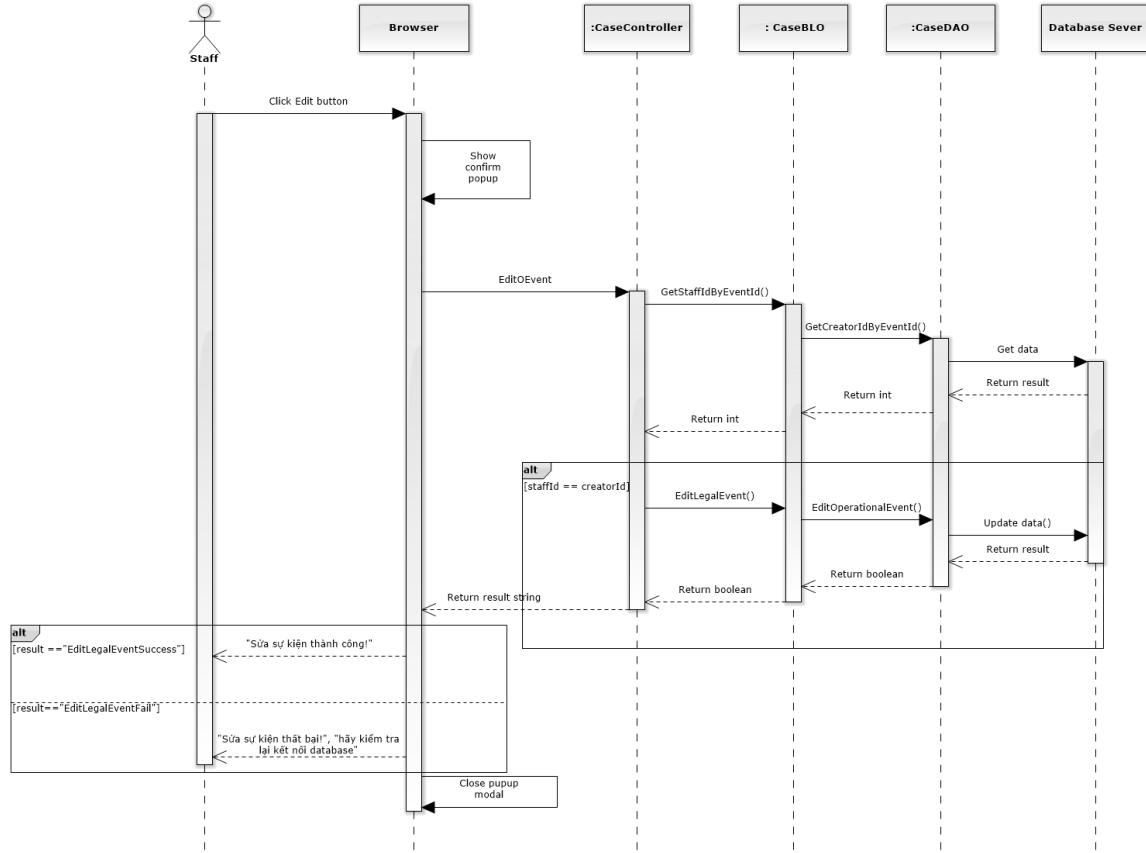


Figure 4-42: Edit Operation Event Sequence Diagram

#### 4.3.10.3.3.4. Delete operation event

##### 4.3.10.3.3.4.1. Screen design

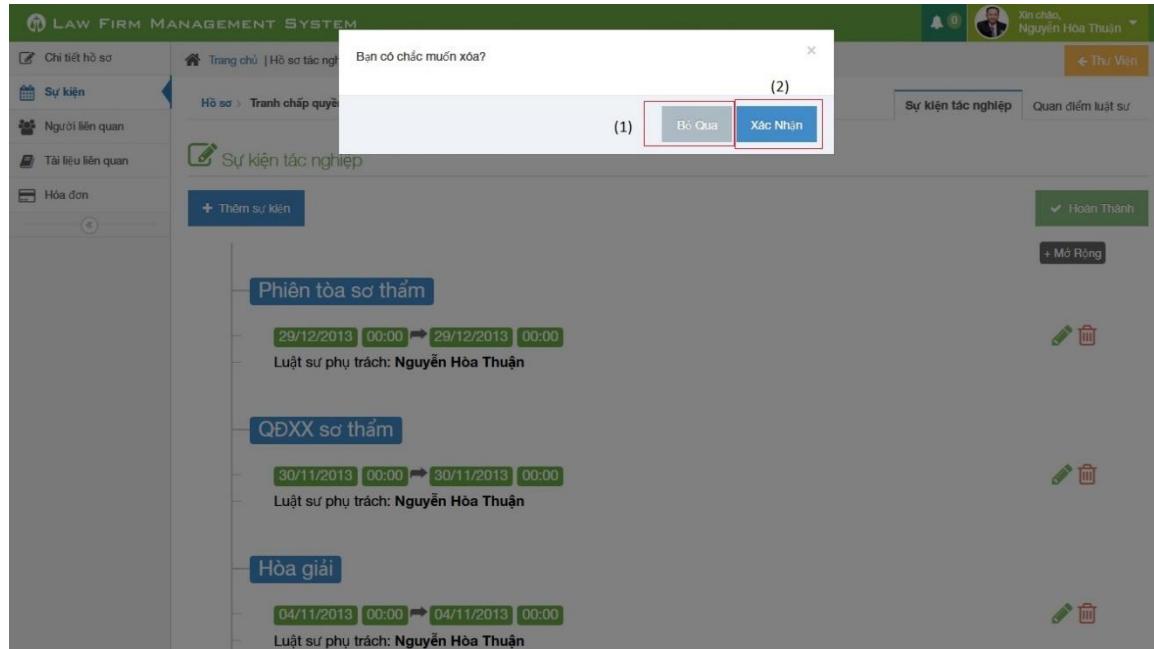


Figure 4-43: Delete operation event image

No	Object/Control Name	Type	Required	Description
1	“BỎ QUA”	Button	Yes	Click to close delete operation event
2	“XÁC NHẬN”	Button	Yes	Click to delete operation event

#### 4.3.10.3.3.4.2. Sequence diagram

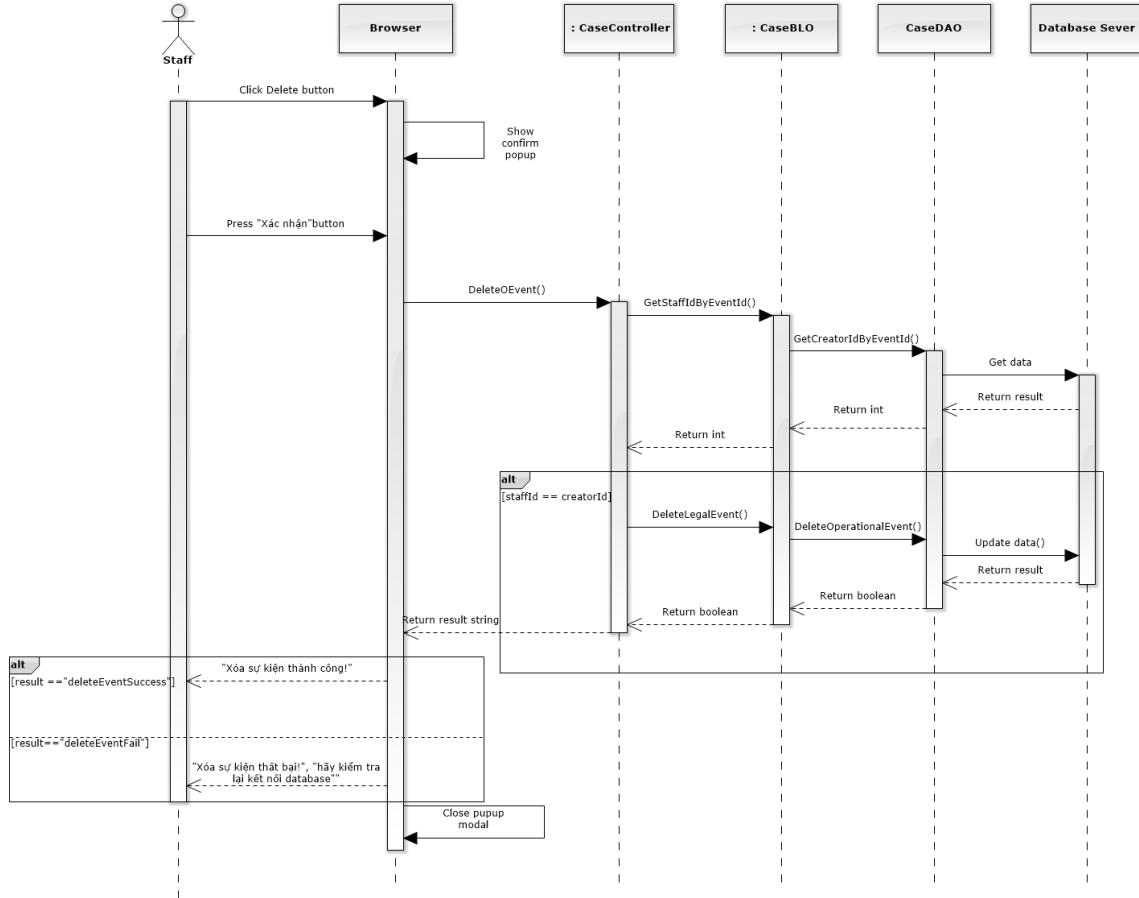


Figure 4-44: Delete Operation Event Sequence Diagram

#### 4.3.10.3.4. Manage Lawyer Related

##### 4.3.10.3.4.1. List lawyer related

###### 4.3.10.3.4.1.1. Screen design

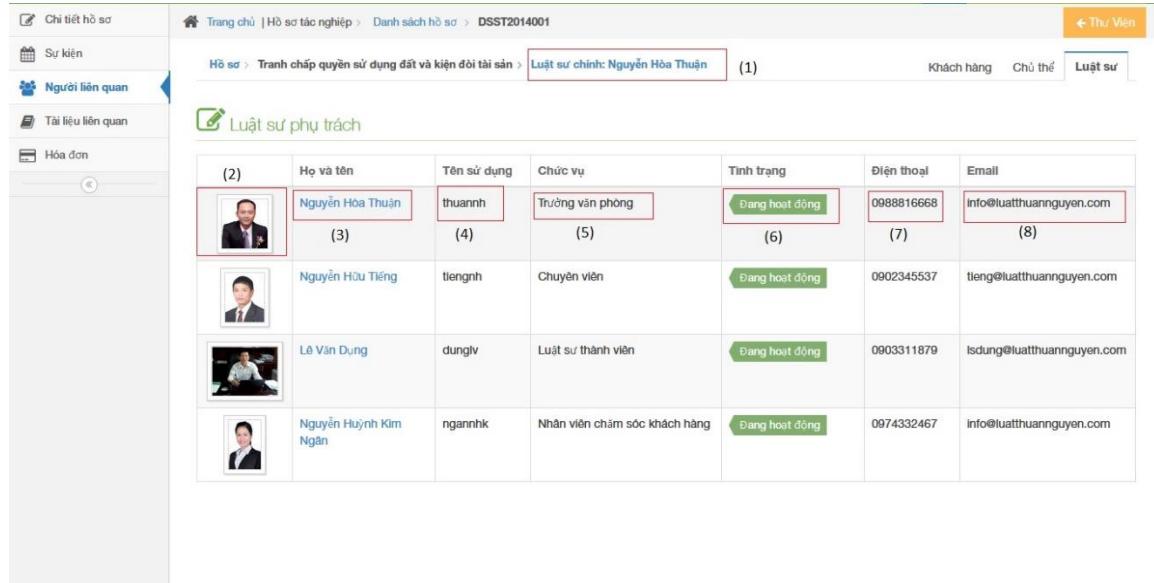


Figure 4-45: List lawyer related image

No	Object/Control Name	Type	Required	Description
1	“Luật sư chính”	Label	Yes	View the name main lawyer in charge of case
2	Image of staff	Picture	Yes	Click to show popup detail of staff
3	“Họ và tên”	Link	Yes	Click to show popup detail of staff
4	“Tên sử dụng”	Label	Yes	Username of staff

5	“Chức vụ”	Label	Yes	Role of staff
6	“Tình trạng”	Label	Yes	Status of staff
7	“Điện thoại”	Label	Yes	Phone number of staff
8	“Email”	Label	Yes	Email of staff

#### 4.3.10.3.4.1.2. Sequence diagram

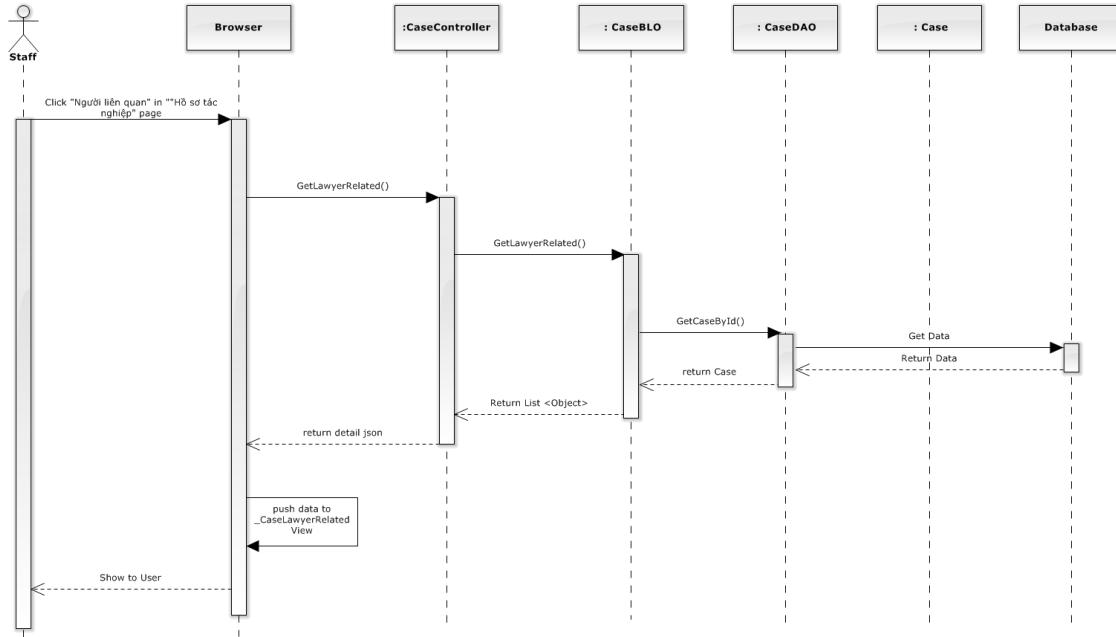


Figure 4-46: List lawyer related sequence diagram

#### 4.3.10.3.4.2. Add lawyer related

##### 4.3.10.3.4.2.1. Screen design

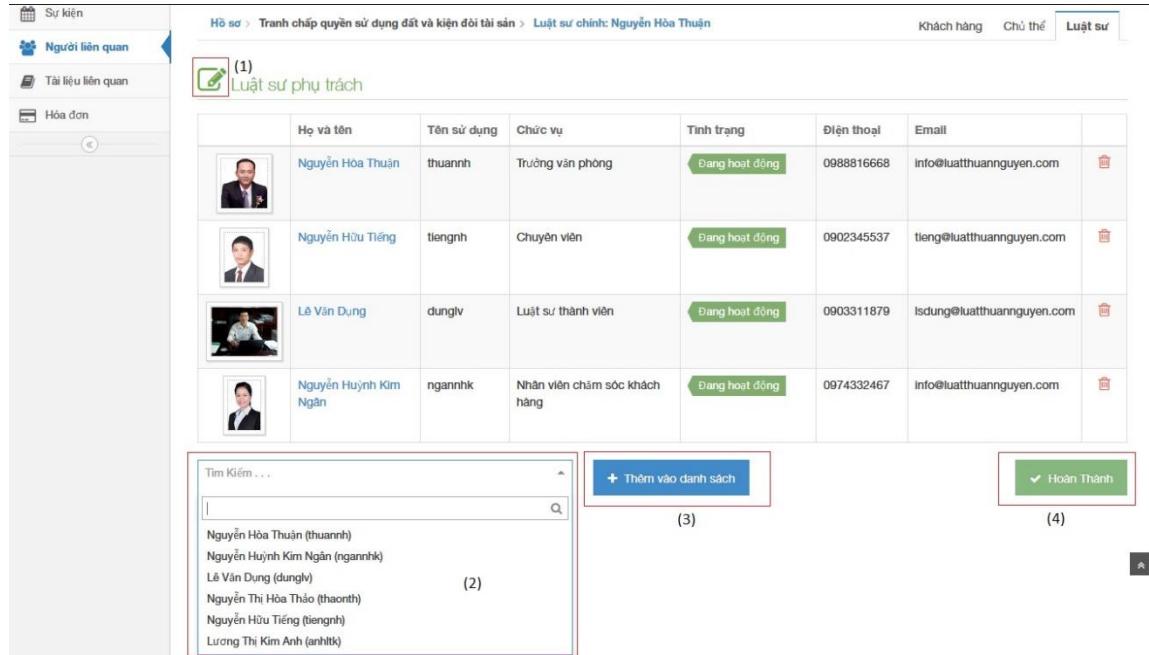


Figure 4-47: Add lawyer related image

No	Object/Control Name	Type	Required	Description
1	Edit	Button	Yes	Must be click to edit lawyer related
2	List of staff	Combo box	Yes	Select the name will be add to lawyer related
3	“Thêm vào danh sách”	Button	Yes	Click to add new lawyer related

4	“Hoàn thành”	Button	Yes	Click to finish add new lawyer related
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#### 4.3.10.3.4.2.2. Sequence diagram

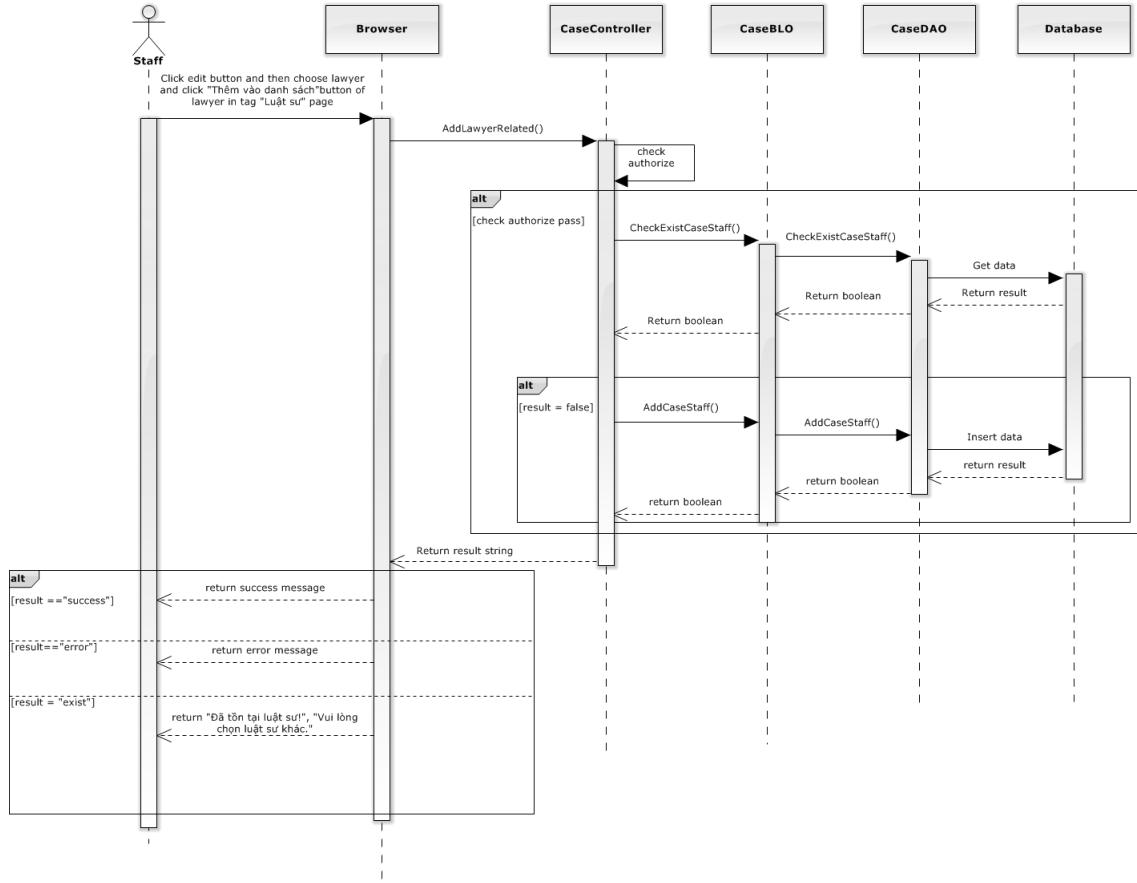


Figure 4-48: Add lawyer related sequence diagram

#### 4.3.10.3.4.3. Delete lawyer related

##### 4.3.10.3.4.3.1. Screen design

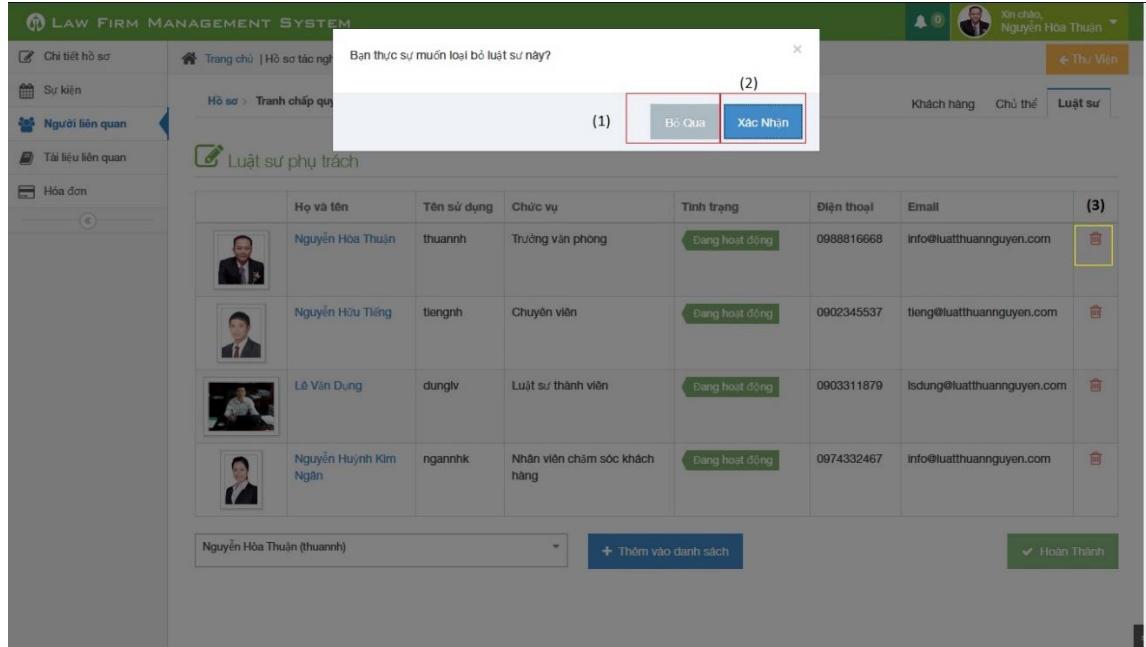


Figure 4-49: Delete lawyer related image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close delete lawyer related
2	“Xác nhận”	Button	Yes	Click to confirm delete lawyer related
3	Trash	Button	Yes	Click to show pop up delete lawyer related

#### 4.3.10.3.4.3.2. Sequence diagram

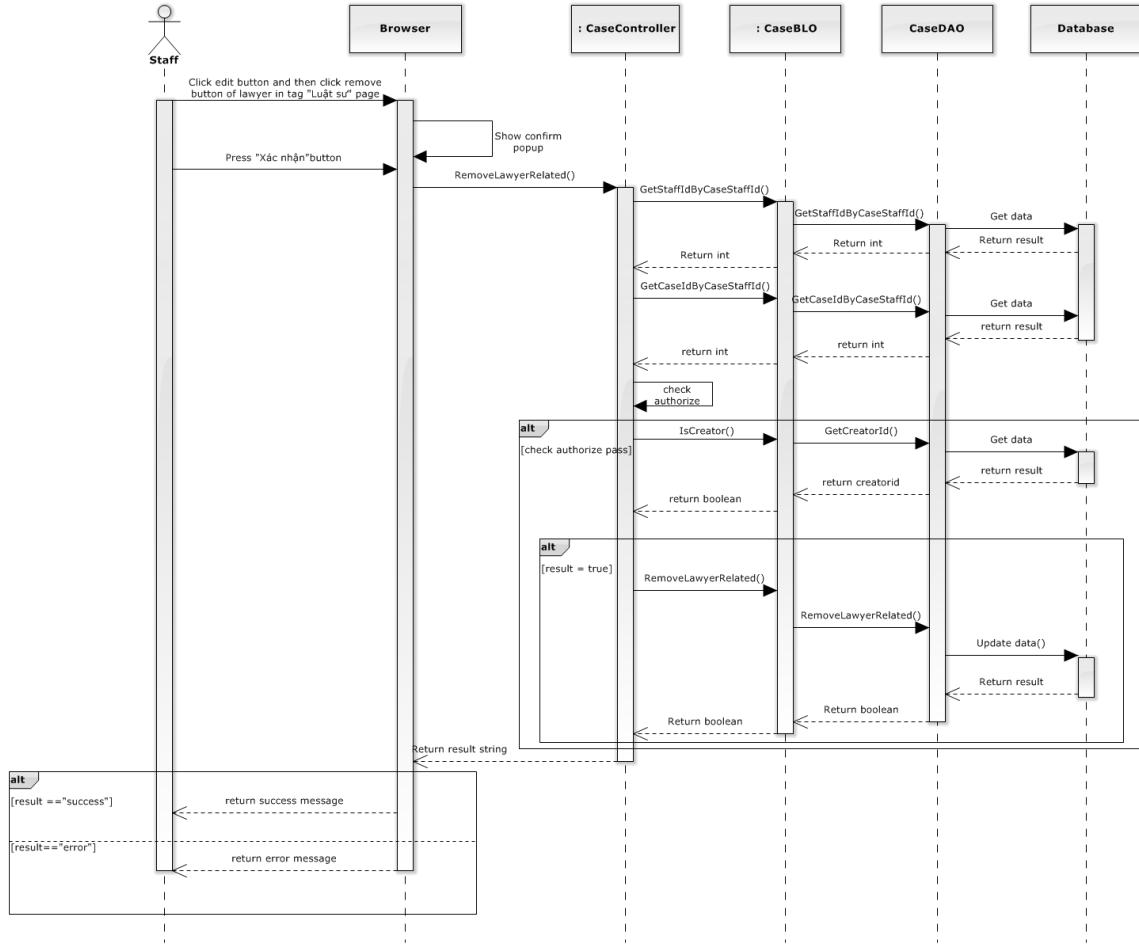


Figure 4-50: Delete lawyer related sequence diagram

#### 4.3.10.3.5. Manage Customer Related

##### 4.3.10.3.5.1. List customer related

###### 4.3.10.3.5.1.1. Screen design



Figure 4-51: List customer related image

No	Object/Control Name	Type	Required	Description
1	“Họ và tên”	Link	Yes	Click to show popup detail of customer
2	List all customer related	Table	Yes	List all customer related

#### 4.3.10.3.5.1.2. Sequence diagram

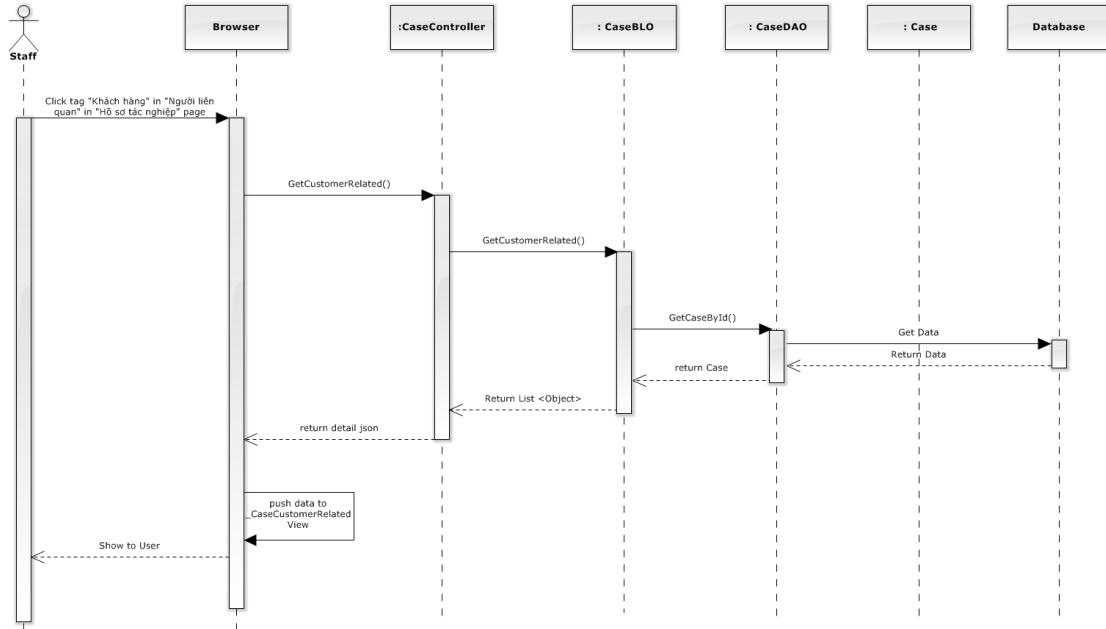


Figure 4-52: List customer related sequence diagram

#### 4.3.10.3.5.2. Add customer related

##### 4.3.10.3.5.2.1. Screen design

The screenshot shows a web application interface for adding customer-related data. At the top, there is a navigation bar with links: Hồ sơ > Tranh chấp quyền sử dụng đất và kiện đòi tài sản > Luật sư chính: Nguyễn Hòa Thuận. On the right, there are tabs: Khách hàng, Chủ thể, Luật sư.

The main form has the following fields:

Họ và tên	Người đại diện	Nhóm	Địa chỉ	Điện thoại
Nguyễn Thị Hoa	Nguyễn Thị Huệ	Cá nhân	81 Đinh Bộ Lĩnh, P.26, Q.Bình Thạnh, HCM	0982885334

Below the table are several buttons and a search dropdown:

- (1) A button labeled '+ Tạo Khách hàng'.
- (2) A search dropdown labeled 'Tim Kiếm ...' with the value 'Vương'. Below it, suggestions are listed: 'Vương Thùy Dương (30A ấp Thống Nhất I, Tân Thới Nhì, Hóc Môn)' and 'Hoàng Văn Vương (79 nguyễn huê p2 tpvl)'.
- (3) A button labeled '+ Thêm vào danh sách'.
- (4) A button labeled '✓ Hoàn Thành'.
- (5) A small icon representing a trash can.

Figure 4-53: Add customer related image

Capstone Project: LFMS

No	Object/Control Name	Type	Required	Description
1	Edit	Button	Yes	Must be click to edit customer related
2	“Tạo khách hàng”	Button	Yes	Click to create new customer
3	List of customer	Combo box	Yes	Select the name will be add to customer related
4	“Thêm vào danh sách”	Button	Yes	Click to add new customer related
5	“Hoàn thành”	Button	Yes	Click to finish add new customer related

#### 4.3.10.3.5.2.2. Sequence diagram

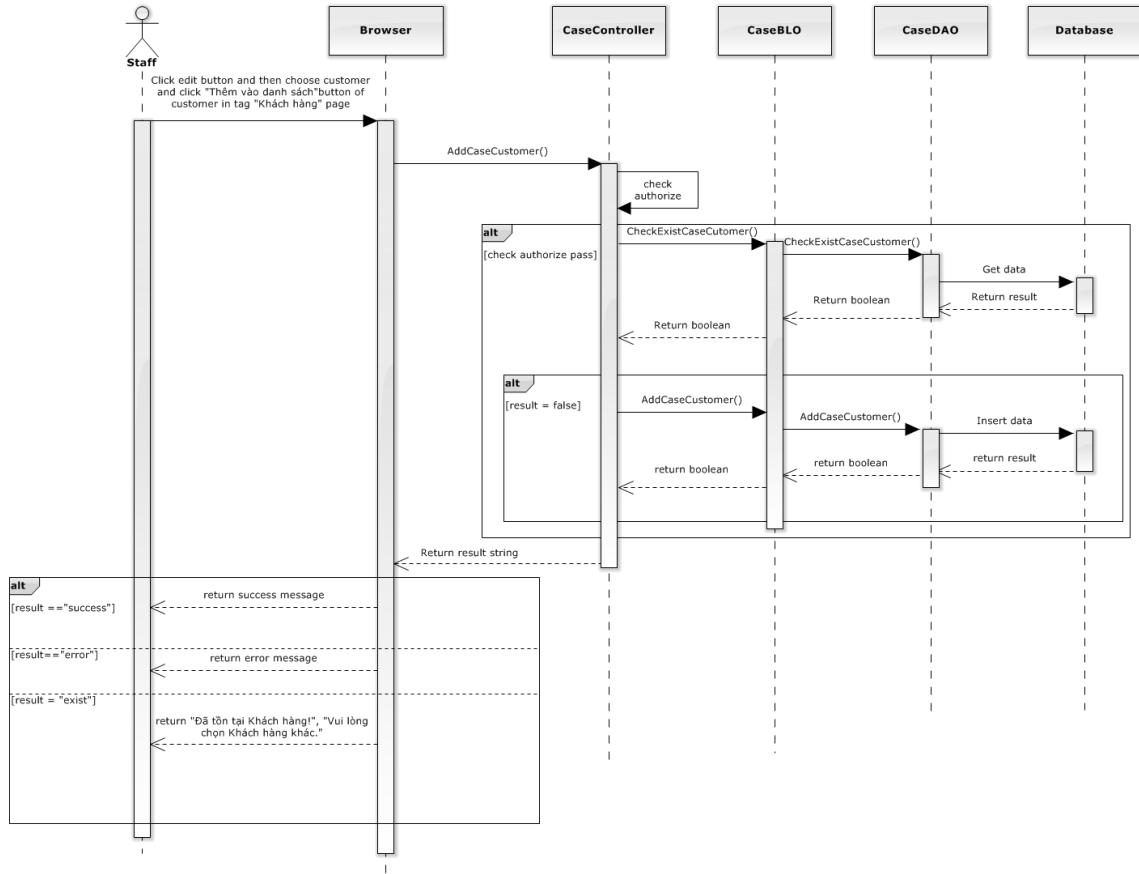


Figure 4-54: Add customer related sequence diagram

#### 4.3.10.3.5.3. Delete customer related

##### 4.3.10.3.5.3.1. Screen design

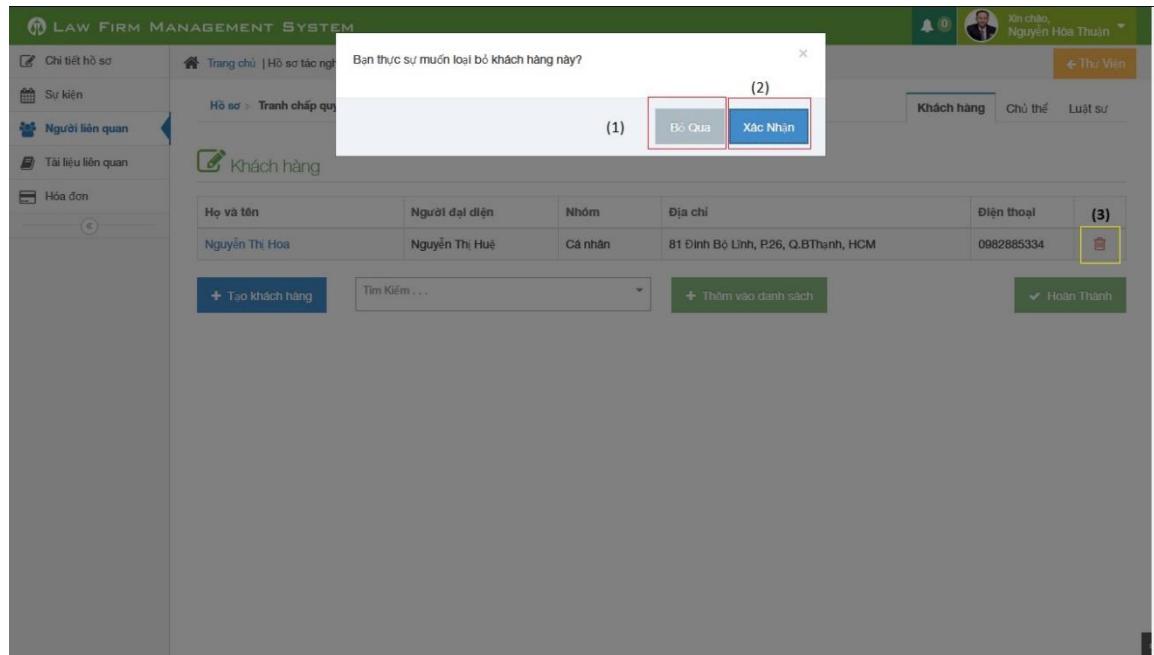


Figure 4-55: Delete customer related image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close delete customer related
2	“Xác nhận”	Button	Yes	Click to confirm delete customer related
3	Trash	Button	Yes	Click to show pop up delete customer related

#### 4.3.10.3.5.3.2. Sequence diagram

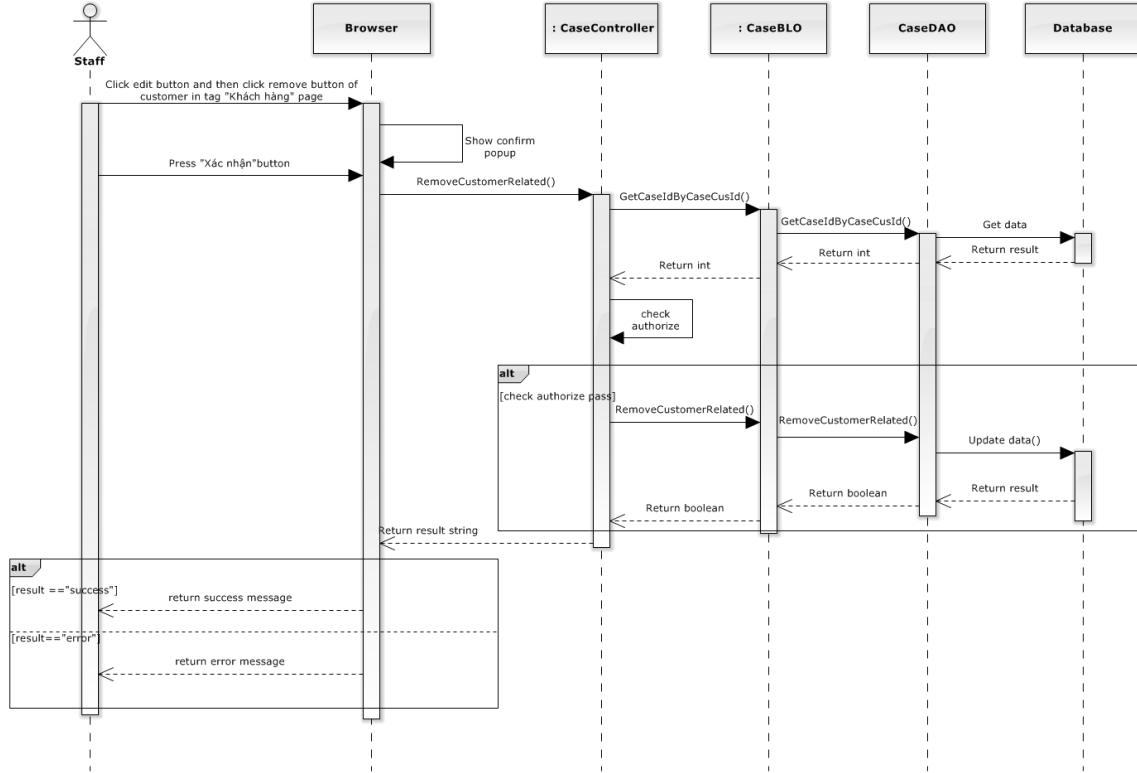


Figure 4-56: Delete customer related image

#### 4.3.10.3.6. Manage Subject Related

##### 4.3.10.3.6.1. View subject related

###### 4.3.10.3.6.1.1. Screen design

Họ và tên	Tư cách tố tụng	Địa chỉ	Điện thoại	Email
Nguyễn Văn Lượng	Bị đơn	Cẩm Phả, Xuân Mỹ, Cẩm Mỹ, Đà Nẵng		
Nguyễn Công Bằng	Người ủy quyền	35 QL 13, P26, Q.Bình Thạnh, HCM		

Figure 4-57: View subject related image

No	Object/Control Name	Type	Required	Description
1	List all subject related	Table	Yes	List all subject related

#### 4.3.10.3.6.1.2. Sequence diagram

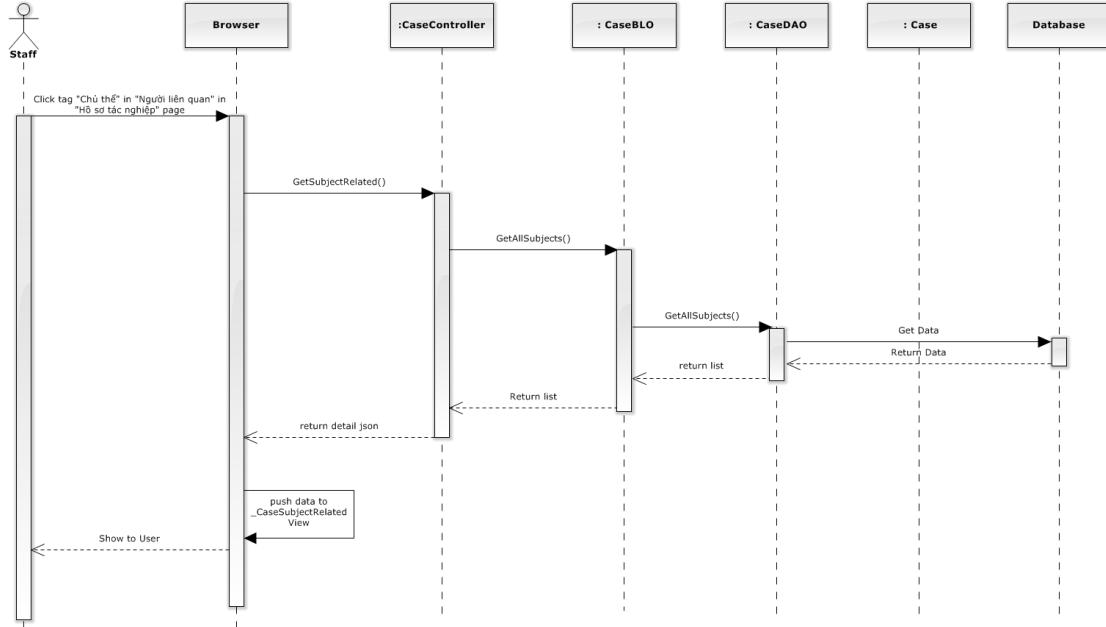


Figure 4-58: View subject related sequence diagram

#### 4.3.10.3.6.2. Add subject related

##### 4.3.10.3.6.2.1. Screen design

The screenshot shows a web application interface for adding subject-related information. At the top, there is a breadcrumb navigation: Hồ sơ > Tranh chấp quyền sử dụng đất và kiện đòi tài sản > Luật sư chính: Nguyễn Hòa Thuận. On the right, there are tabs: Khách hàng, Chủ thể (highlighted), and Luật sư.

The main area displays a table of existing subject-related contacts:

Họ và tên	Tư cách tổ tụng	Địa chỉ	Điện thoại	Email	
Nguyễn Văn Lương	Bị đơn	Cẩm Phả, Xuân Mỹ, Cẩm Mỹ, Đà Nẵng			
Nguyễn Công Bằng	Người ủy quyền	35 QL 13, P26, Q.Bình Thạnh, HCM			

Below the table are three numbered callouts:

- (1) A button labeled "+ Tạo chủ thể" (Create subject).
- (2) A button labeled "Hoàn Thành" (Complete) with a checkmark icon.
- (3) A modal window titled "Thông tin chủ thể" (Subject information) containing fields for Name, Address, Phone, Email, and a "Thêm mới" (New) button.

