



TRƯỜNG ĐẠI HỌC FPT

MINISTRY OF EDUCATION AND TRAINING

# FPT UNIVERSITY

## Capstone Project Document

### WeTeach

WeTeach	
<b>Group Members</b>	Nguyễn Viết Nam – SE03599 – 0984536543 Trần Nhật Trường – SE03527 – 0978203753 Nguyễn Thịnh Cường – SE03238 – 0969666682 Chu Văn Toàn – SE03675 - 0962464541
<b>Supervisor</b>	Đào Trọng Duy
<b>Ext Supervisor</b>	
<b>Capstone Project code</b>	TE

# Table of Contents

Chapter 1: Introduction .....	8
1.1    Introduction and Motivation .....	8
1.2    Project Information.....	8
1.2.1    Supervisor .....	8
1.2.2    Team Members.....	8
1.3    Existing/Similar Product.....	9
1.3.1    Udemy.....	9
1.3.2    Edumall .....	10
Chapter 2: Software Project Management Plan .....	11
2.1    Introduction .....	11
2.1.1    Purpose .....	11
2.1.2    Definition and Acronyms .....	11
2.2    Project Overview.....	11
2.2.1    Project Description .....	11
2.2.2    Standard Objectives .....	12
2.2.3    Milestones and Deliverables.....	12
2.3    Project Organization .....	13
2.3.1    Software Process Model.....	13
2.3.2    Project Lifecycle .....	14
2.3.3    Role and Responsibilities .....	14
2.4    Tool and Infrastructures .....	16
2.4.1    Hardware .....	16
2.4.2    Software .....	16
2.5 Schedule.....	16
2.6    Communication Management .....	18
2.6.1    Meeting Schedule .....	18
2.6.2    Communication Channels.....	18
2.7    Risk Management .....	18
2.8    Configuration Management.....	19
2.9    Directory Structure .....	21
Chapter 3: Software Requirement Specification .....	22

3.1	Introduction .....	22
3.1.1	Purpose .....	22
3.1.2	Scope.....	22
3.2	Overview .....	22
3.2.1	Overview Description.....	22
3.2.1.1	System Overview.....	22
3.2.1.2	Entity-Relationship Model .....	23
3.2.2	Use Case Diagram .....	33
3.2.2.1	Administrator, Trainer and Learner Use Case Diagram .....	33
3.2.2.2	Guest Use Case Diagram .....	34
3.2.2.3	Administrator, Trainer, Learner, Guest Use Case Diagram.....	35
3.2.2.4	Use Case Diagram about Course Management .....	36
3.2.2.5	Use Case Diagram about Document Management .....	36
3.2.2.6	Use Case Diagram about Account Management .....	37
3.2.2.7	Use Case Diagram about Message Management .....	38
3.2.2.8	Use Case Diagram about Comment .....	38
3.2.2.9	Use Case Diagram about Rate.....	39
3.2.2.10	Use Case Diagram about Users Management .....	40
3.3	Functional Requirements.....	41
3.3.1	Business and Validation Rules.....	41
3.3.2	Use Case Detail.....	43
3.3.2.1	Guest .....	43
3.3.2.2	Administrator/Trainer/Learner .....	54
3.3.2.3	Administrator/Trainer.....	78
3.3.2.4	Administrator/Learner/Trainer/Guest .....	100
3.3.2.5	Administrator .....	109
3.3.2.6	Administrator/Learner .....	136
3.4	Non-Functional Requirement .....	143
3.4.1	Usability.....	143
3.4.2	Security .....	143
Chapter 4: Software Project Design Description .....	147	
4.1	Purpose .....	147
4.2	System Architecture.....	147

4.3	Database Design.....	148
4.3.1	Database Diagram.....	148
4.3.2	Database Detail.....	148
4.4	Detailed Design .....	155
4.4.1	Sign Up as Trainer .....	155
4.4.2	Sign Up as Learner.....	157
4.4.3	Sign In.....	158
4.4.4	Log Out.....	160
4.4.5	Change Password .....	162
4.4.6	Forget Password.....	164
4.4.7	Update Profile Picture.....	166
4.4.8	View Personal Profile .....	168
4.4.9	Send Message .....	170
4.4.10	View Message .....	173
4.4.11	Delete Message.....	175
4.4.12	Comment Course .....	177
4.4.13	Edit Comment .....	179
4.4.14	Delete Comment.....	181
4.4.15	Rate Course .....	182
4.4.16	Rate Trainer.....	184
4.4.17	View Course Statistic.....	186
4.4.18	Create New Course .....	188
4.4.19	Edit Course Detail.....	190
4.4.20	Delete Courses .....	192
4.4.21	Upload Documents .....	194
4.4.22	Delete Documents .....	196
4.4.23	View Documents Dashboard.....	198
4.4.24	Edit Profile (Trainer).....	200
4.4.25	View Course Detail.....	202
4.4.26	Search Course .....	204
4.4.27	View Trainer List.....	205
4.4.28	View Other Public Profile .....	206
4.4.29	View Course Comment .....	207

4.4.30	View Course's Rate.....	209
4.4.31	View Trainer's Rate .....	211
4.4.32	View Document Picture .....	213
4.4.33	View Website Statistic .....	214
4.4.34	Review Trainer's Document.....	216
4.4.35	Review New Course .....	218
4.4.36	Review Trainer's Account.....	220
4.4.37	Block Learners.....	222
4.4.38	Block Trainers.....	224
4.4.39	Unblock Learners .....	226
4.4.40	Unblock Trainers .....	228
4.4.41	Add New Trainer Account.....	230
4.4.42	Add New Learner Account .....	232
4.4.43	Edit Trainer's Information.....	234
4.4.44	Edit Learner's Information .....	236
4.4.45	Delete Trainer's Account.....	238
4.4.46	Delete Learner's Account.....	240
4.4.47	Edit Profile (Learner) .....	242
4.4.48	Save Course.....	244
4.4.49	View Course Saved List .....	245
4.4.50	View Course View History.....	246
	Chapter 5: Software Testing Documentation .....	247
5.1	Introduction .....	247
5.1.1	Purpose .....	247
5.1.2	Scope of Testing.....	247
5.1.2.1	Stages of Testing .....	247
5.1.2.2	Types of Testing .....	248
5.1.2.3	Range of Testing.....	248
5.2	Test Plan.....	249
5.2.1	Testing Tools and Environment .....	249
5.2.1.1	Testing Tools .....	249
5.2.1.2	Testing Environment.....	249
5.2.2	Resources and Responsibilities .....	249

5.2.3	Test Strategy .....	250
5.2.3.1	Test Model .....	250
5.2.3.2	Test Type .....	251
5.2.3.3	Test Stage.....	252
5.2.3.4	Test Schedule .....	252
5.2.3.5	Deliverable .....	252
5.2.4	Feature to be Tested .....	253
5.2.5	Feature not to be Tested .....	255
5.3	Test Approach .....	255
5.3.1	Unit Test.....	255
5.3.2	Integration and System Test .....	255
5.3.3	Defect Log .....	256
5.4	Test Report.....	256
5.4.1	Iteration 1.....	256
5.4.2	Iteration 2.....	260
	Chapter 6: Software User's Manual.....	267
6.1	Homepage.....	267
6.2	Sign Up .....	267
6.3	Sign In.....	271
6.4	Log Out .....	272
6.5	Course .....	272
6.6	Trainer.....	274
6.7	Search.....	275
6.8	My Profile Trainer/Learner .....	276
6.9	Account Setting Trainer/Learner .....	277
6.10	My Message .....	278
6.11	Document Trainer .....	279
6.12	View Public Profile Trainer.....	280
6.13	History (Learner).....	280
6.14	Public Profile.....	281
6.15	Add New Course.....	282
6.16	Course Management.....	285
6.17	Admin Dashboard.....	286

6.18	User Management.....	287
6.19	Administrator Account Manage.....	288
6.20	Administrator's Message Page.....	288

# Chapter 1: Introduction

## 1.1 Introduction and Motivation

Nowadays the Internet has become part and parcel of our life in today's modern world. People use the internet to search for specific information, to connect with each other and for many other reasons. We can see very clear that education websites have grown along with the development of the internet.

Even though there are thousands of those website all over the internet (most of them are in English), we can't really find that much website that can serve Vietnamese people. Because the majority of Vietnamese people are not good at English, they find it difficult to fully understand when they study in English.

Also, Vietnamese people have very high needs for extra classes but the only problem is they sometime don't know where to look for not only good, trusted... classes but also convenient for them.

For the above-mentioned reason, we come up with the idea to create an education website that can resolve these problem.

## 1.2 Project Information

### 1.2.1 Supervisor

	Full Name	Phone Number	Email	Title
<b>Supervisor</b>	Đào Trọng Duy		duydt@fe.edu.vn	Lecturer

### 1.2.2 Team Members

No	Full Name	Student ID	Phone Number	Email	Role in Group
1	Nguyễn Việt Nam	SE03599	0984536543	namnvse03599@fpt.edu.vn	Leader
2	Trần Nhật Trường	SE03527	0978203753	truongtnse03527@fpt.edu.vn	Member
3	Chu Văn Toàn	SE03675	0962464541	toancvse03675@fpt.edu.vn	Member

4	Nguyễn Thịnh Cường	SE03238	0969666682	cuongntse03238@fpt.edu.vn	Member
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### 1.3 Existing/Similar Product

#### 1.3.1 Udemy



Udemy is a global marketplace for learning and teaching online where more than 15 million students learn from an extensive library of 45,000 courses. Whether learning for professional development or personal enrichment, students can master new skills through self-paced, on-demand courses, while instructors have a way to share their knowledge with the world. For companies, Udemy for Business offers subscription access to a collection of business-relevant courses as well as a simple platform to host and distribute their own content in one central place.

- Advantages:
  - Most courses are self-paced (Start when you're ready, set your own schedule).
  - Udemy have a wide range of 45,000 course portfolio.
  - On any given subject, there are courses from multiple authors so you can choose the best one.
  - Udemy provides lifetime access to all its courses.
  - Many courses are offered free of cost.

- Disadvantages:
  - There are a lot of “low quality” courses.
  - Pay through credit card or paypal which is not many Vietnamese use that.
  - Does not have many “good” courses in Vietnamese.

### 1.3.2 Edumall



Edumall is a website for learning and teaching online. Edumall provides thousands of different courses for Vietnamese.

- Advantages:
  - Most courses are self-paced.
  - 100% course's content is Vietnamese.
  - Easy to pay (COD, ATM...)
  - Edumall provides lifetime access to all its courses.
  - Many courses are offered free of cost.
- Disadvantages:
  - Lack of communicate between trainer and leaner.
  - Edumall does not have preview course.

# Chapter 2: Software Project Management Plan

## 2.1 Introduction

### 2.1.1 Purpose

This document includes information about WeTeach team, work schedule from start to the end of project; project risk management plan and communication plan. This will be used by project manager to manage and control work of all team. The supervisor can use this to track progress of the project team.

### 2.1.2 Definition and Acronyms

Acronyms & Abbreviation	Definition	Note
PM	Project Manager	
PMP	Project Management Plan	
SRS	Software Requirement Specification	
SDD	Software Detail Design	
SUM	Software User Manual	

Table 2.1: Definitions and Acronyms

## 2.2 Project Overview

### 2.2.1 Project Description

Project Code	TE	Project Level	Group
Application Type	Website	Project Manager	Nguyen Viet Nam
Project Category	Development	Business Domain	Service

Table 2.2: Project Description

This website has 2 mains users: *Learner* and *Trainer*. WeTeach's goal is become a bridge between *Learner* and *Trainer*. *Learner* can use this website to look for different course in different category. *Trainer* can use this website to provide, promote...their course. We have review system that will make sure every course has the best content.

## 2.2.2 Standard Objectives

- ✚ This project must be finished no later than 18 Aug, 2017
- ✚ The 4 of team members give best effort to complete the project
- ✚ The final site covers 100% of requirements

## 2.2.3 Milestones and Deliverables

### ❖ Milestones

No	Milestones	Completion Date
1	Kick off Project	05/10/2017
2	End of Phase 1	07/07/2017
3	End of Phase 2	08/18/2017
4	Project defense	Expected: 08/23/2017 – 08/25/2017

Table 2.3: Milestones

### ❖ Deliverables

No	Deliverables	Format	Delivery Date	Verified by	Delivery Medium
1	Project Introduction	.pdf	05/15/2017	Instructor	Email
2	Project Management Plan	.pdf	05/22/2017	Instructor	Email
3	Project Software Requirement Specification	.pdf	06/01/2017	Instructor	Email

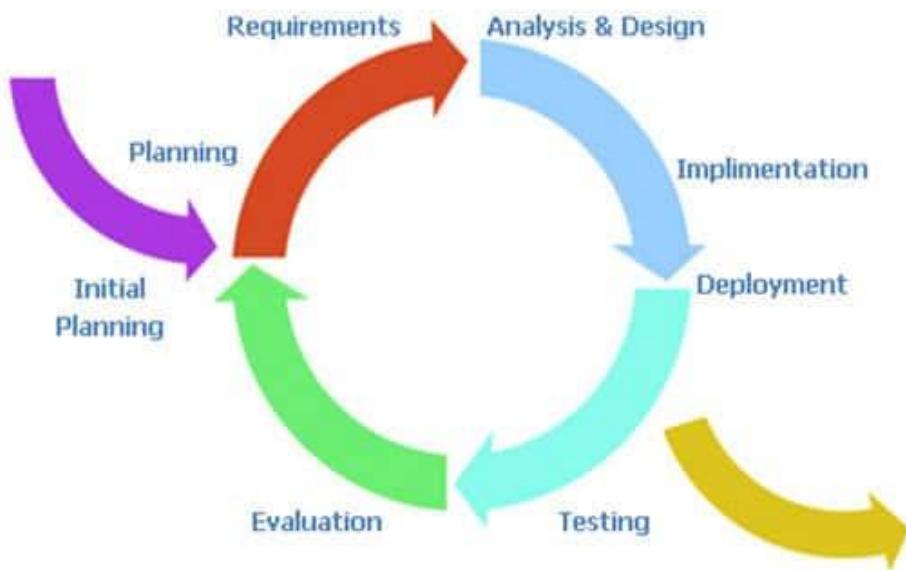
4	Project Software Design Description	.pdf	06/15/2017	Instructor	Email
5	Project Software Test Documentation	.pdf	07/21/2017	Instructor	Email
6	Project Software User's Manual	.pdf	08/14/2017	Instructor	Email
7	Project Source Code	Hard Copy on CD	08/18/2017	Instructor	Meet Directly
8	Project Document	Hard Copy on Paper	08/18/2017	Instructor	Meet Directly

*Table 2.4: Deliverables*

## 2.3 Project Organization

### 2.3.1 Software Process Model

In this project, we apply Incremental and Iterative model as development process model.



*Figure 2.1: Incremental and Iterative Model*

Incremental and Iterative software development is a method of software development that is modeled around a gradual increase in feature additions and a cyclical release and upgrade pattern. This method begins with planning and continues through iterative development cycles involving continuous user feedback and the incremental addition of features concluding with the deployment of completed software at the end of each cycle. It is one of the methodologies of Agile software development, rational unified process and extreme programming.

### 2.3.2 Project Lifecycle

This project is divided into 2 phase: Phase 1 and Phase 2. Each Phase goes through planning, requirement specification, analysis and design, development, testing and evaluation. In each Phase we base on result of the previous Phase to plan and specify requirement and develop additional function for the system.

### 2.3.3 Role and Responsibilities

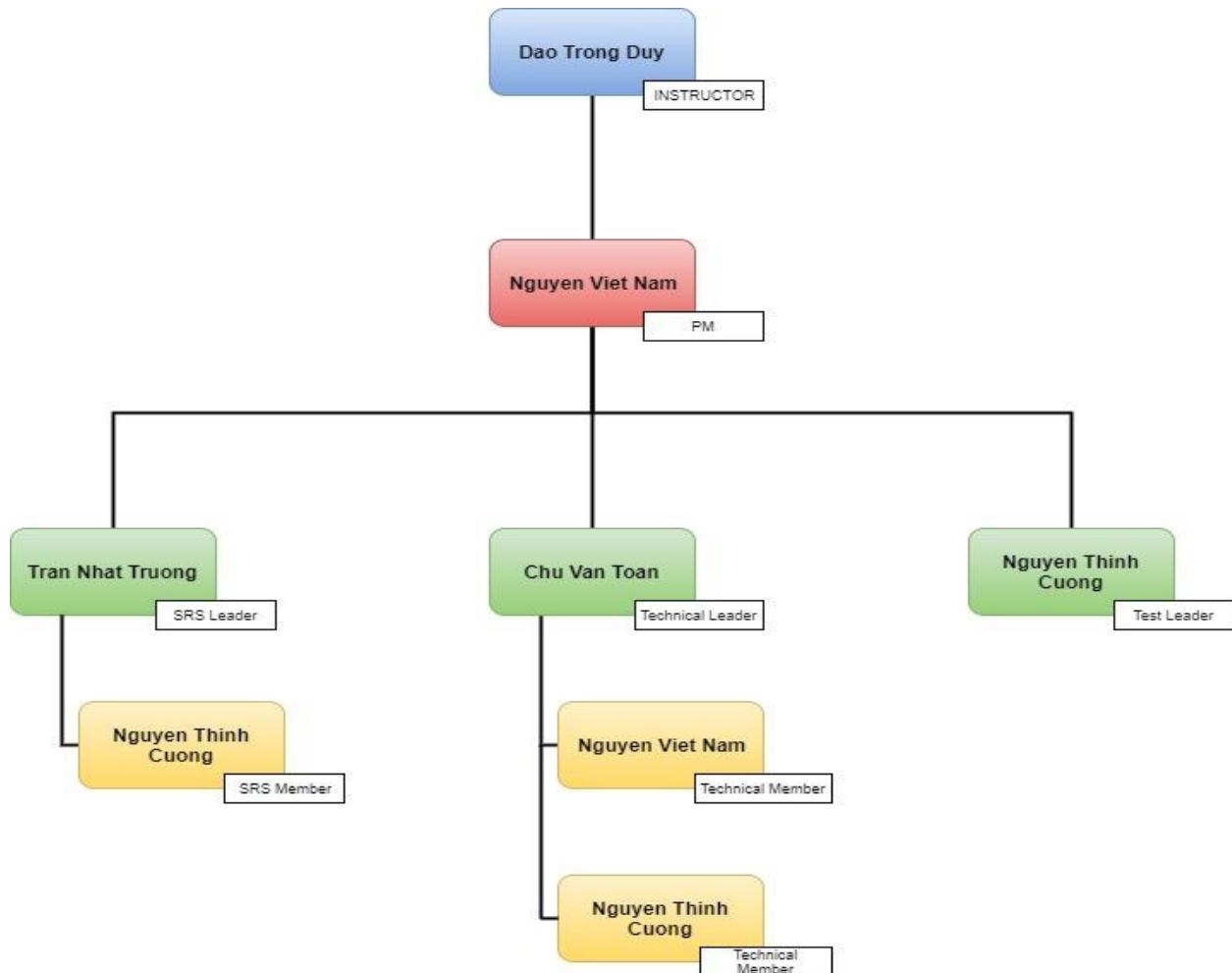


Figure 2.2: Organization Structure

Role	Full Name	Responsibility
Instructor	Dao Trong Duy	<ul style="list-style-type: none"> <li>- Give instruction for project team.</li> <li>- Verify Deliverables.</li> <li>- Supervise project team's status</li> </ul>
PM	Nguyen Viet Nam	<p>Have overall responsibility of the project:</p> <ul style="list-style-type: none"> <li>- Create project plan.</li> <li>- Assign task to team members.</li> <li>- Tracking team member's work.</li> <li>- Report work status to the instructor</li> </ul>
<b>❖❖ Requirement analysis team</b>		
SRS Leader	Tran Nhat Truong	Complete SRS document and submit to PM.
SRS Member	Nguyen Thinh Cuong	Create user case diagram Specify non-functional requirement
<b>❖❖ Technical team</b>		
Technical Leader	Chu Van Toan	<ul style="list-style-type: none"> <li>- Create coding convention</li> <li>- Decide technique and tools to be used</li> <li>- Develop website</li> </ul>
Developer #1	Nguyen Viet Nam	Together with team leader develop website
Developer #2	Nguyen Thinh Cuong	Together with team leader develop website
<b>❖❖ Test team</b>		
Test Leader	Nguyen Thinh Cuong	<ul style="list-style-type: none"> <li>- Create test plan</li> </ul>

		<ul style="list-style-type: none"> <li>- Create test case</li> <li>- Report test result</li> </ul>
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*Table 2.5: Role and Responsibilities*

## 2.4 Tool and Infrastructures

### 2.4.1 Hardware

- ⊕ Personal computer for coding and testing with minimum configuration of 4GB RAM, 320GB of hard disk, Intel core i5
- ⊕ Internet network connection

### 2.4.2 Software

Category	Software Name	Version
Operating System	Microsoft Windows 10	Professional
Office Tools	Microsoft Word	2016
	Microsoft Excel	2016
	Microsoft Power Point	2016
Management Tools	Microsoft Project	2016
	Google Driver	
Design Tools	www.draw.io	
	Balsamiq Mockups	3.5.9
Development Tools	Eclipse	
Database Tools	SQL Server Management Studio	2008
Source Code Management Tool	Riouxsrvn	

*Table 2.6: Software*

## 2.5 Schedule

- **Detailed Schedule**

Below is the image of work schedule for this project.

Task Name	Duration	Start	Finish	Predecessors	Resource Names
« WeTeach	75 days	Mon 08/05/17	Fri 18/08/17		
« Phase 1	45 days	Mon 08/05/17	Fri 07/07/17		
Planning	4 days	Mon 08/05/17	Thu 11/05/17		NamNV,CuongNT,TruongTN,ToanCV
Requirement	4 days	Fri 12/05/17	Wed 17/05/17	3	CuongNT,ToanCV
Analysis and Design	5 days	Thu 18/05/17	Wed 24/05/17	4	CuongNT,TruongTN
Development	22 days	Thu 25/05/17	Fri 23/06/17	5	CuongNT,NamNV,ToanCV,TruongTN
Testing	9 days	Mon 26/06/17	Thu 06/07/17	6	ToanCV,TruongTN
Evaluation	1 day	Fri 07/07/17	Fri 07/07/17	7	NamNV
End of Phase 1	0 days	Fri 07/07/17	Fri 07/07/17		
« Phase 2	30 days	Mon 10/07/17	Fri 18/08/17	2	
Planning	3 days	Mon 10/07/17	Wed 12/07/17		CuongNT,NamNV,ToanCV,TruongTN
Requirement	3 days	Thu 13/07/17	Mon 17/07/17	11	CuongNT,ToanCV
Analysis and Design	3 days	Tue 18/07/17	Thu 20/07/17	12	CuongNT,TruongTN
Development	15 days	Fri 21/07/17	Thu 10/08/17	13	CuongNT,NamNV,ToanCV,TruongTN
Testing	5 days	Fri 11/08/17	Thu 17/08/17	14	ToanCV,TruongTN
Evaluation	1 day	Fri 18/08/17	Fri 18/08/17	15	NamNV
End of Phase 2	0 days	Fri 18/08/17	Fri 18/08/17		

Figure 2.3: Task List

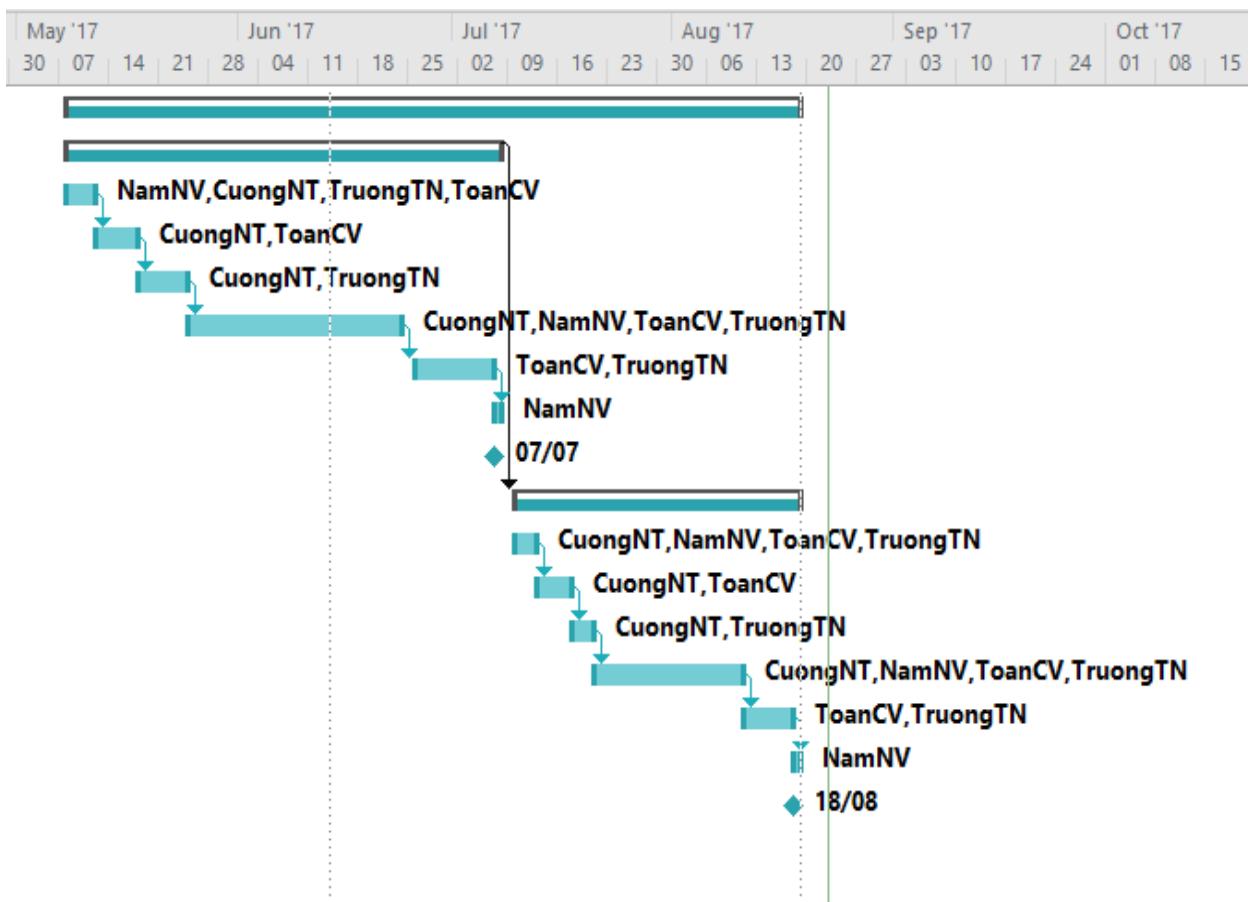


Figure 2.4: Gantt Chart

## 2.6 Communication Management

### 2.6.1 Meeting Schedule

We scheduled to meet the instructor once a week and have our own meeting which is also once a week to assign work and resolve all the problems that we have to face during working time.

### 2.6.2 Communication Channels

Our main communication channels are physical meeting, email, Facebook Messenger...

## 2.7 Risk Management

Risk Code	Risk	Avoidance Plan	Contingency Plan	Impact
R01	Team member is not pulling their weight.	Create friendly but professional environment. Listen and give everybody the chance to speak out their ideas.	Talk to them directly. Talk about this issues with the team to work it out.	High
R02	Team member lack of knowledge and skill.	Provide training classes for team members.	Project Manager have responsibility to monitor and support team members whenever they need.	Medium
R03	Team member have conflict.	Organize team building to create a cohesive group.	Bring up the issue with the team and together find the solution.	High
R04	The product does not receive a good feedback	Meet customer at least 1 time per 2 weeks to discuss and review website's requirement.	Specify customer's required again and work overtime if necessary.	High

	from the customer.			
R05	Deliver the website later than expected.	Project Manager have responsibility to make sure everything is on track.	Work overtime if necessary.	High
R06	Data lost	Always backup data using SVN or Google Docs. Each team member also should keep data file in their own computer.	Try to restore as much data as possible.	High
R07	Requirement changing too much.	The team and customer together agree on the requirement. The team have responsibility to give customer advise.	Carefully review the requirement to decide if it's necessary to be change. Work overtime if necessary.	Medium

*Table 2.7: Risk Management*

## 2.8 Configuration Management

### Version Numbering Rules

#### For Documents:

Each file has a version number as part of its identity. This version number is physically represented as a 2-part string with the following format:  
 <version>.<revision>

For example, version 1.0 indicates 1 as the version, and 0 as the revision number.

The original version will be numbered 0.1. Subsequent revisions will be numbered 0.2, 0.3 and so on. The approved version will be 1.0.

- **Version number:** appears to the left of the decimal. It is changed only when the core content of the item is significance changed. For example: when a item is completely overhauled, with substantial internal changes, the version 1.0 would become version 2.0.

- **Revision number:** appears to the right of the decimal. It is changed when the existing content is changed, but the main (or core) content is remained. The normal sequence of revision is 1.1, 1.2, and so on.

#### **For Software Source Files:**

Software executables and support files are generally identified by name and version number.

The version number is physically represented as a 3-part string with the following format: <version>.<revision><update>.

For example, version 1.1a indicates 1 as the version, 0 as the revision number, and a as the update level.

- **Version number:** appears to the left of the decimal. It is changed only when the core content of the item is significance changed, as when moving from one are of the development tool to another, when an application is completely overhauled, or the user interface changes fundamentally. In this case, version 1.1a would become version 2.0.
- **Revision number:** appears to the right of the decimal. It is changed when new features, functionality or other content are added or significantly changed. In normal case, the core architecture or user interface have been extended or limited in some manner. The most common reason for changing the revision number is adding a new module or other functionality to the software. The normal sequence of revision is 1.0, 1.1 and 1.2 and so on.
- **Update level:** is appended or incremented when the only change to the software item is to correct on or more defects, without the addition of any new function. Version 1.1 would become v1.1a, 1.1b and so on. This updating is overridden when a combination revision, involving bug fixes and new feature additions, is performed. In such a case, the software revision number is incremented and any update indicator is dropped, as in v1.1b to 1.2.

## 2.9 Directory Structure

A folder for storing all project documents is created on svn. This folder includes of some main folders as viewed following table:

Main Folder	Sub-folder	Purpose
<b>Templates</b>		Store templates of documents
<b>Meeting Minutes</b>		Store project meeting minutes
<b>Project Report</b>	TE_Report1_ProjectIntroduction	Store Introduction Document
	TE_Report2_ProjectManagementPlan	Store PMP and related files
	TE_Report3_SoftwareRequirementSpecification	Store SRS and related files
	TE_Report4_SoftwareProjectDesignDescription	Store SDD and related files
	TE_Report5_SoftwareProjectTestDocumentation	Store STD and related files
	TE_Report6_SoftwareUserManual	Store SUM and related files
<b>Source Code</b>	Phase 1	Store source code completed in Phase 1
	Phase 2	Store source code completed in Phase 2
<b>Training</b>		Store training documents of team members

Table 2.8: Directory Structure

# Chapter 3: Software Requirement Specification

## 3.1 Introduction

### 3.1.1 Purpose

This document is created as the introduction for project WeTeach – our Capstone Project at FPT University.

### 3.1.2 Scope

WeTeach is an education website for all ages. Our goal is *learners* (The one who look for courses) find a best course that have high quality content, reasonable price and the most important is suitable for them; and through our website, *trainer* and *learner* can introduce their course to everyone who need it.

Our website will provide *trainer* analytics about number of course view from learners, geography... to help them increase their courses' quality.

The interface of the website must be simple and easy to use. The website must have the interface as well as logical layout, attractive design. Moreover, the website must also have an interesting and diversity content to attract more user.

## 3.2 Overview

### 3.2.1 Overview Description

#### 3.2.1.1 System Overview

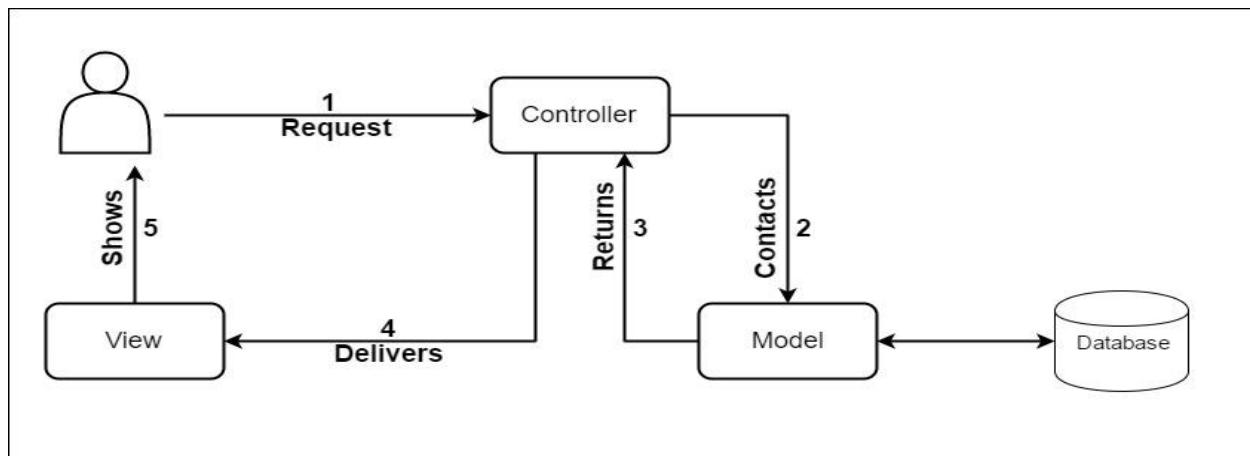
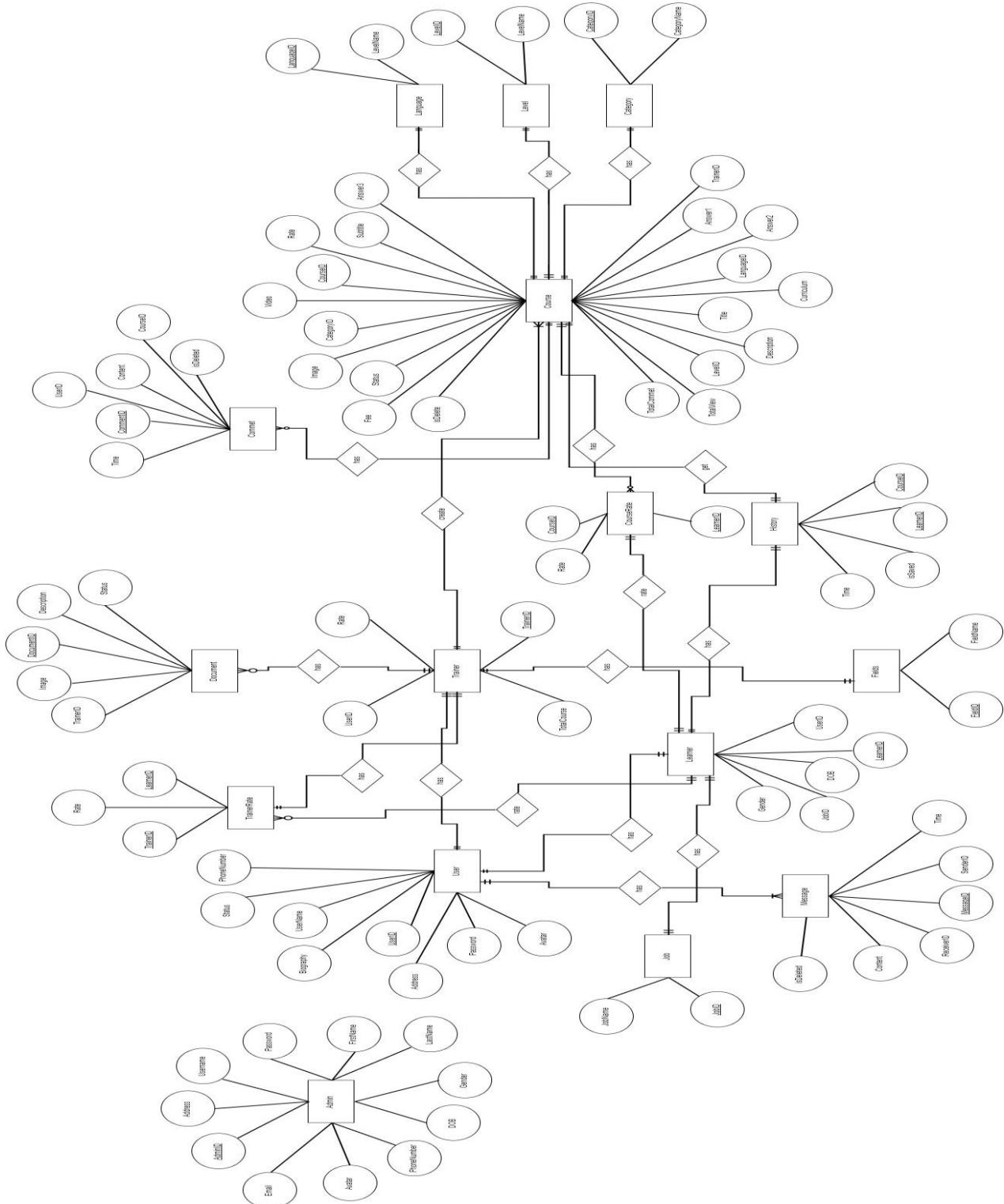


Figure 3.1: System Overview

### 3.2.1.2 Entity-Relationship Model

#### **1.1.1.1 Entity-Relationship Model**



*Figure 3.2: Entity-Relationship Diagram*

### 1.1.1.2 Entity Details

- Course

No	Field Name	Type	Mandatory	Description
1	CourseID	Number	Y	Course's ID
2	Curriculum	String	Y	Course's curriculum
3	Title	String	Y	Course's title
4	Subtitle	String	Y	Course's subtitle
5	Description	String	Y	Course's description
6	Fee	Number	Y	Course's fee
7	CategoryID	Number	Y	Category's id
8	Image	String	Y	Course's Image
9	Video	String		Course's video
10	Rate	String		Course's rate
11	LanguageID	Number	Y	Course's language id
12	LevelID	Number	Y	Course's level id
13	TrainerID	Number	Y	Course's trainer id
14	isDeleted	Boolean		Delete
15	Status	String		Course's status
16	TotalComment	Number		Number of comment
17	TotalView	Number		Number of view
18	Answer1	String	Y	Course goal
19	Answer2	String	Y	Course goal
20	Answer3	String	Y	Course goal

Table 3.1: Entity Detail - Course

- **Level**

No	Field Name	Type	Mandatory	Description
1	LevelID	Number	Y	Course's Level ID
2	LevelName	String	Y	Course's level name

*Table 3.2: Entity Detail - Level*

- **Category**

No	Field Name	Type	Mandatory	Description
1	CategoryID	Number	Y	Course's category ID
2	CategoryName	String	Y	Course's category name

*Table 3.3: Entity Detail – Category*

- **Language**

No	Field Name	Type	Mandatory	Description
1	LanguageID	Number	Y	Course's language ID
2	LanguageName	String	Y	Course's language name

*Table 3.4: Entity Detail – Language*

- **Comment**

No	Field Name	Type	Mandatory	Description
1	CommentID	Number	Y	Course's comment ID

2	Content	String	Y	Course's comment content
3	Time	Date	Y	Comment time
4	isDeleted	Boolean	y	Delete
5	UserID	Number	Y	User's id
6	CourseID	Number	Y	Course's id

Table 3.5: Entity Detail – Comment

- Course Rate

No	Field Name	Type	Mandatory	Description
1	CourseID	Number	Y	Course's id
2	LearnerID	Number	Y	Learner's id
3	Rate	Number		Course's rate

Table 3.6: Entity Detail - Rate

- History

No	Field Name	Type	Mandatory	Description
1	CourseID	Number	Y	Course's id
2	LearnerID	Number	Y	Learner's id
3	Time	Date	Y	View Time
4	isSaved	Boolean	Y	Save

Table 3.7: Entity Detail - History

- **Field**

No	Field Name	Type	Mandatory	Description
1	FieldID	Number	Y	Field's id
2	FieldName	String	Y	Field's name

*Table 3.8: Entity Detail - Field*

- **Document**

No	Field Name	Type	Mandatory	Description
1	DocumentID	Number	Y	Document's id
2	Image	String	Y	Document Image
3	Description	String		Description
4	TrainerID	Number	Y	Trainer's id
5	Status	String	Y	Status

*Table 3.9: Entity Detail - Document*

- **Trainer**

No	Field Name	Type	Mandatory	Description
1	TrainerID	Number	Y	Trainer's id
2	UserID	Number	Y	User's id
3	FieldID	Number	Y	Field's id
4	Rate	String		Trainer's rate
5	TotalCourse	Number		Total course

*Table 3.10: Entity Detail - Trainer*

- **Learner**

No	Field Name	Type	Mandatory	Description
1	LearnerID	Number	Y	Learner's Id
2	UserID	Number	Y	User's id
3	Gender	Number		Learner's gender
4	DOB	Date		Learner's dob
5	JobID	Number	Y	Learner's job id

*Table 3.11: Entity Detail - Learner*

- **Message**

No	Field Name	Type	Mandatory	Description
1	MessageID	Number	Y	Message's id
2	Content	String	Y	Message's content
3	Time	Date	Y	Time send message
4	SenderID	Number	Y	Sender's id
5	ReceiverID	Number	Y	Receiver's id

*Table 3.12: Entity Detail - Message*

- **Trainer Rate**

No	Field Name	Type	Mandatory	Description
1	TrainerID	Number	Y	Trainer's id
2	LearnerID	Number	Y	Learner's id
3	Rate	String		Trainer's Rate

*Table 3.13: Entity Detail - Rate*

- **Users**

No	Field Name	Type	Mandatory	Description
1	UserID	Number	Y	User's ID
2	UserName	String	Y	Username
3	Password	String	Y	Password
4	FullName	String		User's fullname
5	PhoneNumber	Number		User's number
6	Avatar	String		Avatar
7	Address	String		User's address
8	Biography	String		User's biography
9	Status	String		Status

*Table 3.14: Entity Detail – Users*

- **Admin**

No	Field Name	Type	Mandatory	Description
1	AdminID	Number	Y	Admin's id
2	UserName	String	Y	Username
3	Password	String	Y	Password
4	FirstName	String		Admin's first name
5	LastName	String		Admin's last name
6	Gender	Number		Gender
7	DOB	Date		Admin's dob
8	PhoneNumber	Number		Admin's number
9	Avatar	String		Admin's avatar

10	Email	String	Y	Admin's email
11	Address	String		Admin's address

Table 3.15: Entity Detail - Admin

- **Job**

No	Field Name	Type	Mandatory	Description
1	JobID	Number	Y	Job's id
2	JobName	Number	Y	Job's Name

Table 3.16: Entity Detail - Job

### 1.1.2 Product Feature

Use Case No.	Function Name	Actor	Description
UC01	Sign Up as Trainer	Gs	Create new trainer account.
UC02	Sign Up as Learner	Gs	Create new learner account.
UC03	Sign In	Ad, Tr, Lr	Login in to WeTeach's system.
UC04	Log Out	Ad, Tr, Lr	Log out of WeTeach's system.
UC05	Change Password	Ad, Tr, Lr	This allows users to change their password.
UC06	Forget Password	Ad, Tr, Lr	This allows users to reset password every time they forget.
UC07	Update Profile Picture	Ad, Tr, Lr	This allows users to change their profile picture.
UC08	View Personal Profile	Ad, Tr, Lr	This allows users to see their personal detail.
UC09	Send Message	Ad, Tr, Lr	This allows users to send messages to others.

UC10	View Messages	Ad, Tr, Lr	This allows users to view their messages.
UC11	Delete Message	Ad, Tr, Lr	This allows users to delete messages.
UC12	Comment Course	Ad, Tr, Lr	Users can comment under each course.
UC13	Edit Comment	Ad, Tr, Lr	Users can edit their comment.
UC14	Delete Comment	Ad, Tr, Lr	Users can delete their comment.
UC15	Rate Course	Ad, Tr, Lr	This allows users to rate courses.
UC16	Rate Trainer	Ad, Tr, Lr	Users can rate trainers.
UC17	View Course Statistic	Ad, Tr	Trainers can view their course statistic.
UC18	Create New Course	Ad, Tr	This allows trainers to create new course.
UC19	Edit Course Detail	Ad, Tr	This allows trainers to edit course detail.
UC20	Delete Courses	Ad, Tr	Trainers can delete their course.
UC21	Upload Documents	Ad, Tr	Trainers can upload document such as certification...
UC22	Delete Documents	Ad, Tr	Trainers can delete their document.
UC23	View Documents Dashboard	Ad, Tr	This allows trainers to access their document dashboard.
UC24	Edit Profile Trainer	Ad, Tr	This allows trainers to edit their profile.
UC25	View Course Detail	Ad, Tr, Lr, Gs	This allows users to view course detail.
UC26	Search Course	Ad, Tr, Lr, Gs	This allows users to search for course.
UC27	View Trainer List	Ad, Tr, Lr, Gs	This allows users to view trainers list.
UC28	View Other Public Profile	Ad, Tr, Lr, Gs	This allows users to view other profile.
UC29	View Course Comment	Ad, Tr, Lr, Gs	This allows users to view comment under each course detail.

UC30	View Course's Rate	Ad, Tr, Lr, Gs	Users can view course's rate.
UC31	View Trainer's Rate	Ad, Tr, Lr, Gs	Users can view trainer's rate.
UC32	View Document Picture	Ad, Tr, Lr, Gs	This allows users to view trainer's document.
UC33	View Website Statistic	Ad	This allows admin to view website's statistic.
UC34	Review Trainer's Document	Ad	Admin can review trainer's document before publishing.
UC35	Review New Course	Ad	Admin can review course before publishing.
UC36	Review Trainer's Account	Ad	This allows admin to review trainer's account before providing trainer permission.
UC37	Block Learners	Ad	Admin can block learners.
UC38	Block Trainers	Ad	Admin can block trainers.
UC39	Unblock Learners	Ad	Admin can unblock learners.
UC40	Unblock Trainers	Ad	Admin can unblock trainers.
UC41	Add New Trainer Account	Ad	This allows admin to add new trainer account.
UC42	Add New Learner Account	Ad	This allows admin to add new learner account.
UC43	Edit Trainer's Information	Ad	This allows admin to edit trainer's information.
UC44	Edit Learner's Information	Ad	This allows admin to edit learner's information.
UC45	Delete Trainer's Account	Ad	Admin can delete trainer's account.
UC46	Delete Learner's Account	Ad	Admin can delete learner's account.
UC47	Edit Profile (Learner)	Ad, Lr	This allows learners to edit their profile.

UC48	Save Course	Ad, Lr	This allows learner to save course.
UC49	View Course Saved List	Ad, Lr	This allows learner to view course saved list.
UC50	View Course View History	Ad, Lr	This allow learner to view course view history.