The modal window fields are labeled as follows:

- (4) Tên chủ thể\*
- (5) Tư cách tổ tụng\*
- (6) Địa chỉ\*
- (7) Điện thoại\*
- (8) Email\*
- (9)
- (10)

Figure 4-59: Add subject related image

No	Object/Control Name	Type	Required	Description
1	Edit	Button	Yes	Must be click to edit subject related
2	“Tạo chủ đề”	Button	Yes	Click to open pop-up create new subject
3	“Hoàn thành”	Button	Yes	Click to finish add new subject related
4	“Tên chủ đề”	Textbox	Yes	Name of subject
5	“Điện thoại”	Textbox	Yes	Phone of subject
6	“Tư cách tố tụng”	Textbox	Yes	<i>litigation capacity of subject</i>
7	“Email”	Textbox	Yes	Email of subject
8	“Địa chỉ”	Textbox	Yes	Address of subject
9	“Đóng”	Button	Yes	Click to close pop-up add new subject
10	“Thêm mới”	Button	Yes	Click to add new subject

#### 4.3.10.3.6.2.2. Sequence diagram

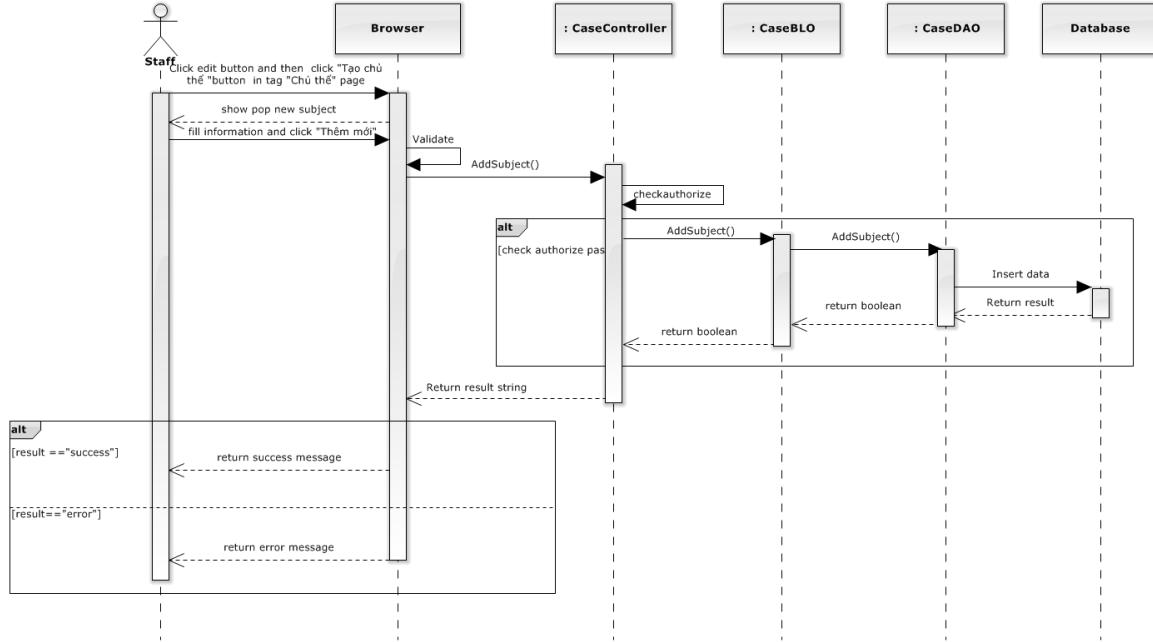


Figure 4-60: Add subject related sequence diagram

#### 4.3.10.3.6.3. Update subject related

##### 4.3.10.3.6.3.1. Screen design

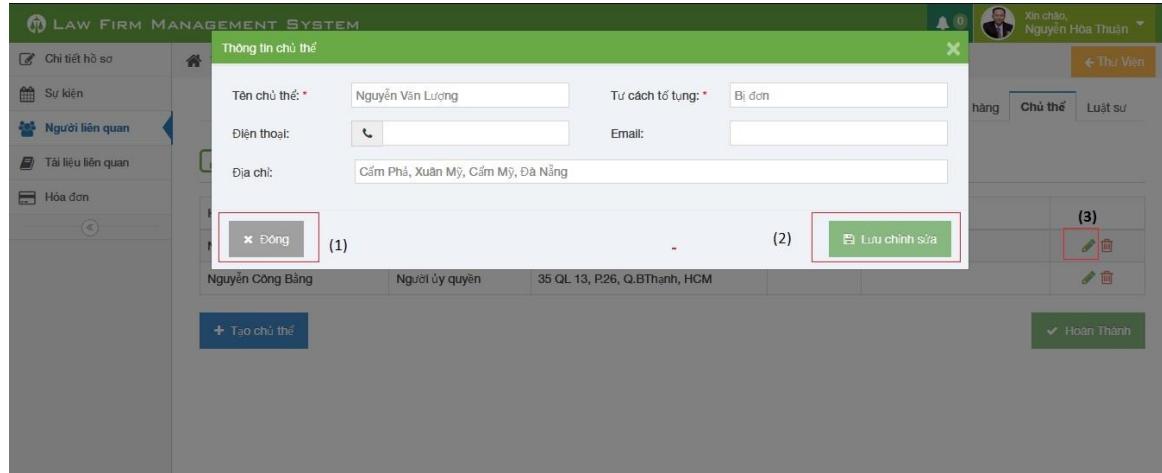


Figure 4-61: Update subject related image

No	Object/Control Name	Type	Required	Description
1	“Đóng”	Button	Yes	Click to close update subject related
2	“Lưu chỉnh sửa”	Button	Yes	Click to confirm update subject related
3	Edit	Icon	Yes	Click to show pop up update subject related

#### 4.3.10.3.6.3.2. Sequence diagram

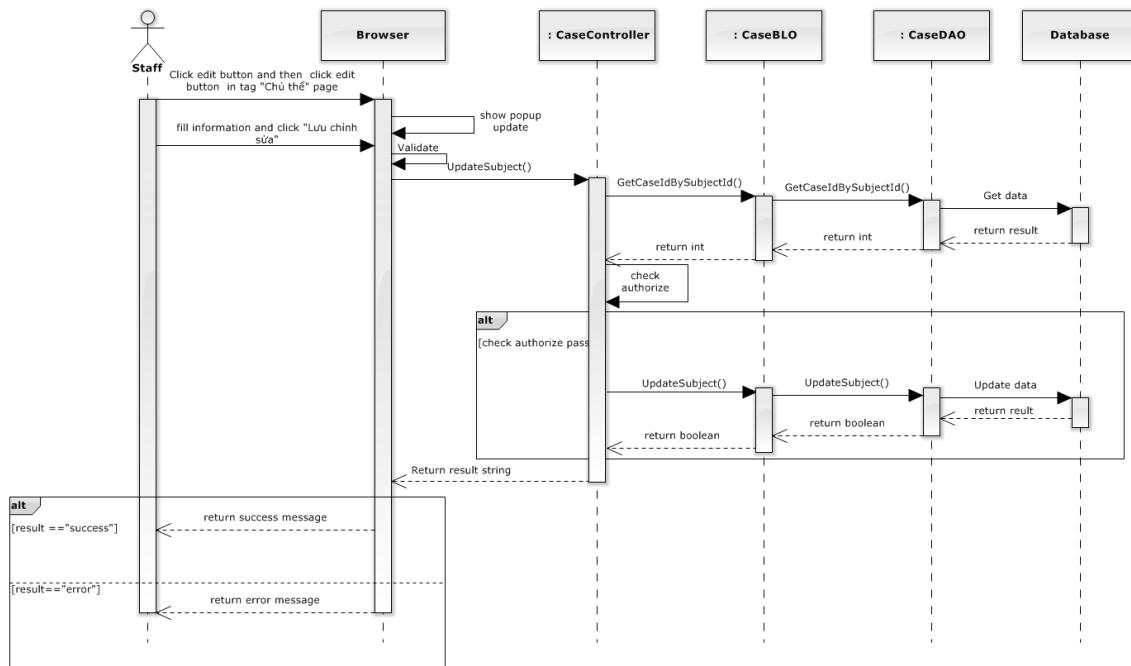


Figure 4-62: Update subject related sequence diagram

#### 4.3.10.3.6.4. Delete subject related

##### 4.3.10.3.6.4.1. Screen design

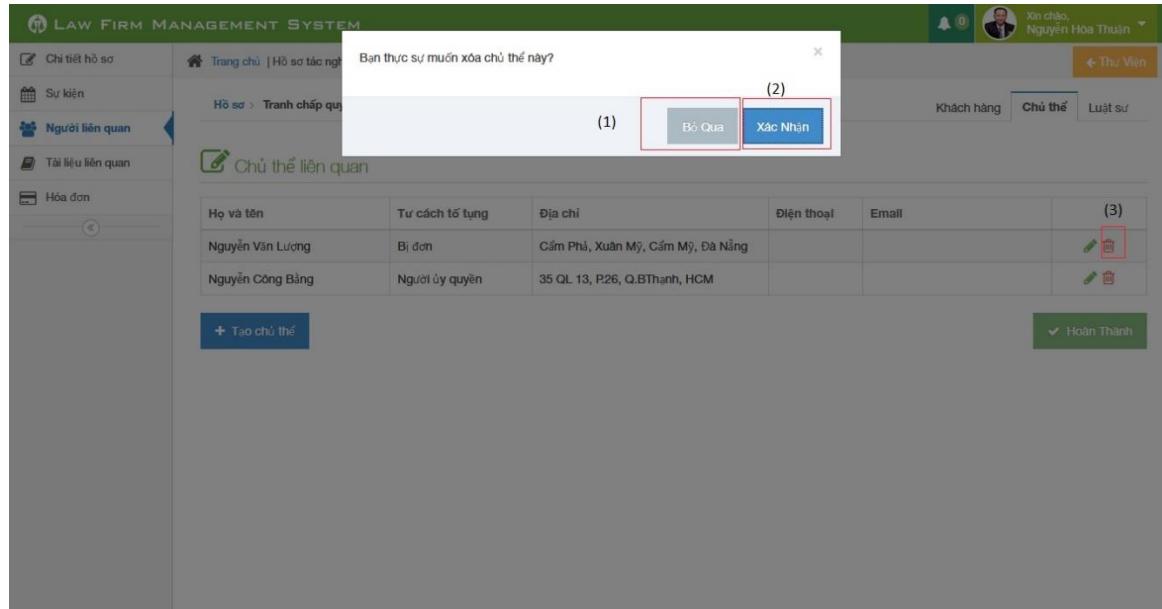


Figure 4-63: Delete subject related image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close delete subject related
2	“Xác nhận”	Button	Yes	Click to confirm delete subject related
3	Trash	Button	Yes	Click to show pop up delete subject related

#### 4.3.10.3.6.4.2. Sequence diagram

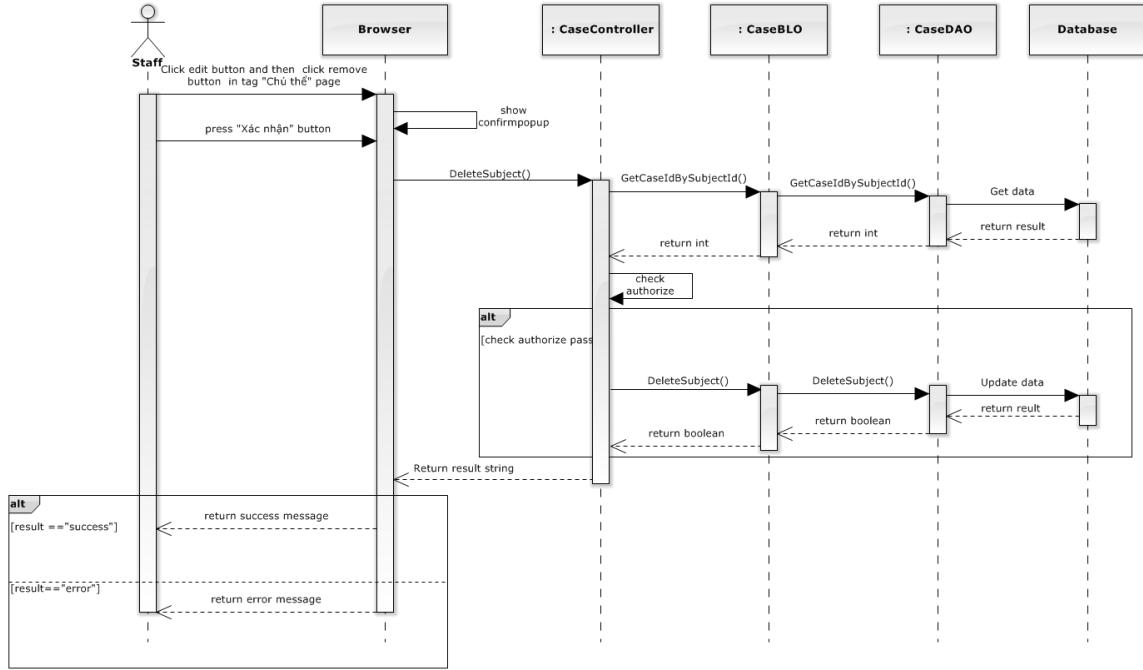


Figure 4-64: Delete subject related sequence diagram

#### 4.3.10.3.7. Manage Used Service

##### 4.3.10.3.7.1. View used service

###### 4.3.10.3.7.1.1. Screen design

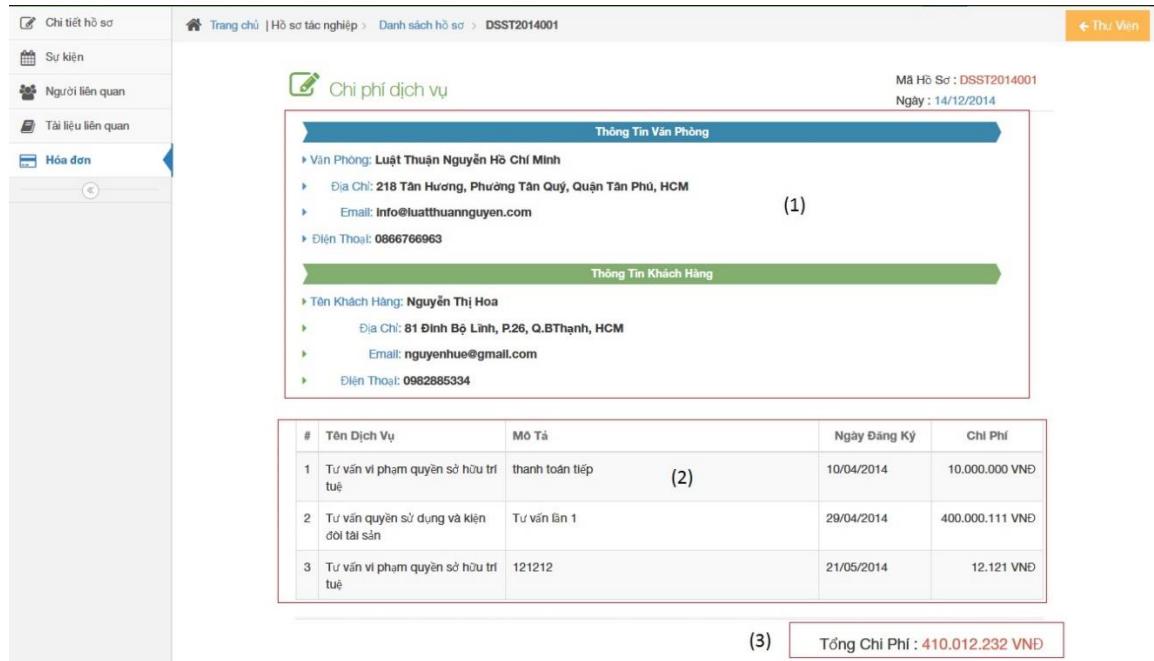


Figure 4-65: View used service image

No	Object/Control Name	Type	Required	Description
1	List all customer and office information	Table	Yes	List all customer and office information
2	List all used service	Table	Yes	List all used service
3	List total cost	Label	Yes	List total cost

#### 4.3.10.3.7.1.2. Sequence diagram

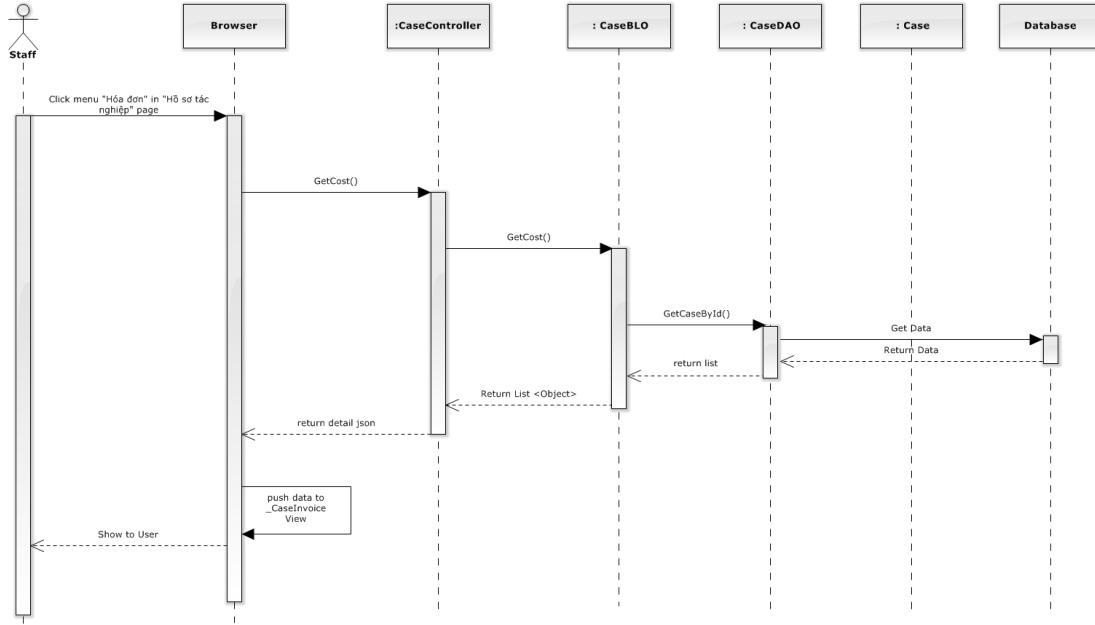


Figure 4-66: View used service sequence diagram

#### 4.3.10.3.7.2. Add invoice

##### 4.3.10.3.7.2.1. Screen design

(1) Chi phí dịch vụ

Mã Hồ Sơ : DSST2014001  
Ngày : 14/12/2014

**Thông Tin Văn Phòng**

- Văn Phòng: Luật Thuận Nguyễn Hồ Chí Minh
- Địa Chỉ: 218 Tân Hương, Phường Tân Quý, Quận Tân Phú, HCM
- Email: Info@luatthuannguyen.com
- Điện Thoại: 0866766963

**Thông Tin Khách Hàng**

- Tên Khách Hàng: Nguyễn Thị Hoa
- Địa Chỉ: 81 Đinh Bộ Lĩnh, P.26, Q.Bình Thạnh, HCM
- Email: nguyennhue@gmail.com
- Điện Thoại: 0982885334

#	Tên Dịch Vụ	Mô Tả	Ngày Đăng Ký	Chi Phí	
1	Tư vấn vi phạm quyền sở hữu trí tuệ	thanh toán tiếp	10/04/2014	10.000.000 VNĐ	
2	Tư vấn quyền sử dụng và kiện đòi tài sản	Tư vấn lần 1	29/04/2014	400.000.111 VNĐ	
3	Tư vấn vi phạm quyền sở hữu trí tuệ	121212	21/05/2014	12.121 VNĐ	

(2) + Thêm dịch vụ (3) ✓ Hoàn Thành

Tổng Chi Phí : 410.012.232 VNĐ

**Thêm Dịch Vụ:**

Loại Dịch Vụ: (4) Tên Dịch Vụ: (5)

Ngày Đăng Ký: (6) Chi Phí: (7)

Nội Dung: (8)

\* Đóng (9) (10) Thêm Dịch Vụ

Figure 4-67: Add invoice image

No	Object/Control Name	Type	Required	Description
1	Edit	Button	Yes	Must be click to edit invoice

2	“Thêm dịch vụ”	Button	Yes	Click to open pop-up create new invoice
3	“Hoàn thành”	Button	Yes	Click to finish add new invoice
4	“Loại dịch vụ”	Textbox	Yes	Type of service
5	“Tên dịch vụ”	Textbox	Yes	Name of service
6	“Ngày đăng ký”	Textbox	Yes	Registration Date
7	“Chi phí”	Textbox	Yes	Costs of invoice
8	“Nội dung”	Textbox	Yes	Content of invoice
9	“Đóng”	Button	Yes	Click to close pop-up add new invoice
10	“Thêm mới”	Button	Yes	Click to add new invoice

#### 4.3.10.3.7.2.2. Sequence diagram

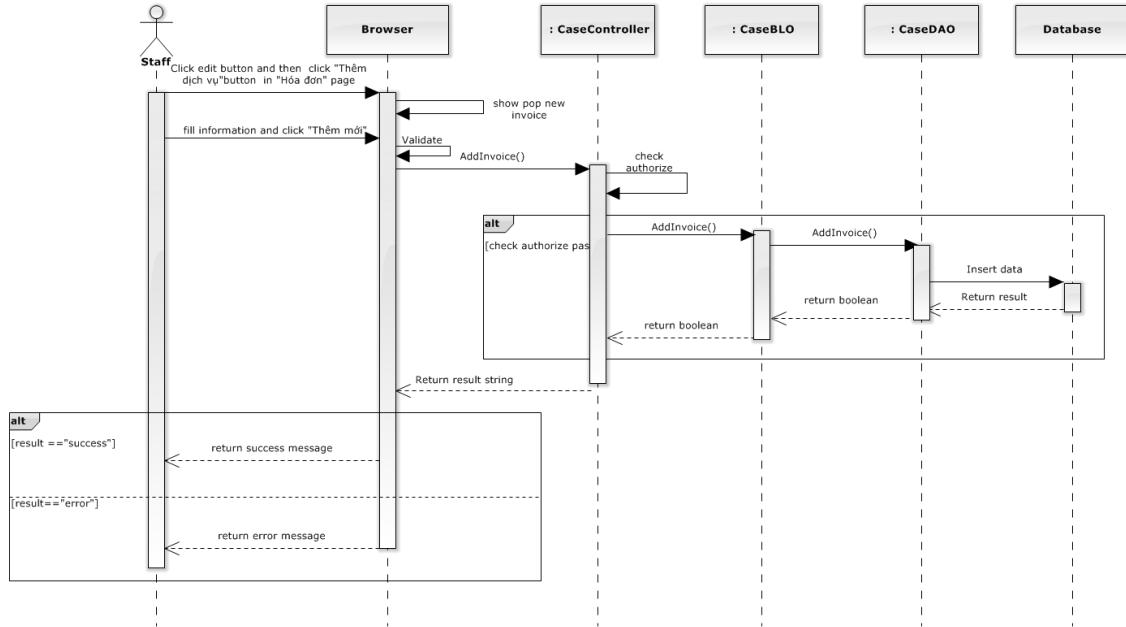


Figure 4-68: Add invoice sequence diagram

#### 4.3.10.3.7.3. Update invoice

##### 4.3.10.3.7.3.1. Screen design

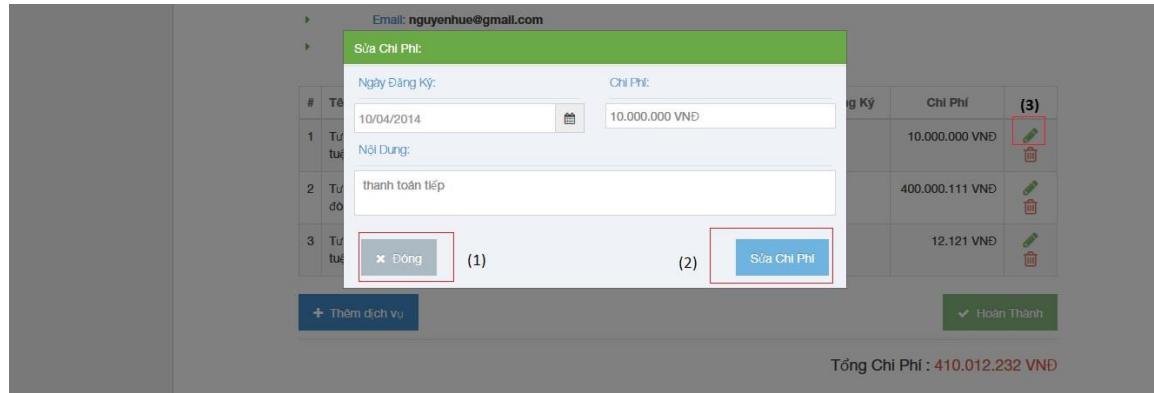


Figure 4-69: Update invoice image

No	Object/Control Name	Type	Required	Description
1	“Đóng”	Button	Yes	Click to close update invoice
2	“Sửa chi phí”	Button	Yes	Click to confirm update invoice
3	Edit	Icon	Yes	Click to show pop up update invoice

#### 4.3.10.3.7.3.2. Sequence diagram

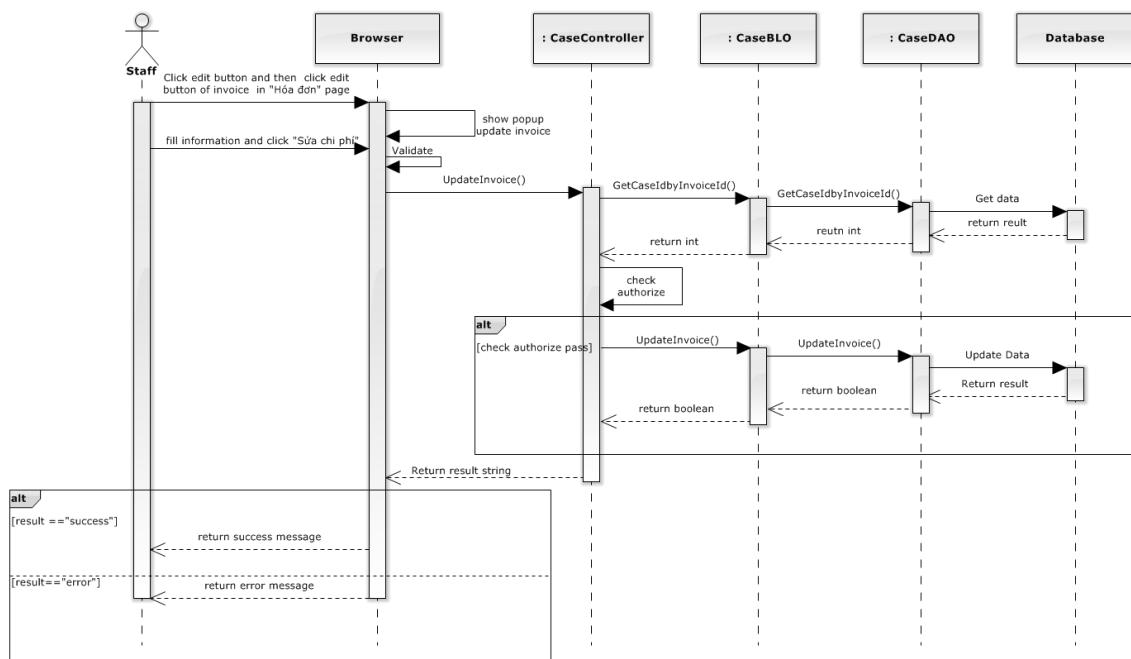


Figure 4-70: Update invoice sequence diagram

#### 4.3.10.3.7.4. Delete invoice

##### 4.3.10.3.7.4.1. Screen design

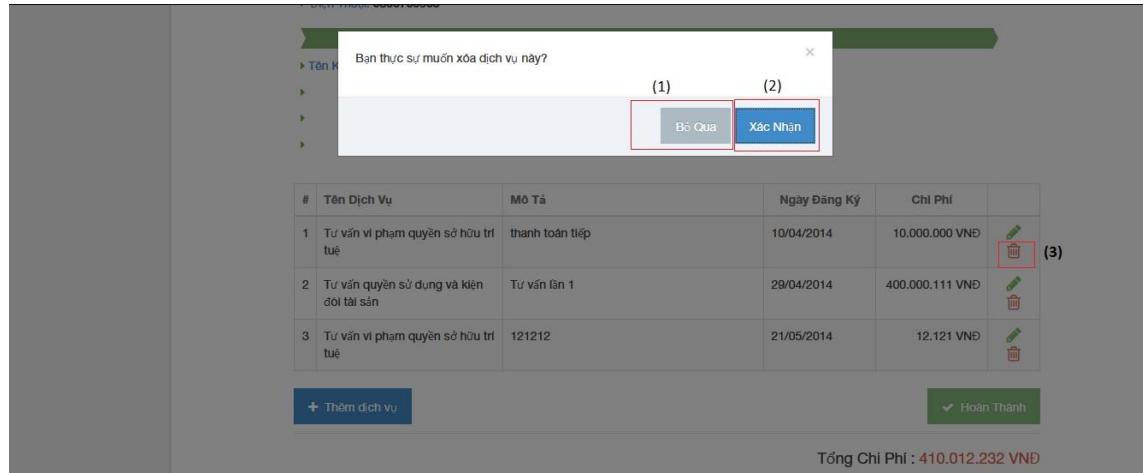


Figure 4-71: Delete invoice image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close delete invoice
2	“Xác nhận”	Button	Yes	Click to confirm delete invoice
3	Trash	Button	Yes	Click to show pop up delete invoice

#### 4.3.10.3.7.4.2. Sequence diagram

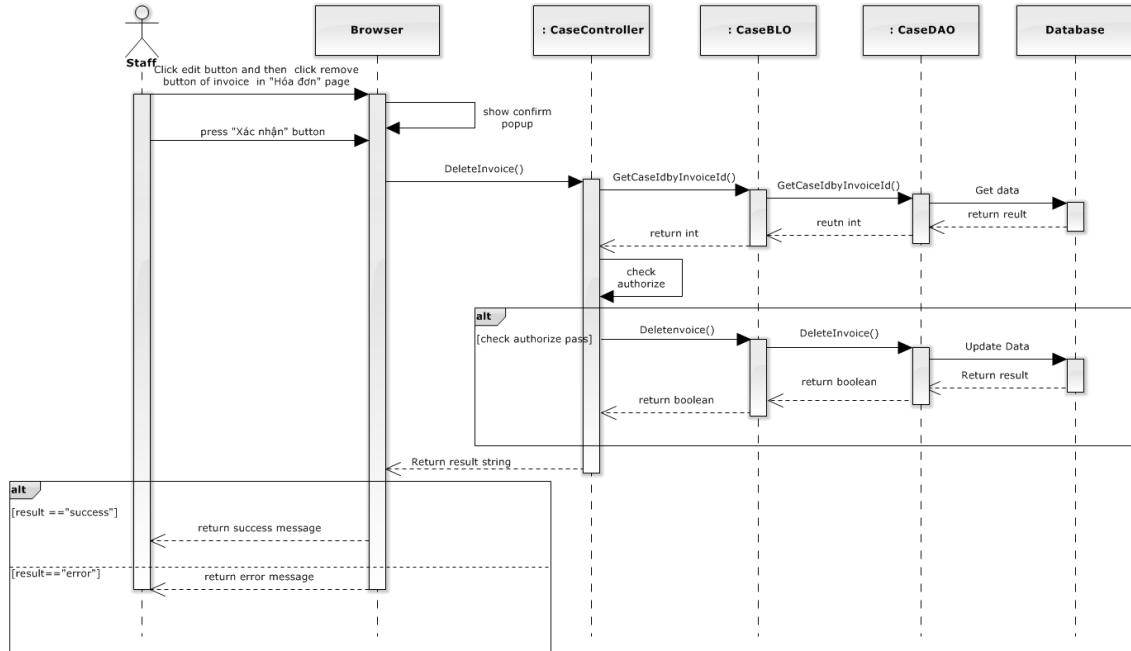


Figure 4-72: Delete invoice sequence diagram

#### 4.3.10.3.8. Manage Payment

##### 4.3.10.3.8.1. View payment

###### 4.3.10.3.8.1.1. Screen design

Hóa đơn thanh toán

#	Mô Tả	(1)	Ngày Thanh Toán	Số Tiền
01	demo9		09/09/2013	15.000.000 VND
11	demo8		01/01/2014	9.000.000 VND
21	Thanh toán tư vấn		29/04/2014	50.000.000 VND
31	demo10		05/05/2014	50.000.000 VND

(2)
Tổng Thanh Toán : 124.000.000 VND
  
Chưa Thanh Toán: 286.012.232 VND

Figure 4-73: View payment image

No	Object/Control Name	Type	Required	Description
1	List all payment information	Table	Yes	List all payment information
2	List total cost has paid and not has paid	Label	Yes	List total cost has paid and not has paid

#### 4.3.10.3.8.1.2. Sequence diagram

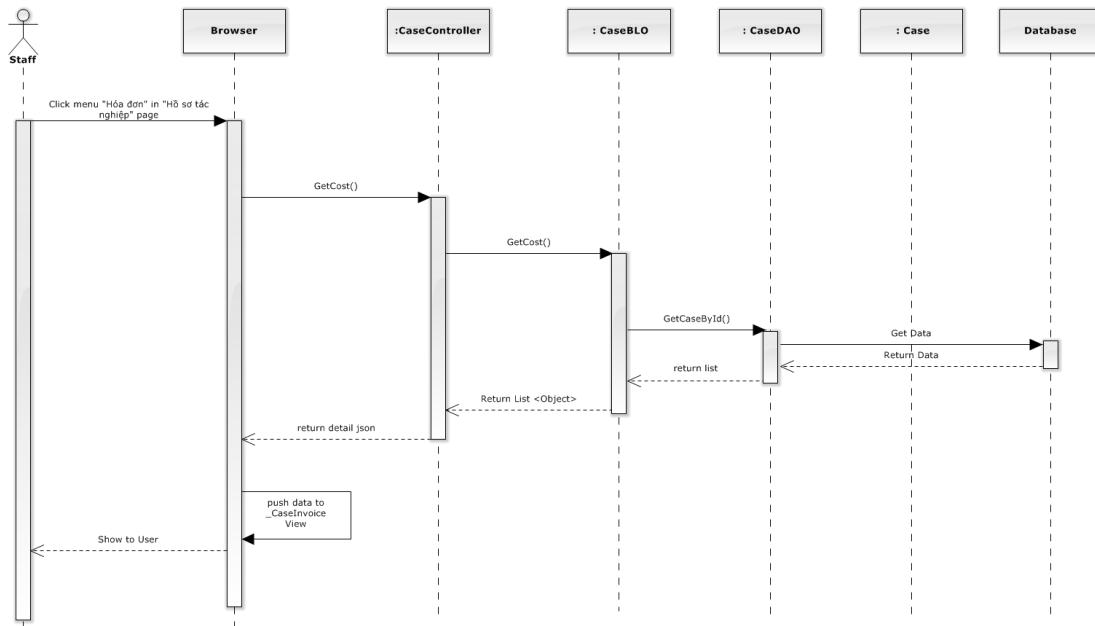


Figure 4-74: View payment sequence diagram

#### 4.3.10.3.8.2. Add payment

##### 4.3.10.3.8.2.1. Screen design

The screenshot shows a user interface for managing payments. At the top left is a logo with the number '1' and the text 'Hóa đơn thanh toán'. Below it is a table listing five existing payments with columns for ID, Description, Date, Amount, and edit/delete icons.

#	Mô Tả	Ngày Thanh Toán	Số Tiền
01	demo9	09/09/2013	15.000.000 VND
11	demo8	01/01/2014	9.000.000 VND
21	Thanh toán tư vấn	29/04/2014	50.000.000 VND
31	demo10	05/05/2014	50.000.000 VND

Below the table are two buttons: '(2) + Tạo thanh toán' on the left and '(3) ✓ Hoàn Thành' on the right. A summary at the bottom indicates a total payment of 124,000,000 VND and a balance of 286,012,232 VND.

The bottom section is a modal dialog titled 'Tạo Thanh Toán' (Create Payment). It contains fields for 'Ngày Thanh Toán' (Date) with value '14/12/2014' (4), 'Số Tiền' (Amount) with placeholder '(5)', and a 'Nội Dung' (Content) field with placeholder '(6)'. At the bottom are two buttons: '(7) ✗ Đóng' (Close) and '(8) ✓ Tạo thanh toán' (Create payment).

Figure 4-75: Add payment image

No	Object/Control Name	Type	Required	Description
1	Edit	Button	Yes	Must be click to edit payment
2	“Tạo thanh toán”	Button	Yes	Click to open pop-up create new payment
3	“Hoàn thành”	Button	Yes	Click to finish add new payment

4	“Ngày thanh toán”	Textbox	Yes	Day of payment
5	“Số tiền”	Textbox	Yes	Amount of payment
6	“Nội dung”	Textbox	Yes	Content of payment
7	“Đóng”	Button	Yes	Click to close pop-up add new payment
8	“Thêm mới”	Button	Yes	Click to add new payment

#### 4.3.10.3.8.2.2. Sequence diagram

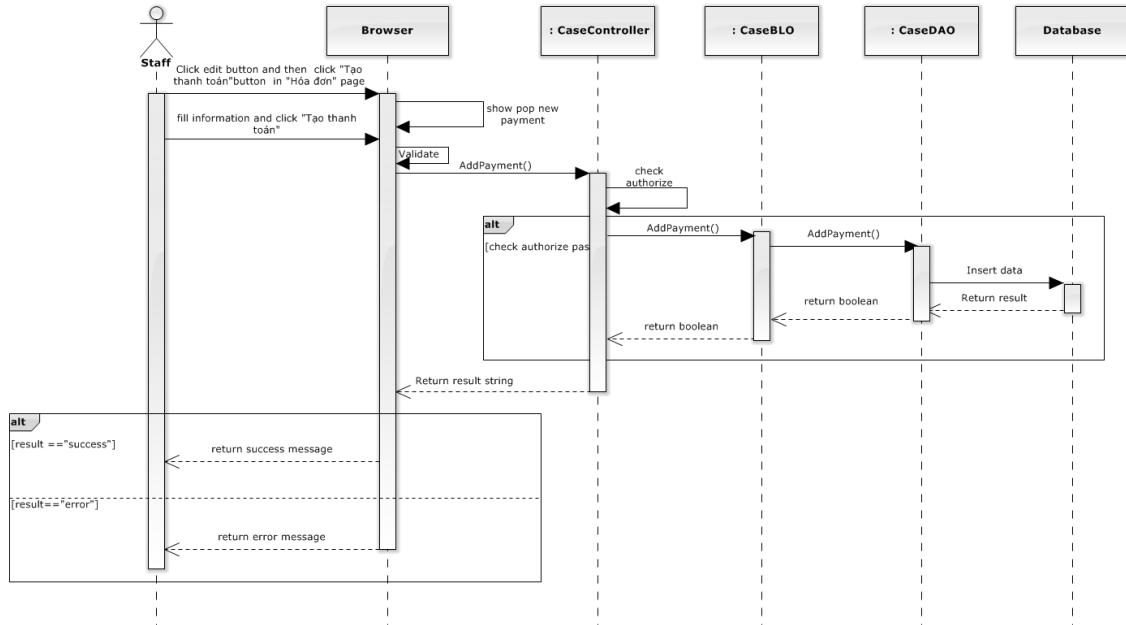


Figure 4-76: Add payment sequence diagram

#### 4.3.10.3.8.3. Update payment

##### 4.3.10.3.8.3.1. Screen design

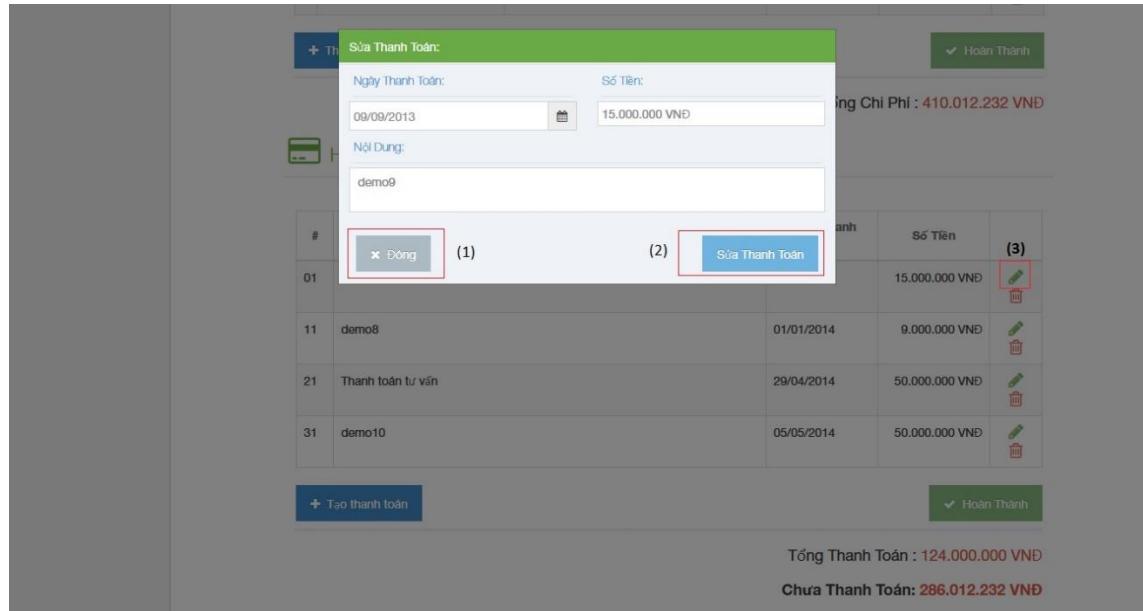


Figure 4-77: Update payment image

No	Object/Control Name	Type	Required	Description
1	“Đóng”	Button	Yes	Click to close update payment
2	“Sửa thanh toán”	Button	Yes	Click to confirm update payment
3	Edit	Icon	Yes	Click to show pop up update payment

#### 4.3.10.3.8.3.2. Sequence diagram

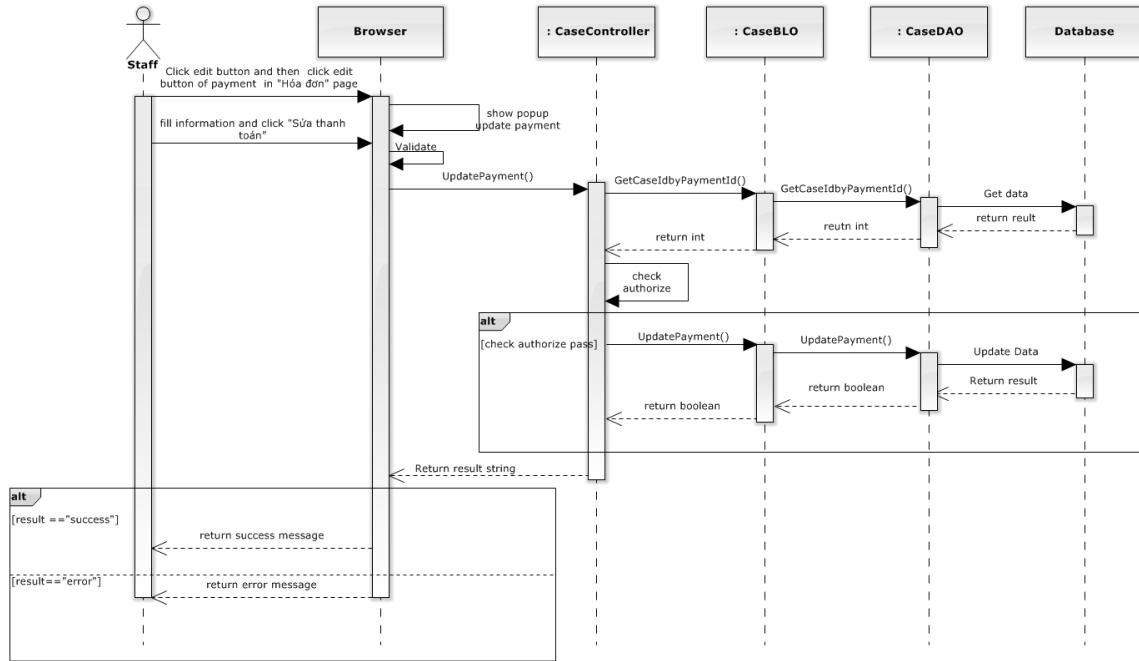


Figure 4-78: Update payment sequence diagram

#### 4.3.10.3.8.4. Delete payment

##### 4.3.10.3.8.4.1. Screen design

The screenshot shows a portion of the LFMS application interface. At the top, there is a confirmation dialog box with the title "+ Th" and the message "Bạn thực sự muốn xóa thanh toán này?". Below the dialog, a green button labeled "Hoàn Thành" is visible. In the center, a table displays a list of payments. The table has columns: #, Mô Tả, Ngày Thanh Toán, Số Tiền, and actions. The first row (index 01) has a red-bordered delete icon in the actions column. The second row (index 11) has a red-bordered delete icon. The third row (index 21) has a red-bordered delete icon. The fourth row (index 31) has a red-bordered delete icon. At the bottom of the table, there are buttons for "+ Tạo thanh toán" and "Hoàn Thành". Below the table, the total payment amount is shown as "Tổng Thanh Toán: 124.000.000 VNĐ" and the remaining amount as "Chưa Thanh Toán: 286.012.232 VNĐ".

#	Mô Tả	Ngày Thanh Toán	Số Tiền	
01	demo9	09/09/2013	15.000.000 VNĐ	
11	demo8	01/01/2014	9.000.000 VNĐ	
21	Thanh toán tư vấn	29/04/2014	50.000.000 VNĐ	
31	demo10	05/05/2014	50.000.000 VNĐ	

Figure 4-79: Delete payment image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close delete payment
2	“Xác nhận”	Button	Yes	Click to confirm delete payment
3	Trash	Button	Yes	Click to show pop up delete payment

#### 4.3.10.3.8.4.2. Sequence diagram

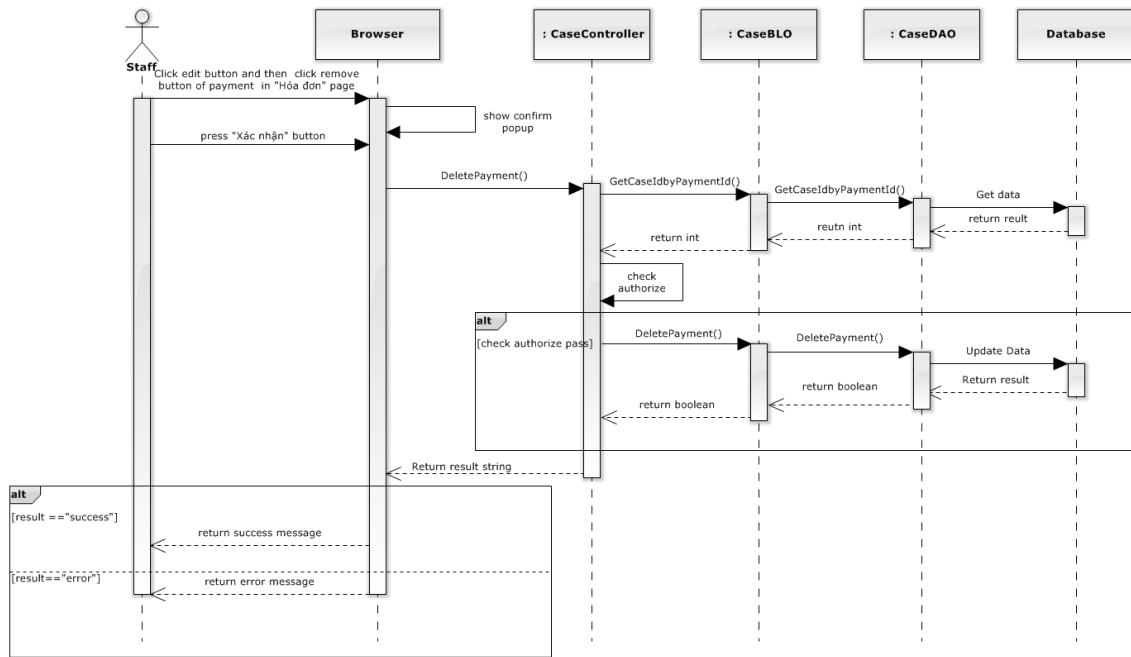


Figure 4-80: Delete payment sequence diagram

### 4.3.11. Manage Customer Group

#### 4.3.11.1. List customer group

##### 4.3.11.1.1. Class diagram

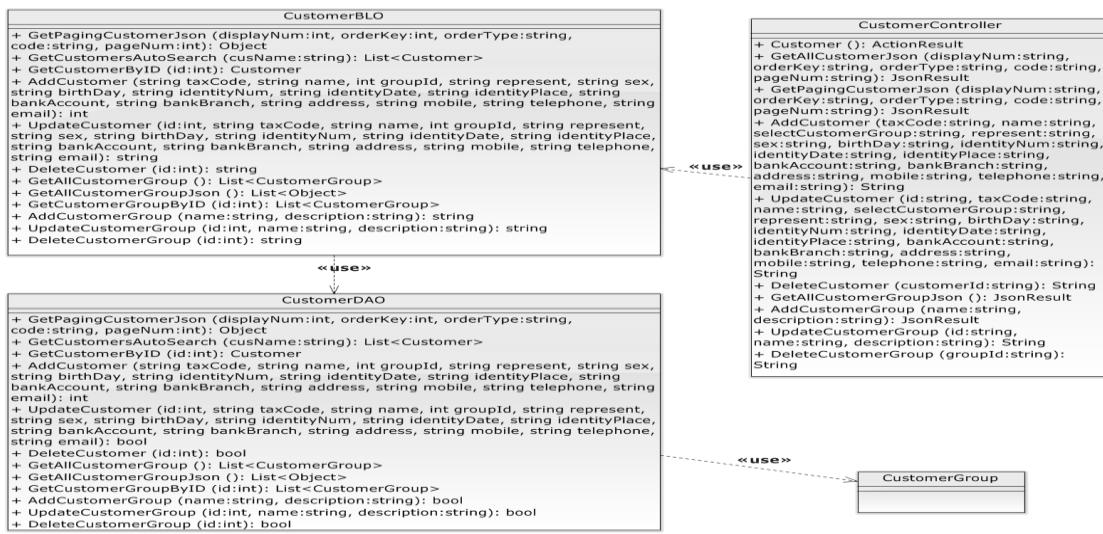


Figure 4-81: List customer group class diagram

##### 4.3.11.1.2. Screen design



Figure 4-82: List customer group image

No	Object/Control	Type	Required	Description
	Name			

Capstone Project: LFMS

1	Number of rows	Combo-box	Yes	Choose number of rows in table
2	Name customer group	Text	Yes	Show Customer group detail pop-up
3	Customer table	Table	Yes	List Customer group
4	Search	Textbox	Yes	Search customer group
5	View customer group detail	Icon	Yes	Show Customer group detail pop-up
6	Delete customer group	Icon	Yes	Delete customer group
7	Edit customer group	Icon	Yes	Show edit customer group pop-up
8	Paging	Button	Yes	Paging the customer group list

#### 4.3.11.1.3. Sequence diagram

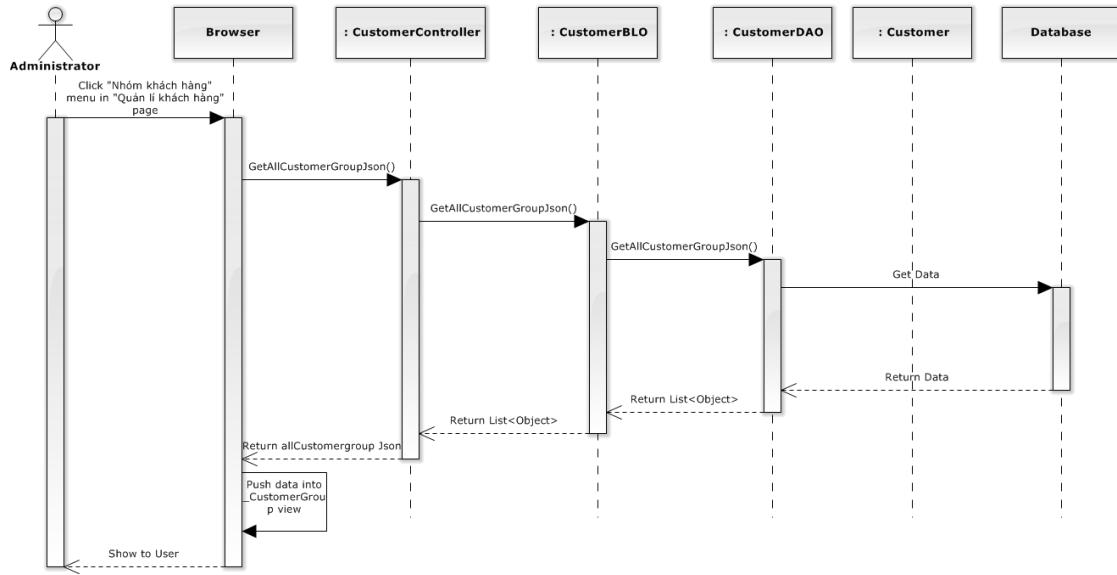


Figure 4-83: List customer group sequence diagram

#### 4.3.11.2. Add customer group

##### 4.3.11.2.1. Screen design

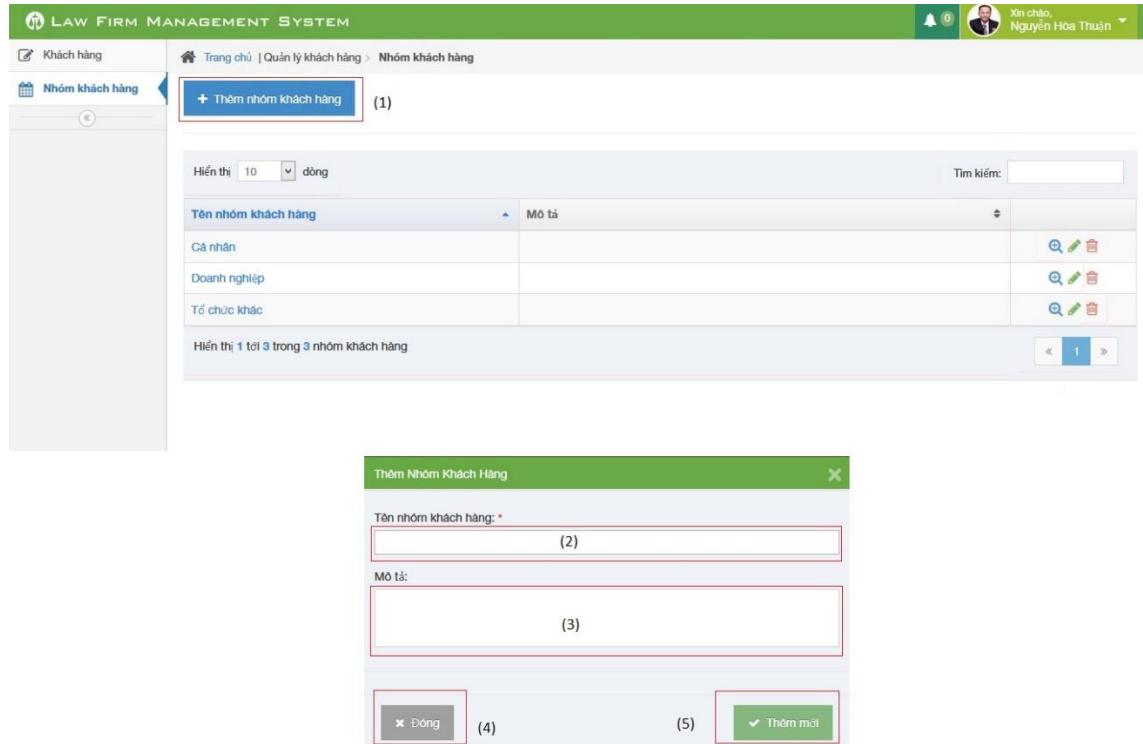


Figure 4-84: Add customer group image

No	Object/Control Name	Type	Required	Description
1	“Thêm nhóm khách hàng”	Button	Yes	Click to open pop-up create new customer group
2	“Tên nhóm khách hàng”	Textbox	Yes	Name of customer group

3	“Mô tả”	Textbox	Yes	Description of customer group
4	“Đóng”	Button	Yes	Click to close pop-up add new customer group
5	“Thêm mới”	Button	Yes	Click to add new customer group

#### 4.3.11.2.2. Sequence diagram

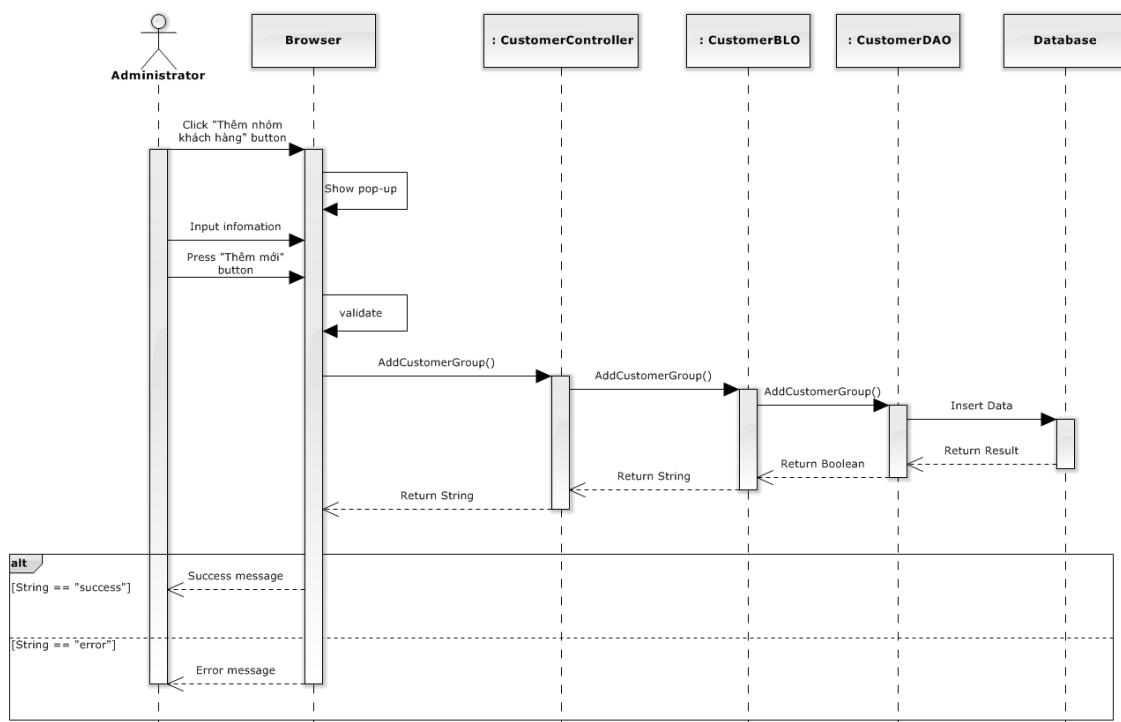


Figure 4-85: Add customer group sequence diagram

#### 4.3.11.3. Edit customer group

##### 4.3.11.3.1. Screen design

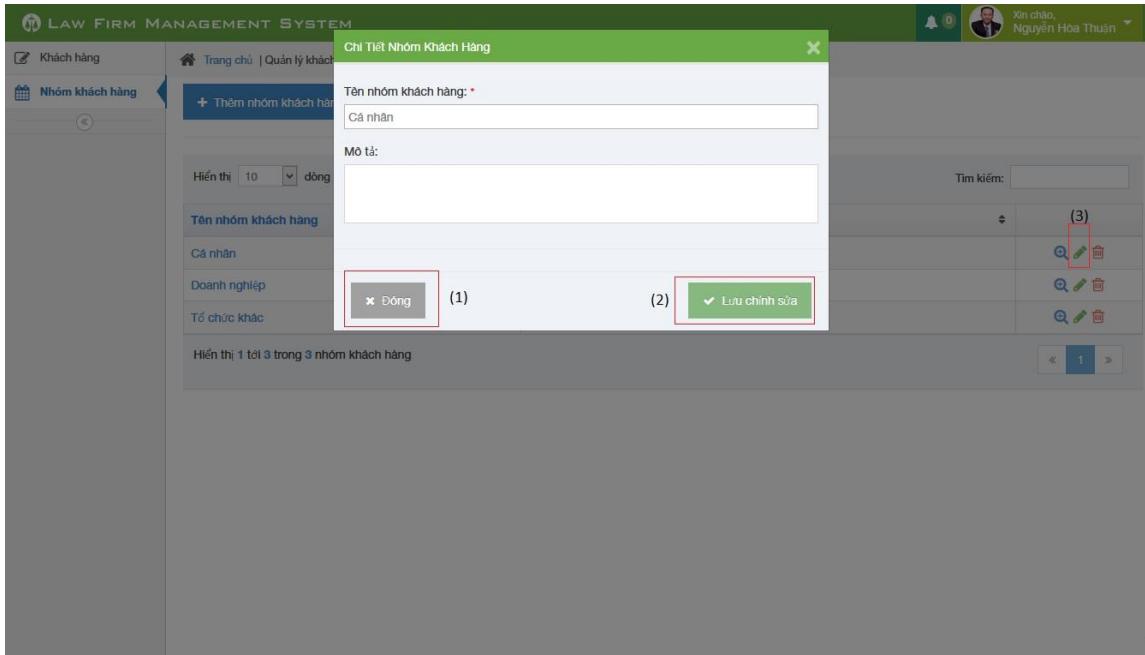


Figure 4-86: Edit customer group image

No	Object/Control Name	Type	Required	Description
1	“Đóng”	Button	Yes	Click to close update customer group
2	“Lưu chỉnh sửa”	Button	Yes	Click to confirm update customer group
3	Edit	Icon	Yes	Click to show pop up update customer group

### 4.3.11.3.2. Sequence diagram

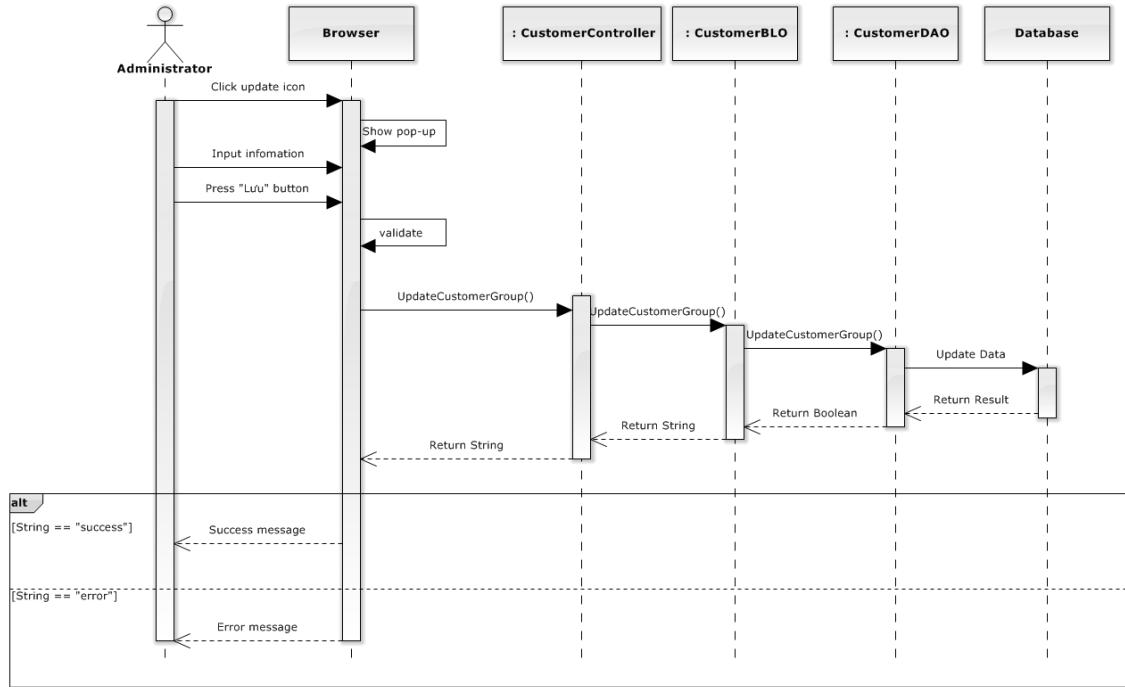


Figure 4-87: Edit customer group sequence diagram

### 4.3.11.4. Delete customer group

#### 4.3.11.4.1. Screen design



Figure 4-88: Delete customer group image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close delete customer group
2	“Xác nhận”	Button	Yes	Click to confirm delete customer group
3	Trash	Button	Yes	Click to show pop up delete customer group

#### 4.3.11.4.2. Sequence diagram

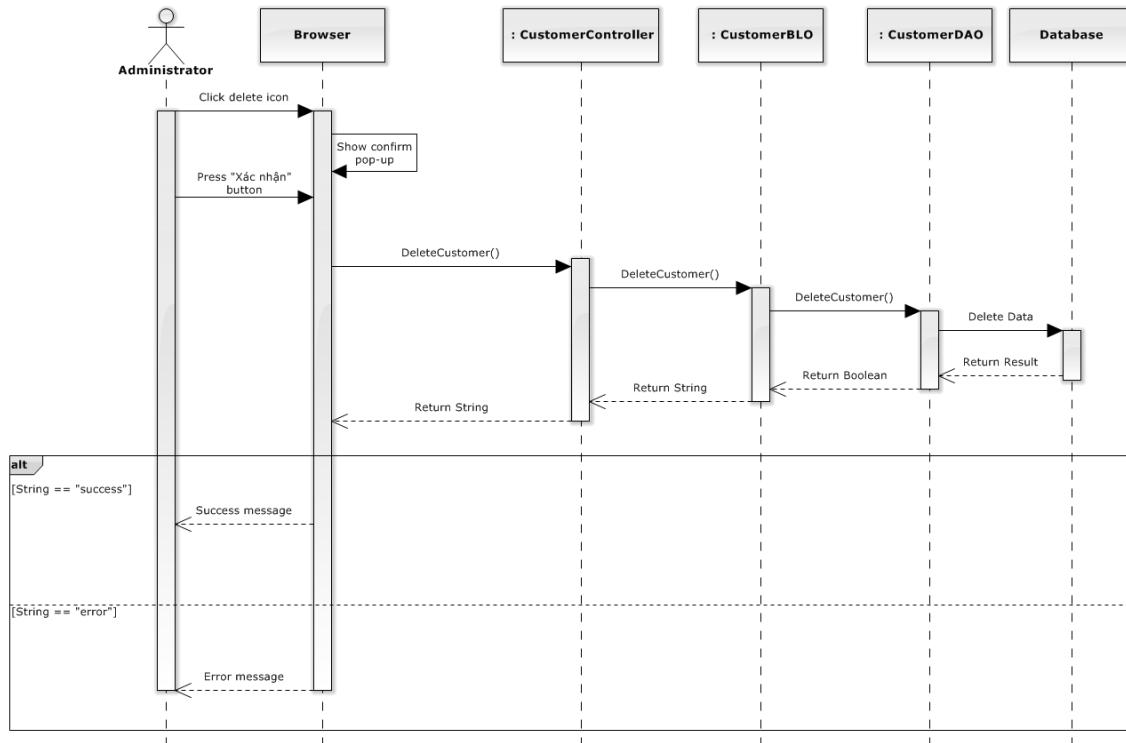


Figure 4-89: Delete customer group sequence diagram

## 4.3.12. Manage Customer

### 4.3.12.1. List customers

#### 4.3.12.1.1. Class diagram

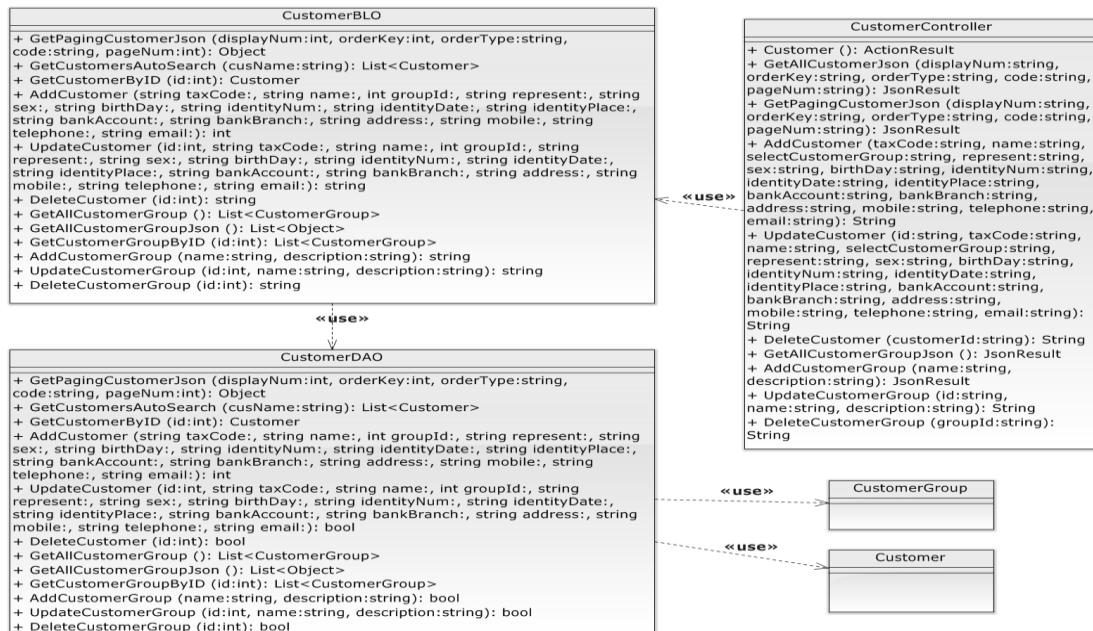


Figure 4-90: Manage customer class diagram

#### 4.3.12.1.2. Screen design



Figure 4-91: List customer image

No	Object/Control Name	Type	Required	Description
1	Thêm khách hàng	Button	Yes	Show Add new customer pop-up
2	Number of rows	Combo-box	Yes	Choose number of rows in table
3	Search	Textbox	Yes	Search customer
4	Customer table	Table	Yes	List Customer
5	View customer detail	Icon	Yes	Show Customer detail pop-up
6	Delete customer	Icon	Yes	Delete customer
7	Edit customer	Icon	Yes	Show edit customer pop-up
8	Paging	Button	Yes	Paging the customer list

#### 4.3.12.1.3. Sequence diagram

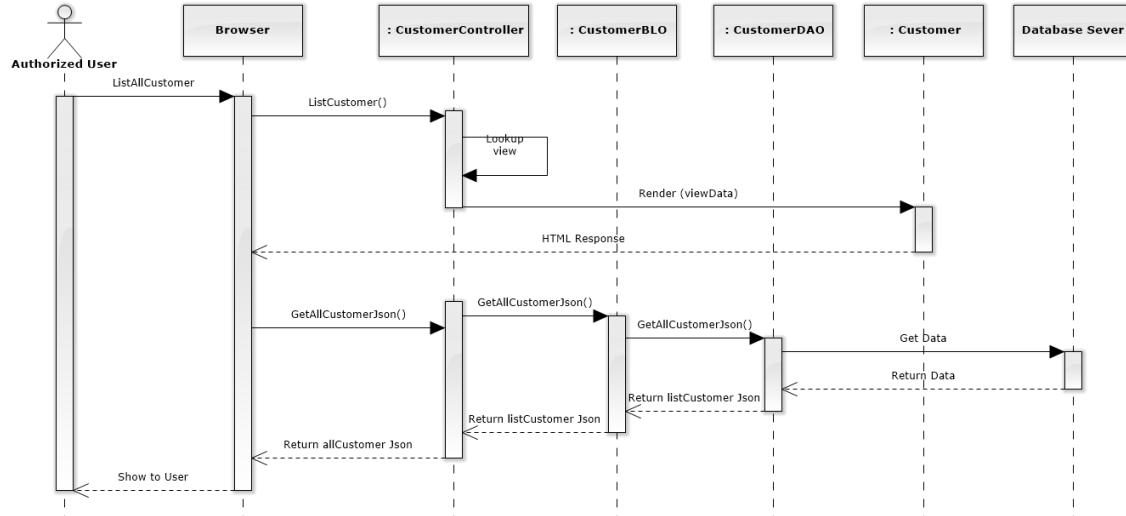


Figure 4-92: List Customers Sequence Diagram

#### 4.3.12.2. Add new customer

##### 4.3.12.2.1. Screen design

The screenshot shows a form titled "Thêm Khách Hàng". The form contains the following fields:

- Tên khách hàng: \* (1) - Text input field
- Nhóm khách hàng: \* (8) - Select dropdown menu
- Người đại diện: \* (2) - Text input field
- Giới tính: (9) - Radio button group (Nam, Nữ)
- Ngày sinh: (3) - Date input field
- Số CMND: (10) - Text input field
- Ngày cấp CMND: (4) - Date input field
- Nơi cấp CMND: (11) - Text input field
- Số tài khoản: (5) - Text input field
- Tên ngân hàng: (12) - Text input field
- Mã số thuế: (6) - Text input field
- Email: (13) - Text input field
- Điện thoại di động: \* (7) - Text input field with phone icon
- Điện thoại cố định: (14) - Text input field with phone icon
- Địa chỉ: \* (15) - Text area

At the bottom of the form are two buttons:

- Làm trống (16) - Clear button
- Thêm mới (17) - Add new button

Figure 4-93: Add new customer image

No	Object/Control Name	Type	Required	Description
1	Tên Khách hàng	Textbox	Yes	Customer name
2	Người đại diện	Textbox	Yes	Presentative
3	Ngày sinh	Date picker	Yes	Date of Birth
4	Ngày cấp CMND	Date picker	Yes	Identity Date
5	Số tài khoản	Textbox	Yes	Bank account
6	Mã số thuế	Textbox	Yes	Tax code
7	Điện thoại di động	Textbox	Yes	Mobile
8	Nhóm khách hàng	Combo-box	Yes	Customer group
9	Giới tính	Radio-button	Yes	Gender
10	Số CMND	Textbox	Yes	Identity Number
11	Nơi cấp CMND	Textbox	Yes	Identity Place
12	Tên ngân hàng	Textbox	Yes	Bank Branch
13	Email	Textbox	Yes	Email
14	Điện thoại cố định	Textbox	Yes	Phone
15	Địa chỉ	Text area	Yes	Address

16	Làm trống	Button	Yes	Clear all field
17	Thêm mới	Button	Yes	Add new customer

#### 4.3.12.2.2. Sequence diagram

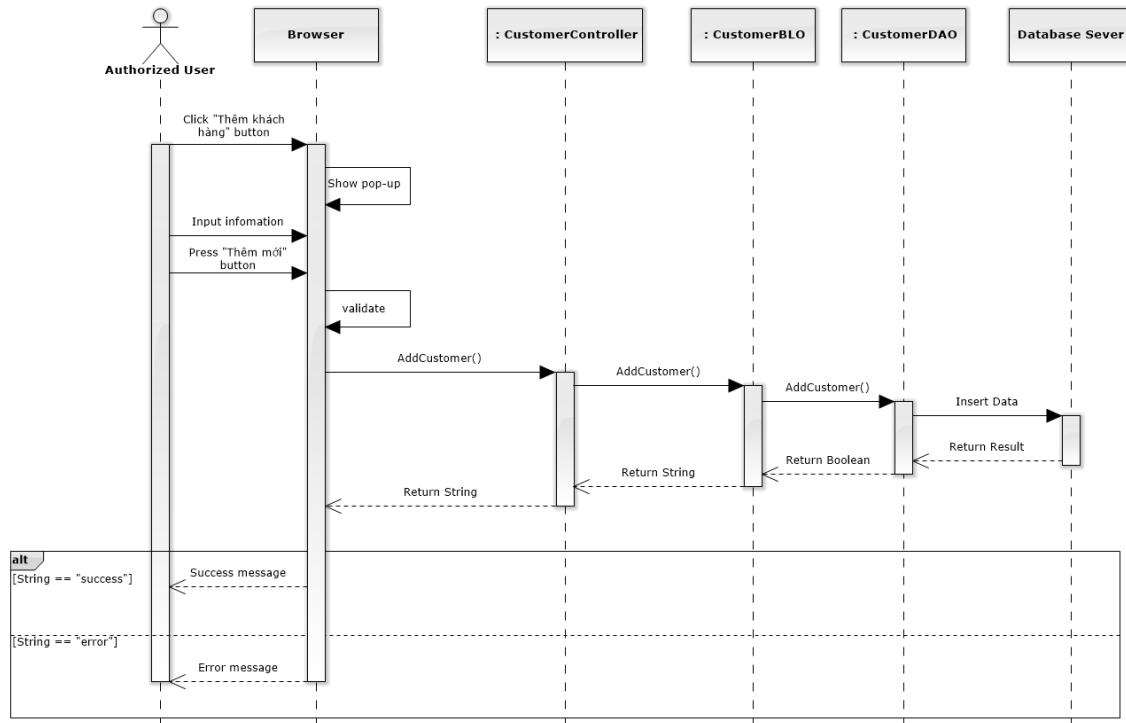


Figure 4-94: Add New Customer Sequence Diagram

#### 4.3.12.3. Edit customer

##### 4.3.12.3.1. Screen design

The screenshot shows a modal window titled "Chi Tiết Khách Hàng". It contains the following fields:

- Tên khách hàng: \* (1) - Value: Phạm Thị Thanh
- Nhóm khách hàng: \* (8) - Value: Cá nhân
- Người đại diện: \* (2) - Value: Phạm Thị Thanh
- Giới tính: (9) - Value: Nữ (radio button selected)
- Ngày sinh: (3) - Value: (empty)
- Số CMND: (10) - Value: (empty)
- Ngày cấp CMND: (4) - Value: (empty)
- Nơi cấp CMND: (11) - Value: (empty)
- Số tài khoản: (5) - Value: (empty)
- Tên ngân hàng: (12) - Value: (empty)
- Mã số thuế: (6) - Value: (empty)
- Email: (13) - Value: (empty)
- Điện thoại di động: \* (7) - Value: 0937367544
- Điện thoại cố định: (14) - Value: (empty)
- Địa chỉ: \* (15) - Value: 111 C C/c Phạm Thế Hiển, P.4, Q.8

Buttons at the bottom:

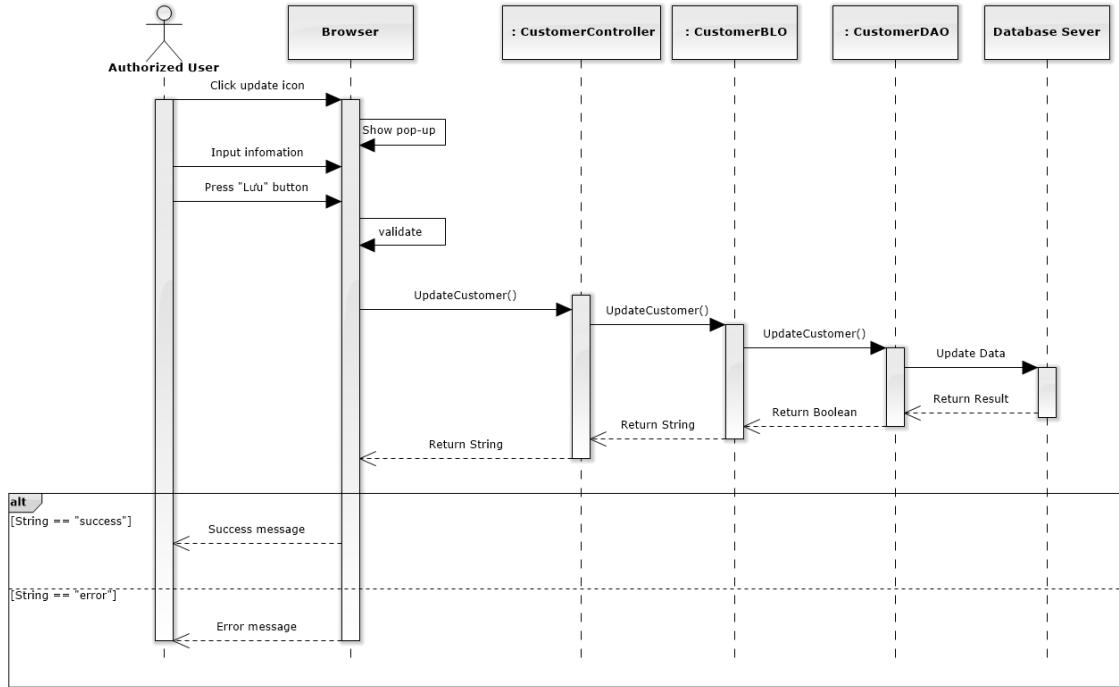
- (16) - X Đóng (Close)
- (17) - Lưu chỉnh sửa (Save changes)

Figure 4-95: Edit customer image

No	Object/Control Name	Type	Required	Description
1	Tên Khách hàng	Textbox	Yes	Customer name
2	Người đại diện	Textbox	Yes	Presentative
3	Ngày sinh	Date picker	Yes	Date of Birth
4	Ngày cấp CMND	Date picker	Yes	Identity Date
5	Số tài khoản	Textbox	Yes	Bank account
6	Mã số thuế	Textbox	Yes	Tax code
7	Điện thoại di động	Textbox	Yes	Mobile

8	Nhóm khách hàng	Combo-box	Yes	Customer group
9	Giới tính	Radio-button	Yes	Gender
10	Số CMND	Textbox	Yes	Identity Number
11	Nơi cấp CMND	Textbox	Yes	Identity Place
12	Tên ngân hàng	Textbox	Yes	Bank Branch
13	Email	Textbox	Yes	Email
14	Điện thoại cố định	Textbox	Yes	Phone
15	Địa chỉ	Text area	Yes	Address
16	Đóng	Button	Yes	Close edit customer
17	Lưu chỉnh sửa	Button	Yes	Edit customer

#### 4.3.12.3.2. Sequence diagram



**Figure 4-96: Edit Customer Sequence Diagram**

#### 4.3.12.4. Delete customer

##### 4.3.12.4.1. Screen design

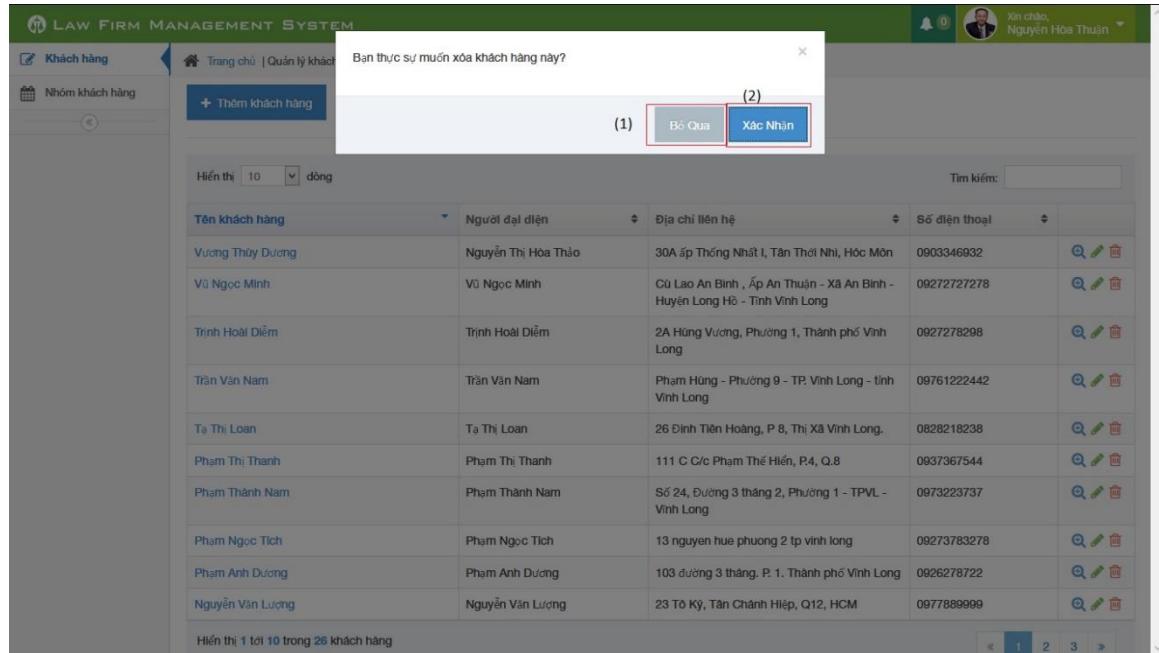
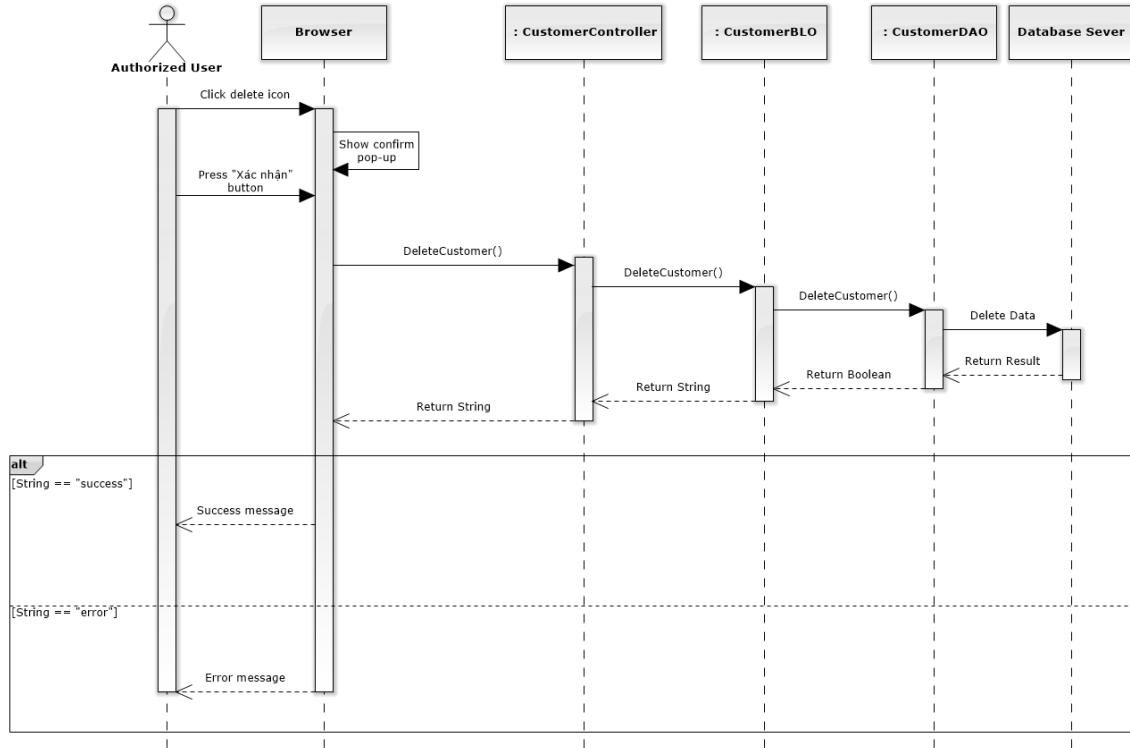


Figure 4-97: Delete customer image

No	Object/Control Name	Type	Required	Description
1	“BỎ QUA”	Button	Yes	Click to close delete customer
2	“XÁC NHẬN”	Button	Yes	Click to delete customer

#### 4.3.12.4.2. Sequence diagram



**Figure 4-98: Delete Customer Sequence Diagram**

### 4.3.13. Manage Staff Group

#### 4.3.13.1. List staff group

##### 4.3.13.1.1. Class diagram

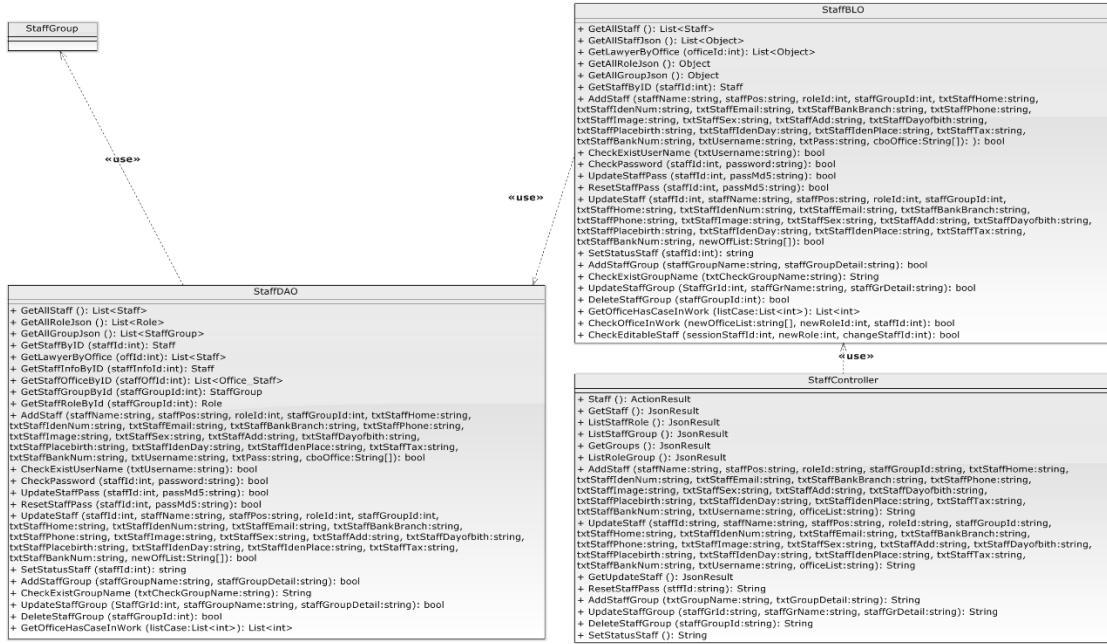


Figure 4-99: Manage staff group class diagram

#### 4.3.13.1.2. Screen design

The screenshot shows the LFMS interface for managing staff groups. The top navigation bar includes links for Home, Staff Management, and Staff Groups. The current page is 'Nhóm nhân viên'. A search bar labeled '(4)' is at the top right. Below it is a table with columns: 'Tên nhóm' (Name), 'Chi tiết nhóm' (Details), and 'Lương cơ bản(VND)' (Basic Salary). The table contains eight rows of staff group information. To the right of the table are several icons for actions like edit, delete, and search, labeled '(5)'. At the bottom left is a message '(3)' and a page navigation area with a blue button labeled '1' and arrows, labeled '(8)'.

Tên nhóm	Chi tiết nhóm	Lương cơ bản(VND)
Công tác viên (2)	Công tác viên	3.000.000 VND
Luật sư hợp đồng	Luật sư hợp đồng	20.000.000 VND
Luật sư thử việc	Luật sư thử việc	6.000.000 VND
Luật sư tập sự	Luật sư tập sự	4.500.000 VND
Nhân viên hợp đồng	Nhân viên hợp đồng	7.000.000 VND
Nhân viên thử việc	Nhân viên thử việc	4.000.000 VND
Nhân viên tập sự	Nhân viên tập sự	4.500.000 VND
Quản lý	Luật sư quản lý các văn phòng	50.000.000 VND

Figure 4-100: List staff group image

No	Object/Control Name	Type	Required	Description
1	Number of rows	Combo-box	Yes	Choose number of rows in table
2	Name staff group	Text	Yes	Click to show popup detail of staff group
3	List all staff	Table	Yes	List all staff
4	Tìm kiếm	Textbox	Yes	Search staff
5	View	Button	Yes	Click to show popup detail of staff

6	Edit	Button	Yes	Click to show popup edit detail of staff information.
7	Delete staff group	Icon	Yes	Delete staff group
8	Paging	Button	Yes	Paging page

#### 4.3.13.1.3. Sequence diagram

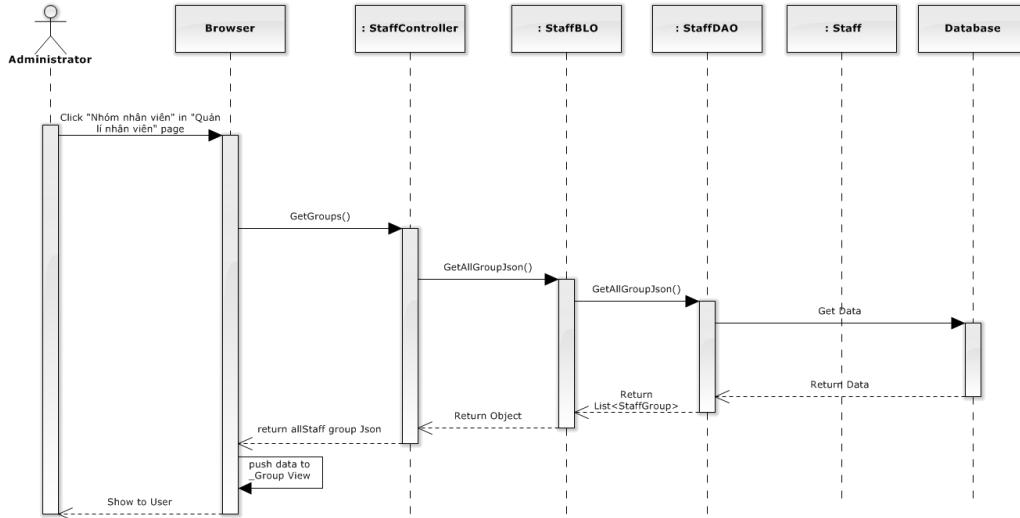


Figure 4-101: List staff group sequence diagram

#### 4.3.13.2. Add staff group

##### 4.3.13.2.1. Screen design

The screenshot shows the 'Law Firm Management System' interface. The top navigation bar includes links for 'Trang chủ', 'Quản lý nhân viên', and 'Nhóm nhân viên'. The main content area shows a list of staff groups:

Tên nhóm	Chi tiết nhóm	Lương cơ bản(VND)
Công tác viên	Công tác viên	3.000.000 VNĐ
Luật sư hợp đồng	Luật sư hợp đồng	20.000.000 VNĐ
Luật sư thử việc	Luật sư thử việc	6.000.000 VNĐ
Luật sư tập sự	Luật sư tập sự	4.500.000 VNĐ
Nhân viên hợp đồng	Nhân viên hợp đồng	7.000.000 VNĐ
Nhân viên thử việc	Nhân viên thử việc	4.000.000 VNĐ
Nhân viên tập sự	Nhân viên tập sự	4.500.000 VNĐ
Quản lý	Luật sư quản lý các văn phòng	50.000.000 VNĐ

A red box labeled '(1)' highlights the '+ Thêm nhóm nhân viên' button. Below the table, a message says 'Hiển thị 1 tới 8 trong 8 dòng'.

The bottom part shows a modal dialog titled 'Thêm nhóm nhân viên' with fields for 'Tên nhóm nhân viên' (2), 'Chi tiết nhóm nhân viên' (3), and 'Lương cơ bản(VND)' (4). It includes a 'Đóng' button (5) and a 'Thêm mới' button (6).

Figure 4-102: Add staff group image

No	Object/Control Name	Type	Required	Description
1	“Thêm nhóm nhân viên”	Button	Yes	Click to open pop-up create new staff group

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2	“Tên nhóm nhân viên”	Textbox	Yes	Name of staff group
3	“Chi tiết nhóm nhân viên”	Textbox	Yes	Detail of staff group
4	“Lương cơ bản”	Textbox	Yes	Basic salary of staff group
5	“Đóng”	Button	Yes	Click to close pop-up add new staff group
6	“Thêm mới”	Button	Yes	Click to add new staff group

#### 4.3.13.2.2. Sequence diagram

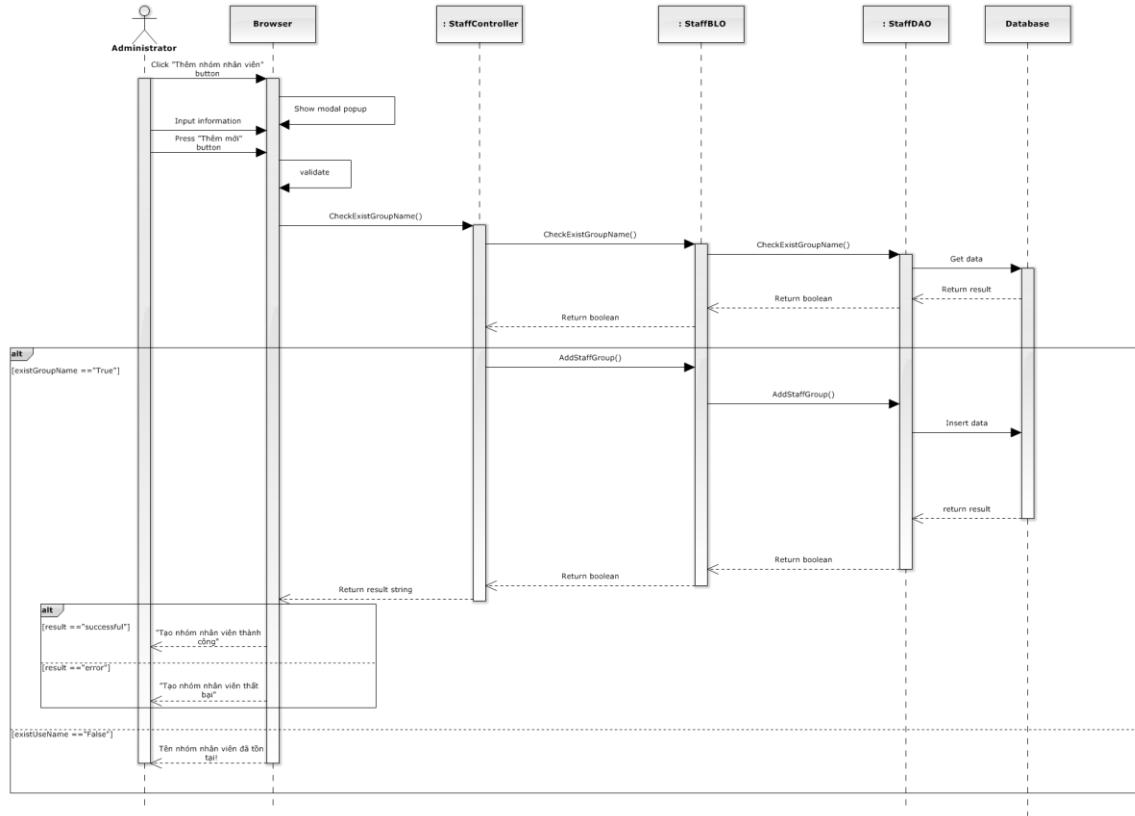


Figure 4-103: Add staff group sequence diagram

#### 4.3.13.3. Edit staff group

##### 4.3.13.3.1. Screen design

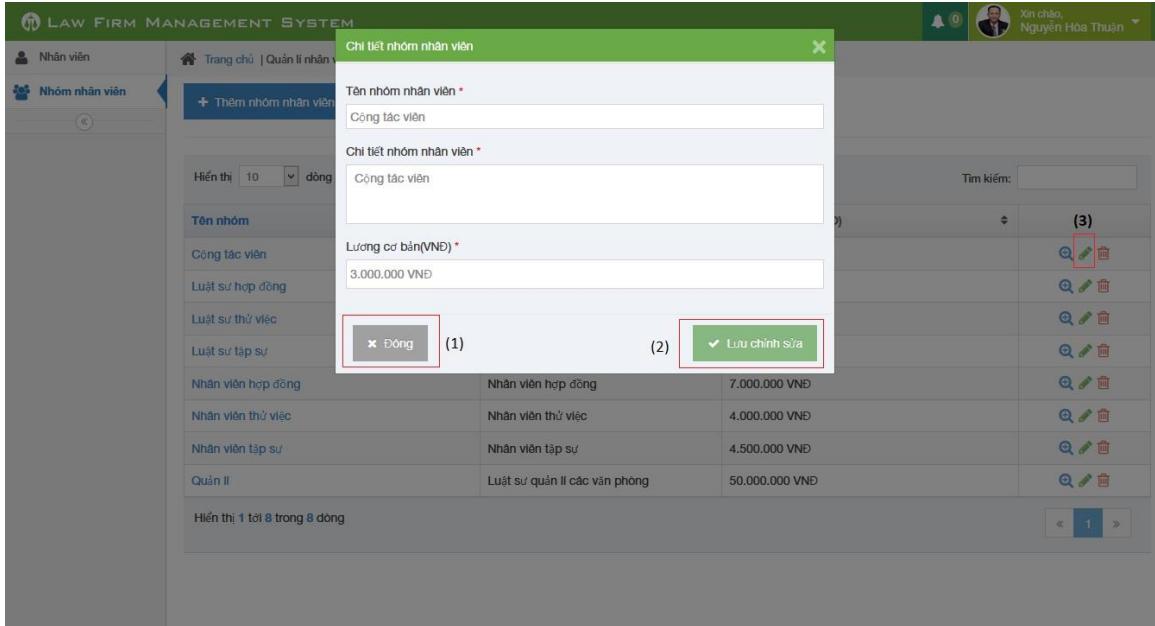


Figure 4-104: Edit staff group image

No	Object/Control Name	Type	Required	Description
1	“Đóng”	Button	Yes	Click to close update staff group
2	“Lưu chỉnh sửa”	Button	Yes	Click to confirm update staff group
3	Edit	Icon	Yes	Click to show pop up update staff group

#### 4.3.13.3.2. Sequence diagram

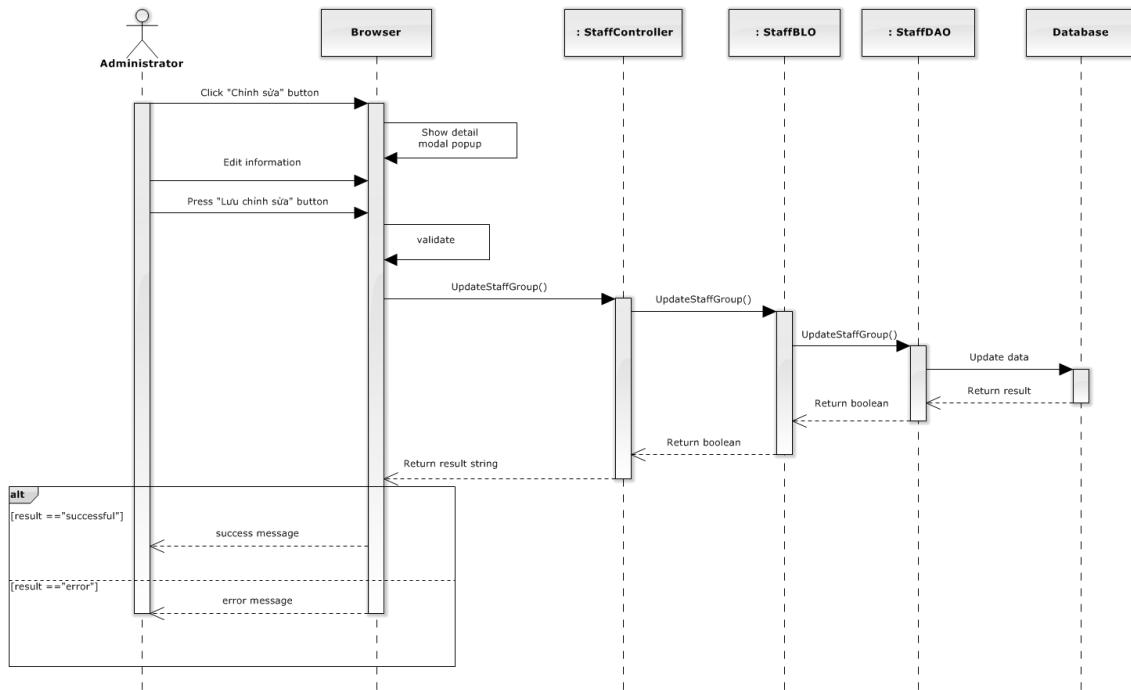


Figure 4-105: Edit staff group sequence diagram

#### 4.3.13.4. Delete staff group

##### 4.3.13.4.1. Screen design

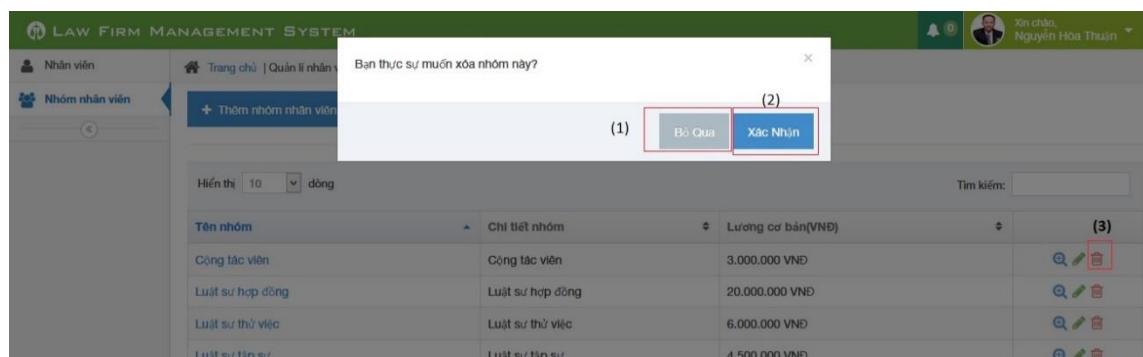


Figure 4-106: Delete staff group image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close delete staff group
2	“Xác nhận”	Button	Yes	Click to confirm delete staff group
3	Trash	Button	Yes	Click to show pop up delete staff group

#### 4.3.13.4.2. Sequence diagram

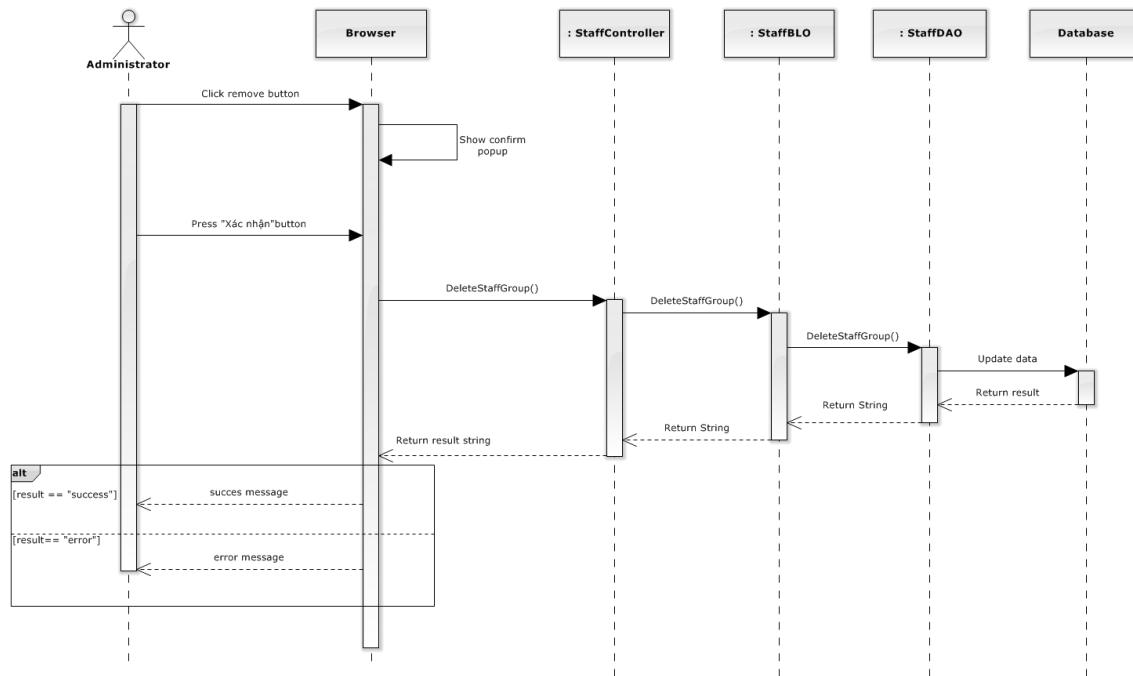


Figure 4-107: Delete staff group sequence diagram

### 4.3.14. Manage Staff

#### 4.3.14.1. List staffs

##### 4.3.14.1.1. Class diagram

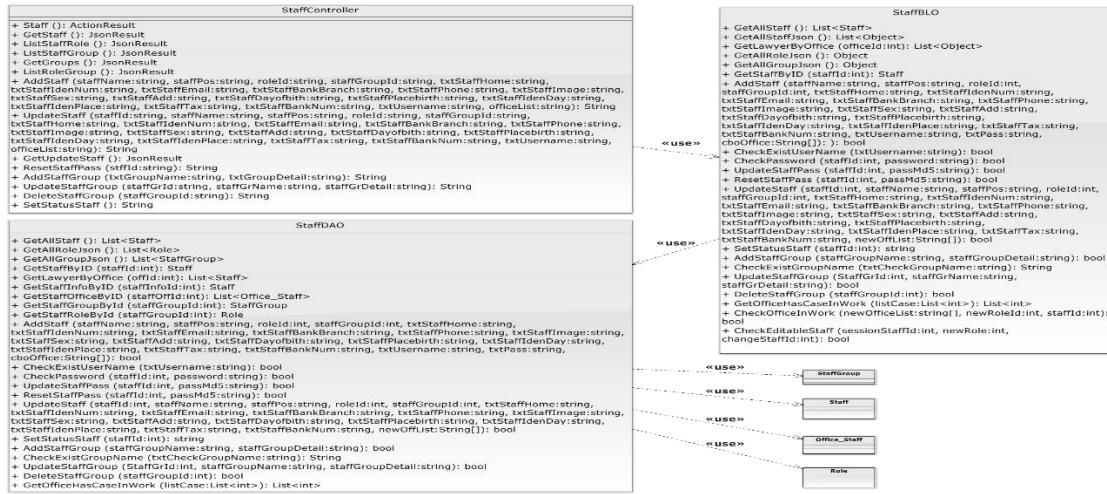


Figure 4-108: Manage staff class diagram

#### 4.3.14.1.2. Screen design

The screenshot shows a web-based application interface for managing staff. At the top, there's a navigation bar with links for 'Trang chủ', 'Quản lý nhân viên', and 'Danh sách nhân viên'. Below this is a search bar with placeholder text 'Tìm kiếm: nguyễn thành' and a dropdown menu showing 'Hiển thị | 10 | dòng (2)'. The main content area displays a table of staff members:

Tên nhân viên	Chức vụ	Địa chỉ liên hệ	Điện thoại	Vai trò	Trạng thái
(3) Nguyễn Hòa Thuận	Trưởng văn phòng	58 Mẫu Thủ, khóm 1, phường 3, thành phố Vĩnh Long	0988816668	Admin	(4) Đang hoạt động
(5) Nguyễn Huỳnh Kim Ngân	Nhân viên chăm sóc khách hàng	Số 2/7A đường Mẫu Thủ, khóm 1, phường 3, thành phố Vĩnh Long	0974332467	Admin	(6) Đang hoạt động
(7) Nguyễn Thành Tin	Thành viên hợp danh	Số 24, Đường 3 tháng 2, Phường 1 - TPVL	0978224446	Viewer	(8) Đang hoạt động

At the bottom of the table, there's a message: 'Hiển thị 1 tới 3 trong 10 dòng (Lọc trong 10 dòng)'. To the right of the table, there are navigation buttons for page 1 and 2.