Table 3.17: Product Feature

### 3.2.2 Use Case Diagram

#### 3.2.2.1 Administrator, Trainer and Learner Use Case Diagram

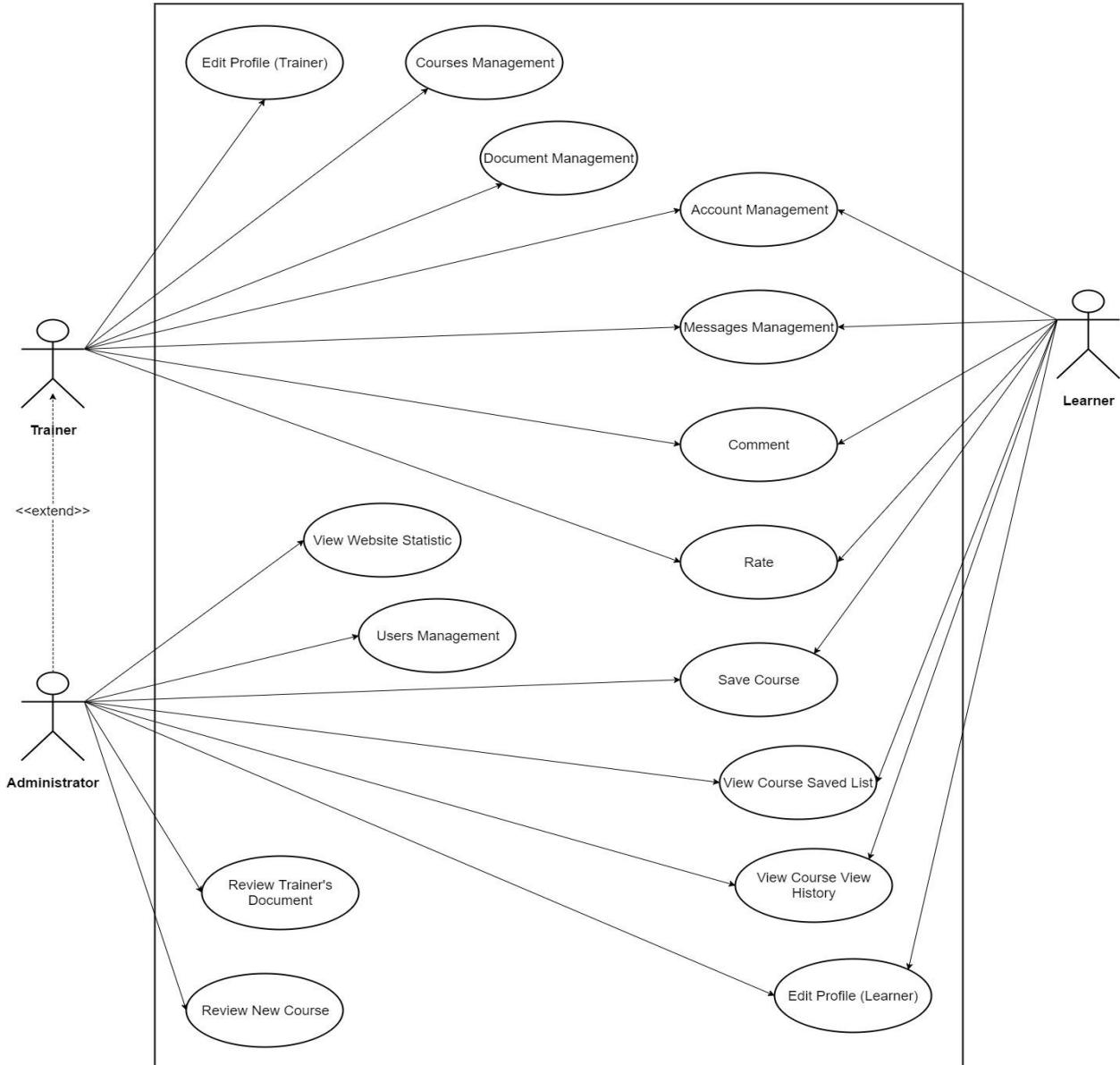


Figure 3.3: Administrator, Trainer and Learner Use Case Diagram

### 3.2.2.2 Guest Use Case Diagram

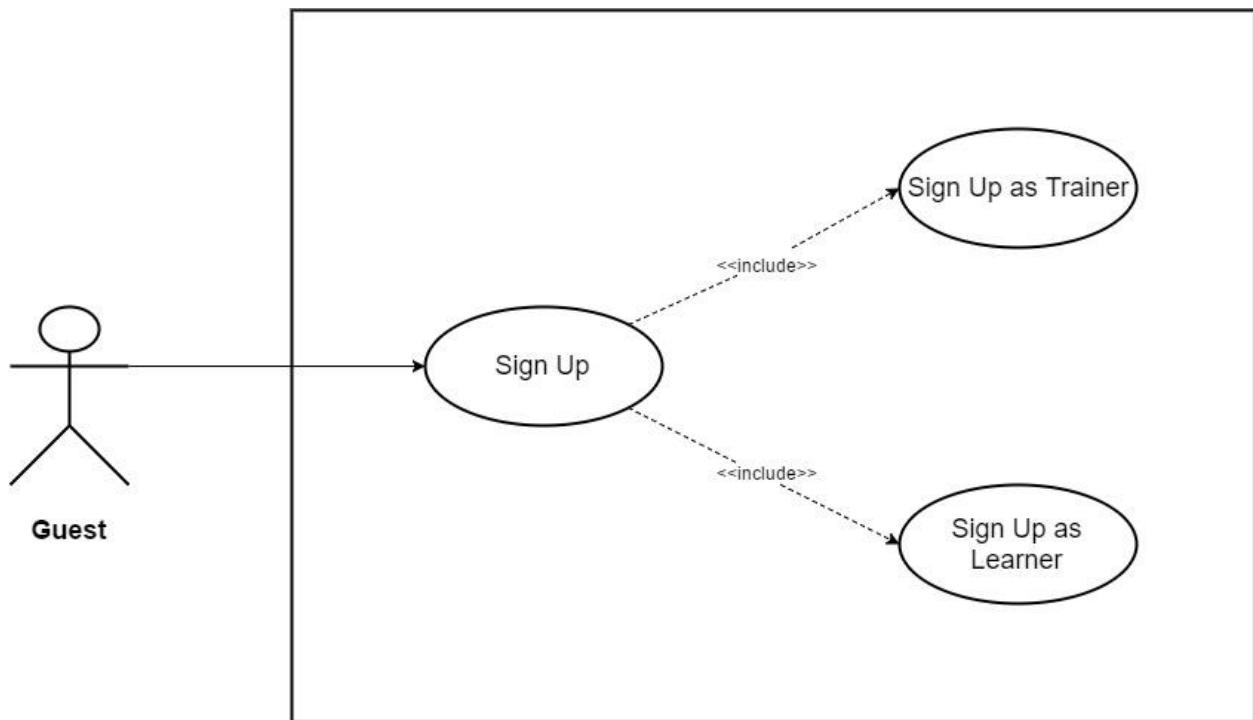


Figure 3.4: Guest Use Case Diagram

### 3.2.2.3 Administrator, Trainer, Learner, Guest Use Case Diagram

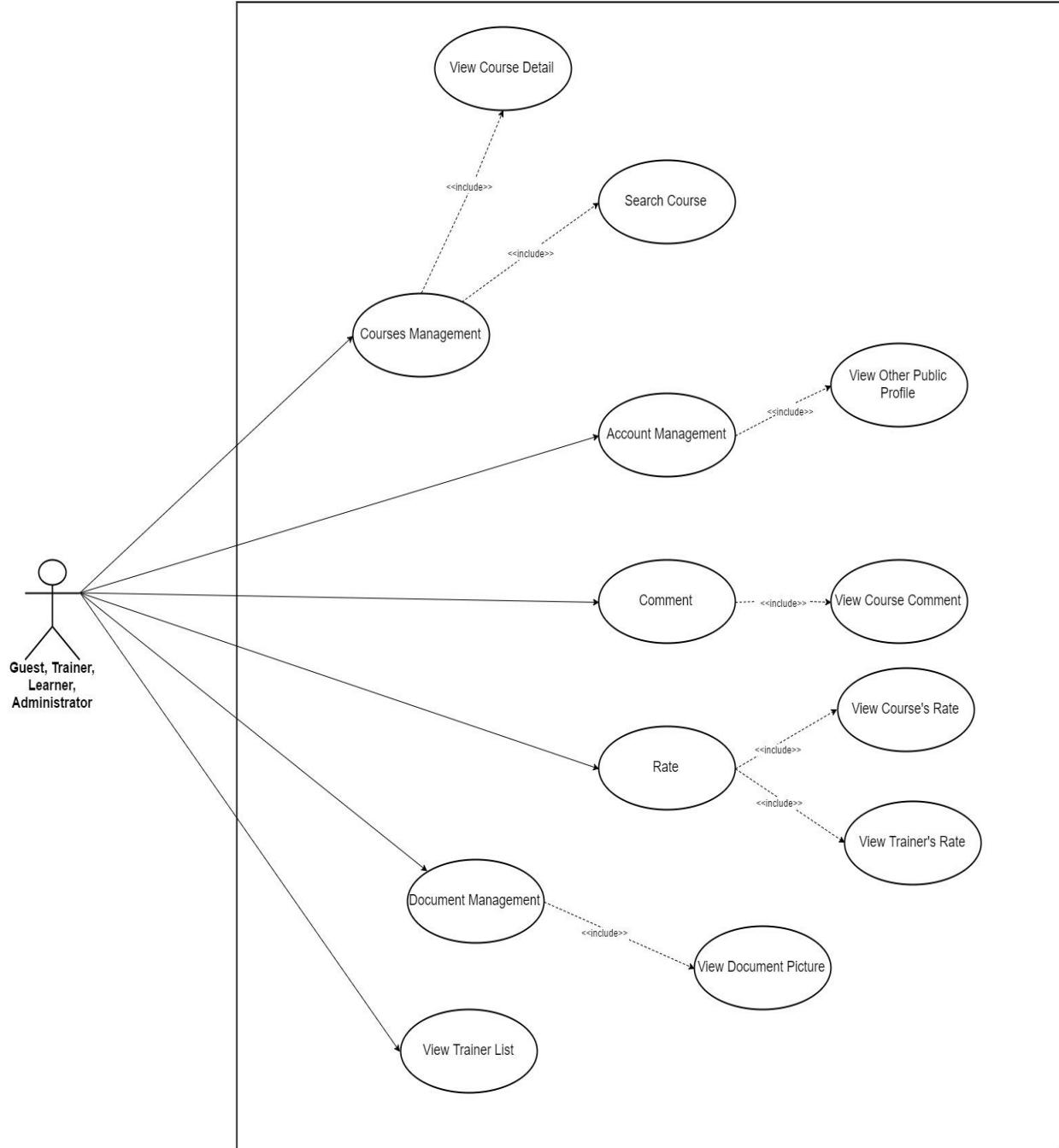


Figure 3.5: Administrator, Trainer, Learner and Guest Use Case Diagram

#### 3.2.2.4 Use Case Diagram about Course Management

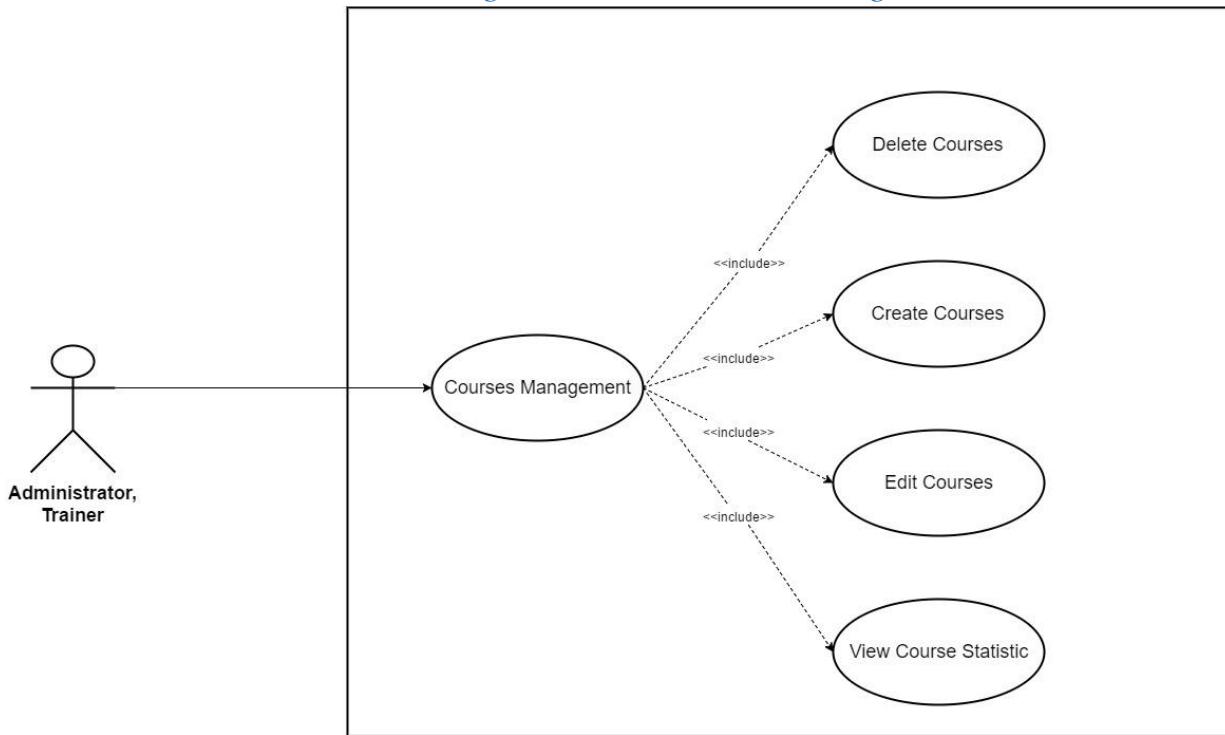


Figure 3.6: Use Case Diagram about Course Management

#### 3.2.2.5 Use Case Diagram about Document Management

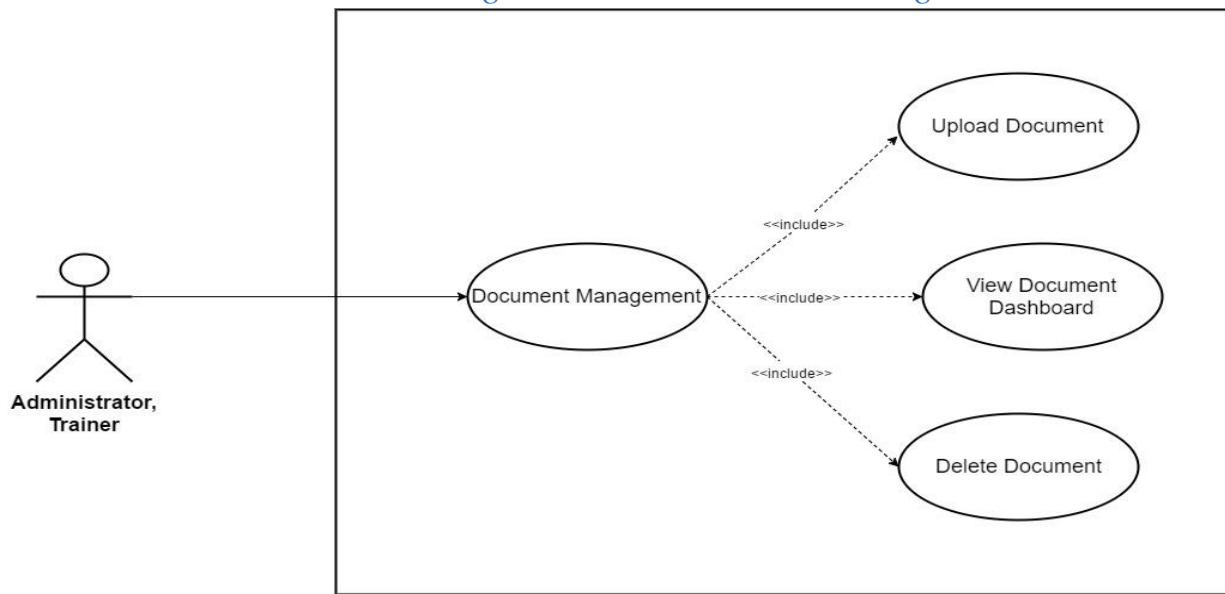


Figure 3.7: Use Case Diagram about Document Management

### 3.2.2.6 Use Case Diagram about Account Management

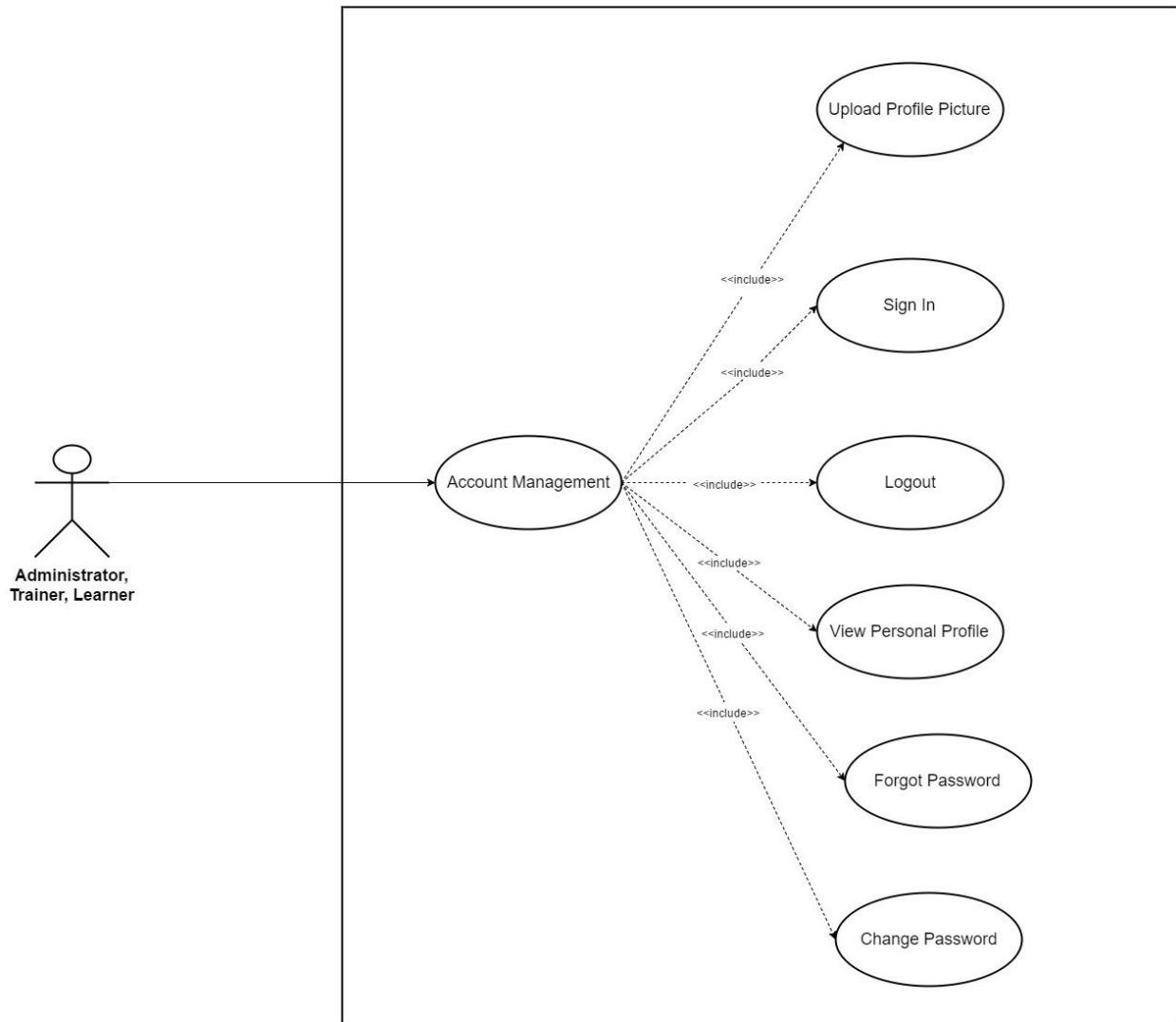


Figure 3.8: Use Case Diagram about Account Management

### 3.2.2.7 Use Case Diagram about Message Management

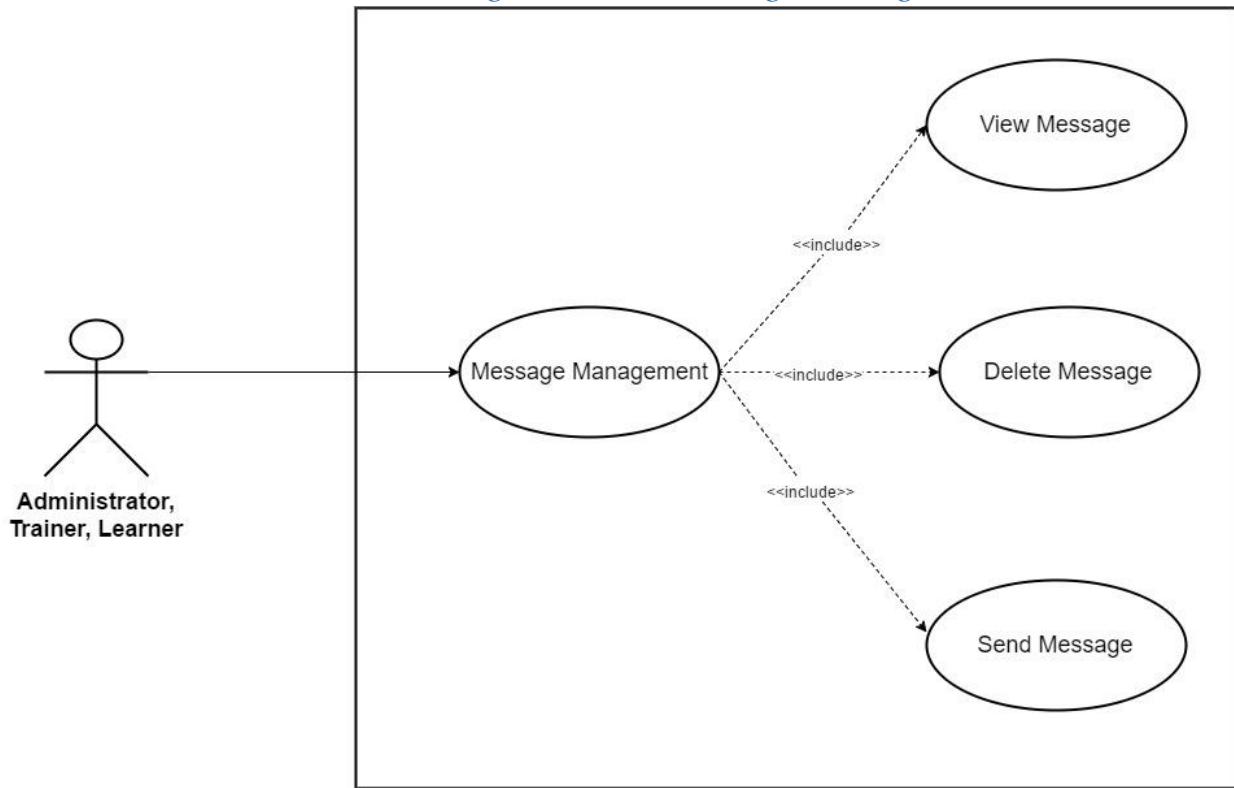


Figure 3.9: Use Case Diagram about Message Management

### 3.2.2.8 Use Case Diagram about Comment

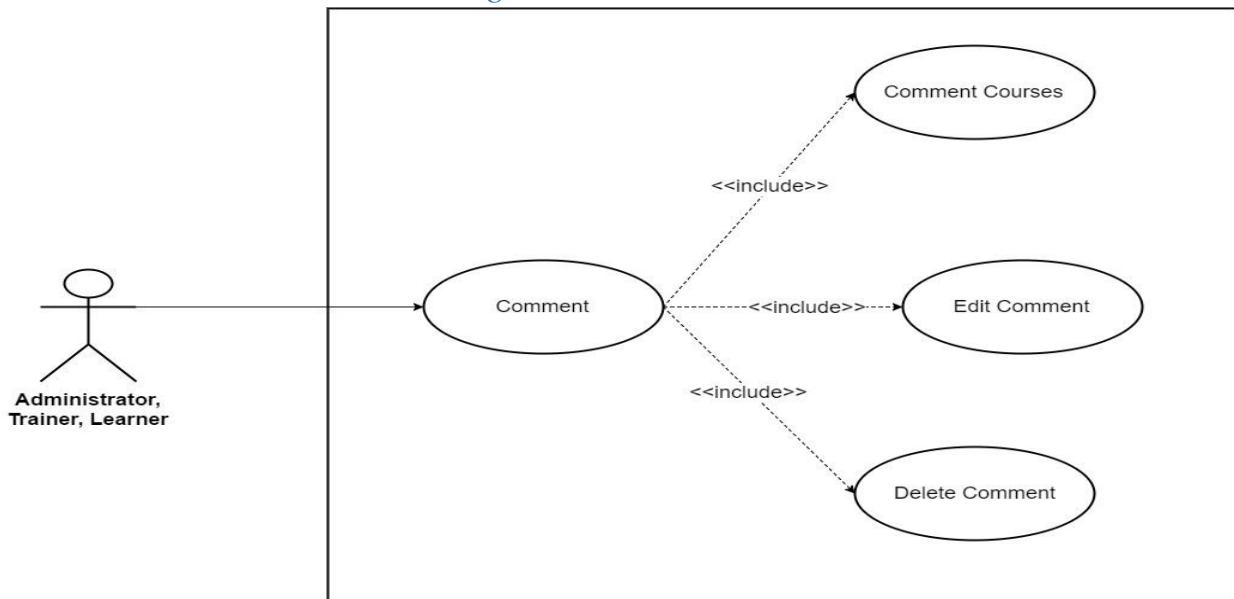


Figure 3.10: Use Case Diagram about Comment

### 3.2.2.9 Use Case Diagram about Rate

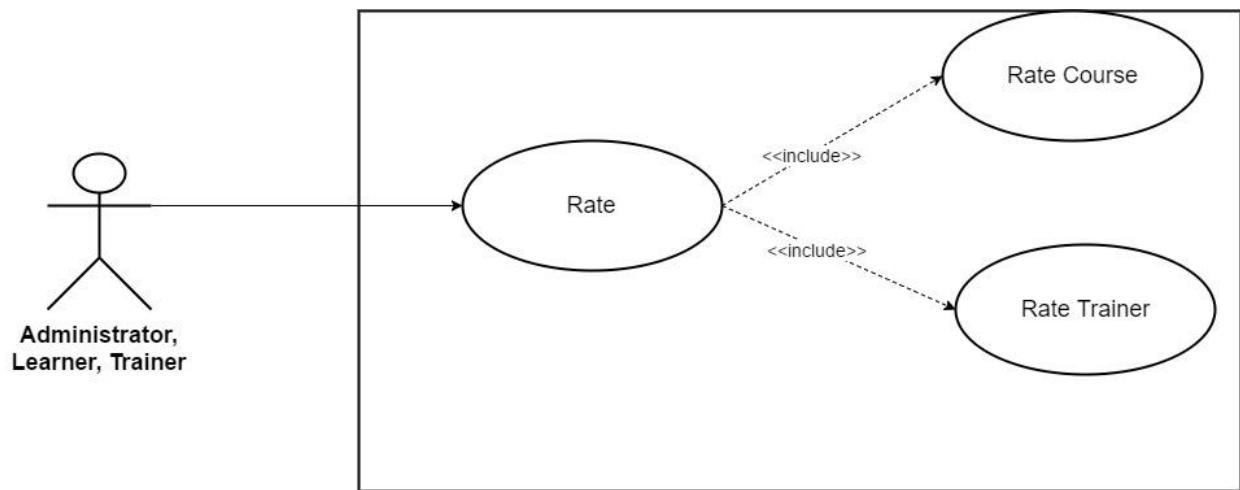


Figure 3.11: Use Case Diagram about Rate

### 3.2.2.10 Use Case Diagram about Users Management

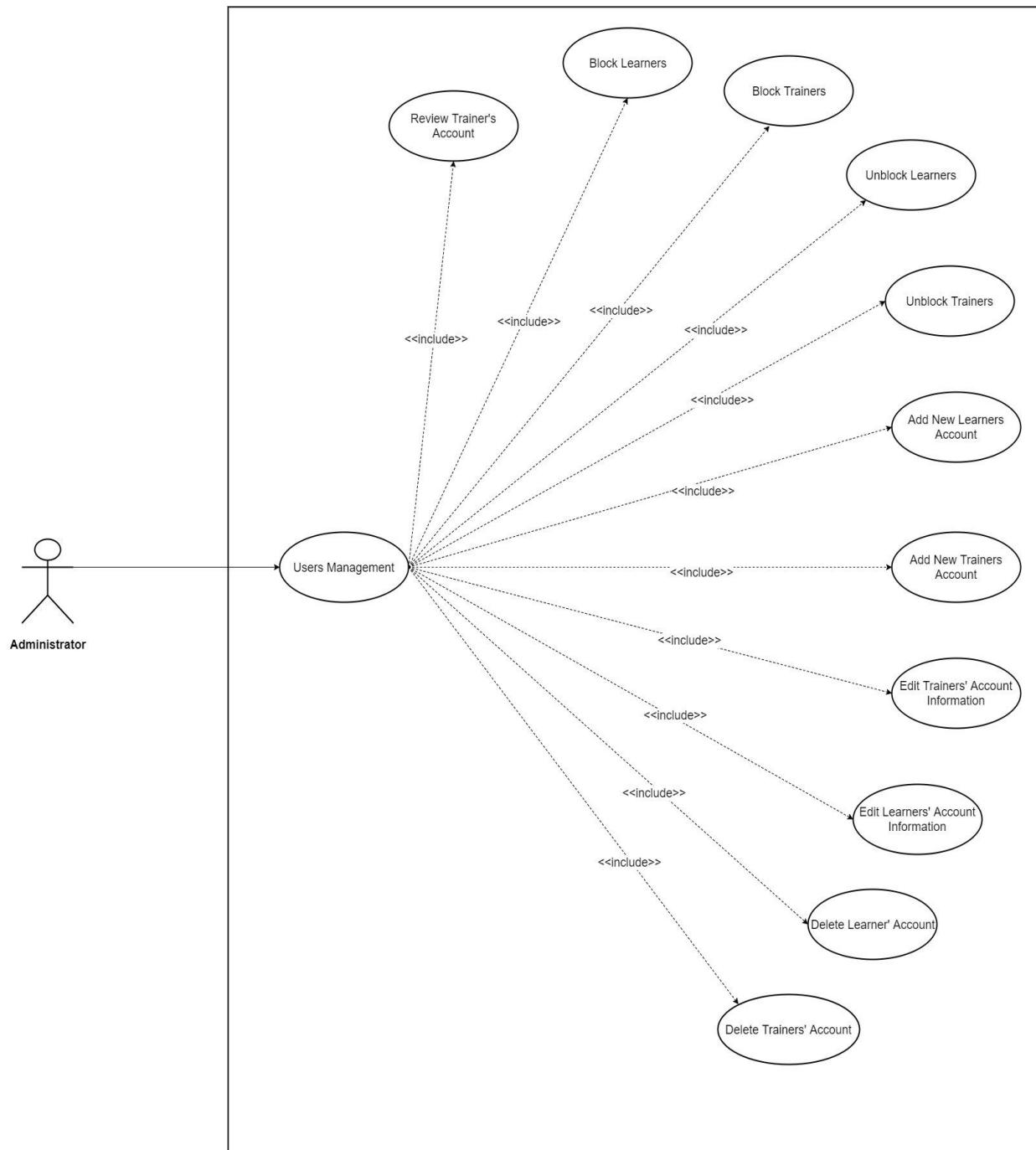


Figure 3.12: Use Case Diagram about Users Management

### 3.3 Functional Requirements

#### 3.3.1 Business and Validation Rules

ID	Validation Rules Name	Validation Rules Description
VR1	User details	<p>The following details are required when create a new user:</p> <ul style="list-style-type: none"> <li>• Email</li> <li>• Password</li> <li>• Confirm Password</li> <li>• Account Type</li> <li>• First Name</li> <li>• Last Name</li> <li>• Gender</li> <li>• DOB</li> <li>• Phone Number</li> <li>• Job</li> <li>• Profile Picture</li> <li>• Biography</li> </ul> <p>For Trainer:</p> <ul style="list-style-type: none"> <li>• Fields</li> <li>• CV</li> </ul>
VR2	Email	Email's format must be abc@xyz
VR3	Password	Password must contains at least one upper case, one number, one special character and length must be >8
VR4	Introduction	Length must be < 200
VR5	Fields	Fields must belong to one of the following categories:

		<ul style="list-style-type: none"> <li>• Development</li> <li>• Business</li> <li>• IT &amp; Software</li> <li>• Personal Development</li> <li>• Design</li> <li>• Marketing</li> <li>• Office Productivity</li> <li>• Music</li> <li>• Health &amp; Fitness</li> <li>• Teacher Training</li> <li>• Music</li> <li>• Language</li> <li>• Academic</li> </ul>
VR6	Create New Course – Course Image	Upload one image only. Required dimensions: 2048x1152 pixels. Required format: .jpg, .jpeg, .gif, .bmp or .png
VR7	Create New Course – Promotional Video	Upload one video only. Required quality: at least 360p. Required format: .mp4
VR8	Create New Course	Course Title, Course Subtitle, Course Description, Language, Level, Category, Course Image, Fee are required.
VR9	Document	Required format: .pdf...
VR10	Login	Username and Password can't be blank.
VR11	CV	Required format: .pdf...

Table 3.18: Validation Rules

ID	Business Rules Name	Business Rules Description
BR1	Rate Course	Registered users can only rate one time.
BR2	Rate Trainer	Registered users can only rate one time.
BR3	Course Statistic	The system will only record data from logged in users not guest.
BR4	Rate Trainer	Trainer can't not rate their own rate.
BR5	Edit Comment	Users can only edit their own comment.
BR6	Delete Comment	Users can only delete their own comment.
BR7	Delete Document	Trainer can only delete their own document.
BR8	Edit Trainer's Information	Administrator can't change password and email of Trainer.
BR9	Edit Learner's Information	Administrator can't change password and email of Learner

Table 3.19: Business Rules

### 3.3.2 Use Case Detail

#### 3.3.2.1 Guest

- Sign Up as Trainer

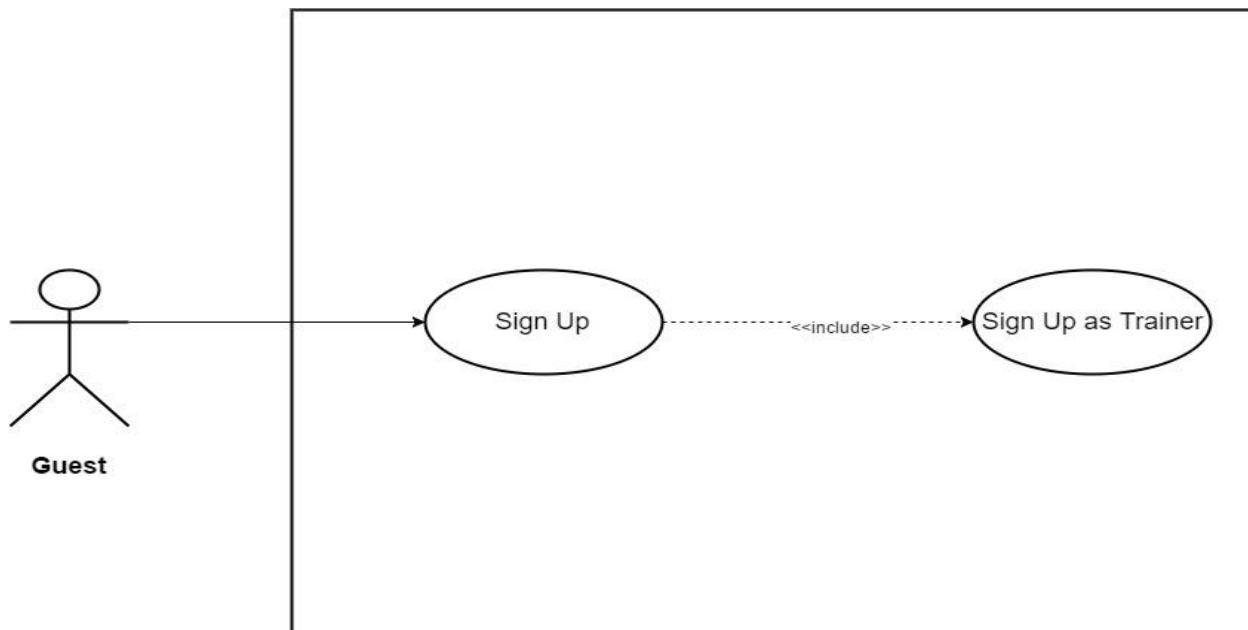


Figure 3.13: Sign Up as Trainer

<b>Use Case ID</b>	UC01	<b>Version</b>	1.0
<b>Use Case Name</b>	Sign Up as Trainer		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Guest	<b>Secondary Actor</b>	
<b>Description</b>	Create new account for <i>Trainer</i>		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must have valid account.</li> <li>- Internet connection is required.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- User account information is added into Database.</li> <li>- User can sign in as <i>Trainer</i></li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Guest	Click on "Sign up" menu, the menu stays on the right side of search bar.	
2	System	Display role choosing page. There are two roles that user can sign up for: <i>Trainer</i> and <i>Learner</i> .	
3	Guest	Click “ <i>Trainer</i> ”.	
4	System	<p>Display “Sign Up” page which contain the following information:</p> <ul style="list-style-type: none"> <li>- Sign Up via Google</li> <li>- Sign Up via Facebook</li> <li>- Email (Text Input)</li> <li>- Password (Text Input)</li> <li>- Confirm Password (Text Input)</li> <li>- Trainer Name (Text Input)</li> <li>- Fields (Combo Box)</li> <li>- Contact (Text Input)</li> </ul>	

		<ul style="list-style-type: none"> <li>- Address (Text Input)</li> <li>- Introduction (Text Area)</li> <li>- CV.</li> </ul>
5	Guest	Enter all required information.
6	Guest	Click “Sign Up” button.
7	System	Add account information into system Database.
8	System	Display Homepage. User appears as Trainer.
<b>Exception</b>		
<b>EC1</b>	At step 5, all or more than one required fields are blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
5.1	Guest	Leave all required field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Fill In All Required Field!”
<b>EC2</b>	At step 5, <i>Email</i> is left blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
5.1	Guest	Leave <i>Email</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Email!”
<b>EC3</b>	At step 5, only <i>Password</i> is left blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
5.1	Guest	Leave <i>Password</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Password!”
<b>EC4</b>	At step 5, only <i>Trainer Name</i> is left blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
5.1	Guest	Leave <i>Trainer Name</i> field blank.

5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Trainer Name!”
<b>EC5</b>	At step 5, only <i>Fields</i> is not selected.	
Step	Actor	Action
5.1	Guest	Do not select <i>Fields</i> .
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Select Fields!”
<b>EC6</b>	At step 5, only <i>Contact</i> is left blank.	
Step	Actor	Action
5.1	Guest	Leave <i>Contact</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Password!”
<b>EC7</b>	At step 5, only <i>Address</i> is left blank.	
Step	Actor	Action
5.1	Guest	Leave <i>Address</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Address!”
<b>EC8</b>	At step 5, <i>Email</i> is invalid. (Incorrect <i>Email</i> format: abc@xyz)	
Step	Actor	Action
5.1	Guest	Enter invalid <i>Email</i> .
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Invalid Email!”
<b>EC9</b>	At step 5, <i>Password</i> ’s length < 8.	
Step	Actor	Action
5.1	Guest	Enter <i>Password</i> less than 8 characters.
5.2	Guest	Click “Sign Up” button.

5.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC10</b>	At step 5, <i>Password</i> does not contain any upper case.	
Step	Actor	Action
5.1	Guest	Enter <i>Password</i> that does not contain any upper case.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC11</b>	At step 5, <i>Password</i> does not contain any number.	
Step	Actor	Action
5.1	Guest	Enter <i>Password</i> that does not contain any number.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC12</b>	At step 5, <i>Password</i> does not contain at least one special character.	
Step	Actor	Action
5.1	Guest	Enter <i>Password</i> does not contain at least one special character.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC13</b>	At step 5, <i>Password</i> and <i>Confirm Password</i> do not match.	
Step	Actor	Action
5.1	Guest	Enter <i>Confirm Password</i> that does not match <i>Password</i> .
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password does not match!”

<b>EC14</b>	At step 5, <i>Introduction</i> 's length > 200 character.	
Step	Actor	Action
5.1	Guest	Enter more than 200 character in <i>Introduction</i> field.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Length must be < 200”
<b>EC15</b>	At step 5, User does not upload document.	
Step	Actor	Action
5.1	Guest	User does not upload document.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please upload at least one validate document such as University/College Graduation Certificate...”
<b>EC16</b>	At step 5, <i>CV</i> does not meet the format requirement.	
Step	Actor	Action
5.1	Guest	User upload wrong CV's format.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Document's format must be one of these following type: .pdf!”
<b>EC17</b>	At step 5, Email address is already registered.	
Step	Actor	Action
5.1	Guest	Enter email address is already registered.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “The email address you have entered is already registered.”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	

Business and Validation Rules	VR1, VR2, VR3, VR4, VR5, VR11
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Table 3.20: Sign Up as Trainer

- Sign Up as Learner

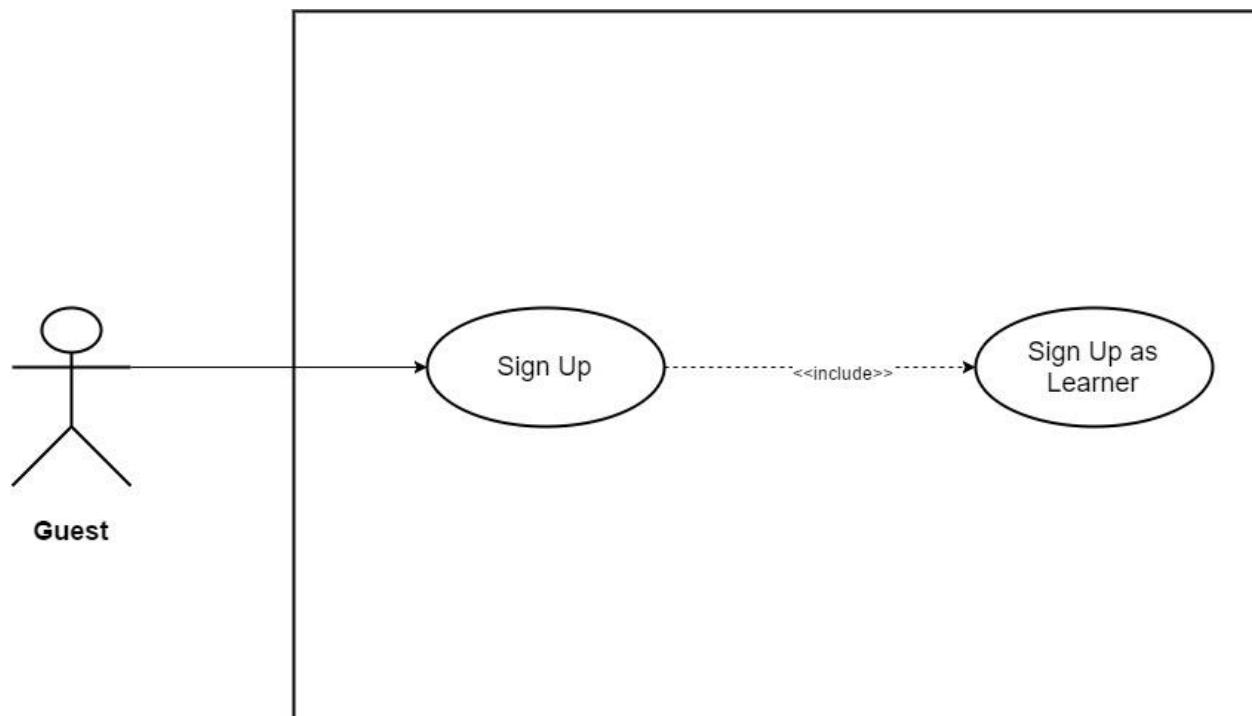


Figure 3.14: Sign Up as Learner

Use Case ID	UC02	Version	1.0
Use Case Name	Sign Up as Learner		
Create By	TruongTN	Last Updated	18/05/2017
Primary Actor	Guest	Secondary Actor	
Description	Create new account for <i>Learner</i>		
Pre-Conditions	- User must have valid account.		

	<ul style="list-style-type: none"> <li>- Internet connection is required.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- User account information is added into Database.</li> <li>- User can sign in as <i>Learner</i></li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Guest	Click on "Sign up" menu, the menu stays on the right side of search bar.
2	System	Display role choosing page. There are two roles that user can sign up for: <i>Trainer</i> and <i>Leraner</i> .
3	Guest	Click “ <i>Learner</i> ”.
4	System	<p>Display “Sign Up” page which contain the following information:</p> <ul style="list-style-type: none"> <li>- Sign Up via Google</li> <li>- Sign Up via Facebook</li> <li>- Email (Text Input)</li> <li>- Password (Text Input)</li> <li>- Confirm Password (Text Input)</li> <li>- First Name (Text Input)</li> <li>- Last Name (Text Input)</li> <li>- Gender (Radio Button)</li> <li>- Date of Birth (Date Picker)</li> <li>- Contact (Text Input)</li> <li>- Job (Text Input)</li> <li>- Introduction (Text Area)</li> </ul>
5	Guest	Enter all required information. Gender default is “ <i>Male</i> ”
6	Guest	Click “Sign Up” button.
7	System	Add account information into system Database.
8	System	Display Homepage. User appears as <i>Learner</i> .

Exception		
<b>EC1</b>	At step 5, all or more than one required fields are blank.	
Step	Actor	Action
5.1	Guest	Leave all required field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Fill In All Required Field!”
<b>EC2</b>	At step 5, <i>Email</i> is left blank.	
Step	Actor	Action
5.1	Guest	Leave <i>Email</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Email!”
<b>EC3</b>	At step 5, only <i>Password</i> is left blank.	
Step	Actor	Action
5.1	Guest	Leave <i>Password</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Password!”
<b>EC4</b>	At step 5, only <i>First Name</i> is left blank.	
Step	Actor	Action
5.1	Guest	Leave <i>First Name</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Your First Name!”
<b>EC5</b>	At step 5, only <i>Last Name</i> is left blank.	
Step	Actor	Action
5.1	Guest	Leave <i>Last Name</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Your Last Name!”
<b>EC6</b>	At step 5, only <i>Date of Birth</i> is not selected.	

Step	Actor	Action
5.1	Guest	Do not select <i>Date of Birth</i> .
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Select Date of Birth!”
<b>EC7</b>	At step 5, only <i>Contact</i> is left blank.	
Step	Actor	Action
5.1	Guest	Leave <i>Contact</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Password!”
<b>EC8</b>	At step 5, only <i>Job</i> is left blank.	
Step	Actor	Action
5.1	Guest	Leave <i>Job</i> field blank.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Please Enter Job!”
<b>EC9</b>	At step 5, <i>Email</i> is invalid. (Incorrect <i>Email</i> format: abc@xyz)	
Step	Actor	Action
5.1	Guest	Enter invalid <i>Email</i> .
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Invalid Email!”
<b>EC10</b>	At step 5, <i>Password</i> ’s length < 8.	
Step	Actor	Action
5.1	Guest	Enter <i>Password</i> less than 8 characters.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC11</b>	At step 5, <i>Password</i> does not contain any upper case.	
Step	Actor	Action

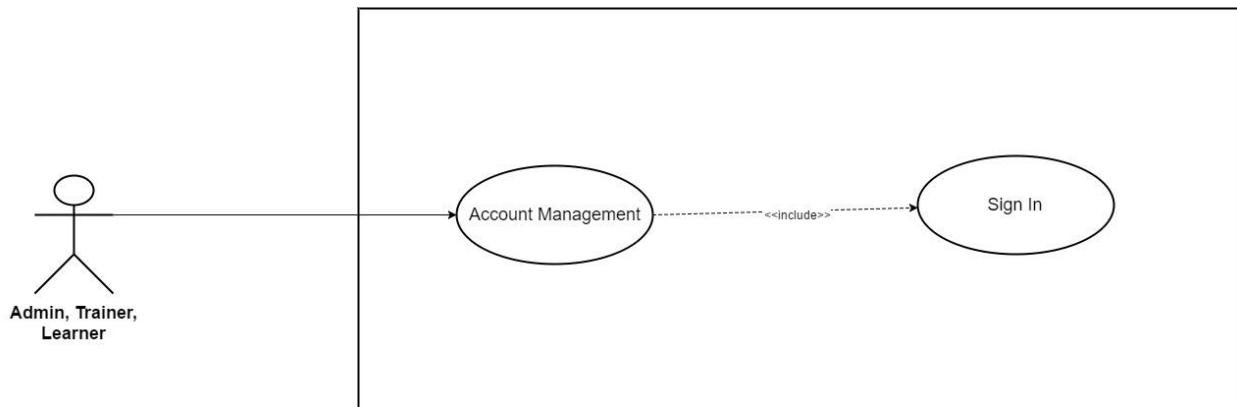
5.1	Guest	Enter <i>Password</i> that does not contain any upper case.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC12</b>	At step 5, <i>Password</i> does not contain any number.	
Step	Actor	Action
5.1	Guest	Enter <i>Password</i> that does not contain any number.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC13</b>	At step 5, <i>Password</i> does not contain at least one special character.	
Step	Actor	Action
5.1	Guest	Enter <i>Password</i> does not contain at least one special character.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC14</b>	At step 5, <i>Password</i> and <i>Confirm Password</i> do not match.	
Step	Actor	Action
5.1	Guest	Enter <i>Confirm Password</i> that does not match <i>Password</i> .
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Password does not match!”
<b>EC15</b>	At step 5, <i>Introduction</i> ’s length > 200 character.	
Step	Actor	Action
5.1	Guest	Enter more than 200 character in <i>Introduction</i> field.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “Length must be < 200”

<b>EC16</b>	At step 5, Email address is already registered.	
Step	Actor	Action
5.1	Guest	Enter email address is already registered.
5.2	Guest	Click “Sign Up” button.
5.3	System	Display message: “The email address you have entered is already registered.”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	VR1, VR2, VR3, VR4, VR5, VR11	

*Table 3.21: Sign Up as Learner*

### 3.3.2.2 Administrator/Trainer/Learner

- **Sign In**



*Figure 3.15: Sign In*

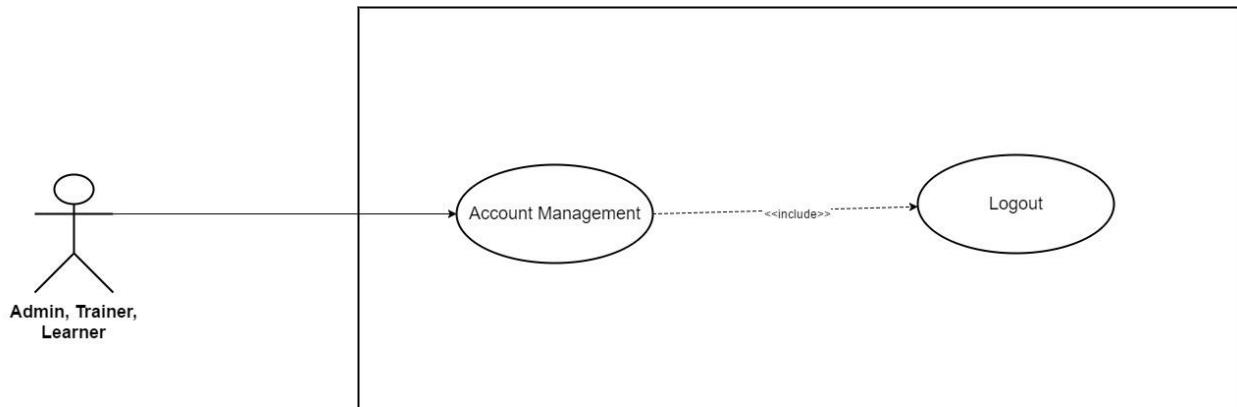
<b>Use Case ID</b>	UC03	<b>Version</b>	1.0
<b>Use Case Name</b>	Sign In		

<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017		
<b>Primary Actor</b>	Trainer/Learner	<b>Secondary Actor</b>	Administrator		
<b>Description</b>	Sign in into System system				
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must have System's account.</li> <li>- Internet connection is required.</li> </ul>				
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- User's account is logged into system</li> <li>- Send user to Homepage after sign in.</li> </ul>				
<b>Normal Flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Trainer/Learner	Click "Sign In" in the header to the right of Sign Up button.			
2	System	Show "Sign In" window.			
3	Trainer/Learner	Enter Email and Password.			
4	Trainer/Learner	Click "Sign In".			
5	System	Log account into System's system.			
6	System	Send Trainer/Learner to Homepage.			
<b>Exception</b>					
<b>EC1</b>	At step 3, Email and Password are left blank..				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Trainer/Learner	Leave Email and Password blank.			
3.2	Trainer/Learner	Click "Sign In" button.			
3.3	System	Display message: "Please Enter Email and Password!"			
<b>EC2</b>	At step 3, Email is left blank.				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
3.1	Trainer/Learner	Leave Email blank.			
3.2	Trainer/Learner	Click "Sign In" button			
3.3	System	Display message: "Please Enter Your Email!"			

<b>EC3</b>	At step 3, Password is left blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Trainer/Learner	Leave Password blank.
3.2	Trainer/Learner	Click “Sign In” button
3.3	System	Display message: “Please Enter Your Password!”
<b>EC4</b>	At step 3, Trainer/Learner enter wrong or un-register Email.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Trainer/Learner	Enter wrong or un-register Email.
3.2	Trainer/Learner	Click “Sign In” button.
3.3	System	Display message: “The email address that you’re entered doesn’t match any account. Sign up for an account!”.
<b>EC5</b>	At step 4, Trainer/Learner enter wrong Password.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
3.1	Trainer/Learner	Enter wrong password.
3.2	Trainer/Learner	Click “Sign In” button
3.3	System	Display message: “The password that you’re entered is incorrect!”.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	VR10	

Table 3.22: Sign In

- **Logout**



*Figure 3.16: Logout*

<b>Use Case ID</b>	UC04	<b>Version</b>	1.0
<b>Use Case Name</b>	Logout		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Trainer/Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	Logout of the system		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as trainer or learner first.</li> <li>- Internet connection is required.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Trainer/learner's account is logged out of system.</li> <li>- Send user to homepage as Guest.</li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Trainer/Learner	Move mouse to Trainer/Learner's name to the right of search bar.	
2	System	Display drop-down list.	
3	Trainer/Learner	Click "Logout"	
4	System	Log user out of system.	
5	System	Send user to Homepage as Guest.	

<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.23: Logout

- **Change Password**

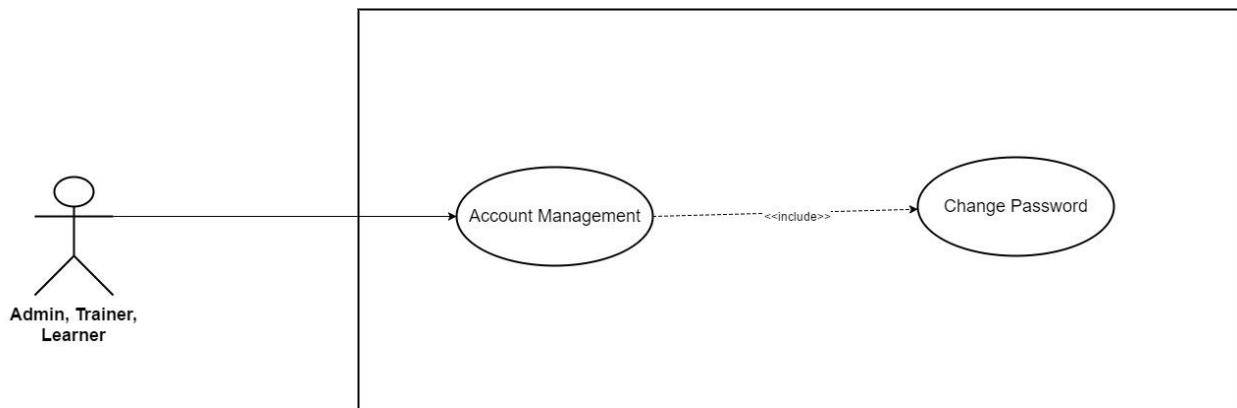


Figure 3.17: Change Password

<b>Use Case ID</b>	UC05	<b>Version</b>	1.0
<b>Use Case Name</b>	Change Password		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Trainer/Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	Change password.		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer/learner first.</li> <li>- Internet connection is required.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- New password is saved and updated into system.</li> </ul>		
<b>Normal Flows</b>			

<b>Step</b>	<b>Actor</b>	<b>Action</b>
1	Trainer/Learner	Move mouse to Trainer/Learner's name to the right of search bar.
2	System	Display drop-down list.
3	Trainer/Learner	Click "Change Password"
4	System	Send Trainer to "Change Password" page
5	System	Display "Change Password" page which contain the following information: <ul style="list-style-type: none"> <li>- Email</li> <li>- Current Password</li> <li>- New Password</li> <li>- Confirm New Password</li> </ul>
6	Trainer/Learner	Enter current password, new password and confirm new password. Email can't be edit.
7	Trainer/Learner	Click "Save" button.
8	System	Update password into system's Database.
9	System	Display "Change Password" page with message: "Change Password Successfully!"

### Exception

<b>EC1</b>	At step 6, only Current Password is left blank	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
6.1	Trainer/Learner	Leave only Current Password blank.
6.2	Trainer/Learner	Click "Save" button.
6.3	System	Display message: "Please Enter Your Current Password!"
<b>EC2</b>	At step 5, only New Password is left blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
6.1	Trainer/Learner	Leave New Password blank.

6.2	Trainer/Learner	Click “Save” button.
6.3	System	Display message: “Please Enter New Password!”
<b>EC3</b>	At step 6, only Confirm New Password is blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
6.1	Trainer/Learner	Leave Confirm New Password blank.
6.2	Trainer/Learner	Click “Save” button.
6.3	System	Display message: “Please Confirm New Password!”
<b>EC4</b>	At step 6, New Password and Confirm New Password does not match.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
6.1	Trainer/Learner	New Password and Confirm New Password does not match.
6.2	Trainer/Learner	Click “Save” button.
6.3	System	Display message: “New Password and Confirm does not match!”
<b>EC5</b>	At step 6, Trainer/Learner enter wrong current password.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
6.1	Trainer/Learner	Enter wrong current password.
6.2	Trainer/Learner	Click “Save” button.
6.3	System	Display message: “The Current Password that you’re entered is incorrect. Please enter again!”
<b>EC6</b>	At step 6, New Password’s length < 8.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
6.1	Guest	Enter New Password less than 8 characters.
6.2	Guest	Click “Sign Up” button.
6.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC7</b>	At step 6, New Password does not contain any upper case.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>

6.1	Guest	Enter New Password that does not contain any upper case.
6.2	Guest	Click “Sign Up” button.
6.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC8</b>	At step 6, New Password does not contain any number.	
Step	Actor	Action
6.1	Guest	Enter New Password that does not contain any number.
6.2	Guest	Click “Sign Up” button.
6.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC9</b>	At step 6, New Password does not contain at least one special character.	
Step	Actor	Action
6.1	Guest	Enter New Password does not contain at least one special character.
6.2	Guest	Click “Sign Up” button.
6.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	VR3	

Table 3.24: Change Password

- **Forgot Password**

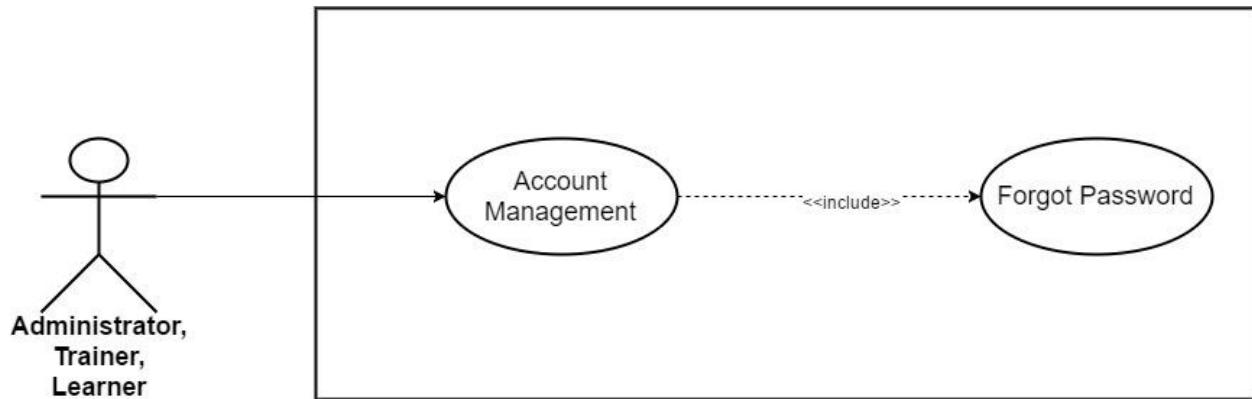


Figure 3.17: Forgot Password

Use Case ID	UC06	Version	1.0
Use Case Name	Forgot Password		
Create By	TruongTN	Last Updated	18/05/2017
Primary Actor	Trainer/Learner	Secondary Actor	Administrator
Description	Users use in case they forget their password.		
Pre-Conditions	<ul style="list-style-type: none"> <li>- Must have WeTeach's account</li> <li>- Internet connection is required.</li> </ul>		
Post-Conditions	- Password reset and send new password to user's email.		
Normal Flows			
Step	Actor	Action	
1	Trainer/Learner	Click "Sign In".	
2	System	Display drop-down list.	
3	Trainer/Learner	Click "Forgot Password!"	
4	System	Send Trainer to reset password page	
5	Trainer/Learner	Input email address that used to sign up into WeTeach.	
6	System	Send new password to their email.	

<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.25: Forgot Password

- Upload Profile Picture

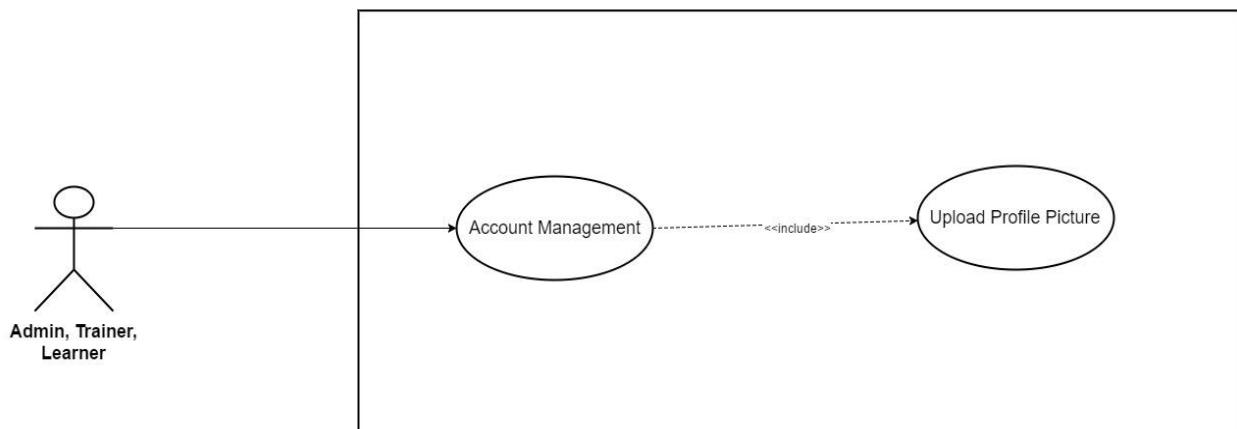


Figure 3.18: Upload Profile Picture

<b>Use Case ID</b>	UC07	<b>Version</b>	1.0
<b>Use Case Name</b>	Upload Profile Picture		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Trainer/Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	Upload profile picture.		
<b>Pre-Conditions</b>	- User must login as Trainer or Learner first.		

	<ul style="list-style-type: none"> <li>- Internet connection is required.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Profile picture is saved into system.</li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Trainer/Learner	Move mouse to Trainer/Learner's name to the right of search bar.
2	System	Display drop-down list.
3	Trainer/Learner	Click "My Profile"
4	System	Send Trainer to "My Profile" page
5	Trainer/Learner	Click on profile picture.
6	Trainer/Learner	Choose picture on device.
7	Trainer/Learner	Double click on the picture or click "Open"
8	System	Display message: "Your picture has been uploaded!"
<b>Exception</b>		
<b>UC1</b>	At step 7, Trainer/Learner upload picture with different dimensions.	
Step	Actor	Action
7.1	Trainer/Learner	Upload picture with different dimensions.
7.2	System	Crop to fit a profile picture square.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.26: Upload Profile Picture

- **View Personal Profile**

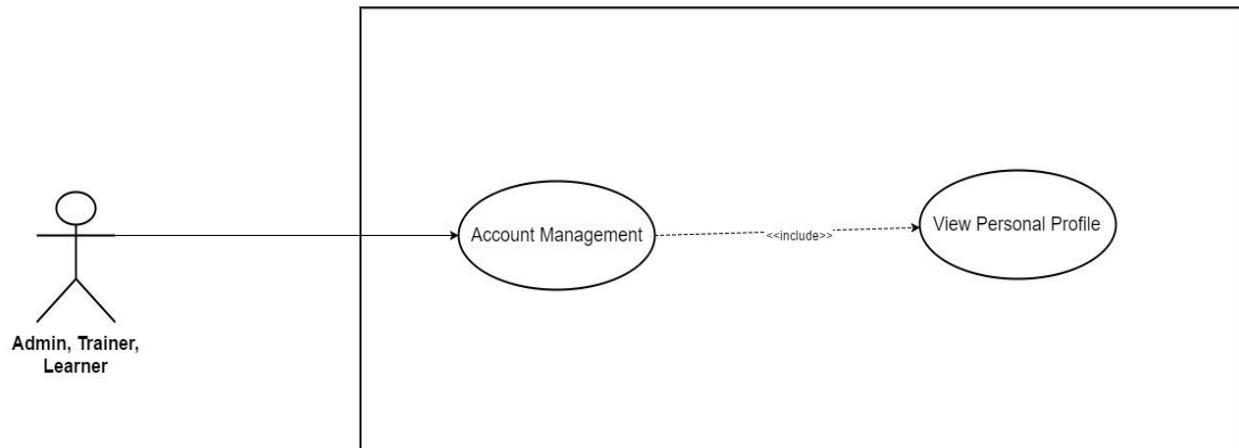


Figure 3.19: View Personal Profile

<b>Use Case ID</b>	UC08	<b>Version</b>	1.0
<b>Use Case Name</b>	View Personal Profile		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Trainer/Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	View Personal Profile		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer or Learner first.</li> <li>- Internet connection is required.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Display user personal profile.</li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Trainer/Learner	Move mouse to Trainer/Learner's name to the right of search bar.	
2	System	Display drop-down list.	
3	Trainer/Learner	Click "My Profile"	
4	System	Send Trainer/Learner to My Profile page	

5	System	<p>Display “My Profile” page which contain the following information:</p> <ul style="list-style-type: none"> <li>- Email</li> <li>- Trainer Name</li> <li>- Fields</li> <li>- Contact</li> <li>- Address</li> <li>- Introduction</li> </ul>
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.27: View Personal Profile

- **Send Message**

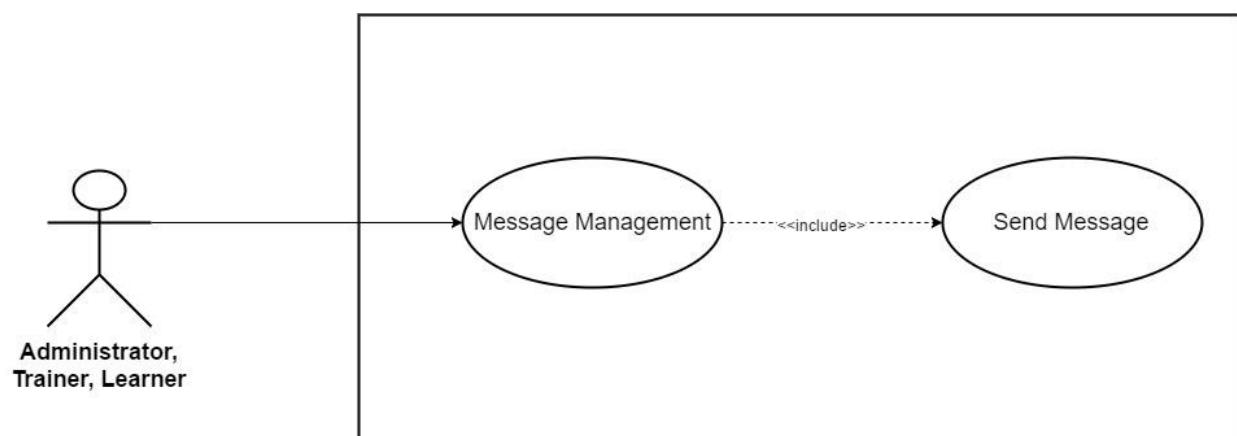


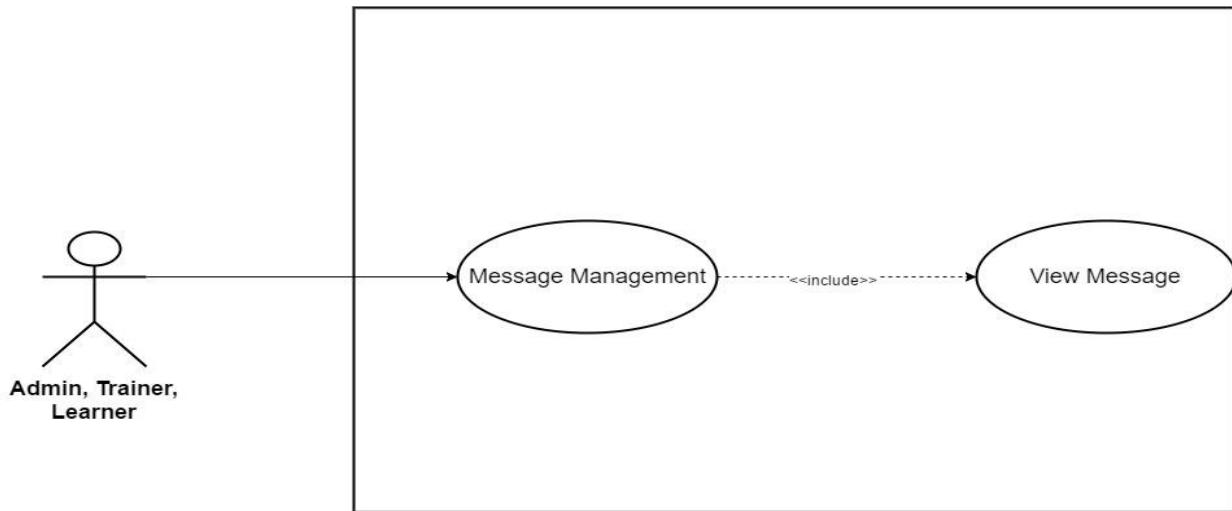
Figure 3.20: Send Message

<b>Use Case ID</b>	UC09	<b>Version</b>	1.0
<b>Use Case Name</b>	Send Message		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Trainer/Learner	<b>Secondary Actor</b>	Administrator

<b>Description</b>	Send Message	
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer or Learner first.</li> <li>- Internet connection is required.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Messages are sent to receiver</li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Trainer/Learner	Click the name of user that want to send message to.
2	System	Display public profile.
3	Trainer/Learner	Click “Send Message”
4	System	Pop up send message window.
5	Trainer/Learner	Input message.
6	Trainer/Learner	Click “Send” or enter.
7	System	Send message to receiver.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.29: Send Message

- **View Message**



*Figure 3.21: View Message*

<b>Use Case ID</b>	UC10	<b>Version</b>	1.0
<b>Use Case Name</b>	View Message		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Trainer/Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	View Messages		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer or Learner first.</li> <li>- Internet connection is required.</li> </ul>		
<b>Post-Conditions</b>	- Display messages page.		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Trainer/Learner	Move mouse to Trainer/Learner's name to the right of search bar.	
2	System	Display drop-down list.	
3	Trainer/Learner	Click "My Messages"	
4	System	Send Trainer to "My Messages" page	
5	System	Display messages list.	
6	Trainer/Learner	Click on messages to read.	

Priority	High
Frequency of Use	High
Business and Validation Rules	

Table 3.30: View Message

- Delete Message

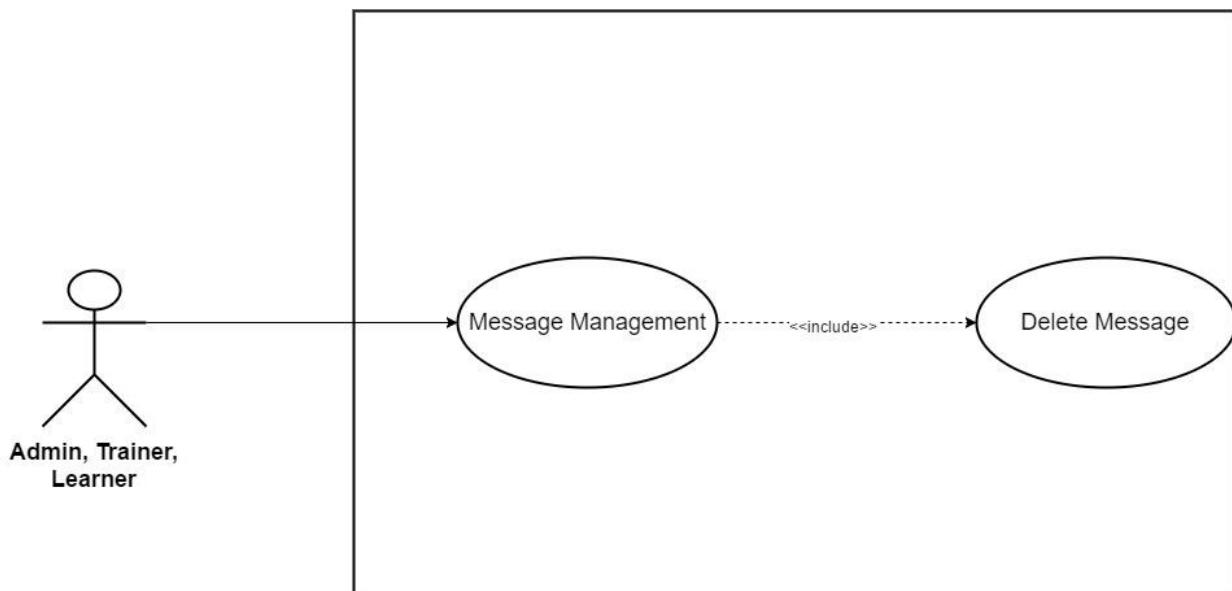


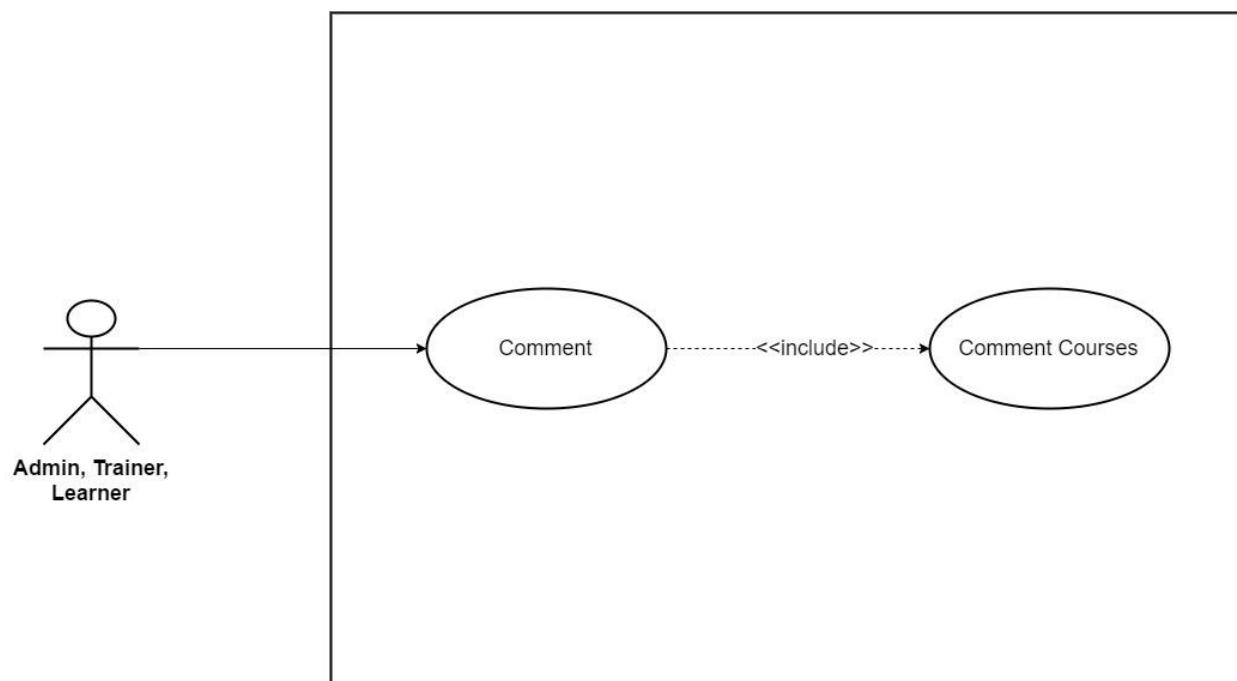
Figure 3.22: Delete Message

Use Case ID	UC11	Version	1.0
Use Case Name	Delete Message		
Create By	TruongTN	Last Updated	18/05/2017
Primary Actor	Trainer, Learner	Secondary Actor	Administrator
Description	Delete Message		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login as Trainer or Learner first.</li> <li>- Internet connection is required.</li> </ul>		

	<ul style="list-style-type: none"> <li>- There are messages in message box.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Messages are removed from message box.</li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Trainer, Learner	Move mouse to Trainer/Learner's name to the right of search bar.
2	System	Display drop-down list.
3	Trainer, Learner,	Click "My Message"
4	System	Send to "My Message" page
5	Trainer, Learner	Select message that needed to be delete.
6	Trainer, Learner	Click trash icon to delete.
7	System	Delete message out of database.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

*Table 3.31: Delete Message*

- **Comment Course**



*Figure 3.23: Comment Courses*

Use Case ID	UC12	Version	1.0
Use Case Name	Comment Courses		
Create By	TruongTN	Last Updated	18/05/2017
Primary Actor	Trainer, Learner	Secondary Actor	Administrator
Description	Comment Courses		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login Trainer or Learner first.</li> <li>- Internet connection is required.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- New comment stored into database.</li> </ul>		
Normal Flows			
Step	Actor	Action	
1	Trainer, Learner	Choose course to view course detail.	
2	System	Display course detail page.	

3	Trainer, Learner	Scroll down course detail page.
4	System	Display comment section.
5	Trainer, Learner, Administrator	Input comment.
6	System	Update new comment into database.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.32: Comment Course

- **Edit Comment**

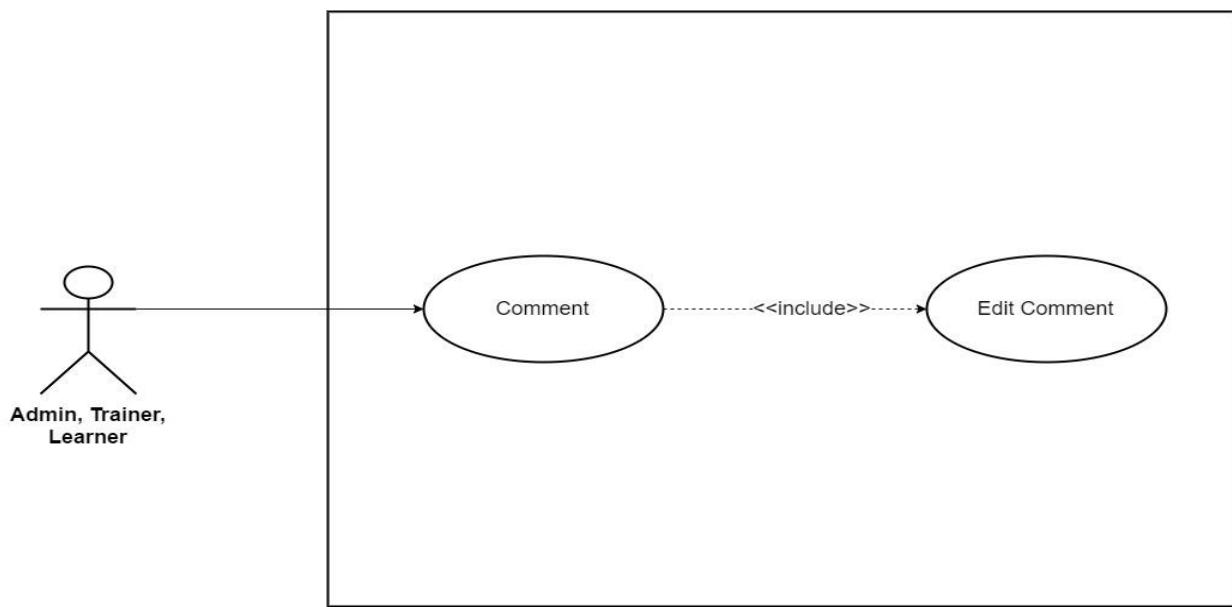


Figure 3.24: Edit Comment

<b>Use Case ID</b>	UC13	<b>Version</b>	1.0		
<b>Use Case Name</b>	Edit Comment				
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017		
<b>Primary Actor</b>	Trainer, Learner	<b>Secondary Actor</b>	Administrator		
<b>Description</b>	Edit Comment				
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer or Learner first.</li> <li>- Internet connection is required.</li> </ul>				
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Comment edited.</li> </ul>				
<b>Normal Flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Trainer, Learner	Choose course to view course detail.			
2	System	Display course detail page.			
3	Trainer, Learner	Scroll down course detail page.			
4	System	Display comment section.			
5	Trainer, Learner	Choose comment that want to edit.			
6	Trainer, Learner	Click “Save”.			
7	System	Save new comment into database			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				

Business and Validation Rules	BR5
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Table 3.33: Edit Comment

- Delete Comment

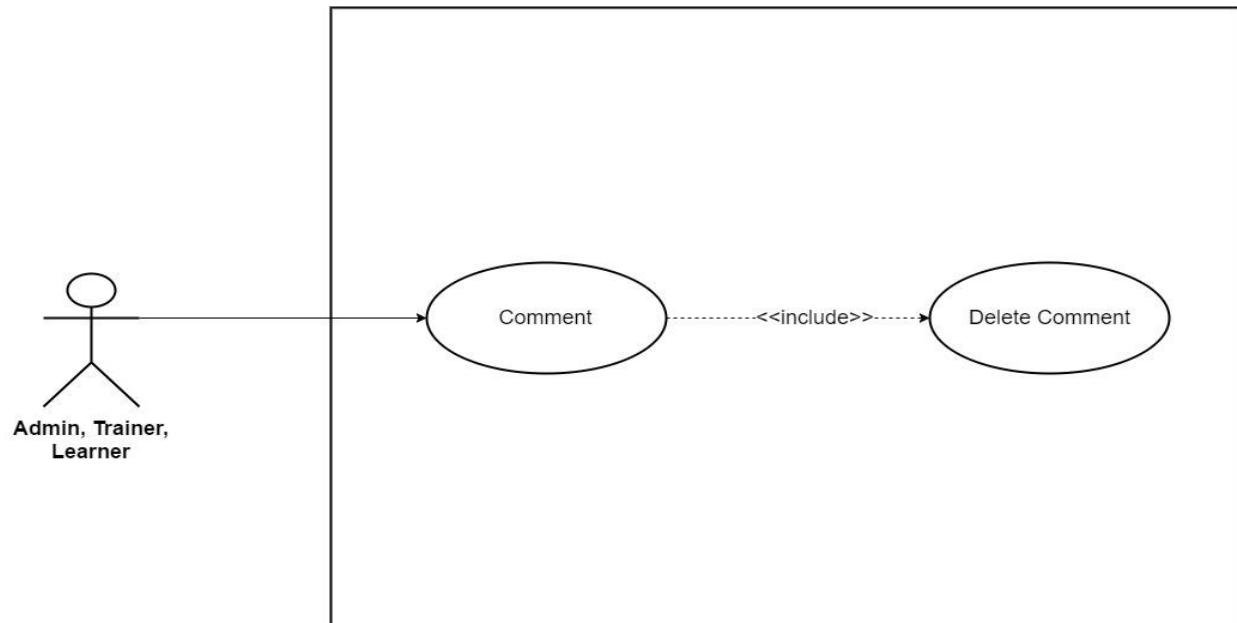


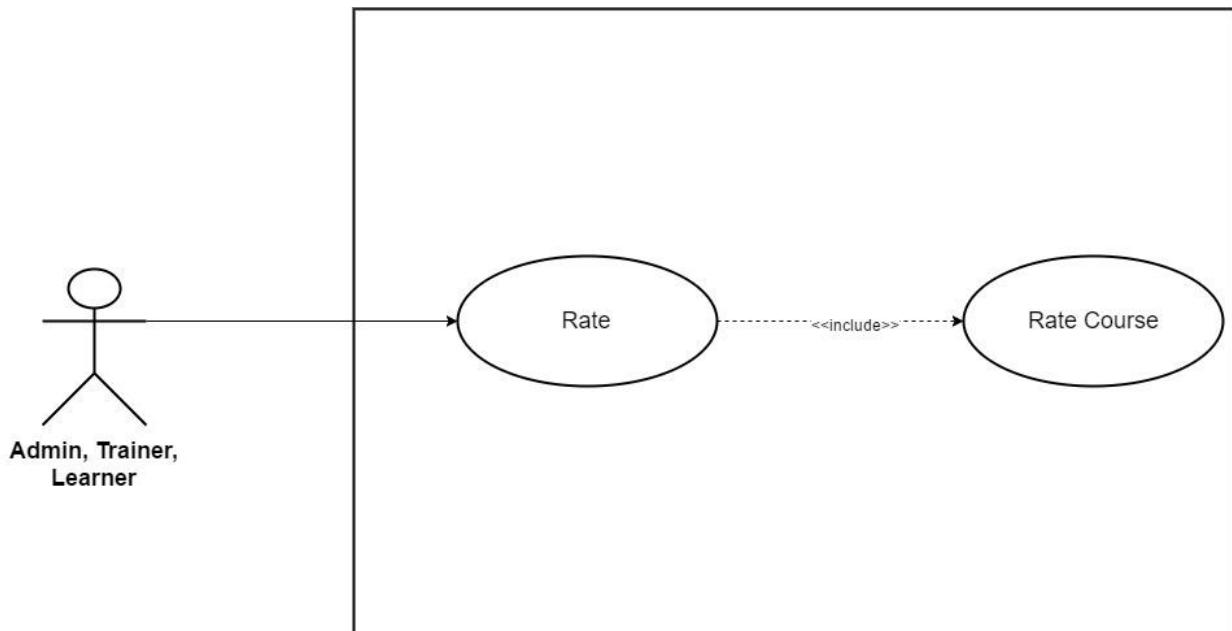
Figure 3.25: Delete Comment

Use Case ID	UC14	Version	1.0
Use Case Name	Delete Comment		
Create By	TruongTN	Last Updated	18/05/2017
Primary Actor	Trainer, Learner	Secondary Actor	Administrator
Description	Edit Comment		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login as Trainer or Learner first.</li> <li>- Internet connection is required.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- Comment is deleted from database.</li> </ul>		
<b>Normal Flows</b>			
Step	Actor	Action	

1	Trainer, Learner	Choose course to view course detail.
2	System	Display course detail page.
3	Trainer, Learner	Scroll down course detail page.
4	System	Display comment section.
5	Trainer, Learner	Choose their own comment that want to delete.
6	Trainer, Learner	Click “Delete”.
7	System	Delete comment from database.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	BR6	

*Table 3.36: Delete Comment*

- **Rate Course**



*Figure 3.26: Rate Course*

Use Case ID	UC15	Version	1.0
Use Case Name	Rate Course		
Create By	TruongTN	Last Updated	18/05/2017
Primary Actor	Trainer, Learner	Secondary Actor	Administrator
Description	Rate Course		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login as Trainer or Learner first.</li> <li>- Internet connection is required.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- New rate is updated into database.</li> </ul>		
<b>Normal Flows</b>			
Step	Actor	<b>Action</b>	
1	Trainer, Learner	Scroll down course detail page.	
2	System	Display rate section.	

3	Trainer, Learner	Rate course.
4	System	Update new rate into database.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	BR1	

Table 3.37: Rate Course

- **Rate Trainer**

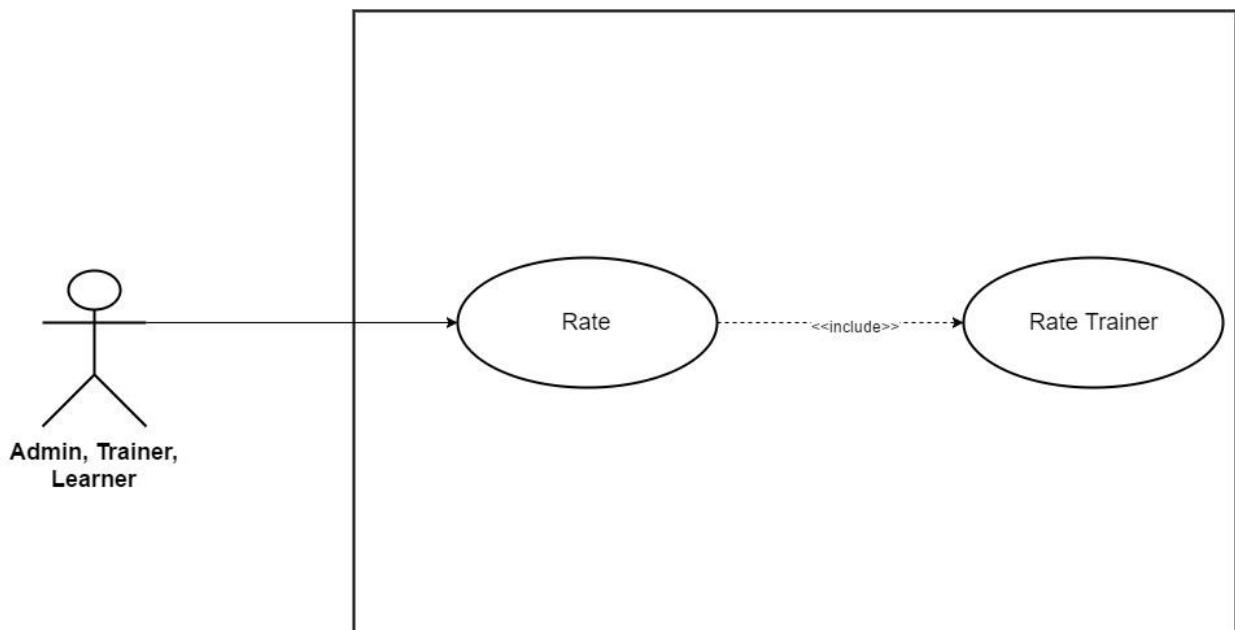


Figure 3.27: Rate Trainer

<b>Use Case ID</b>	UC16	<b>Version</b>	1.0
<b>Use Case Name</b>	Rate Trainer		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	12/07/2017

Primary Actor	Trainer, Learner	Secondary Actor	Administrator		
Description	Rate Trainer				
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login first.</li> <li>- Internet connection is required.</li> </ul>				
Post-Conditions	<ul style="list-style-type: none"> <li>- New rate is updated into database</li> </ul>				
<b>Normal Flows</b>					
Step	Actor	<b>Action</b>			
1	Trainer, Learner	Click “Trainers” on the menu, the menu stays on the right side of search bar.			
2	System	Display trainer list			
3	Trainer, Learner	Rate trainer.			
4	System	Update new rate into database.			
Priority	High				
Frequency of Use	High				
Business and Validation Rules	BR2, BR4				

*Table 3.38: Rate Trainer*

### 3.3.2.3 Administrator/Trainer

- View Course Statistic

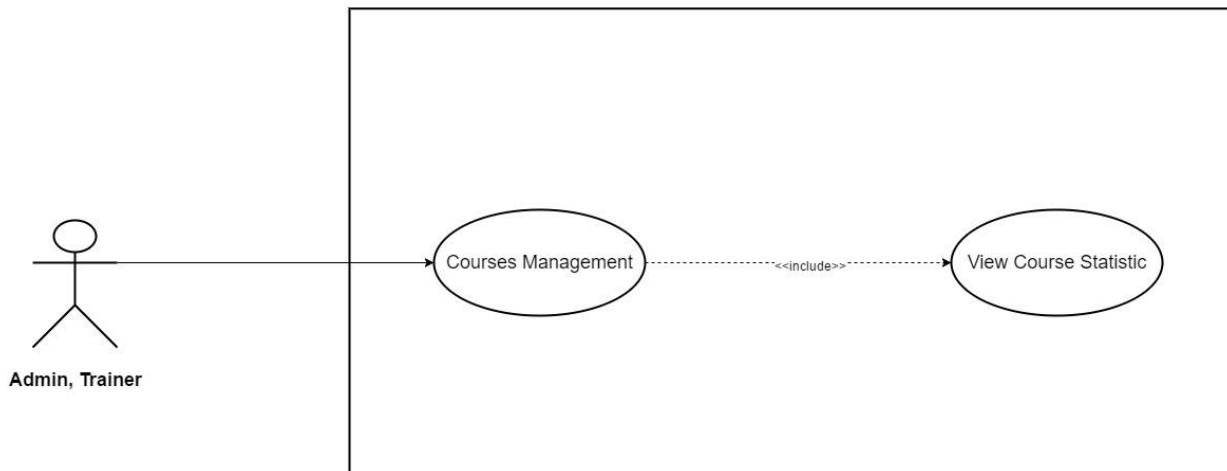


Figure 3.28: View Course Statistic

<b>Use Case ID</b>	UC17	<b>Version</b>	1.0
<b>Use Case Name</b>	View Course Statistic		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Trainer	<b>Secondary Actor</b>	Administrator
<b>Description</b>	View Course Statistic		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login first.</li> <li>- Internet connection is required.</li> <li>- User have to be Trainer or Administrator.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Display view course statistic page.</li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Trainer	Move mouse to Trainer's name to the right of search bar.	
2	System	Display drop-down list.	
3	Trainer	Click "Course Management"	
4	System	Send Trainer to "Course Management" page	
5	Trainer	Click "View Statistic"	

6	System	Display “View Statistic” page. Statistic include: number of view, number of enroll learner, region...
7	Trainer	Choose course.
8	System	Display course’s statistic page.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	BR3	

Table 3.39: View Course Statistic

- **Create New Course**

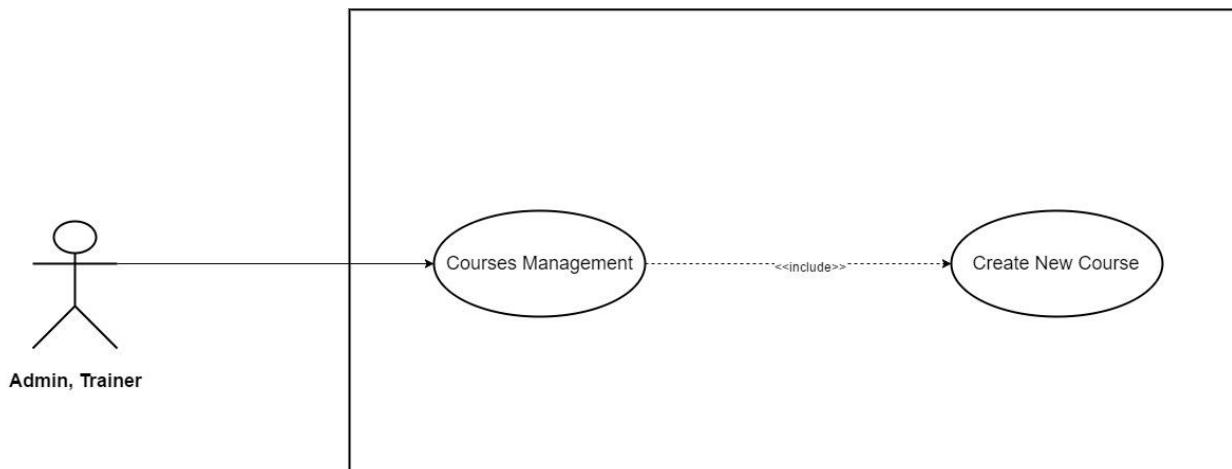


Figure 3.29: Create New Course

<b>Use Case ID</b>	UC18	<b>Version</b>	1.0
<b>Use Case Name</b>	Create New Course		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	18/05/2017
<b>Primary Actor</b>	Trainer	<b>Secondary Actor</b>	Administrator

<b>Description</b>	Create new course	
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer first.</li> <li>- Internet connection is required.</li> <li>- User have to be Trainer or Administrator</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- New course is saved into system and waited to be approved by administrator.</li> </ul>	
<b>Normal Flows</b>		
<b>Step</b>	<b>Actor</b>	<b>Action</b>
1	Trainer	Move mouse to Trainer's name to the right of search bar.
2	System	Display drop-down list.
3	Trainer	Click "Create New Course"
4	System	Send Trainer to "Create New Course" page
5	System	Display "Create New Course" page which contains 4 categories: <ul style="list-style-type: none"> <li>- Course Goals</li> <li>- Curriculum</li> <li>- Course Landing Page</li> <li>- Fee</li> </ul>
6	Trainer	Enter course goals information.
7	Trainer	Click "Next" button to move to "Curriculum".
8	System	Display "Curriculum" page.
9	Trainer	Click "Upload Lectures and Sections (.pdf)" to upload.
10	Trainer	Click "Next" button to move to "Course Landing Page".
11	System	Display "Course Landing Page" page which contains the following field: <ul style="list-style-type: none"> <li>- Course Title</li> <li>- Course Subtitle</li> <li>- Course Description</li> </ul>

		<ul style="list-style-type: none"> <li>- Language</li> <li>- Level</li> <li>- Category</li> <li>- Primary Taught</li> <li>- Tags</li> <li>- Course Image</li> <li>- Promotional Video</li> </ul>
12	Trainer	Enter all the information needed in Course Landing Page.
13	Trainer	Click “Next” button to move to “Fee”.
14	System	Display “Fee” page.
15	Trainer	Choose currency unit. Default: VND
16	Trainer	Enter course’s fee.
17	Trainer	Click “Submit for review”.
18	System	Submit to the system.
19	Administrator	Approve course.
<b>Exception</b>		
<b>EC1</b>	At step 9, Trainer upload wrong file format.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
9.1	Trainer	Upload wrong file format.
9.2	Trainer	Click “Save” button.
9.3	System	Display message: “Wrong file format. Required format is .xlxs!”
<b>EC2</b>	At step 11, Course Title is left blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
11.1	Trainer	Course Title is left blank.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Enter Course Title!”

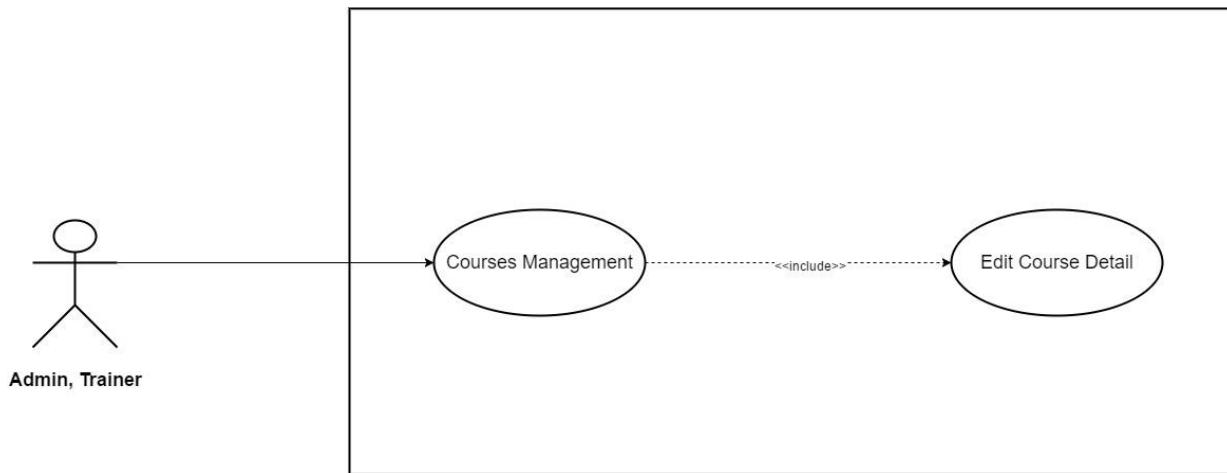
<b>EC3</b>	At step 11, Course Subtitle is left blank.	
Step	Actor	Action
11.1	Trainer	Course Subtitle is left blank.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Enter Course Subtitle!”
<b>EC4</b>	At step 11, Course Description is left blank.	
Step	Actor	Action
11.1	Trainer	Course Description is left blank.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Enter Course Description!”
<b>EC5</b>	At step 11, Trainer doesn't choose language.	
Step	Actor	Action
11.1	Trainer	Doesn't choose language
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Choose Course Language!”
<b>EC6</b>	At step 11, Trainer doesn't choose category.	
Step	Actor	Action
11.1	Trainer	Doesn't choose category
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Choose Course Category!”
<b>EC7</b>	At step 11, Trainer doesn't upload course image.	
Step	Actor	Action
11.1	Trainer	Doesn't upload course image.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Upload Course Image!”
<b>EC8</b>	At step 11, Trainer enter more than 100 character in course title.	
Step	Actor	Action

11.1	Trainer	Enter more than 100 characters in course title.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Course title length’s must be less than 100 characters”
<b>EC9</b>	At step 11, Trainer enter more than 150 character in course subtitle.	
Step	Actor	Action
11.1	Trainer	Enter more than 150 characters in course subtitle.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Course subtitle’s length must be less than 150 characters”
<b>EC10</b>	At step 11, Trainer enter more than 1000 character in course description.	
Step	Actor	Action
11.1	Trainer	Enter more than 1000 characters in course description.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Course description’s length must be less than 1000 characters”
<b>EC11</b>	At step 11, Trainer upload wrong course image’s dimensions.	
Step	Actor	Action
11.1	Trainer	Upload wrong course image’s dimensions.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Image’s dimensions must be 2048x1152 pixels”
<b>EC12</b>	At step 11, Trainer upload wrong course image’s format.	
Step	Actor	Action
11.1	Trainer	Upload wrong course image’s format.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Image’s format must be one of the following: .jpg, .jpeg, .gif, .bmp or .png!”
<b>EC13</b>	At step 11, Trainer upload video with low quality (less than 360p).	

Step	Actor	Action
11.1	Trainer	Upload video with low quality (less than 360p)
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “The video’s quality must be at least 360p !”
<b>EC14</b>	At step 11, Trainer upload video with the wrong format.	
Step	Actor	Action
11.1	Trainer	Upload video with the wrong format.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “The video’s format must be .mp4!”
<b>EC15</b>	At step 16, Fee is left blank.	
Step	Actor	Action
16.1	Trainer	Leave fee blank.
16.2	Trainer	Click “Save” button.
16.3	System	Display message: “Please enter course’s fee!”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	BR9, BR10, BR11, BR12, BR13, BR14, BR15, BR16	

*Table 3.40: Create New Course*

- **Edit Course Detail**



*Figure 3.30: Edit Course Detail*

Use Case ID	UC19	Version	1.0
Use Case Name	Edit Course Detail		
Create By	TruongTN	Last Updated	18/05/2017
Primary Actor	Trainer	Secondary Actor	Administrator
Description	Edit course detail.		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login as Trainer first.</li> <li>- Internet connection is required.</li> <li>- User have to be Trainer or Administrator.</li> </ul>		
Post-Conditions	- New course detail is saved and updated into system.		
Normal Flows			
Step	Actor	Action	
1	Trainer	Move mouse to Trainer's name to the right of search bar.	
2	System	Display drop-down list.	
3	Trainer	Click "Course Management"	
4	System	Send Trainer to "Course Management" page	
5	Trainer	Click "Edit" the course that want to be edit.	

6	Trainer	Enter course goals information.
7	Trainer	Click “Next” button to move to “Curriculum”.
8	System	Display “Curriculum” page.
9	Trainer	Click “Upload Lectures and Sections (.xlxs)” to upload.
10	Trainer	Click “Next” button to move to “Course Landing Page”.
11	System	Display “Course Landing Page” page which contains the following field: <ul style="list-style-type: none"><li>- Course Title</li><li>- Course Subtitle</li><li>- Course Description</li><li>- Language</li><li>- Level</li><li>- Category</li><li>- Tags</li><li>- Course Image</li><li>- Promotional Video</li></ul>
12	Trainer	Enter all the information needed in Course Landing Page.
13	Trainer	Click “Next” button to move to “Fee”.
14	System	Display “Fee” page.
15	Trainer	Choose currency unit. Default: VND
16	Trainer	Enter course’s fee.
17	Trainer	Click “Submit for review”.
18	System	Submit to the system.
19	Administrator	Approve update.
<b>Exception</b>		
<b>EC1</b>	At step 6, Trainer enter more than 150 character in each text input.	
Step	Actor	Action

6.1	Trainer	Enter more than 150 character in each text input.
6.2	Trainer	Click “Save” button.
6.3	System	Display message: “Length must be less than 150 character”
<b>EC2</b>	At step 9, Trainer upload wrong file format.	
Step	Actor	Action
9.1	Trainer	Upload wrong file format.
9.2	Trainer	Click “Save” button.
9.3	System	Display message: “Wrong file format. Required format is .pdf!”
<b>EC3</b>	At step 11, Course Title is left blank.	
Step	Actor	Action
11.1	Trainer	Course Title is left blank.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Enter Course Title!”
<b>EC4</b>	At step 11, Course Subtitle is left blank.	
Step	Actor	Action
11.1	Trainer	Course Subtitle is left blank.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Enter Course Subtitle!”
<b>EC5</b>	At step 11, Course Description is left blank.	
Step	Actor	Action
11.1	Trainer	Course Description is left blank.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Enter Course Description!”
<b>EC6</b>	At step 11, Trainer doesn't choose language.	
Step	Actor	Action
11.1	Trainer	Doesn't choose language

11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Choose Course Language!”
<b>EC7</b>	At step 11, Trainer doesn't choose category.	
Step	Actor	Action
11.1	Trainer	Doesn't choose category
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Choose Course Category!”
<b>EC8</b>	At step 11, Trainer doesn't upload course image.	
Step	Actor	Action
11.1	Trainer	Doesn't upload course image.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Please Upload Course Image!”
<b>EC9</b>	At step 11, Trainer upload wrong course image's dimensions.	
Step	Actor	Action
11.1	Trainer	Upload wrong course image's dimensions.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Image's dimensions must be 2048x1152 pixels”
<b>EC10</b>	At step 11, Trainer upload wrong course image's format.	
Step	Actor	Action
11.1	Trainer	Upload wrong course image's format.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “Image's format must be one of the following: .jpg, .jpeg, .gif, .bmp or .png!”
<b>EC11</b>	At step 11, Trainer upload video with low quality (less than 360p).	
Step	Actor	Action
11.1	Trainer	Upload video with low quality (less than 360p)
11.2	Trainer	Click “Save” button.

11.3	System	Display message: “The video’s quality must be at least 360p !”
EC12	At step 11, Trainer upload video with the wrong format.	
Step	Actor	Action
11.1	Trainer	Upload video with the wrong format.
11.2	Trainer	Click “Save” button.
11.3	System	Display message: “The video’s format must be .mp4!”
EC13	At step 16, Fee is left blank.	
Step	Actor	Action
16.1	Trainer	Leave fee blank.
16.2	Trainer	Click “Save” button.
16.3	System	Display message: “Please enter course’s fee!”
Priority	High	
Frequency of Use	High	
Business and Validation Rules	VR6, VR7, VR8	

Table 3.41: Edit Course Detail

- Delete Course

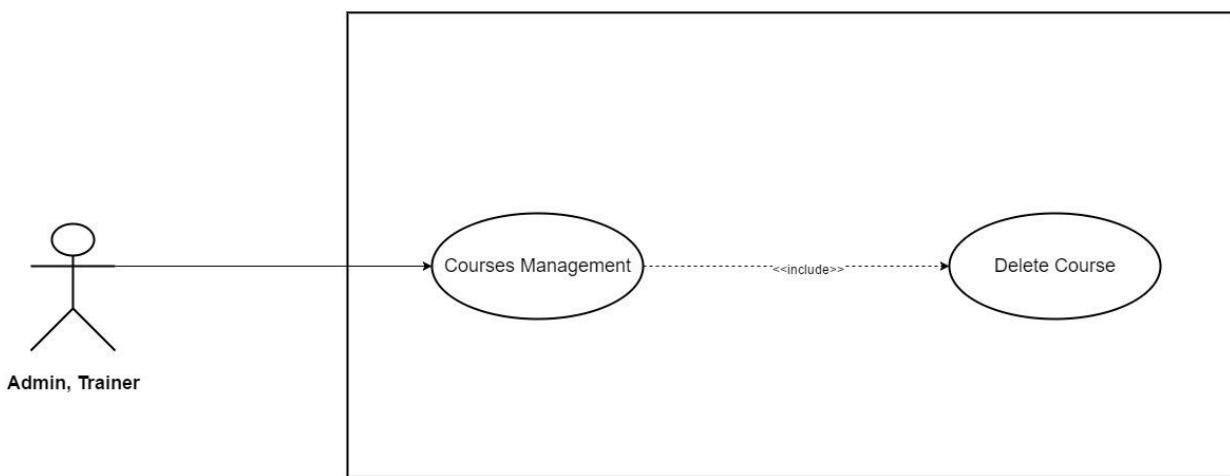
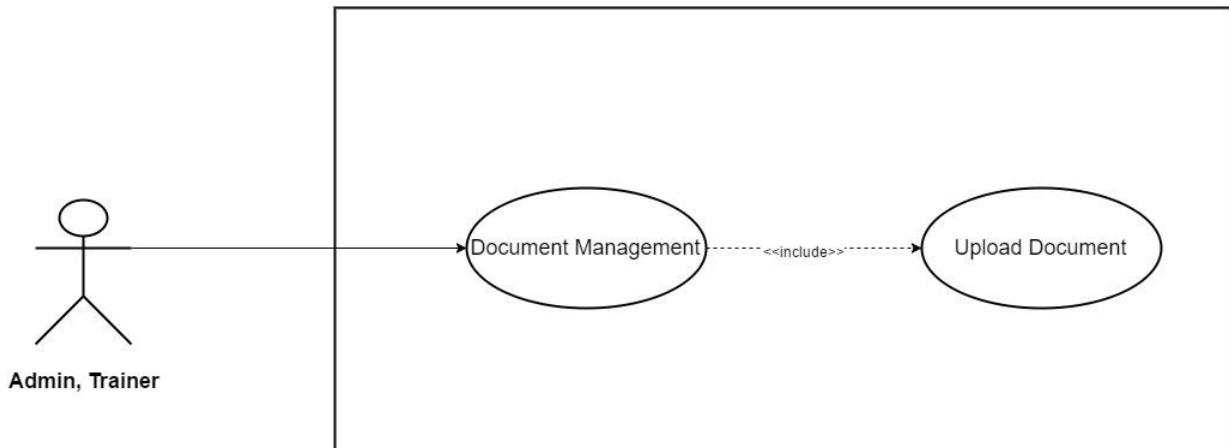


Figure 3.31: Delete Course

<b>Use Case ID</b>	UC20	<b>Version</b>	1.0		
<b>Use Case Name</b>	Delete Courses				
<b>Create By</b>	TruongTN	<b>Last Updated</b>	20/05/2017		
<b>Primary Actor</b>	Trainer	<b>Secondary Actor</b>	Administrator		
<b>Description</b>	Delete courses				
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer first.</li> <li>- Internet connection is required.</li> </ul>				
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Selected course is totally removed out of system.</li> </ul>				
<b>Normal Flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Trainer	Move mouse to Trainer's name to the right of search bar.			
2	System	Display drop-down list.			
3	Trainer	Click "Course Management"			
4	System	Display "Course Management" page .			
5	Trainer	Click "Select" button.			
6	Trainer	Choose all course that want to delete.			
7	Trainer	Click "Delete".			
8	System	Delete all the chosen course out of the system include rate, course statistic...			
9	System	Update and reload "Course Management" page.			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business and Validation Rules</b>					

Table 3.42: Delete Course

- **Upload Document**



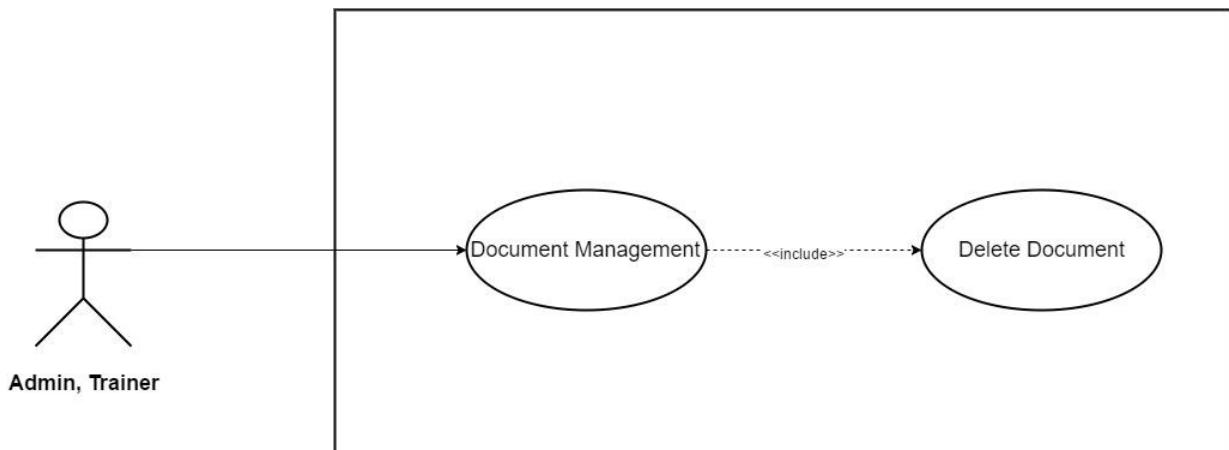
*Figure 3.32: Upload Document*

Use Case ID	UC21	Version	1.0
Use Case Name	Upload Document		
Create By	TruongTN	Last Updated	20/05/2017
Primary Actor	Trainer	Secondary Actor	Administrator
Description	Upload Trainer's documents		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login as Trainer first.</li> <li>- Internet connection is required.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- New Document is saved into system and waited to be approved by administrator.</li> </ul>		
<b>Normal Flows</b>			
Step	Actor	Action	
1	Trainer	Move mouse to Trainer's name to the right of search bar.	
2	System	Display drop-down list.	
3	Trainer	Click "Documents"	
4	System	Send Trainer to Documents' page	

5	System	Display “Documents” page which contain all document that Trainer has uploaded.
6	Trainer	Click “Upload” button.
7	System	Display upload window.
8	Trainer	Choose document file to upload.
9	Trainer	Click “Save” to save documents. “Cancel” to back to Documents’ page.
<b>Exception</b>		
<b>EC1</b>	At step 8, <i>Document</i> does not meet the format requirement.	
Step	Actor	Action
8.1	Trainer	User upload wrong document’s format.
8.2	Trainer	Click “Save” button.
8.3	System	Display message: “Document’s format must be .pdf!”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.43: Upload Document

- **Delete Documents**



*Figure 3.33: Delete Document*

Use Case ID	UC22	Version	1.0
Use Case Name	Delete Documents		
Create By	TruongTN	Last Updated	20/05/2017
Primary Actor	Trainer	Secondary Actor	Administrator
Description	Delete Document		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login as Trainer first.</li> <li>- Internet connection is required.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- Selected document is removed from the system.</li> </ul>		
<b>Normal Flows</b>			
Step	Actor	Action	
1	Trainer	Move mouse to Trainer's name to the right of search bar.	
2	System	Display drop-down list.	
3	Trainer	Click "Documents"	
4	System	Send Trainer to Documents' page	

5	System	Display “Documents” page which contain all document that Trainer has uploaded.
6	Trainer	Click “Select”.
7	Trainer	Select all the document that need to be delete.
8	Trainer	Click “Delete”.
9	System	Delete selected document out of the system.
10	System	Update and reload “Documents” page.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	VR7	

Table 3.44: Delete Document

- View Document Dashboard

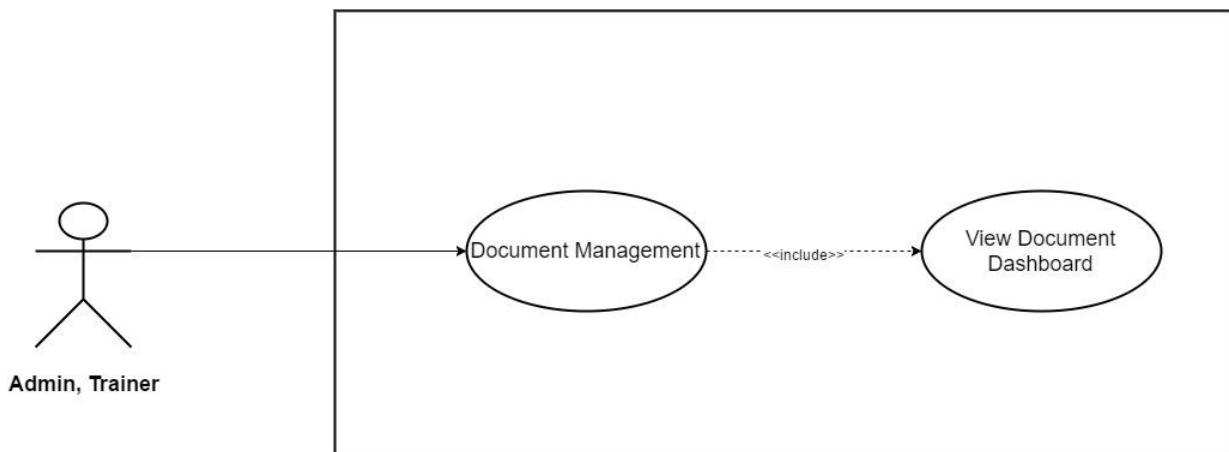


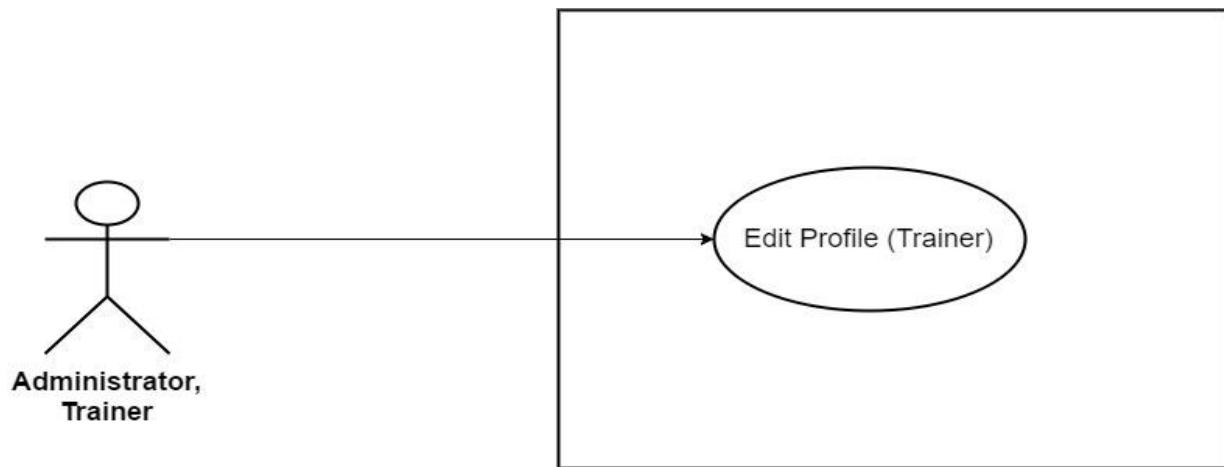
Figure 3.34: View Document Dashboard

Use Case ID	UC23	Version	1.0

<b>Use Case Name</b>	View Documents Dashboard				
<b>Create By</b>	TruongTN	<b>Last Updated</b>	20/05/2017		
<b>Primary Actor</b>	Trainer	<b>Secondary Actor</b>	Administrator		
<b>Description</b>	View documents dashboard.				
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer first.</li> <li>- Internet connection is required.</li> </ul>				
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Display Document page.</li> </ul>				
<b>Normal Flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Trainer	Move mouse to Trainer's name to the right of search bar.			
2	System	Display drop-down list.			
3	Trainer	Click "Documents"			
4	System	Send Trainer to Documents' page			
5	System	Display "Documents" page which contain all document that Trainer has uploaded.			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business and Validation Rules</b>					

Table 3.45: View Document Dashboard

- **Edit Profile (Trainer)**



*Figure 3.35: Edit Profile (Trainer)*

<b>Use Case ID</b>	UC24	<b>Version</b>	1.0
<b>Use Case Name</b>	Edit Profile ( <i>Trainer</i> )		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	20/05/2017
<b>Primary Actor</b>	Trainer	<b>Secondary Actor</b>	Administrator
<b>Description</b>	Edit account's information for <i>Trainer</i>		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Trainer first.</li> <li>- Internet connection is required.</li> </ul>		
<b>Post-Conditions</b>	- New account information is saved and updated into system.		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Trainer	Display drop-down list.	
2	System	Click “My Profile”	
3	Trainer	Send Trainer to “My Profile” page	
4	System	Display “My Profile” page which contain the following information: <ul style="list-style-type: none"> <li>- Email</li> </ul>	

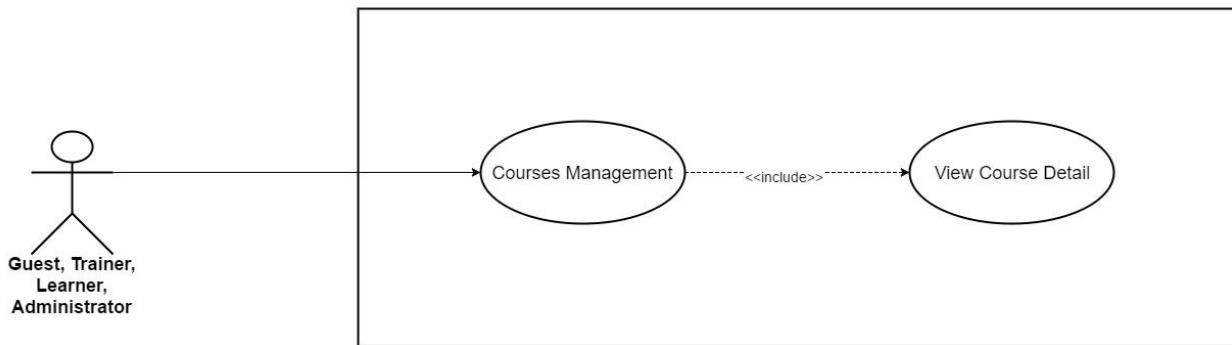
		<ul style="list-style-type: none"> <li>- Name</li> <li>- Contact</li> <li>- Address</li> <li>- Fields</li> <li>- Introduction</li> </ul>
5	System	Enter all the information that they wish to edit. Email can't be edit.
6	Trainer	Click "Save" button.
7	Trainer	Update information into system's Database.
8	System	Display "My Profile" page with updated information.
<b>Exception</b>		
<b>EC1</b>	At step 5, Trainer remove all required field and leave it blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
5.1	Trainer	Remove and leave all required field blank.
5.2	Trainer	Click "Save" button.
5.3	System	Display message: "Please Fill In All Required Field!"
<b>EC2</b>	At step 5, Trainer only remove Trainer Name and leave it blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
5.1	Trainer	Remove and leave Trainer Name blank.
5.2	Trainer	Click "Save" button.
5.3	System	Display message: "Please Enter Trainer Name!"
<b>EC3</b>	At step 5, only <i>Fields</i> is not selected.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
5.1	Trainer	Do not select <i>Fields</i> .
5.2	Trainer	Click "Save" button.
5.3	System	Display message: "Please Select Fields!"
<b>EC4</b>	At step 5, Trainer remove and leave <i>Contact</i> blank.	

Step	Actor	Action
5.1	Trainer	Remove and leave <i>Contact</i> field blank.
5.2	Trainer	Click “Save” button.
5.3	System	Display message: “Please Enter Password!”
<b>EC5</b>	At step 5, Trainer only remove and leave <i>Address</i> blank.	
Step	Actor	Action
5.1	Trainer	Remove and leave <i>Address</i> blank.
5.2	Trainer	Click “Save” button.
5.3	System	Display message: “Please Enter Address!”
<b>EC6</b>	At step 5, <i>Introduction</i> ’s length > 200 character.	
Step	Actor	Action
5.1	Trainer	Enter more than 200 character in <i>Introduction</i> field.
5.2	Trainer	Click “Save” button.
5.3	System	Display message: “Length must be < 200”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	BR1	

Table 3.46: Edit Profile Trainer

### **3.3.2.4 Administrator/Learner/Trainer/Guest**

- **View Course Detail**



*Figure 3.36: View Course Detail*

<b>Use Case ID</b>	UC25	<b>Version</b>	1.0
<b>Use Case Name</b>	View Course Detail		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	20/05/2017
<b>Primary Actor</b>	Guest, Trainer, Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	View Course Detail		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Display course detail page.</li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Guest, Trainer, Learner	Go to course list that display in homepage or select course list by category.	
2	Guest, Trainer, Learner	Choose the course that they want to see detail.	
3	System	Display course detail page.	

<b>Priority</b>	High
<b>Frequency of Use</b>	High
<b>Business and Validation Rules</b>	

Table 3.47: View Course Detail

- **Search Course**

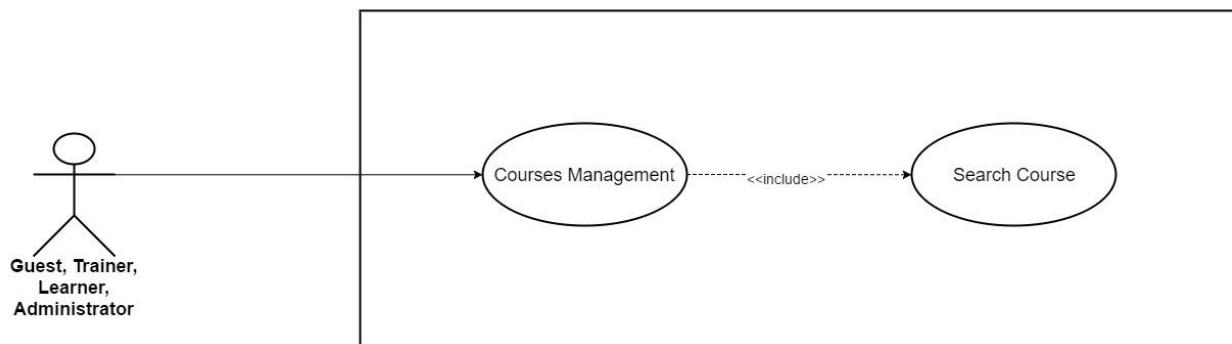


Figure 3.37: Search Course

<b>Use Case ID</b>	UC26	<b>Version</b>	1.0
<b>Use Case Name</b>	Search Course		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Guest, Trainer, Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	Search Course		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Display list of courses that match with search key.</li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	

1	Guest, Trainer, Learner	Fill in course name that needed to be search in search bar.
2	System	Display all match result.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.48: Search Course Detail

- View Trainer List

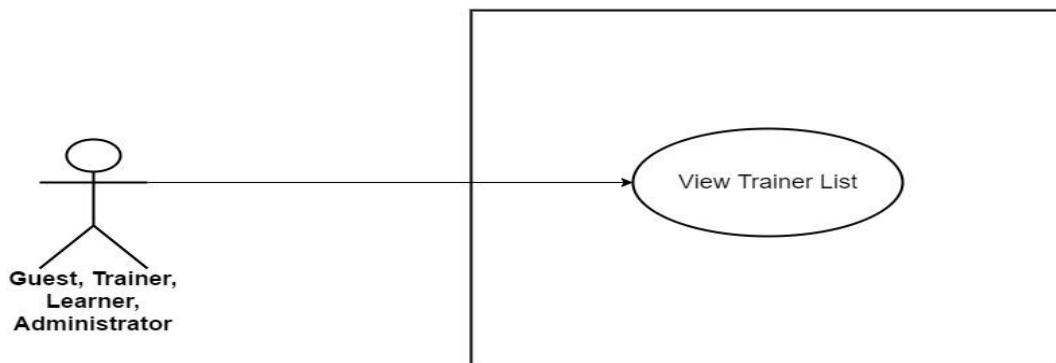


Figure 3.38: View Trainer List

<b>Use Case ID</b>	UC27	<b>Version</b>	1.0
<b>Use Case Name</b>	View Trainer List		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	12/07/2017
<b>Primary Actor</b>	Trainer,Learner,Guest	<b>Secondary Actor</b>	Administrator
<b>Description</b>	View all trainer in the system.		

<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login first.</li> <li>- Internet connection is required.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Display trainer list.</li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Guest, Trainer,Learner	Click “Trainer” in the header to the left of search bar.
2	System	Display trainer list.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.49: View Trainer List

- Other Public Profile

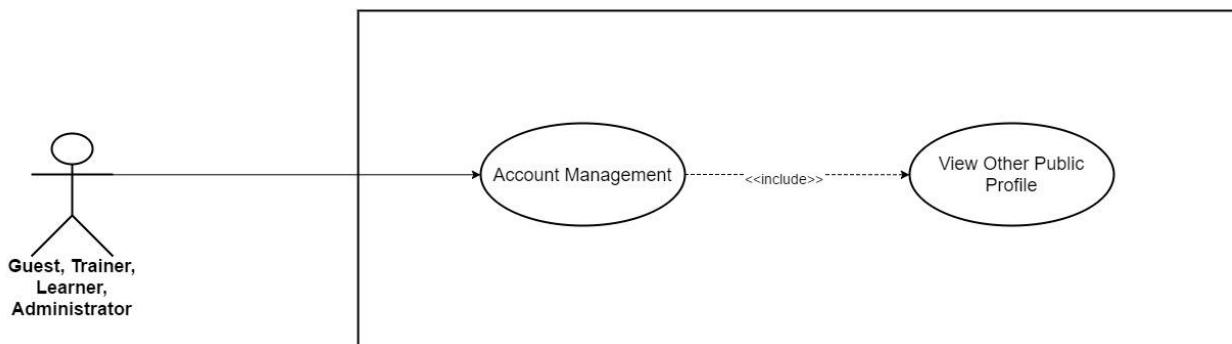


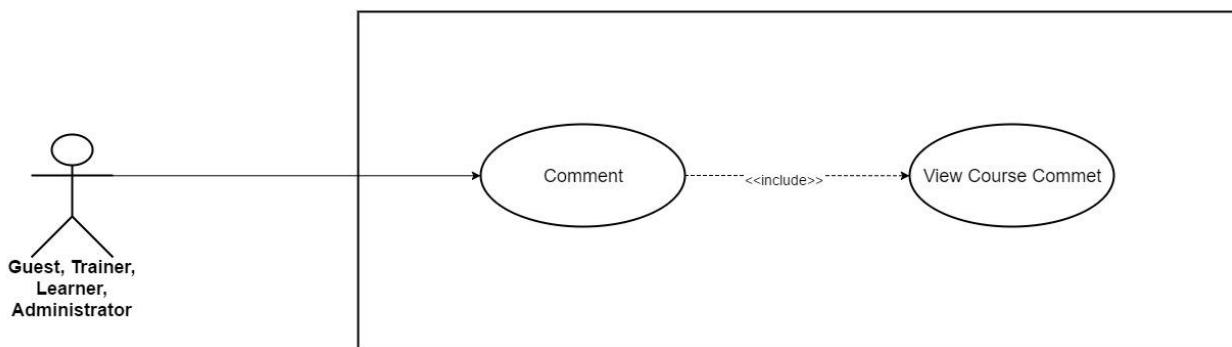
Figure 3.39: View Other Public Profile

<b>Use Case ID</b>	UC28	<b>Version</b>	1.0
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<b>Use Case Name</b>	View Other Public Profile				
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017		
<b>Primary Actor</b>	Guest, Trainer, Learner	<b>Secondary Actor</b>	Administrator		
<b>Description</b>	View Other Public Profile				
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> </ul>				
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Display other user's public profile.</li> </ul>				
<b>Normal Flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Guest, Trainer, Learner	Click username that they want to see public profile.			
2	System	Display public profile page.			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business and Validation Rules</b>					

Table 3.50: View Other Public Profile

- **View Course Comment**

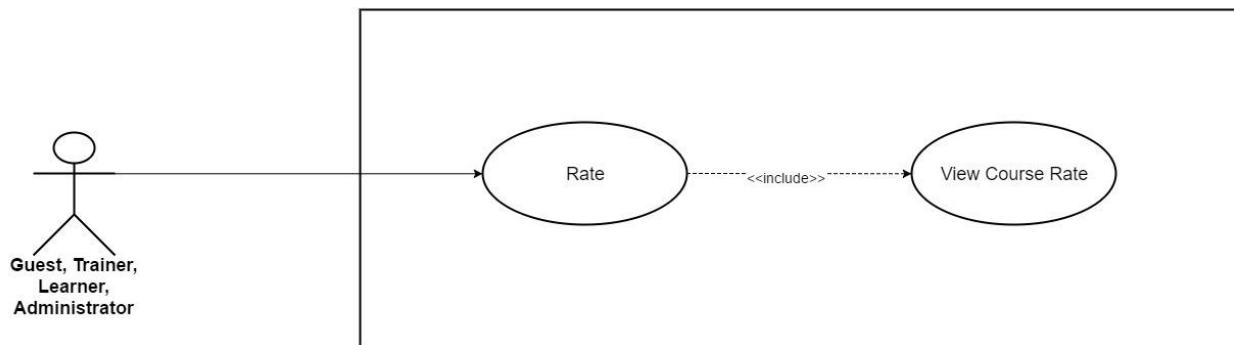


*Figure 3.40: View Course Comment*

<b>Use Case ID</b>	UC29	<b>Version</b>	1.0
<b>Use Case Name</b>	View Course Comment		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Guest, Trainer, Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	View Course Comment		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Comment section appear.</li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Guest, Trainer, Learner	In course detail, scroll down till the end of the page.	
2	System	Display comment section page.	
<b>Priority</b>	High		
<b>Frequency of Use</b>	High		
<b>Business and Validation Rules</b>			

*Table 3.51: View Course Comment*

- **View Course Rate**



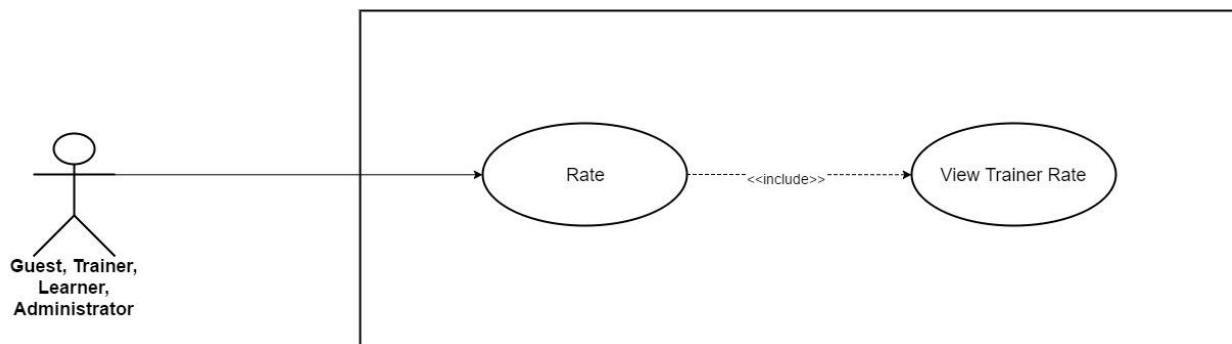
*Figure 3.41: View Course Rate*

Use Case ID	UC30	Version	1.0
Use Case Name	View course rate		
Create By	TruongTN	Last Updated	21/05/2017
Primary Actor	Guest, Trainer, Learner	Secondary Actor	Administrator
Description	View Course rate.		
Pre-Conditions	<ul style="list-style-type: none"> <li>- Internet access is required.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- Course rate section is displayed.</li> </ul>		
Normal Flows			
Step	Actor	Action	
1	Guest, Trainer, Learner	Open course.	
2	System	Display course detail page. Rate course is under course's name.	

<b>Priority</b>	High
<b>Frequency of Use</b>	High
<b>Business and Validation Rules</b>	

*Table 3.52: View Course Rate*

- **View Trainer Rate**



*Figure 3.42: View Trainer Rate*

<b>Use Case ID</b>	UC31	<b>Version</b>	1.0
<b>Use Case Name</b>	View Trainer Rate		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Trainer, Learner, Guest	<b>Secondary Actor</b>	Administrator
<b>Description</b>	View trainer's rate.		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Trainer rate is displayed.</li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	

1	Trainer, Learner, Administrator	Click “Trainers” on the menu, the menu stays on the right side of search bar.
2	System	Display trainer list. Rate is under trainer’s picture.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.53: View Trainer Rate

- **View Document Picture**

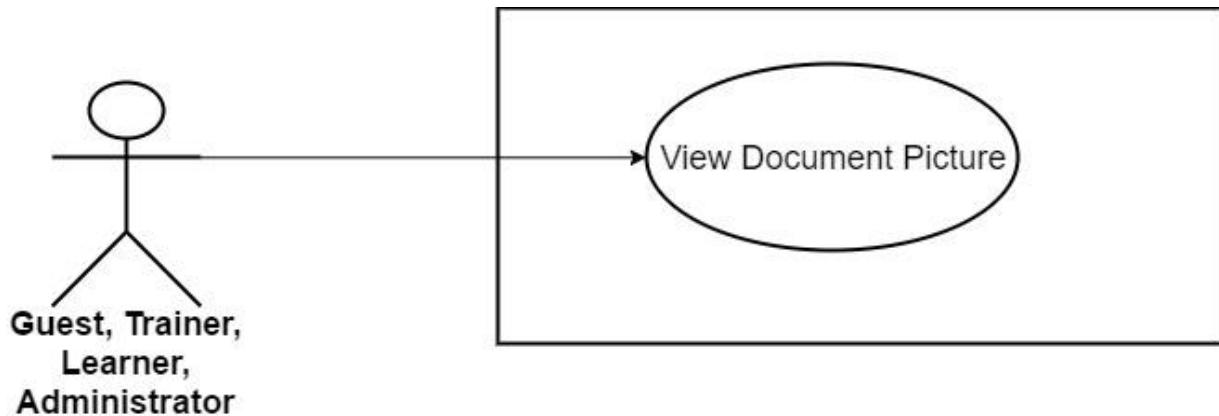


Figure 3.43: View Document Picture

<b>Use Case ID</b>	UC32	<b>Version</b>	1.0
<b>Use Case Name</b>	View Document Picture		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Trainer, Learner, Guest	<b>Secondary Actor</b>	Administrator

<b>Description</b>	View Document Picture	
<b>Pre-Conditions</b>	- Internet access is required.	
<b>Post-Conditions</b>	-	
<b>Normal Flows</b>		
Step	Actor	Action
1	Trainer, Learner, Guest	On public profile page or document page, click document.
2	System	Display document picture.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.54: View Document Picture

### 3.3.2.5 Administrator

- View Website Statistic

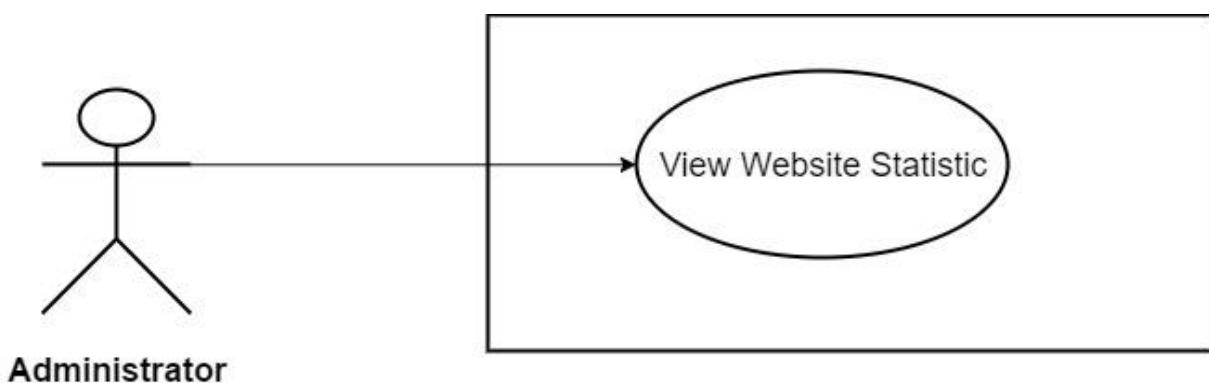
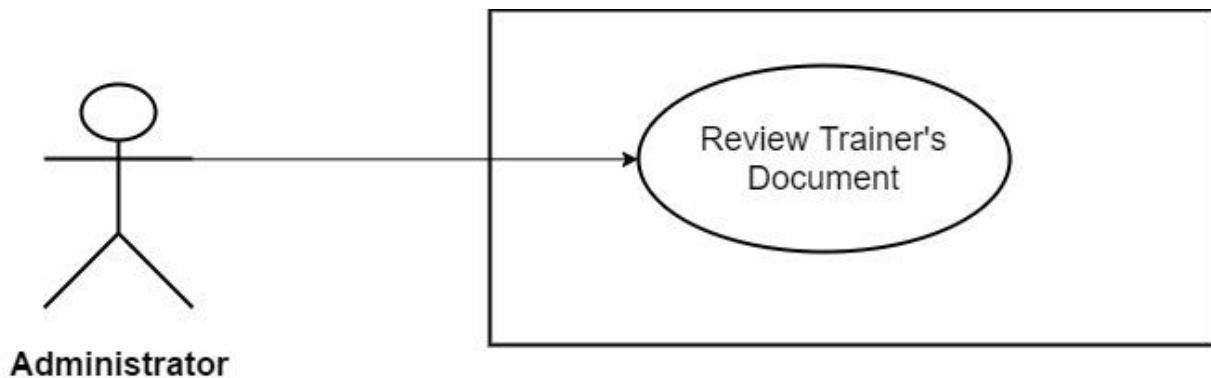


Figure 3.44: View Website Statistic

<b>Use Case ID</b>	UC33	<b>Version</b>	1.0		
<b>Use Case Name</b>	View Website Statistic				
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017		
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>			
<b>Description</b>	View website statistic				
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>				
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Display website statistic.</li> </ul>				
<b>Normal Flows</b>					
Step	Actor	<b>Action</b>			
1	Administrator	Click “Go to Dashboard” in the menu.			
2	System	Send Admin to Admin’s Dashboard.			
3	System	Display “Home” page which contain website’s statistic. Statistic include: number of users, number of trainer, number of learner, number of course...			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business and Validation Rules</b>					

Table 3.55: View Website Statistic

- View Trainer's Document



*Figure 3.45: Review Trainer's Document*

Use Case ID	UC34	Version	1.0
Use Case Name	Review Trainer's Document		
Create By	TruongTN	Last Updated	21/05/2017
Primary Actor	Administrator	Secondary Actor	
Description	Review Trainer's Document		
Pre-Conditions	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- Trainer's Document is reviewed by administrator.</li> </ul>		
<b>Normal Flows</b>			
Step	Actor	Action	
1	Administrator	Click “Go to Dashboard” in the menu.	
2	System	Send Admin to Admin’s Dashboard.	
3	Administrator	Click “Document”.	