Figure 4-109: View staff image

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No	Object/Control Name	Type	Required	Description
1	Thêm nhân viên	Button	Yes	Click to show popup for add new staff
2	Number of rows	Combo-box	Yes	Choose number of rows in table
3	Image of staff	Image	Yes	Click to show popup detail of staff
4	List all staff	Table	Yes	List all staff
5	Tìm kiếm	Textbox	Yes	Search staff
6	View	Button	Yes	Click to show popup detail of staff
7	Edit	Button	Yes	Click to show popup edit detail of staff information.
8	Paging	Button	Yes	Paging page

#### 4.3.14.1.3. Sequence diagram

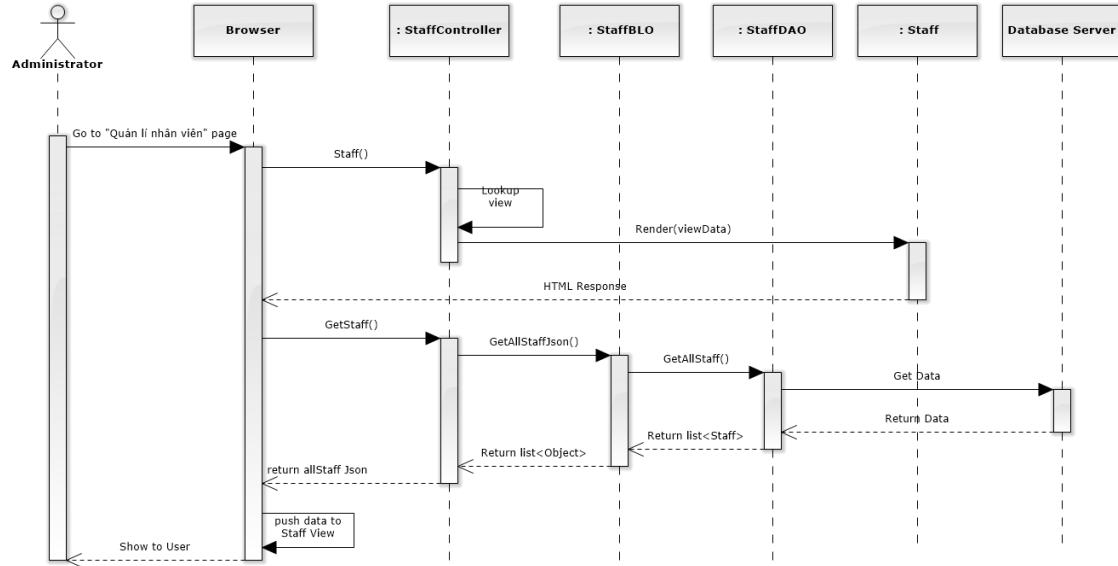


Figure 4-110: List Staffs Sequence Diagram

#### 4.3.14.2. Add new staff

##### 4.3.14.2.1. Screen design

The screenshot shows a 'Thêm nhân viên' (Add new staff) form. At the top left is a placeholder for a staff profile image labeled '(23)'. To its right are several input fields:

- Nhóm nhân viên \***: A dropdown menu labeled '(6)'.
- Vai trò nhân viên \***: A dropdown menu labeled '(14)'.
- Ngày sinh \***: A date input field labeled '(7)' with a calendar icon.
- CMND \***: An input field labeled '(15)'.
- Nơi sinh**: An input field labeled '(8)'.
- Ngày Cấp CMND \***: A date input field labeled '(16)' with a calendar icon.
- Điện thoại di động \***: An input field with a phone icon labeled '(9)'.
- Điện thoại nhà riêng**: An input field labeled '(10)'.
- Nơi cấp CMND \***: An input field labeled '(17)'.
- Chức vụ**: An input field labeled '(3)'.
- Mã số thuế**: An input field labeled '(18)'.
- Giới tính:** Radio buttons for 'Nam' and 'Nữ' (labeled '(4)').
- Số tài khoản**: An input field labeled '(19)'.
- Số người phụ thuộc:** An input field labeled '(5)'.
- Địa chỉ liên hệ \***: An input field labeled '(12)'.
- Chi nhánh NH**: An input field labeled '(20)'.
- Thuộc văn phòng \***: A search bar labeled 'Tim Kiếm ...' followed by an input field labeled '(13)'.

At the bottom left is a yellow button labeled '(21)' with a 'Làm trống' (Clear) icon. At the bottom right is a green button labeled '(22)' with a checkmark icon and the text 'Thêm mới' (Add new).

Figure 4-111: Add new staff image

No	Object/Control Name	Type	Required	Description
1	Tên nhân viên	Textbox	Yes	Name of staff
2	Tên đăng nhập	Textbox	Yes	Username of staff
3	Chức vụ	Textbox	Yes	Position of staff

4	Giới tính	Radio button	Yes	Choose sex of staff
5	Số người phụ thuộc	Textbox	Yes	Number of dependents
6	Nhóm nhân viên	Textbox	Yes	Select group of staff
7	Ngày sinh	Datetime picker	Yes	Date of birth of staff
8	Nơi sinh	Textbox	Yes	Place of birth of staff
9	Điện thoại di động	Textbox	Yes	Phone number of staff
10	Điện thoại nhà riêng	Textbox	Yes	Telephone of staff
11	Email	Textbox	Yes	Email of staff
12	Địa chỉ liên hệ	Textbox	Yes	Address of staff
13	Thuộc văn phòng	Multiple select box	Yes	Select office of staff
14	Vai trò nhân viên	Select box	Yes	Select role of staff
15	CMND	Textbox	Yes	Identity number of staff
16	Ngày cấp CMND	Datetime picker	Yes	Date of Identity of staff
17	Nơi cấp CMND	Textbox	Yes	Place of Identity of staff

18	Mã số thuế	Textbox	Yes	Tax number of staff
19	Số tài khoản	Textbox	Yes	Bank account number of staff
20	Chi nhánh ngân hàng	Textbox	Yes	Name of bank of staff
21	“Làm trống”	Button	Yes	Clear all field
22	“Thêm mới”	Button	Yes	Add new staff
23	Image of staff	Image	Yes	Image of staff

#### 4.3.14.2.2. Sequence diagram

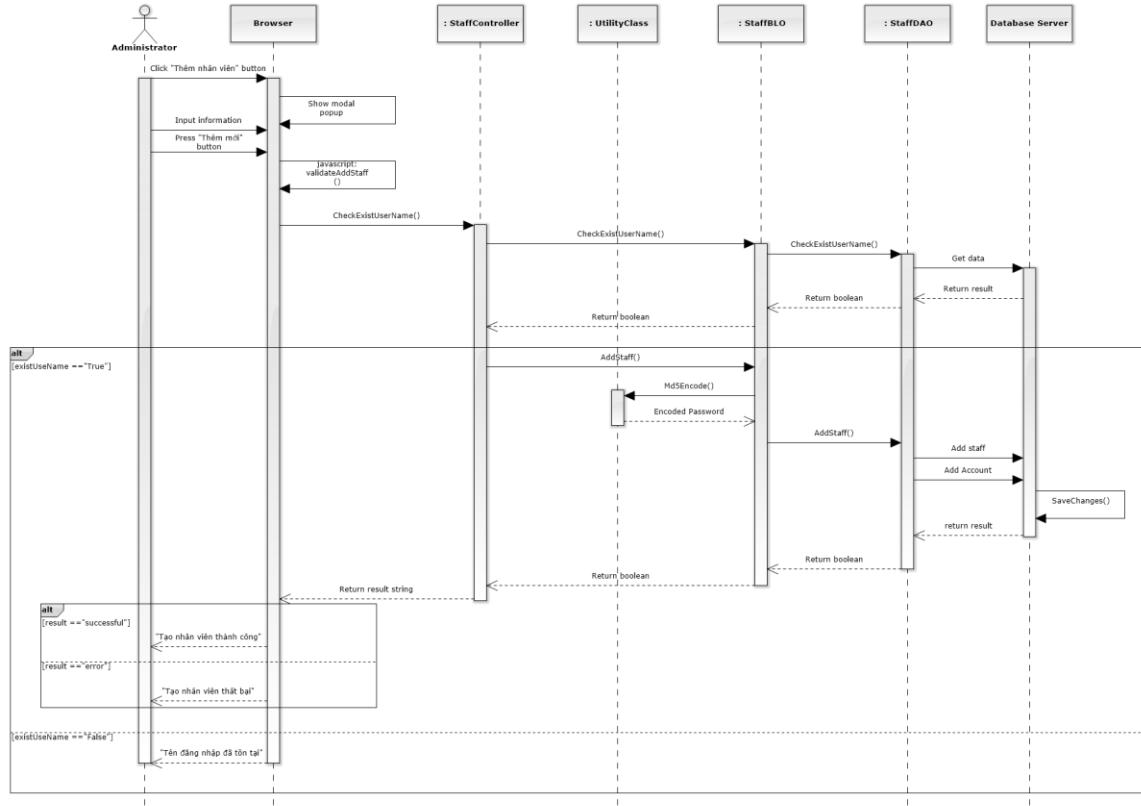


Figure 4-112: Add New Staff Sequence Diagram

#### 4.3.14.3. Edit staff

##### 4.3.14.3.1. Screen design

The screenshot shows a modal window titled "Chi tiết nhân viên". It contains the following fields:

- Image:** Placeholder for staff photo, labeled (1).
- Nhóm nhân viên \***: Quán II (8)
- Vai trò nhân viên \***: Admin (15)
- Ngày sinh \***: 05/02/1982 (9)
- CMND \***: 245621204 (16)
- Tên nhân viên \***: Nguyễn Hoa Thuận (2)
- Nơi sinh**: Vĩnh Long (10)
- Ngày Cấp CMND \***: 06/02/2002 (17)
- Tên đăng nhập \***: thuannh (3)
- Điện thoại di động \***: 0988816668 (11)
- Nơi cấp CMND \***: Vĩnh Long (18)
- Chức vụ**: Trưởng văn phòng (4)
- Điện thoại nhà riêng**: (12)
- Mã số thuế**: 8183264675 (19)
- Giới tính:** Nam (5)
- Email \***: info@luatthuannguyen.com (13)
- Số tài khoản**: 05355621238 (20)
- Số người phụ thuộc:** 2 (6)
- Địa chỉ liên hệ \***: 58 Mậu Thân, khóm 1, phường 3, thành phố Vĩnh Long (14)
- Chi nhánh ngân hàng**: VCB (21)
- Buttons:** Đóng (22) and Lưu chỉnh sửa (23).

Figure 4-113: Edit staff image

No	Object/Control Name	Type	Required	Description
1	Image of staff	Image	Yes	Image of staff
2	Tên nhân viên	Textbox	Yes	Name of staff
3	Tên đăng nhập	Textbox	Yes	Username of staff
4	Chức vụ	Textbox	Yes	Position of staff

5	Giới tính	Radio button	Yes	Choose sex of staff
6	Số người phụ thuộc	Textbox	Yes	Number of dependents
7	Đặt lại mật khẩu	Link	Yes	Change staff password
8	Nhóm nhân viên	Textbox	Yes	Select group of staff
9	Ngày sinh	Datetime picker	Yes	Date of birth of staff
10	Nơi sinh	Textbox	Yes	Place of birth of staff
11	Điện thoại di động	Textbox	Yes	Phone number of staff
12	Điện thoại nhà riêng	Textbox	Yes	Telephone of staff
13	Email	Textbox	Yes	Email of staff
14	Địa chỉ liên hệ	Textbox	Yes	Address of staff
15	Vai trò nhân viên	Select box	Yes	Select role of staff
16	CMND	Textbox	Yes	Identity number of staff
17	Ngày cấp CMND	Datetime picker	Yes	Date of Identity of staff
18	Nơi cấp CMND	Textbox	Yes	Place of Identity of staff

19	Mã số thuế	Textbox	Yes	Tax number of staff
20	Số tài khoản	Textbox	Yes	Bank account number of staff
21	Chi nhánh ngân hàng	Textbox	Yes	Name of bank of staff
22	“Đóng”	Button	Yes	Close edit staff
23	“Lưu chỉnh sửa”	Button	Yes	Save edit staff

#### 4.3.14.3.2. Sequence diagram

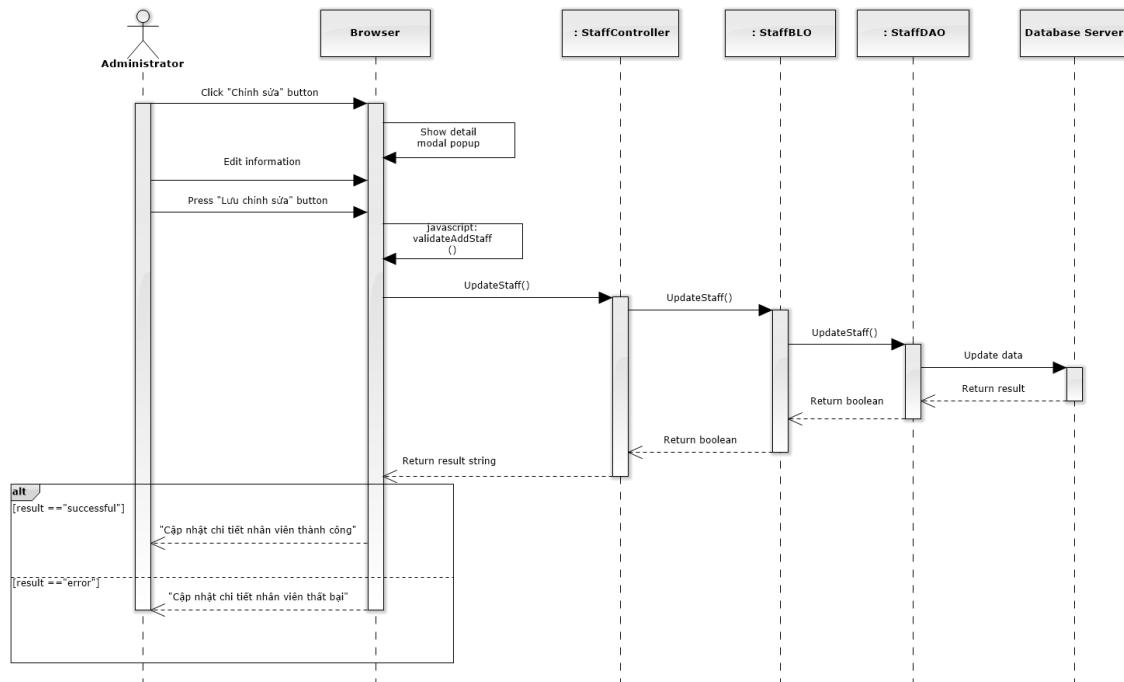


Figure 4-114: Edit Staff Sequence Diagram

#### 4.3.14.4. Deactivate/ Activate staff

##### 4.3.14.4.1. Screen design

Figure 4-115: Deactivate / Activate Staff image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close Deactive staff
2	“Xác nhận”	Button	Yes	Click to Deactive staff

3	Ngừng hoạt động	Link	Yes	Click to open confirm Deactive staff
---	-----------------	------	-----	---

#### 4.3.14.4.2. Sequence diagram

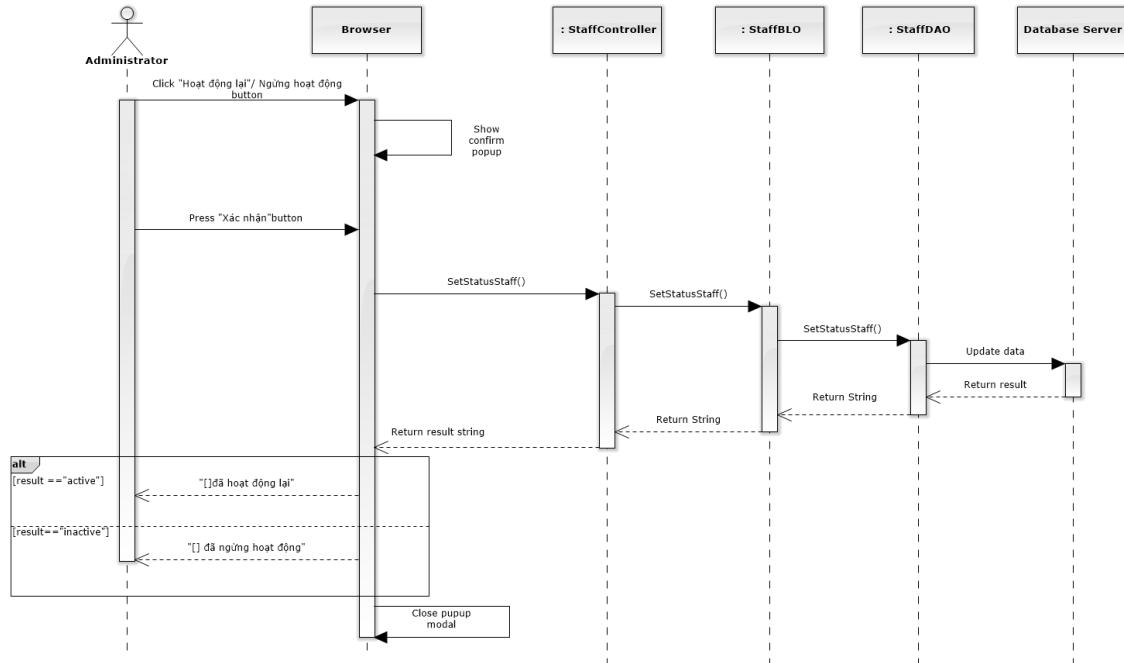


Figure 4-116: Deactivate / Activate Staff Sequence Diagram

#### 4.3.14.5. Reset password

##### 4.3.14.5.1. Screen design

The screenshot shows a staff detail page with various input fields for personal information like name, date of birth, and CMND number. A modal window is open in the center, asking if the user wants to reset the staff's password. The modal has two buttons: "Bỏ qua" (Skip) and "Xác nhận" (Confirm). The "Xác nhận" button is highlighted with a red border.

Chi tiết nhân viên	
	Bạn muốn khôi phục mật khẩu nhân viên này về mặc định?
	(1) <input type="button" value="BỎ QUA"/> (2) <input style="background-color: #007bff; color: white; border: 1px solid #007bff; padding: 5px; margin-left: 10px;" type="button" value="XÁC NHẬN"/>
Tên nhân viên *	Nguyễn Hữu Tiếng
Nơi sinh	Gia Lai
Ngày Cấp CMND *	01/01/2004
Tên đăng nhập *	tiengnh
Điện thoại di động *	0902345537
Địa chỉ liên hệ *	Điện thoại nhà riêng 0596250884
Nơi cấp CMND *	Gia Lai
Chức vụ	Chuyên viên
Mã số thuế	
Giới tính:	Email *
<input checked="" type="radio"/> Nam <input type="radio"/> Nữ	tieng@luatthuannguyen.com
Số người phụ thuộc:	Số tài khoản
1	
Địa chỉ liên hệ *	Chi nhánh ngân hàng
Địa chỉ liên hệ *	Khóm 16, Thị trấn An Khê, Tỉnh Gia Lai
Thuộc văn phòng *	Luật Thuận Nguyễn Hồ Chí Minh
Đóng	<input checked="" type="checkbox"/> Chính sửa
<input type="button" value="Đặt lại mật khẩu (3)"/>	<input type="button" value="Ngừng hoạt động"/>

Figure 4-117: Reset password staff image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close reset password staff
2	“Xác nhận”	Button	Yes	Click to reset password staff

3	Đặt lại mật khẩu	Link	Yes	Click to open reset password staff
---	------------------	------	-----	--

#### 4.3.14.5.2. Sequence diagram

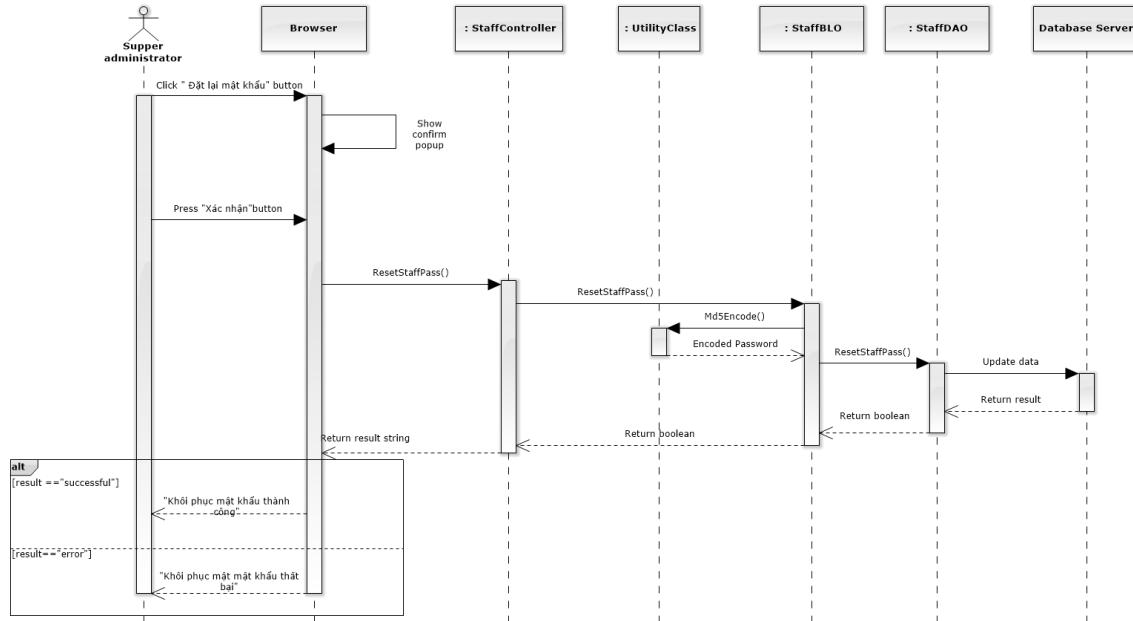


Figure 4-118: Reset Password Sequence Diagram

### 4.3.15. Manage Service Type

#### 4.3.15.1. List service type

##### 4.3.15.1.1. Class diagram

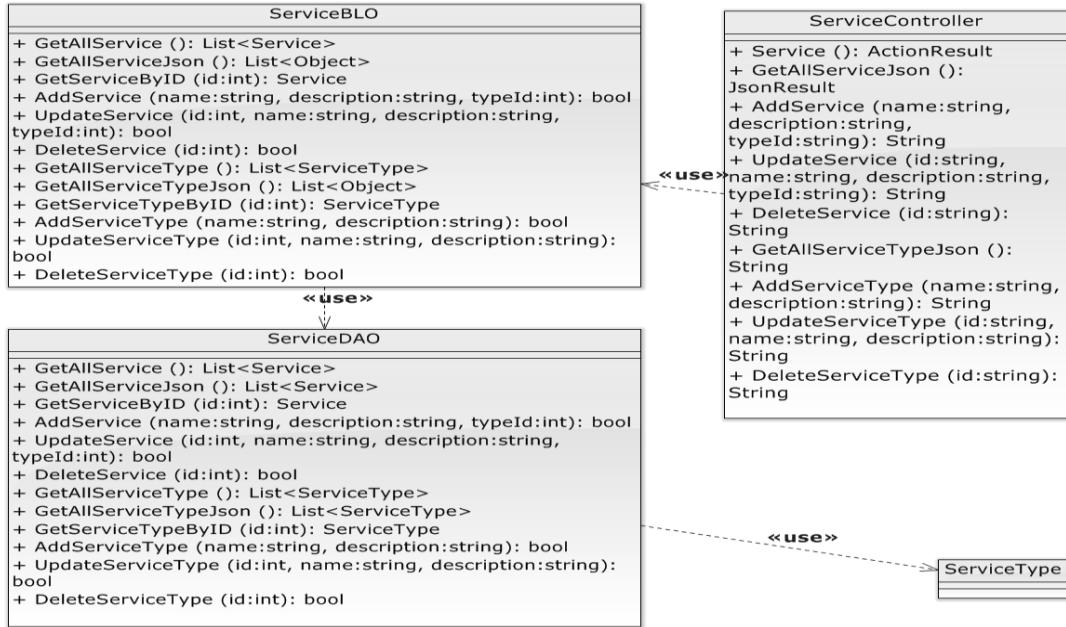


Figure 4-119: Manage service type class diagram

#### 4.3.15.1.2. Screen design

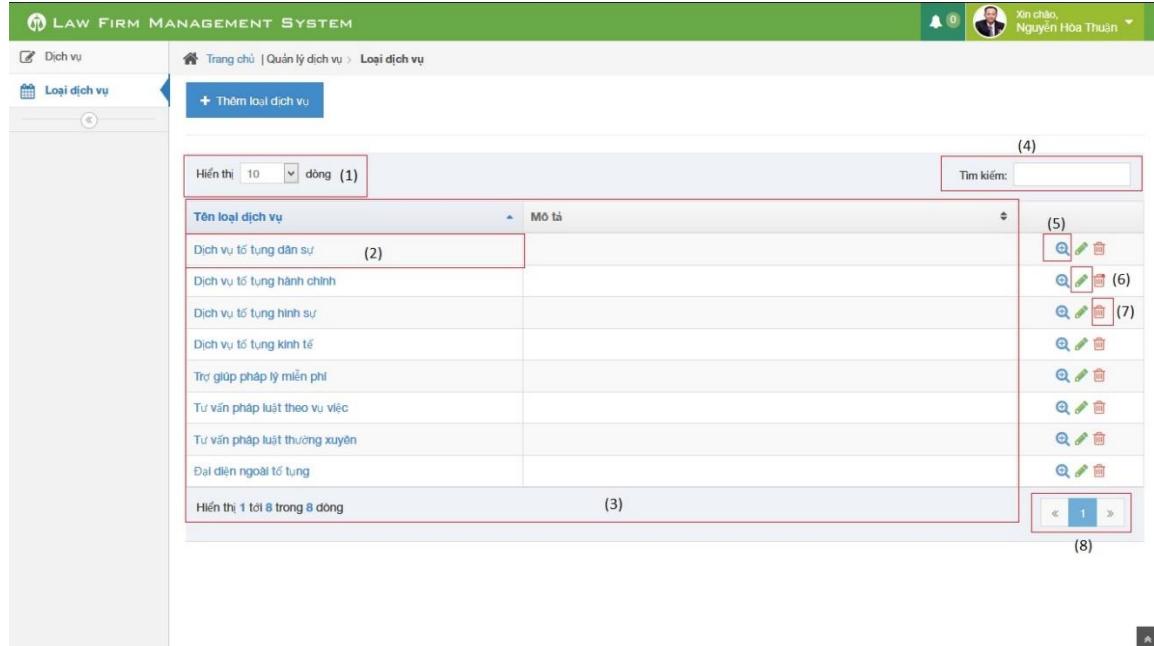


Figure 4-120: List service type image

No	Object/Control Name	Type	Required	Description
1	Number of rows	Combo-box	Yes	Choose number of rows in table
2	Name service type	Text	Yes	Show service type detail pop-up
3	List all Service type	Table	Yes	List all Service type
4	Search	Textbox	Yes	Search service type
5	View service type detail	Icon	Yes	Show service type detail pop-up

6	Delete service type	Icon	Yes	Delete service type
7	Edit service type	Icon	Yes	Show edit service type pop-up
8	Paging	Button	Yes	Paging the service type list

#### 4.3.15.1.3. Sequence diagram

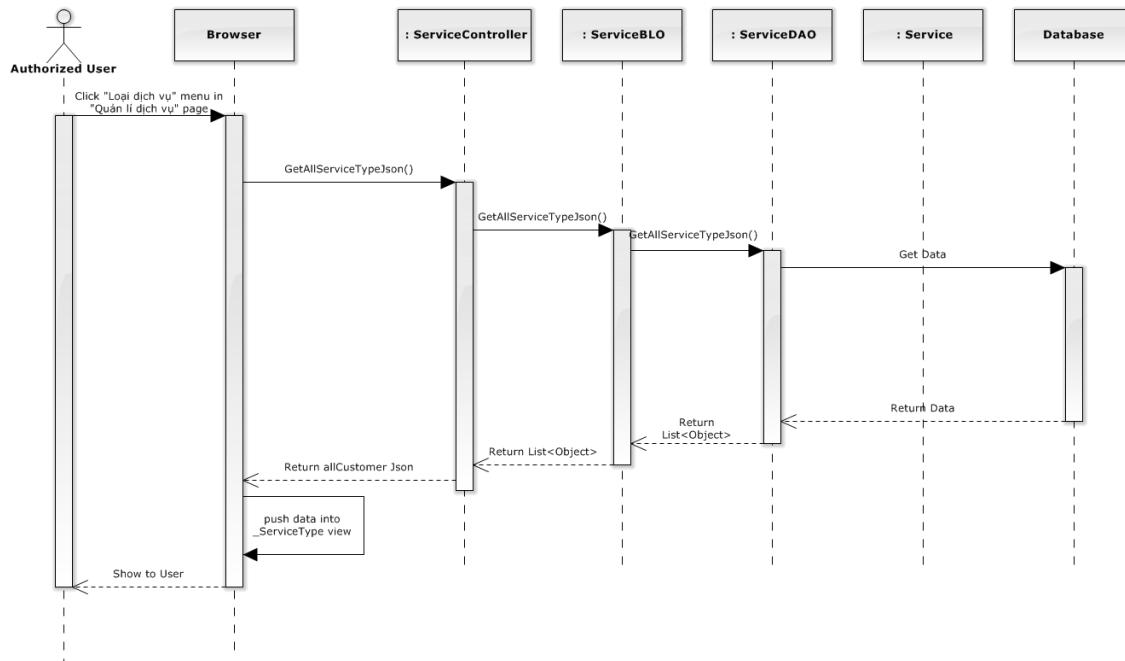


Figure 4-121: List service type sequence diagram

#### 4.3.15.2. Add service type

##### 4.3.15.2.1. Screen design

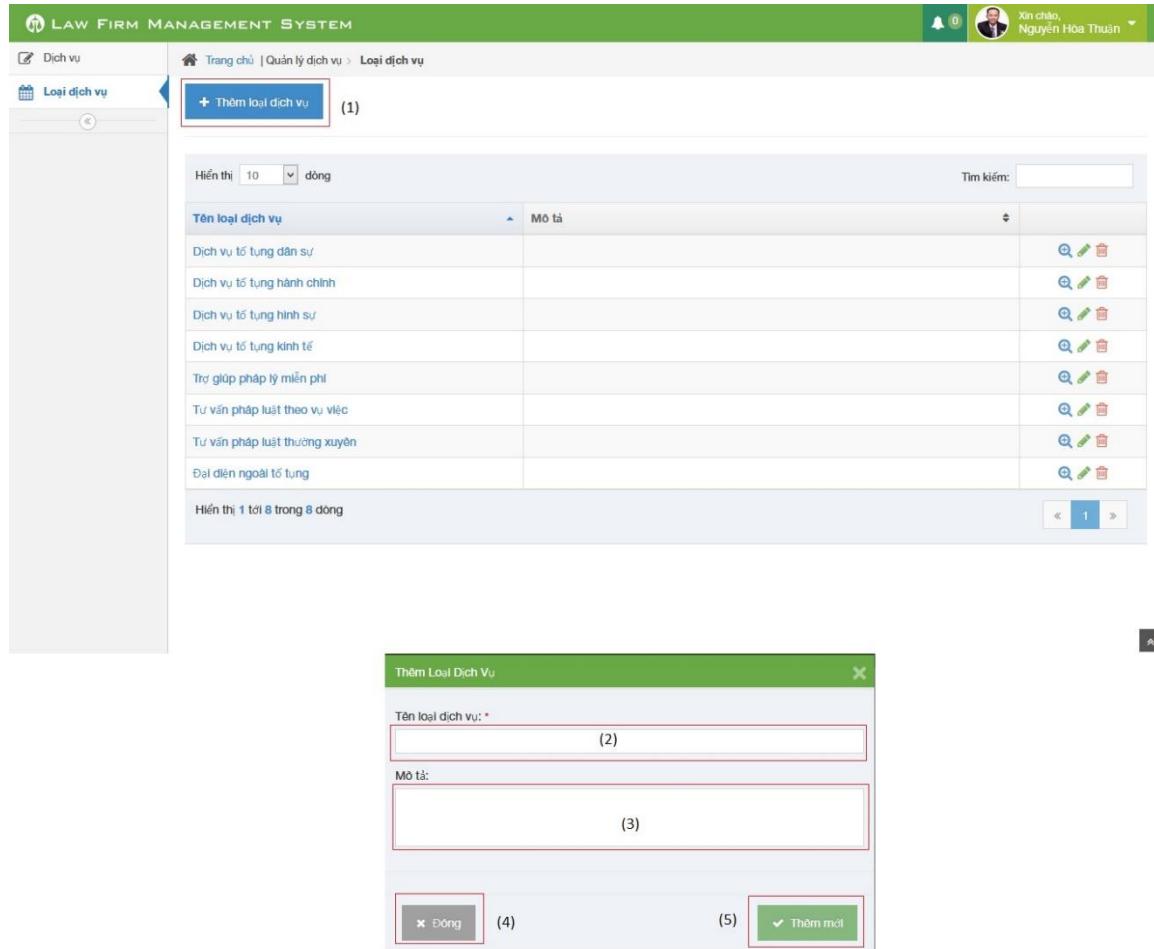


Figure 4-122: Add service type image

No	Object/Control Name	Type	Required	Description
1	“Thêm loại dịch vụ”	Button	Yes	Click to open pop-up create new type of service

2	“Tên loại dịch vụ”	Textbox	Yes	Name of service type
3	“Mô tả”	Textbox	Yes	Description of service type
4	“Đóng”	Button	Yes	Click to close pop-up add new service type
5	“Thêm mới”	Button	Yes	Click to add new service type

#### 4.3.15.2.2. Sequence diagram

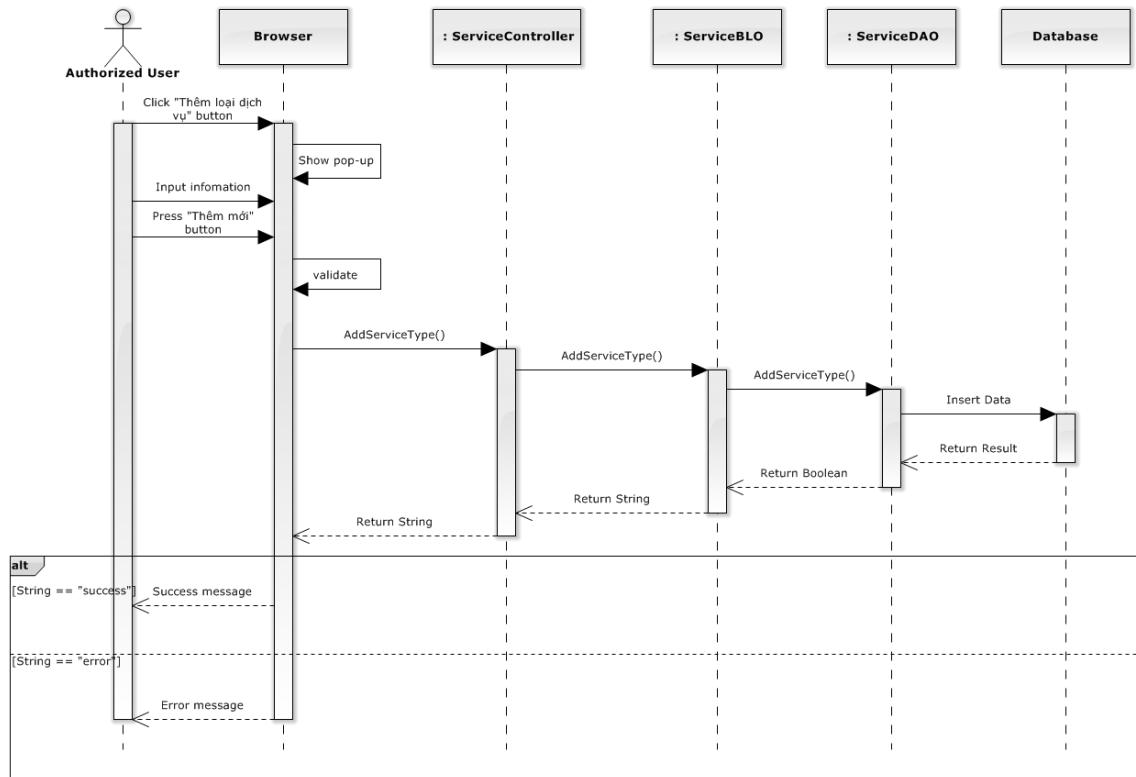


Figure 4-123: Add service type sequence diagram

#### 4.3.15.3. Update service type

##### 4.3.15.3.1. Screen design

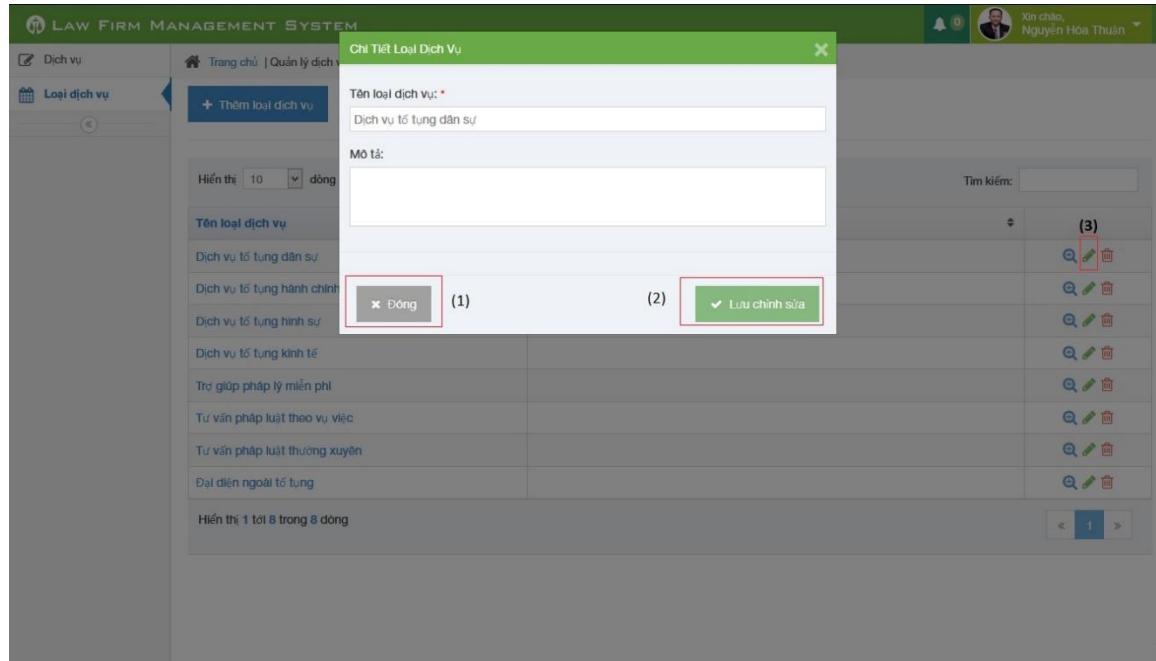


Figure 4-124: Update service type image

No	Object/Control Name	Type	Required	Description
1	“Đóng”	Button	Yes	Click to close update service type
2	“Lưu chỉnh sửa”	Button	Yes	Click to confirm update service type
3	Edit	Icon	Yes	Click to show pop up update service type

#### 4.3.15.3.2. Sequence diagram

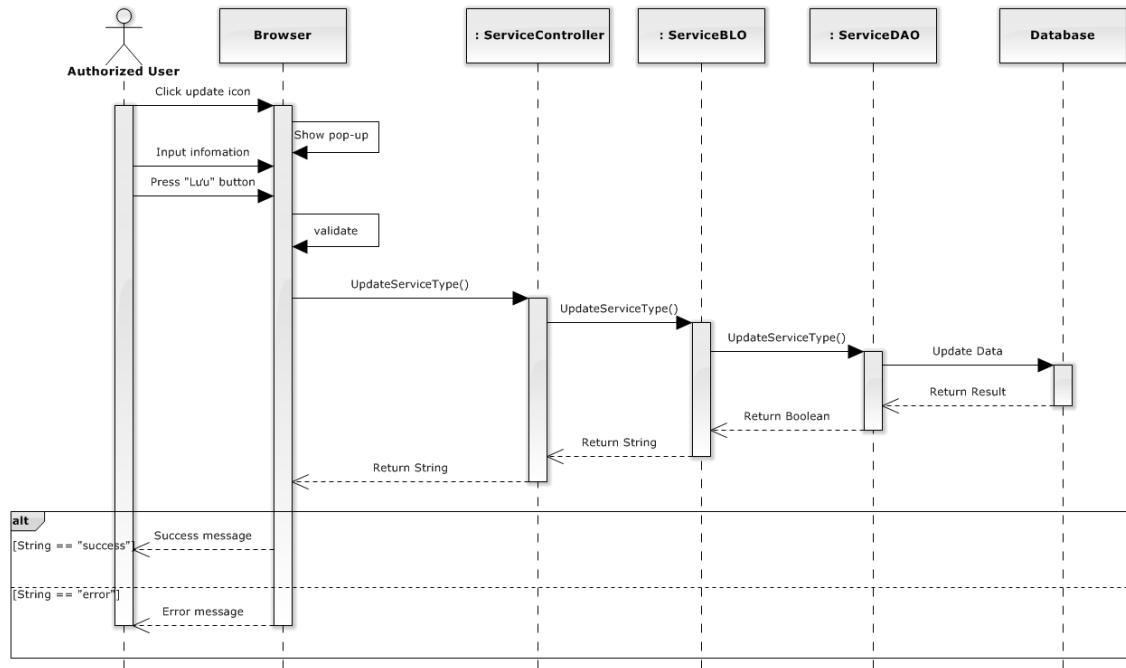


Figure 4-125: Update service type sequence diagram

#### 4.3.15.4. Delete service type

##### 4.3.15.4.1. Screen design

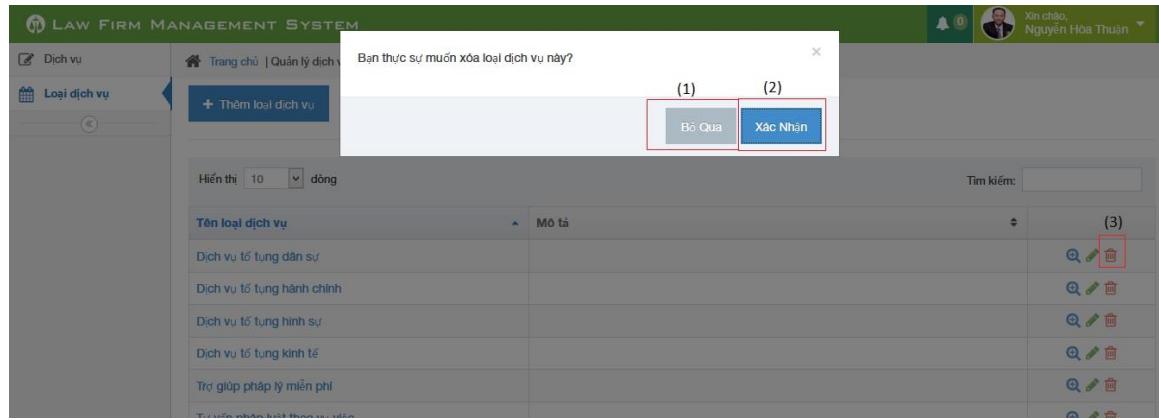


Figure 4-126: Delete service type image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close delete service type
2	“Xác nhận”	Button	Yes	Click to confirm delete service type
3	Trash	Button	Yes	Click to show pop up delete service type