4	System	Display trainers management page.
5	Administrator	Click “Approve” to accept trainer’s document or Click “Denied” to reject trainer’s document.
6	System	Save new change into database.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.56: Review Trainer Document

- **Review New Course**

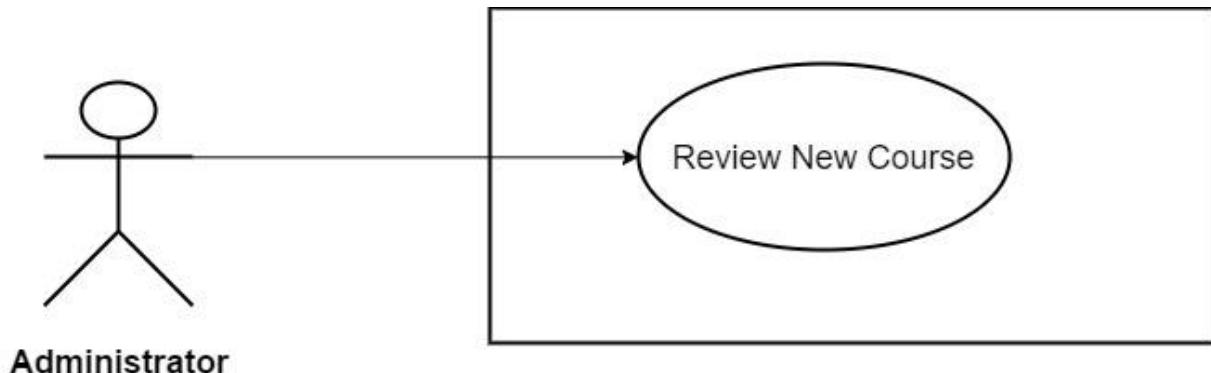


Figure 3.46: Review New Course

<b>Use Case ID</b>	UC35	<b>Version</b>	1.0
<b>Use Case Name</b>	Review New Course		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>	
<b>Description</b>	Review New Course		
<b>Pre-Conditions</b>	- Internet access is required.		

	<ul style="list-style-type: none"> <li>- You must be Administrator to be able to access dashboard.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- New Course is reviewed by administrator.</li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Administrator	Click “Go to Dashboard” in the menu.
2	System	Send Admin to Admin’s Dashboard.
3	Administrator	Click “Courses”.
4	System	Display courses management page.
5	Administrator	Click “Approve” to accept course or Click “Denied” to reject course.
6	System	Save new change into database.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.57: Review New Course

- **Review Trainer’s Account**

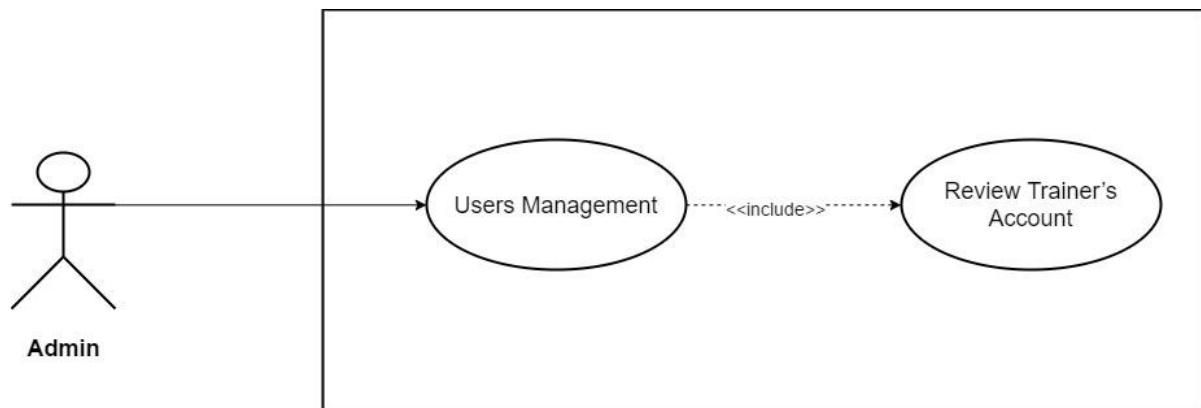
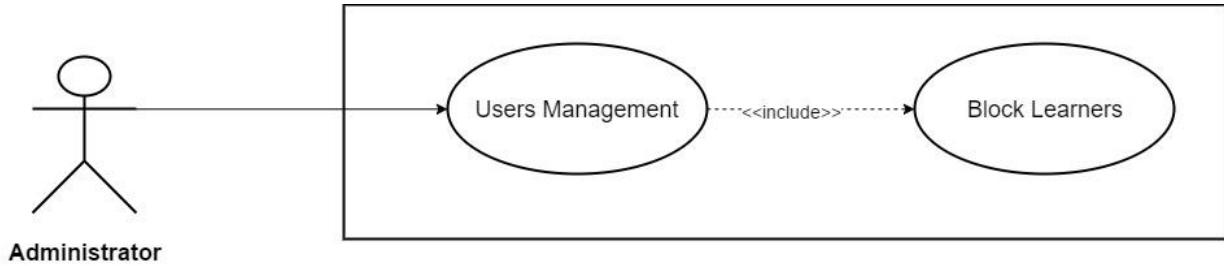


Figure 3.47: Review Trainer’s Account

<b>Use Case ID</b>	UC36	<b>Version</b>	1.0		
<b>Use Case Name</b>	Review Trainer's Account				
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017		
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>			
<b>Description</b>	Review Trainer's Account				
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>				
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Trainer's account is reviewed by administrator.</li> </ul>				
<b>Normal Flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Administrator	Click "Go to Dashboard" in the menu.			
2	System	Send Admin to Admin's Dashboard.			
3	Administrator	Click "Users".			
4	System	Drop down list include "Learners" and "Trainers"			
5	Administrator	Click "Trainers"			
6	System	Display trainers management page.			
7	Administrator	Click "Approve" to accept new trainer sign up or Click "Denied" to reject new trainer sign up.			
8	System	Save new change into database.			
<b>Priority</b>	High				
<b>Frequency of Use</b>	High				
<b>Business and Validation Rules</b>					

Table 3.58: Review Trainer Account

- **Block Learners**



*Figure 3.48: Block Learners*

Use Case ID	UC37	Version	1.0
Use Case Name	Block Learners		
Create By	TruongTN	Last Updated	12/07/2017
Primary Actor	Administrator	Secondary Actor	
Description	Block Learners		
Pre-Conditions	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- Selected learners are blocked from every activity.</li> </ul>		
<b>Normal Flows</b>			
Step	Actor	<b>Action</b>	
1	Administrator	Click “Go to Dashboard” in the menu.	
2	System	Send Admin to Admin’s Dashboard.	
3	Administrator	Click “Users”.	
4	System	Drop down list include “Learners” and “Trainers”	
5	Administrator	Click “Learners”	
6	System	Display Learners management page.	
7	Administrator	Click “Block” next to learner’s name that needed to be edit.	

8	System	Display dialog box “Do you want to block this user?” “Yes” “No”
9	Administrator	Click “Yes” to block or “No” to cancel.
10	System	Block account from system.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.59: Block Learner

- **Block Trainers**

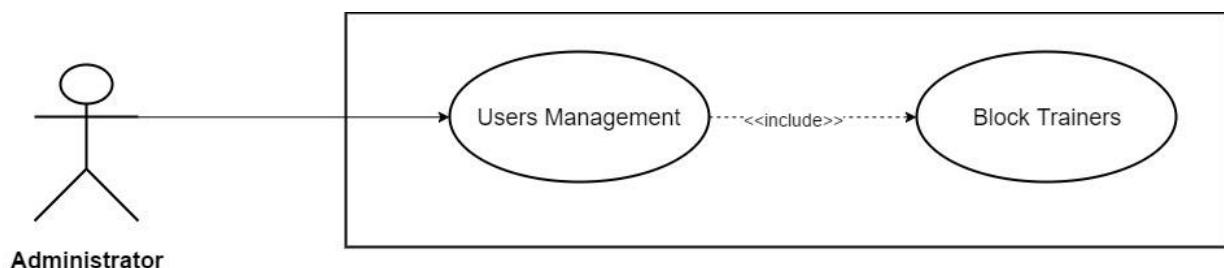


Figure 3.49: Block Trainers

<b>Use Case ID</b>	UC38	<b>Version</b>	1.0
<b>Use Case Name</b>	Block Trainers		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	12/07/2017
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>	
<b>Description</b>	Block Trainers		

<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Selected trainers are blocked from every activity.</li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Administrator	Click “Go to Dashboard” in the menu.
2	System	Send Admin to Admin’s Dashboard.
3	Administrator	Click “Users”.
4	System	Drop down list include “Learners” and “Trainers”
5	Administrator	Click “Trainers”
6	System	Display trainers management page.
7	Administrator	Click “Block” next to trainer’s name that needed to be edit.
8	System	Display dialog box “Do you want to block this user?” “Yes” “No”
9	Administrator	Click “Yes” to block or “No” to cancel.
10	System	Block account from system.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.60: Block Trainer

- **Unblock Trainers**

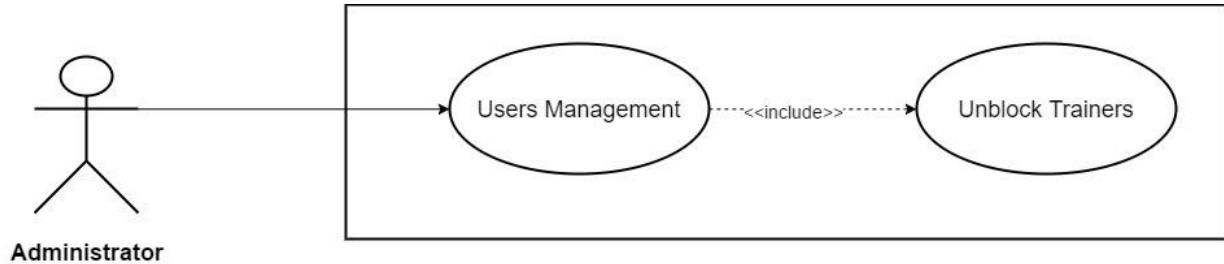


Figure 3.50: Unblock Trainers

<b>Use Case ID</b>	UC39	<b>Version</b>	1.0
<b>Use Case Name</b>	Unblock Trainers		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	12/07/2017
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>	
<b>Description</b>	Unblock Trainers		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> <li>- Trainers must be blocked before unblocked by administrator.</li> </ul>		
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Trainers are unblocked by administrator.</li> </ul>		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Administrator	Click “Go to Dashboard” in the menu.	
2	System	Send Admin to Admin’s Dashboard.	
3	Administrator	Click “Users”.	
4	System	Drop down list include “Learners” and “Trainers”	
5	Administrator	Click “Trainers”	
6	System	Display trainers management page.	

7	Administrator	In “Blocked Trainer” table, click “Unblock” next to trainer’s name that needed to be edit.
8	System	Display dialog box “Do you want to unblock this user?” “Yes” “No”
9	Administrator	Click “Yes” to unblock or “No” to cancel.
10	System	Unblock account from system.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.61: Unlock Trainer

- **Unblock Learners**

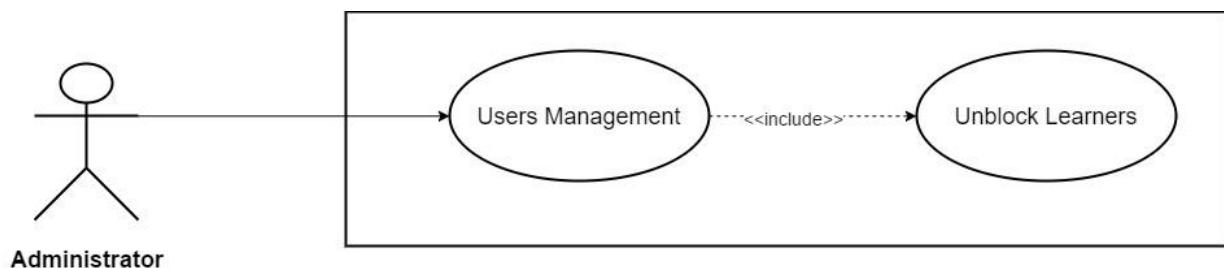


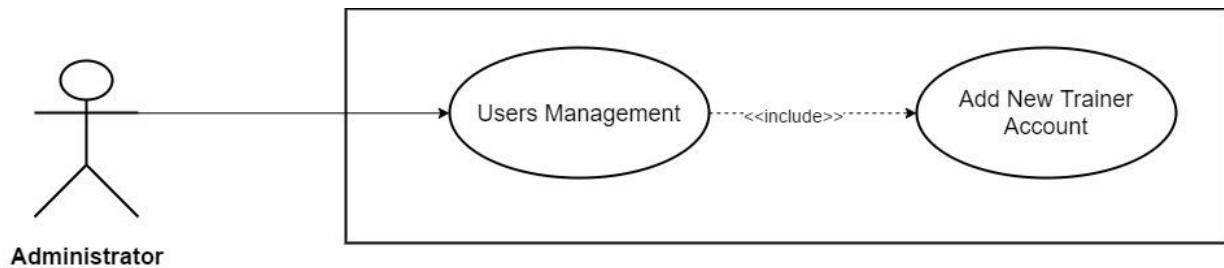
Figure 3.51: Unblock Learners

<b>Use Case ID</b>	UC40	<b>Version</b>	1.0
<b>Use Case Name</b>	Unblock Learner		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	12/07/2017
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>	
<b>Description</b>	Unblock Learner		

<b>Pre-Conditions</b>	- Internet access is required. - You must be Administrator to be able to access dashboard. - Learners must be blocked before unblocked by administrator.	
<b>Post-Conditions</b>	- Learners are unblock by administrator.	
<b>Normal Flows</b>		
Step	Actor	Action
1	Administrator	Click “Go to Dashboard” in the menu.
2	System	Send Admin to Admin’s Dashboard.
3	Administrator	Click “Users”.
4	System	Drop down list include “Learners” and “Trainers”
5	Administrator	Click “Learners”
6	System	Display learner management page.
7	Administrator	In “Blocked Learners” table, click “Unblock” next to learner’s name that needed to be edit.
8	System	Display dialog box “Do you want to unblock this user?” “Yes” “No”
9	Administrator	Click “Yes” to unblock or “No” to cancel.
10	System	Unblock account from system.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.62: Unblock Learner

- **Add New Trainer Account**



*Figure 3.52: Add New Trainer Account*

<b>Use Case ID</b>	UC41	<b>Version</b>	1.0
<b>Use Case Name</b>	Add New Trainer Account		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>	
<b>Description</b>	Add New Trainer Account		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>		
<b>Post-Conditions</b>	New trainer is added into the system.		
<b>Normal Flows</b>			
<b>Step</b>	<b>Actor</b>	<b>Action</b>	
1	Administrator	Click “Go to Dashboard” in the menu.	
2	System	Send Admin to Admin’s Dashboard.	
3	Administrator	Click “Users”.	
4	System	Drop down list include “Learners” and “Trainers”	
5	Administrator	Click “Trainers”	
6	System	Display trainers management page.	
7	Administrator	Enter “Email” and “Password”	

8	Administrator	Click “Create” to save or “Cancel” to cancel.
9	System	Save new account into system
<b>Exception</b>		
<b>EC1</b>	At step 7, all fields are blank.	
Step	Actor	Action
7.1	Administrator	Leave all required field blank.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Please Enter Email and Password!”
<b>EC2</b>	At step 7, <i>Email</i> is left blank.	
Step	Actor	Action
7.1	Administrator	Leave <i>Email</i> field blank.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Please Enter Email!”
<b>EC3</b>	At step 7, only <i>Password</i> is left blank.	
Step	Actor	Action
7.1	Administrator	Leave <i>Password</i> field blank.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Create!”
<b>EC4</b>	At step 7, <i>Email</i> is invalid. (Incorrect <i>Email</i> format: abc@xyz)	
Step	Actor	Action
7.1	Administrator	Enter invalid <i>Email</i> .
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Invalid Email!”
<b>EC5</b>	At step 7, <i>Password</i> 's length < 8.	
Step	Actor	Action
7.1	Administrator	Enter <i>Password</i> less than 8 characters.

7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC6</b>	At step 7, <i>Password</i> does not contain any upper case.	
Step	Actor	Action
7.1	Administrator	Enter <i>Password</i> that does not contain any upper case.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC7</b>	At step 7, <i>Password</i> does not contain any number.	
Step	Actor	Action
7.1	Administrator	Enter <i>Password</i> that does not contain any number.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC8</b>	At step 7, <i>Password</i> does not contain at least one special character.	
Step	Actor	Action
7.1	Administrator	Enter <i>Password</i> does not contain at least one special character.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC9</b>	At step 7, Email address is already registered.	
Step	Actor	Action
7.1	Administrator	Enter email address is already registered.
7.2	Administrator	Click “Create” button.

7.3	System	Display message: “The email address you have entered is already registered.”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	VR2, VR3	

Table 3.63: Add New Trainer’s Account

- **Add New Learner Account**

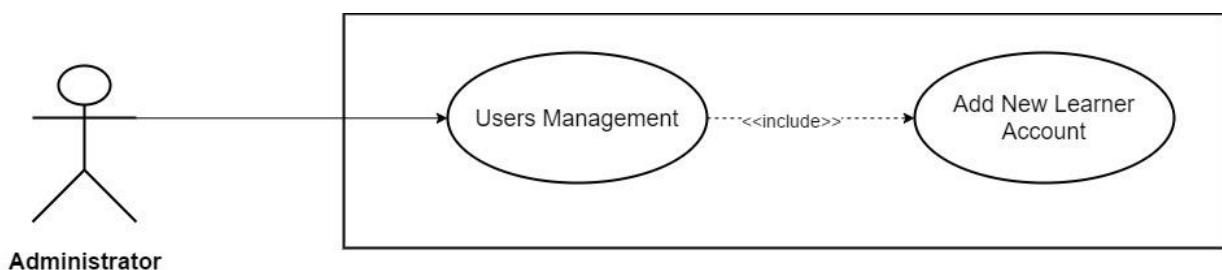


Figure 3.53: Add New Learner Account

<b>Use Case ID</b>	UC42	<b>Version</b>	1.0
<b>Use Case Name</b>	Add New Learner Account		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>	
<b>Description</b>	Add New Learner Account		
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>		

<b>Post-Conditions</b>	- New learner is added into the system.	
<b>Normal Flows</b>		
Step	Actor	Action
1	Administrator	Click “Go to Dashboard” in the menu.
2	System	Send Admin to Admin’s Dashboard.
3	Administrator	Click “Users”.
4	System	Drop down list include “Learners” and “Trainers”
5	Administrator	Click “Learners”
6	System	Display learners management page.
7	Administrator	Enter “Email” and “Password”
8	Administrator	Click “Create” to save or “Cancel” to cancel.
9	System	Save new account into system
<b>Exception</b>		
<b>EC1</b>	At step 7, all fields are blank.	
Step	Actor	Action
7.1	Administrator	Leave all required field blank.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Please Enter Email and Password!”
<b>EC2</b>	At step 7, <i>Email</i> is left blank.	
Step	Actor	Action
7.1	Administrator	Leave <i>Email</i> field blank.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Please Enter Email!”
<b>EC3</b>	At step 7, only <i>Password</i> is left blank.	
Step	Actor	Action
7.1	Administrator	Leave <i>Password</i> field blank.

7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Create!”
<b>EC4</b>	At step 7, <i>Email</i> is invalid. (Incorrect <i>Email</i> format: abc@xyz)	
Step	Actor	Action
7.1	Administrator	Enter invalid <i>Email</i> .
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Invalid Email!”
<b>EC5</b>	At step 7, <i>Password</i> ’s length < 8.	
Step	Actor	Action
7.1	Administrator	Enter <i>Password</i> less than 8 characters.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC6</b>	At step 7, <i>Password</i> does not contain any upper case.	
Step	Actor	Action
7.1	Administrator	Enter <i>Password</i> that does not contain any upper case.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC7</b>	At step 7, <i>Password</i> does not contain any number.	
Step	Actor	Action
7.1	Administrator	Enter <i>Password</i> that does not contain any number.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC8</b>	At step 7, <i>Password</i> does not contain at least one special character.	

Step	Actor	Action
7.1	Administrator	Enter <i>Password</i> does not contain at least one special character.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “Password must contains at least one upper case, one number, one special character and length must be >8!”
<b>EC9</b>	At step 7, Email address is already registered.	
Step	Actor	Action
7.1	Administrator	Enter email address is already registered.
7.2	Administrator	Click “Create” button.
7.3	System	Display message: “The email address you have entered is already registered.”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	VR2, VR3	

Table 3.64: Add New Learner’s Account

- **Edit Trainer’s Information**

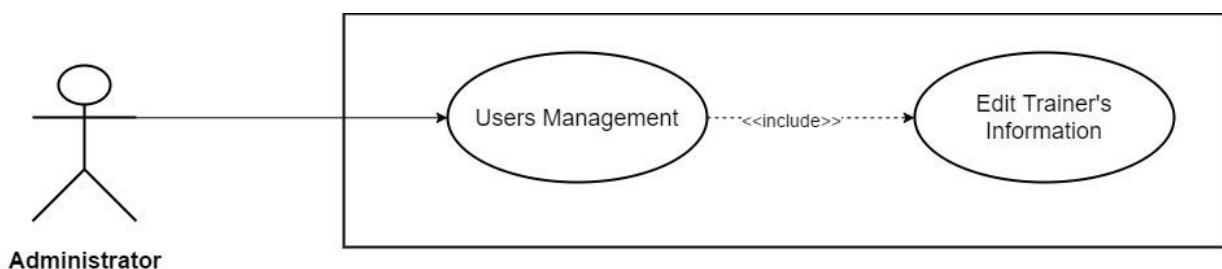


Figure 3.54: Edit Trainer’s Information

<b>Use Case ID</b>	UC43	<b>Version</b>	1.0		
<b>Use Case Name</b>	Edit Trainer's Information				
<b>Create By</b>	TruongTN	<b>Last Updated</b>	12/07/2017		
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>			
<b>Description</b>	Edit Trainer's Information				
<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>				
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Trainer's information is edited.</li> </ul>				
<b>Normal Flows</b>					
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
1	Administrator	Click “Go to Dashboard” in the menu.			
2	System	Send Admin to Admin’s Dashboard.			
3	Administrator	Click “Users”.			
4	System	Drop down list include “Learners” and “Trainers”			
5	Administrator	Click “Trainers”			
6	System	Display trainers management page.			
7	Administrator	Click “Edit” next to trainer’s name that needed to be edit.			
8	Administrator	Fill in all information that Administrator want to edit.			
9	Administrator	Click “Save” to save new information and “Cancel” to cancel.			
10	System	Save new information account into system			
<b>Exception</b>					
<b>EC1</b>	At step 8, Administrator remove all required field and leave it blank.				
<b>Step</b>	<b>Actor</b>	<b>Action</b>			
8.1	Administrator	Remove and leave all required field blank.			

8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Fill In All Required Field!”
<b>EC2</b>	At step 8, Administrator only remove Trainer Name and leave it blank.	
Step	Actor	Action
8.1	Administrator	Remove and leave Trainer Name blank.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Enter Trainer Name!”
<b>EC3</b>	At step 8, only <i>Fields</i> is not selected.	
Step	Actor	Action
8.1	Administrator	Do not select <i>Fields</i> .
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Select Fields!”
<b>EC4</b>	At step 8, Administrator remove and leave <i>Contact</i> blank.	
Step	Actor	Action
8.1	Administrator	Remove and leave <i>Contact</i> field blank.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Enter Password!”
<b>EC5</b>	At step 8, Administrator only remove and leave <i>Address</i> blank.	
Step	Actor	Action
8.1	Administrator	Remove and leave <i>Address</i> blank.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Enter Address!”
<b>EC6</b>	At step 8, <i>Introduction</i> ’s length > 200 character.	
Step	Actor	Action
8.1	Administrator	Enter more than 200 character in <i>Introduction</i> field.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Length must be < 200”

Priority	High
Frequency of Use	High
Business and Validation Rules	VR1, BR8

Table 3.65: Edit Trainer Information

- **Edit Learner's Information**

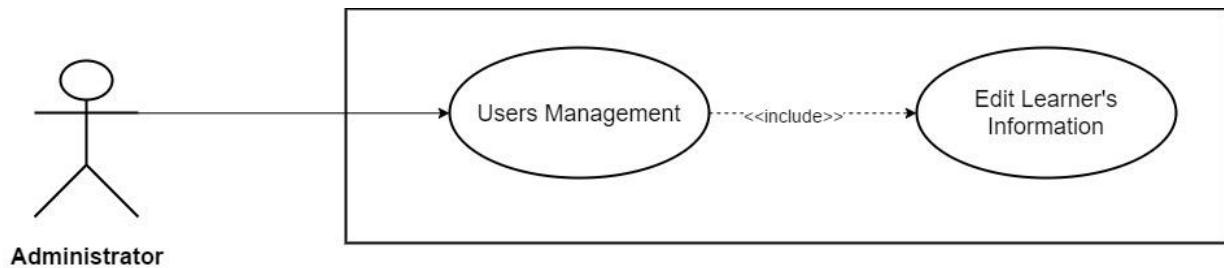


Figure 3.55: Edit Learner's Information

Use Case ID	UC44	Version	1.0
Use Case Name	Edit Learner's Information		
Create By	TruongTN	Last Updated	12/07/2017
Primary Actor	Administrator	Secondary Actor	
Description	Edit Learner's Information		
Pre-Conditions	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>		
Post-Conditions	- Learner's new information is updated into database.		
Normal Flows			
Step	Actor	Action	

1	Administrator	Click “Go to Dashboard” in the menu.
2	System	Send Admin to Admin’s Dashboard.
3	Administrator	Click “Users”.
4	System	Drop down list include “Learners” and “Trainers”
5	Administrator	Click “Learners”
6	System	Display learners management page.
7	Administrator	Click “Edit” next to learner’s name that needed to be edit.
8	Administrator	Fill in all information that Administrator want to edit.
9	Administrator	Click “Save” to save new information and “Cancel” to cancel.
10	System	Save new information account into system
<b>Exception</b>		
<b>EC1</b>	At step 8, Administrator remove all required field and leave it blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
8.1	Administrator	Remove and leave all required field blank.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Fill In All Required Field!”
<b>EC2</b>	At step 8, Administrator only remove First Name and leave it blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
8.1	Administrator	Remove and leave First Name blank.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Enter First Name!”
<b>EC3</b>	At step 8, Administrator only remove Last Name and leave it blank.	
<b>Step</b>	<b>Actor</b>	<b>Action</b>
8.1	Administrator	Remove and leave Last Name blank.
8.2	Administrator	Click “Save” button.

8.3	System	Display message: “Please Enter Last Name!”
<b>EC4</b>	At step 8, Administrator leave Date of Birth blank.	
Step	Actor	Action
8.1	Administrator	Leave Date of Birth blank.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Enter Date of Birth!”
<b>EC5</b>	At step 8, Administrator remove and leave <i>Contact</i> blank.	
Step	Actor	Action
8.1	Administrator	Remove and leave <i>Contact</i> field blank.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Enter Password!”
<b>EC6</b>	At step 8, Administrator only remove and leave <i>Job</i> blank.	
Step	Actor	Action
8.1	Administrator	Remove and leave <i>Job</i> blank.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Please Enter Job!”
<b>EC7</b>	At step 8, <i>Introduction</i> ’s length > 200 character.	
Step	Actor	Action
8.1	Administrator	Enter more than 200 character in <i>Introduction</i> field.
8.2	Administrator	Click “Save” button.
8.3	System	Display message: “Length must be < 200”
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	VR1, BR9	

Table 3.66: Edit Learner Information

- Delete Trainer's Account

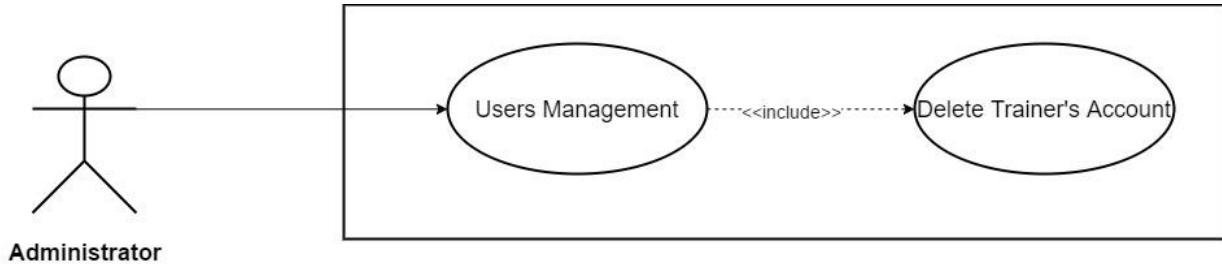


Figure 3.56: Delete Trainer's Account

Use Case ID	UC45	Version	1.0
Use Case Name	Delete Trainer's Account		
Create By	TruongTN	Last Updated	21/05/2017
Primary Actor	Administrator	Secondary Actor	
Description	Delete Trainer's Account		
Pre-Conditions	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- Trainer's account is removed from the system.</li> </ul>		
Normal Flows			
Step	Actor	Action	
1	Administrator	Click “Go to Dashboard” in the menu.	
2	System	Send Admin to Admin’s Dashboard.	
3	Administrator	Click “Users”.	
4	System	Drop down list include “Learners” and “Trainers”	
5	Administrator	Click “Trainers”	
6	System	Display trainers management page.	
7	Administrator	Click “Delete” next to trainer’s name that needed to be edit.	

8	System	Display dialog box “Do you want to delete this user?” “Yes” “No”
9	Administrator	Click “Yes” to delete or “No” to cancel.
10	System	Delete account from system.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.67: Delete Trainer Account

- **Delete Learner’s Account**

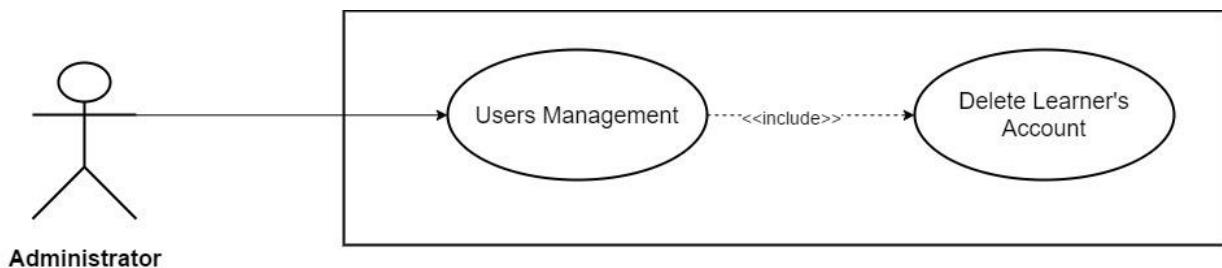


Figure 3.57: Delete Learner’s Account

<b>Use Case ID</b>	UC46	<b>Version</b>	1.0
<b>Use Case Name</b>	Delete Learner’s Account		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Administrator	<b>Secondary Actor</b>	
<b>Description</b>	Delete Learner’s Account		

<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- Internet access is required.</li> <li>- You must be Administrator to be able to access dashboard.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Learner's account is removed from the system.</li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Administrator	Click "Go to Dashboard" in the menu.
2	System	Send Admin to Admin's Dashboard.
3	Administrator	Click "Users".
4	System	Drop down list include "Learners" and "Trainers"
5	Administrator	Click "Learners"
6	System	Display learner management page.
7	Administrator	Click "Delete" next to learner's name that needed to be edit.
8	System	Display dialog box "Do you want to delete this user?" "Yes" "No"
9	Administrator	Click "Yes" to delete or "No" to cancel.
10	System	Delete account from system.
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

Table 3.68: Delete Learner's Account

### 3.2.2.6 Administrator/Learner

- Edit Profile (Learner)

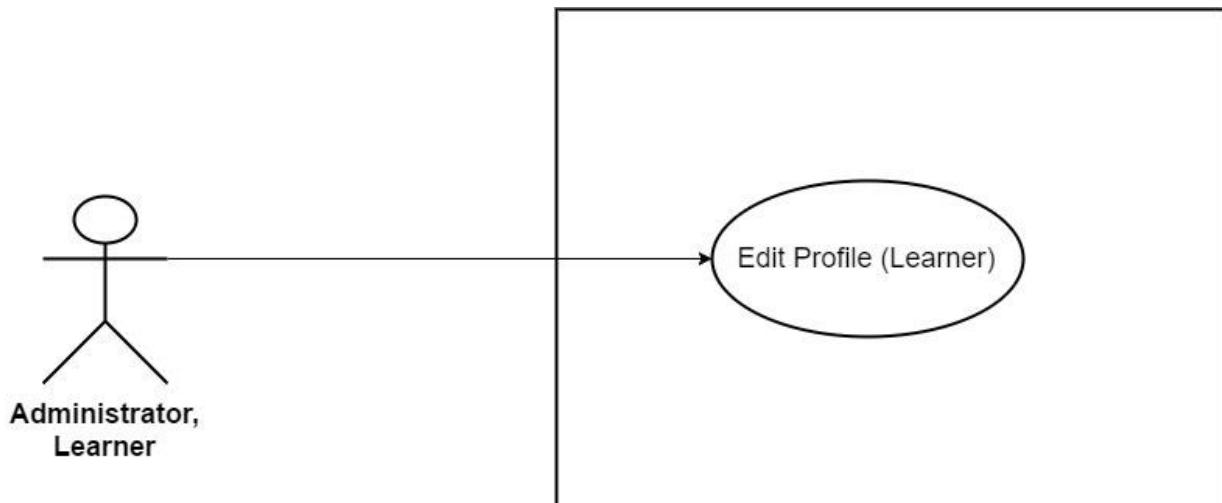


Figure 3.58: Edit Profile (Learner)

Use Case ID	UC47	Version	1.0
Use Case Name	Edit Profile (Learner)		
Create By	TruongTN	Last Updated	21/05/2017
Primary Actor	Learner	Secondary Actor	Administrator
Description	Edit account's information for Learner.		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login as learner first.</li> <li>- Internet connection is required.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- New account information is saved and updated into system.</li> </ul>		
<b>Normal Flows</b>			
Step	Actor	Action	
1	Learner	Move mouse to Learner's name to the right of search bar.	

2	System	Display drop-down list.
3	Learner	Click “My Profile”
4	System	Send Trainer to “My Profile” page
5	System	Display “My Profile” page which contain the following information: <ul style="list-style-type: none"><li>- Email</li><li>- First Name</li><li>- Last Name</li><li>- Gender</li><li>- Date of Birth</li><li>- Contact</li><li>- Job</li><li>- Introduction</li></ul>
6	Learner	Enter all the information that they wish to edit. Email can't be edit. Gender can't be blank.
7	Learner	Click “Save” button.
8	System	Update information into system's Database.
9	System	Display “My Profile” page with updated information.

### Exception

<b>EC1</b>	At step 6, Learner remove all required field and leave it blank.	
Step	Actor	Action
6.1	Learner	Remove and leave all required field blank.
6.2	Learner	Click “Save” button.
6.3	System	Display message: “Please Fill In All Required Field!”
<b>EC2</b>	At step 6, Learner only remove First Name and leave it blank.	
Step	Actor	Action
6.1	Learner	Remove and leave First Name blank.

6.2	Learner	Click “Save” button.
6.3	System	Display message: “Please Enter First Name!”
<b>EC3</b>	At step 6, Learner only remove Last Name and leave it blank.	
Step	Actor	Action
6.1	Learner	Remove and leave Last Name blank.
6.2	Learner	Click “Save” button.
6.3	System	Display message: “Please Enter Last Name!”
<b>EC4</b>	At step 6, Learner leave Date of Birth blank.	
Step	Actor	Action
6.1	Learner	Leave Date of Birth blank.
6.2	Learner	Click “Save” button.
6.3	System	Display message: “Please Enter Date of Birth!”
<b>EC5</b>	At step 6, Learner remove and leave <i>Contact</i> blank.	
Step	Actor	Action
6.1	Learner	Remove and leave <i>Contact</i> field blank.
6.2	Learner	Click “Save” button.
6.3	System	Display message: “Please Enter Password!”
<b>EC6</b>	At step 6, Learner only remove and leave <i>Job</i> blank.	
Step	Actor	Action
6.1	Learner	Remove and leave <i>Job</i> blank.
6.2	Learner	Click “Save” button.
6.3	System	Display message: “Please Enter Job!”
<b>EC7</b>	At step 6, <i>Introduction</i> ’s length > 200 character.	
Step	Actor	Action
6.1	Learner	Enter more than 200 character in <i>Introduction</i> field.
6.2	Learner	Click “Save” button.
6.3	System	Display message: “Length must be < 200”

<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>	BR1	

Table 3.69: Edit Profile (Learner)

- **Save Course**

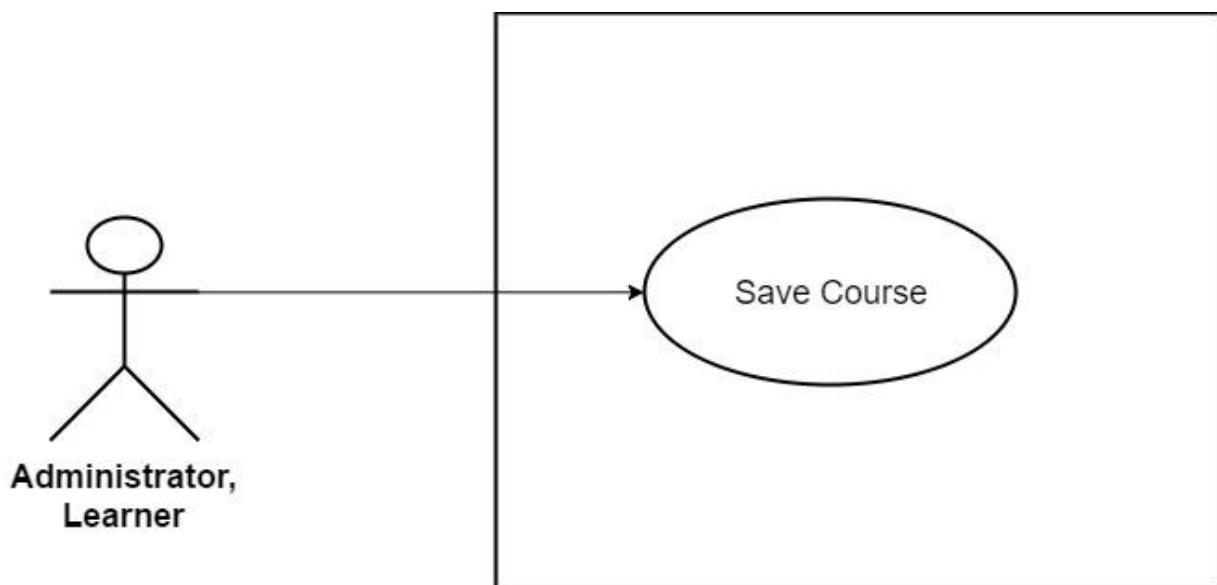


Figure 3.59: Save Course

<b>Use Case ID</b>	UC48	<b>Version</b>	1.0
<b>Use Case Name</b>	Save Course		
<b>Create By</b>	TruongTN	<b>Last Updated</b>	21/05/2017
<b>Primary Actor</b>	Learner	<b>Secondary Actor</b>	Administrator
<b>Description</b>	Save course.		

<b>Pre-Conditions</b>	<ul style="list-style-type: none"> <li>- User must login as Learner first.</li> <li>- Internet connection is required.</li> <li>- User must be Learner or Administrator.</li> </ul>	
<b>Post-Conditions</b>	<ul style="list-style-type: none"> <li>- Selected course is saved.</li> </ul>	
<b>Normal Flows</b>		
Step	Actor	Action
1	Learner	Click the flag in the top-left corner of course image.
2	System	Display message: "Course Saved!"
<b>Exception</b>		
EC1	At step 1, Learner click save course that has already been saved.	
1.1	Learner	Click save course that has already been saved.
1.2	System	Display message: "Course Unsaved!"
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

*Table 3.70: Save Course*

- View Course Saved List

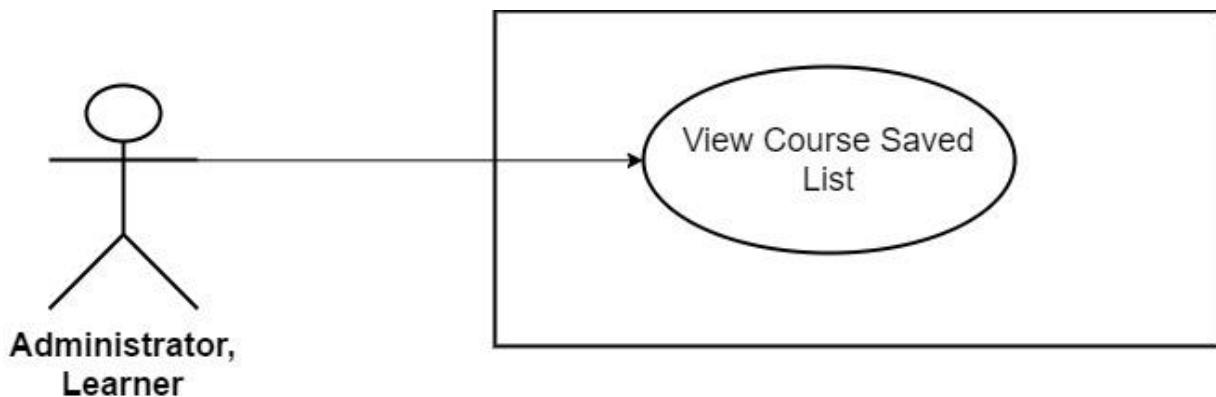


Figure 3.60: View Course Saved List

Use Case ID	UC49	Version	1.0
Use Case Name	View Course Saved List		
Create By	TruongTN	Last Updated	21/05/2017
Primary Actor	Learner	Secondary Actor	Administrator
Description	View Course Save List		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login first.</li> <li>- Internet connection is required.</li> <li>- User must be Learner or Administrator.</li> </ul>		
Post-Conditions	<ul style="list-style-type: none"> <li>- Display course saved list.</li> </ul>		
Normal Flows			
Step	Actor	Action	
1	Learner	Move mouse to Learner's name to the right of search bar.	
2	System	Display drop-down list.	
3	Learner	Click "Course Saved"	
4	System	Display "Course Saved" page .	

Priority	High
Frequency of Use	High
Business and Validation Rules	

Table 3.71: View Course Saved List

- **View Course View History**

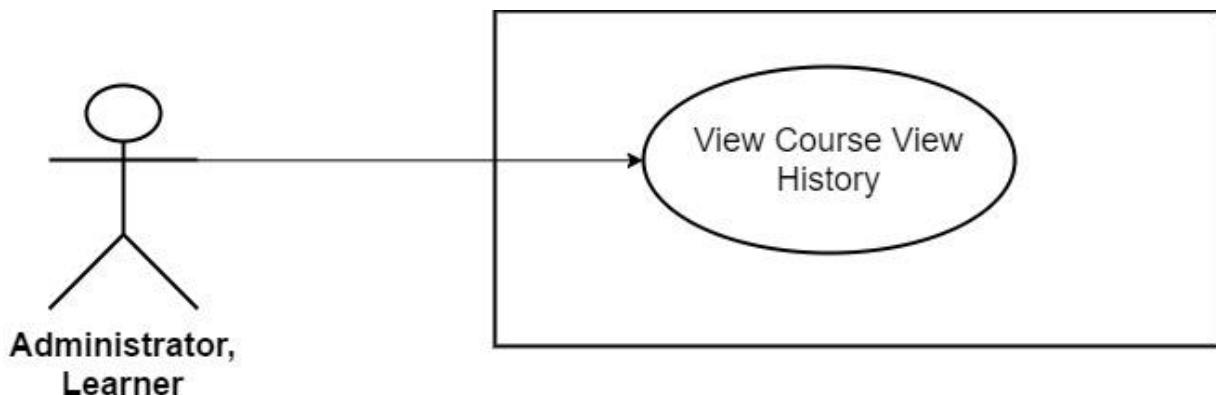


Figure 3.61: View Course View History

Use Case ID	UC50	Version	1.0
Use Case Name	View Course View History		
Create By	TruongTN	Last Updated	21/05/2017
Primary Actor	Learner	Secondary Actor	Administrator
Description	View Course View History		
Pre-Conditions	<ul style="list-style-type: none"> <li>- User must login as Learner first.</li> <li>- Internet connection is required.</li> </ul>		

<b>Post-Conditions</b>	- Display course view history.	
<b>Normal Flows</b>		
<b>Step</b>	<b>Actor</b>	<b>Action</b>
1	Trainer	Move mouse to Learner's name to the right of search bar.
2	System	Display drop-down list.
3	Trainer	Click "View's History"
4	System	Display "View's History" page .
<b>Priority</b>	High	
<b>Frequency of Use</b>	High	
<b>Business and Validation Rules</b>		

*Table 3.72: View Course View History*

## 3.4 Non-Functional Requirement

### 3.4.1 Usability

- The website's UI must be simple, elegant, logical and easy to use.
- Follow Bootstrap framework make design stripped down to the basics, removes any stylistic choices that give it the illusion of three-dimensionality.
- Responsive design, user can easily access by mobile, table and other devices.

### 3.4.2 Security

The security matrix is as follow:

<b>Functional</b>	<b>Guest</b>	<b>Learner</b>	<b>Trainer</b>	<b>Administrator</b>
<b>Sign Up as Trainer</b>	✓			
<b>Sign Up as Learner</b>	✓			

<b>Sign In</b>		✓	✓	✓
<b>Log Out</b>		✓	✓	✓
<b>Change Password</b>		✓	✓	✓
<b>Forget Password</b>		✓	✓	✓
<b>Update Profile Picture</b>		✓	✓	✓
<b>View Personal Profile</b>		✓	✓	✓
<b>Send Message</b>		✓	✓	✓
<b>View Messages</b>		✓	✓	✓
<b>Delete Message</b>		✓	✓	✓
<b>Comment Course</b>		✓	✓	✓
<b>Edit Comment</b>		✓	✓	✓
<b>Delete Comment</b>		✓	✓	✓
<b>Rate Course</b>		✓	✓	✓
<b>Rate Trainer</b>		✓	✓	✓
<b>View Course Statistic</b>			✓	✓
<b>Create New Course</b>			✓	✓
<b>Edit Course Detail</b>			✓	✓
<b>Delete Courses</b>			✓	✓
<b>Upload Documents</b>			✓	✓
<b>Delete Documents</b>			✓	✓
<b>View Documents Dashboard</b>			✓	✓
<b>Edit Profile Trainer</b>			✓	✓
<b>View Course Detail</b>	✓	✓	✓	✓
<b>Search Course</b>	✓	✓	✓	✓

<b>View Trainer List</b>	✓	✓	✓	✓
<b>View Other Public Profile</b>	✓	✓	✓	✓
<b>View Course Comment</b>	✓	✓	✓	✓
<b>View Course's Rate</b>	✓	✓	✓	✓
<b>View Trainer's Rate</b>	✓	✓	✓	✓
<b>View Document Picture</b>	✓	✓	✓	✓
<b>View Website Statistic</b>				✓
<b>Review Trainer's Document</b>				✓
<b>Review New Course</b>				✓
<b>Review Trainer's Account</b>				✓
<b>Block Learners</b>				✓
<b>Block Trainers</b>				✓
<b>Unblock Learners</b>				✓
<b>Unblock Trainers</b>				✓
<b>Add New Trainer Account</b>				✓
<b>Add New Learner Account</b>				✓
<b>Edit Trainer's Information</b>				✓
<b>Edit Learner's Information</b>				✓
<b>Delete Trainer's Account</b>				✓

<b>Delete Learner's Account</b>				✓
<b>Edit Profile (Learner)</b>		✓		✓
<b>Save Course</b>		✓		✓
<b>View Course Saved List</b>		✓		✓
<b>View Course View History</b>		✓		✓

# Chapter 4: Software Project Design Description

## 4.1 Purpose

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

- Architecture overview
- Database design
- Detailed design
- Detailed description of components

## 4.2 System Architecture

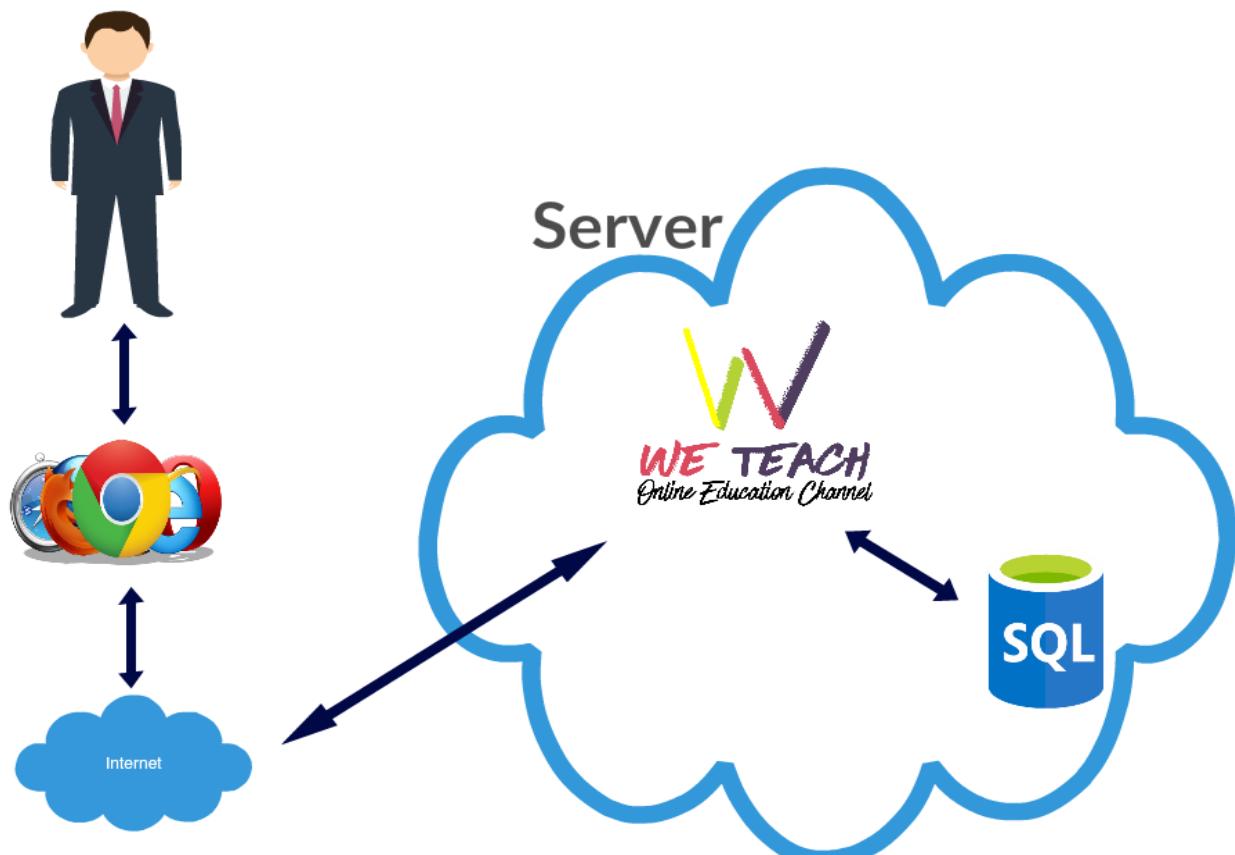


Figure 4.1: System Architecture

## 4.3 Database Design

### 4.3.1 Database Diagram

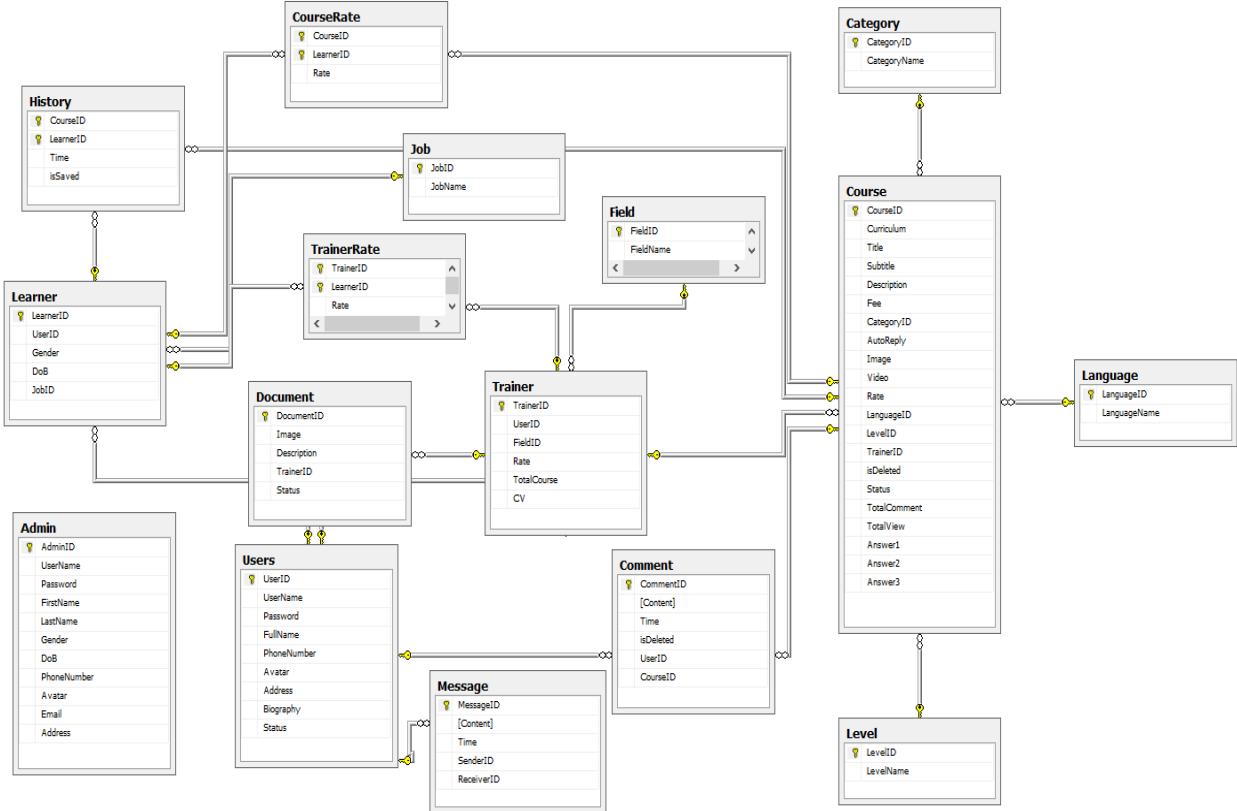


Figure 4.2: Database

### 4.3.2 Database Detail

- Course

No	Field Name	Type	Allow Null	Description
1	CourseID	Int	No	Course's ID
2	Curriculum	varbinary()	No	Course's curriculum
3	Title	nvarchar()	No	Course's title
4	Subtitle	nvarchar()	No	Course's subtitle

5	Description	nvarchar()		Course's description
6	Fee	float	No	Course's fee
7	CategoryID	nvarchar()		Category's id
8	Image	varbinary()		Course's Image
9	Video	nvarchar()		Course's video
10	Rate	float		Course's rate
11	LanguageID	int	No	Course's language id
12	LevelID	int	No	Course's level id
13	TrainerID	int	No	Course's trainer id
14	isDeleted	bit	No	Delete
15	Status	smallint	No	Course's status
16	TotalComment	int		Number of comment
17	TotalView	int	No	Number of view
18	Answer1	nvarchar()		Course goal
19	Answer2	nvarchar()		Course goal
20	Answer3	nvarchar()		Course goal

Table 4.1: Database Detail - Course

- **Level**

No	Field Name	Type	Mandatory	Description
1	LevelID	int	No	Course's Level ID
2	LevelName	nvarchar()	No	Course's level name

*Table 4.2: Database Detail - Level*

- **Category**

No	Field Name	Type	Mandatory	Description
1	CategoryID	int	No	Course's category ID
2	CategoryName	nvarchar()	No	Course's category name

*Table 4.3: Database Detail - Category*

- **Language**

No	Field Name	Type	Mandatory	Description
1	LanguageID	int	No	Course's language ID
2	LanguageName	nvarchar()	No	Course's language name

*Table 4.4: Database Detail - Language*

- **Comment**

No	Field Name	Type	Mandatory	Description
1	CommentID	int	No	Course's comment ID
2	Content	nvarchar()	No	Course's comment content
3	Time	datetime	No	Comment time

4	isDeleted	bit	No	Delete
5	UserID	int	No	User's id
6	CourseID	int	No	Course's id

*Table 4.5: Database Detail - Comment*

- Course Rate

No	Field Name	Type	Mandatory	Description
1	CourseID	int	No	Course's id
2	LearnerID	int	No	Learner's id
3	Rate	int		Course's rate

*Table 4.6: Database Detail – Course Rate*

- History

No	Field Name	Type	Mandatory	Description
1	CourseID	int	No	Course's id
2	LearnerID	int	No	Learner's id
3	Time	datetime	No	View Time
4	isSaved	bit	No	Save

*Table 4.7: Database Detail - History*

- Field

No	Field Name	Type	Mandatory	Description
1	FieldID	int	No	Field's id
2	FieldName	nvarchar()	No	Field's name

*Table 4.8: Database Detail - Field*

- **Document**

No	Field Name	Type	Mandatory	Description
1	DocumentID	int	No	Document's id
2	Image	varbinary()	No	Document Image
3	Description	nvarchar()		Description
4	TrainerID	int	No	Trainer's id
5	Status	smallint	No	Status

*Table 4.9: Database Detail - Document*

- **Trainer**

No	Field Name	Type	Mandatory	Description
1	TrainerID	int	No	Trainer's id
2	UserID	int	No	User's id
3	FieldID	int	No	Field's id
4	Rate	float		Trainer's rate
5	TotalCourse	int		Total course

*Table 4.10: Database Detail - Trainer*

- **Learner**

No	Field Name	Type	Mandatory	Description
1	LearnerID	int	No	Learner's Id
2	UserID	int	No	User's id
3	Gender	int		Learner's gender
4	DOB	date		Learner's dob
5	JobID	int	No	Learner's job id

*Table 4.11: Database Detail - Learner*

- **Message**

No	Field Name	Type	Mandatory	Description
1	MessageID	int	No	Message's id
2	Content	nvarchar()	No	Message's content
3	Time	datetime	No	Time send message
4	SenderId	int	No	Sender's id
5	ReceiverID	int	No	Receiver's id

*Table 4.12: Database Detail - Message*

- **Trainer Rate**

No	Field Name	Type	Mandatory	Description
1	TrainerID	int	No	Trainer's id
2	LearnerID	int	No	Learner's id
3	Rate	int		Trainer's Rate

*Table 4.13: Database Detail - Rate*

- **Users**

No	Field Name	Type	Mandatory	Description
1	UserID	int	No	User's ID
2	UserName	nvarchar()	No	Username
3	Password	nvarchar()	No	Password
4	FullName	nvarchar()	No	User's fullname

5	PhoneNumber	nvarchar()		User's number
6	Avatar	varbinary()		Avatar
7	Address	nvarchar()		User's address
8	Biography	nvarchar()		User's biography
9	Status	Smallint	No	Status

*Table 4.14: Database Detail - Users*

- **Admin**

No	Field Name	Type	Mandatory	Description
1	AdminID	int	No	Admin's id
2	UserName	nvarchar()	No	Username
3	Password	nvarchar()	No	Password
4	FirstName	nvarchar()	No	Admin's first name
5	LastName	nvarchar()	No	Admin's last name
6	Gender	smallint		Gender
7	DOB	Date		Admin's dob
8	PhoneNumber	nvarchar()		Admin's number
9	Avatar	varbinary()		Admin's avatar
10	Email	nvarchar()	No	Admin's email
11	Address	nvarchar()		Admin's address

*Table 4.15: Database Detail - Admin*

- Job

No	Field Name	Type	Mandatory	Description
1	JobID	int	no	Job's id
2	JobName	nvarchar()	no	Job's Name

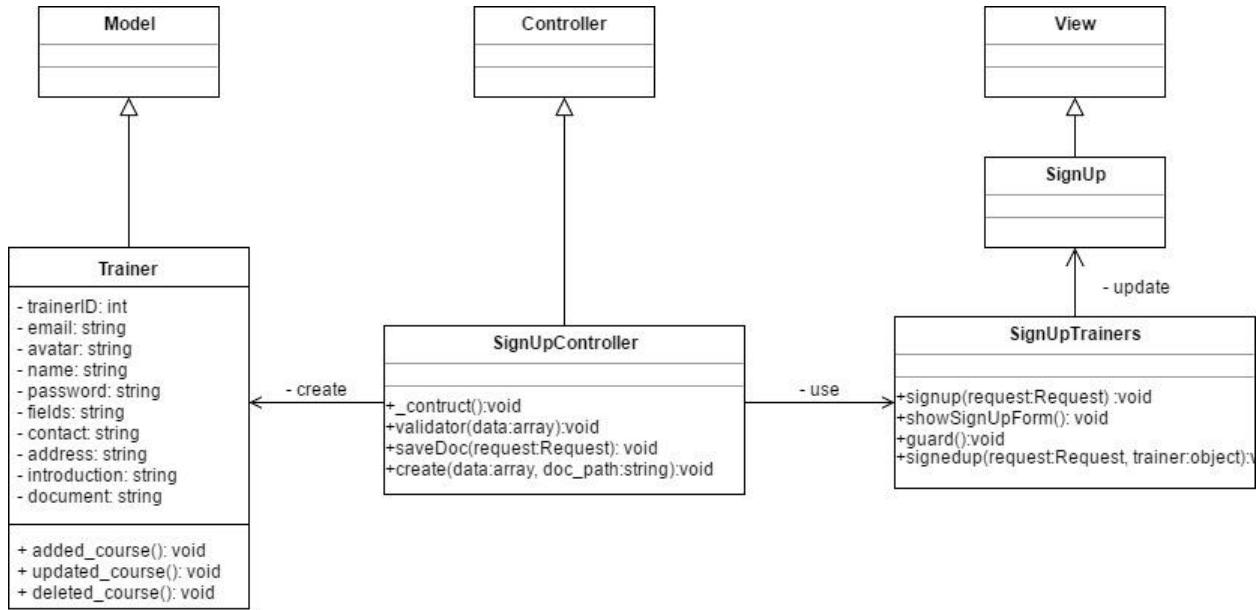
Table 4.16: Database Detail - Job

## 4.4 Detailed Design

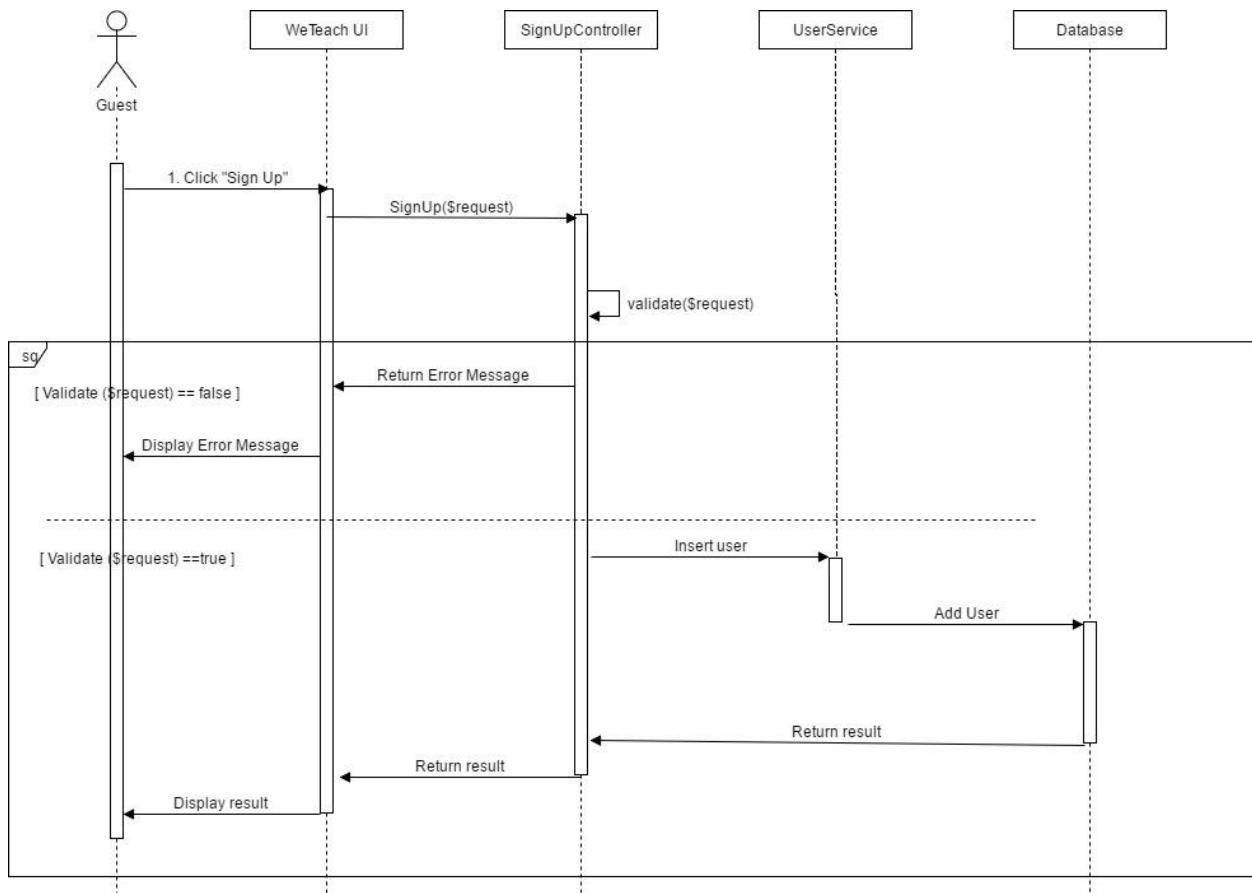
### 4.4.1 Sign Up as Trainer Description

User sign up for new account to become a Trainer.