#### 4.3.15.4.2. Sequence diagram

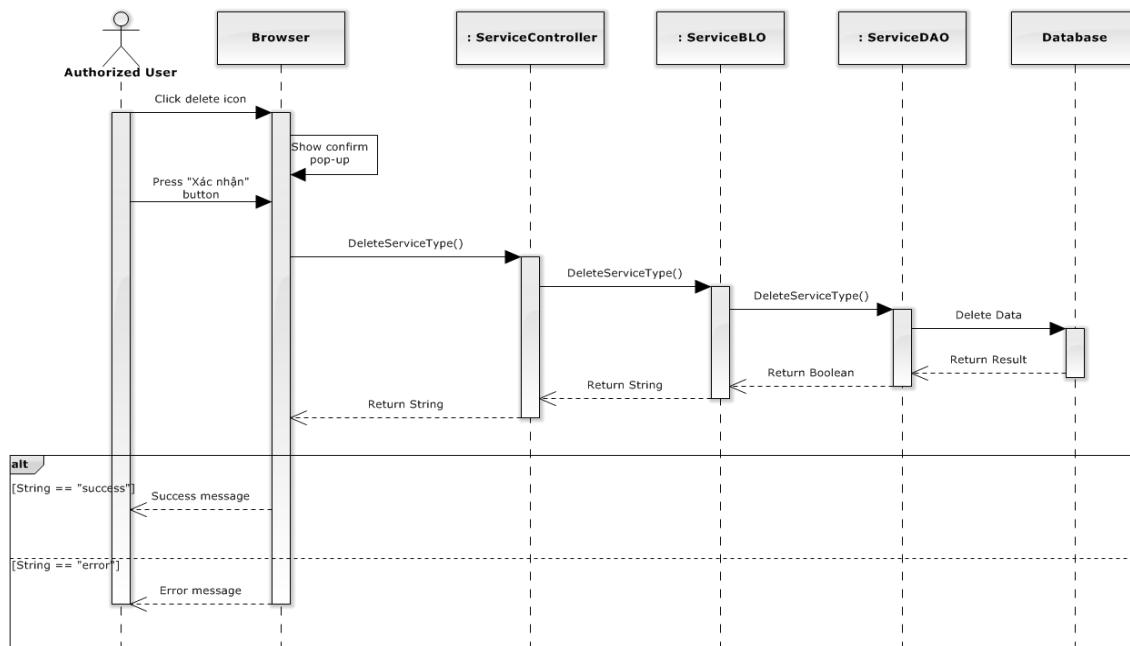


Figure 4-127: Delete service type sequence diagram

### 4.3.16. Manage Service

#### 4.3.16.1. List Services

##### 4.3.16.1.1. Class diagram

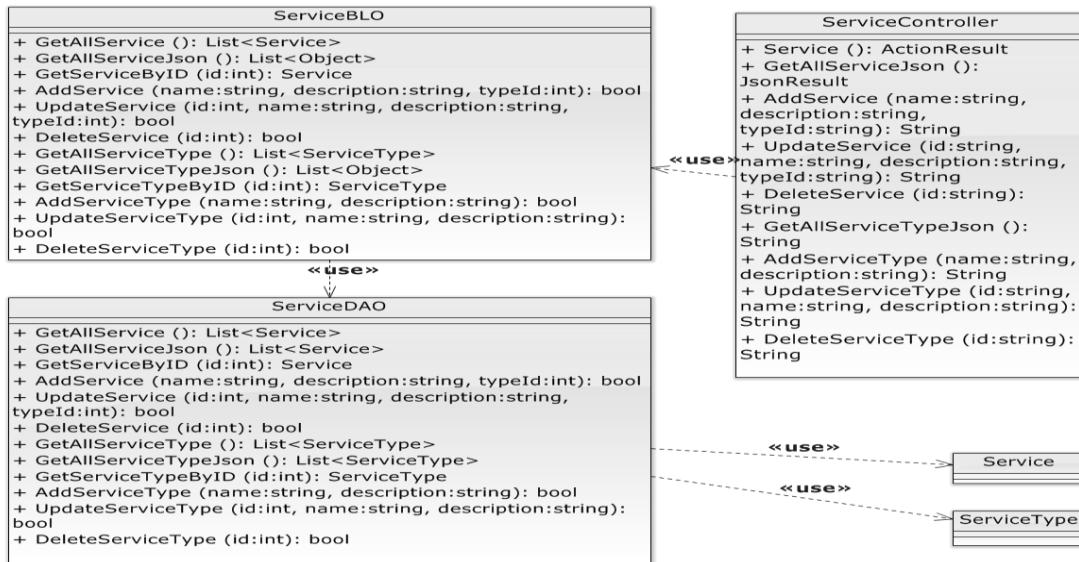


Figure 4-128: Manage service class diagram

##### 4.3.16.1.2. Screen design

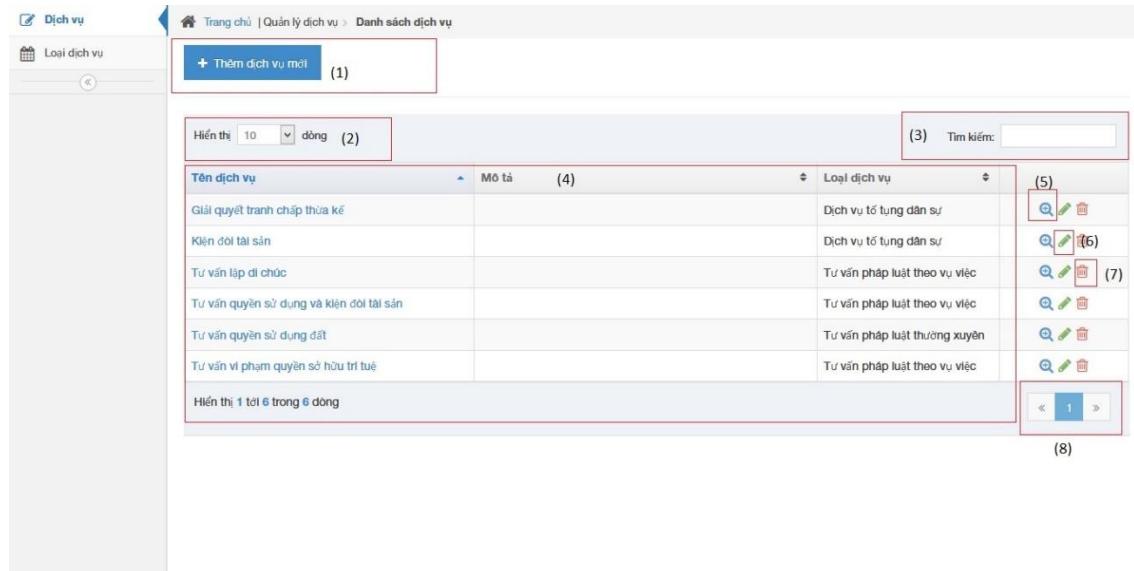


Figure 4-129: List service image

No	Object/Control Name	Type	Required	Description
1	Thêm dịch vụ mới	Button	Yes	Show Add new service pop-up
2	Number of rows	Combo-box	Yes	Choose number of rows in table
3	Search	Textbox	Yes	Search service
4	Services table	Table	Yes	List service
5	View service detail	Icon	Yes	Show service detail pop-up
6	Edit service	Icon	Yes	Delete service
7	Delete service	Icon	Yes	Show edit service pop-up
8	Paging	Button	Yes	Paging the service list

#### 4.3.16.1.3. Sequence diagram

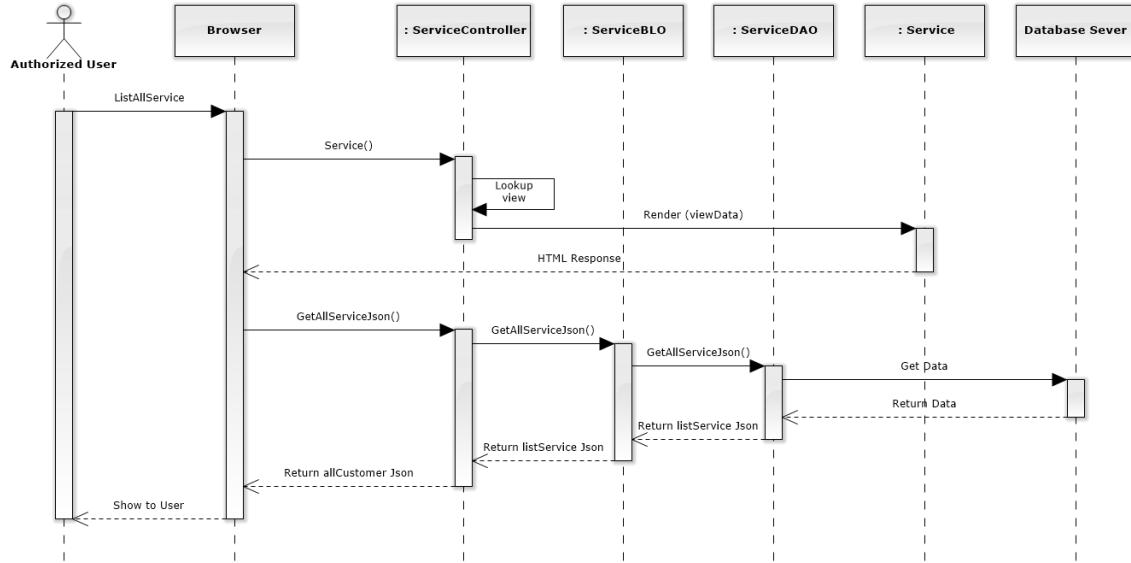


Figure 4-130: List Services Sequence Diagram

#### 4.3.16.2. Add new service

##### 4.3.16.2.1. Screen design

The screenshot shows a dialog box titled 'Thêm dịch vụ'. The form contains the following fields:

- Tên dịch vụ: \* (1) - Input field for service name.
- Loại dịch vụ: \* (2) - Select dropdown for service type.
- Mô tả: (3) - Text area for description.
- Buttons at the bottom:
  - (4) Đóng (Close) button.
  - (5) Thêm mới (Add new) button.

Figure 4-131: Add new service image

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No	Object/Control Name	Type	Required	Description
1	Tên dịch vụ	Textbox	Yes	Name Service
2	Loại dịch vụ	Combo-box	Yes	Service type
3	Mô tả	Textbox	Yes	Description
4	“Đóng”	Button	Yes	Click to close add new service pop-up
5	“Thêm mới”	Button	Yes	Click to add new service

#### 4.3.16.2.2. Sequence diagram

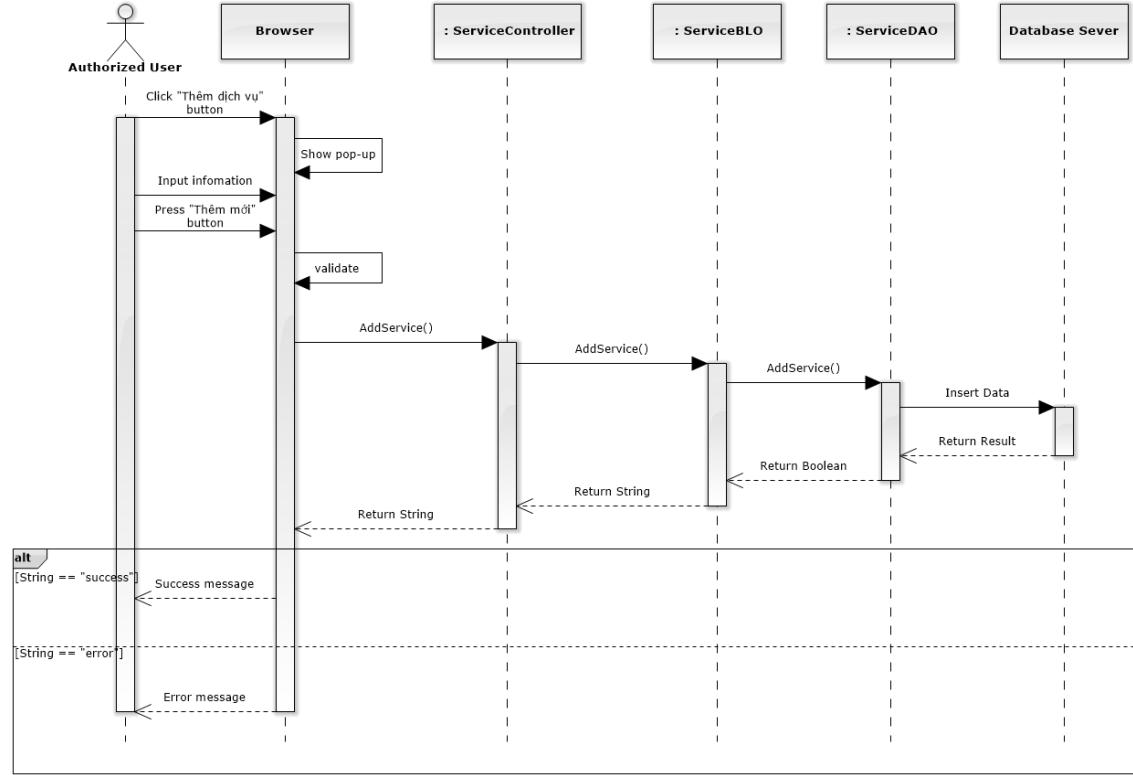


Figure 4-132: Add New Service Sequence Diagram

#### 4.3.16.3. Edit service

##### 4.3.16.3.1. Screen design

The screenshot shows the 'Chi Tiết Dịch Vụ' (Service Detail) screen. At the top, there are input fields for 'Tên dịch vụ:' (Service Name) with a placeholder '(1)' and 'Loại dịch vụ:' (Service Type) with a dropdown menu showing 'Dịch vụ tổ tụng dân sự' (Community Service) with a value '(2)'. Below these are fields for 'Mô tả:' (Description) with a placeholder '(3)'. At the bottom left is a red-bordered button labeled '(4)' containing the text 'Đóng' (Close). At the bottom right is another red-bordered button labeled '(5)' containing the text 'Lưu chỉnh sửa' (Save changes).

Figure 4-133: Edit service image

No	Object/Control Name	Type	Required	Description
1	Tên dịch vụ	Textbox	Yes	Name Service
2	Loại dịch vụ	Combo-box	Yes	Service type
3	Mô tả	Textbox	Yes	Description
4	“Đóng”	Button	Yes	Click to close edit service pop-up
5	“Lưu chỉnh sửa”	Button	Yes	Click to save edit service

#### 4.3.16.3.2. Sequence diagram

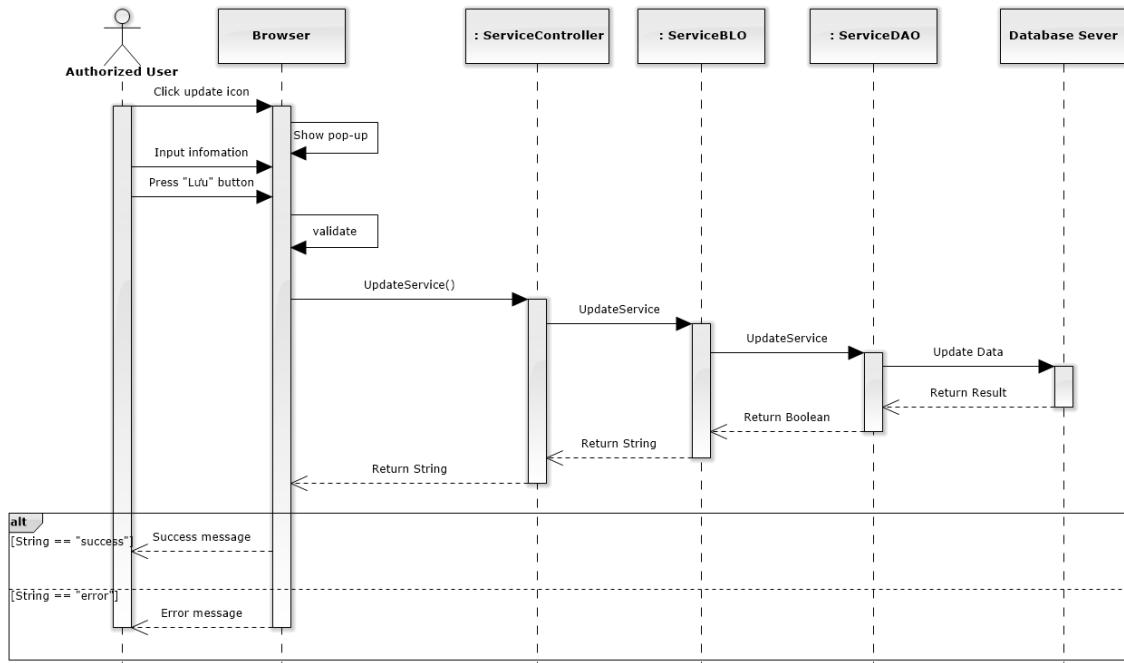


Figure 4-134: Edit Service Sequence Diagram

#### 4.3.16.4. Delete service

##### 4.3.16.4.1. Screen design

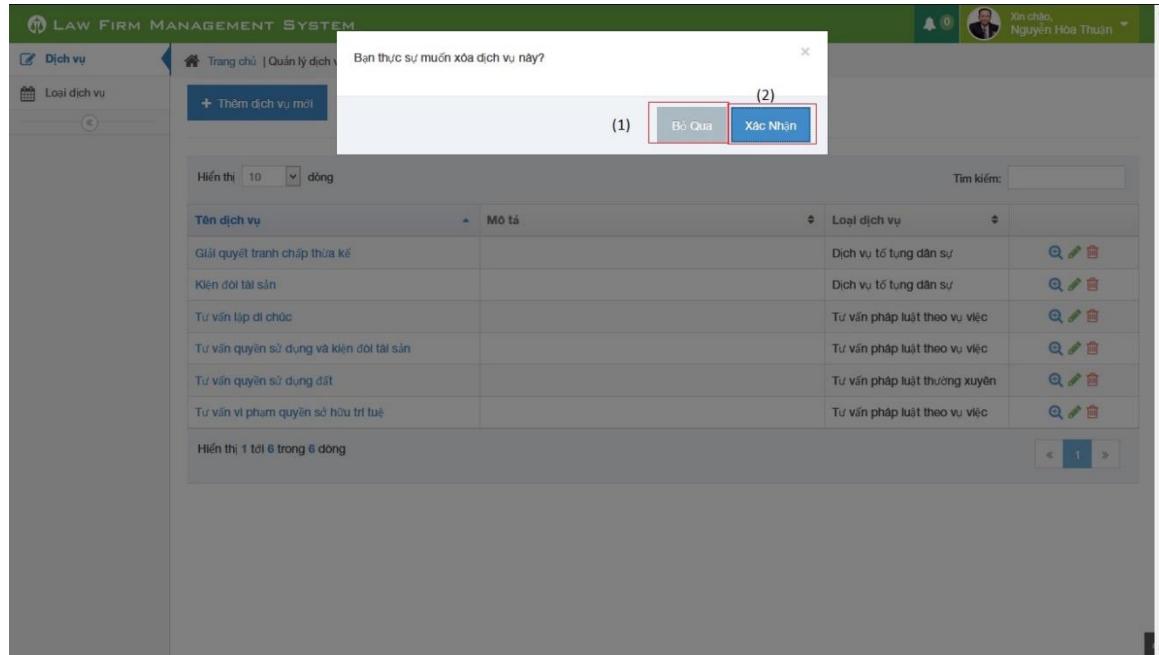


Figure 4-135: Delete service image

No	Object/Control Name	Type	Required	Description
1	BỎ QUA	Button	Yes	Click to close delete service pop-up
2	XÁC NHẬN	Button	Yes	Click to delete service pop-up

#### 4.3.16.4.2. Sequence diagram

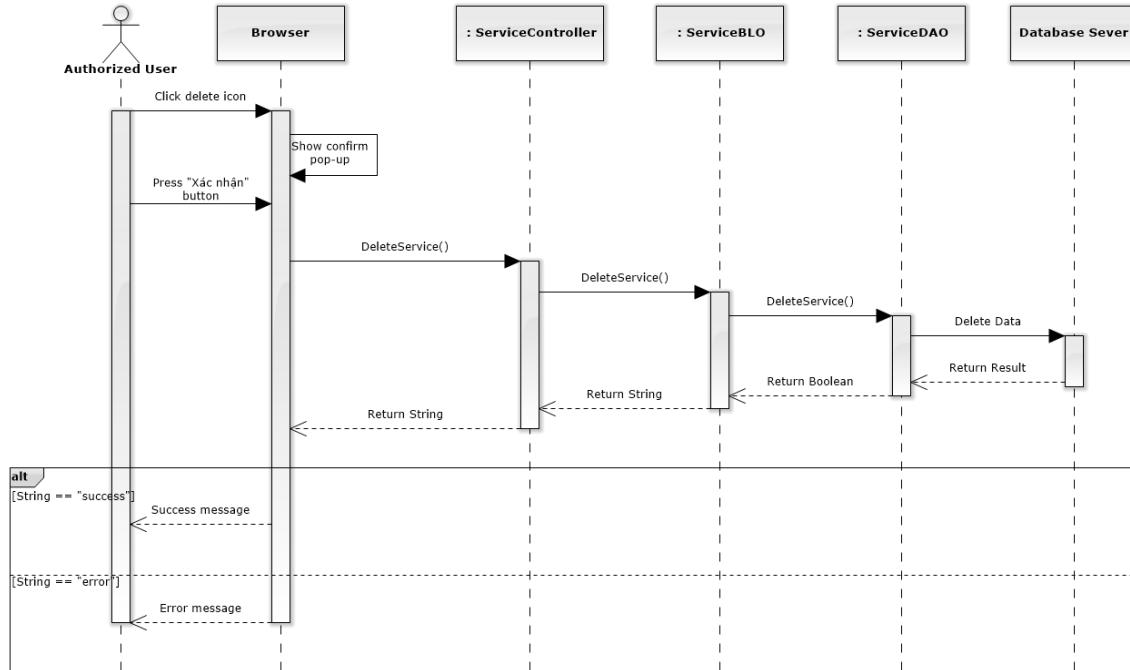


Figure 4-136: Delete Service Sequence Diagram

#### 4.3.17. Manage Office

##### 4.3.17.1. List offices

###### 4.3.17.1.1. Class diagram

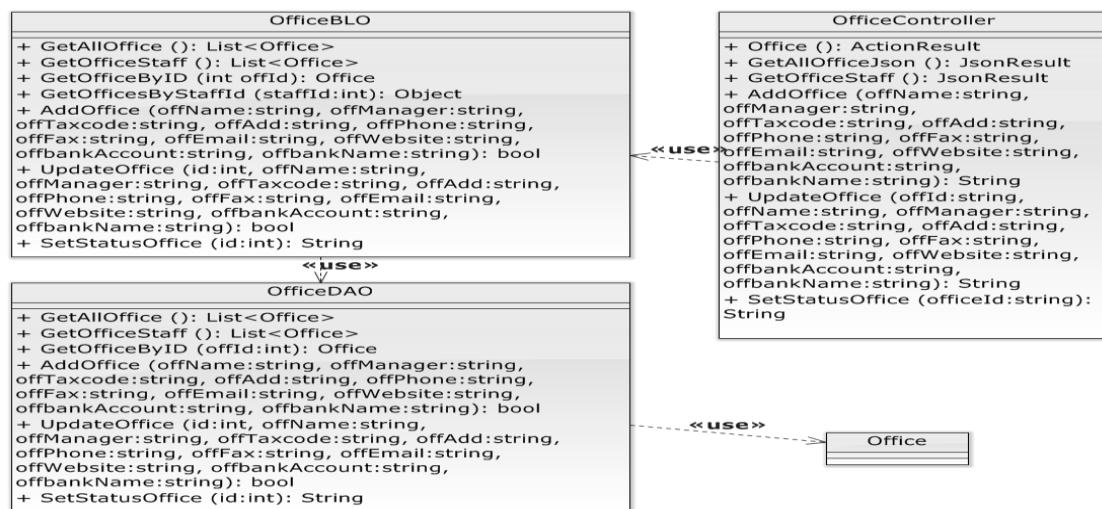


Figure 4-137: Manage office class diagram

#### 4.3.17.1.2. Screen design

Figure 4-138: List office image

No	Object/Control Name	Type	Required	Description
1	Thêm văn phòng	Button	Yes	Click to show popup for add new office
2	Number of rows	Combo-box	Yes	Choose number of rows in table
3	Tìm kiếm	Textbox	Yes	Search office
4	List all office	Table	Yes	List all office
5	View	Button	Yes	Click to show popup detail of office
6	Edit	Button	Yes	Click to show popup edit detail of office information.
7	Paging	Button	Yes	Paging page

#### 4.3.17.1.3. Sequence diagram

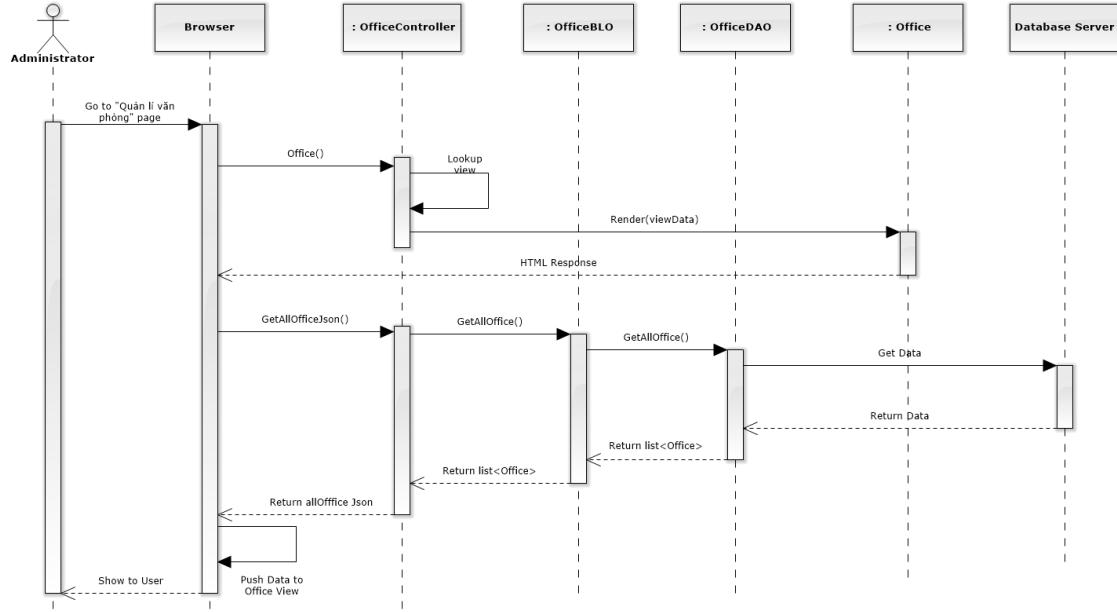


Figure 4-139: List Offices Sequence Diagram

#### 4.3.17.2. Add new office

##### 4.3.17.2.1. Screen design

Figure 4-140: Add new office image

No	Object/Control Name	Type	Required	Description
1	Tên văn phòng	Textbox	Yes	Name of office
2	Người quản lí	Textbox	Yes	Nam's manager of office
3	Số tài khoản	Textbox	Yes	Bank account number of office
4	Fax	Textbox	Yes	Fax of office

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5	Email	Textbox	Yes	Email of office
6	Địa chỉ văn phòng	Textbox	Yes	Address of office
7	Điện thoại	Textbox	Yes	Phone number of office
8	Mã số thuế	Textbox	Yes	Tax number of office
9	Ngân hàng	Textbox	Yes	Name of bank of office
10	Website	Textbox	Yes	Website of office
11	“Làm trống”	Button	Yes	Clear field
12	“Thêm mới”	Button	Yes	Click to add new office

#### 4.3.17.2.2. Sequence diagram

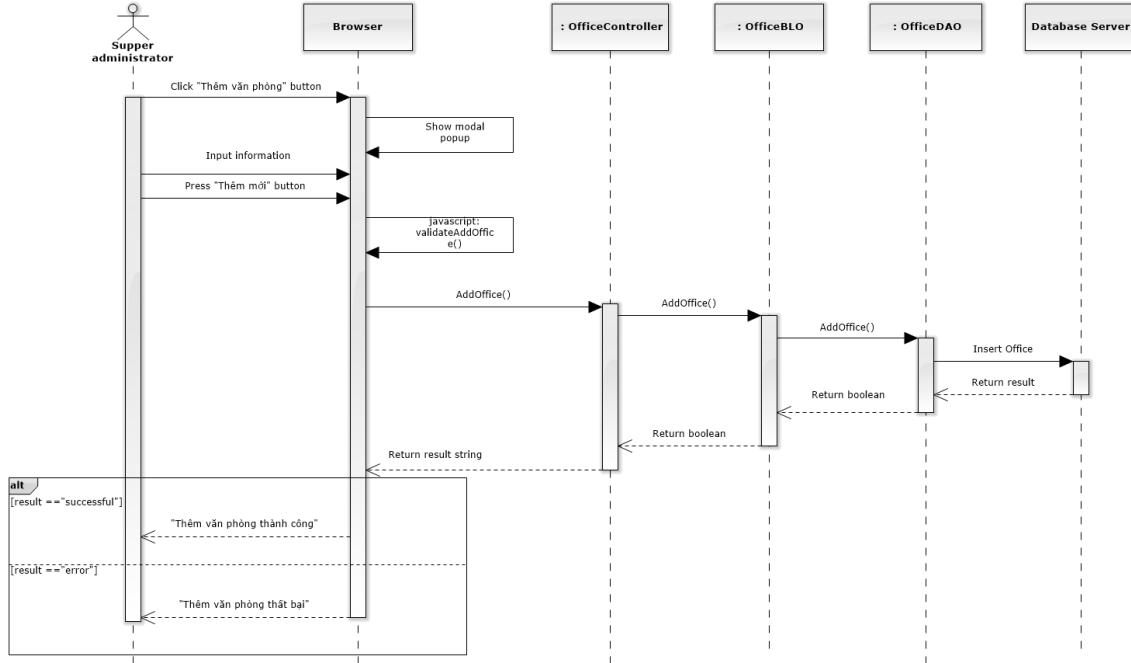


Figure 4-141: Add New Office Sequence Diagram

#### 4.3.17.3. Edit office

##### 4.3.17.3.1. Screen design

**Chi tiết văn phòng**

Tên văn phòng *	Luật Thuận Nguyễn Hồ Chí Minh (1)	Địa chỉ văn phòng *	218 Tân Hương, Phường Tân Quý, Quận Tân Phú, HCM (6)
Người quản lý *	Nguyễn Hòa Thuận (2)	Điện thoại *	0866766963 (7)
Số tài khoản	 (3)	Mã số thuế	 (8)
Fax	 (4)	Ngân hàng	 (9)
Email *	info@luatthuannguyen.com (5)	Website	www.luatthuannguyen.com (10)
<input checked="" type="checkbox"/> Ngừng hoạt động (11)		<input style="background-color: #ccc; color: black; border: 1px solid #ccc; padding: 5px; margin-right: 10px;" type="button" value="X Đóng"/> <input checked="" style="background-color: #6aa84f; color: white; border: 1px solid #6aa84f; padding: 5px;" type="button" value="Lưu chỉnh sửa"/>	

Figure 4-142: Edit office image

No	Object/Control Name	Type	Required	Description
1	Tên văn phòng	Textbox	Yes	Name of office
2	Người quản lý	Textbox	Yes	Nam's manager of office
3	Số tài khoản	Textbox	Yes	Bank account number of office

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4	Fax	Textbox	Yes	Fax of office
5	Email	Textbox	Yes	Email of office
6	Địa chỉ văn phòng	Textbox	Yes	Address of office
7	Điện thoại	Textbox	Yes	Phone number of office
8	Mã số thuế	Textbox	Yes	Tax number of office
9	Ngân hàng	Textbox	Yes	Name of bank of office
10	Website	Textbox	Yes	Website of office
11	Ngừng hoạt động	Link	Yes	Status of office
12	“Đóng”	Button	Yes	Click to close edit office
13	“Lưu chỉnh sửa”	Button	Yes	Click to save edit office

#### 4.3.17.3.2. Sequence diagram

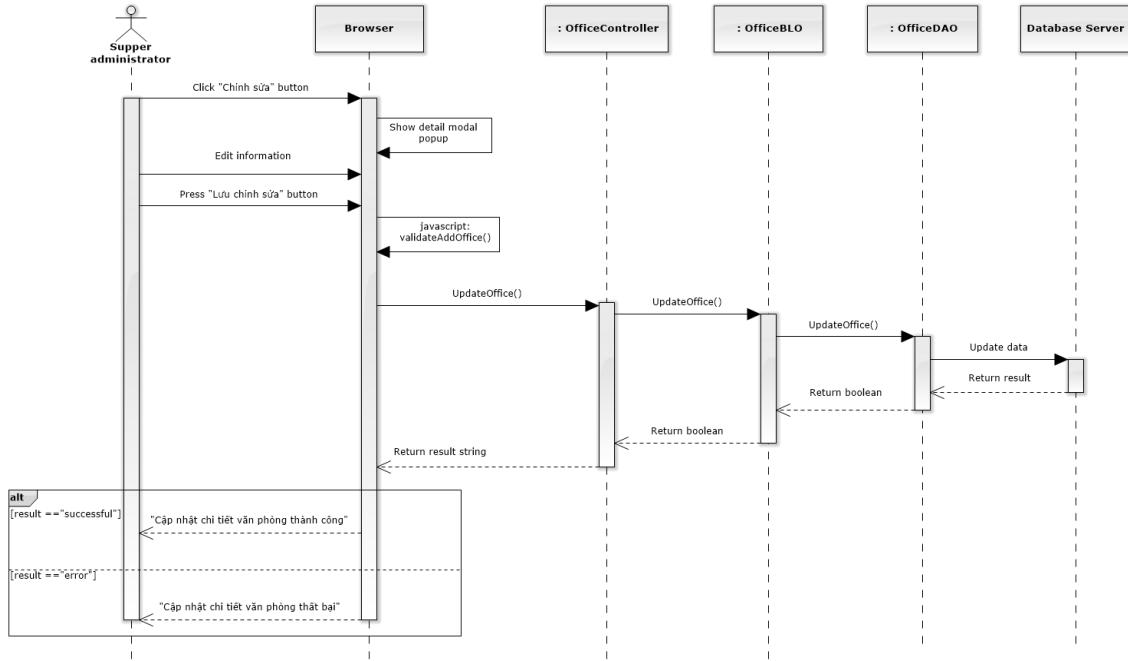


Figure 4-143: Edit Office Sequence Diagram

#### 4.3.17.4. Deactivate/ Activate office

##### 4.3.17.4.1. Screen design

Bạn có muốn thực hiện thao tác này?

(1) (2)

BỎ QUA XÁC NHẬN

Tên văn phòng  
Luật Thuận Nguyễn Hồ Chí Minh  
218 Tân Hương, Phường Tân Quý, Quận Tân Phú, HCM

Người quản lý \*  
Nguyễn Hòa Thuận  
Điện thoại \*  
0866766963

Số tài khoản  
  
Fax  
  
Email \*  
Info@luatthuannguyen.com

Mã số thuế  
  
Ngân hàng  
  
Website  
www.luatthuannguyen.com

**Ngừng hoạt động (3)**

Đóng

Chỉnh sửa

Figure 4-144: Deactivate / Activate Office image

No	Object/Control Name	Type	Required	Description
1	“Bỏ qua”	Button	Yes	Click to close Deactive office
2	“Xác nhận”	Button	Yes	Click to Deactive office

3	Ngừng hoạt động	Link	Yes	Click to open confirm Deactive office
---	-----------------	------	-----	---

#### 4.3.17.4.2. Sequence diagram

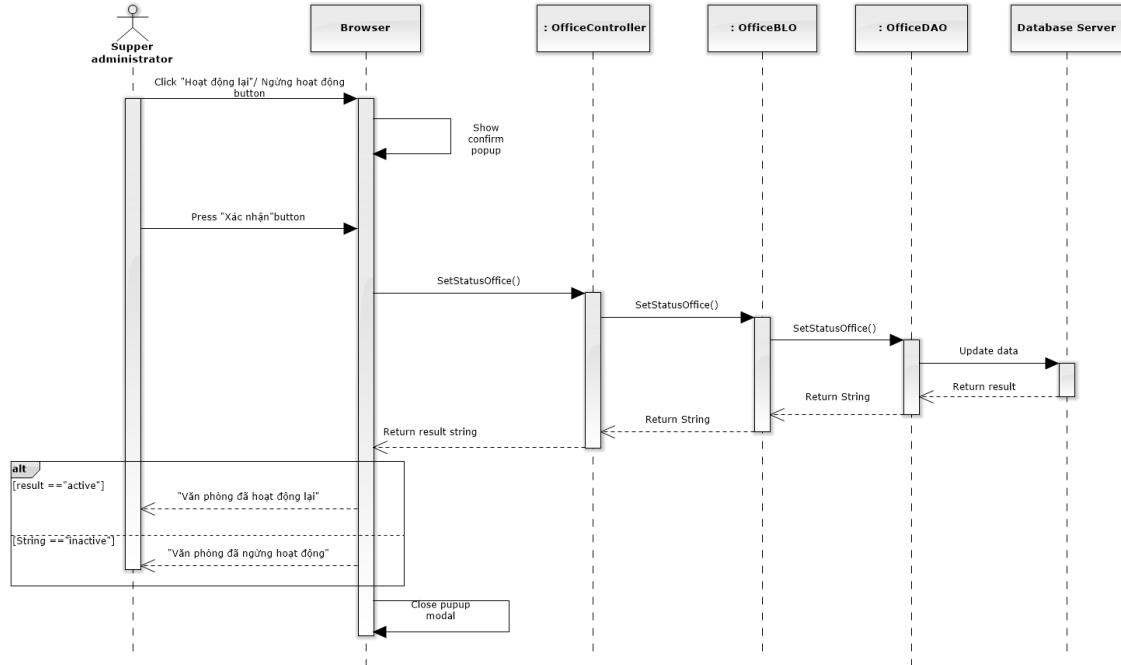


Figure 4-145: Deactivate / Activate Office Sequence Diagram

### 4.3.18. Statistic

#### 4.3.18.1. Office statistic

##### 4.3.18.1.1. Class diagram

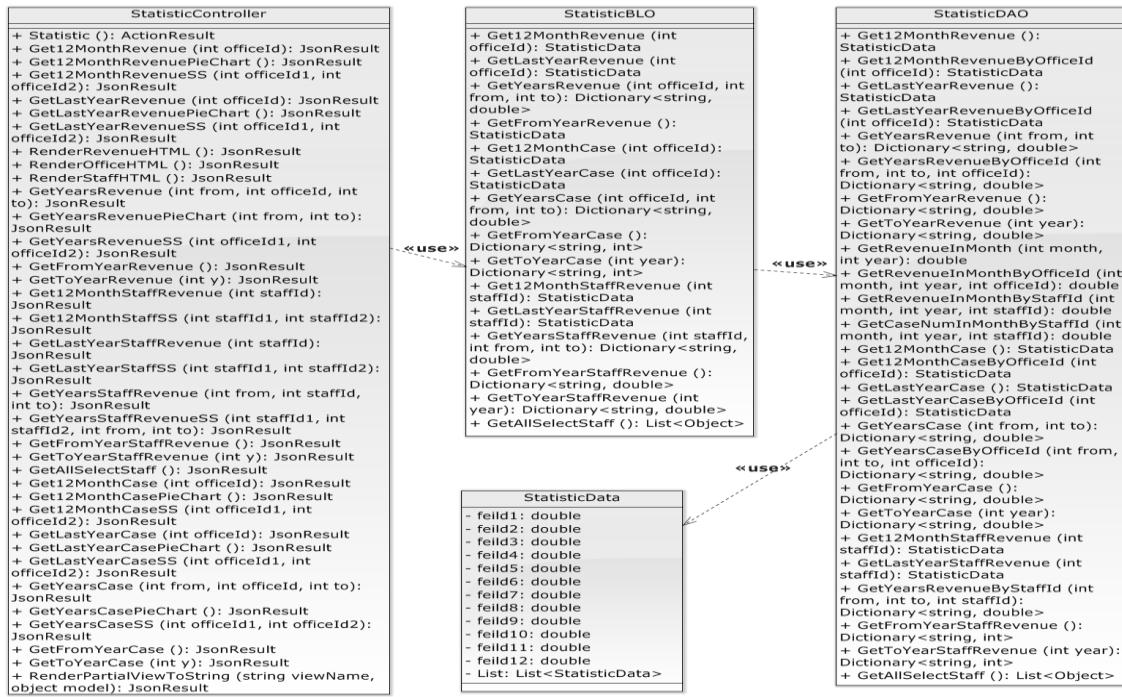


Figure 4-146: Statistic Class Diagram

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### 4.3.18.1.2. Screen design

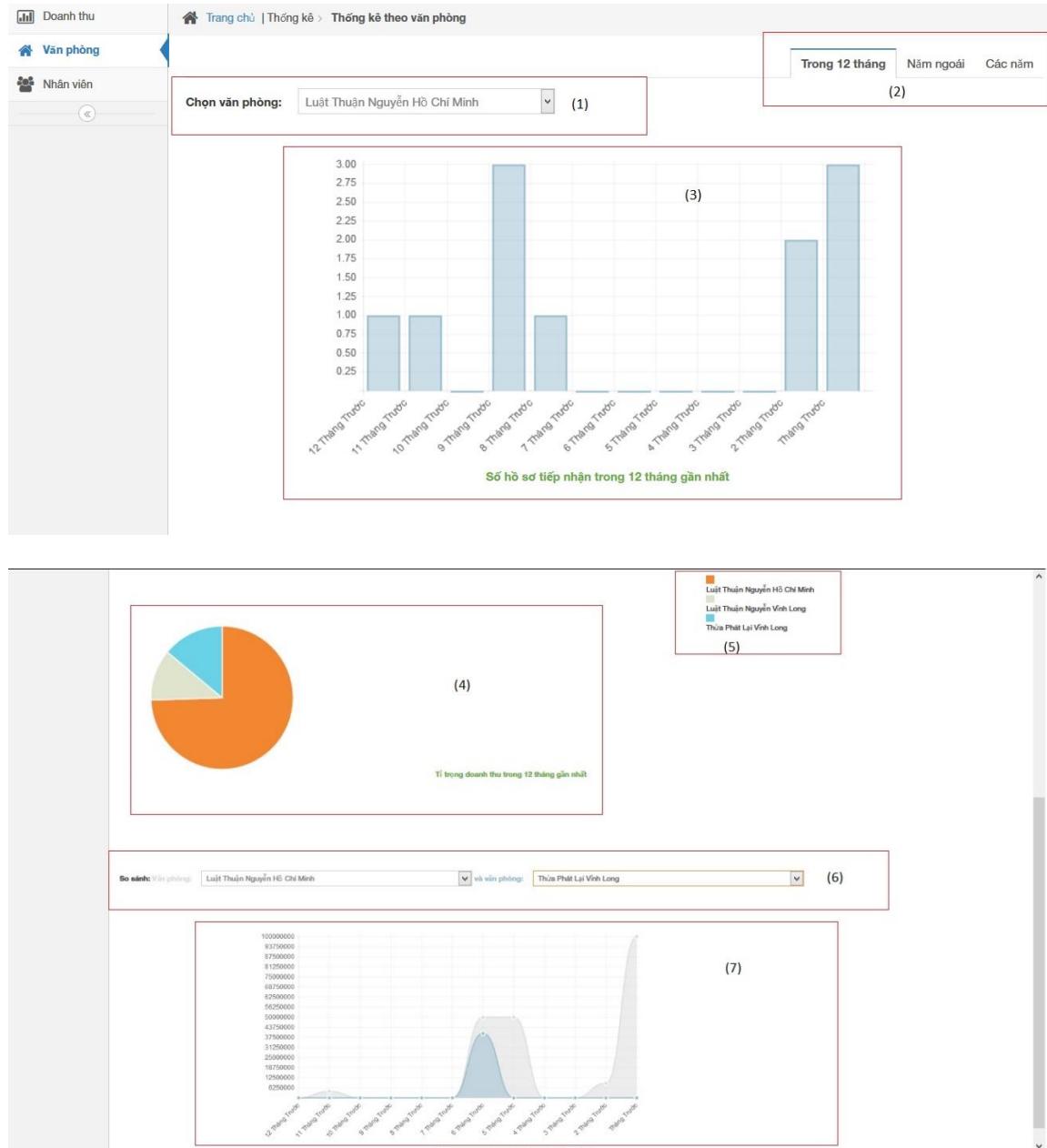


Figure 4-147: Office Statistic image

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No	Object/Control Name	Type	Required	Description
1	Chọn văn phòng	Combo box	Yes	Click to choose name of office
2	Tab statistic	Link	Yes	Click to choose tab of statistic
3	Bar chart	Image	Yes	Image display of Bar chart
4	Pie chart	Image	Yes	Image display of Bar chart
5	Name office	Text	Yes	Name of office
6	Select name office	Combo box	Yes	Select name for comparison office
7	Comparison chart	Image	Yes	Image display of Bar chart

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### 4.3.18.1.3. Sequence diagram

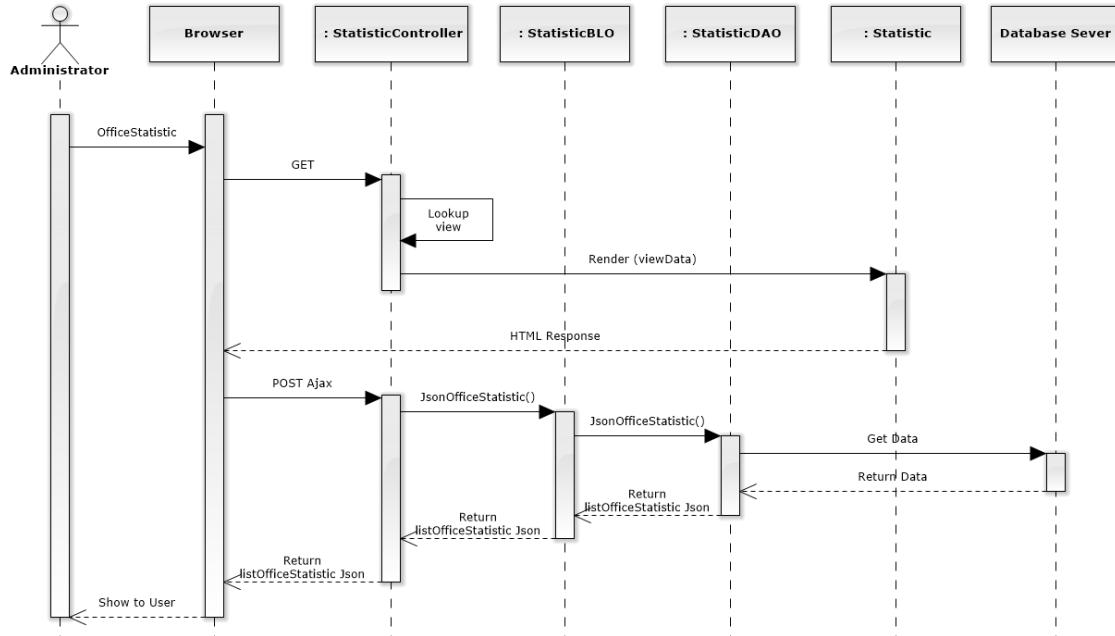


Figure 4-148: Office Statistic Sequence Diagram

### 4.3.18.2. Office statistic in year

#### 4.3.18.2.1. Screen design

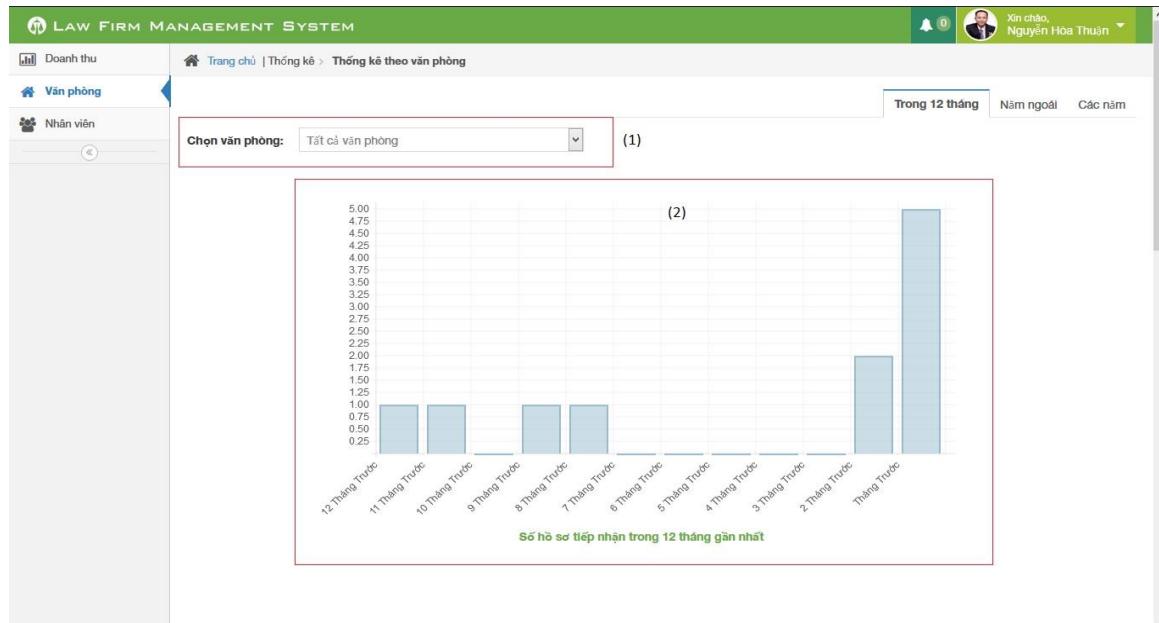


Figure 4-149: Office Statistic in year image

No	Object/Control Name	Type	Required	Description
1	Chọn văn phòng	Combo box	Yes	Click to choose name of office
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.2.2. Sequence diagram