#### Class Diagram



## Sequence Diagram

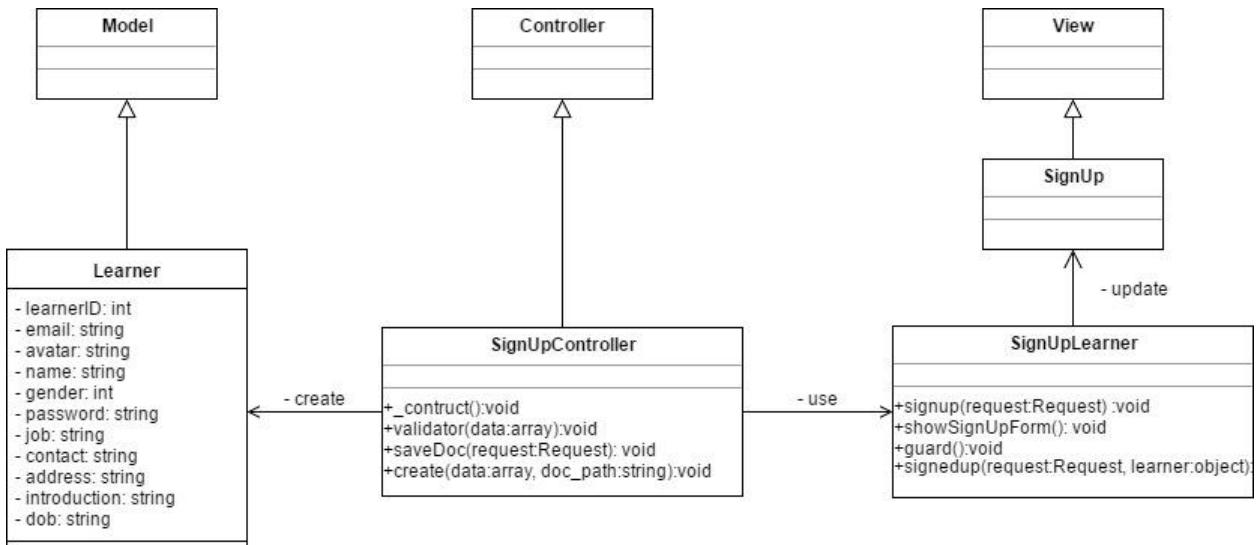


## 4.4.2 Sign Up as Learner

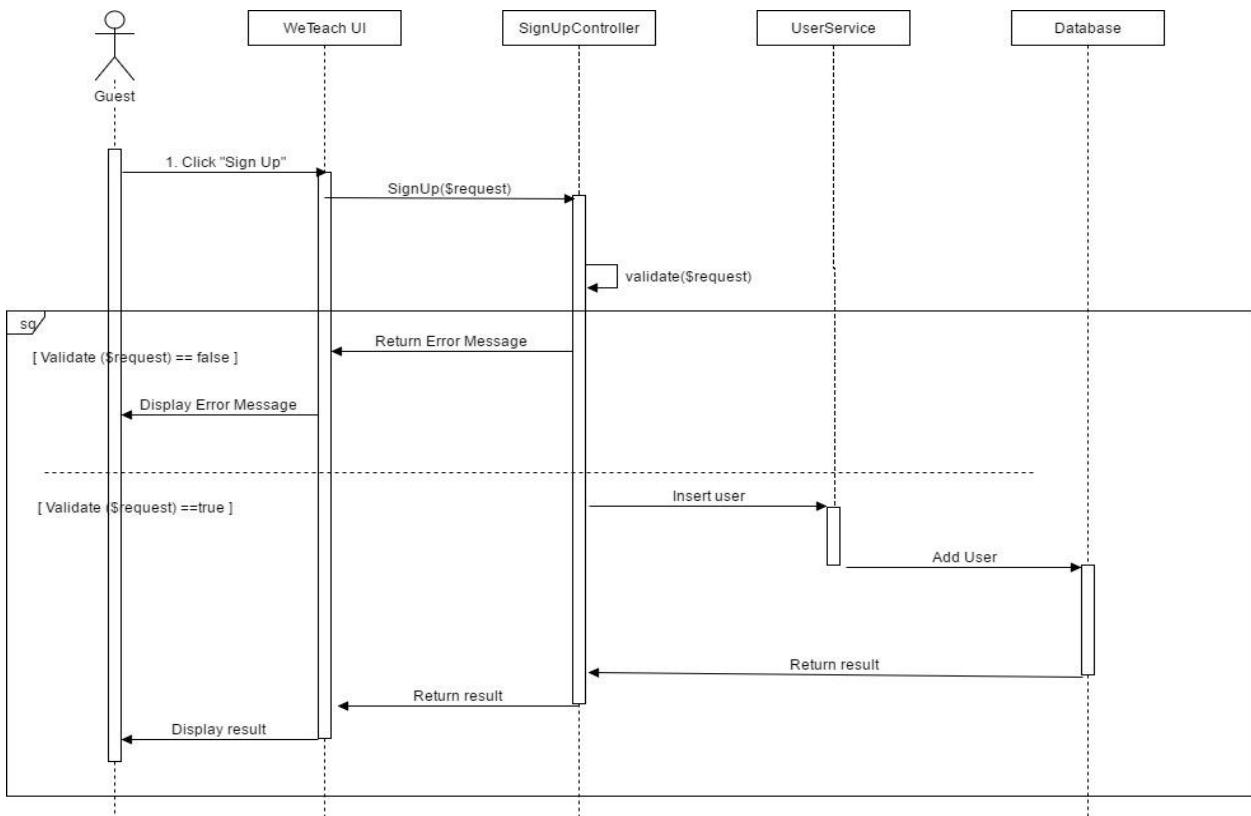
### Description

User sign up for new account to become a Learner.

### Class Diagram



### Sequence Diagram

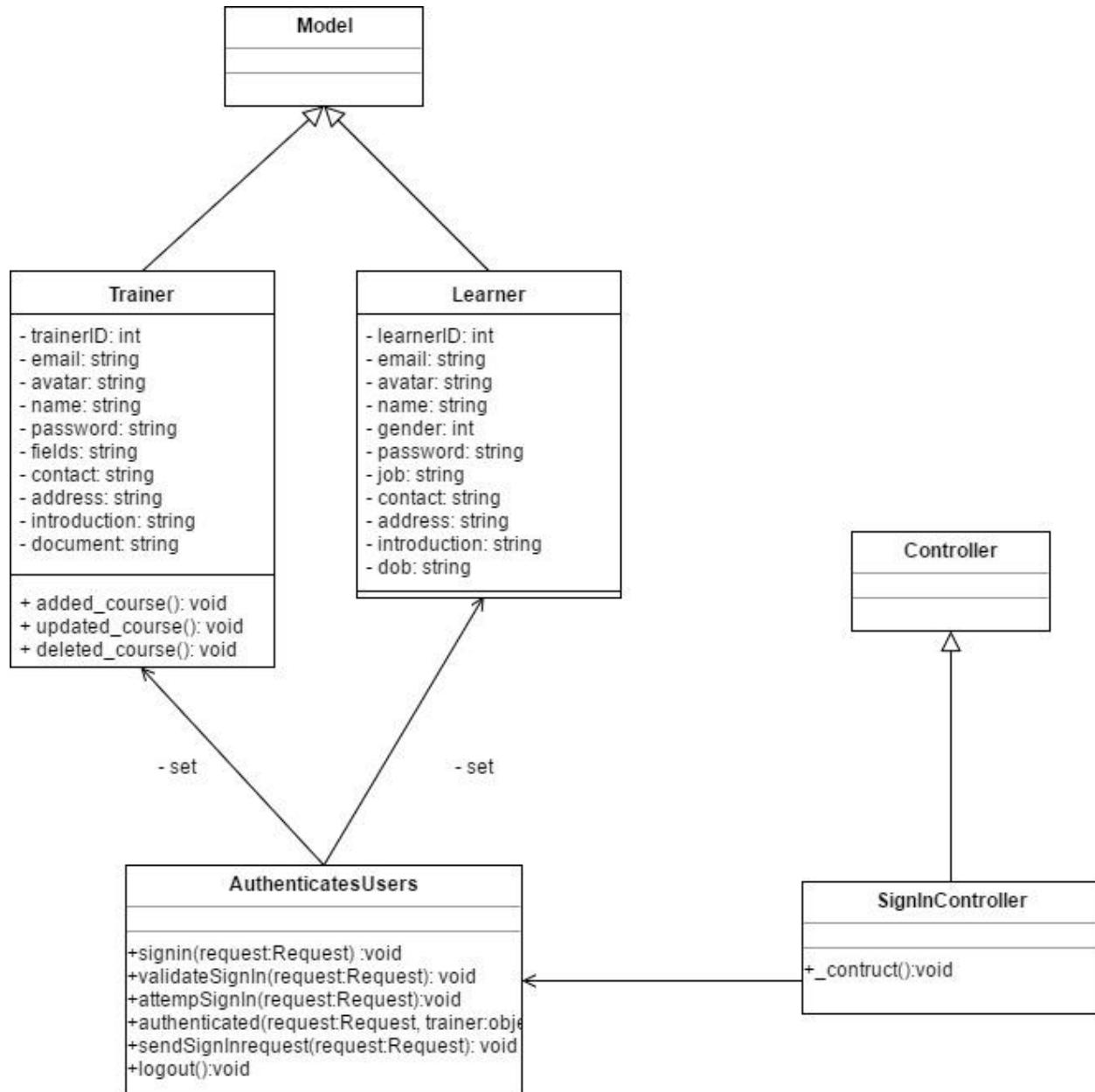


### 4.4.3 Sign In

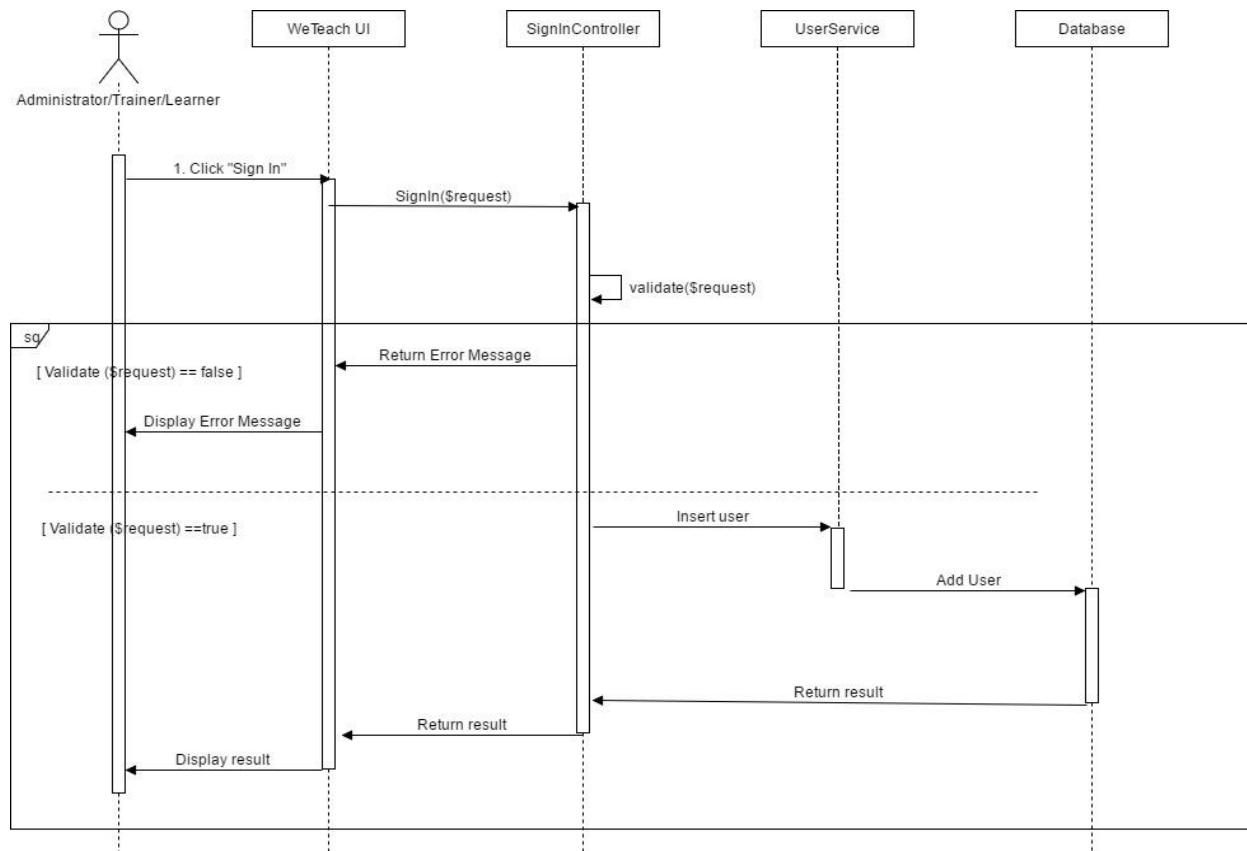
#### Description

User can sign in into system with registered account.

#### Class Diagram



## Sequence Diagram

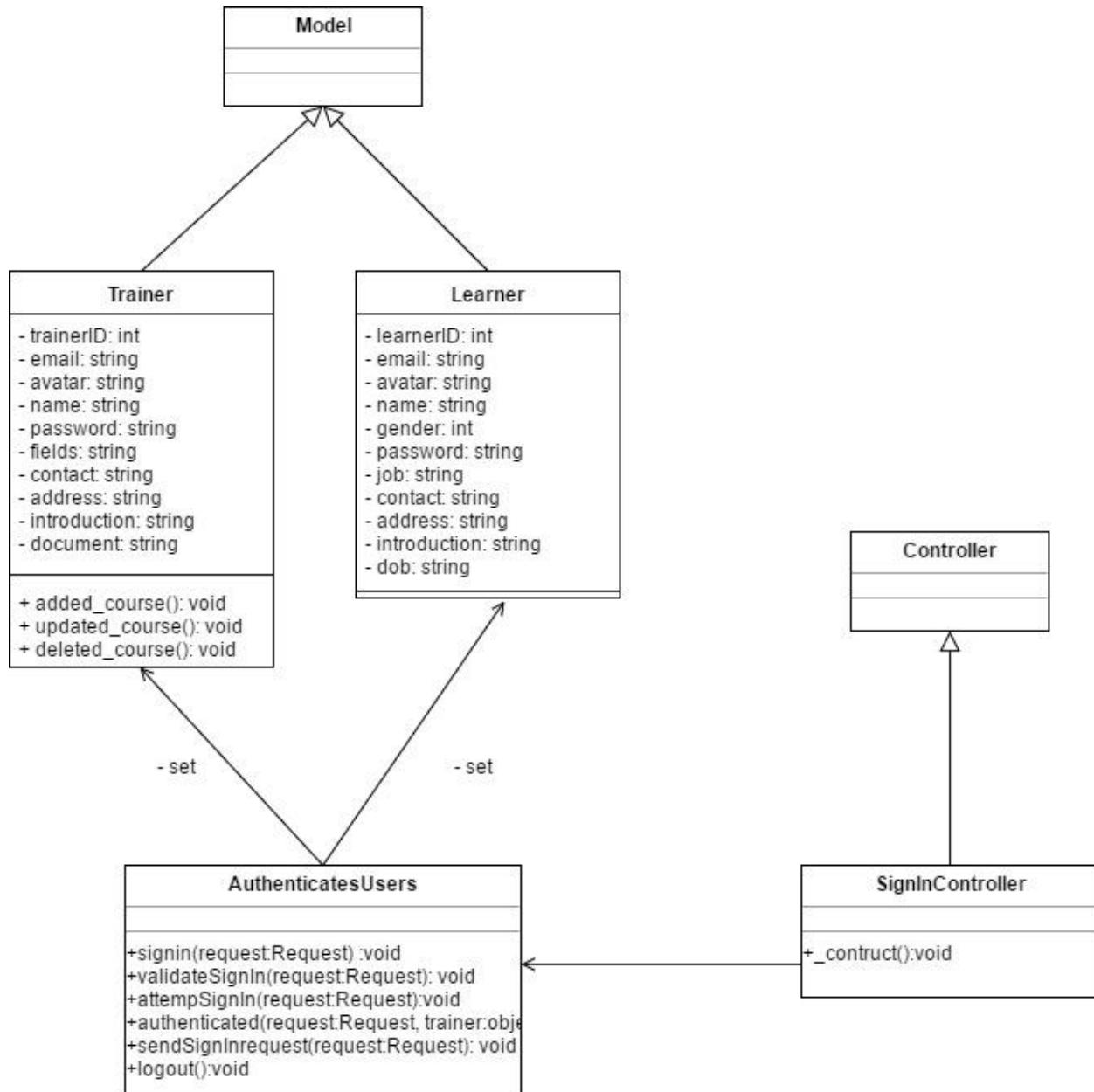


#### 4.4.4 Log Out

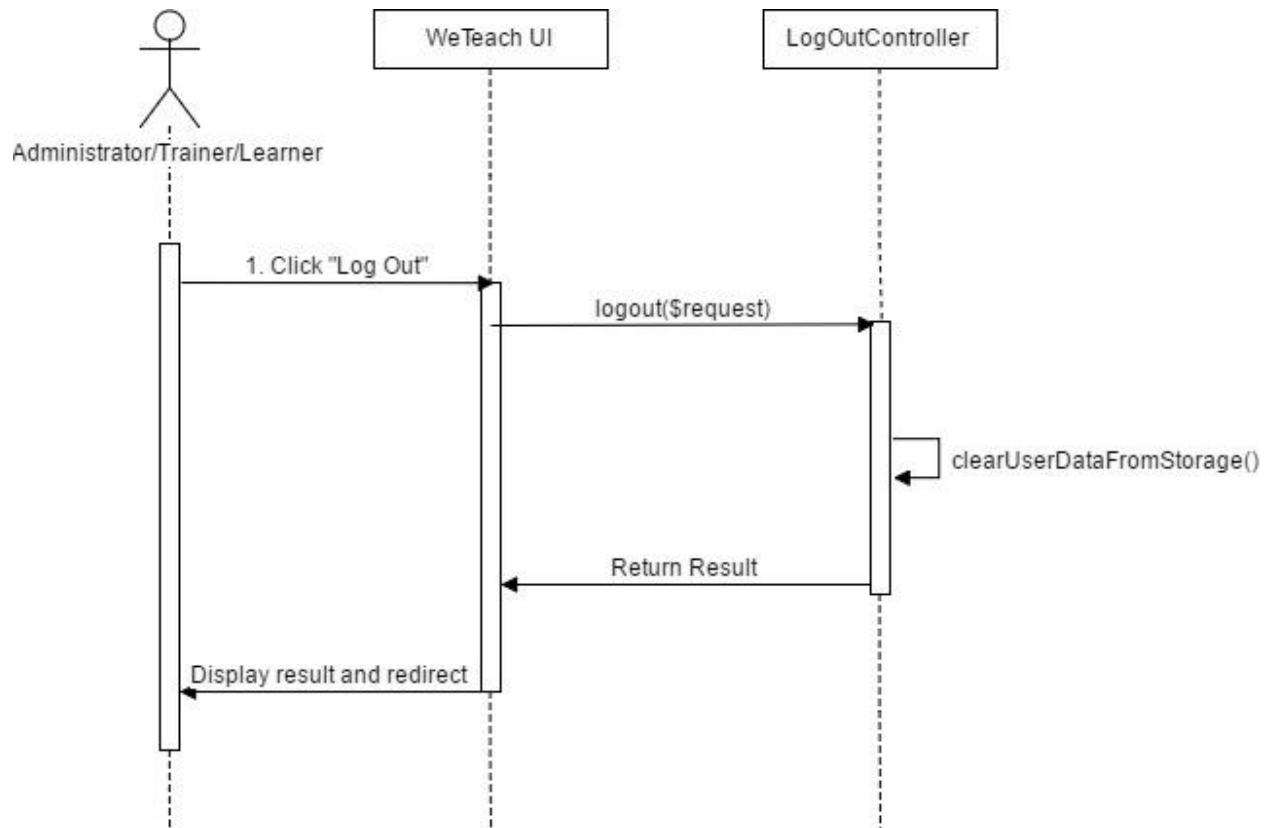
##### Description

User can log out of the system.

**Class Diagram**



## Sequence Diagram

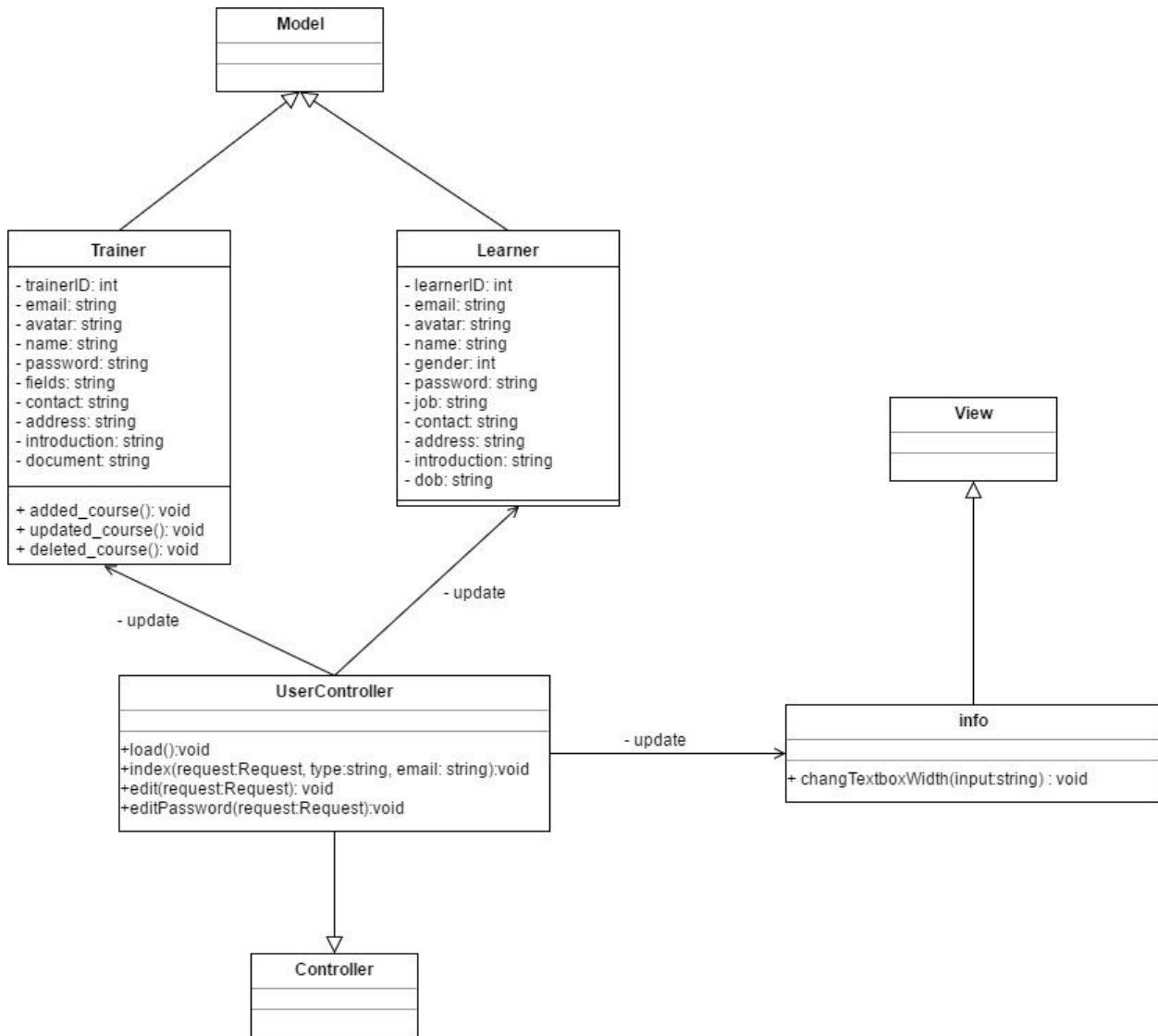


#### 4.4.5 Change Password

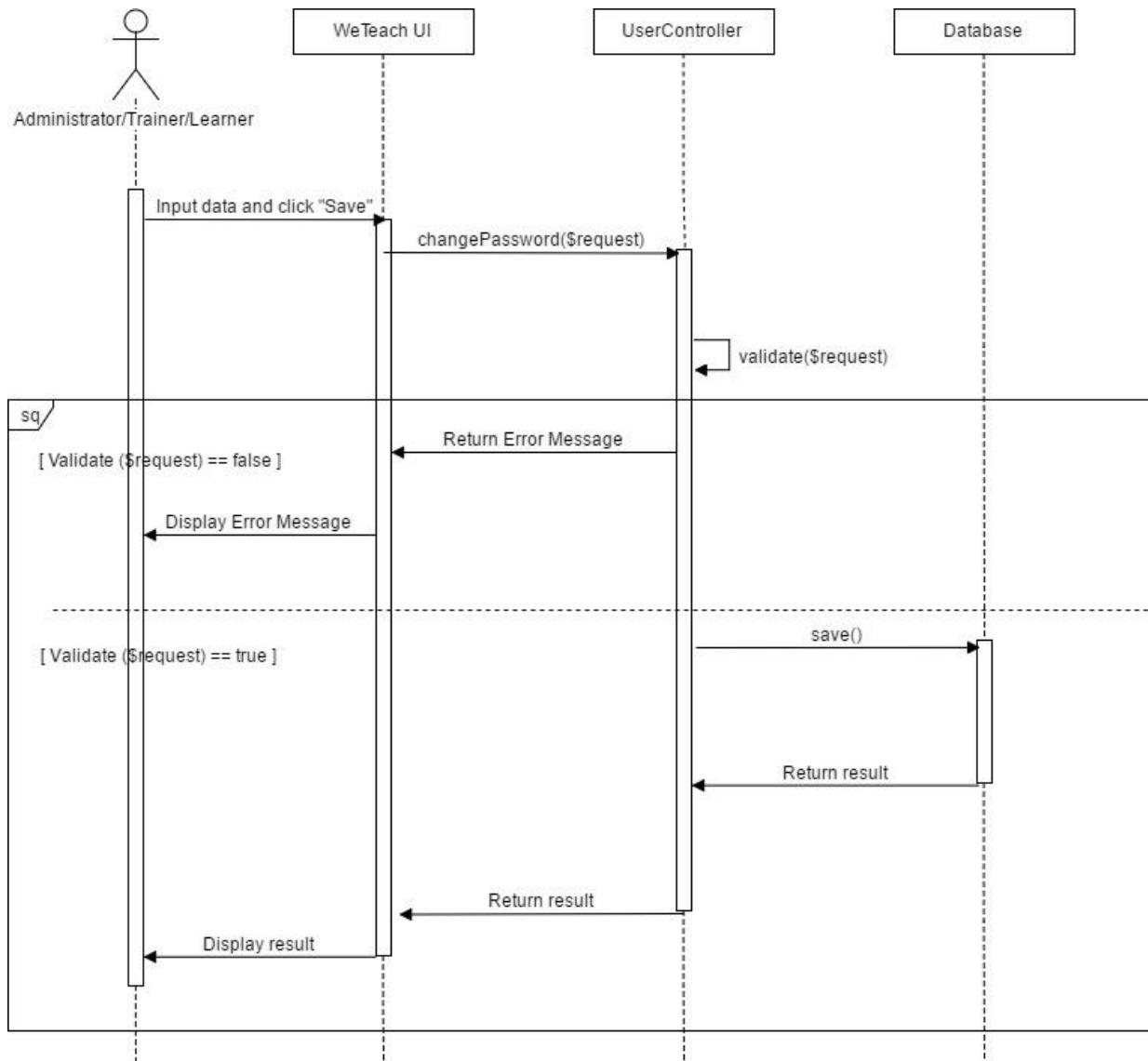
##### Description

User can change their account's password.

##### Class Diagram



##### Sequence Diagram

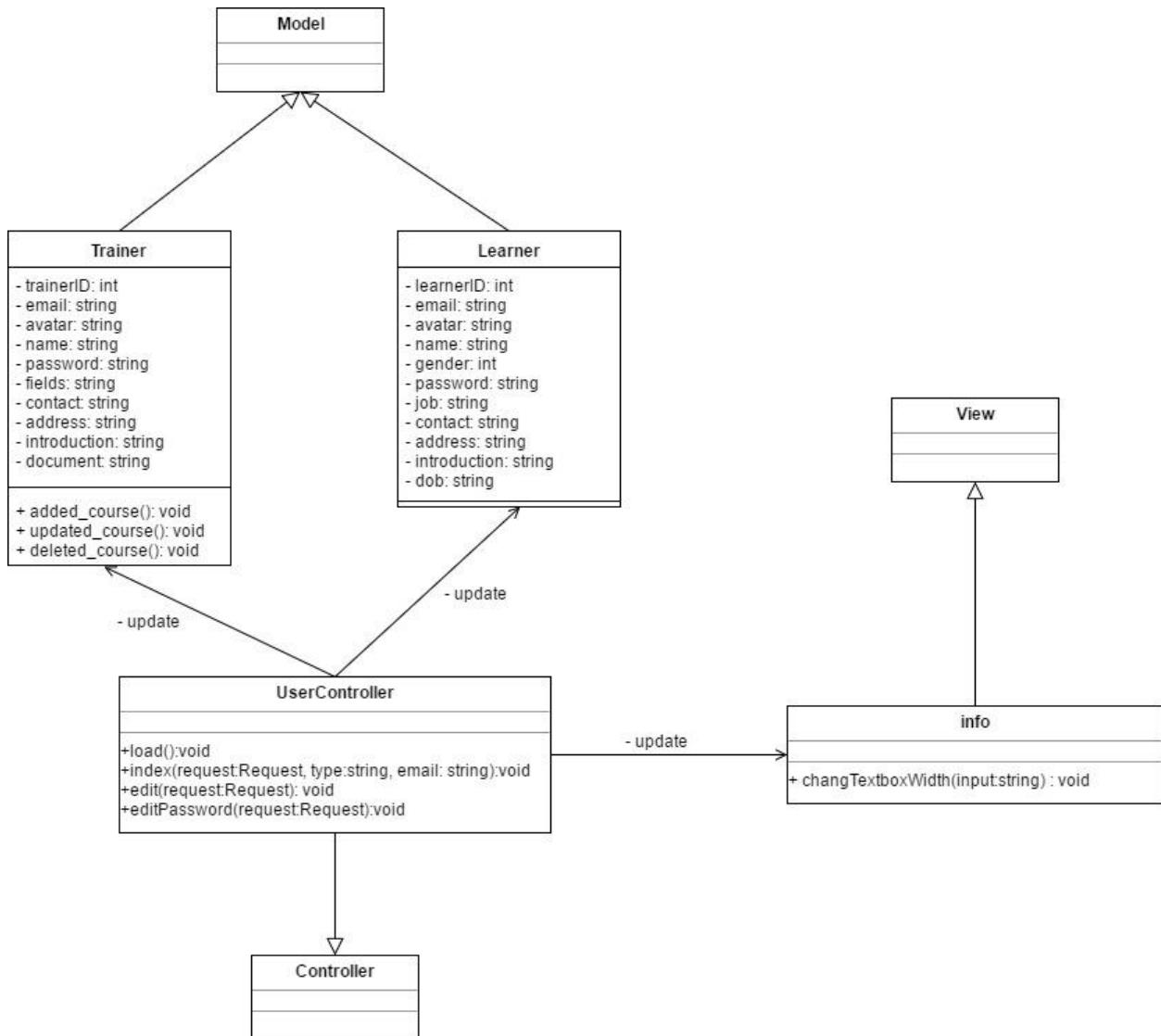


#### 4.4.6 Forget Password

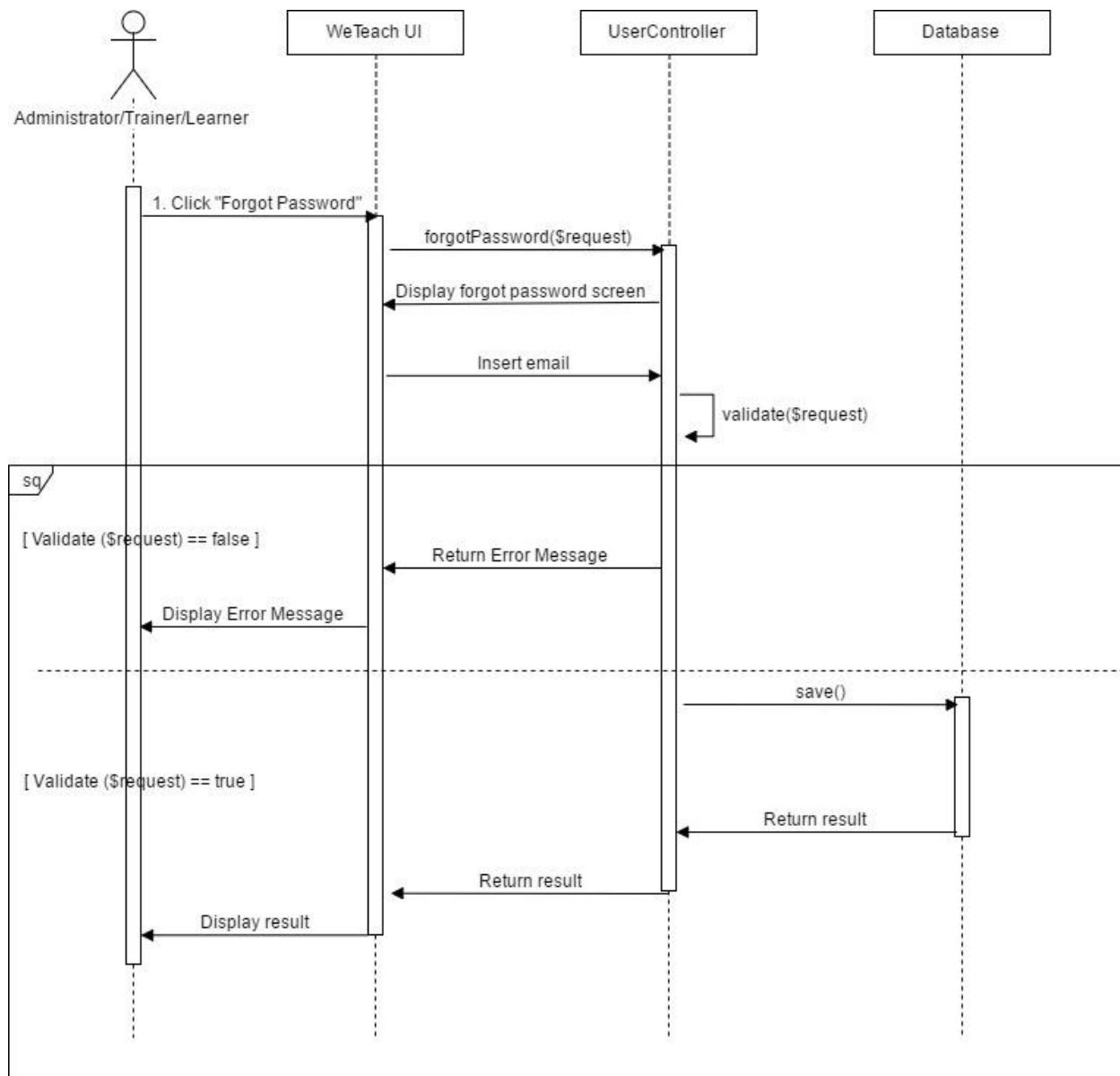
##### Description

User can request new password when forget the old one.

##### Class Diagram



##### Sequence Diagram

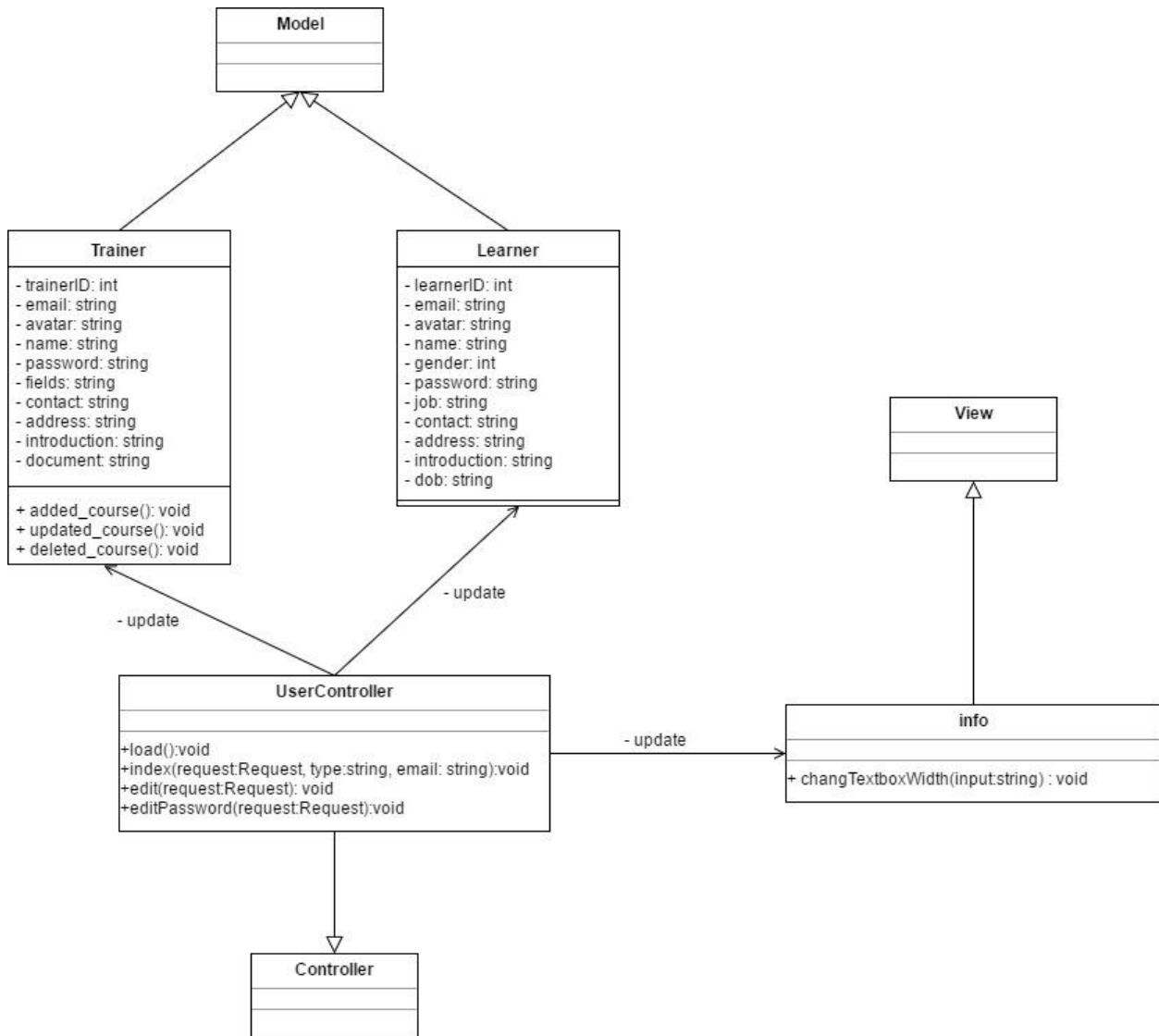


#### 4.4.7 Update Profile Picture

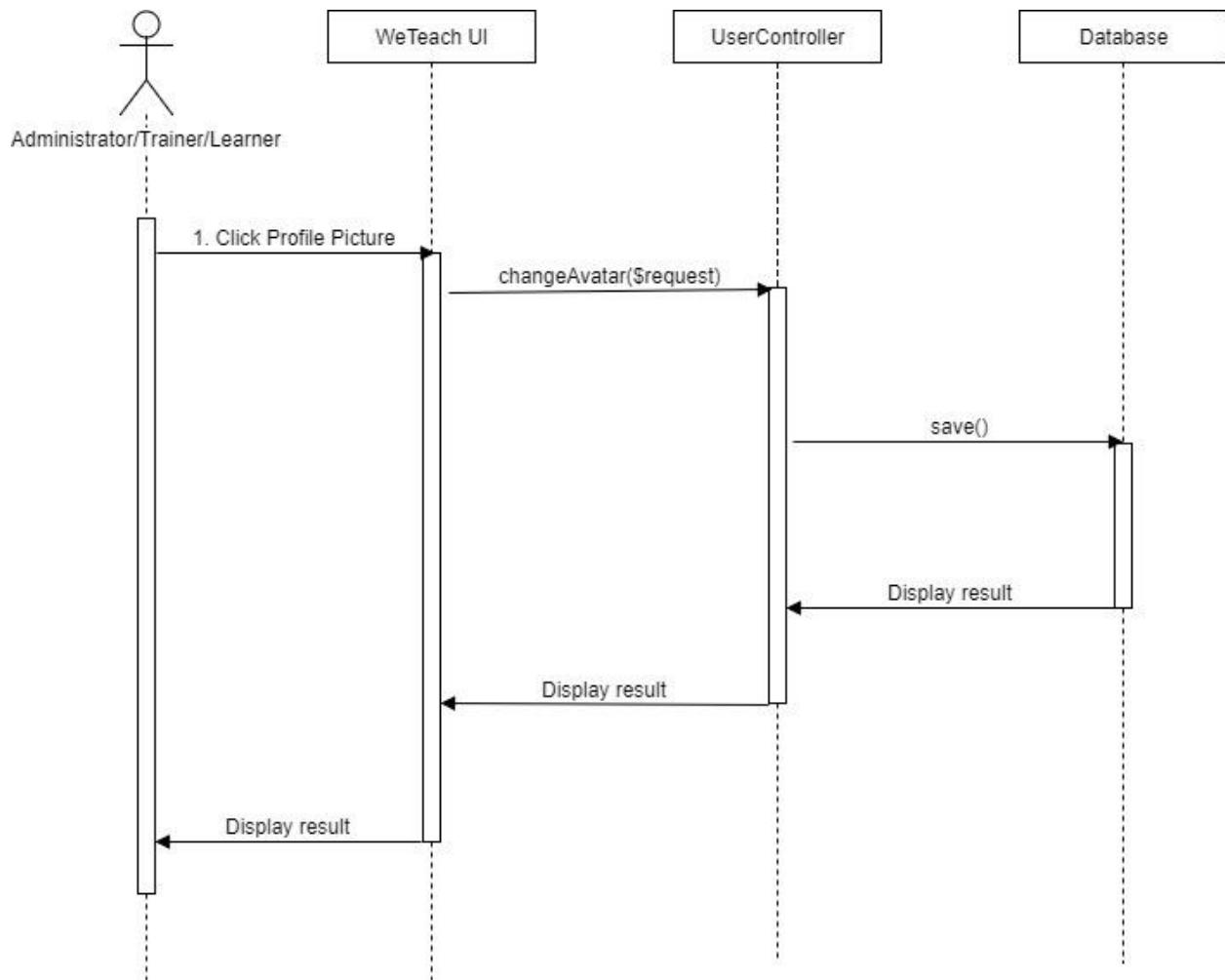
##### Description

User can update their profile picture.

##### Class Diagram



##### Sequence Diagram

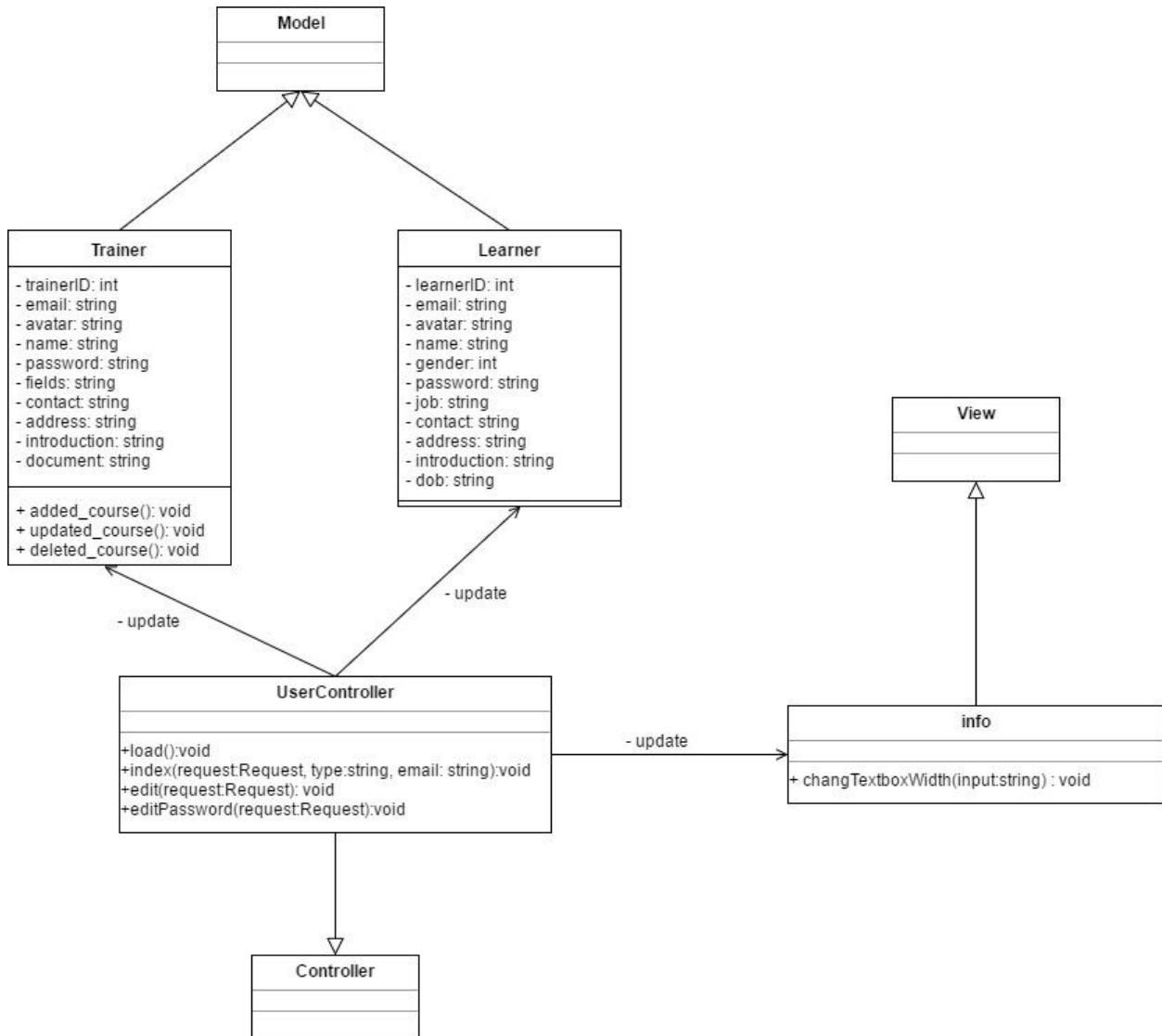


#### 4.4.8 View Personal Profile

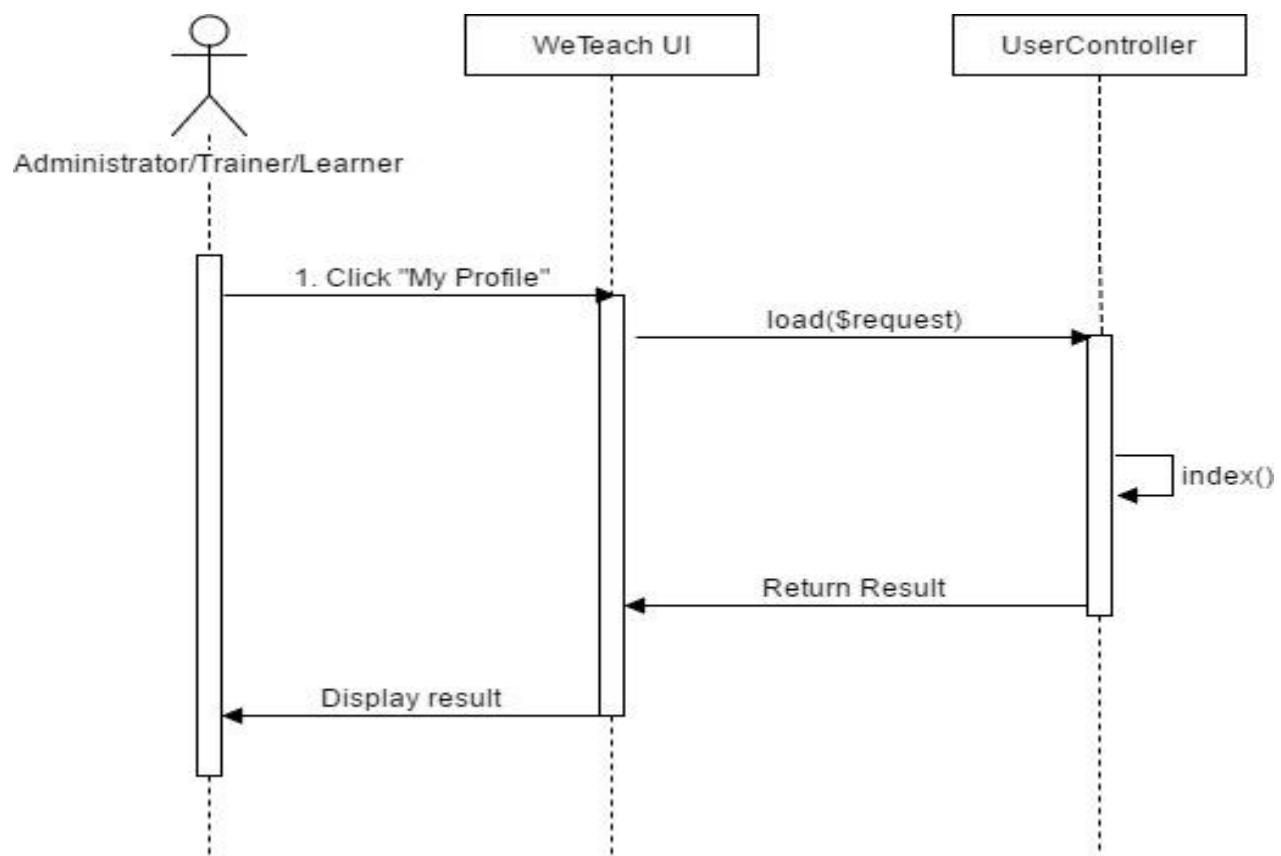
##### Description

User can view their profile information.

**Class Diagram**



## Sequence Diagram

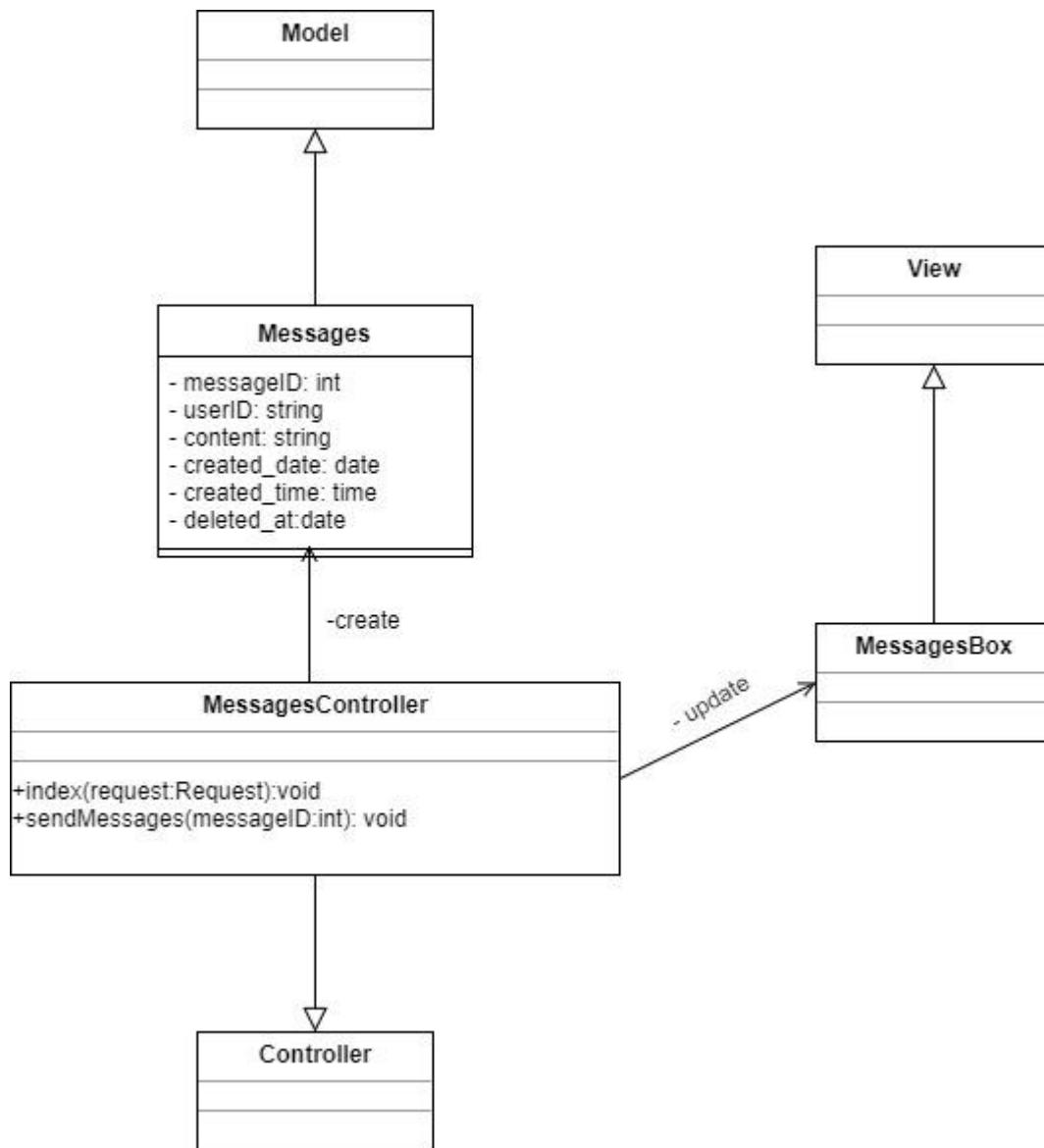


#### 4.4.9 Send Message

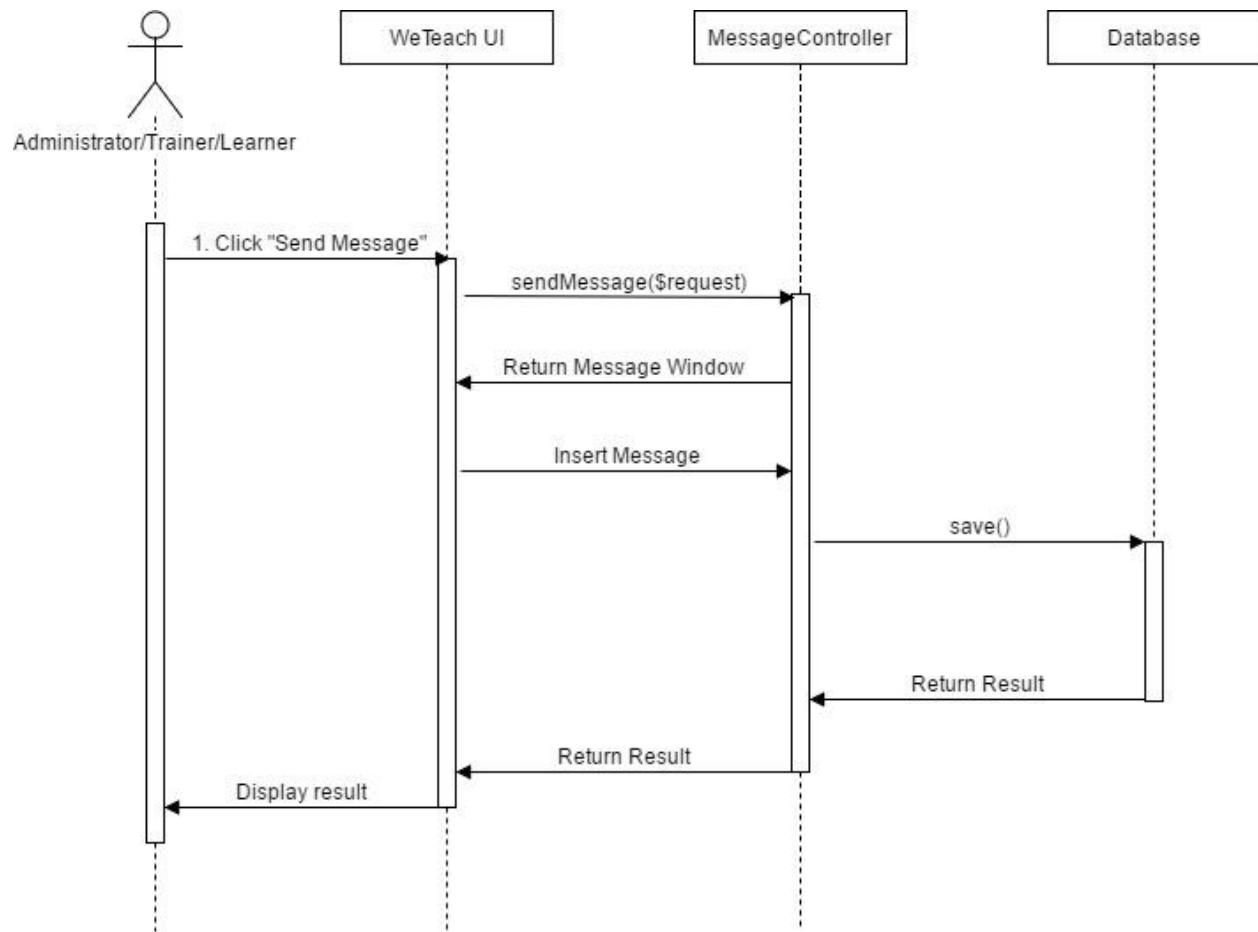
##### **Description**

User can send message to each other.

##### **Class Diagram**



**Sequence Diagram**

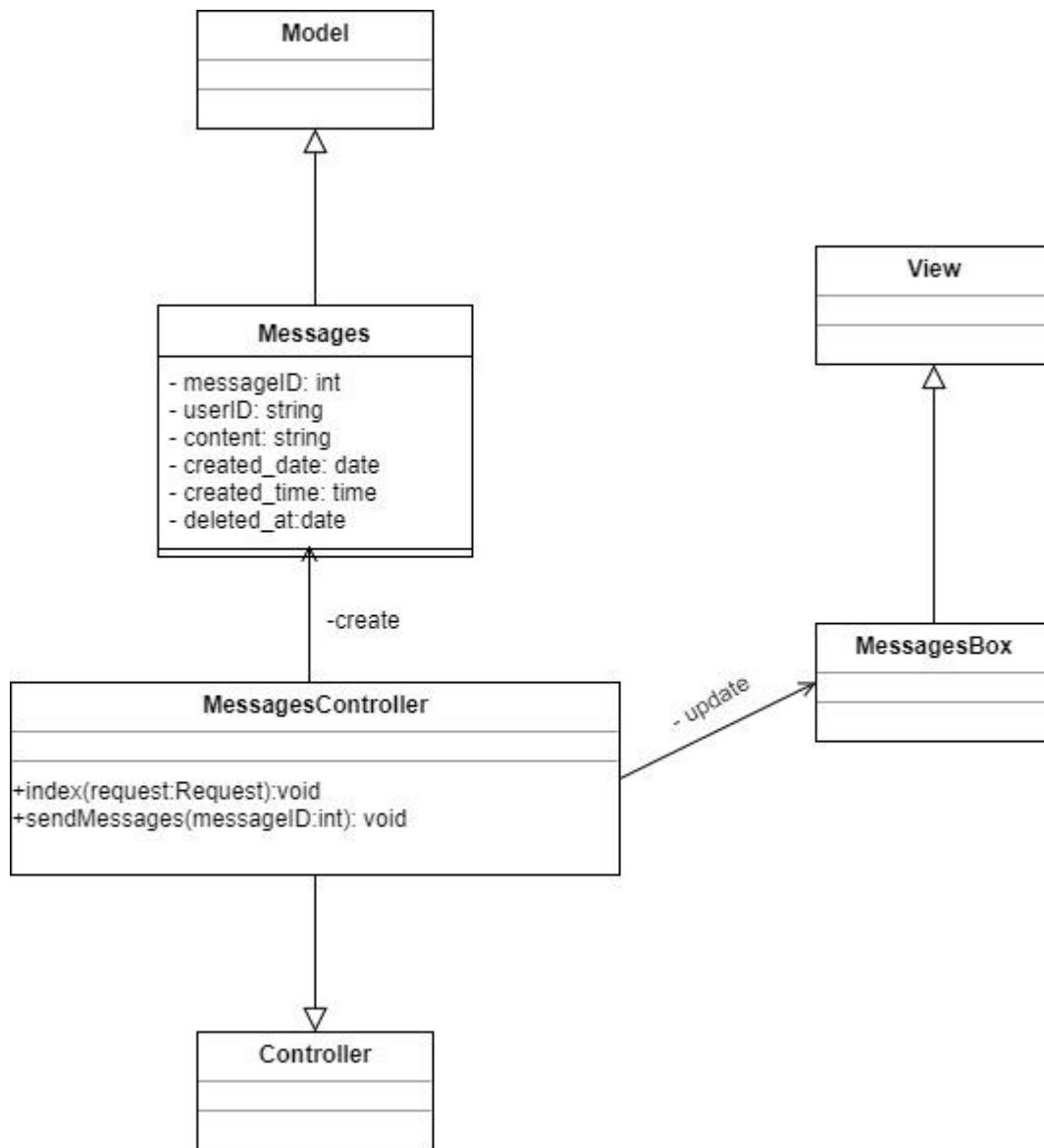


#### 4.4.10 View Message

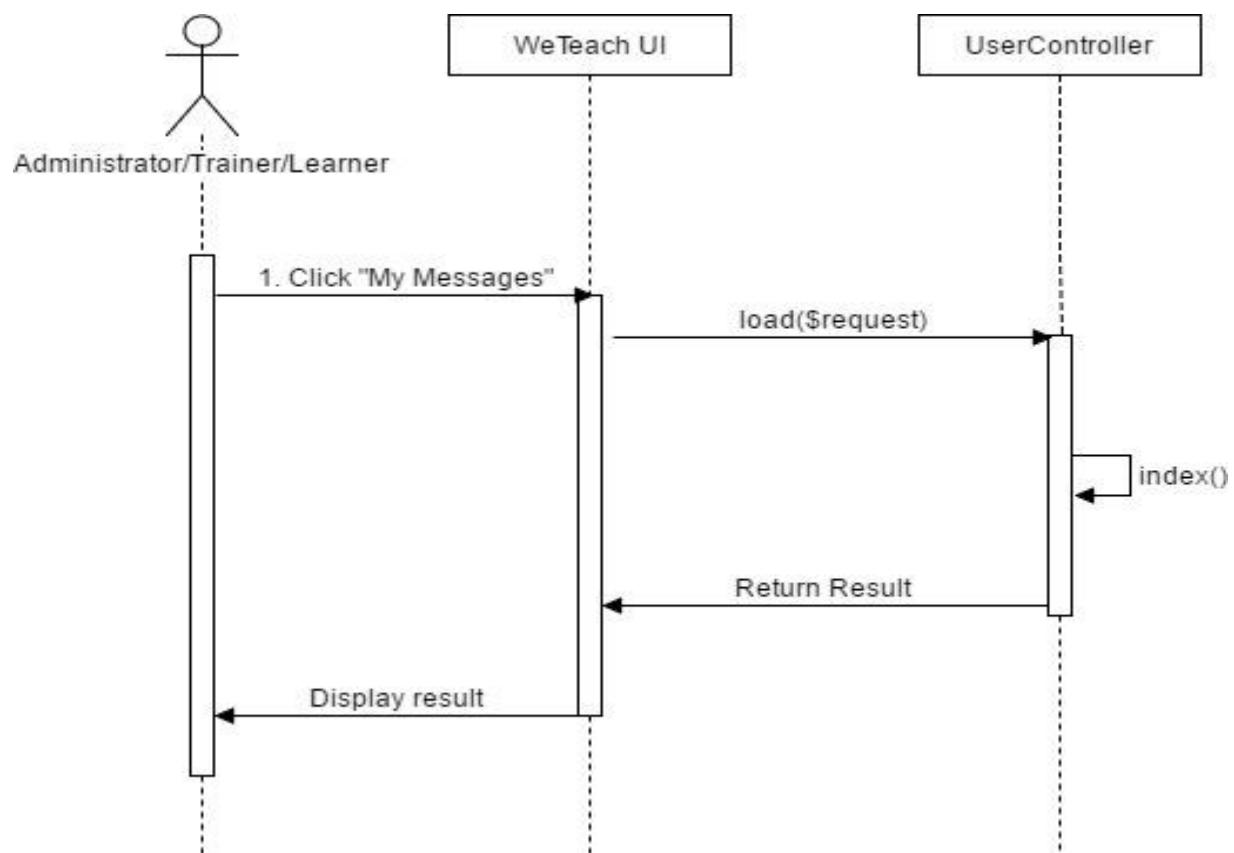
##### Description

User can view message be sent by other users.

##### Class Diagram



## Sequence Diagram

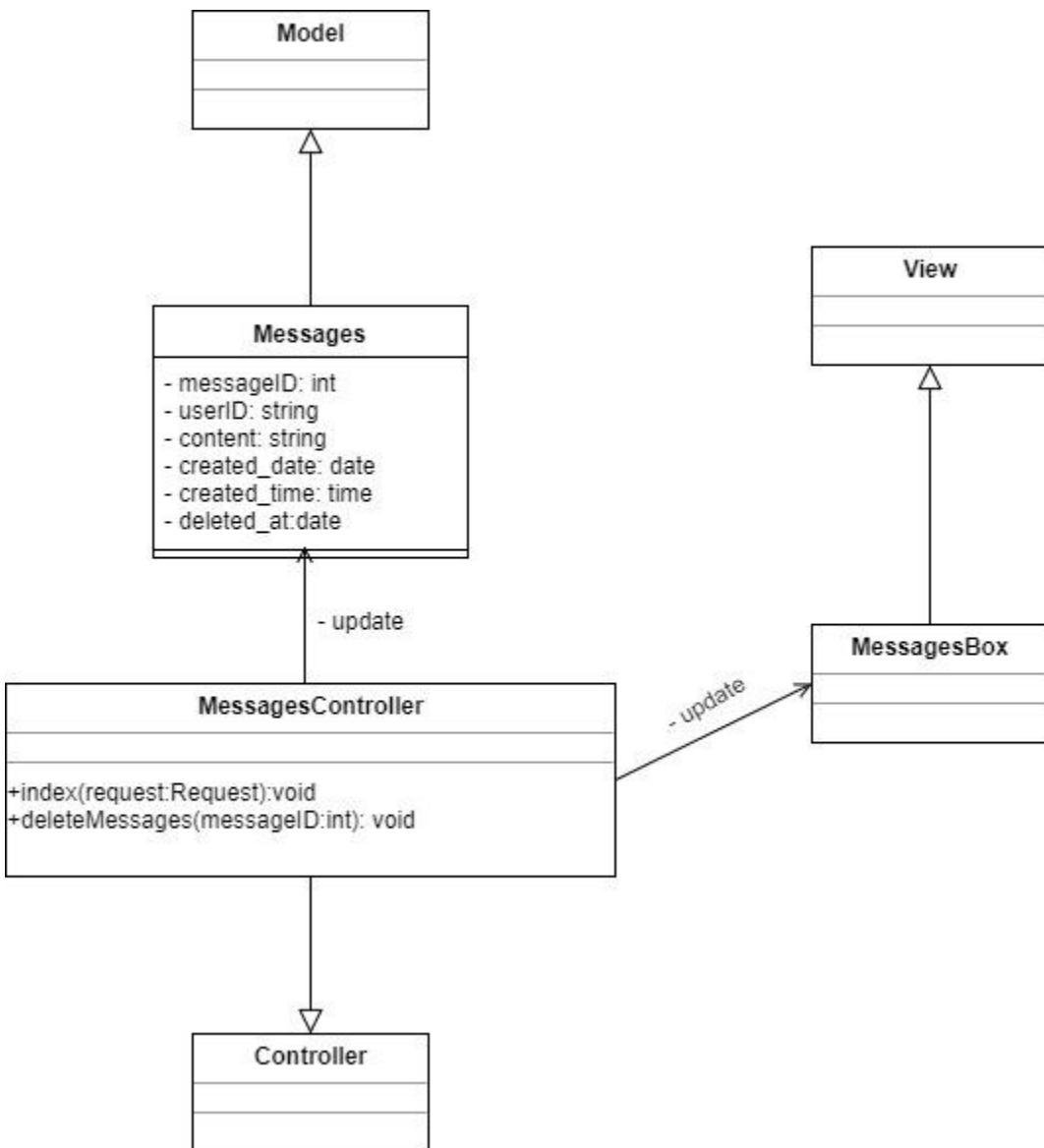


#### 4.4.11 Delete Message

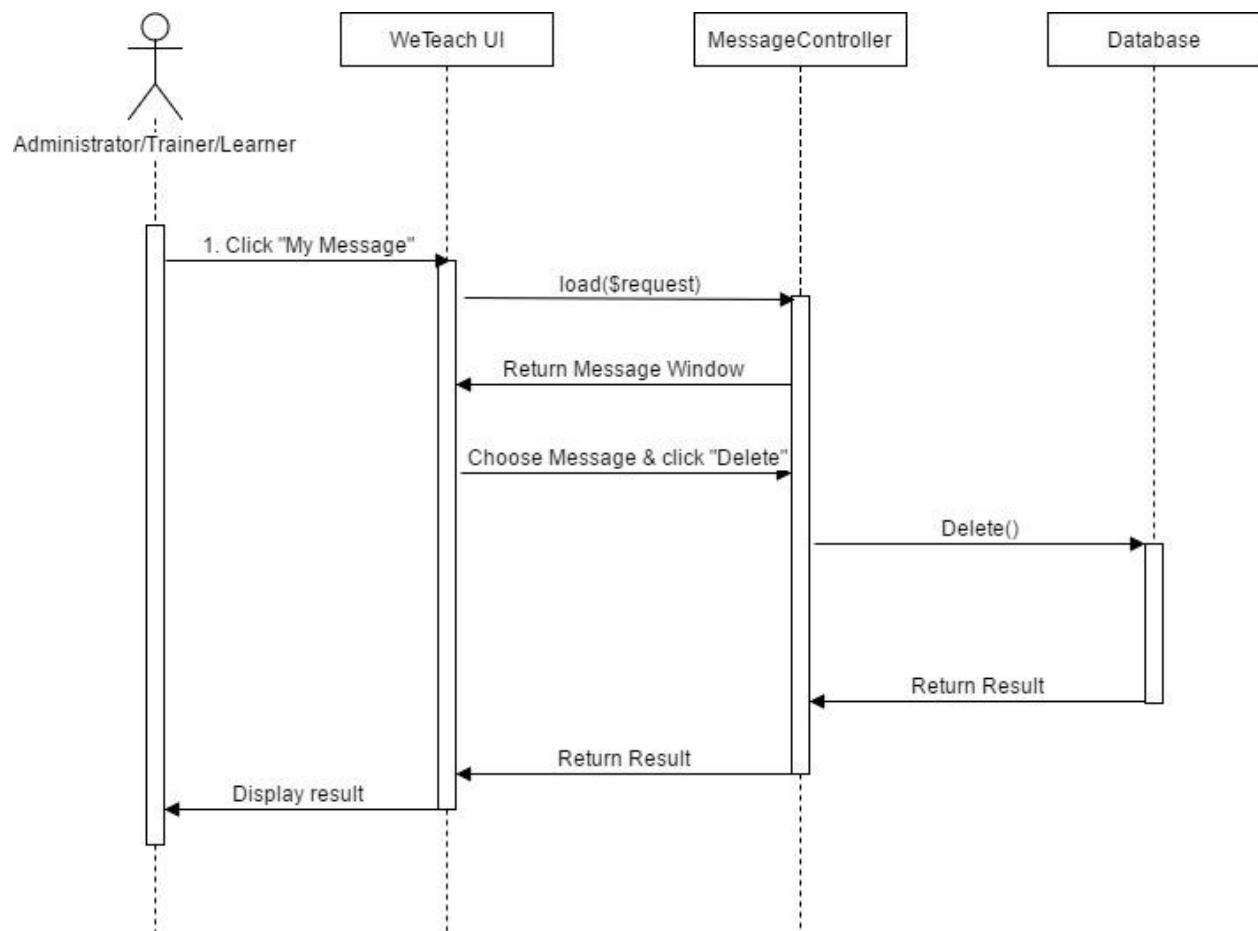
##### Description

User can delete message from message box.

##### Class Diagram



## Sequence Diagram

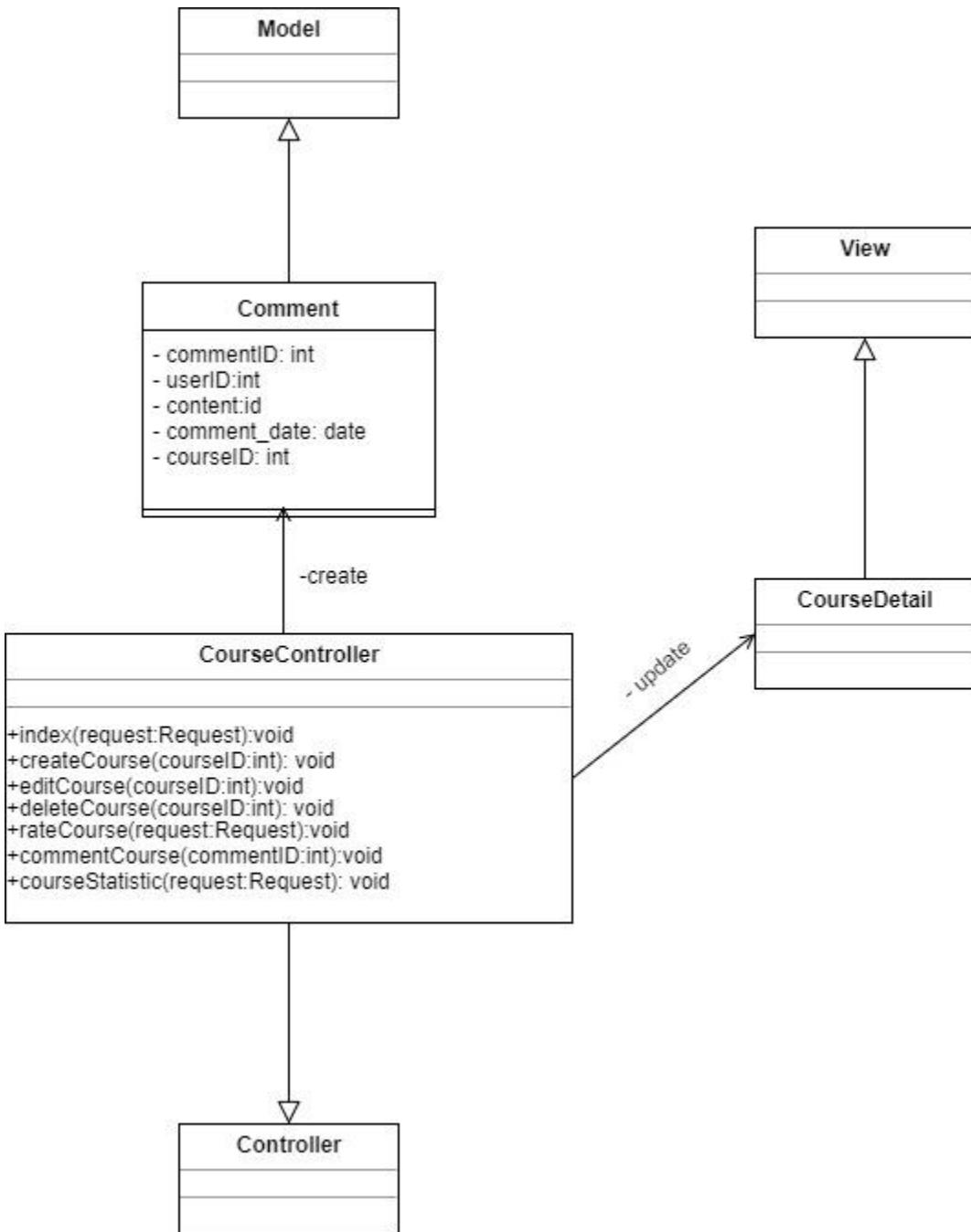


#### 4.4.12 Comment Course

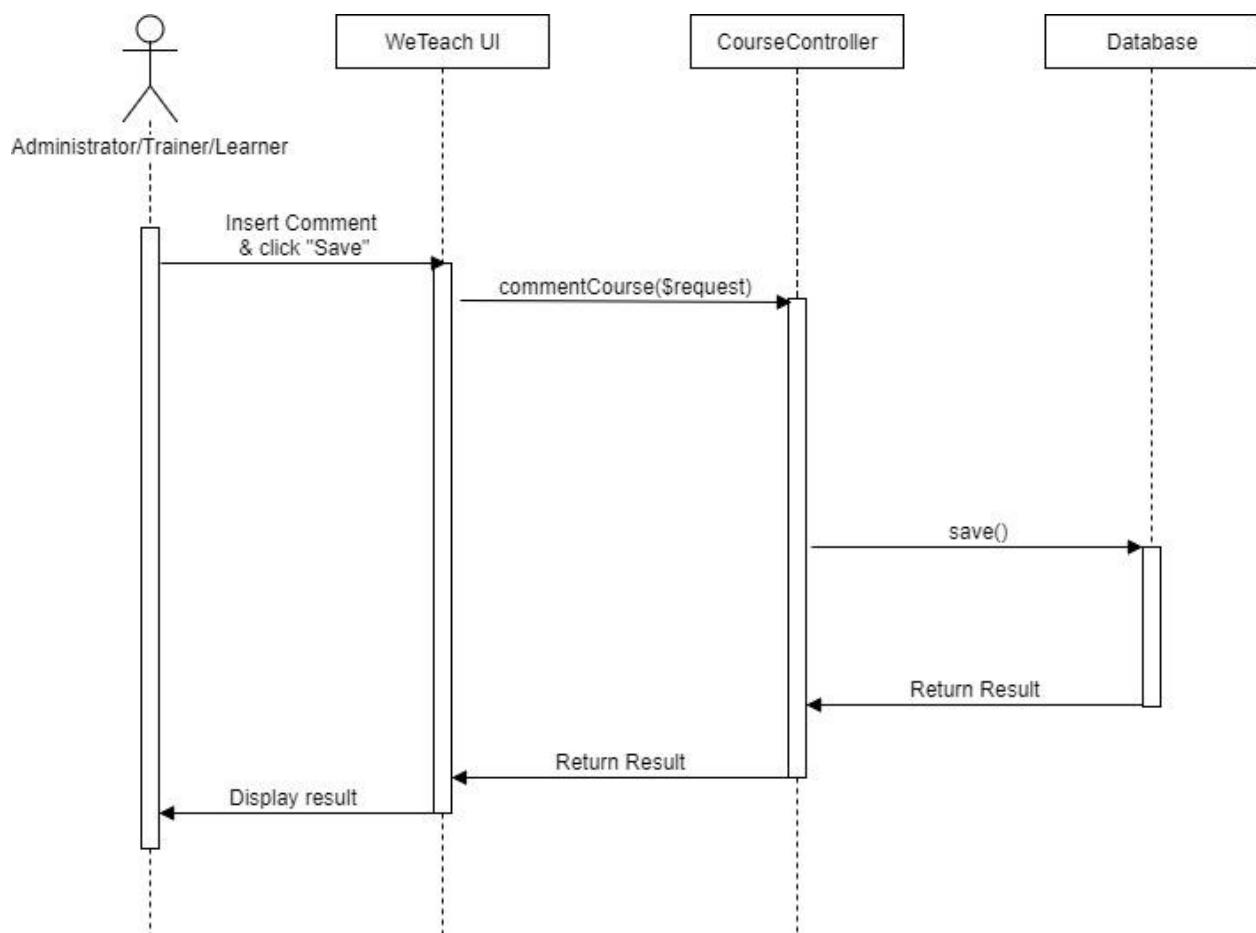
##### Description

User can leave comment under each course.

##### Class Diagram



## Sequence Diagram

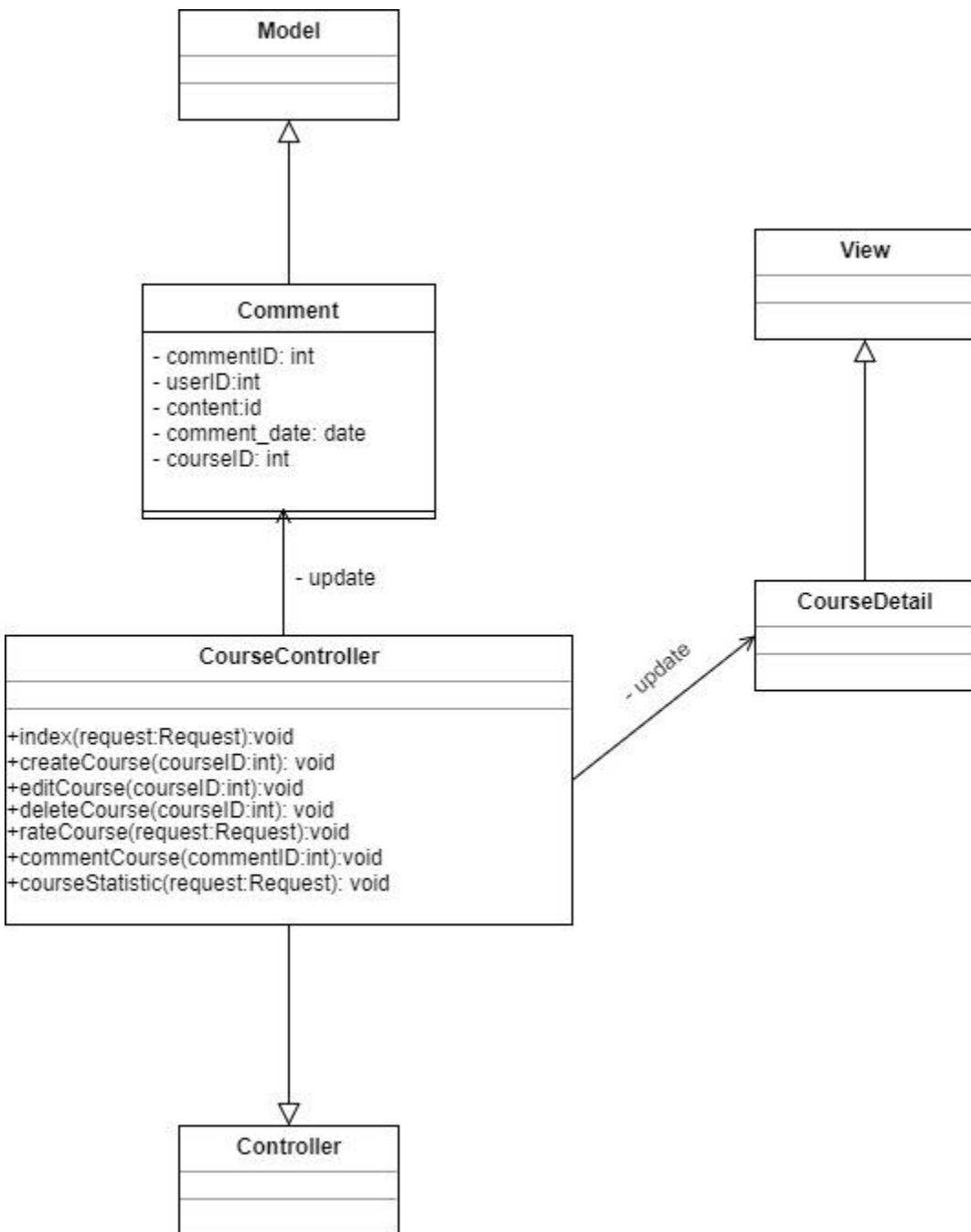


#### 4.4.13 Edit Comment

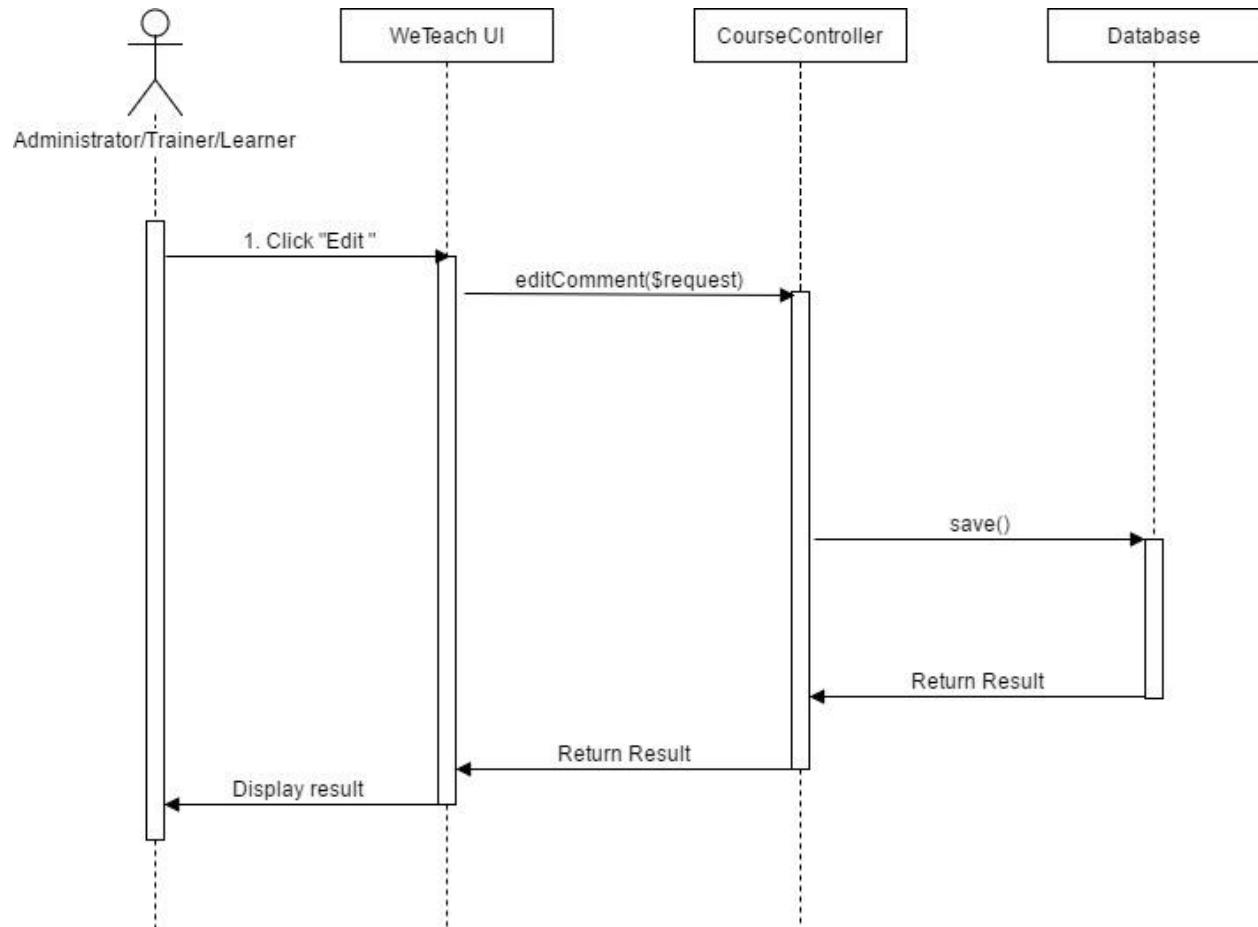
##### Description

User can edit their comment.

##### Class Diagram



## Sequence Diagram

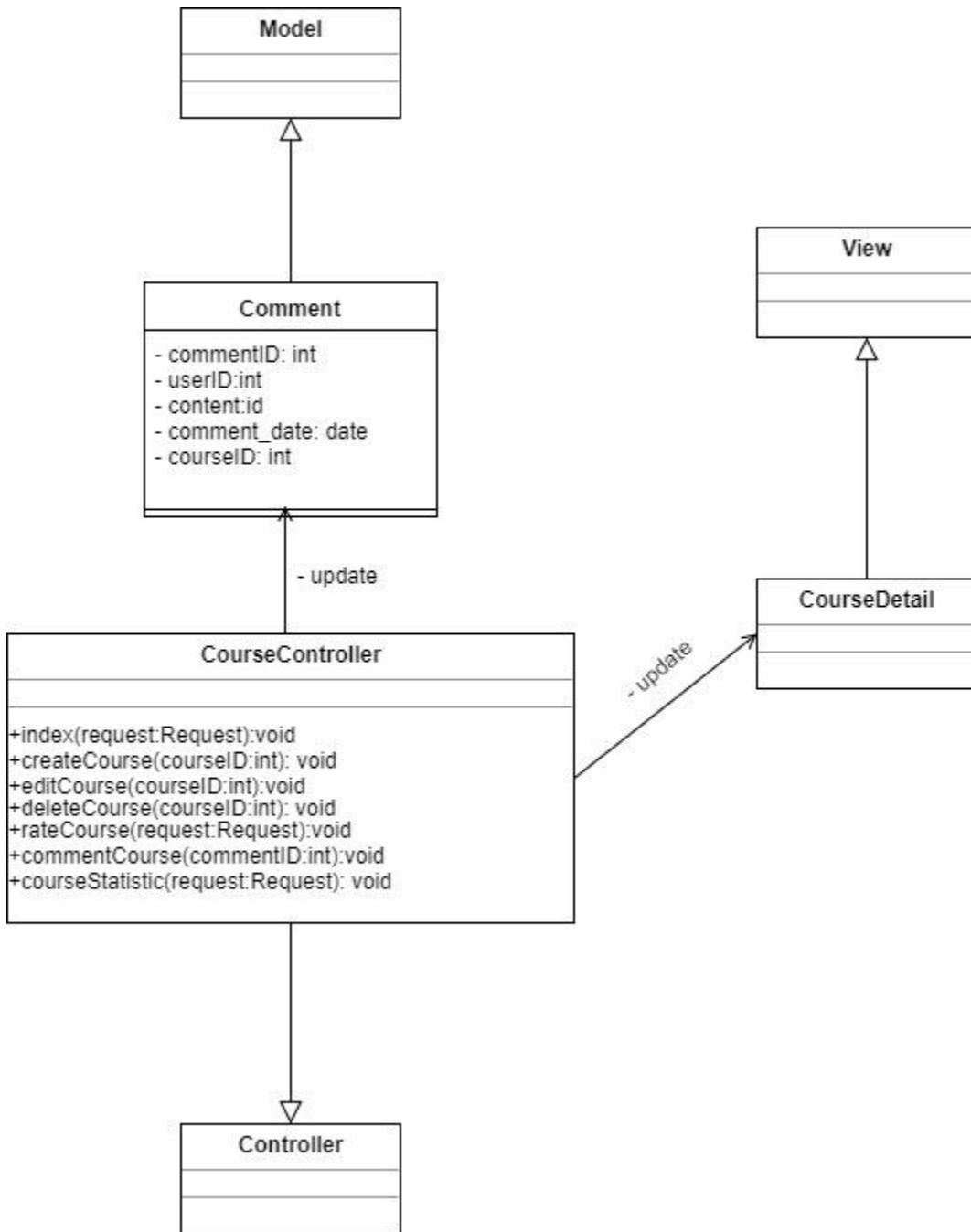


#### 4.4.14 Delete Comment

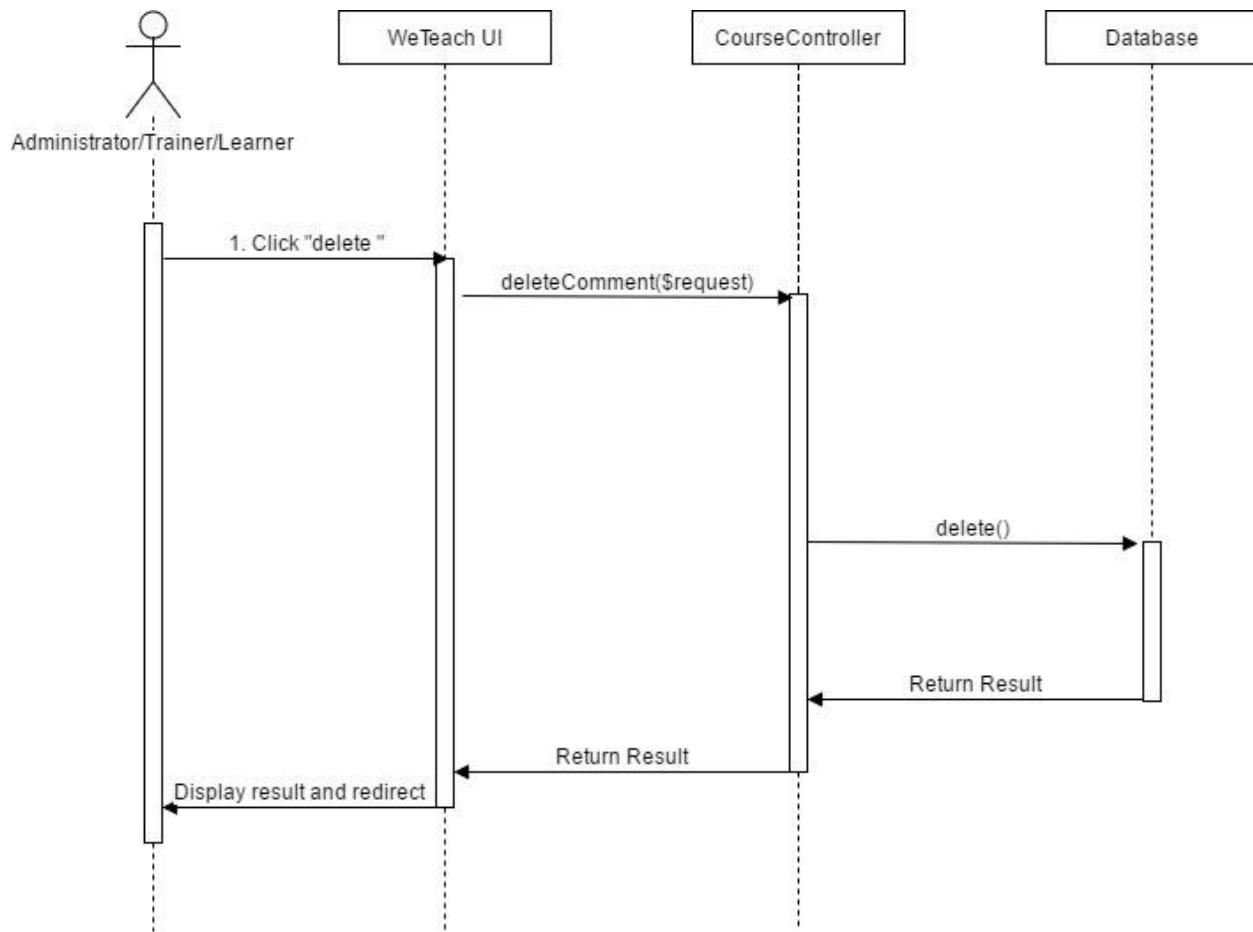
##### Description

User can delete their comment.

##### Class Diagram



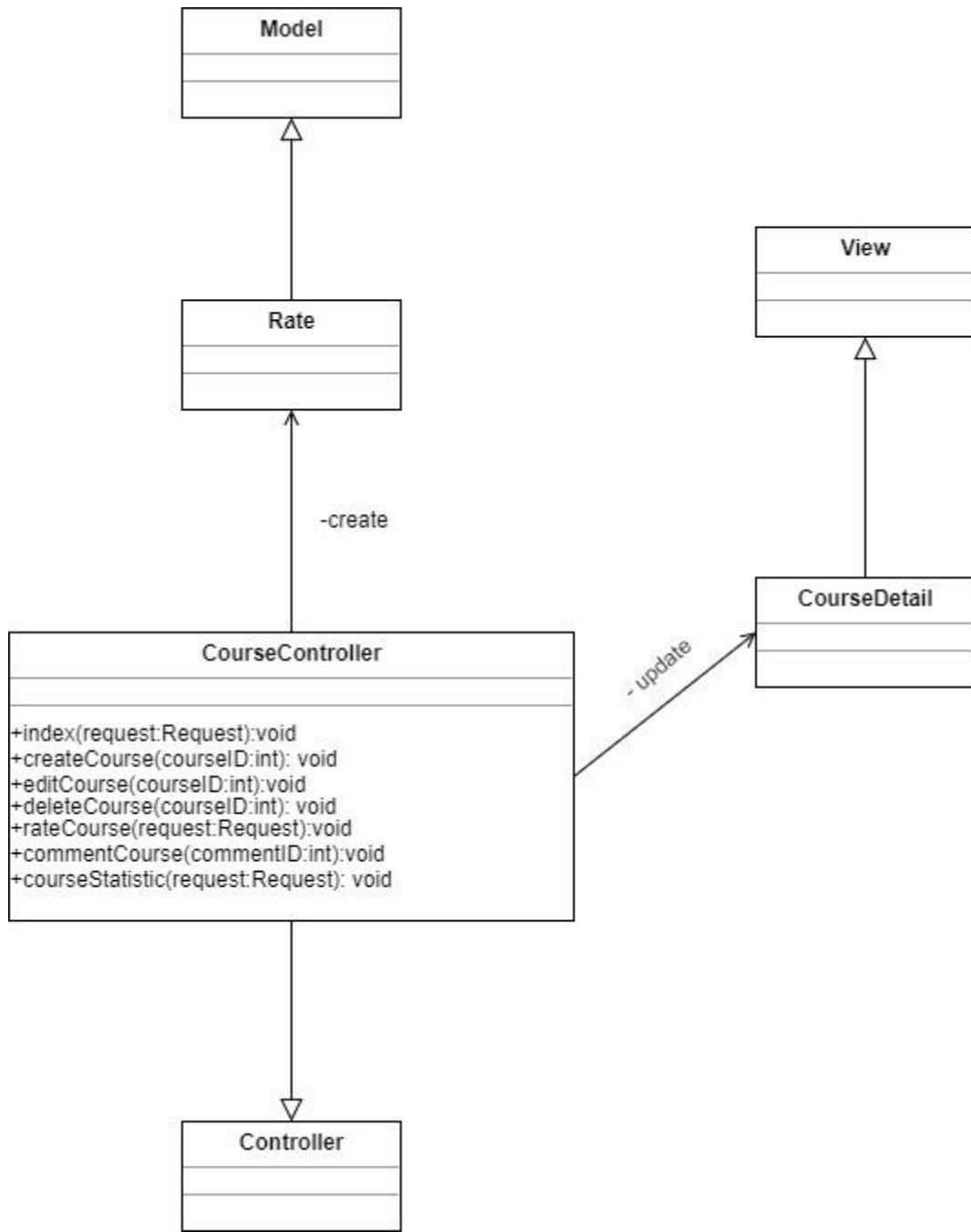
##### Sequence Diagram



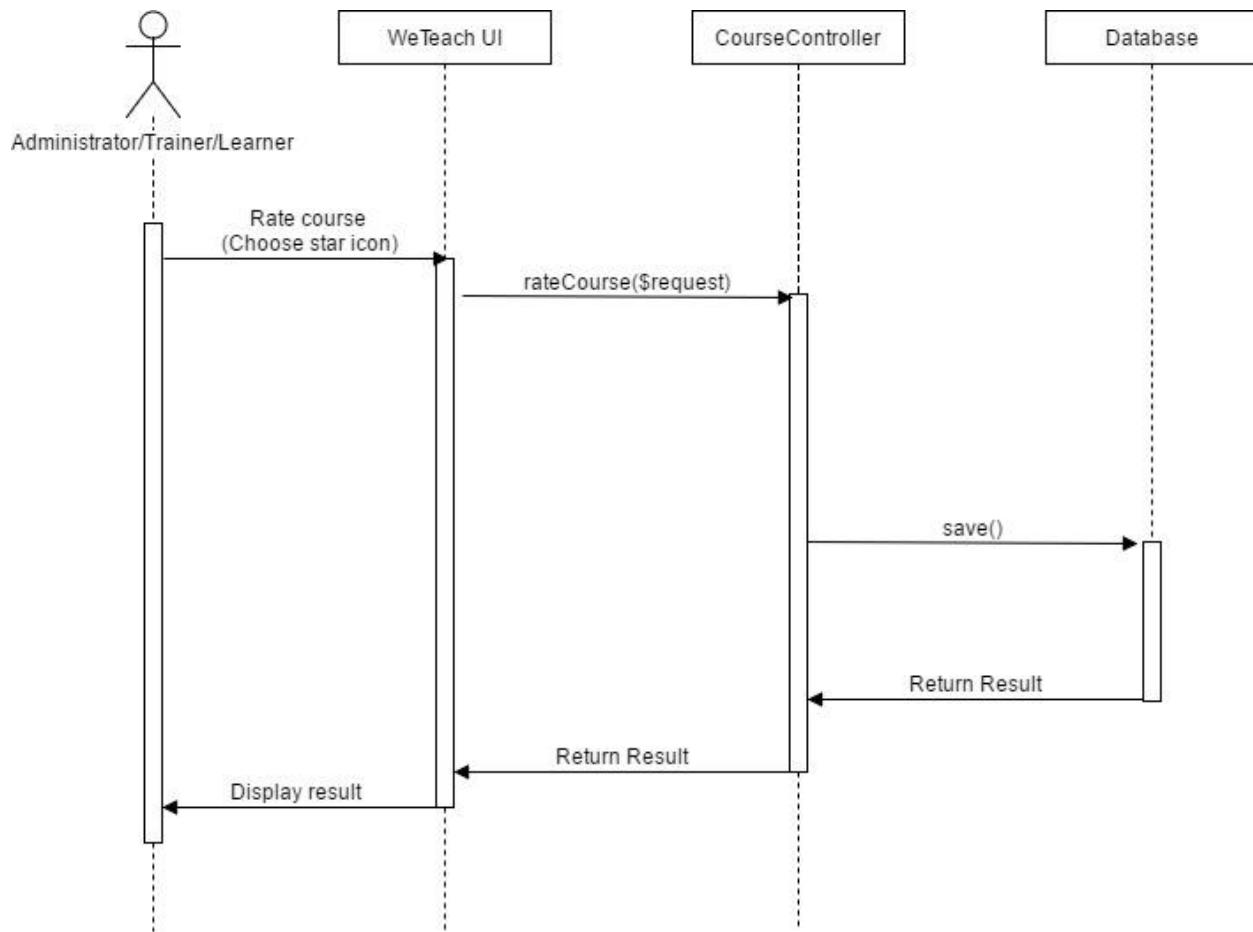
#### 4.4.15 Rate Course Description

User can rate a course.

#### Class Diagram



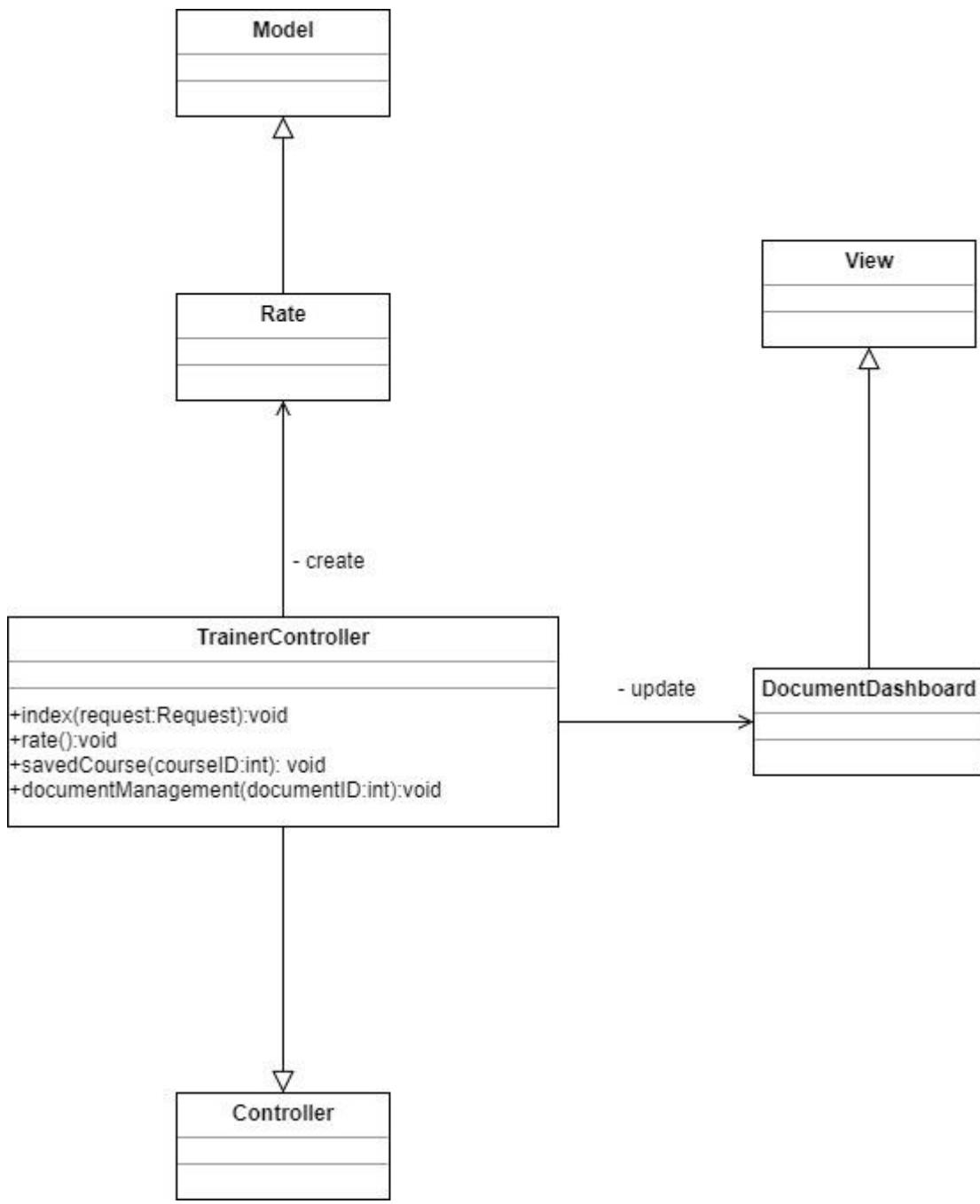
**Sequence Diagram**



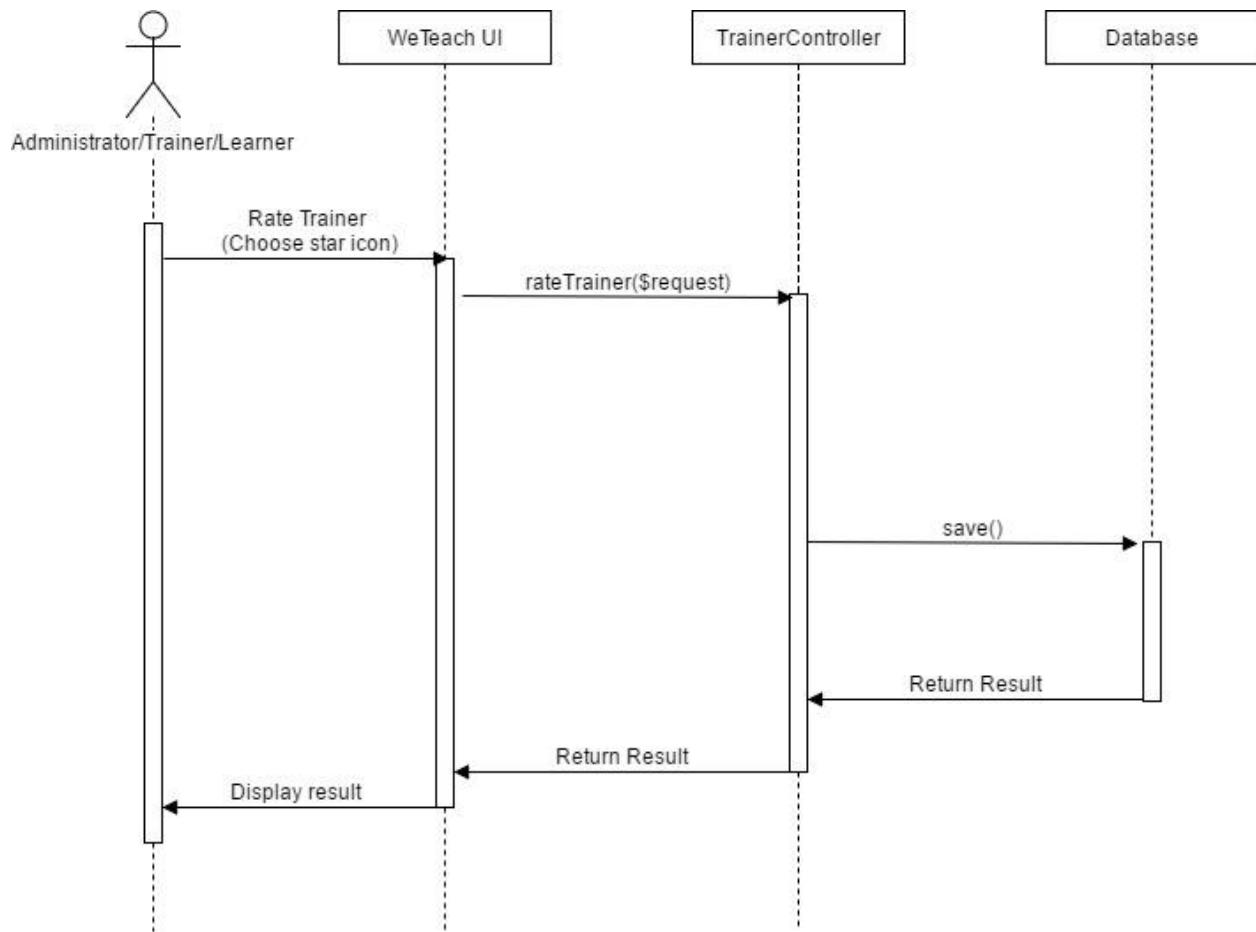
#### 4.4.16 Rate Trainer Description

User can rate trainer.

#### Class Diagram



**Sequence Diagram**

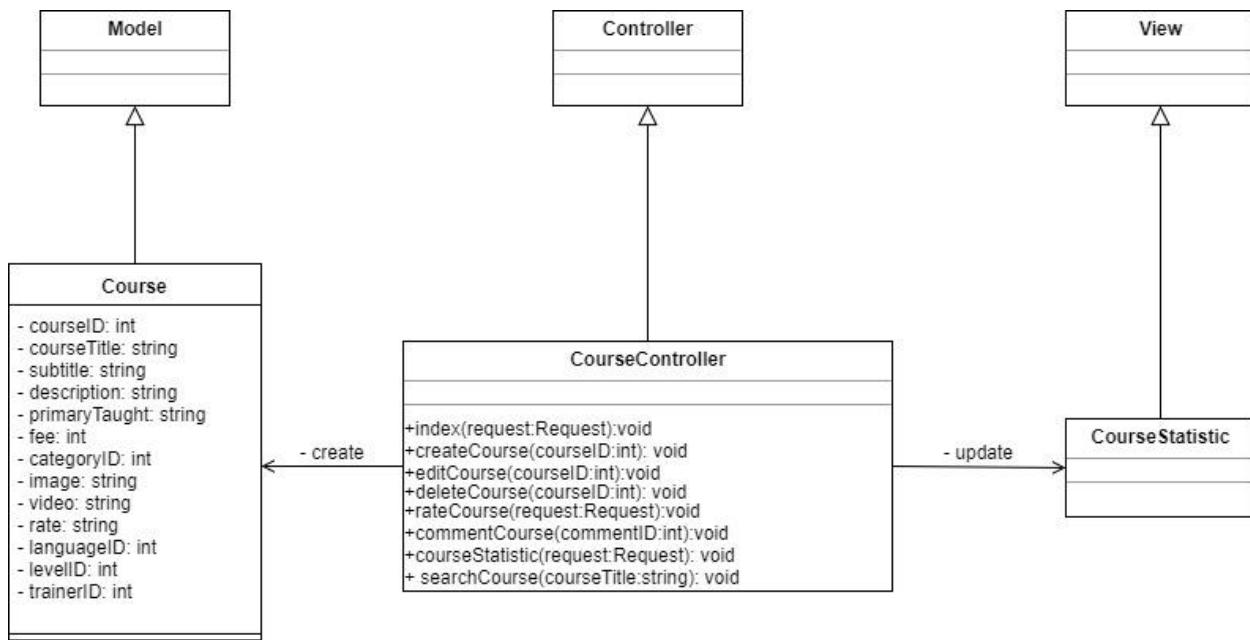


#### 4.4.17 View Course Statistic

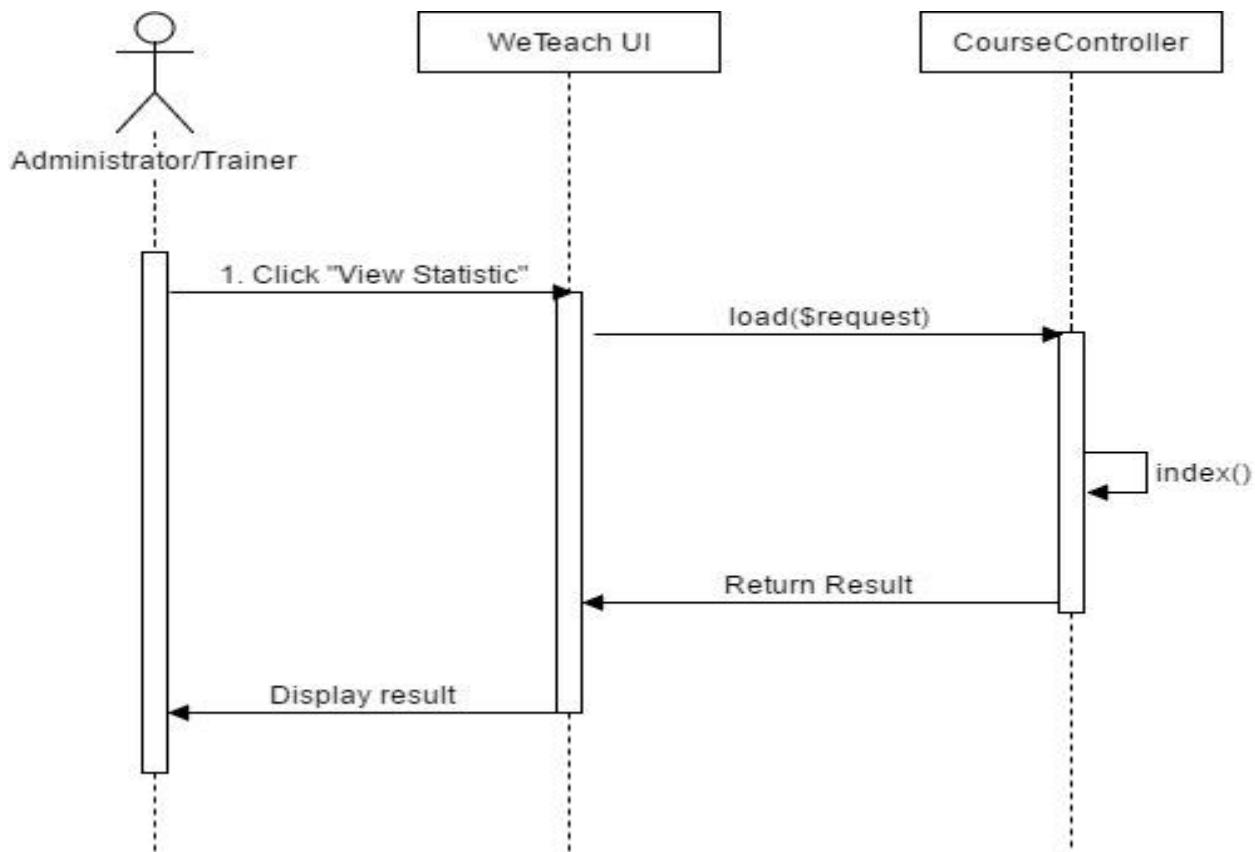
##### Description

Trainer can view their course statistic.

##### Class Diagram



## Sequence Diagram

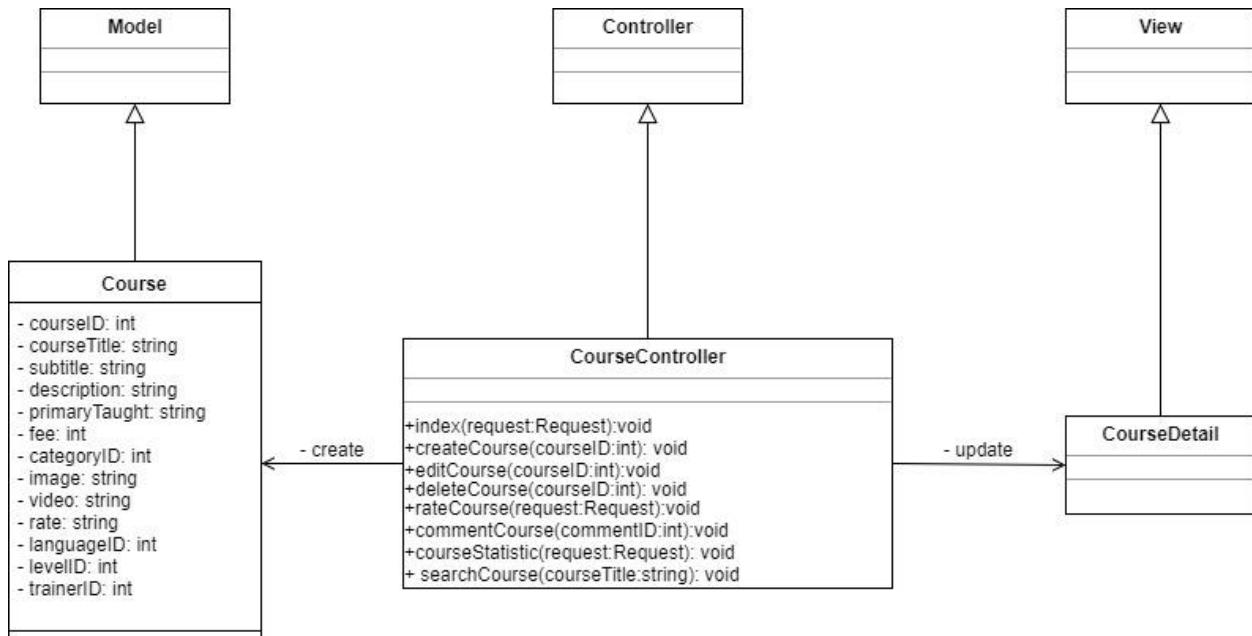


#### 4.4.18 Create New Course

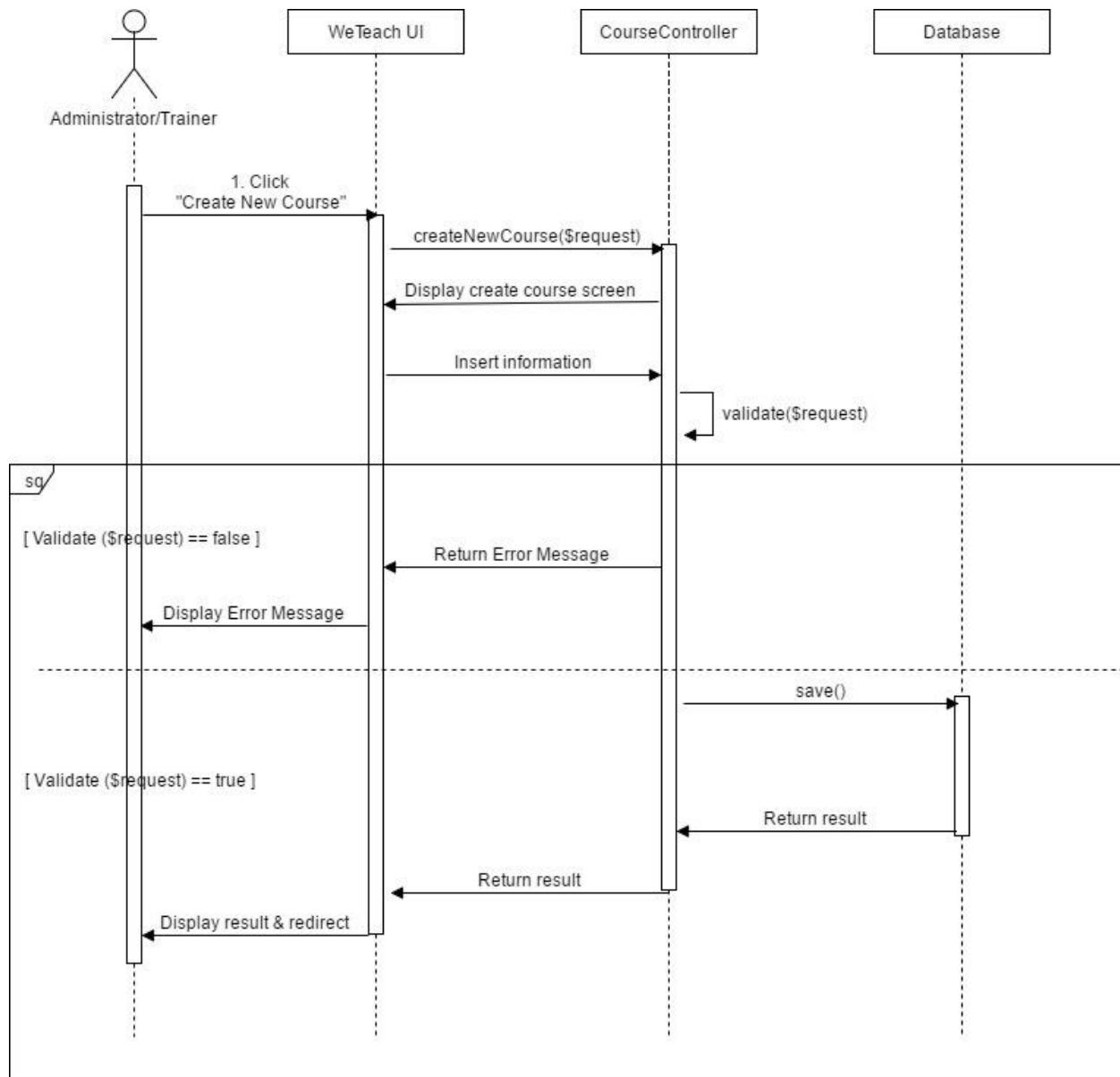
##### Description

Trainer can create new course.