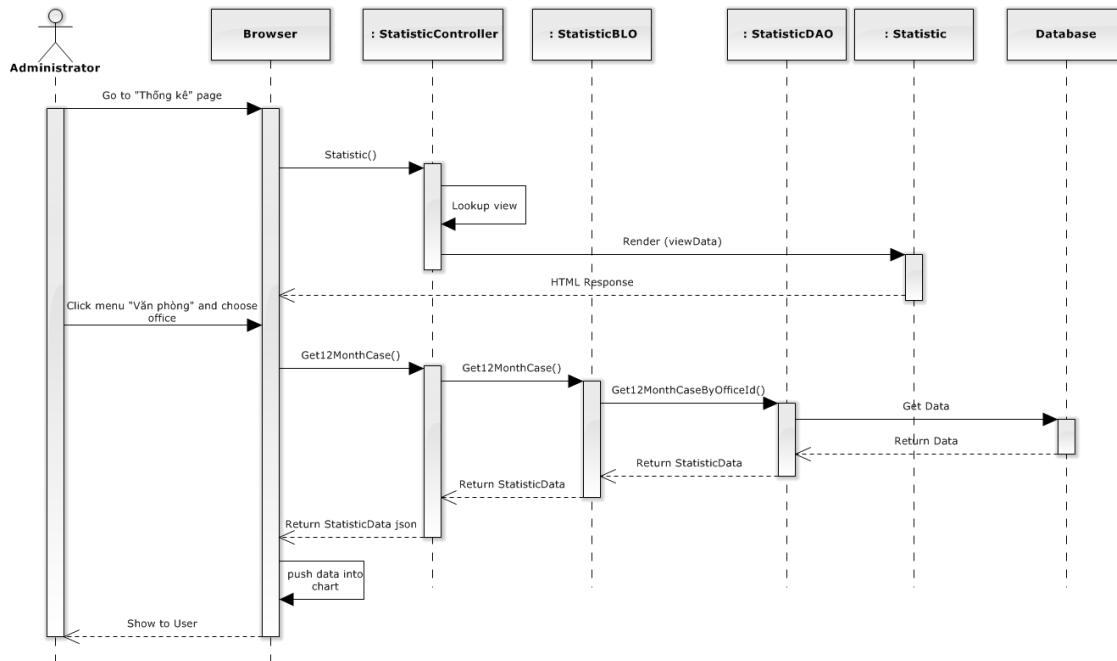


Figure 4-150: Office Statistic in year sequence diagram

#### 4.3.18.3. Office statistic last year

##### 4.3.18.3.1. Screen design

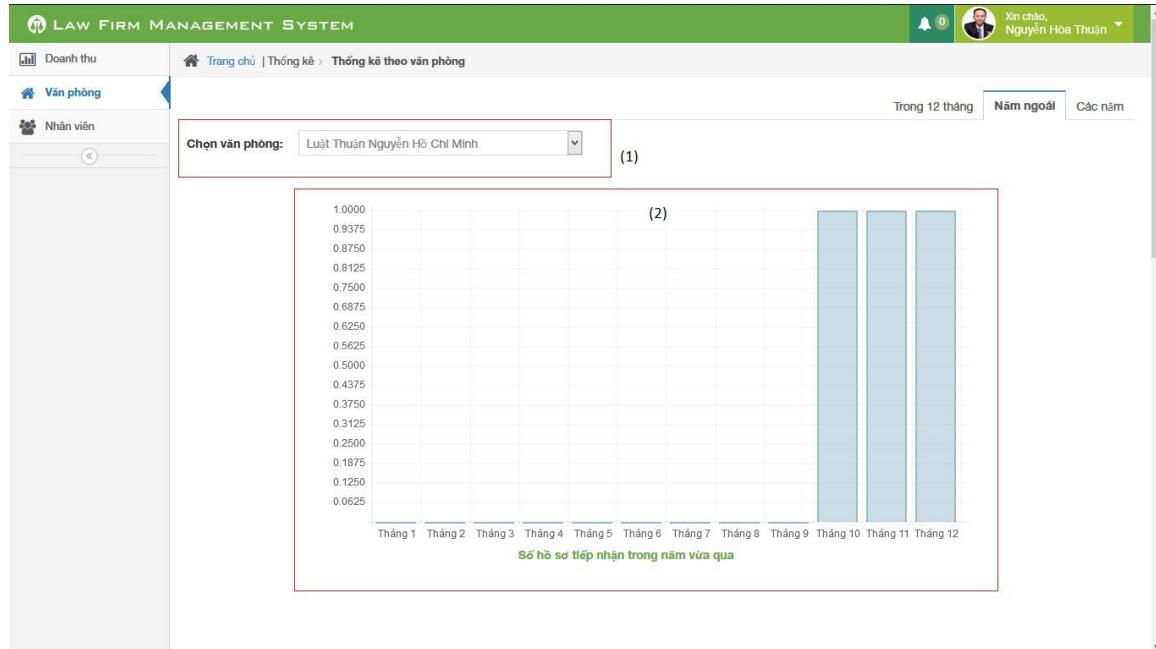


Figure 4-151: Office Statistic last year image

No	Object/Control Name	Type	Required	Description
1	Chọn văn phòng	Combo box	Yes	Click to choose name of office
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.3.2. Sequence diagram

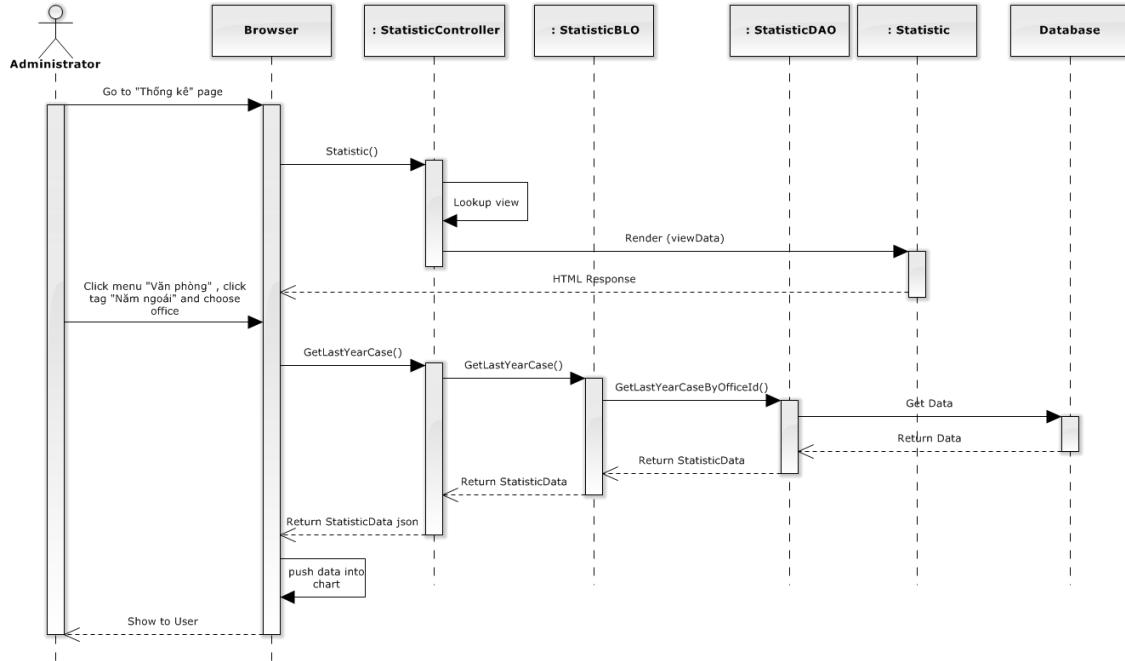


Figure 4-152: Office Statistic last year sequence diagram

#### 4.3.18.4. Office statistic in every year

##### 4.3.18.4.1. Screen design

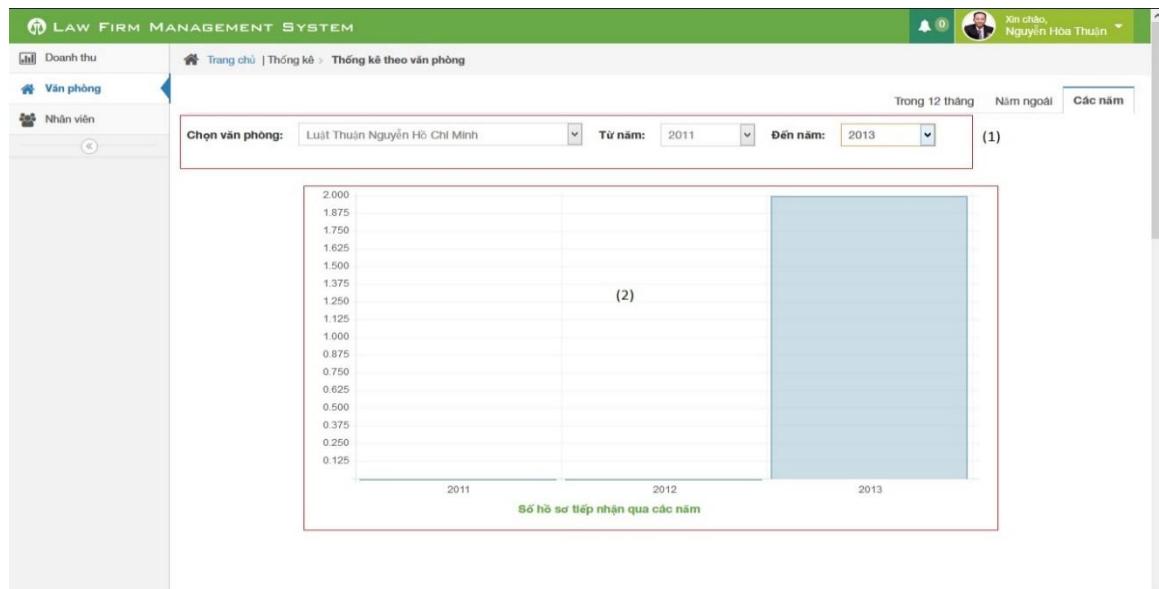


Figure 4-153: Office Statistic in every year image

No	Object/Control Name	Type	Required	Description
1	Chọn văn phòng từ năm đến năm	Combo box	Yes	Click to choose name of office with from year and to year
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.4.2. Sequence diagram

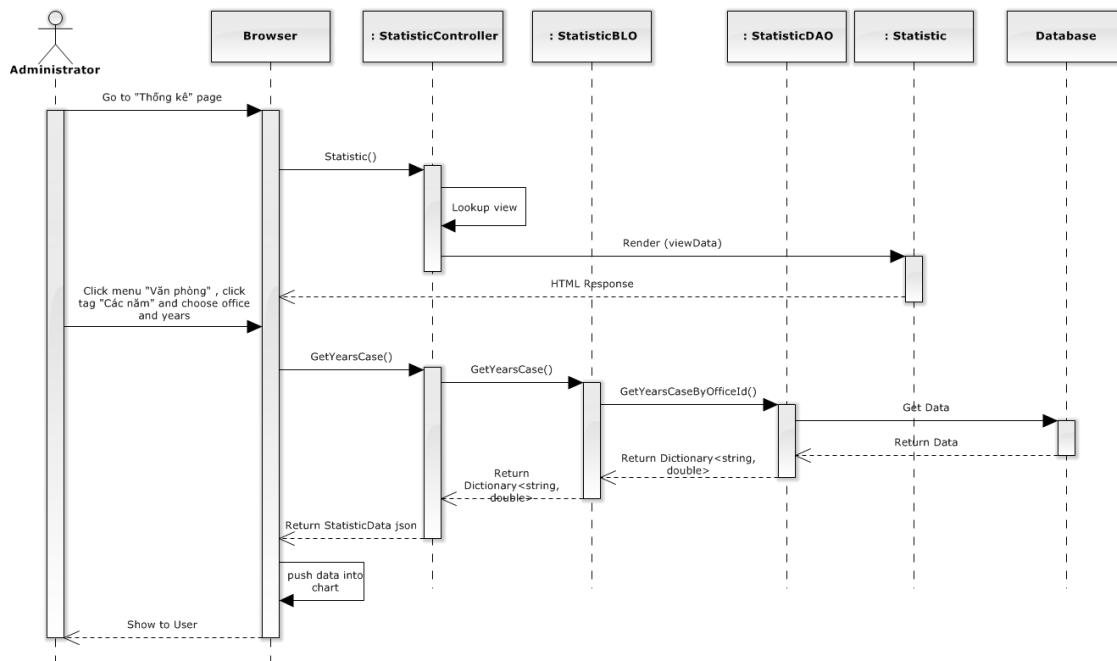


Figure 4-154: Office Statistic in every year sequence diagram

#### 4.3.18.5. Staff statistic

##### 4.3.18.5.1. Screen design

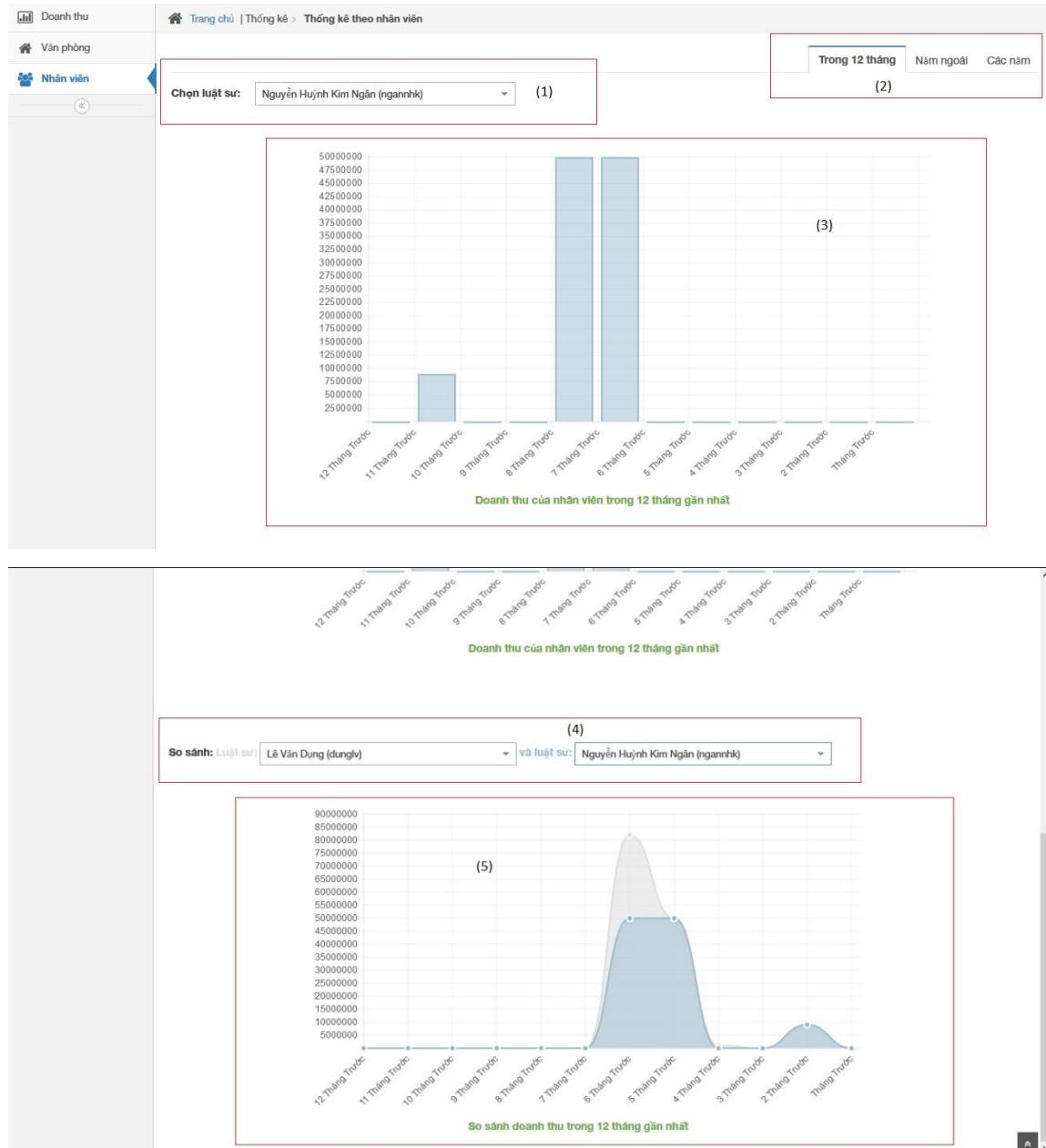


Figure 4-155: Staff Statistic image

No	Object/Control Name	Type	Required	Description
1	Chọn luật sư	Combo box	Yes	Click to choose name of staff
2	Tab statistic	Link	Yes	Click to choose tab of statistic
3	Bar chart	Image	Yes	Image display of Bar chart
4	Select name staff	Combo box	Yes	Select name for comparison staff
5	Comparison chart	Image	Yes	Image display of Bar chart

#### 4.3.18.5.2. Sequence diagram

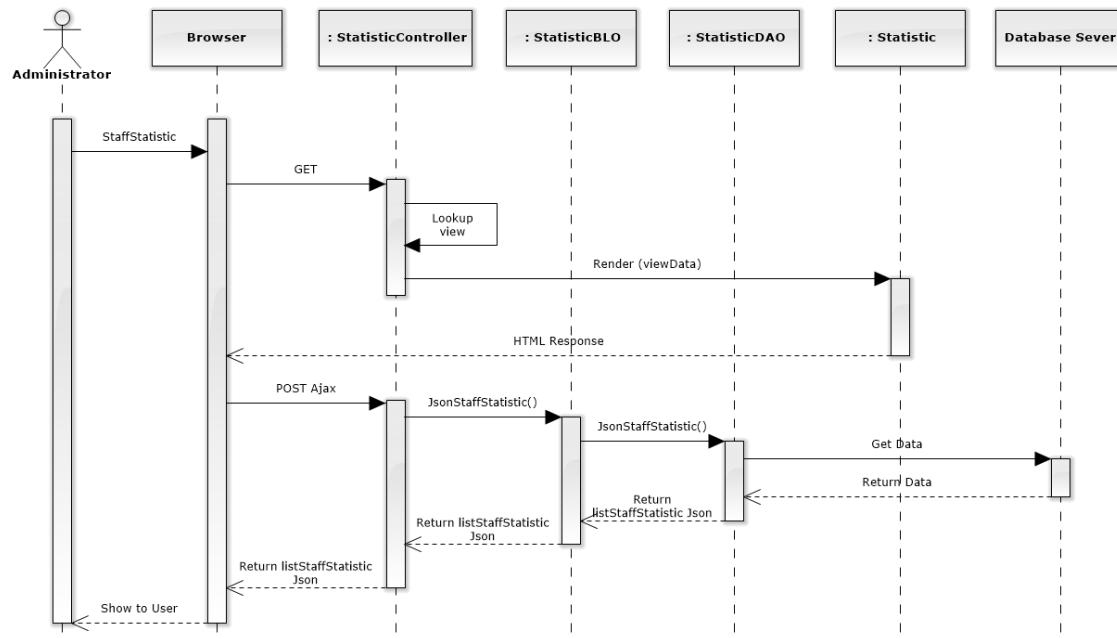


Figure 4-156: Staff Statistic Sequence Diagram

#### 4.3.18.6. Staff statistic in year

##### 4.3.18.6.1. Screen design

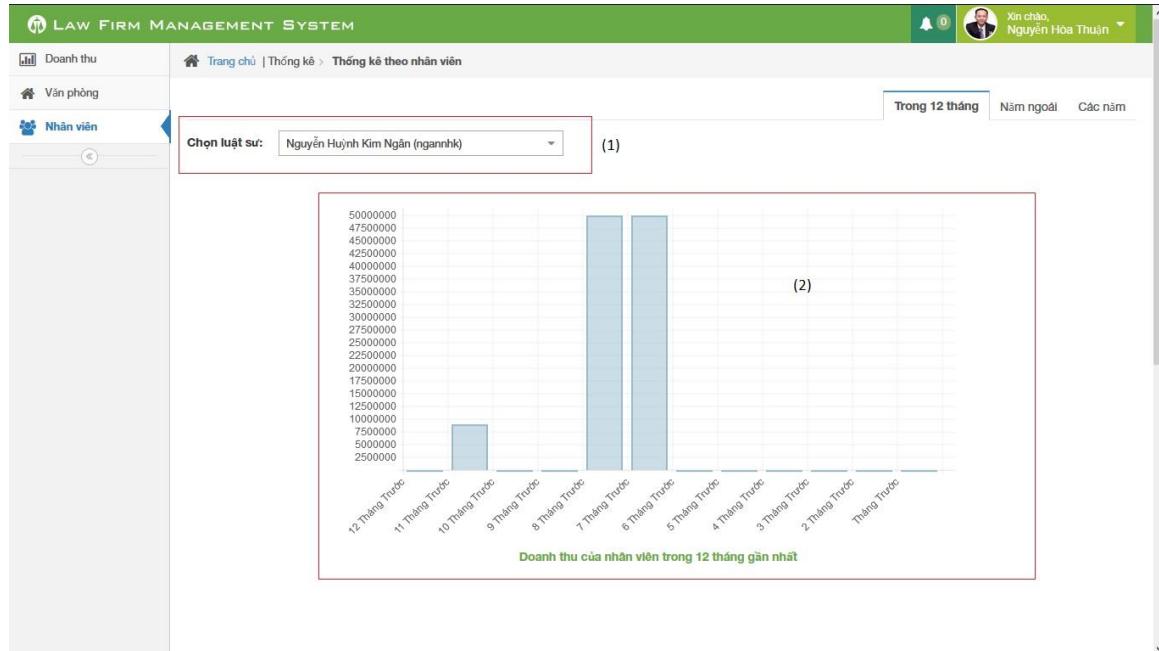


Figure 4-157: Staff Statistic in year image

No	Object/Control Name	Type	Required	Description
1	Chọn luật sư	Combo box	Yes	Click to choose name of lawyer
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.6.2. Sequence diagram

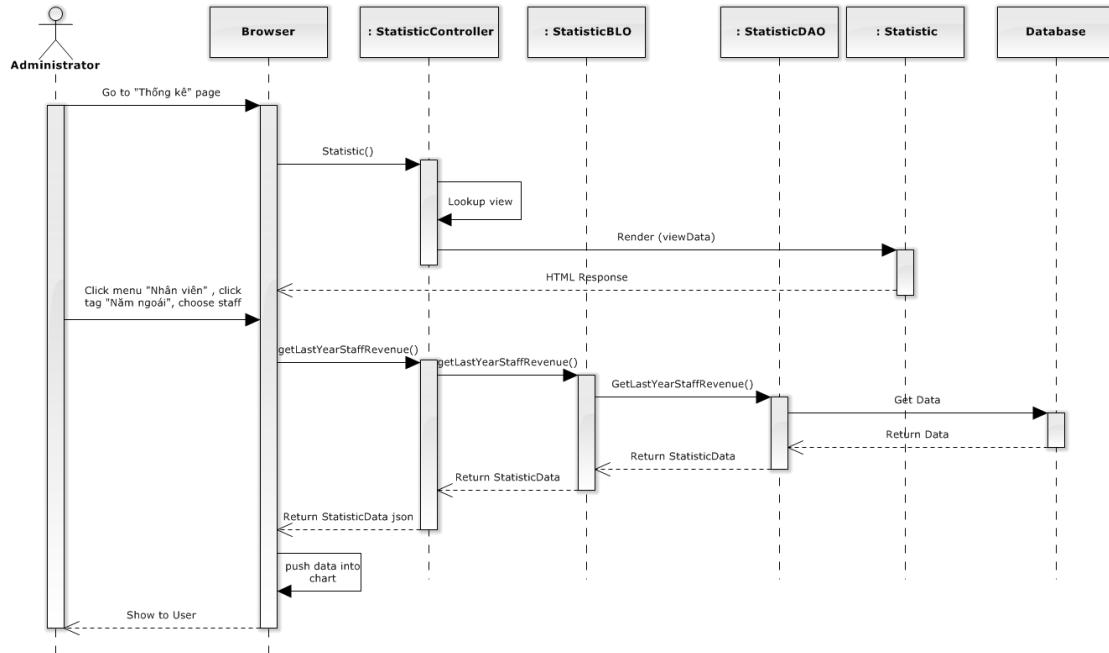


Figure 4-158: Staff Statistic in year sequence diagram

#### 4.3.18.7. Staff statistic in last year

##### 4.3.18.7.1. Screen design

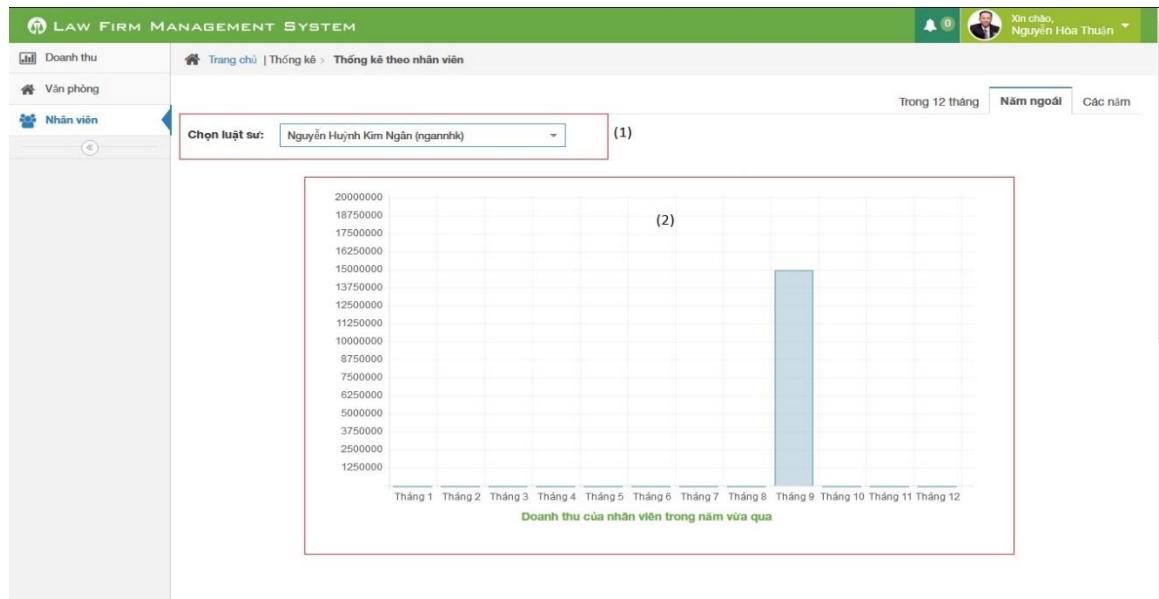


Figure 4-159: Staff Statistic in last year image

No	Object/Control Name	Type	Required	Description
1	Chọn luật sư	Combo box	Yes	Click to choose name of lawyer
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.7.2. Sequence diagram

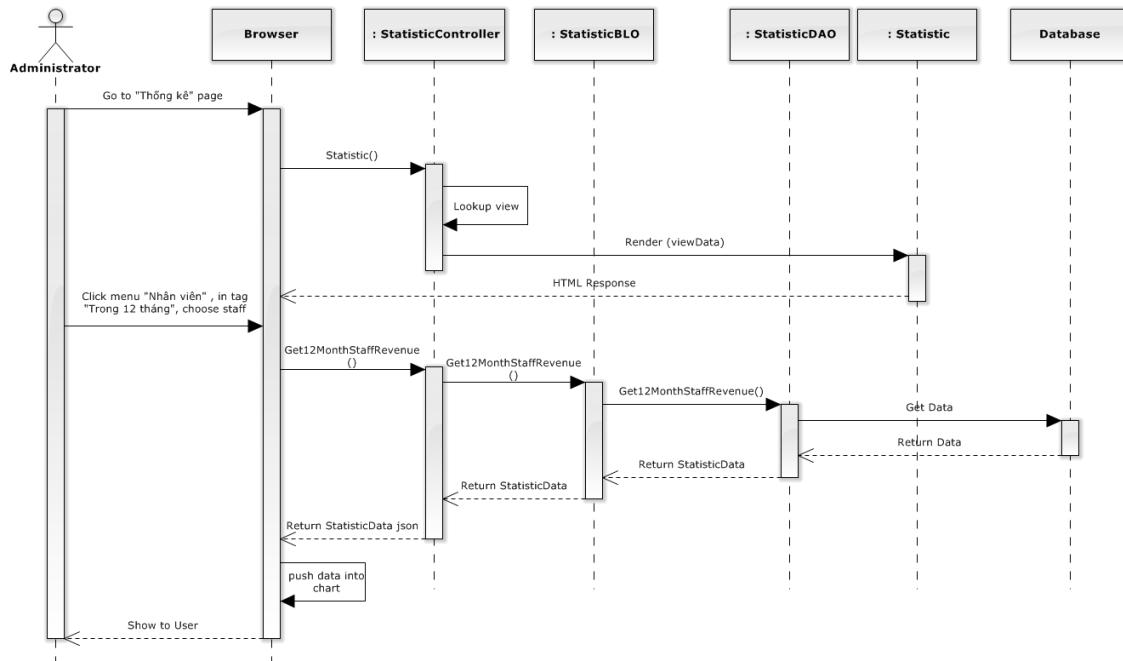


Figure 4-160: Staff Statistic in last year sequence diagram

#### 4.3.18.8. Staff statistic in every year

##### 4.3.18.8.1. Screen design

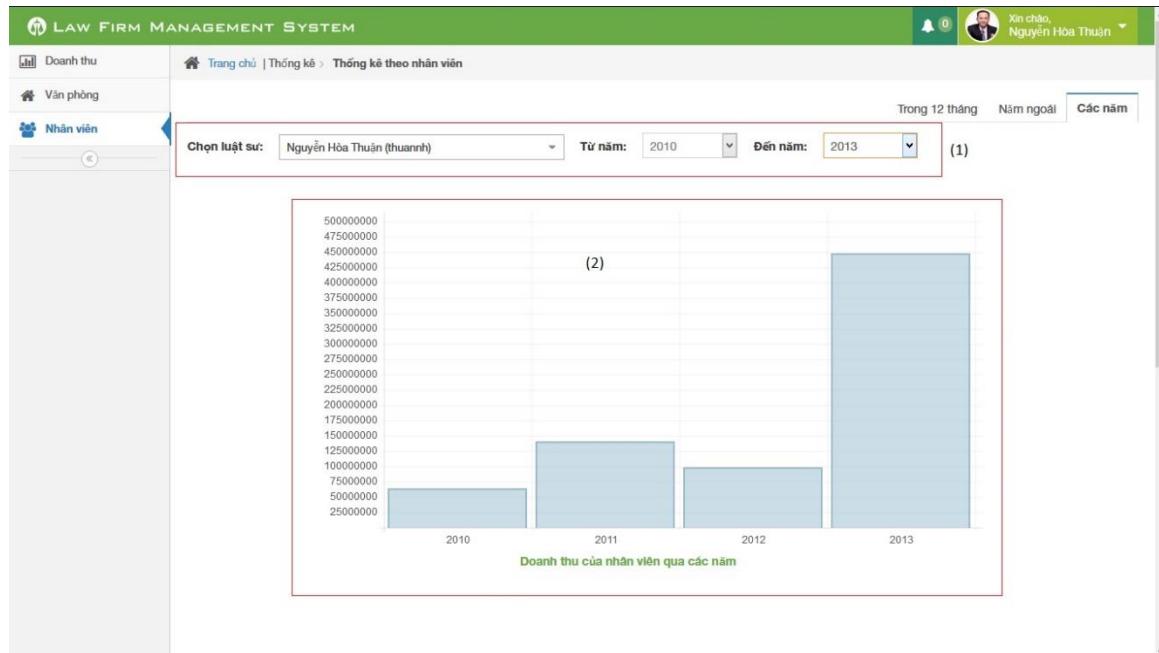


Figure 4-161: Staff Statistic in every year image

No	Object/Control Name	Type	Required	Description
1	Chọn luật sư từ năm đến năm	Combo box	Yes	Click to choose name of lawyer with from year and to year
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.8.2. Sequence diagram

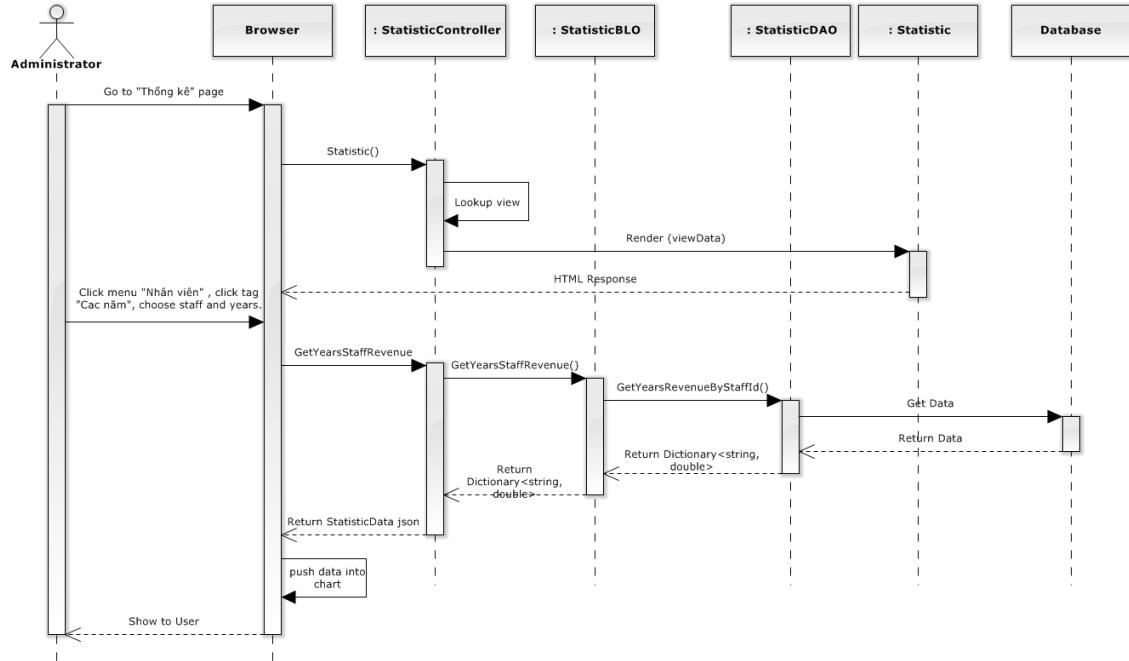


Figure 4-162: Staff Statistic in every year sequence diagram

#### 4.3.18.9. Revenue statistic

##### 4.3.18.9.1. Screen design

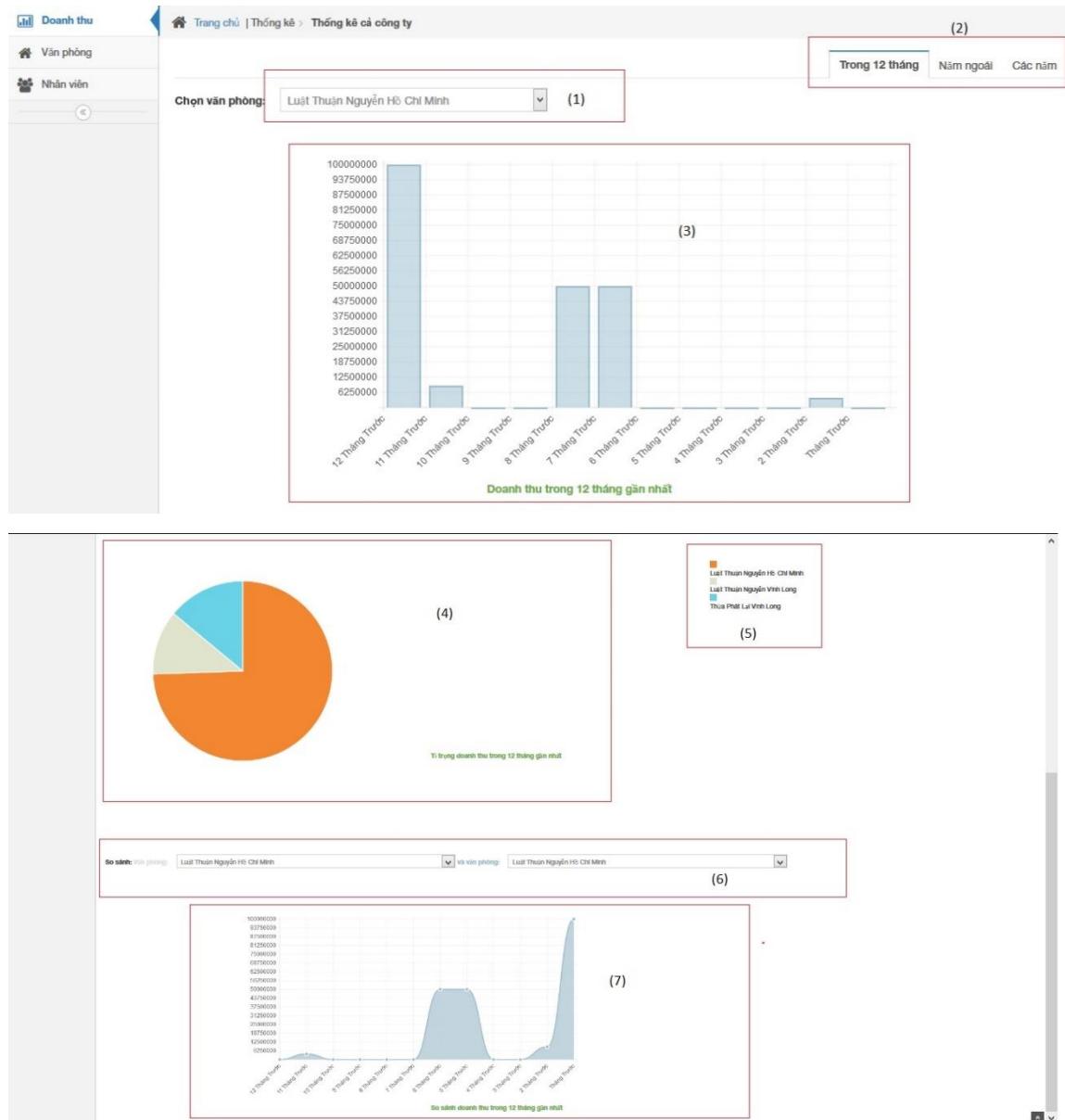


Figure 4-163: Revenue Statistic image

Capstone Project: LFMS

No	Object/Control Name	Type	Required	Description
1	Chọn văn phòng	Combo box	Yes	Click to choose name of office
2	Tab statistic	Link	Yes	Click to choose tab of statistic
3	Bar chart	Image	Yes	Image display of Bar chart
4	Pie chart	Image	Yes	Image display of Bar chart
5	Name office	Text	Yes	Name of office
6	Select name office	Combo box	Yes	Select name for comparison office
7	Comparison chart	Image	Yes	Image display of Bar chart

## Capstone Project: LFMS

### 4.3.18.9.2. Sequence diagram

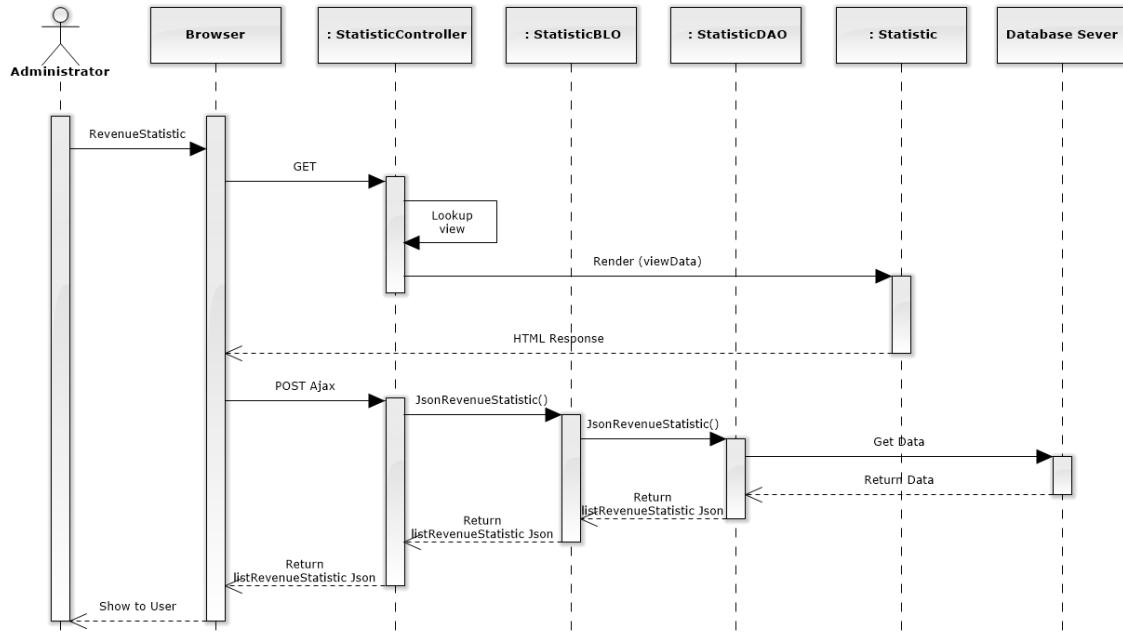


Figure 4-164: Revenue Statistic Sequence Diagram

### 4.3.18.10. Revenue statistic in year

#### 4.3.18.10.1. Screen design

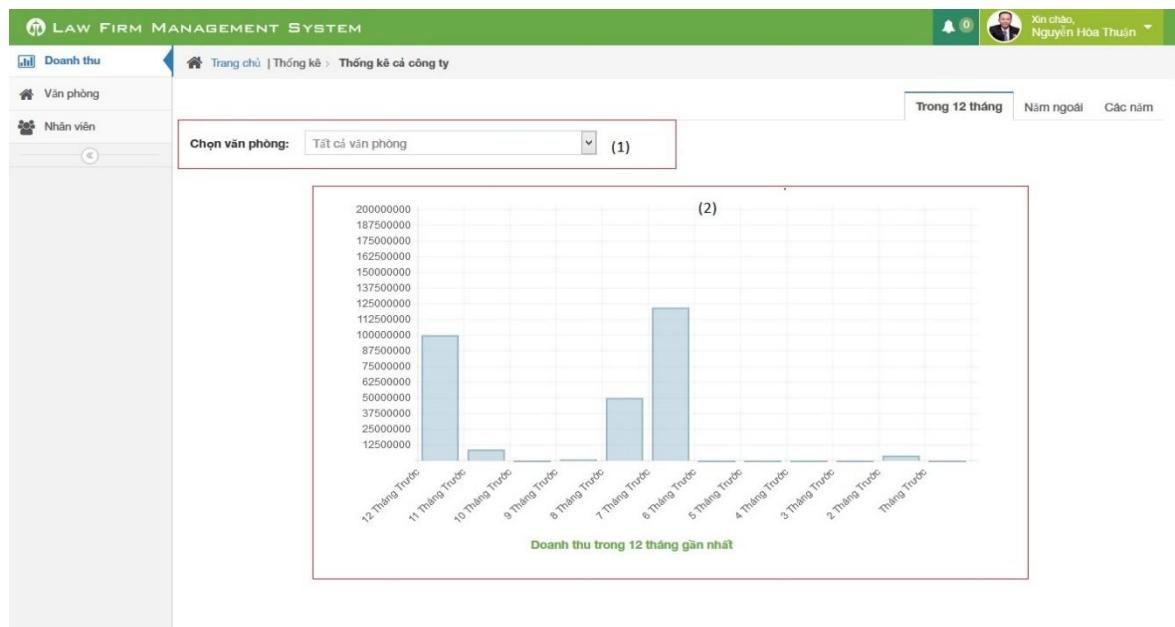


Figure 4-165: Revenue Statistic in year image

No	Object/Control Name	Type	Required	Description
1	Chọn văn phòng	Combo box	Yes	Click to choose name of office
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.10.2. Sequence diagram

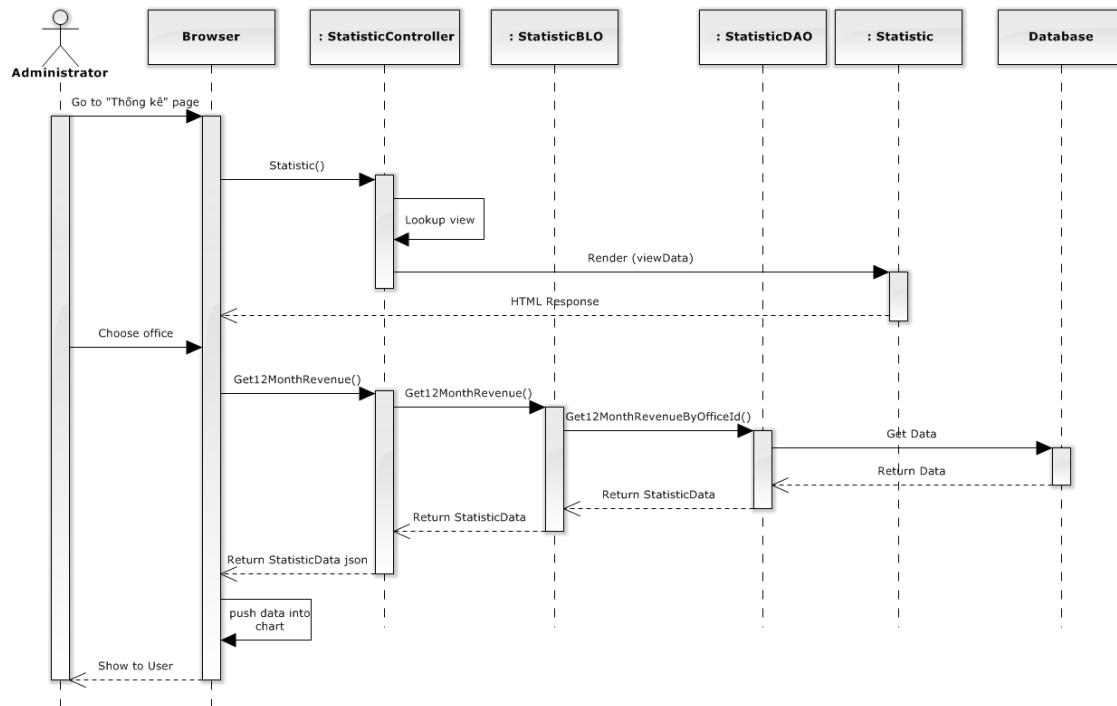


Figure 4-166: Revenue Statistic in year sequence diagram

#### 4.3.18.11. Revenue statistic in last year

##### 4.3.18.11.1. Screen design

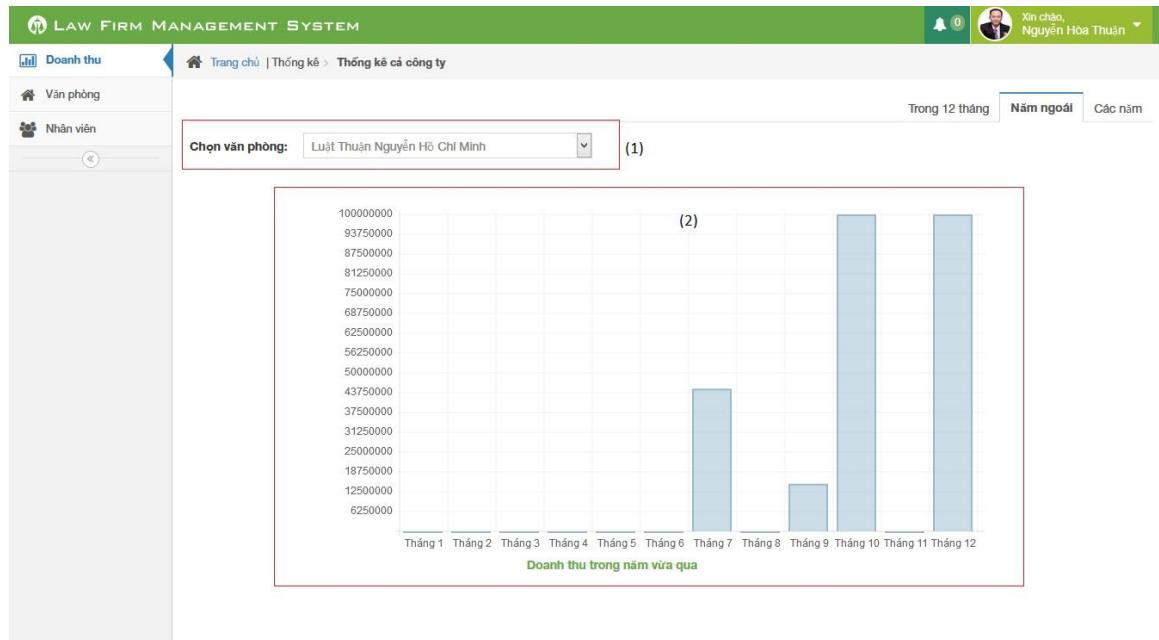


Figure 4-167: Revenue Statistic in last year image

No	Object/Control Name	Type	Required	Description
1	Chọn văn phòng	Combo box	Yes	Click to choose name of office
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.11.2. Sequence diagram