##### Class Diagram



##### Sequence Diagram

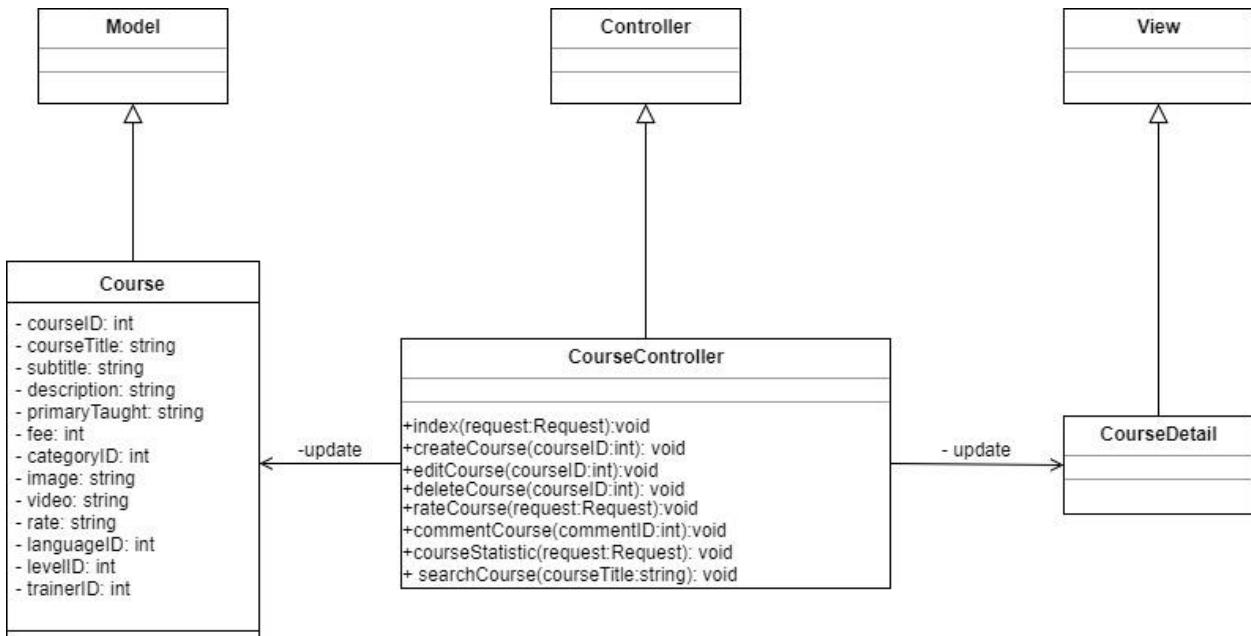


#### 4.4.19 Edit Course Detail

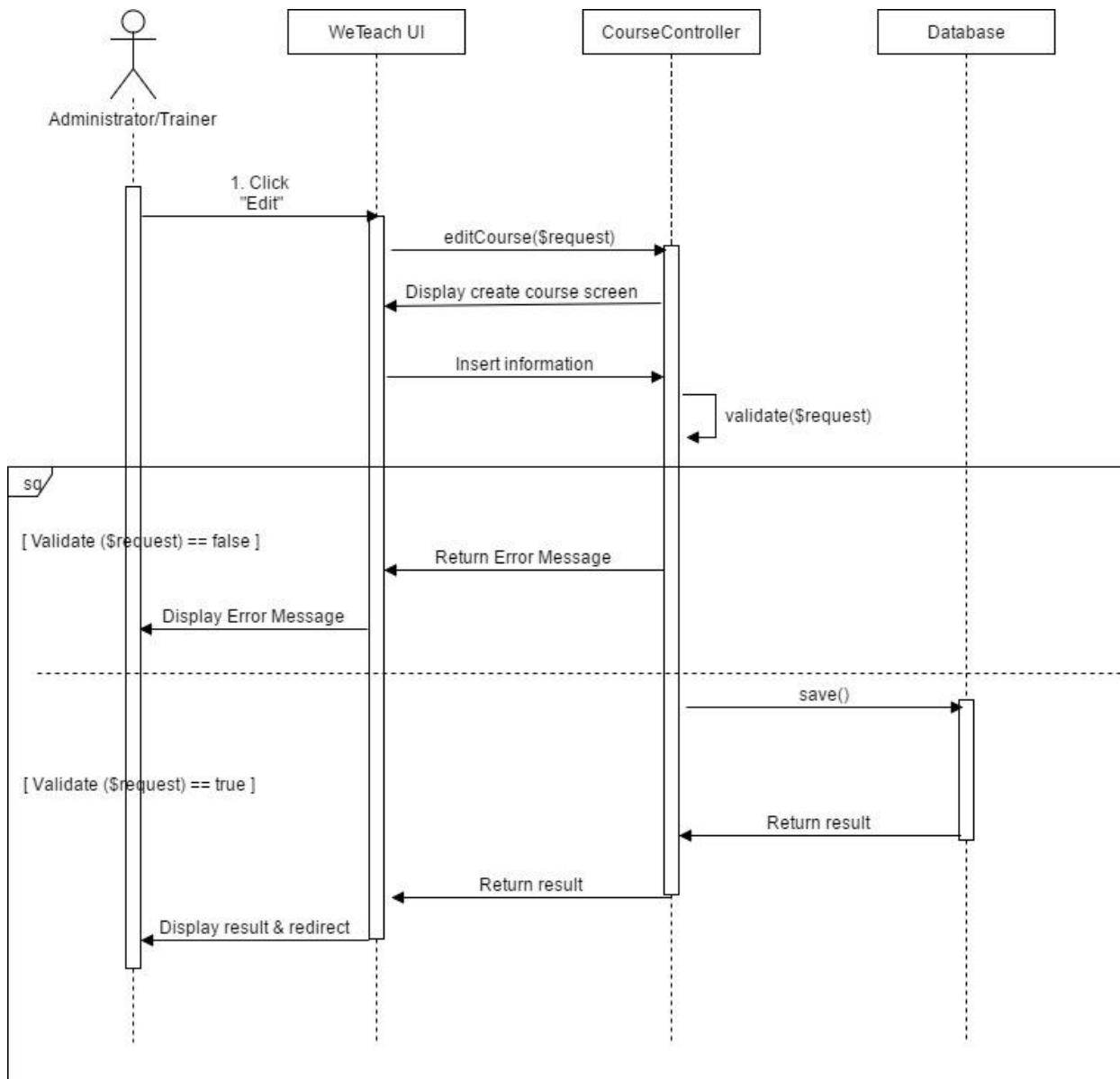
**Description**

Trainer can edit their course detail.

**Class Diagram**



## Sequence Diagram

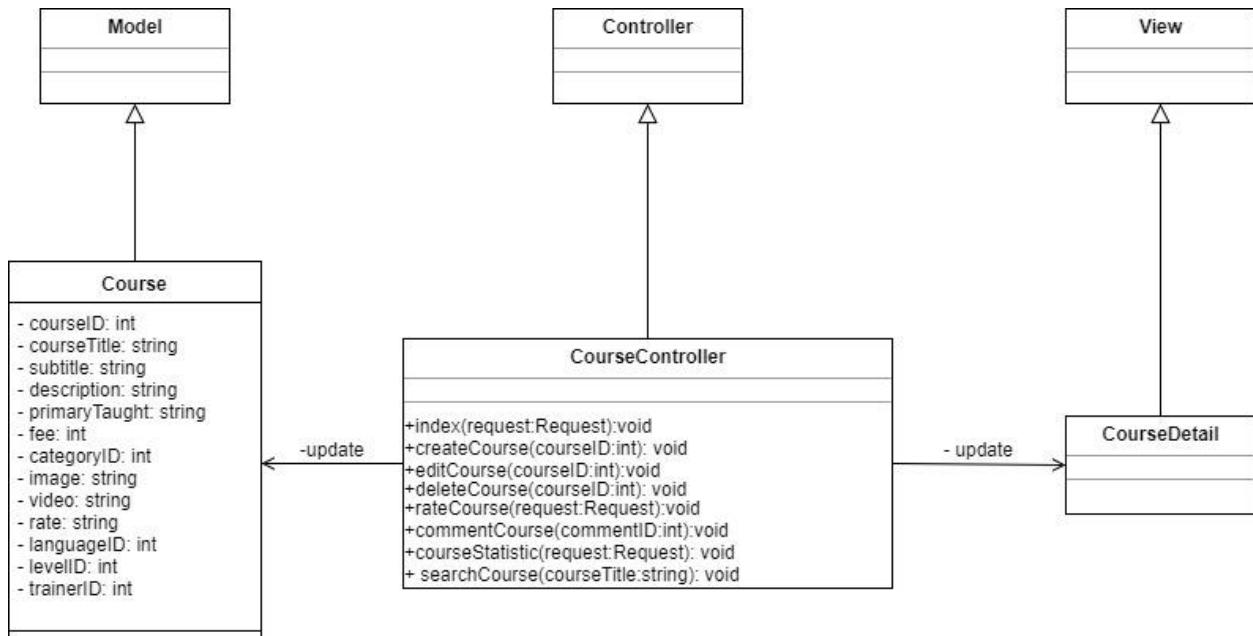


#### 4.4.20 Delete Courses

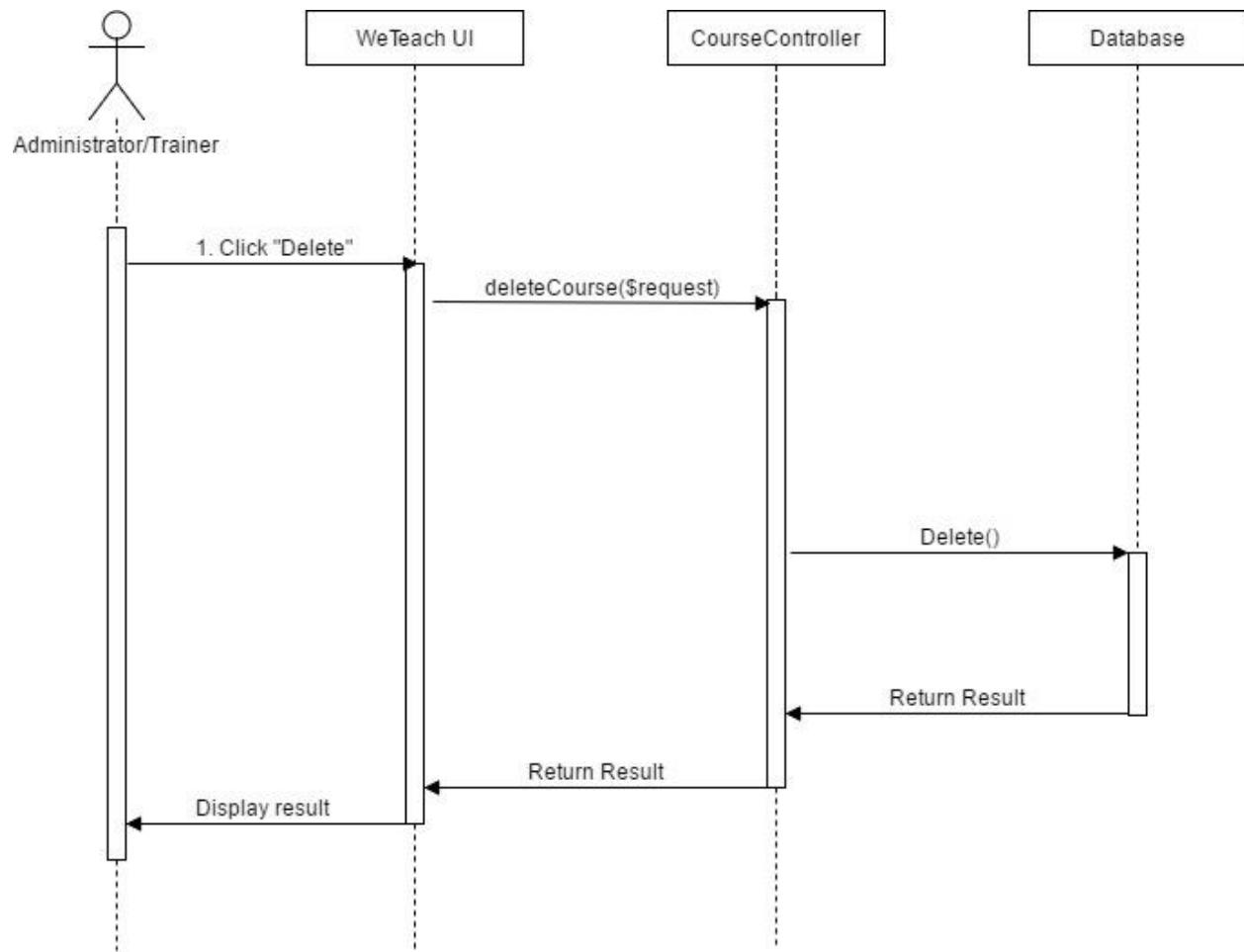
##### Description

Trainer can delete their courses.

##### Class Diagram



## Sequence Diagram

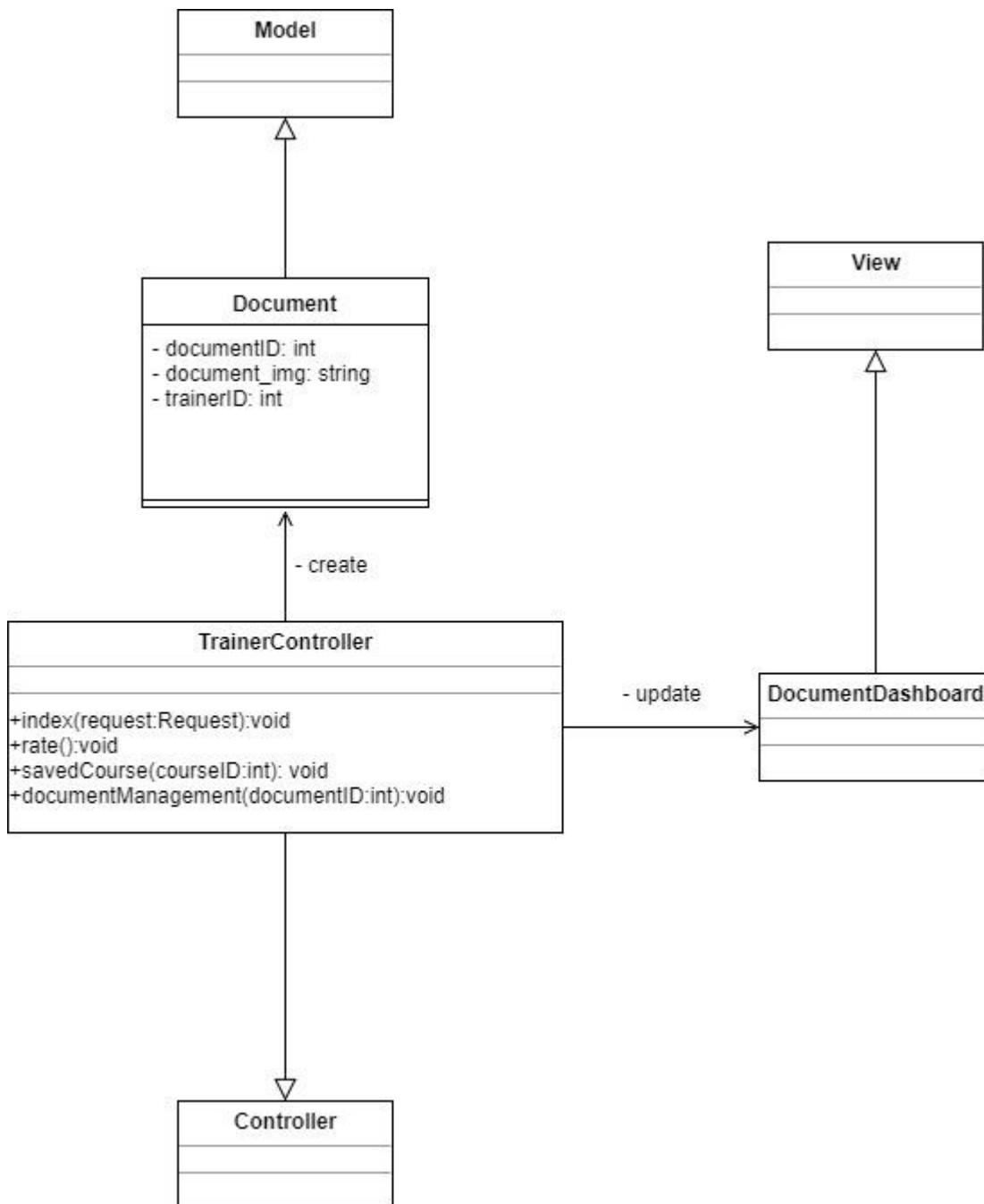


#### 4.4.21 Upload Documents

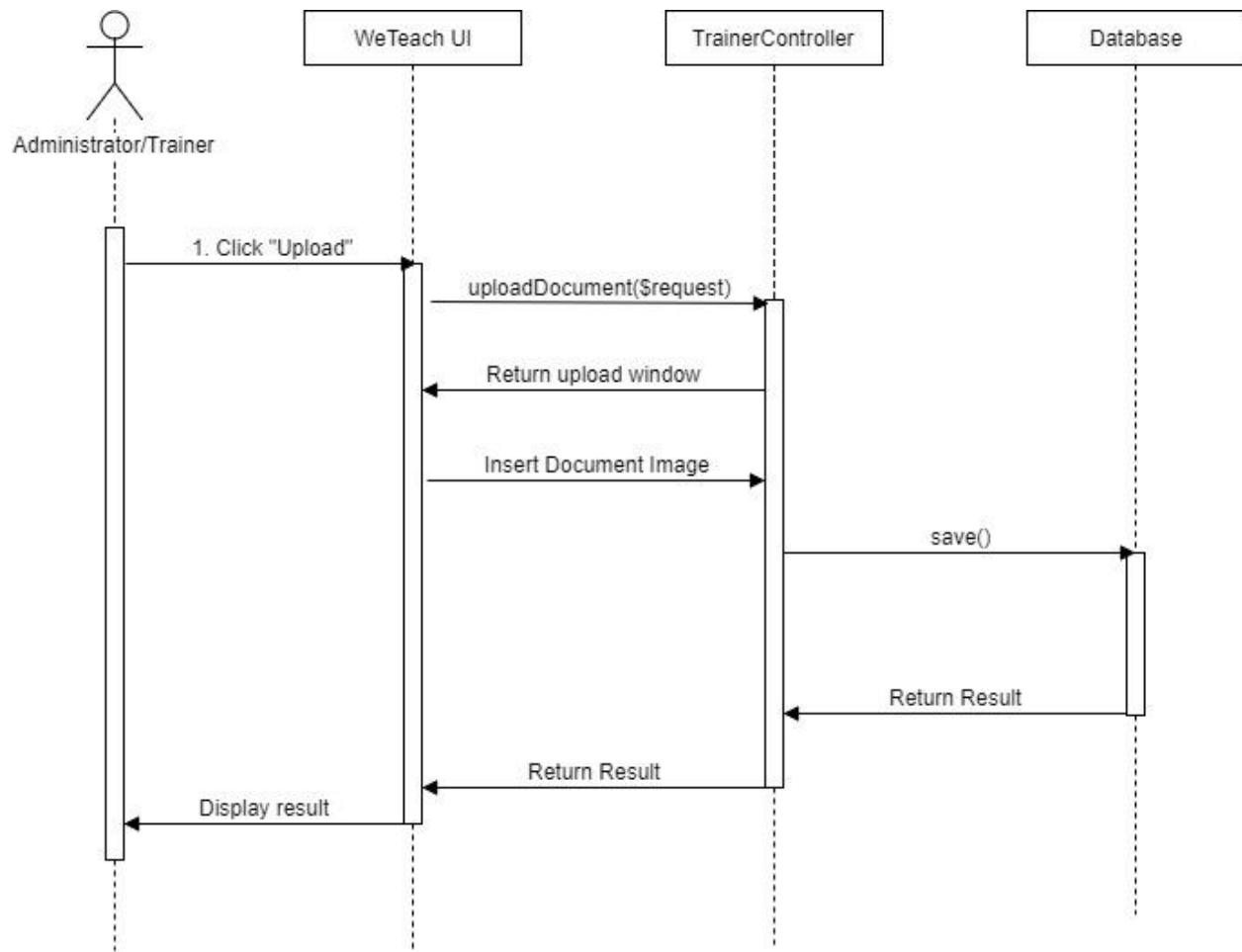
##### Description

Trainer can upload their documents such as certificate...

##### Class Diagram



## Sequence Diagram

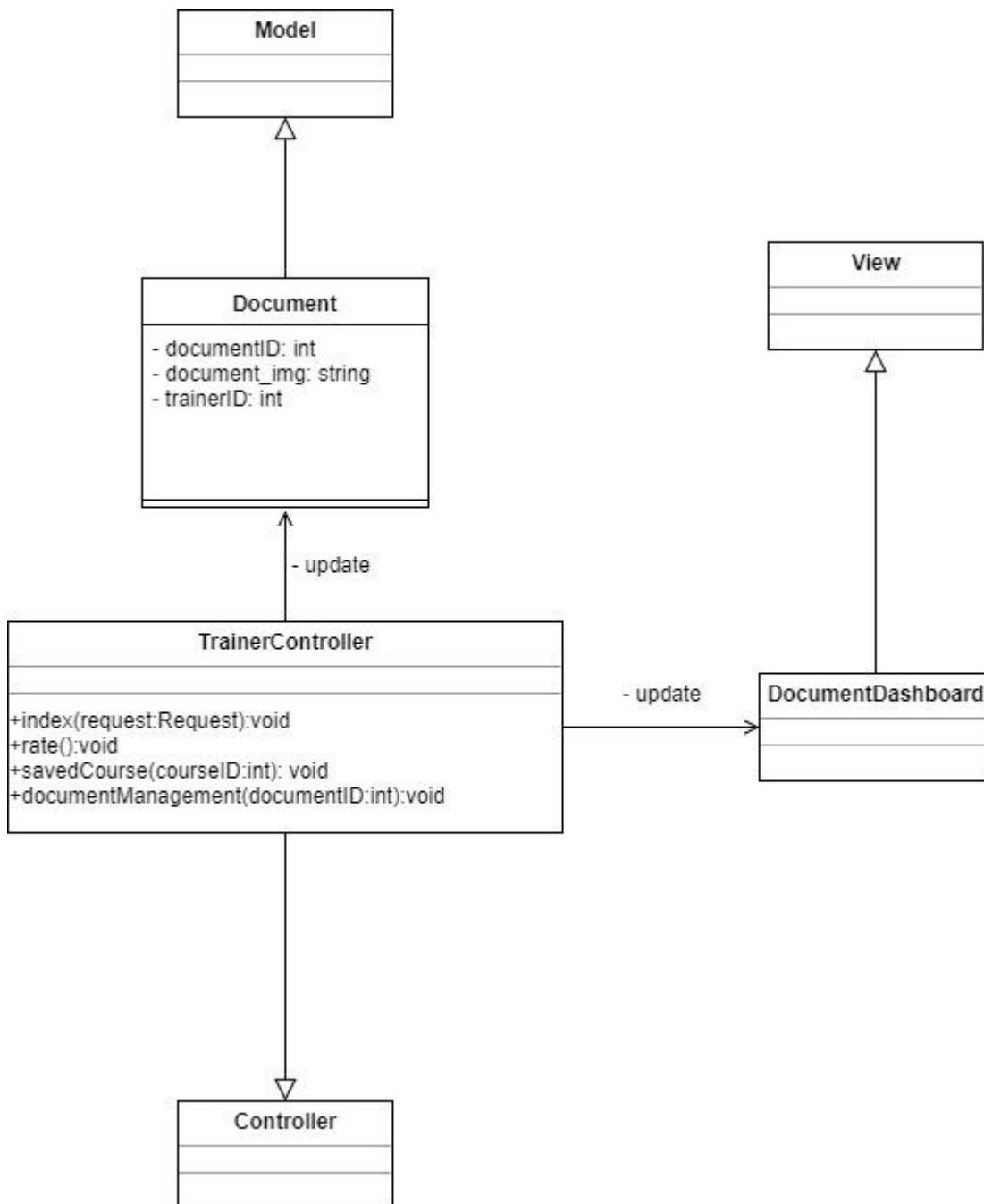


#### 4.4.22 Delete Documents

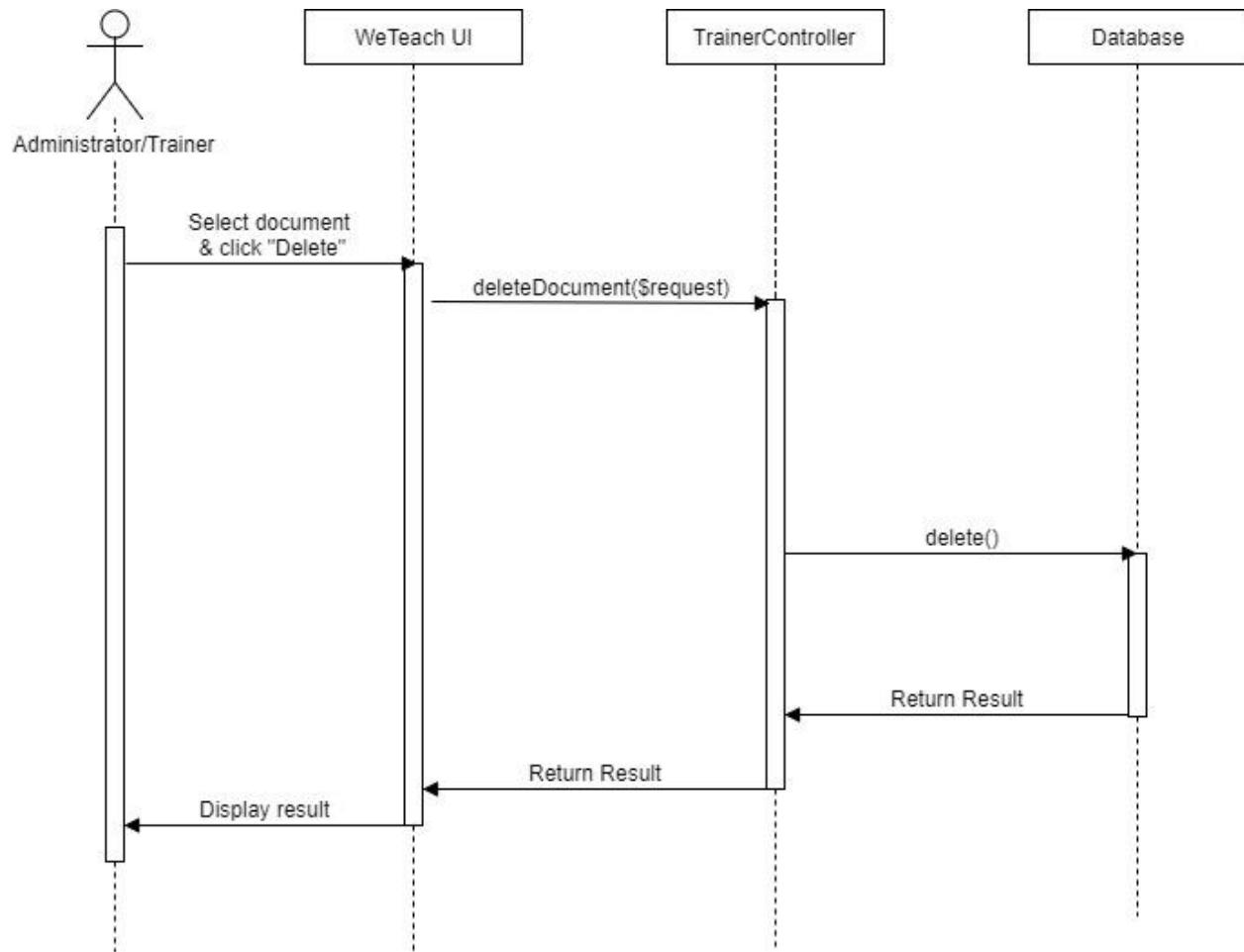
##### Description

Trainer can delete their documents.

##### Class Diagram



## Sequence Diagram

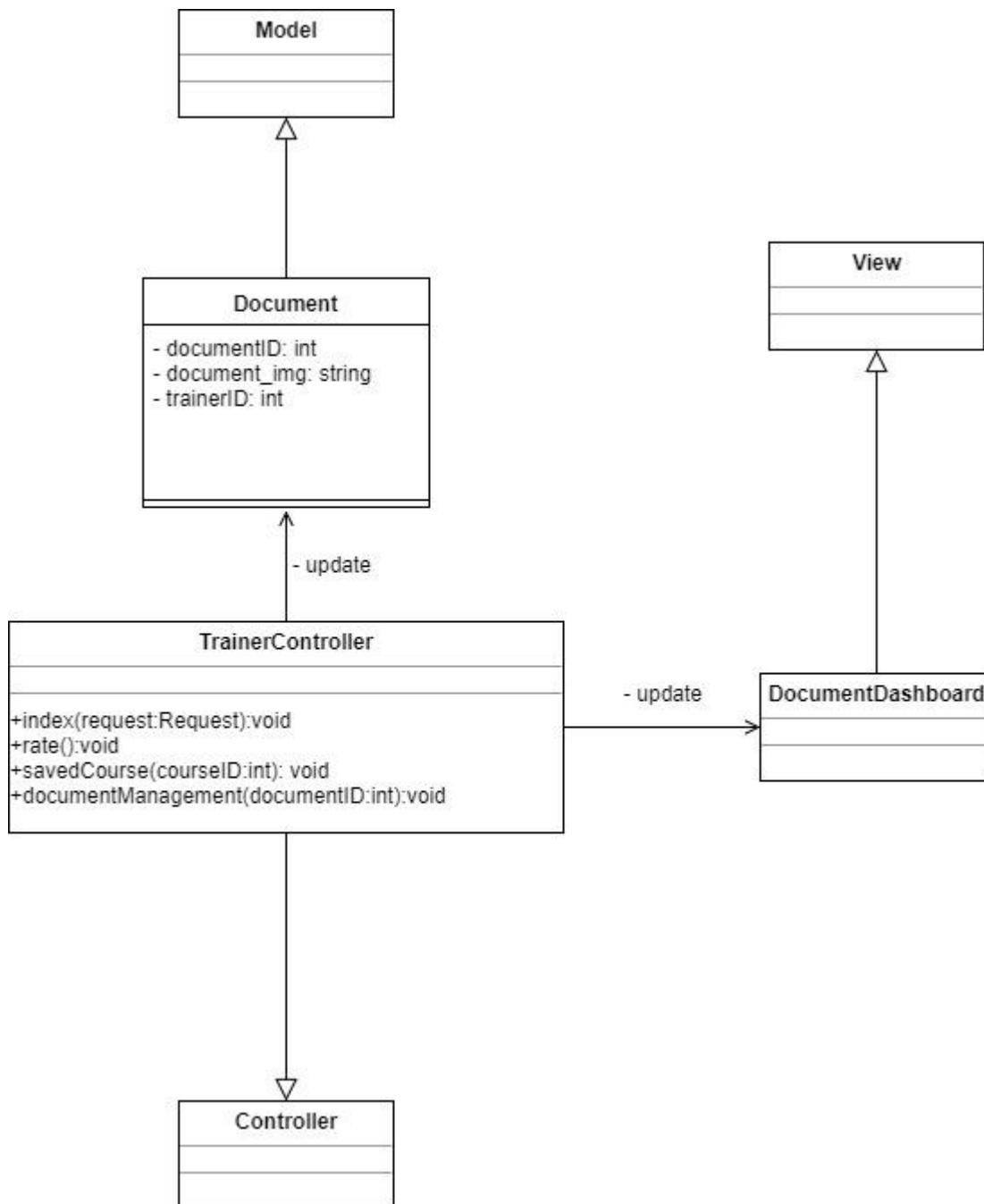


#### 4.4.23 View Documents Dashboard

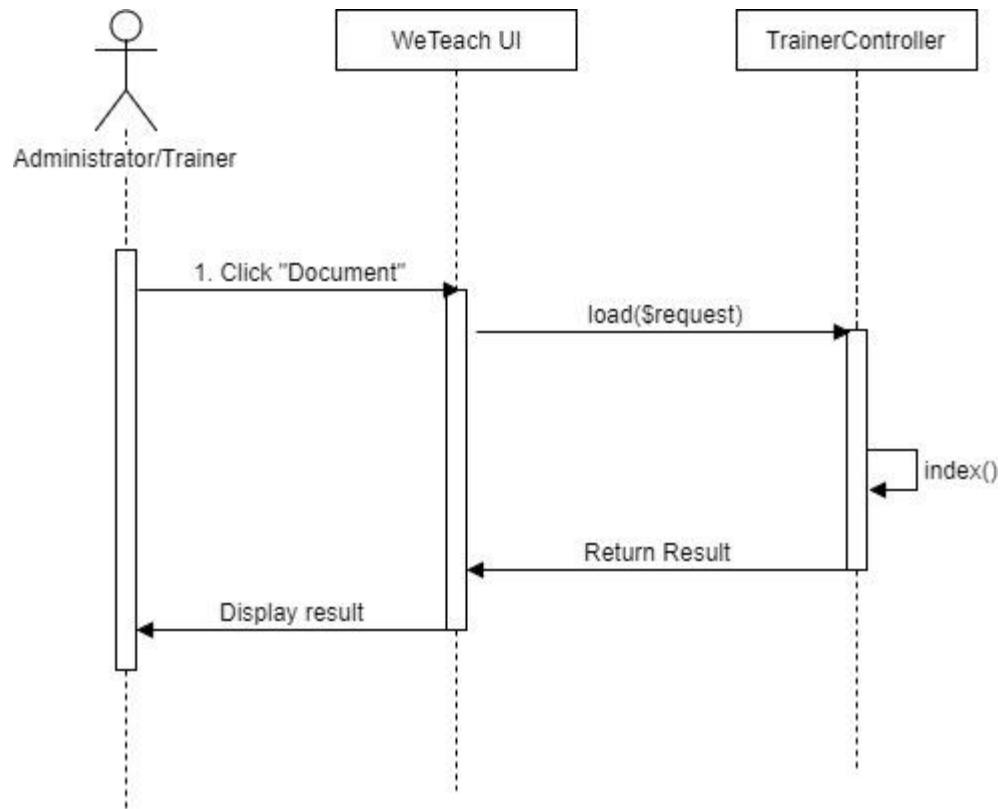
##### Description

Trainer can view their document dashboard.

##### Class Diagram



## Sequence Diagram

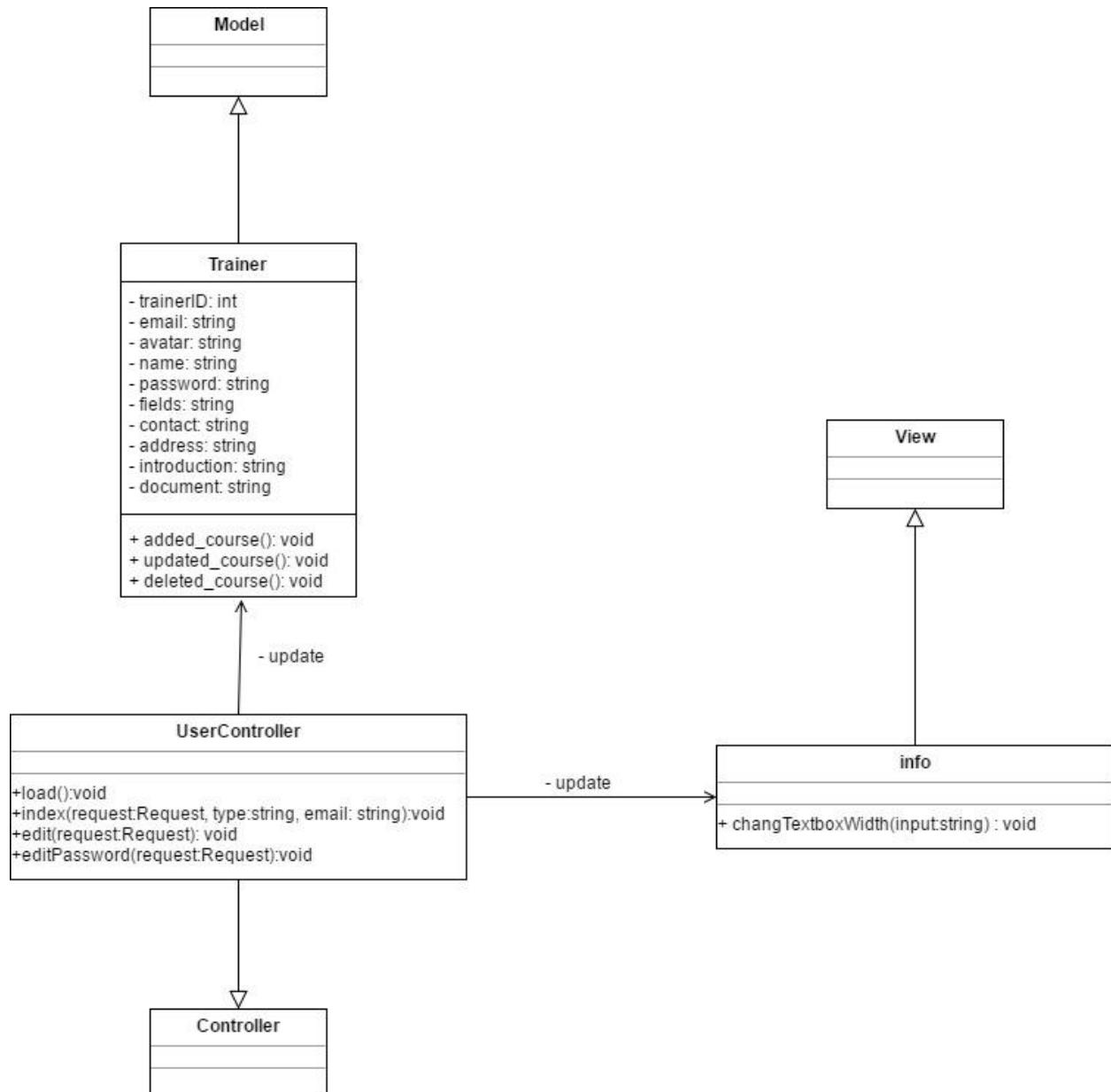


#### 4.4.24 Edit Profile (Trainer)

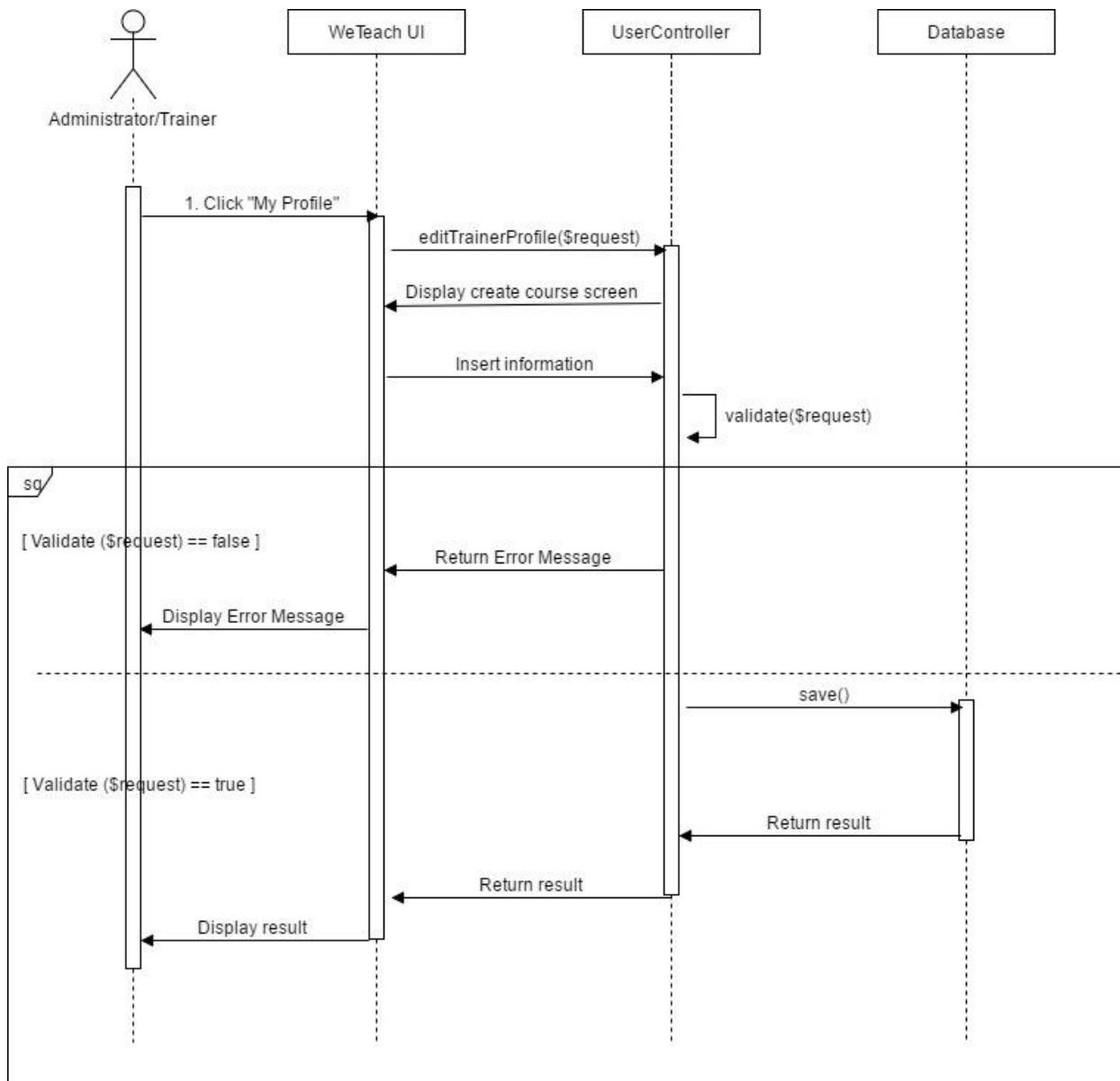
##### Description

Trainer can edit their personal information.

##### Class Diagram



## Sequence Diagram

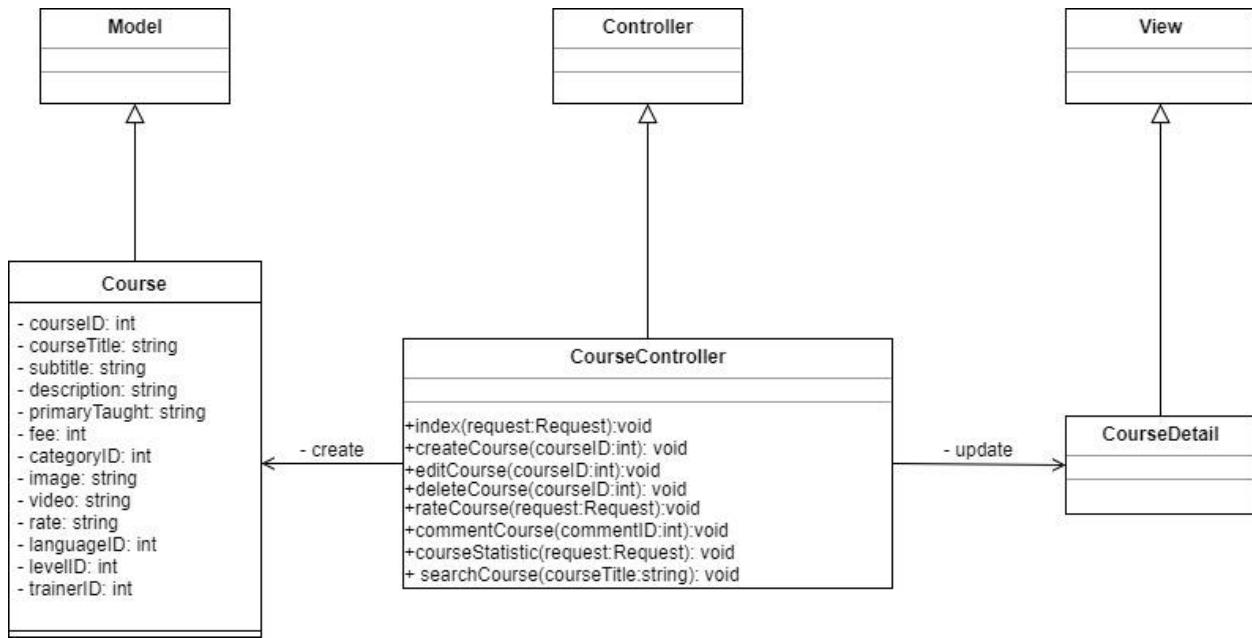


#### 4.4.25 View Course Detail

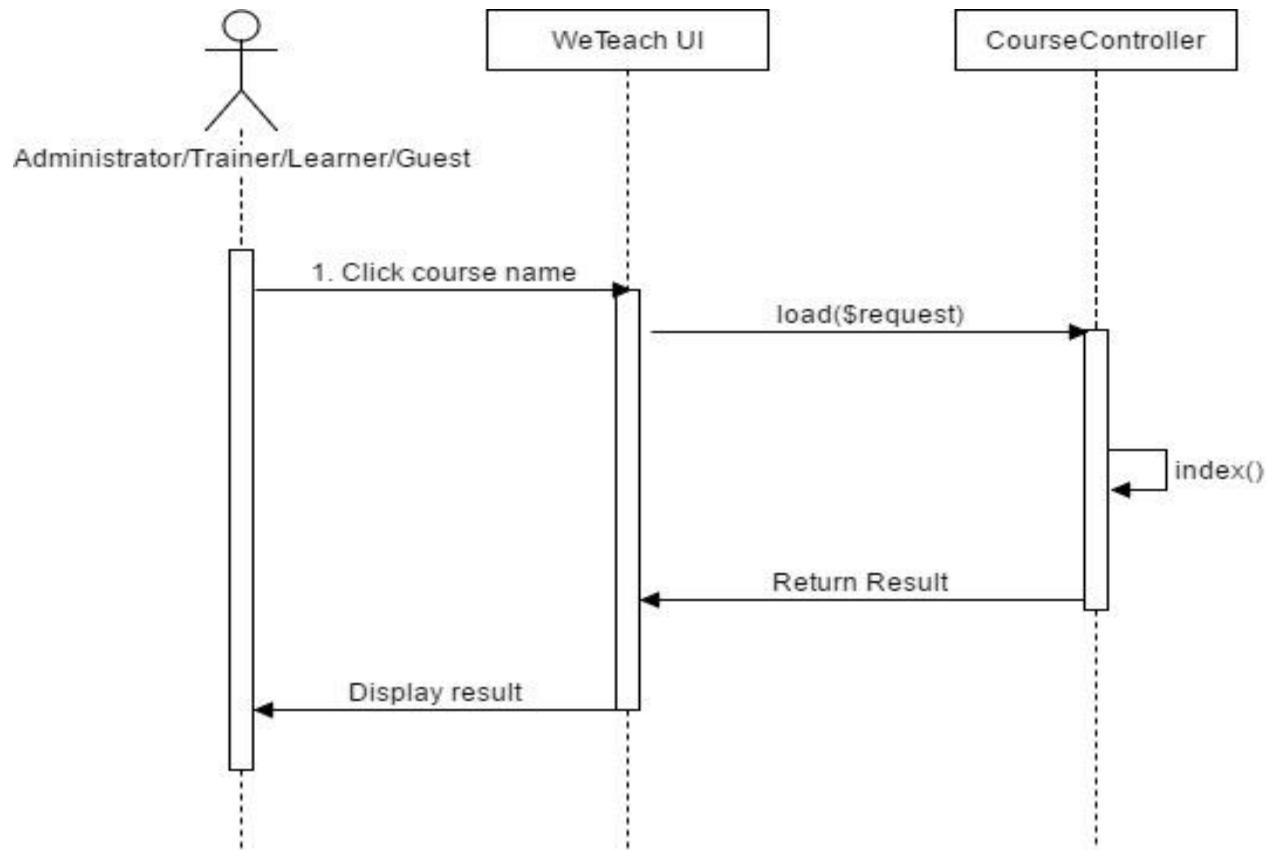
##### Description

User can view course detail.

##### Class Diagram



## Sequence Diagram

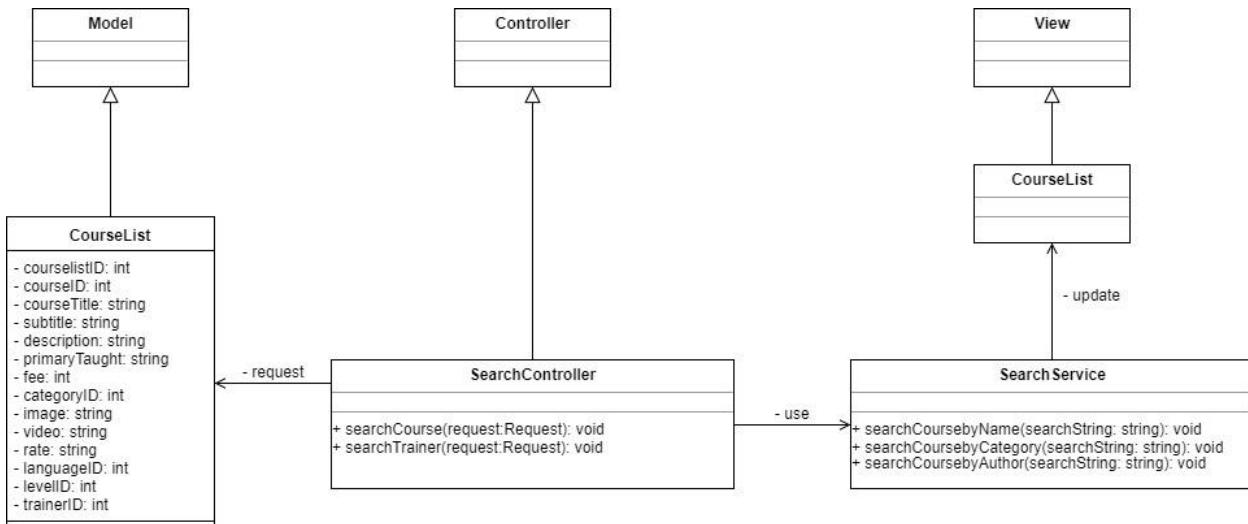


#### 4.4.26 Search Course

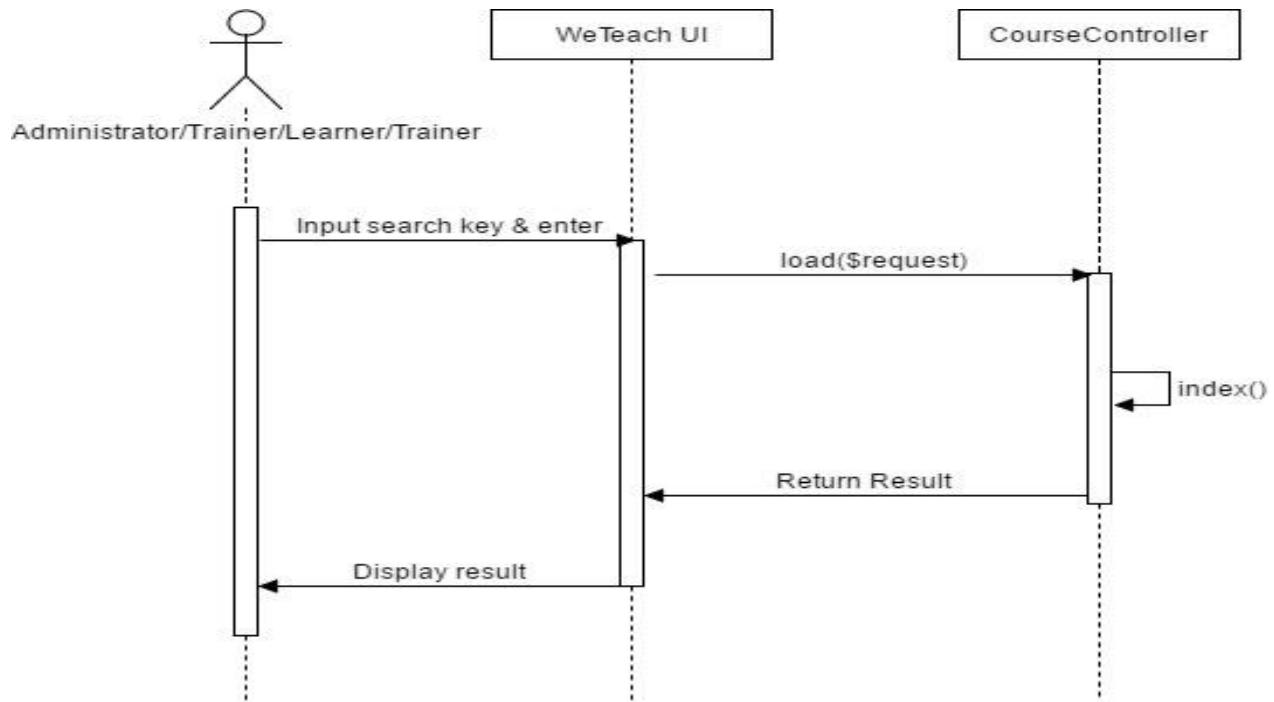
##### Description

User can search course.

##### Class Diagram



##### Sequence Diagram

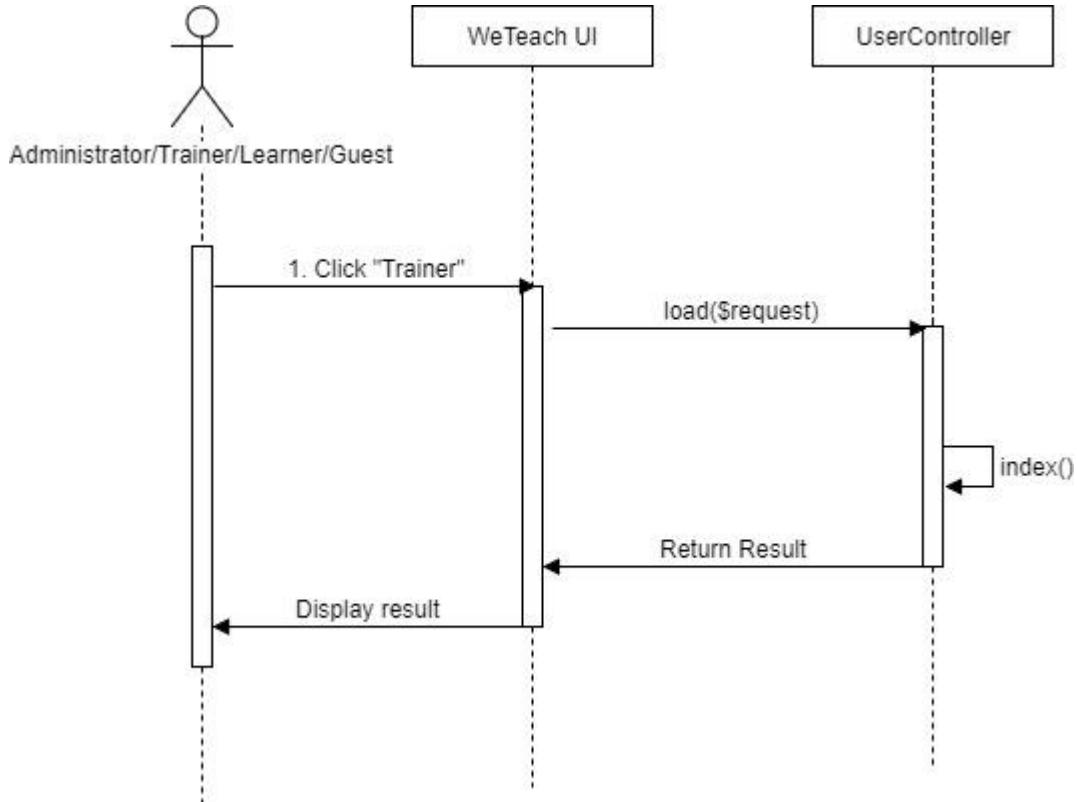


#### 4.4.27 View Trainer List

##### Description

User can view list of trainer.

##### Sequence Diagram

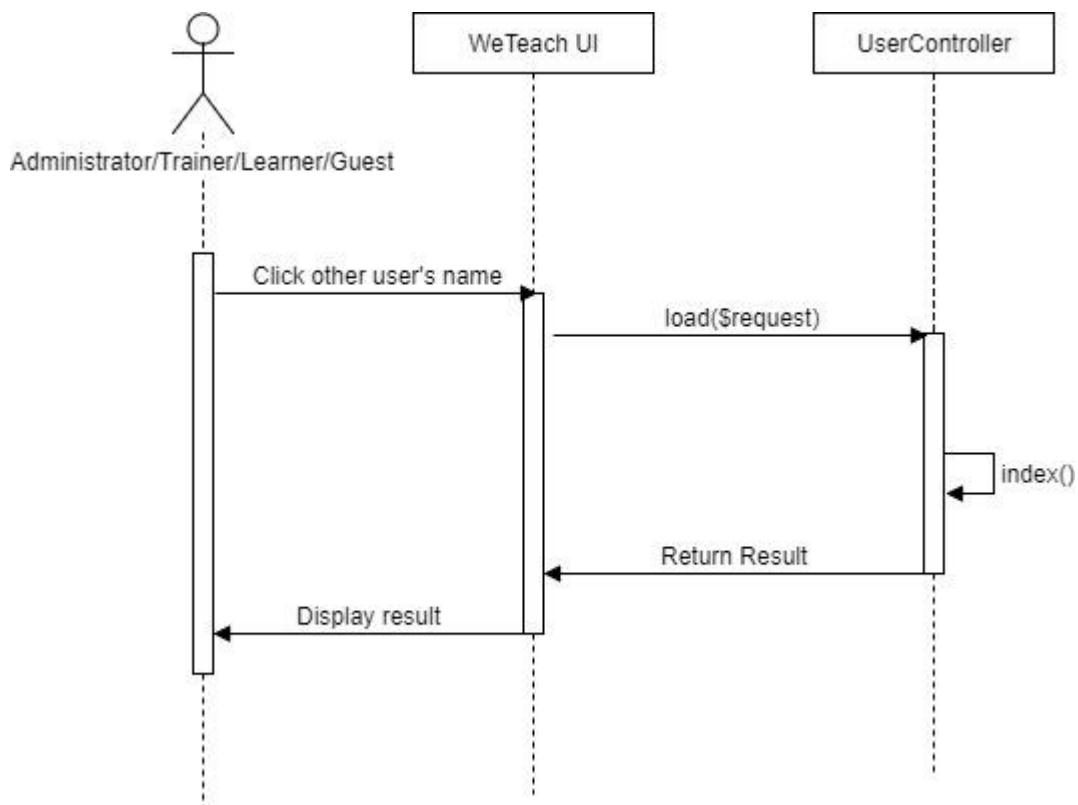


#### 4.4.28 View Other Public Profile

##### Description

User can view other profile.