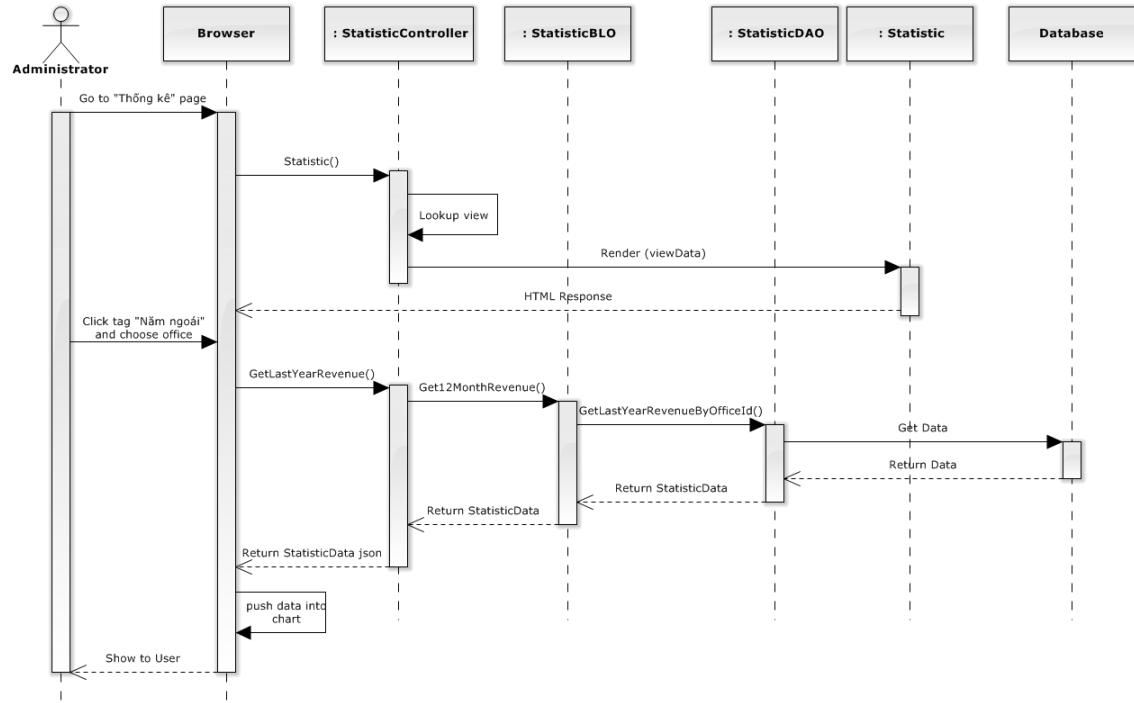


Figure 4-168: Revenue Statistic in last year sequence diagram

#### 4.3.18.12. Revenue statistic in every year

##### 4.3.18.12.1. Screen design

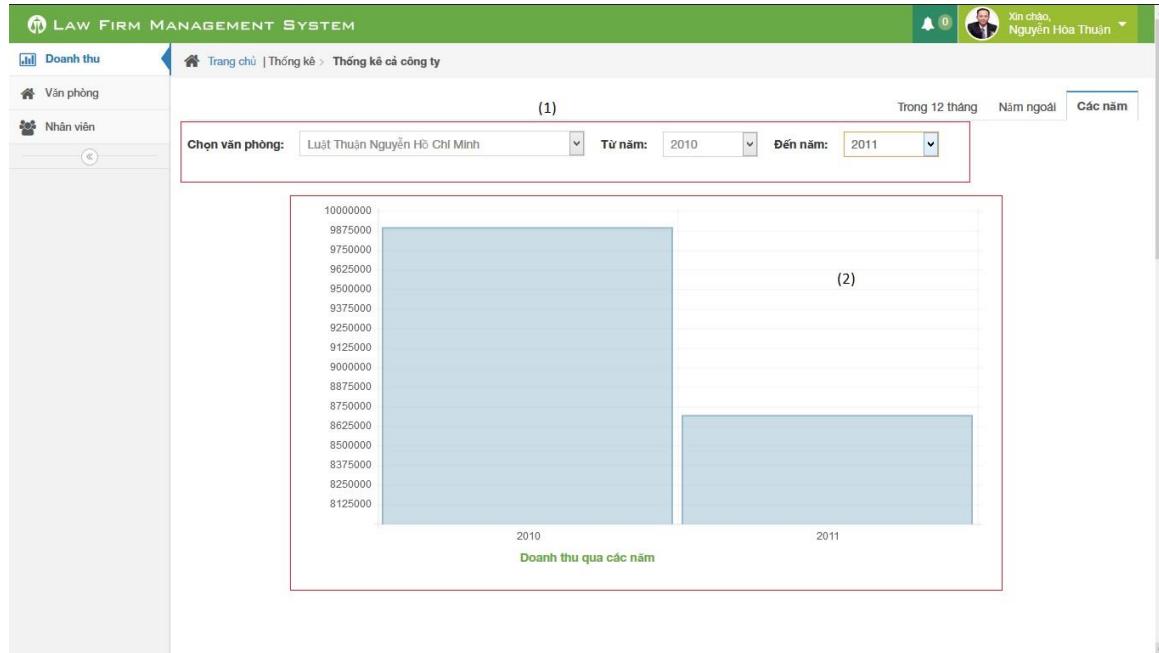
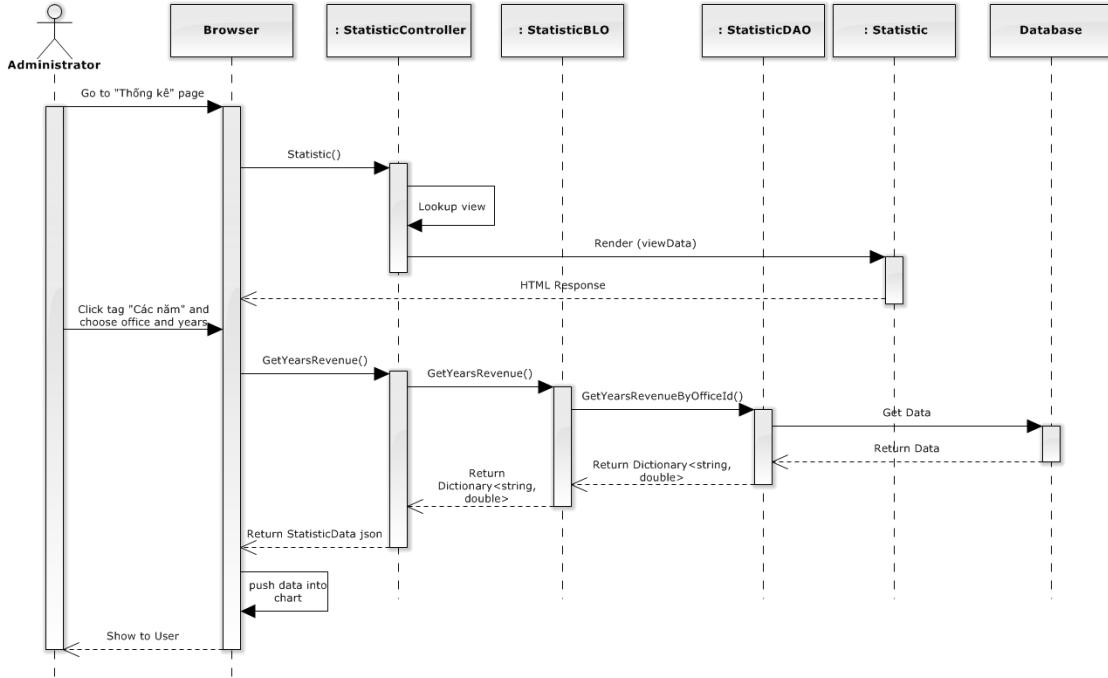


Figure 4-169: Revenue Statistic in every year image

No	Object/Control Name	Type	Required	Description
1	Chọn văn phòng từ năm đến năm	Combo box	Yes	Click to choose name of office with from year and to year
2	Bar chart	Image	Yes	Image display of Bar chart

#### 4.3.18.12.2. Sequence diagram



**Figure 4-170: Revenue Statistic in every year sequence diagram**

## 4.4. Database Design

### 4.4.1. Relational Database Diagram

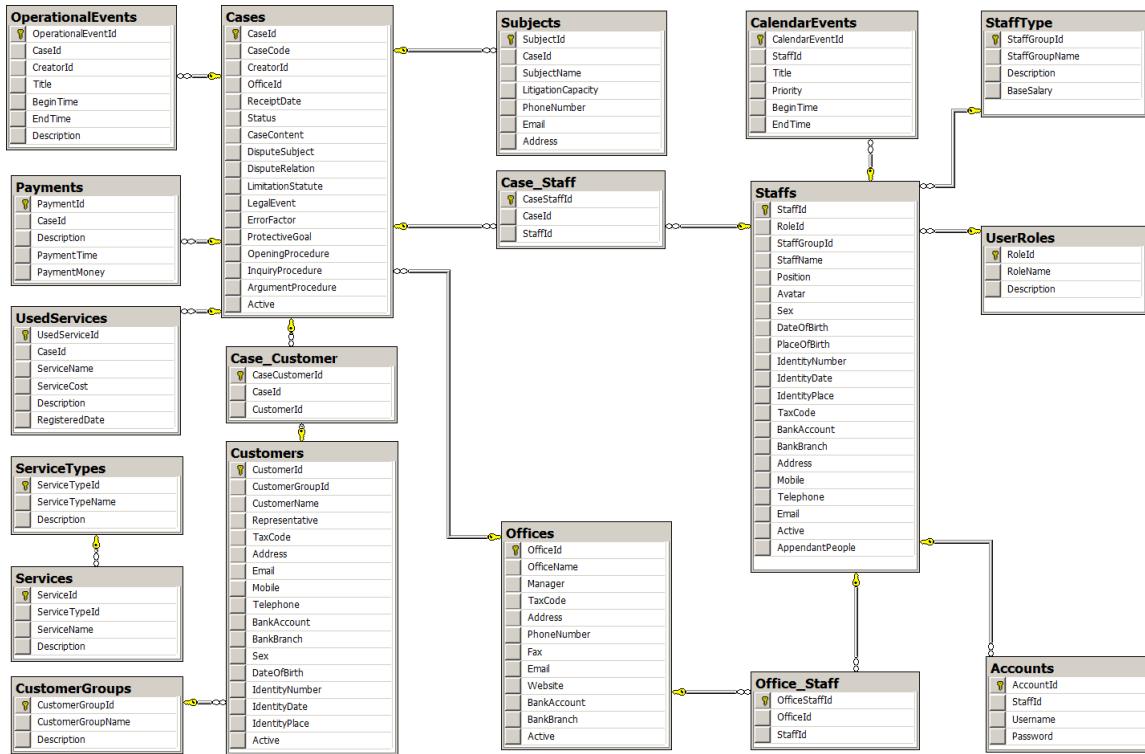


Figure 4-171: Relational Database Diagram

### 4.4.2. Table Dictionary

#### 4.4.2.1. Cases Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
CaseId	int		PK	
CaseCode	nvarchar(50)			Mã hồ sơ
CreatorId	int		FK	
OfficeId	int		FK	
ReceiptDate	date			Ngày thụ lý

Status	nvarchar(50)			Trạng thái hồ sơ
CaseContent	nvarchar(MAX)			Nội dung
DisputeSubject	nvarchar(MAX)	x		Đối tượng tranh chấp
DisputeRelation	nvarchar(MAX)	x		Quan hệ tranh chấp
LimitationStatute	nvarchar(MAX)	x		Thời hiệu
LegalEvent	nvarchar(MAX)	x		Sự kiện pháp lý
ErrorFactor	nvarchar(MAX)	x		Yếu tố lỗi
ProtectiveGoal	nvarchar(MAX)	x		Mục tiêu bảo vệ
OpeningProcedure	nvarchar(MAX)	x		Phần thủ tục bắt đầu
InquiryProcedure	nvarchar(MAX)	x		Phần thủ tục xét hỏi
ArgumentProcedure	nvarchar(MAX)	x		Phần tranh luận
Active	bit			

#### 4.4.2.2. OperationEvents Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
OperationalEventId	int		PK	
CaseId	int		FK	
CreatorId	int		FK	

Title	nvarchar(100)			Tiêu đề
BeginTime	datetime			Thời gian bắt đầu
EndTime	datetime			Thời gian kết thúc
Description	nvarchar(MAX)	x		Mô tả nội dung

#### 4.4.2.3. Subjects Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
SubjectId	int		PK	
CaseId	int		FK	
SubjectName	nvarchar(50)			Tên chủ thẻ
LitigationCapacity	nvarchar(50)			Tư cách tố tụng
PhoneNumber	nvarchar(20)	x		Số điện thoại
Email	nvarchar(50)	x		Hòm thư
Address	nvarchar(100)	x		Địa chỉ

#### 4.4.2.4. UsedServices Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
UsedServiceId	int		PK	
CaseId	int		FK	
ServiceName	nvarchar(50)			Tên dịch vụ sử dụng

ServiceCost	int			Chi phí của dịch vụ
RegisteredDate	date			Ngày đăng ký dịch vụ
Description	nvarchar(MAX)			Mô tả chi tiết

#### 4.4.2.5. Payments Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
PaymentId	int		PK	
CaseId	int		FK	
Description	nvarchar(MAX)			Mô tả chi tiết
PaymentTime	datetime			Thời gian thanh toán
PaymentMoney	int			Số tiền thanh toán

#### 4.4.2.6. Staffs Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
StaffId	int		PK	
StaffGroupId	int		FK	
StaffName	nvarchar(50)			Tên nhân viên
Position	nvarchar(50)	x		Chức vụ
Avatar	nvarchar(100)	x		Đường dẫn ảnh đại diện

Sex	nvarchar(30)	x		Giới tính
DateOfBirth	date			Ngày sinh
PlaceOfBirth	nvarchar(100)	x		Nơi sinh
IdentityNumber	nvarchar(12)			Số CMND
IdentityDate	date			Ngày cấp
IdentityPlace	nvarchar(50)			Nơi cấp
TaxCode	nvarchar(14)	x		Mã số thuế
BankAccount	nvarchar(20)	x		Số TK ngân hàng
BankBranch	nvarchar(50)	x		Chi nhánh ngân hàng
Address	nvarchar(100)			Địa chỉ
Mobile	nvarchar(20)			Số di động
Telephone	nvarchar(20)	x		Số máy bàn
Email	nvarchar(50)			Hòm thư
Active	bit			
AppendantPeople	int	x		Người phụ thuộc

#### 4.4.2.7. StaffType Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
StaffGroupId	int		PK	
StaffGroupName	nvarchar(50)			Tên nhóm nhân viên

Description	nvarchar(MAX)	x		Mô tả chi tiết
BaseSalary	float	x		Lương cơ bản

#### 4.4.2.8. UserRoles Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
RoleId	int		PK	
RoleName	nvarchar(50)			Tên vai trò
Description	nvarchar(MAX)	x		Mô tả chi tiết

#### 4.4.2.9. Accounts Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
AccountId	int		PK	
StaffId	int		FK	
RoleId	int		FK	
Username	nvarchar(50)			Tên đăng nhập
Password	nvarchar(50)			Mật khẩu

#### 4.4.2.10. CalendarEvents Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
CalendarEventId	int		PK	
StaffId	int		FK	
Title	nvarchar(100)			Tiêu đề

Priority	nvarchar(50)			Mức độ ưu tiên
BeginTime	datetime			Thời gian bắt đầu
EndTime	datetime			Thời gian kết thúc

#### 4.4.2.11. Customers Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
CustomerId	int		PK	
CustomerGroupId	int		FK	
CustomerName	nvarchar(50)			Tên khách hàng
Representative	nvarchar(50)	x		Người đại diện
TaxCode	nvarchar(14)	x		Mã số thuế
Address	nvarchar(100)			Địa chỉ
Email	nvarchar(50)			Hòm thư
Mobile	nvarchar(20)			Số di động
Telephone	nvarchar(20)	x		Số máy bàn
BankAccount	nvarchar(20)	x		Số TK ngân hàng
BankBranch	nvarchar(50)	x		Chi nhánh ngân hàng
Sex	nvarchar(20)	x		Giới tính
DateOfBirth	date	x		Ngày sinh
IdentityNumber	nvarchar(12)	x		Số CMND

IdentityDate	date	x		Ngày cấp
IdentityPlace	nvarchar(50)	x		Nơi cấp
Active	bit			

#### 4.4.2.12. CustomerGroups Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
CustomerGroupId	int		PK	
CustomerGroupName	nvarchar(50)			Tên nhóm khách hàng
Description	nvarchar(MAX)	x		Mô tả chi tiết

#### 4.4.2.13. Offices Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
OfficeId	int		PK	
OfficeName	nvarchar(100)			Tên văn phòng
Manager	nvarchar(50)			Quản lý
TaxCode	nvarchar(14)	x		Mã số thuế
Address	nvarchar(100)			Địa chỉ
PhoneNumber	nvarchar(20)			Số điện thoại
Fax	nvarchar(20)	x		Số Fax
Email	nvarchar(50)			Hòm thư
Website	nvarchar(50)	x		Địa chỉ web
BankAccount	nvarchar(20)	x		Số TK ngân hàng

BankBranch	nvarchar(50)	x		Chi nhánh ngân hàng
Active	bit			

#### 4.4.2.14. Services Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
ServiceId	int		PK	
ServiceTypeId	int		FK	
ServiceName	nvarchar(50)			Tên dịch vụ
Description	nvarchar(MAX)	x		Mô tả chi tiết

#### 4.4.2.15. ServiceTypes Table

Field Name	Type	Null	P/F Key	Thuật ngữ tiếng Việt
ServiceTypeId	int		PK	
ServiceTypeName	nvarchar(50)			Tên loại dịch vụ
Description	nvarchar(MAX)	x		Mô tả chi tiết

## Report No.5: Software Testing

### 5.1. Introduction

#### 5.1.1. System Overview

- This document describes plan and methods used in testing stage, an important step for grading the quality of product before packaging it.
- Testing group would plan, manage and execute the process of testing. Testers must execute and pass all test cases and technical details of system features.
- The testing group is also the coding group of Law Firm Management System.

#### 5.1.2. Test Approach

The testing of project include unit test system test and acceptance test levels. It is hoped that there will be as less problem as possible in project.

- Unit testing will be done by team member and will be approved by team leader.
- System testing will be performed by all member of team. It will check all main-flow of the system to discover error or bugs that can't be found on unit testing level.
- Acceptance testing will be performed by all members of team and staffs at the Thuan Nguyen Law Firm. The project be checked from the Customer test to find out if the project in accordance with the expectations of Customer. The acceptance test will be done for a period of 2 weeks after completion of the System test process. Programs will enter into Acceptance test after all critical and major defects have been corrected. A program may have one major defect as long as it does not obstruct testing of the program. Prior to final completion of acceptance testing all open critical and major defects must be corrected.

### 5.2. Test plan

#### 5.2.1. Scope of testing

The scope of testing in the project include:

- **Stages of testing:** the team has responsibility to conduct Unite testing, Integration testing and System testing
- **Types of testing:** The test team use functional test, white-box test and user interface testing

- **Range of testing:** Team performs testing all functions defined in the SRS based on the approved version. Test cases of each function are defined in the Test cases document that will be tested to determine if they meet the requirements and intermediate result will also be checked according to the SRS

### 5.2.2. Requirement for testing

#### 5.2.2.1. Test items

No	Group of functions	Functions
Web module		
UC001	Account control	Login
UC002		Logout
UC003		Change password
UC004	Manage Calendar Event	List calendar events
UC005		Add new calendar event
UC006		Edit calendar event
UC007		Delete calendar event
UC008		Search calendar event
UC009	Manage Case	List all cases
UC0010		Add new case
UC0011		Search case
UC0012	Manage case info	View Case Info
UC0013		Edit case info
UC0014	Manage operation event	List operation events
UC0015		View operation event detail
UC0016		Add new operation event
UC0017		Edit operation event
UC0018		Delete operation event
UC0019		List lawyer related

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UC0020	Manage Lawyer Related	View lawyer related detail
UC0021		Assign lawyer related
UC0022		Remove lawyer related
UC0023		Search lawyer related
UC0024	Manage customer related	List customers related
UC0025		View customer related detail
UC0026		Add customer related
UC0027		Remove customer related
UC0028		Search customer related
UC0029	Manage Subject Related	List subjects related
UC0030		Add new subject related
UC0031		Edit subject related
UC0032		Delete subject related
UC0033	Manage Document Related	View Document Related
UC0034		View Document Related Detail
UC0035		Upload Document Related
UC0036		Edit Document Related
UC0037		Delete Document Related
UC0038		Search Document Related
UC0039	Manage User Service	View User Services
UC0040		Add New User Service
UC0041		Edit User Service
UC0042		Delete User Service
UC0043	Manage Payment	View Payments
UC0044		Add New Payment
UC0045		Edit Payment

UC0046		Delete Payment
UC0047	Manage Customer	List customers
UC0048		View customer detail
UC0049		Add new customer
UC0050		Edit customer
UC0051		Delete customer
UC0052		Search customer
UC0053	Manage Staff	List staffs
UC0054		View staff detail
UC0055		Add new staff
UC0056		Edit staff
UC0057		Deactive/Active staff
UC0058		Search staff
UC0059		Reset password
UC0060	Manage Service	List services
UC0061		View service detail
UC0062		Add new service
UC0063		Edit service
UC0064		Delete service
UC0065		Search service
UC0066	Statistics	Statistics of revenue by office
UC0067		Statistics of number of case by office
UC0068		Statistics of revenue by staff
UC0069	Manage Office	List offices
UC0070		View office detail
UC0071		Add new office
UC0072		Edit office
UC0073		Deactive/Active office

UC0074		Search office
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**Table 5-3: Requirement for testing**

#### **5.2.2.2. Acceptance Test Criteria**

- Test coverage on system test:  $\geq 97\%$
- Test successful coverage:  $\geq 97\%$

Number of test cases failed: less than 3% of total test cases

#### **5.2.2.3. Constraints**

- Duration of system testing is from 17 November to 9 December
- Testing team require 2 members

#### **5.2.2.4. Risk list**

The project could face with some risks:

- Lack of human resource
- Not enough test case cover for business project

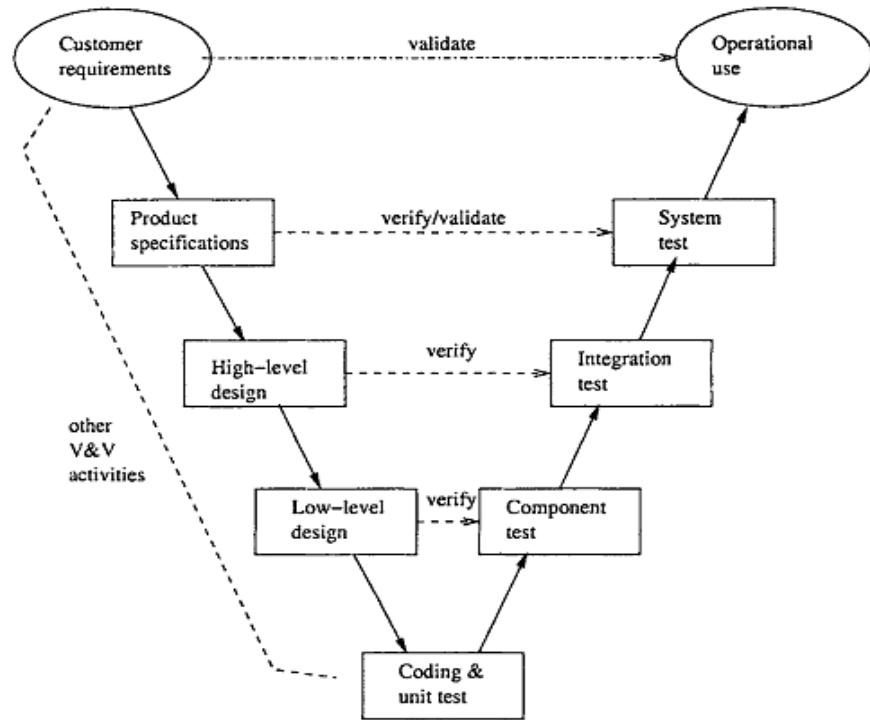
### **5.2.3. Test strategy**

#### **5.2.3.1. Test policy**

- “Test without good faith”
- “Find bugs as soon as possible and always make sure they have been fixed”
- “No outstanding high severity faults”
- “Ensuring the product covers key features and attributes requirements”
- “Each primary function has at least one test case”
- “Focus on main function”
- “If any test fails we need to test again”
- “Using valid and invalid data”

### 5.2.3.2. Test Model

Using V-Model to implement testing process



**Figure 5-1: V-Model to implement testing process**

Due to scope of LFMS project and project must always fulfill user requirements. With V-Model, software development is separated into two appropriate phases' groups: development and testing. Testing phase is carried out simultaneously from the early of project, the requirement specification phase. Therefore, tester could study and understand the entire requirement as well as business of project

Moreover, there are many variations among planning, design and implementation during the whole project. To catch up with all changes and ensure logic as well as business, V-model is chose as a solution to help testers control and follow the actual workflows.

This testing is executed to ensure that all requirements mentioned in SRS, included both functional requirements and non-functional requirements which are implemented correctly.

- **Technique:**
  - **Integration test:** Base on requirement in SRS and validation in database, test team will test as black box testing method to check if the input and output display as expected and does that flow work fluently
  - **System testing:** Based on requirements in SRS, test team will create scenarios for system testing (ST) to ensure project's business. In ST, tester will create test cases based on these scenarios and run to verify functional and non-functional requirements.
- **Completion criteria:**
  - All planned test cases have been executed compared with expected result in test cases.
  - System test cases must be green (passed) at least 97%
  - All defects must be logged into test documents and re-tested after it is fixed.
  - All defects, which are accepted by customer or project technical leader and project manager, will be marked as accepted and not be retested.
  - All defects must be resolved or accepted.
  - These criteria will be applied for all test types.
- **Special considerations:**
  - Test databases will be required
  - Testing may be stopped when
    - Time runs out
    - A certain number of defects found
    - Test coverage > 97%
    - Stop when testing becomes unproductive.

### 5.2.3.3. Type of testing

#### 5.2.3.3.1. Functional Testing

Function testing of the target-of-test should focus on any requirements for test that can be traced directly to use cases or business functions and business rules. The goals of these tests are to verify proper data acceptance, processing, and retrieval, and the appropriate implementation of the business rules. Identified below is an outline of the testing recommended for each application.

Test Objective:	The type of this test is to ensure proper target-of-test functionality, including user interaction, all function defined in specification document implemented correctly.
-----------------	---

<b>Technique:</b>	The test team will use use-case testing or checklist-base testing to verify the following:  Checking performance of software interface function.  The appropriate error or warning messages are displayed when invalid data is used.  Each business rule is properly applied.
<b>Completion Criteria:</b>	All test case and checklist have been executed and successful coverage $\geq 97\%$ .
<b>Special Considerations:</b>	Testing may be stopped when <ul style="list-style-type: none"> <li>• Time runs out</li> <li>• A certain number of defects found</li> <li>• Test coverage <math>&gt; 97\%</math></li> <li>• Stop when testing becomes unproductive</li> </ul>

**Table 5-2: Functional testing**

#### 5.2.3.3.2. User Interface Testing

User Interface (UI) testing verifies a user's interaction with the software. The goal of UI testing is to ensure that the User Interface provides the user with the appropriate access and navigation through the functions of the target-of-test. In addition, UI testing ensures that the objects within the UI function as expected and conform to corporate or industry standards.

<b>Test Objective:</b>	Verify the following: Navigation through the target-of-test properly reflects business functions and requirements, including window-to-window, field-to-field, and use of access methods (tab keys, mouse movements, accelerator keys)
<b>Technique:</b>	Use checklist and finite-state machine to create test case.

<b>Completion Criteria:</b>	All test case and checklist have been executed and successful coverage >=97%.
-----------------------------	---

**Table 5-3: User Interface testing**

#### 5.2.3.4. Test stage

Clearly state the stage in which the test will be executed. Identified below are the stages in which common test are executed

Type of Tests	Stage of Test		
	Unit	Integration	System
Function Test		x	x
User Interface test	x		x
Whitebox test	x		

**Table 5-4: Test stages**

#### 5.2.3.5. Tools

Purpose	Tool	Vendor/In-house	Version
Access to website	Firefox		
Keep tracking defects	MS Word		Office 2010 & 2013
Test Plan	MS Word		Office 2010 & 2013
Test Case, Test Report	MS Excel		Office 2010 & 2013

**Table 5-5: Tools**

### 5.2.3.6. Resources

This table shows the staffing assumptions for the project.

Worker/Doer	Specific Responsibilities/Comments
Trần Anh Tuấn	Manage Test resource and assign test tasks Create Test Plan Review Test Cases Execute Test Create Test Report
Phạm Văn Duy	Execute Test

**Table 5-6: Human resource**

### 5.2.3.7. Schedule

Duration of all testing is from 27 October to 9 December

Duration of create test plan, test case and checklist are from 20 October to 3 November

## 5.3. Test Case

Reference to DVD: <root>/Documents/LFMS Project Document - Full Report.docx

## 5.4. Checklists

### 5.4.1. Checklist of Validation

#	Question	Yes	No	N/A
1	Does a failure of validation on every field cause a sensible user error symbol?			
2	Is the user required to fix entries which have failed validation tests?			

<b>3</b>	Have any fields got multiple validation rules and if so are all rules being applied?			
<b>4</b>	If the user enters an invalid value and clicks on the insert button is the invalid entry identified and highlighted correctly with an error symbol?			
<b>5</b>	Is validation consistently applied at screen level unless specifically required at field level?			
<b>6</b>	For all numeric fields check whether negative numbers can and should be able to be entered.			
<b>7</b>	For all numeric fields check the minimum and maximum values and also some mid-range values allowable?			
<b>8</b>	For all character/alphanumeric fields check the field to ensure that there is a character limit specified and that this limit is exactly correct for the specified database size?			
<b>9</b>	Do all mandatory fields require user input?			
<b>10</b>	If any of the database columns do not allow null values then the corresponding screen fields must be mandatory. (If any field which initially was mandatory has become optional then check whether null values are allowed in this field.)			

#### 5.4.2. Submission Checklist

#	Question	Yes	No	N/A
<b>TABLES AND FIGURES</b>				
<b>1</b>	Does a failure of validation on every field cause a sensible user error symbol?			
<b>2</b>	Is the user required to fix entries which have failed validation tests?			
<b>3</b>	Have any fields got multiple validation rules and if so are all rules being applied?			

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<b>4</b>	If the user enters an invalid value and clicks on the insert button is the invalid entry identified and highlighted correctly with an error symbol?			
<b>5</b>	Is validation consistently applied at screen level unless specifically required at field level?			
<b>6</b>	For all numeric fields check whether negative numbers can and should be able to be entered.			
<b>7</b>	For all numeric fields check the minimum and maximum values and also some mid-range values allowable?			
<b>8</b>	For all character/alphanumeric fields check the field to ensure that there is a character limit specified and that this limit is exactly correct for the specified database size?			
<b>REFERENCES</b>				
<b>1</b>	Are references cited both in text and in the reference list?			
<b>2</b>	Do the text citations and reference list entries agree both in spelling and in date?			
<b>3</b>	Are journal titles in the reference list spelled out fully?			
<b>4</b>	Are the references (both in the parenthetical text citations and in the reference list) ordered alphabetically by the authors' surnames?			
<b>5</b>	Are inclusive page numbers for all articles or chapters in books provided in the reference list?			
<b>6</b>	Are references to studies included in your meta-analysis preceded by an asterisk?			
<b>FORMAT</b>				
<b>1</b>	Have you checked the journal's website for instructions to authors regarding specific formatting requirements for submission?			

## Capstone Project: LFMS

<b>2</b>	Is the entire manuscript—including quotations, references, author note, content footnotes, and figure captions—double-spaced? Is the manuscript neatly prepared?			
<b>3</b>	Are the margins at least 1 in. (2.54 cm)?			
<b>4</b>	Are the title pages, abstracts, references, appendices, content footnotes, tables, and figures on separate pages (with only one table or figure per page)? Are the figure captions on the same page as the figures? Are manuscript elements ordered in sequence, with the text pages between the abstract and the references?			
<b>5</b>	Are all pages numbered in sequence, starting with the title page?			
<b>PARAGRAPHS AND HEADINGS</b>				
<b>1</b>	Is each paragraph longer than a single sentence but not longer than one manuscript page?			
<b>2</b>	Do the levels of headings accurately reflect the organization of the paper?			
<b>3</b>	Do all headings of the same level appear in the same format?			
<b>USABILITY</b>				
<b>1</b>	Are the entire field prompts spelt correctly?			
<b>2</b>	Are fonts too large or too small to read?			
<b>3</b>	Are names in command button & option box names are not abbreviations.			
<b>4</b>	Assure that option boxes, option buttons, and command buttons are logically grouped together in clearly demarcated areas "Group Box"			
<b>5</b>	Can the typical user run the system without frustration?			

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<b>6</b>	Does the site have a consistent, clearly recognizable "look-& feel"?			
<b>7</b>	Is all terminology understandable for all of the site's intended users?			
<b>USER INTERFACE TESTING-COLOR</b>				
<b>1</b>	Are hyperlink colors standard?			
<b>2</b>	Are the field prompts the correct color?			
<b>3</b>	Are the field backgrounds the correct color?			
<b>4</b>	Are the screen and field colors adjusted correctly for non-editable mode?			
<b>5</b>	Does the site use (approximately) standard link colors?			
<b>6</b>	Are all the buttons are in standard format and size?			
<b>7</b>	Is the general screen background the correct color?			
<b>8</b>	Is the page background (color) distraction free?			
<b>USER INTERFACE TESTING-CONTENT</b>				
<b>1</b>	All fonts to be the same			
<b>2</b>	Are all the screen prompts specified in the correct screen font?			
<b>3</b>	Is all text properly aligned?			
<b>4</b>	Is the text in all fields specified in the correct screen font?			
<b>5</b>	Is all the headings left aligned?			
<b>6</b>	Does the first letter of the second word appear in lowercase?			

## 5.5. Test Logs

### 5.5.1. Defect Logs

No	Module name	Defect	Priority	Status	Assign to	Fix on	Retest on
1	Edit Operation event	After updated successful, the event is shown not enough.	High	Complete	HoangLD	19/11/2014	20/11/2014
2	Search lawyer related	When input wrong name, the result still be shown.	High	Complete	HoangLD	19/11/2014	20/11/2014
3	Search Staff	The result after search are wrong.	High	Complete	DuyPV	20/11/2014	22/11/2014
4	Edit Service	Edit with blank field, Error message aren't be shown.	High	Complete	KhiemDN	21/11/2014	23/11/2014
5	Edit Office	In numeric field, user can input character.	High	Complete	KhiemDN	27/11/2014	29/11/2014

### 5.5.2. Test Report

<b>Project Name</b>	Website of Law Firm Management System.	<b>Creator</b>	TuanTA
<b>Project Code</b>	LFMS	<b>Reviewer/Approver</b>	SangNV
<b>Document Code</b>	LFMS_TestReport	<b>Issue Date</b>	December 5 <sup>th</sup> 2014

No	Function	Test Case				Checklist			Total
		Pass	Fail	Untested	N/A	Pass	Fail	N/A	
<b>Web Module</b>									
1	Login	6	0	0	0	27	0	22	55
2	Logout	1	0	0	0	22	0	27	50
3	Change password	7	0	0	0	29	0	20	56
4	List calendar events	1	0	0	0	25	0	24	50
5	Add new calendar event	4	0	0	0	31	0	18	53
6	Edit calendar event	2	0	0	0	31	0	18	51

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7	Delete calendar event	2	0	0	0	24	0	25	51
8	Search calendar event	2	0	0	0	27	0	22	51
9	List all cases	1	0	0	0	25	0	24	50
10	Add new case	7	0	0	0	31	0	18	56
11	Search case	1	0	0	0	27	0	22	50
12	View Case Info	1	0	0	0	25	0	24	50
13	Edit case info	4	0	0	0	31	0	18	53
14	List operation events	1	0	0	0	25	0	24	50
15	View operation event detail	1	0	0	0	25	0	24	50
16	Add new operation event	7	0	0	0	31	0	18	56
17	Edit operation event	5	1	0	0	31	0	18	54
18	Delete operation event	2	0	0	0	24	0	25	51
19	List lawyer related	1	0	0	0	25	0	24	50
20	View lawyer related detail	1	0	0	0	25	0	24	50
21	Assign lawyer related	5	0	0	0	31	0	18	54
22	Remove lawyer related	2	0	0	0	24	0	25	51
23	Search lawyer related	2	1	0	0	25	0	24	51

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24	List customers related	1	0	0	0	25	0	24	50
25	View customer related detail	1	0	0	0	25	0	24	50
26	Add customer related	5	0	0	0	31	0	18	54
27	Remove customer related	2	0	0	0	24	0	25	51
28	Search customer related	2	0	0	0	25	0	24	51
29	List subjects related	1	0	0	0	25	0	24	50
30	Add new subject related	7	0	0	0	31	0	18	56
31	Edit subject related	7	0	0	0	31	0	18	56
32	Delete subject related	3	0	0	0	24	0	25	52
33	View Document Related	1	0	0	0	25	0	24	50
34	View Document Related Detail	1	0	0	0	25	0	24	50
35	Upload Document Related	4	0	0	0	31	0	18	53
36	Edit Document Related	5	0	0	0	31	0	18	54
37	Delete Document Related	3	0	0	0	24	0	25	52

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38	Search Document Related	2	0	0	0	25	0	24	51
39	View User Services	1	0	0	0	25	0	24	50
40	Add New User Services	5	0	0	0	31	0	18	54
41	Edit User Service	5	0	0	0	31	0	18	54
42	Delete User Service	3	0	0	0	24	0	25	52
43	View Payments	1	0	0	0	25	0	24	50
44	Add New Payment	5	0	0	0	31	0	18	54
45	Edit Payment	5	0	0	0	31	0	28	54
46	Delete Payment	3	0	0	0	24	0	25	52
47	List customers	1	0	0	0	25	0	24	50
48	View customer detail	1	0	0	0	25	0	24	50
49	Add new customer	7	0	0	0	31	0	18	56
50	Edit customer	6	0	0	0	31	0	18	55
51	Delete customer	3	0	0	0	24	0	25	52
52	Search customer	2	0	0	0	25	0	24	51
53	List staffs	1	0	0	0	25	0	24	50
54	View staff detail	1	0	0	0	25	0	24	50

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55	Add new staff	9	0	0	0	31	0	18	58
56	Edit staff	6	0	0	0	31	0	18	55
57	Deactive/Active staff	2	0	0	0	24	0	25	51
58	Search staff	2	1	0	0	25	0	24	51
59	Reset password	3	0	0	0	24	0	25	52
60	List services	1	0	0	0	25	0	24	50
61	View service detail	1	0	0	0	25	0	24	50
62	Add new service	4	0	0	0	31	0	18	53
63	Edit service	4	1	0	0	31	0	18	53
64	Delete service	3	0	0	0	24	0	25	52
65	Search service	2	0	0	0	25	0	24	51
66	Statistics of revenue by office	2	0	0	0	25	0	24	51
67	Statistics of number of case by office	2	0	0	0	25	0	24	51
68	Statistics of revenue by staff	2	0	0	0	25	0	24	51
69	List offices	1	0	0	0	25	0	24	50
70	View office detail	1	0	0	0	25	0	24	40
71	Add new office	6	0	0	0	31	0	18	55

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72	Edit office	5	1	0	0	31	0	18	54
73	Deactive/Active office	2	0	0	0	24	0	25	51
74	Search office	2	0	0	0	25	0	24	51
	Total	218	5	0	0	1888	0	1738	3849
	<b>Test coverage</b>	100%							
	<b>Test successful coverage</b>	99,8%							

## Report No.6: Software User's Manuals

### 6.1. Installation Guide

#### 6.1.1. Introduction

This document contains guide-lines step by step to use LFMS application, and set up its own database.

#### 6.1.2. Environment

Following are the software required to start the LFMS System:

- Operating System: Windows 7, Windows 8.
- Application server: LFMS application system requires an application server IIS version 7 running on Windows 7
- Browsers: Firefox 20 or higher.
- .NET 4.0 Framework
- Database: SQL Server 2008
- Tool: Microsoft visual studio 2010

#### 6.1.3. Application Installation

##### 6.1.3.1. Database creation

Please follow these steps to create a new database for system:

- **Step 1:** Preparing database

## Capstone Project: LFMS

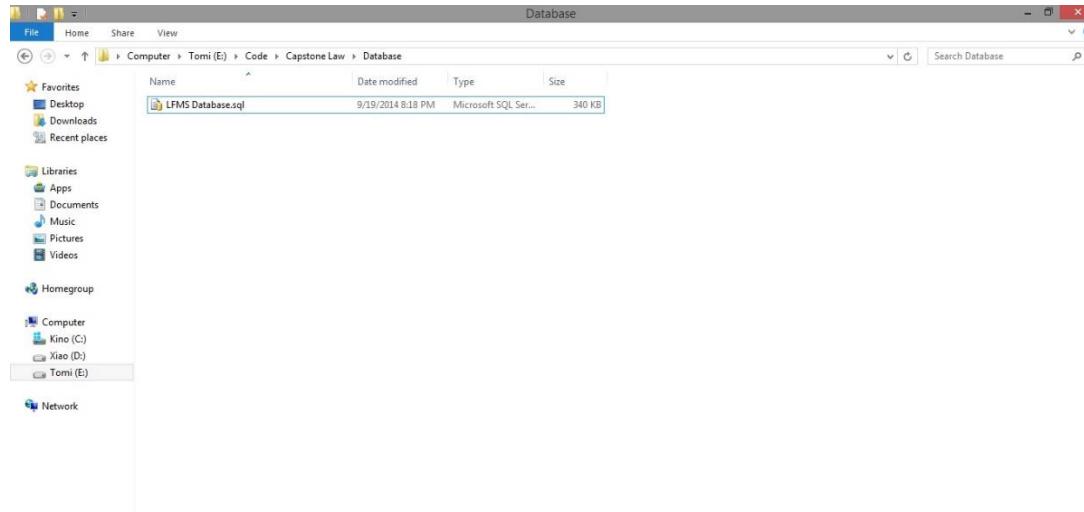


Figure 6-1: Prepare Database

They include a .sql file. The .sql file is database SQL script file.

- **Step 2:** Import database to SQL Server

Open Script file database using SQL Server

Copy user's directory that has install SQL Server and replace this location in script file.

A screenshot of Microsoft SQL Server Management Studio (SSMS). The title bar says 'Microsoft SQL Server Management Studio'. The main window shows a script editor with the following SQL code:

```
USE [master]
GO
/****** Object: Database [LFMS]      Script Date: 6/3/2014 12:36:05 AM *****/
CREATE DATABASE [LFMS]
ON PRIMARY
( NAME = N'LFMS' , FILENAME = N'C:\Program Files (x86)\Microsoft SQL Server\MSSQL10.SQLEXPRESS\MSSQL\DATA\LFMS.mdf' , SIZE = 4096KB , MAX
LOG ON
( NAME = N'LFMS_log' , FILENAME = N'C:\Program Files (x86)\Microsoft SQL Server\MSSQL10.SQLEXPRESS\MSSQL\DATA\LFMS_log.ldf' , SIZE = 1024
GO
ALTER DATABASE [LFMS] SET COMPATIBILITY_LEVEL = 110
GO
IF (1 = FULLTEXTSERVICEPROPERTY('IsFullTextInstalled'))
begin
EXEC [LFMS].[dbo].[sp_fulltext_database] @action = 'enable'
end
GO
ALTER DATABASE [LFMS] SET ANSI_NULL_DEFAULT OFF
GO
ALTER DATABASE [LFMS] SET ANSI_NULLS OFF
GO
ALTER DATABASE [LFMS] SET ANSI_PADDING OFF
GO
ALTER DATABASE [LFMS] SET ANSI_WARNINGS OFF
GO
ALTER DATABASE [LFMS] SET ARITHABORT OFF
GO
ALTER DATABASE [LFMS] SET AUTO_CLOSE OFF
GO
ALTER DATABASE [LFMS] SET AUTO_CREATE_STATISTICS ON
GO
ALTER DATABASE [LFMS] SET AUTO_SHRINK OFF
GO
```

The status bar at the bottom indicates 'Connected. (1/1)' and 'KHIEMDNSE60595|SQLEXPRESS (... | sa (52) | LFMS | 00:00:00 | 0 rows'.

Figure 6-2: Execute script database

Excute script file to add new database into SQL Server

#### 6.1.3.2. Setup *Internet Information Services(IIS)*

- **Step 1:** Go Start → Control panel → Click on Programs and Features → Click on Turn Windows features on or off.
- **Step 2:** Select this features in the picture below to install IIS Service.

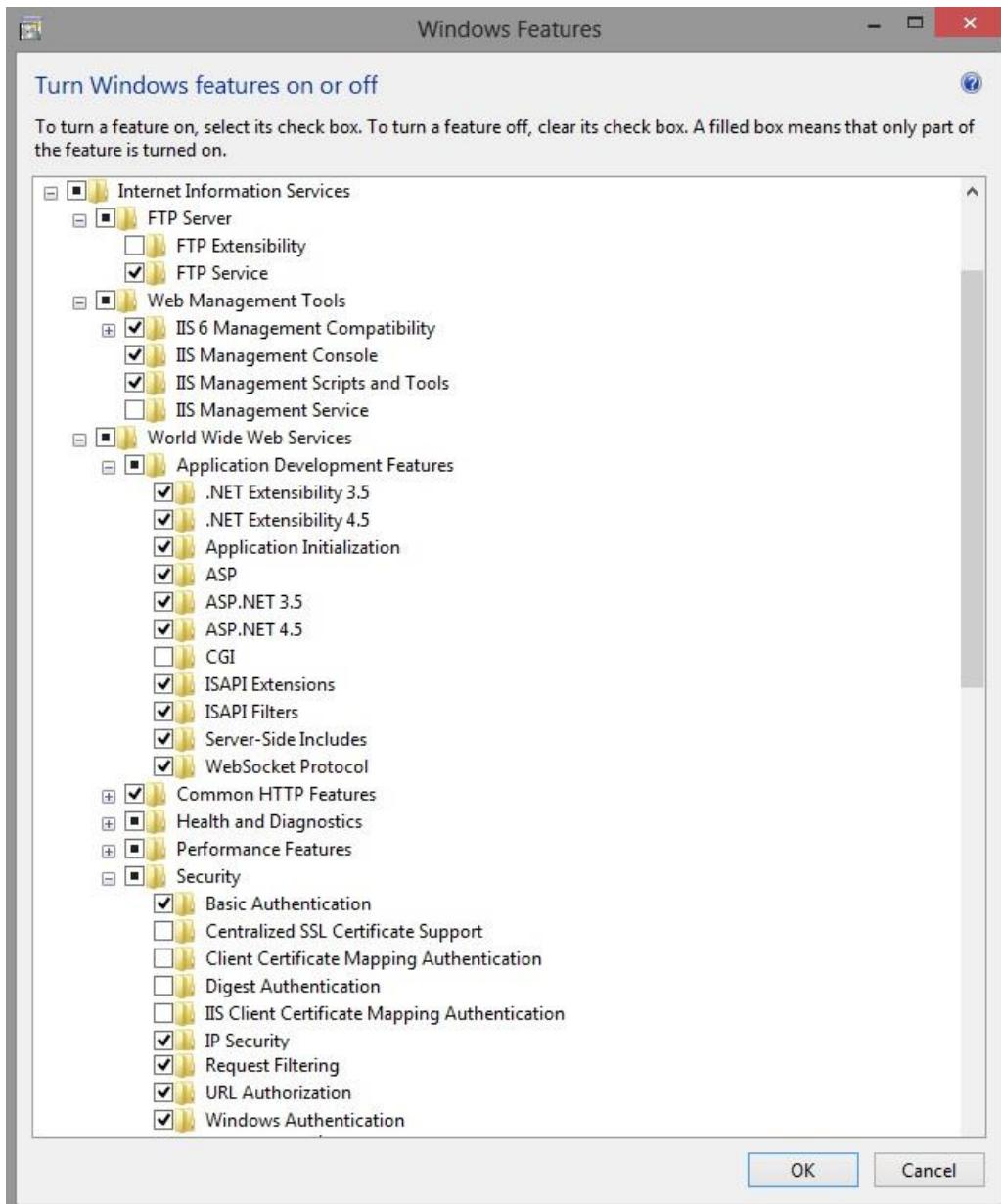


Figure 6-3: Setup IIS-1

## Capstone Project: LFMS

- Step 3: Go Start → type Run → input inetmgr

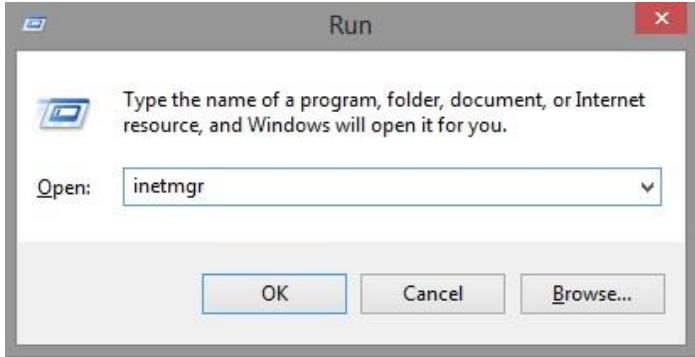


Figure 6-4: Setup IIS-2

- Step 4:** Go Application Pools → Right click to select Add Application Pool → Setup this like the picture below.

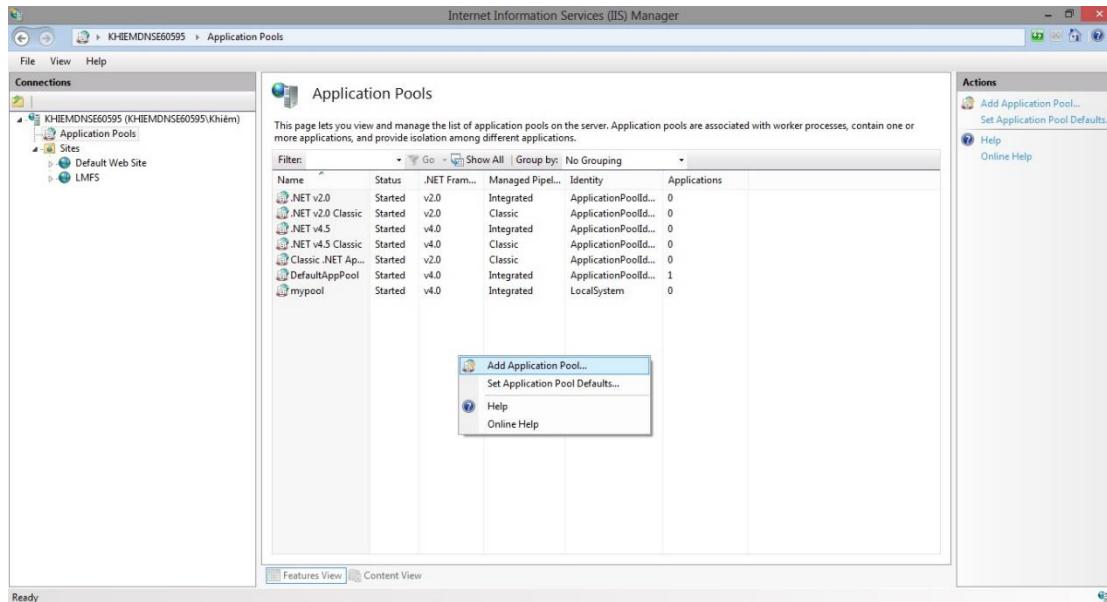


Figure 6-5: Setup IIS-3

## Capstone Project: LFMS

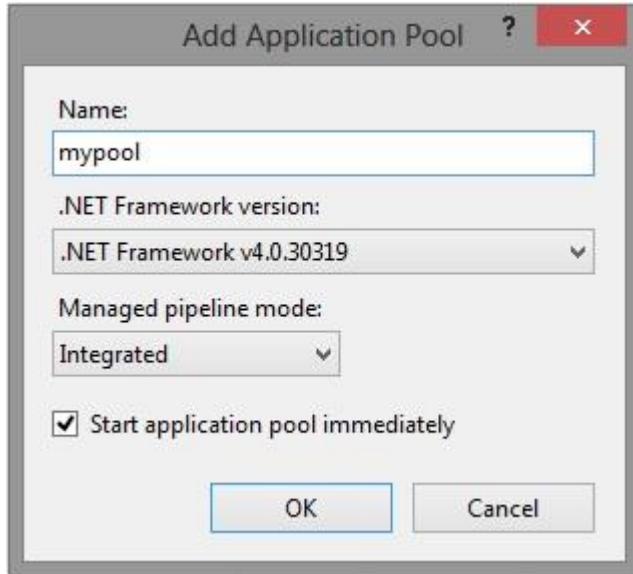


Figure 6-6: Setup IIS-5

- **Step 5:** Open Microsoft SQL Server Management Studio → Go Security → Right click to select New Login → Setup this like the picture below



Figure 6-7: Setup IIS-6

## Capstone Project: LFMS

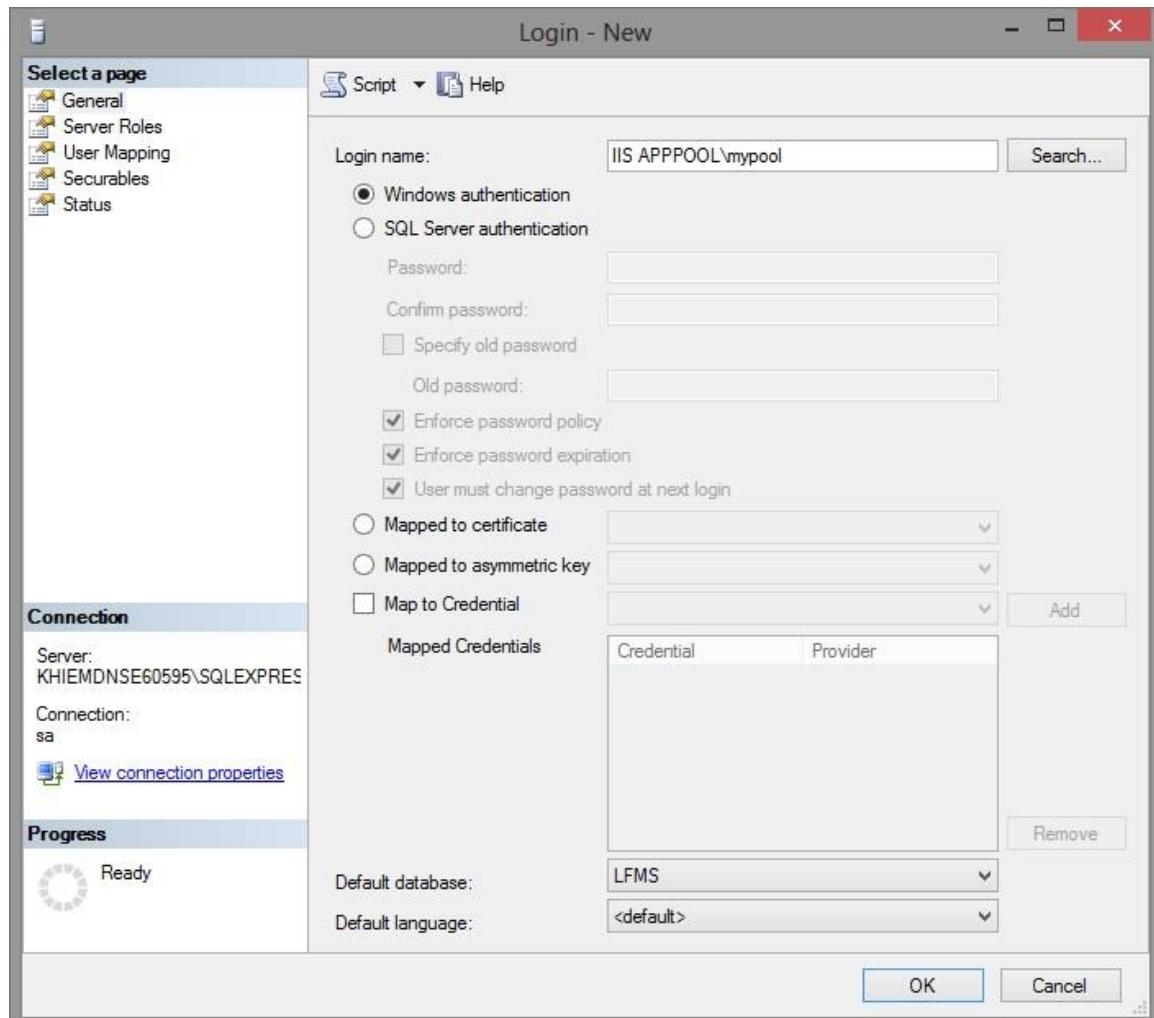


Figure 6-8: Setup IIS-7

**Step 6:** Go to login user has been created → Right click then select Properties → Click on User Mapping → Setup this like the picture below

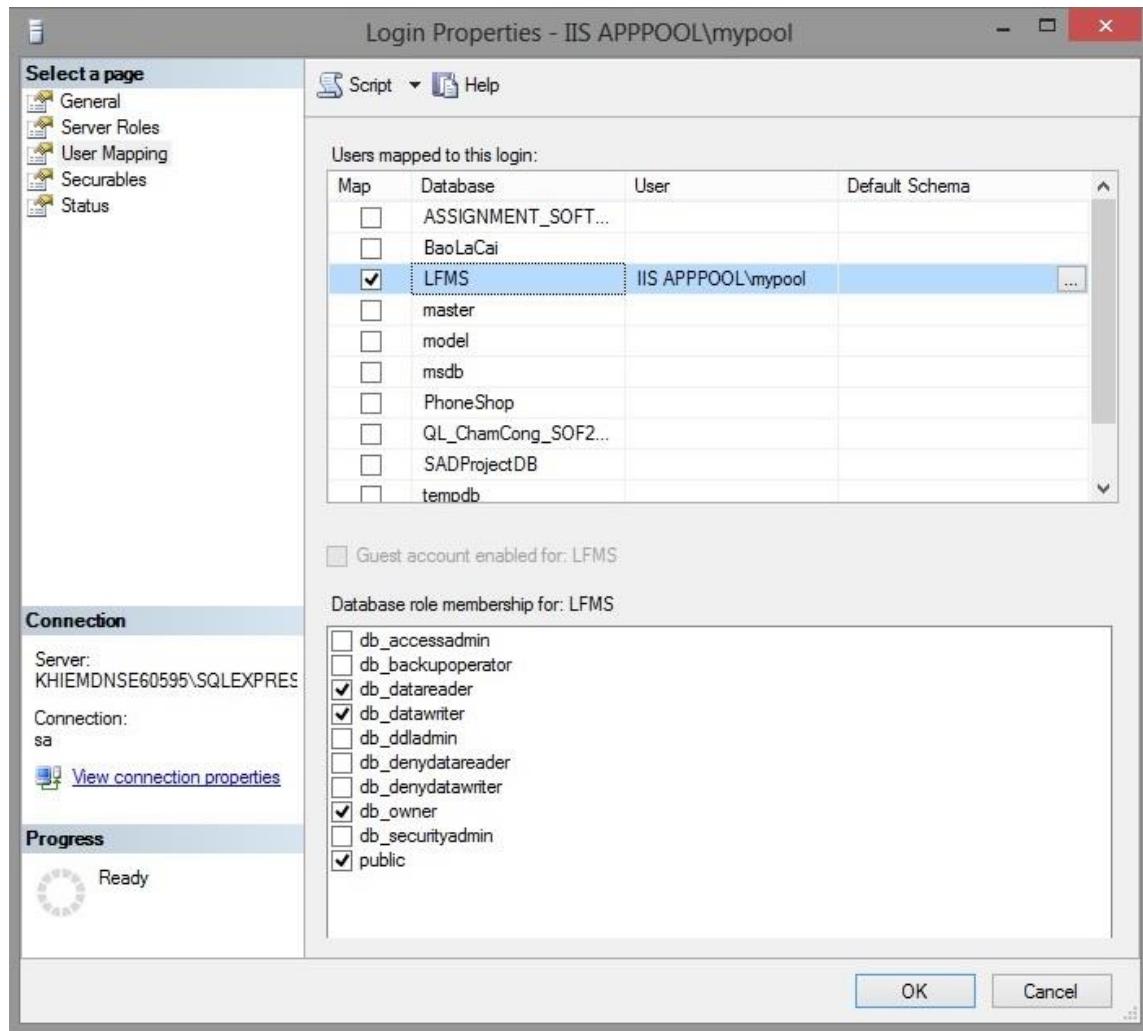


Figure 6-9: Setup IIS-8

### 6.1.3.3. Setup and Deploy website into IIS

- **Step 1:** Go Sites → Right click to select Add Website → Setup this like the picture below.

## Capstone Project: LFMS

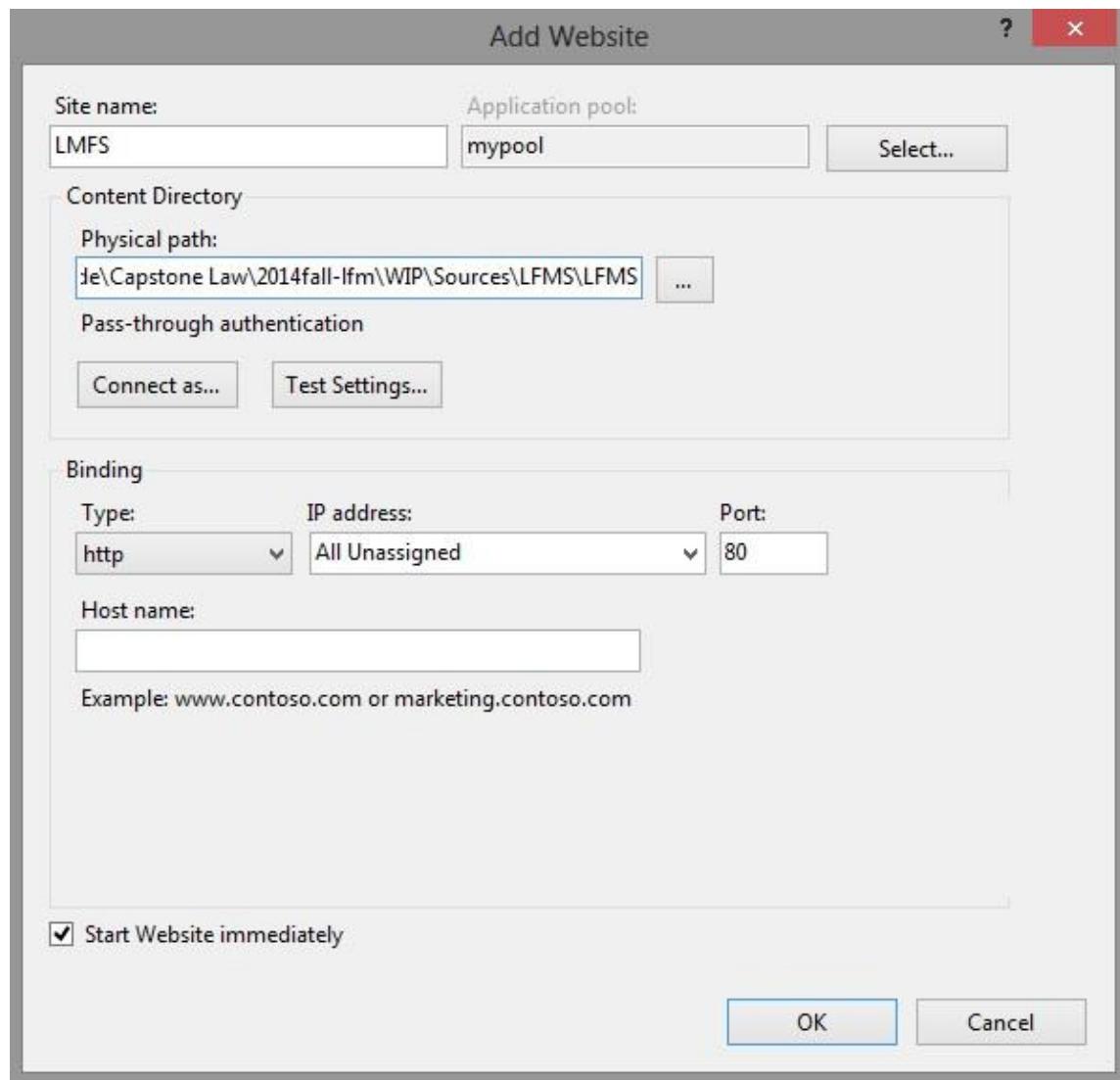


Figure 6-10: Deploy website on IIS-1

## Capstone Project: LFMS

- **Step 2:** Go to website user has been created → Double click on Directory Browsing → Make this select Enable like the picture below.

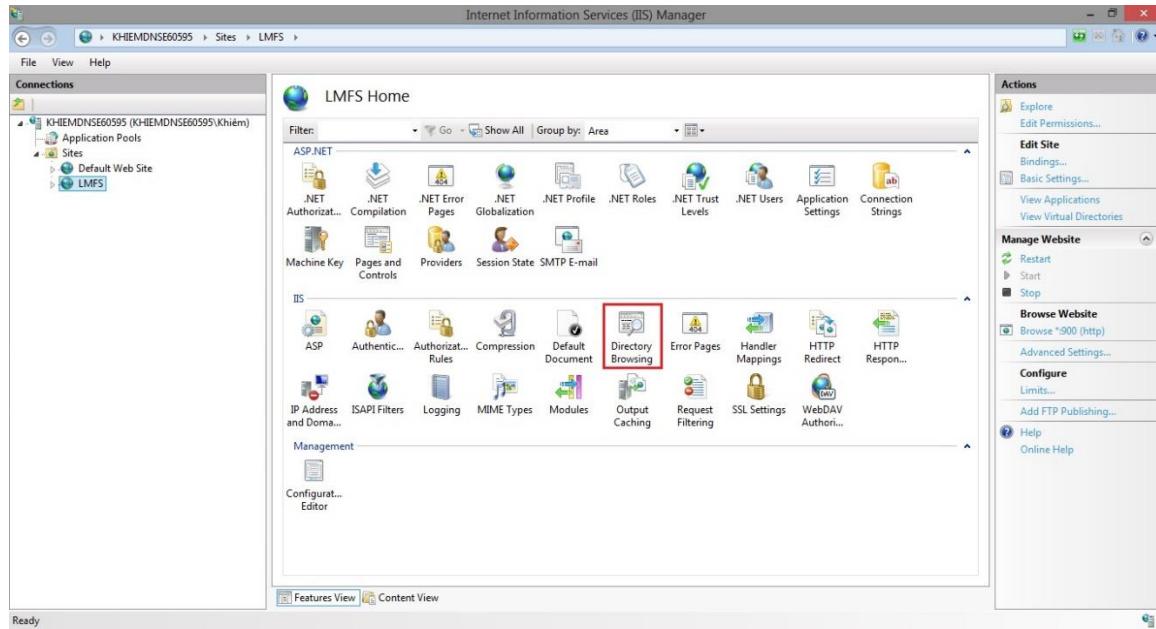


Figure 6-11: Deploy website on IIS-2

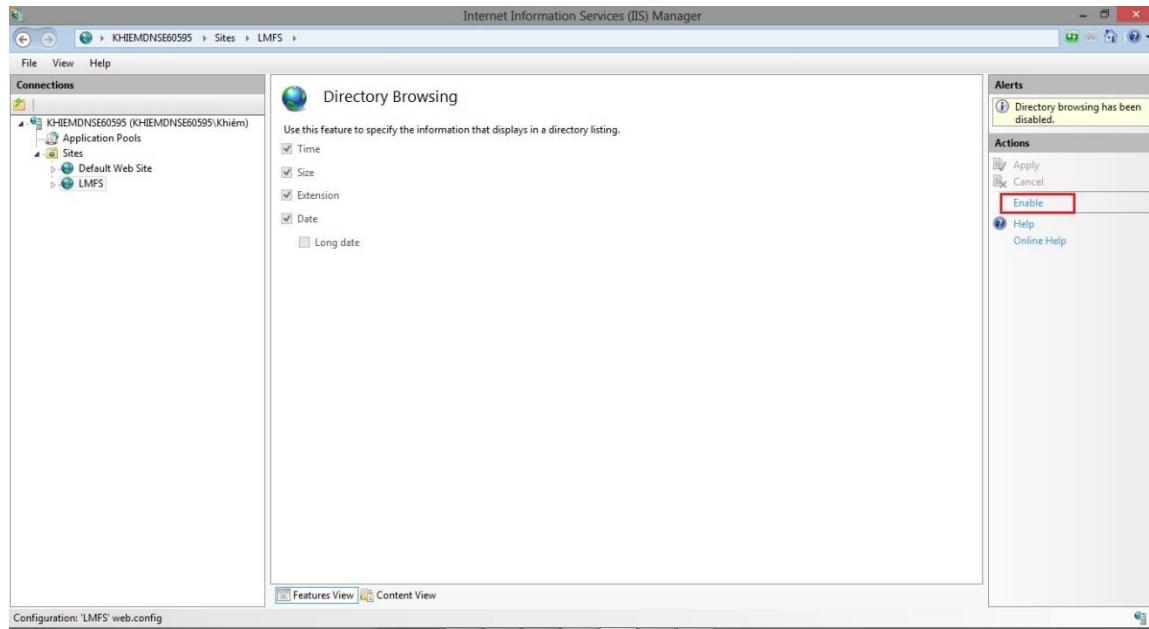


Figure 6-12: Deploy website on IIS-3

- **Step 3:** Go to website user has been created → Right click to select Manage website → Choose Browse like the picture below.

## Capstone Project: LFMS

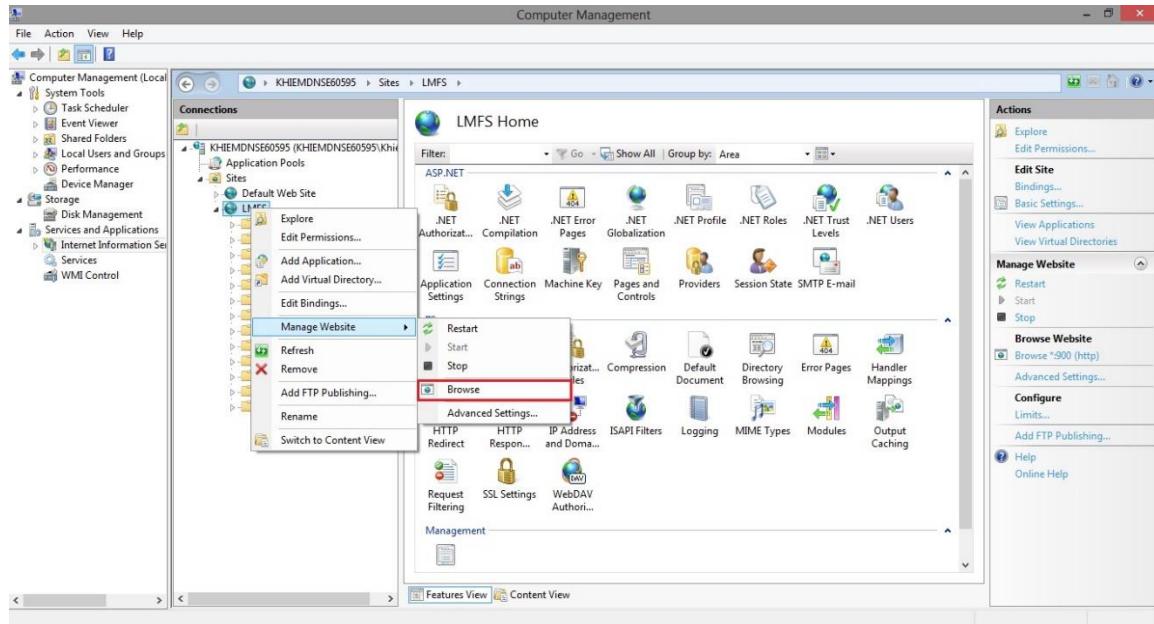


Figure 6-13: Deploy website on IIS-4

## 6.2. User's Guide

### 6.2.1. How to create a Calendar Event

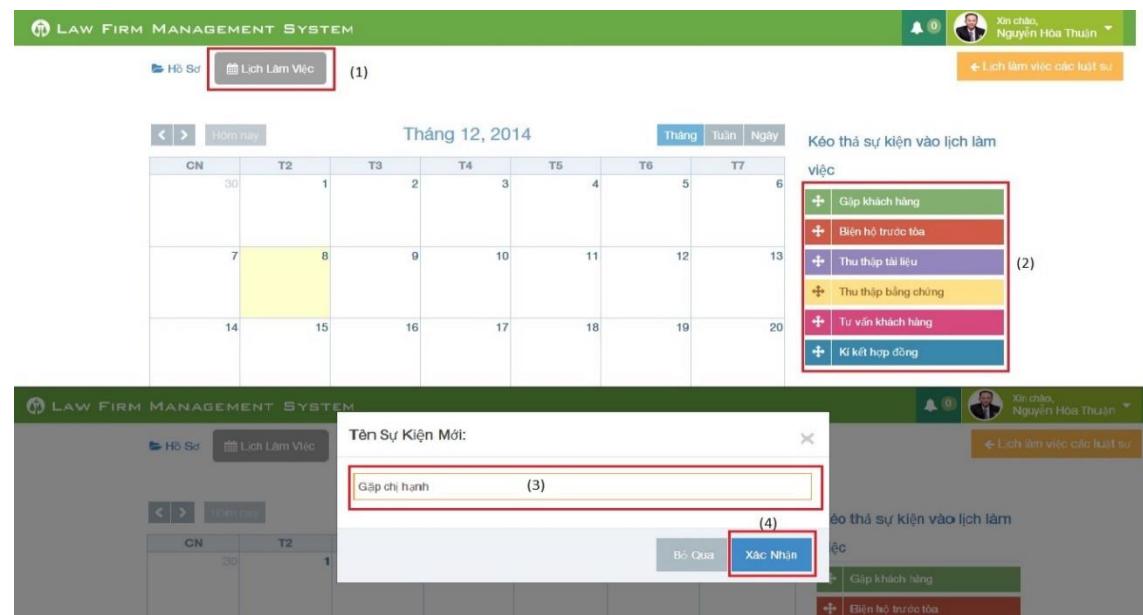


Figure 6-14: How to create a Calendar Event

Step	Description
1	At Index page, click at “Lịch làm việc” tab
2	Drag any event and drop it into calendar. (User can also click or click and drag anywhere in calendar to create a new event)
3	Input New calendar event name.
4	Press “Xác nhận” button to create new calendar event.

### 6.2.2. How to view calendar event of other lawyer

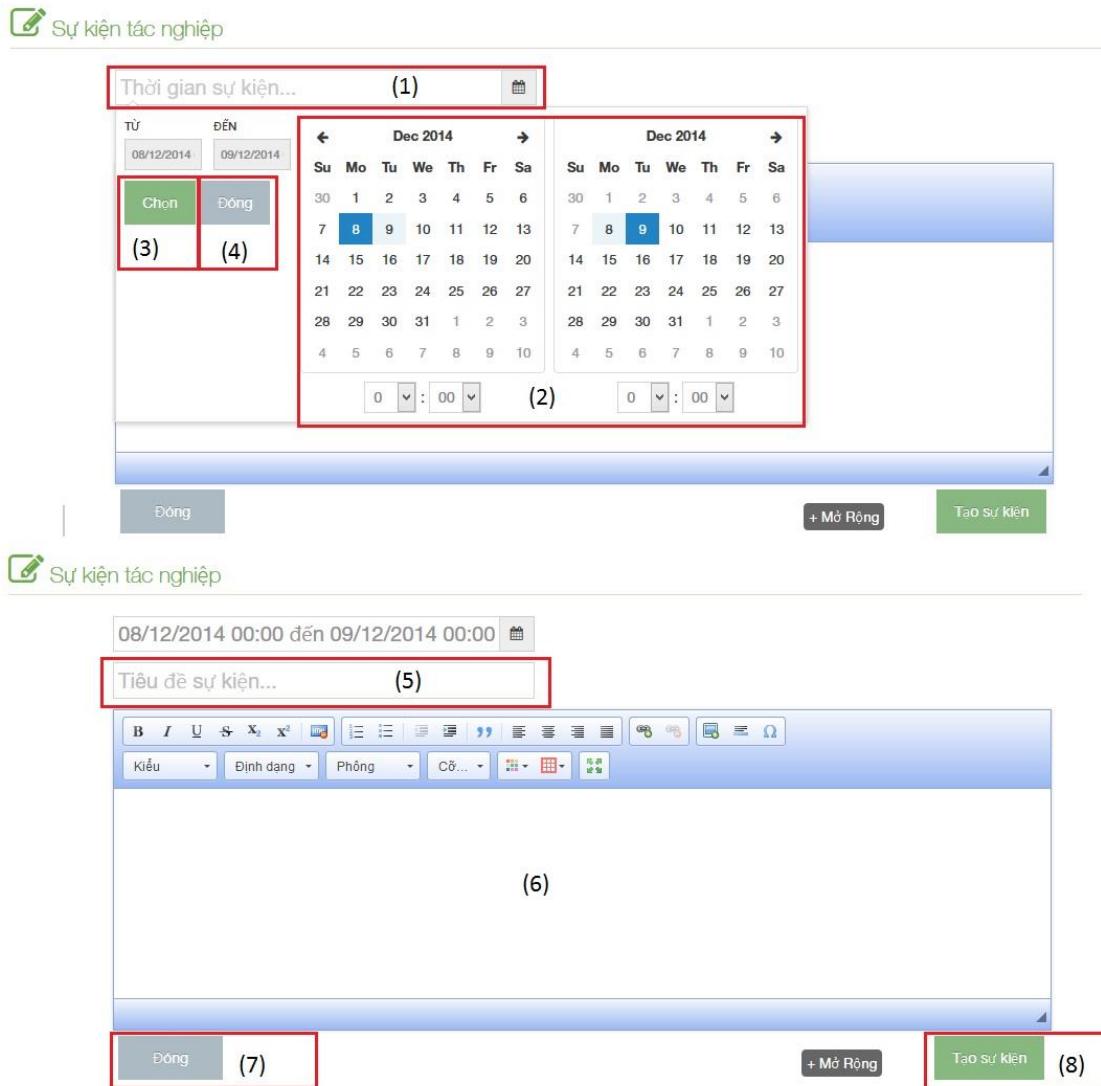
The figure consists of two screenshots of a web-based law firm management system. Both screenshots show a calendar for December 2014 with days labeled CN (Chủ Nhật), T2 (Thứ Hai), T3 (Thứ Ba), T4 (Thứ Tư), T5 (Thứ Năm), T6 (Thứ Sáu), and T7 (Thứ Bảy). The days are numbered from 30 to 6. In the first screenshot, a yellow box labeled (1) highlights the 'Lịch Làm Việc' tab. In the second screenshot, a yellow box labeled (2) highlights a red button labeled 'Lịch làm việc các luật sư'. A third screenshot shows a dropdown menu labeled 'Luật sư:' with 'Nguyễn Thị Hòa Thảo (thaonth)' selected. A fourth screenshot labeled (4) shows the calendar again, with a red box highlighting the date 8, which is also highlighted in yellow in the calendar below it.

Figure 6-15: How to view calendar event of other lawyer

Step	Description
1	At Index page, click at “Lịch làm việc” tab
2	At “Lịch làm việc” tab click at “Lịch làm việc các luật sư”
3	Choose a name of lawyer user want to view at combo-box

4	Calendar event will show below combo-box
---	--

### 6.2.3. How to create an Operation Event



**Figure 6-16: How to create an Operation Event**

Step	Description
------	-------------

1	Click to text box to add time start and finish of event
---	---

2	Choose date and time of event
3	Click [Chọn] button to input data on “Thời gian sự kiện”
4	Click [Đóng] button to cancel input
5	Input title of event
6	Input content of event include: text, image....
7	Click [Đóng] button to close Popup and back to [List event] screen
8	Click [Tạo sự kiện] to insert new operation event

#### 6.2.4. How to upload photos to Documents Related

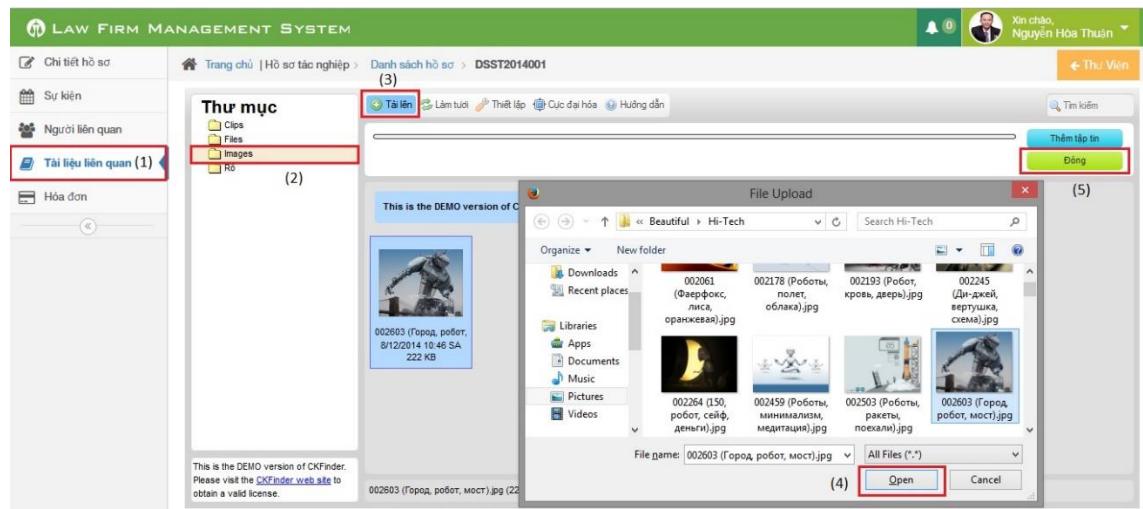


Figure 6-17: How to upload photos to Documents Related

Step	Description
1	Go to case detail page and then click on “Tài liệu liên quan” link
2	Click on “Images” button (can upload only image file format)
3	Click on “Tải lên” button to show a popup
4	Choose one or many photos and then click “Open” button
5	Click on “Đóng” button to complete upload

### 6.2.5. How to create a case

The screenshot shows two screenshots of the LFMS interface. The top screenshot shows the main dashboard with a list of cases. A red box labeled '(1)' highlights the 'Danh sách hồ sơ' item in the top right menu. A red box labeled '(2)' highlights the 'Thêm hồ sơ tác nghiệp' button in the top left corner of the main content area. The bottom screenshot shows a modal window titled 'Thêm hồ sơ tác nghiệp'. It contains fields for 'Mã hồ sơ' (filled with 'TLST2014003'), 'Ngày thụ lý' (filled with '08/12/2014'), 'Thuộc văn phòng' (dropdown menu showing 'Luật Thuận Nguyễn Hồ Chí Minh' and 'Luật Thuận Nguyễn Vĩnh Long'), and 'Nội dung' (filled with 'Tranh chấp thừa kế'). A red box labeled '(3)' highlights the 'Thuộc văn phòng' dropdown. A red box labeled '(4)' highlights the green '[Thêm mới]' button at the bottom right of the modal.

Figure 6-18: How to create a Case

Step	Description
1	Click on list menu and then choose “Danh sách hồ sơ” to go to view list case page
2	Click on “Thêm hồ sơ tác nghiệp” to show a popup
3	Fill information of case: - Mã hồ sơ, Ngày thụ lý, Thuộc văn phòng, Nội dung is required
4	Click [Thêm mới] button to insert new case

### 6.2.6. How to create a customer

The screenshot shows two pages of the LFMS interface:

- Top Page (Step 1):** Shows the main dashboard with a green header "LAW FIRM MANAGEMENT SYSTEM". The left sidebar has "Khách hàng" and "Nhóm khách hàng" buttons. The top right shows a user profile "Xin chào, Nguyễn Hòa Thuận" and a menu with items like "Danh sách hồ sơ", "Quản lý khách hàng" (highlighted with a red box), "Quản lý nhân viên", "Quản lý dịch vụ", "Quản lý văn phòng", "Thống kê", "Đổi mật khẩu", and "Đăng xuất".
- Bottom Page (Step 2-5):** Shows a modal window titled "Thêm Khách Hàng" (Add Customer). It contains fields for "Tên khách hàng", "Người đại diện", "Nhóm khách hàng" (dropdown menu showing "Cá nhân", "Doanh nghiệp", and "Tổ chức khác" with "Cá nhân" highlighted), "Giới tính", "Số CMND", "Ngày sinh", "Nơi cấp CMND", "Số tài khoản", "Tên ngân hàng", "Mã số thuế", "Email", "Điện thoại di động", "Điện thoại cố định", and "Địa chỉ". At the bottom are two buttons: "Làm trống" (highlighted with a red box) and "Thêm mới" (highlighted with a red box).

Figure 6-19: How to create a Customer

Step	Description
1	Click on list menu and then choose “Quản lý khách hàng” to go to view list customer page
2	Click on “Thêm khách hàng” to show a popup
3	Fill information of case: <ul style="list-style-type: none"> <li>- Tên khách hàng, Người đại diện, Nhóm khách hàng, Điện thoại di động, Địa chỉ is required</li> <li>- Điện thoại di động, Điện thoại cố định, số CMND, Mã số thuế, Số tài khoản must be number</li> </ul>

	- Email to compliance with format
4	Click [Làm trống] button to clear all fill to blank.
5	Click [Thêm mới] button to insert new customer

### 6.2.7. How to create a Staff

The screenshot shows two overlapping windows of the 'Law Firm Management System'. The top window is titled 'Danh sách nhân viên' and lists two staff members: 'Nguyễn Hòa Thuận' (Trưởng văn phòng) and 'Nguyễn Huỳnh Kim Ngân' (Nhân viên chăm sóc khách hàng). The bottom window is titled 'Thêm nhân viên' and is a form for creating a new staff member. It includes fields for basic information like name, date of birth, gender, and contact details, as well as more specific fields like office selection and office phone number. Buttons labeled '(1)' through '(6)' point to specific UI elements: (1) 'Quản lý nhân viên' in the sidebar; (2) 'Thêm nhân viên' in the list header; (3) the main form area; (4) the 'Thuộc văn phòng' dropdown menu; (5) the 'Làm trống' button; and (6) the 'Thêm mới' button.

Figure 6-20: How to create a Staff

Step	Description
1	Click on list menu and then choose “Quản lý nhân viên” to go to view list staff page
2	Click on “Thêm nhân viên” to show a popup

3	Click to input avatar of staff
4	<p>Fill information of staff:</p> <ul style="list-style-type: none"> <li>- Tên nhân viên, Tên đăng nhập, Nhóm nhân viên, Ngày sinh, Điện thoại di động, Email, Địa chỉ liên hệ, Thuộc văn phòng, Vai trò nhân viên, CMND, Ngày cấp CMND, Nơi cấp CMND is required</li> <li>- Điện thoại di động, Điện thoại nhà riêng, CMND, Mã số thuế, Số tài khoản must be number</li> <li>- Email to compliance with format</li> </ul>
5	Click [Làm trống] button to clear all fill to blank.
6	Click [Thêm mới] button to insert new staff

### 6.2.8. How to create a service

The screenshot shows two views of the 'Danh sách dịch vụ' (Service List) page from the 'Law Firm Management System'. The top view shows a list of services with a red box around the '+ Thêm dịch vụ mới' (Add New Service) button. The bottom view shows a detailed 'Thêm dịch vụ' (Add Service) modal dialog. The modal has fields for 'Tên dịch vụ\*' (Service Name\*), 'Loại dịch vụ\*' (Service Type\*), 'Mô tả' (Description), and 'Hiệu' (Effect). A red box highlights the 'Thêm mới' (Add) button at the bottom right of the modal. The background shows the main service list with some items like 'Giải quyết tranh chấp thừa kế' and 'Kiến dối tài sản'.

Figure 6-21: How to create a service

Step	Description
1	Click on list menu and then choose “Quản lý dịch vụ” to go to view list service page
2	Click on “Thêm dịch vụ mới” to show a popup
3	Fill information of case: - Tên dịch vụ, Loại dịch vụ is required
4	Click [Thêm mới] button to insert new service

### 6.2.9. How to create an office

The screenshot illustrates the steps to create a new office (văn phòng) in the LFMS. It shows two views: a list of existing offices and a detailed 'Thêm văn phòng' (Add Office) form.

**Step 1:** The user is on the 'Danh sách văn phòng' (List of Offices) page. A red box highlights the '+ Thêm văn phòng' (Add Office) button.

**Step 2:** A modal window titled 'Thêm văn phòng' (Add Office) is open. It contains fields for 'Tên văn phòng' (Office Name), 'Địa chỉ liên hệ' (Address), 'Điện thoại' (Phone), 'Website', and 'Trạng thái' (Status). A red box highlights the 'Làm trống' (Clear) button at the bottom left of the form.

**Step 3:** The 'Thêm văn phòng' modal is still open. A red box highlights the 'Email' field.

**Step 4:** The 'Làm trống' button in the 'Thêm văn phòng' modal is highlighted with a red box.

**Step 5:** The 'Thêm mới' (Add New) button in the 'Thêm văn phòng' modal is highlighted with a red box.

Figure 6-22: How to create a Staff

Step	Description
1	Click on list menu and then choose “Quản lý văn phòng” to go to view list office page
2	Click on “Thêm văn phòng” to show a popup
3	Fill information of case: - Tên văn phòng, Địa chỉ văn phòng, Người quản lí, Điện thoại, Email is required - Điện thoại, Mã số thuế, Số tài khoản must be number - Email to compliance with format
4	Click [Làm trống] button to clear all fill to blank.
5	Click [Thêm mới] button to insert new service

### 6.2.10. How to view statistic

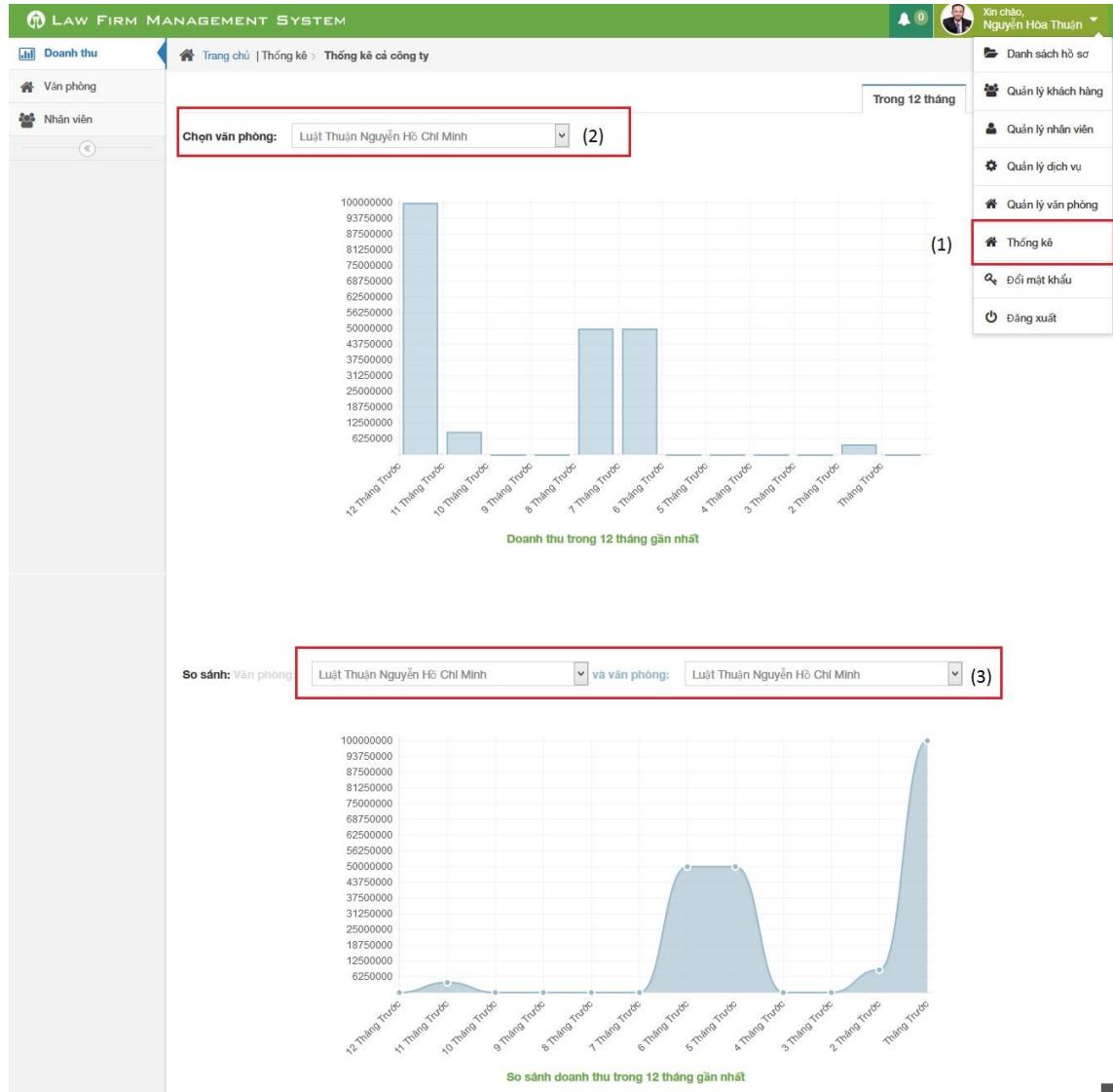


Figure 6-23: How to view statistic

Step	Description
1	Click on list menu and then choose “Thống kê” to go to view list statistic page
2	Choose office user want to show statistic
3	Choose two office user want to compare in statistic

## 6.3. Project Result Report

### 6.3.1. Project judging

#### 6.3.1.1. Advantages of LFMS

The idea of the LFMS is to develop a new website for “Thuan Nguyen Lawyer Office. It has main features of existing website such as easy to manage than traditional methods, online data storage and centralized etc... Besisdes, it has some extra functions: schedule notify each time event occur and statistic in every year

- Lawyers can work more effective, easier and simpler way without remember schedule and operation event.
- Law firm can manage all information like case, customer, staff service and office easier.
- Accounting easier with auto statistical in every year.

#### 6.3.1.2. Current limitations of LFMS

However, some limitations still exist

- Still not using search in “Thư viện pháp luật”
- Only support Firefox

#### 6.3.1.3. Expectation in future

- Develop function search in “Thư viện pháp luật”
- Support more in other browser

### 6.3.2. Project summary

<b>Project Title</b>	Website of law firm management system		
<b>Project Supervisor</b>	Nguyễn Văn Sang		
Committers (5)			
1	Project Manager	Lê Duy Hoàng	<a href="mailto:Hoangldse60744@fpt.edu.vn">Hoangldse60744@fpt.edu.vn</a>
2	Project Technical Leader	Lê Duy Hoàng	<a href="mailto:Hoangldse60744@fpt.edu.vn">Hoangldse60744@fpt.edu.vn</a>
3	Developer	Đặng Nguyễn Khiêm	<a href="mailto:Khiemdndse60595@fpt.edu.vn">Khiemdndse60595@fpt.edu.vn</a>
4	Developer	Phạm Văn Duy	<a href="mailto:Duypvse60634@fpt.edu.vn">Duypvse60634@fpt.edu.vn</a>
5	Tester	Trần Anh Tuấn	<a href="mailto:Tuantase60631@fpt.edu.vn">Tuantase60631@fpt.edu.vn</a>
<b>Main objective</b>		Develop a website that helps users can manage all information like case, customer, staff, service and office easier.	
<b>Purpose</b>		Lawyers can work more effective, easier and simpler	
<b>Items</b>		<b>Plan</b>	<b>Actual</b>
Releases Date		25/12/2013	27/12/2013
Releases version		1.0	1.0
Days		78	80
Test cases		223 test case	
Defects		8	
Document pages		> 200 (include appendix)	

Lines of code		Approximately 50.000
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### 6.3.3. Lesson learned

- Before this capstone project, we do not know much about ASP. Net MVC4, Ajax and C #language. After more than 3 months, we have more experience and deeply understand how to create a MVC4 website, how to face with problems and bugs in developing a MVC4 website.
- We also improved lots of skills
  - Firstly, about technical, we know how to develop application with C# language, how to use SVN to store source code and how to work efficiently with Microsoft Office.
  - Secondly, about soft skills, while doing this project, we can gain skills in how to work with team efficiently, how to avoid conflict in team members. After lots of team meeting, we know how to brainstorm with all team to generate creative idea or solution to a problem. In addition, two important skills are researching and self-studying, we have to research and self-study a lot to do our work in project, to solve a problem.
  - Finally, one of the most important skill we have learnt through this project is project management. We know how to manage a project from the beginning to the end, how to create project plan, how to collect requirements, how to create SRS, how to design an application, how to create test cases etc. It is very important for our job in the future.
- Through this capstone project, we have more experiences in risk and issues management
  - About technique :
    - Some members do not have high level in work with ASP. Net MVC 4, Ajax, Jquery before start this project so we assign some members to take responsibility for researching and training the others.
    - Members do not understand about some general techniques such as searching in internet or asking for supporting from community. We

have to support to guide each other to work efficiently.

- About human resources:

- Some members are lazy for a while; they cannot finish their work before deadline or cannot do their tasks so we define detail schedules, and often reminding each other.
- We held lots of team meeting for team members to meet each other, to brainstorming to think about solution of a problem and to support other members.
- Team members must report what they do twice a week and project manager has to define schedule according to members' capability.

- About the missing deadline, there are some reasons

- The coding language is new with us, so we need more time to be acquainted with it.
- Sometimes source code has problems and members cannot check in, check out to submit their works
- There are some conflicts between team members; they lead to the waste of time.

END.