##### Sequence Diagram

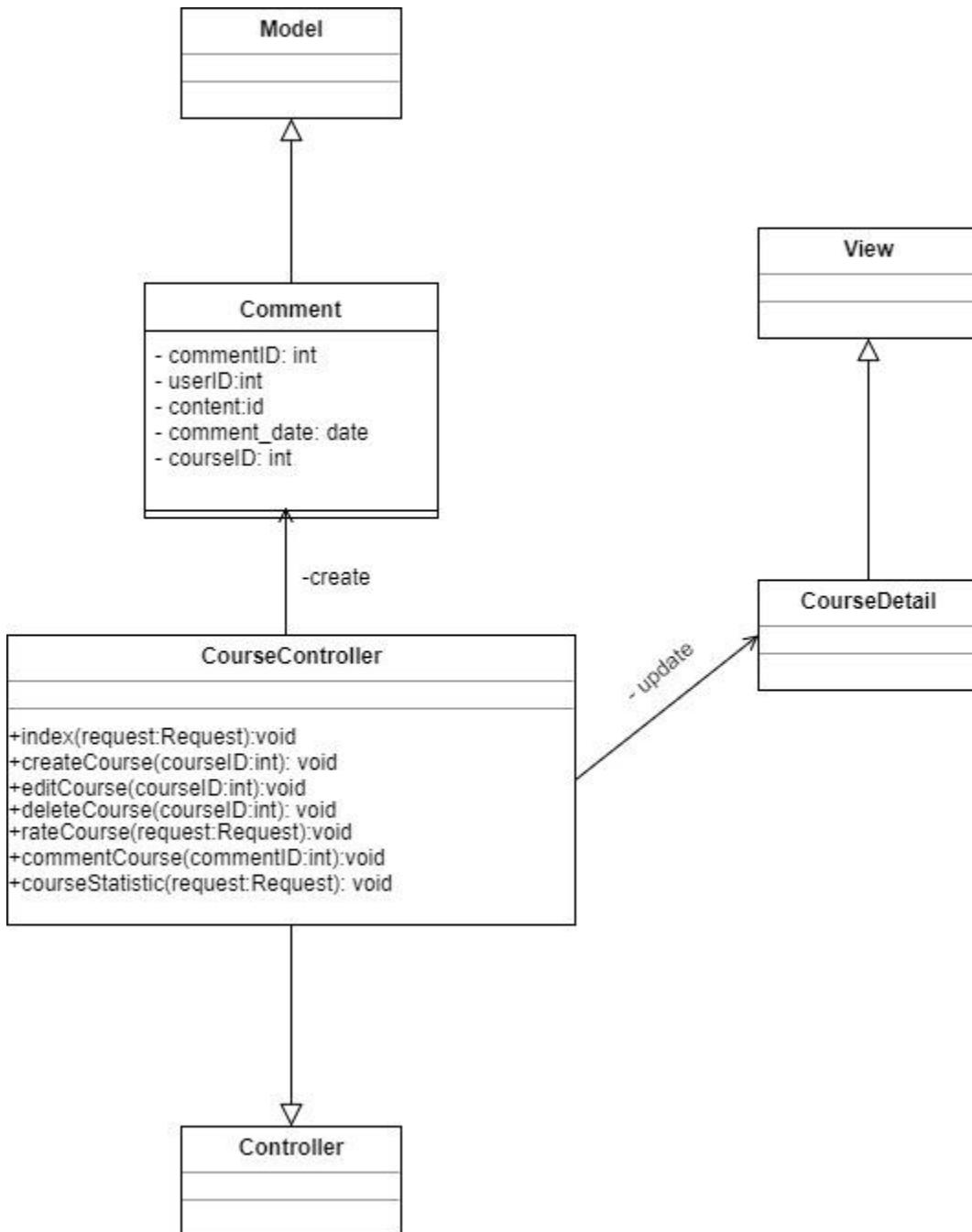


#### 4.4.29 View Course Comment

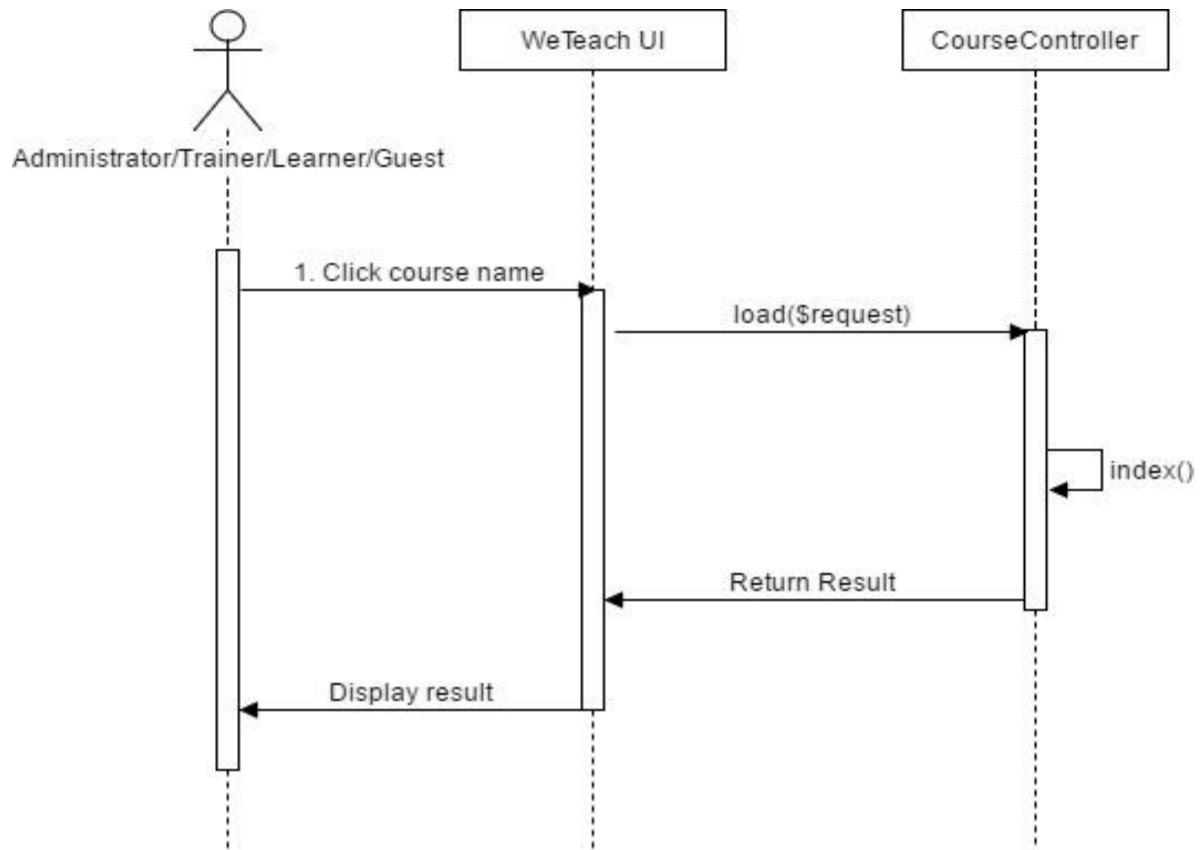
##### Description

All user can see each course's comment.

##### Class Diagram



## Sequence Diagram

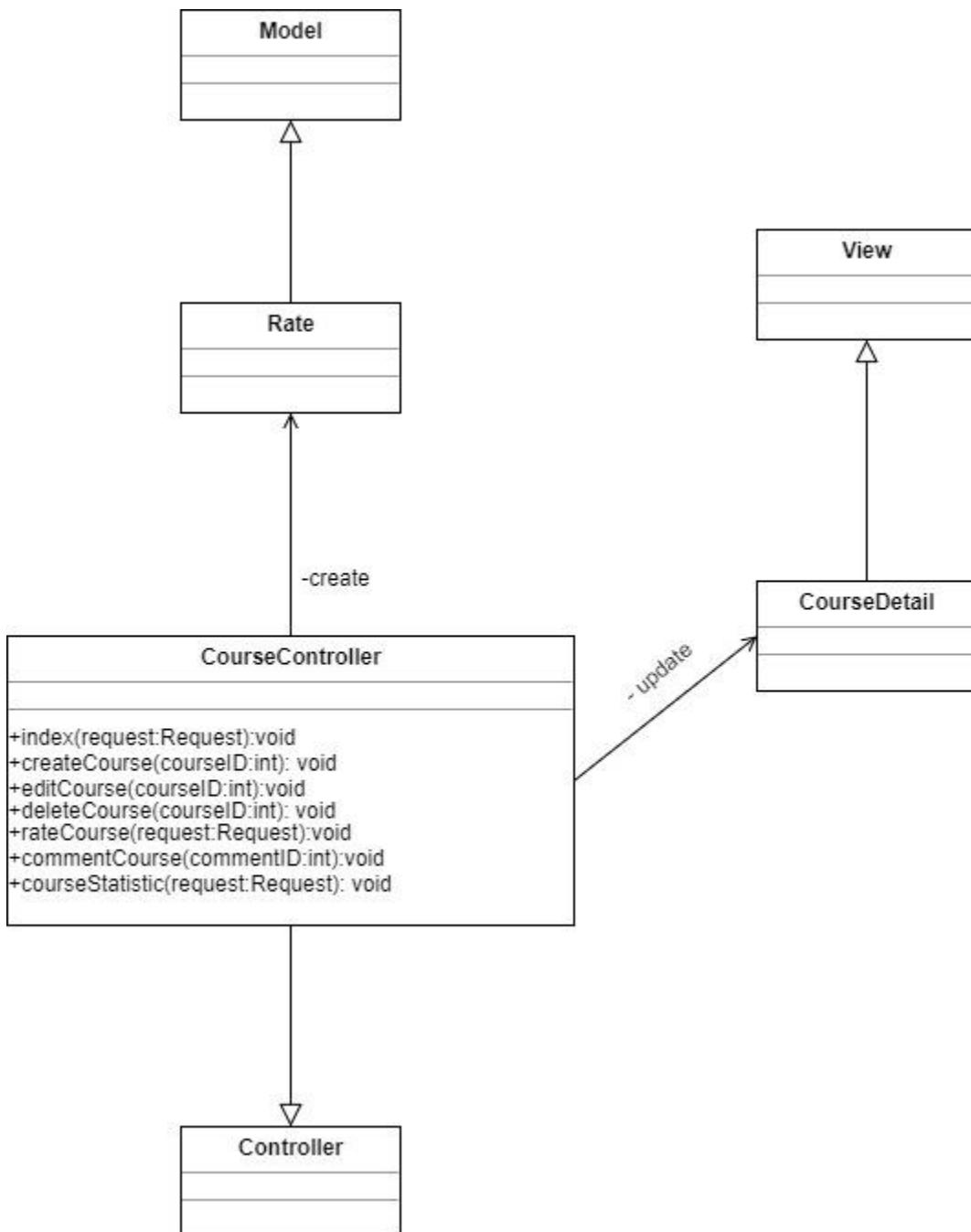


#### 4.4.30 View Course's Rate

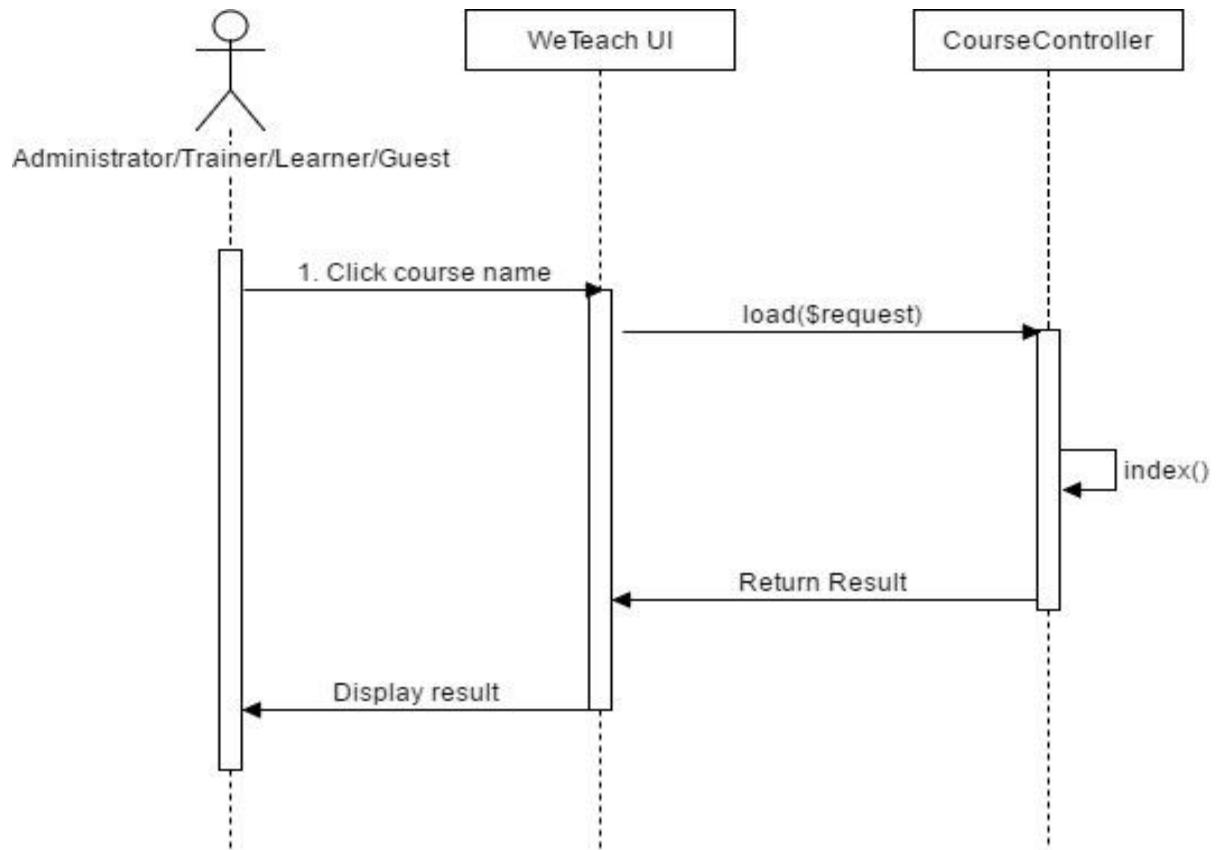
##### Description

User can view course's rate

##### Class Diagram



## Sequence Diagram

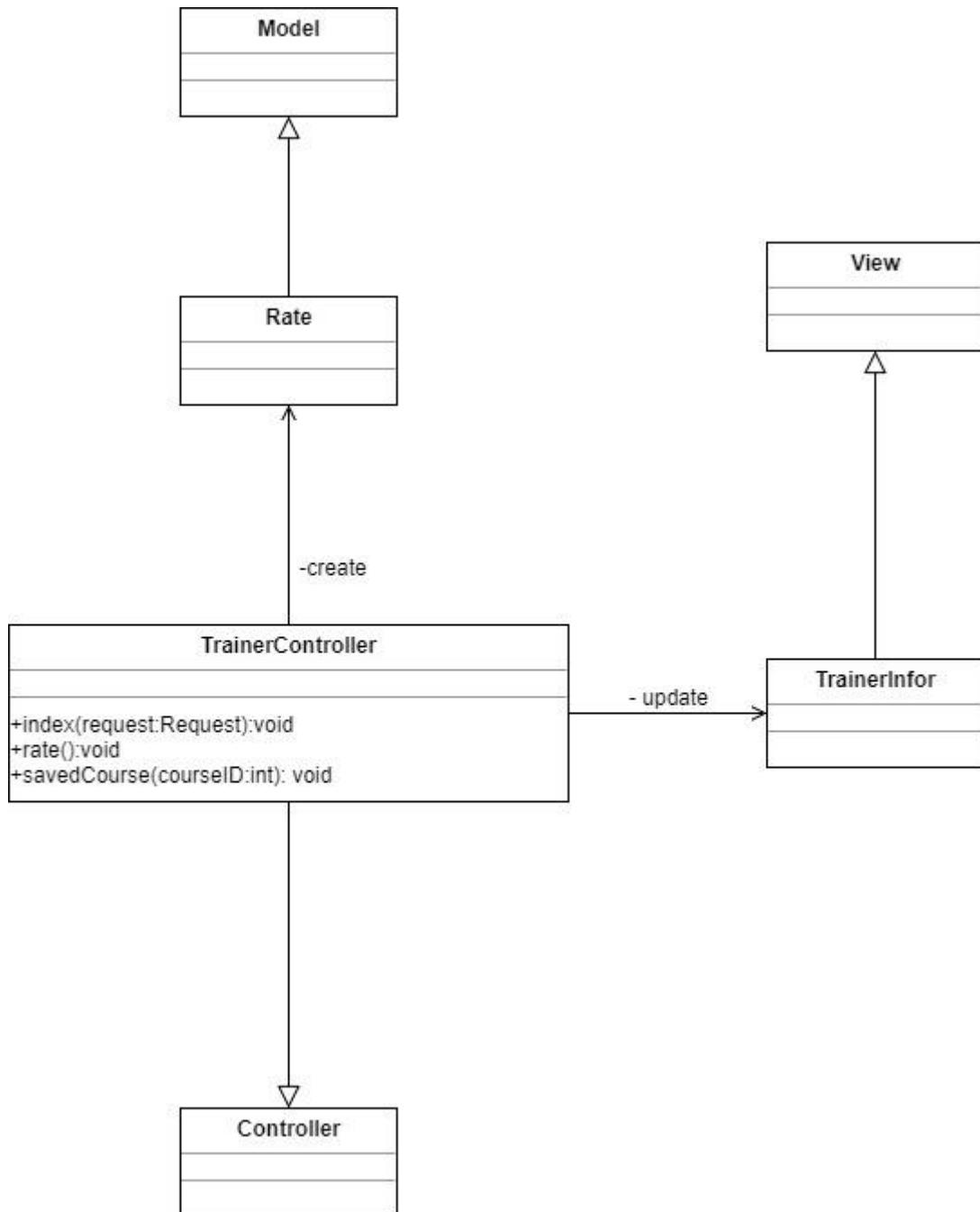


#### 4.4.31 View Trainer's Rate

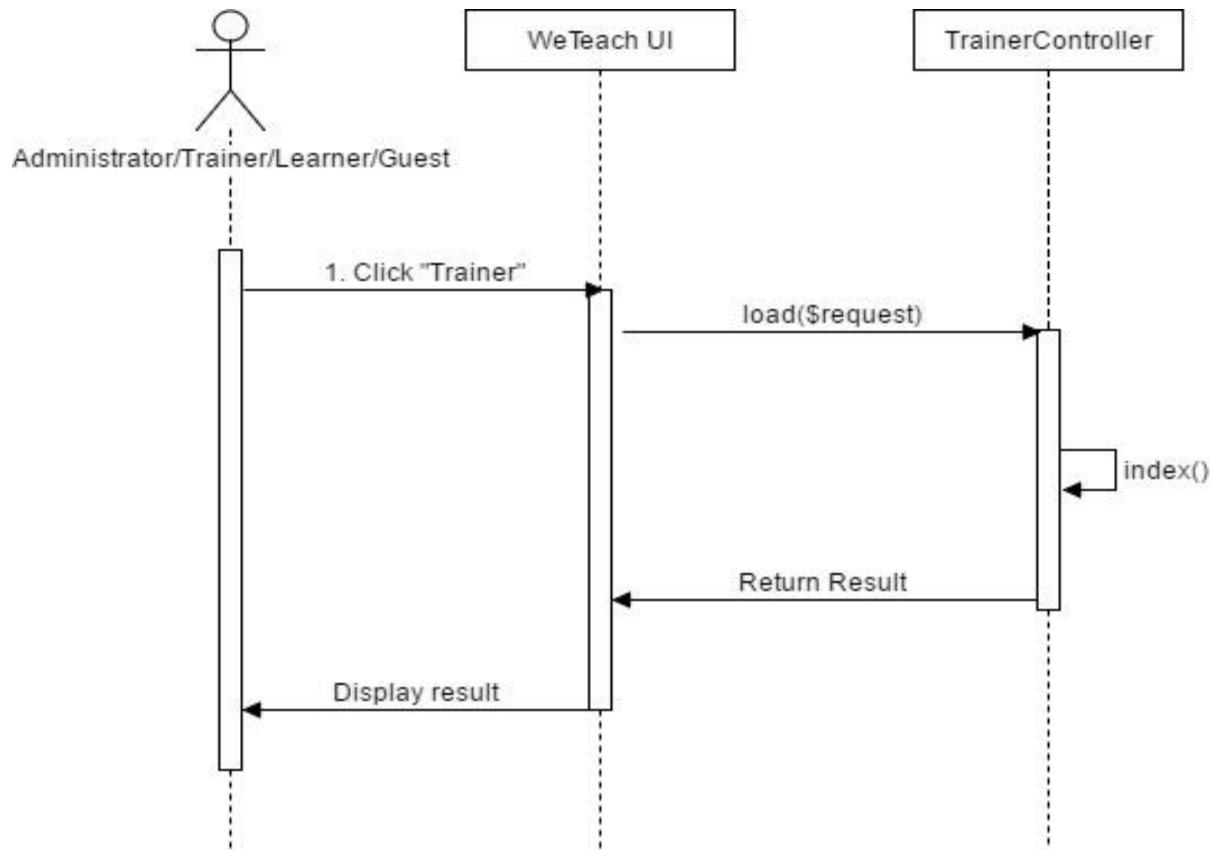
##### Description

User can view trainer's rate.

##### Class Diagram



## Sequence Diagram

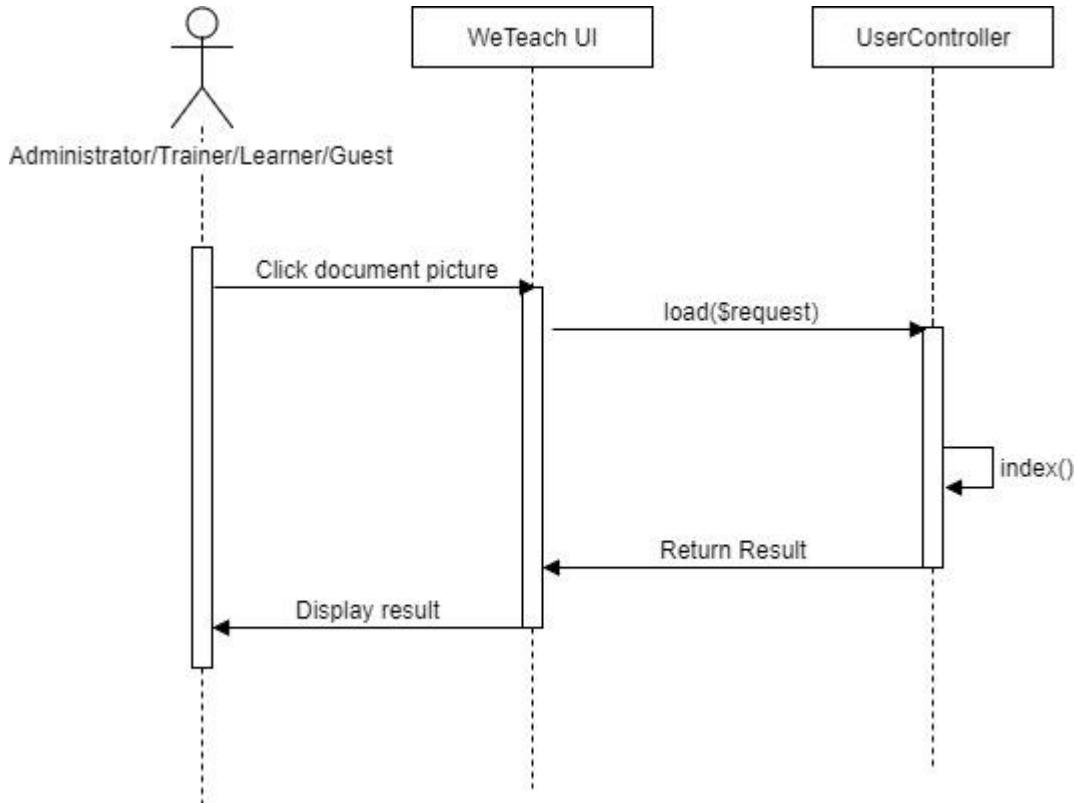


#### 4.4.32 View Document Picture

##### Description

User can see each document picture.

##### Sequence Diagram

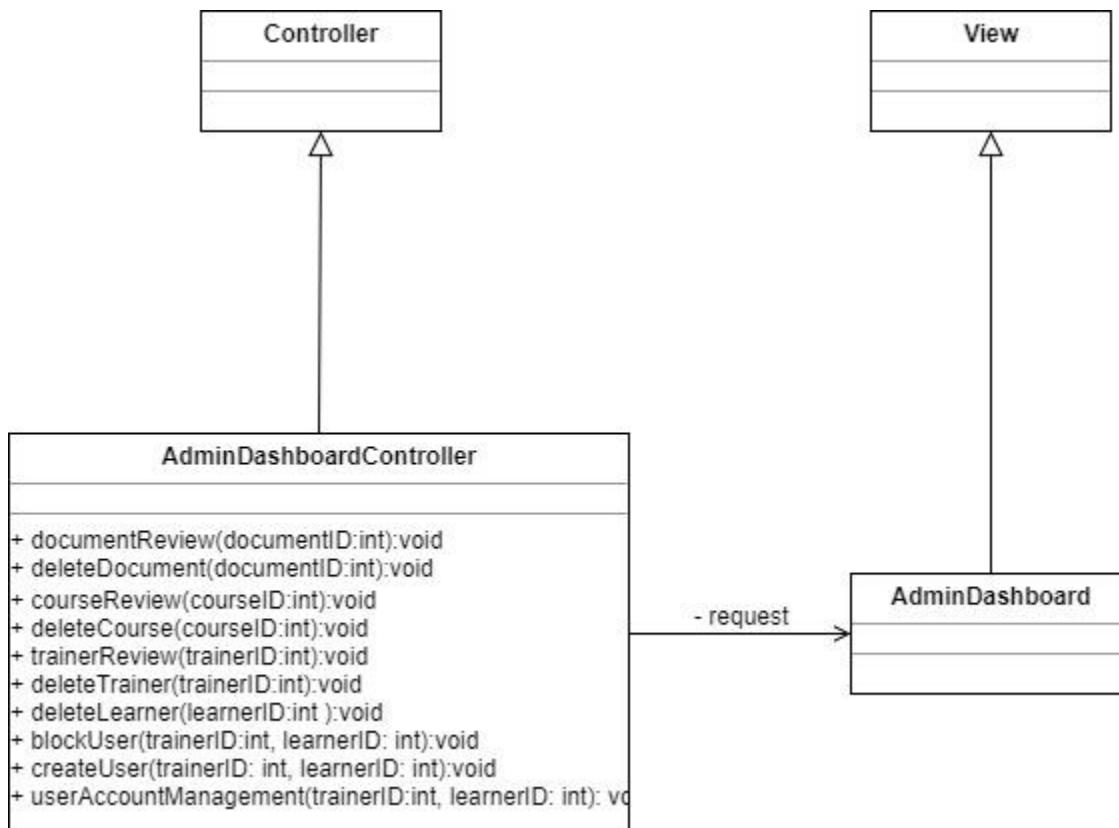


#### 4.4.33 View Website Statistic

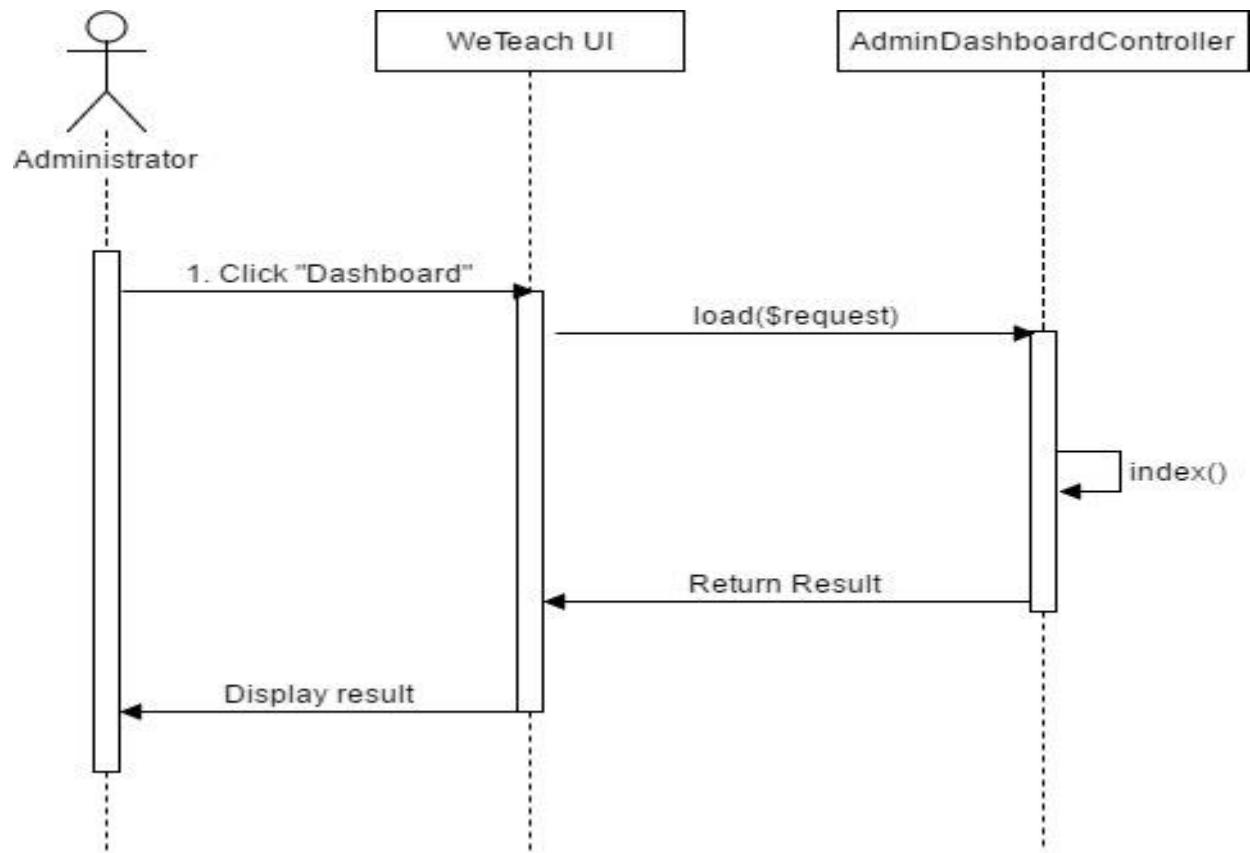
##### Description

Administrator can view website statistic.

##### Class Diagram



## Sequence Diagram

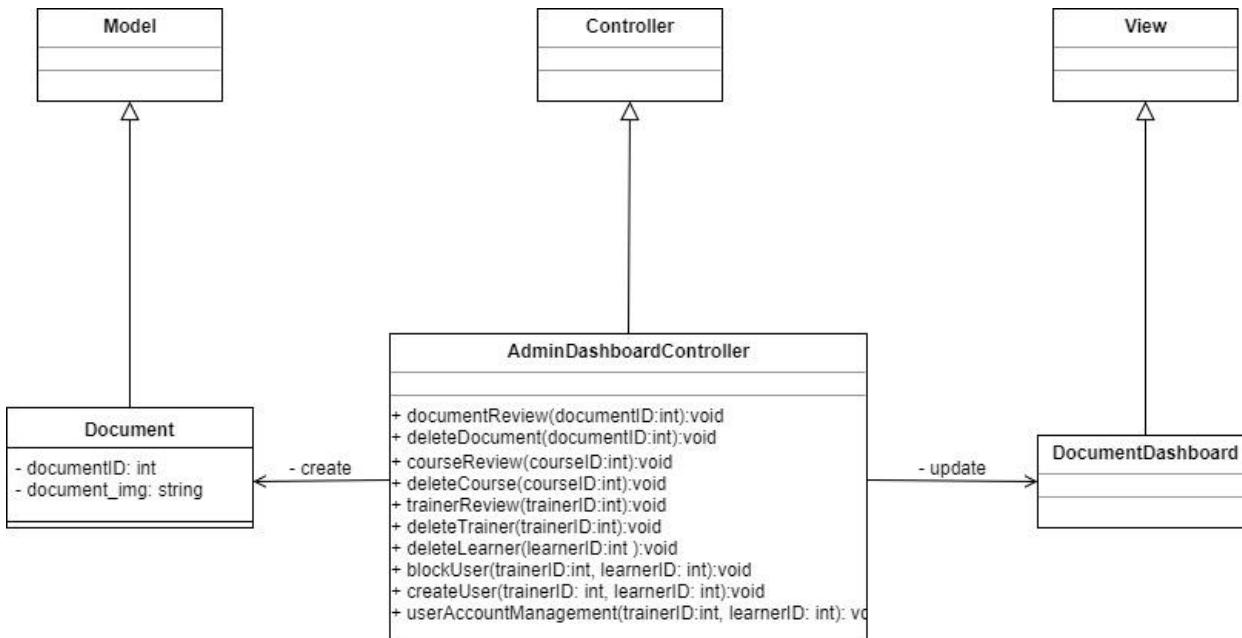


#### 4.4.34 Review Trainer's Document

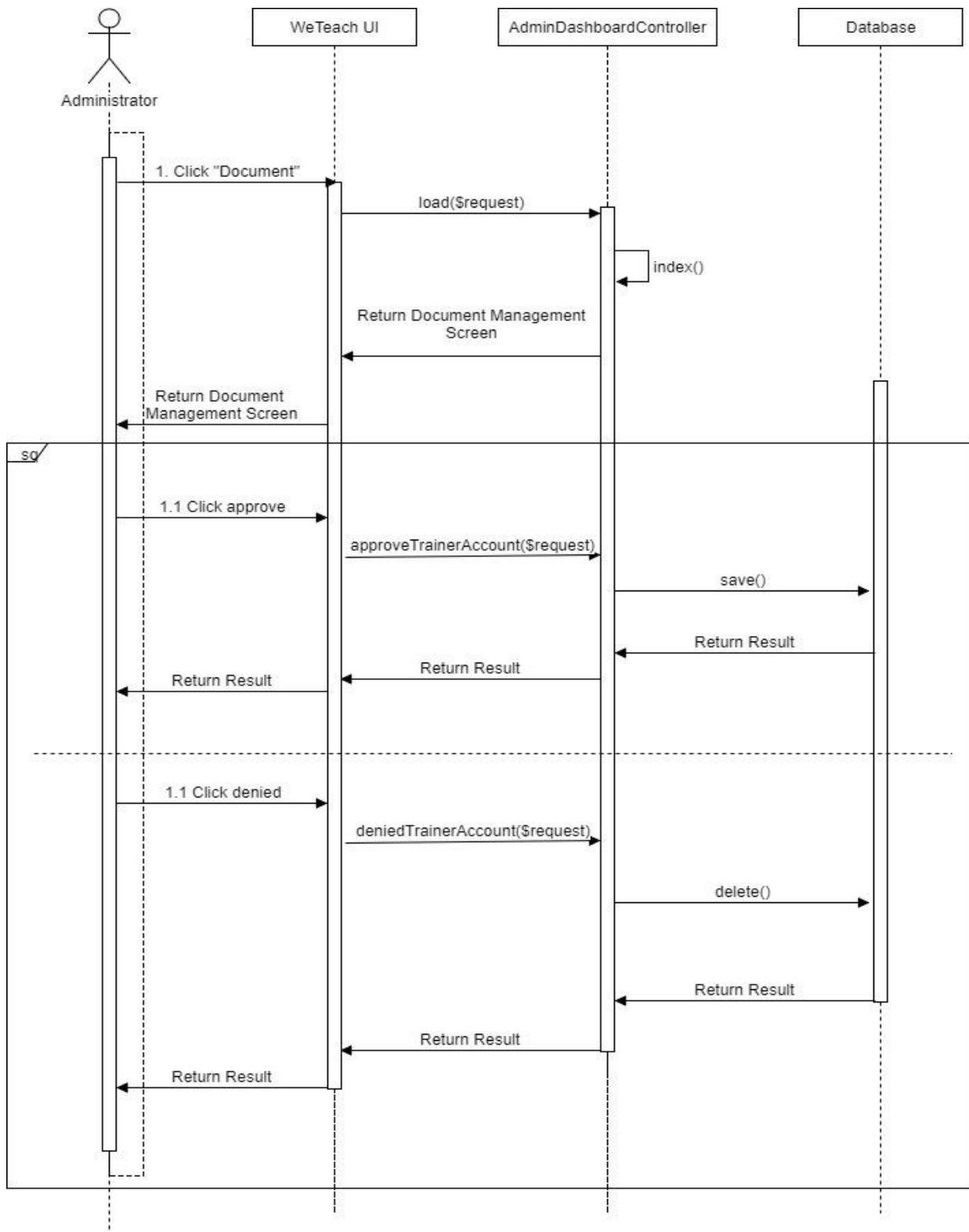
##### Description

Trainer's Document will be reviewed by administrator.

##### Class Diagram



## Sequence Diagram

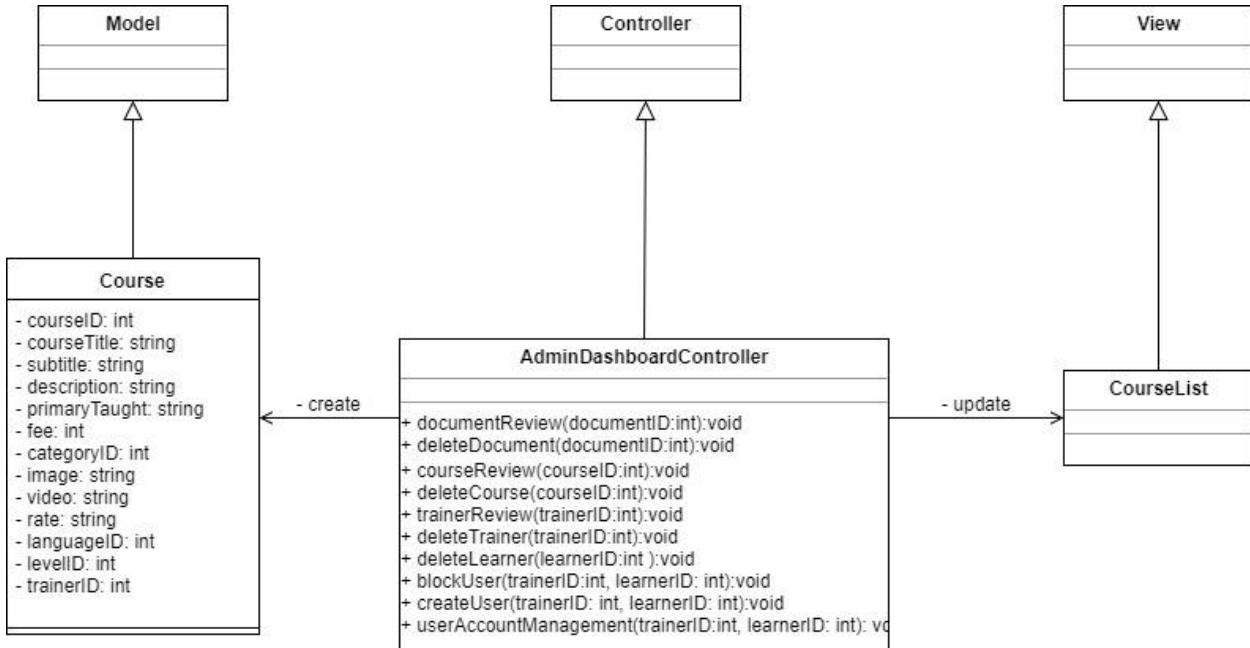


#### 4.4.35 Review New Course

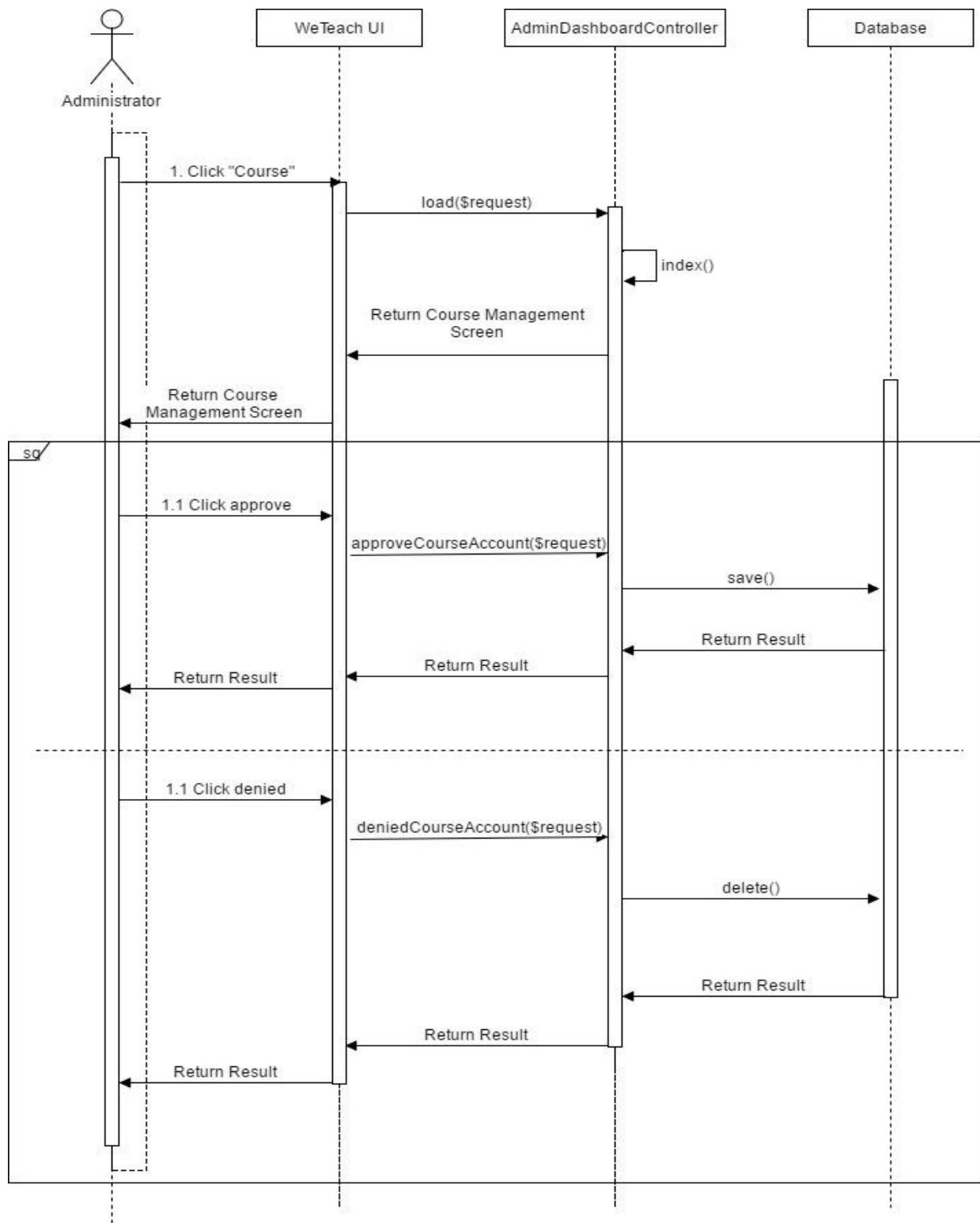
##### Description

Every new course created will be review by administrator before public.

##### Class Diagram



## Sequence Diagram

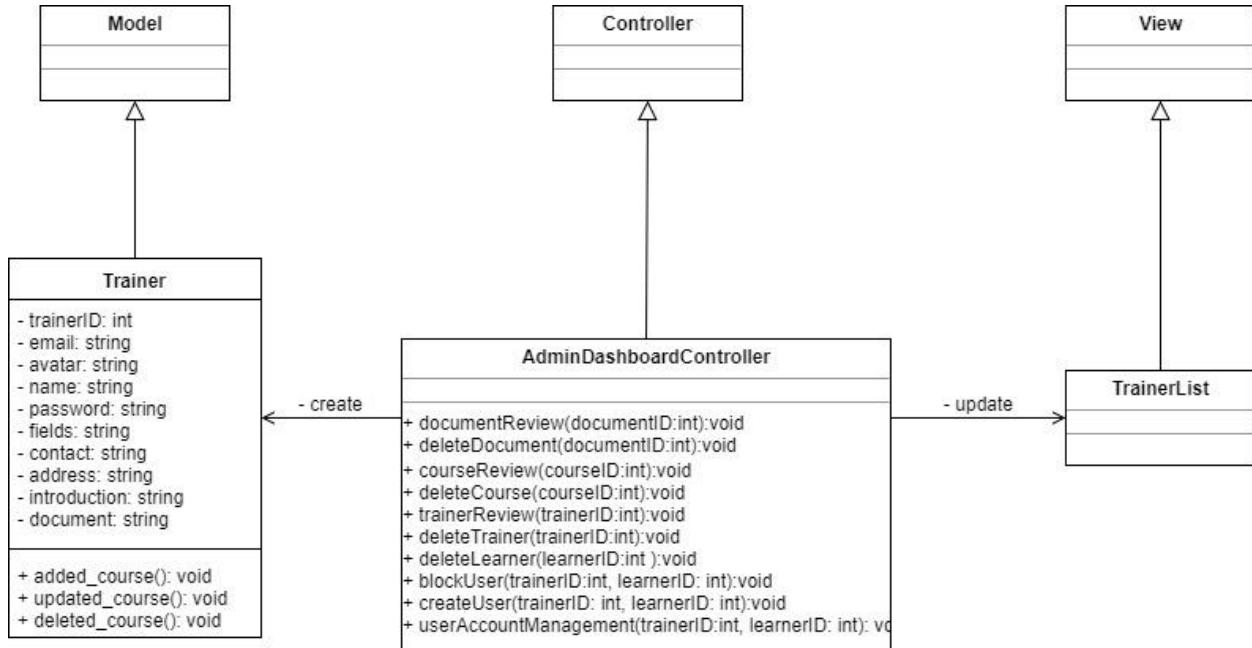


#### 4.4.36 Review Trainer's Account

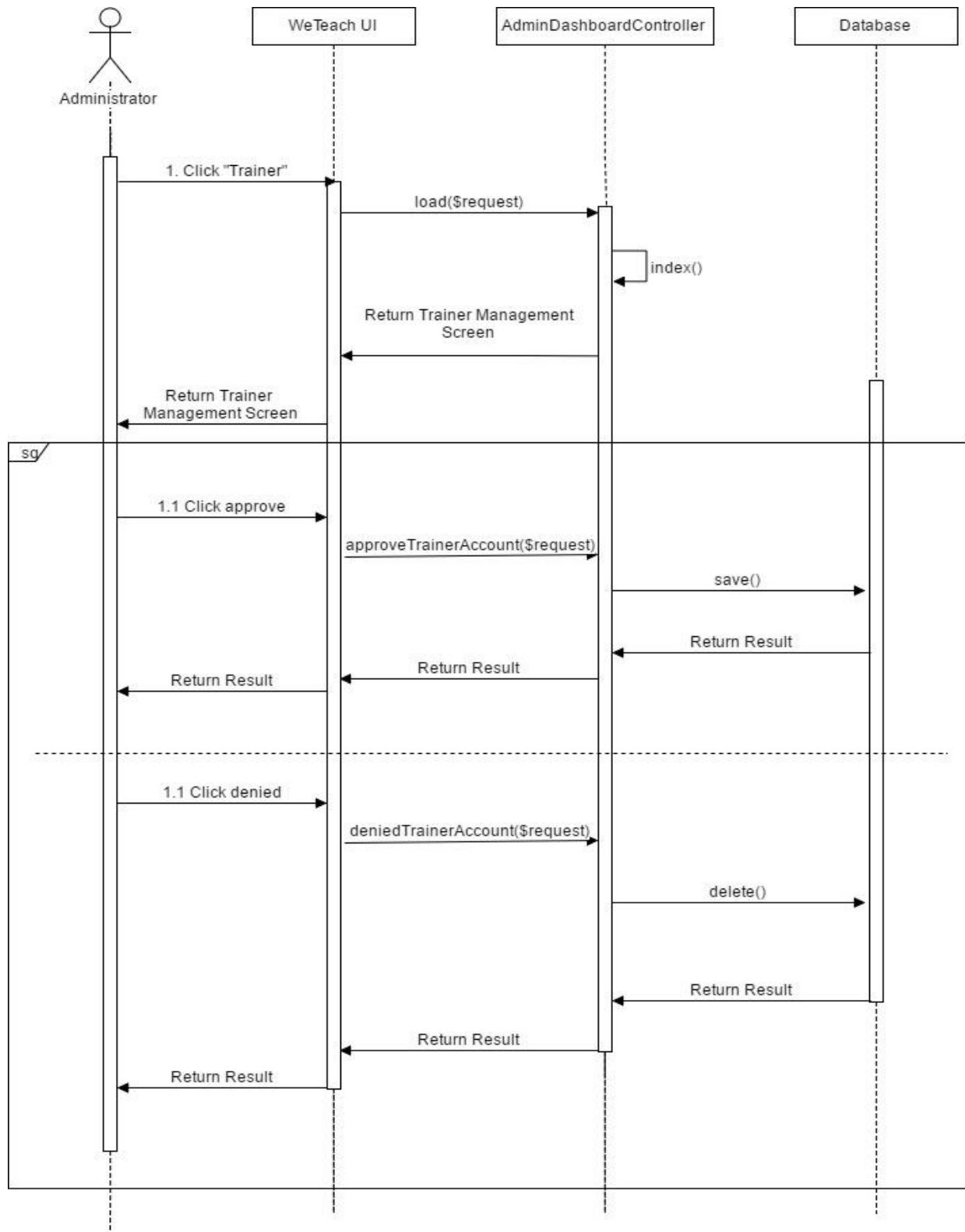
##### Description

Trainer's account will be reviewed by administrator.

##### Class Diagram



## Sequence Diagram

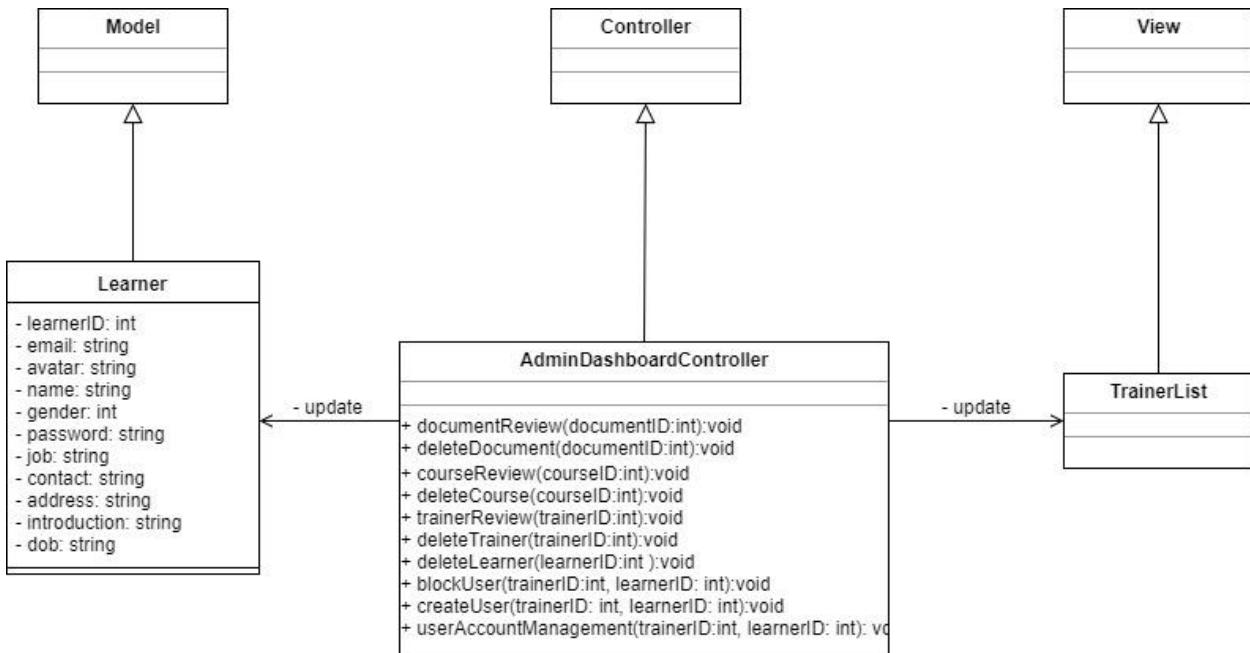


#### 4.4.37 Block Learners

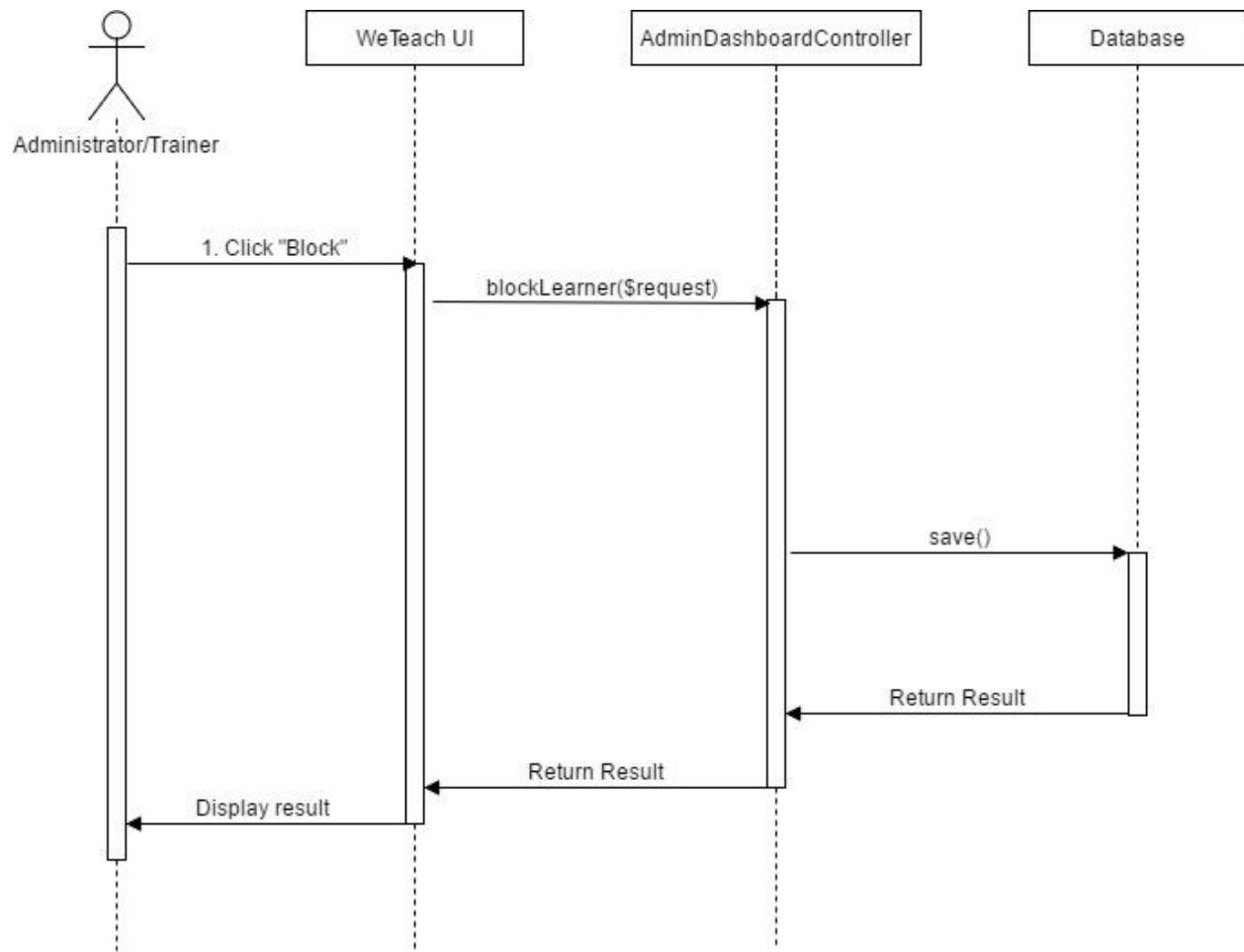
##### Description

Administrator can block learners.

##### Class Diagram



## Sequence Diagram

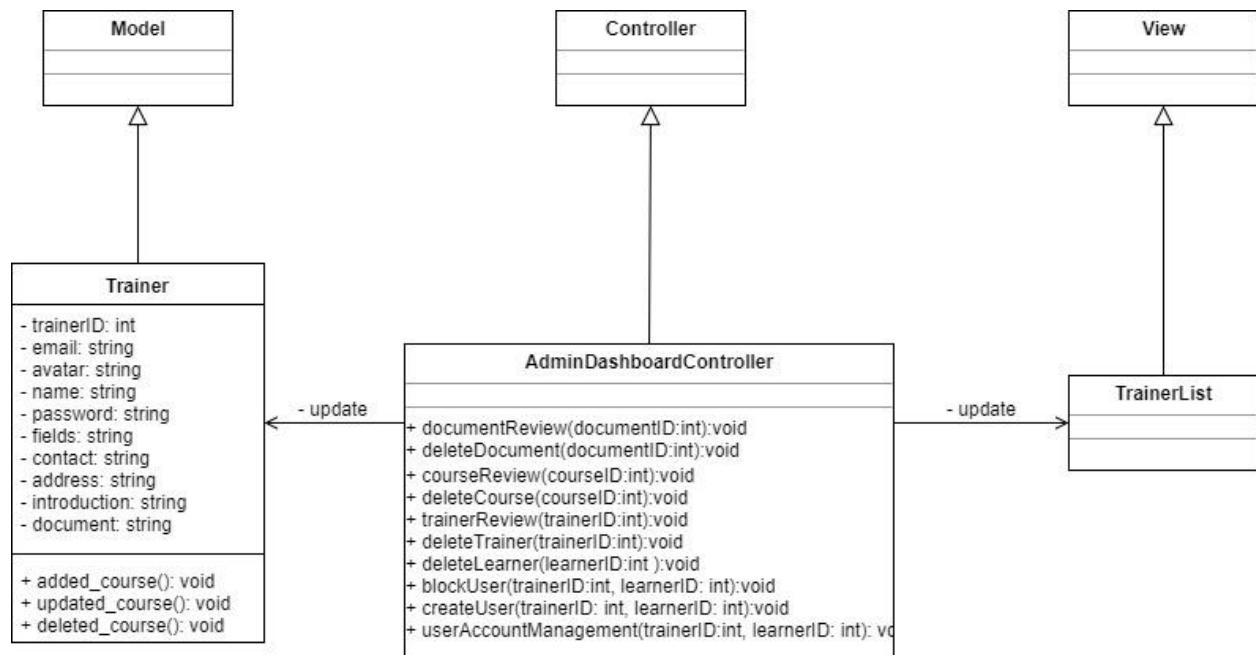


#### 4.4.38 Block Trainers

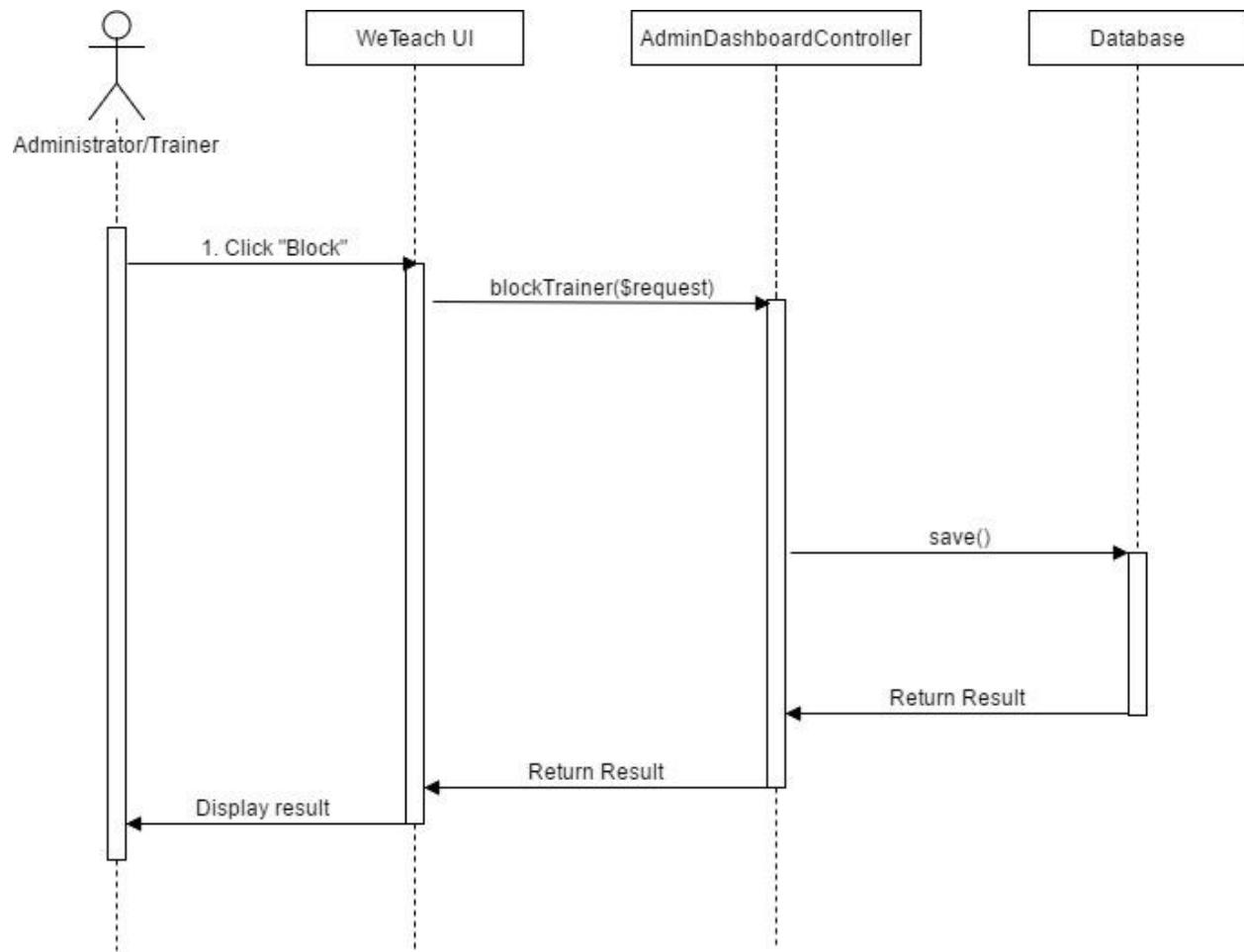
##### Description

Administrator can block trainers.

##### Class Diagram



## Sequence Diagram

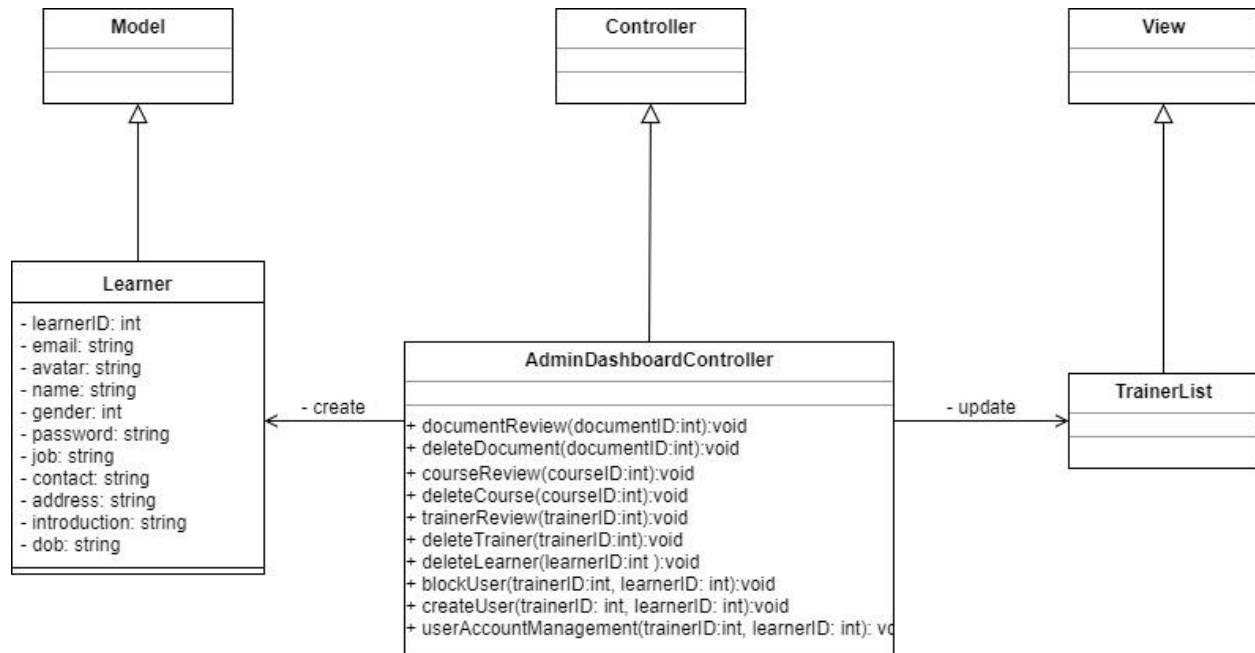


#### 4.4.39 Unblock Learners

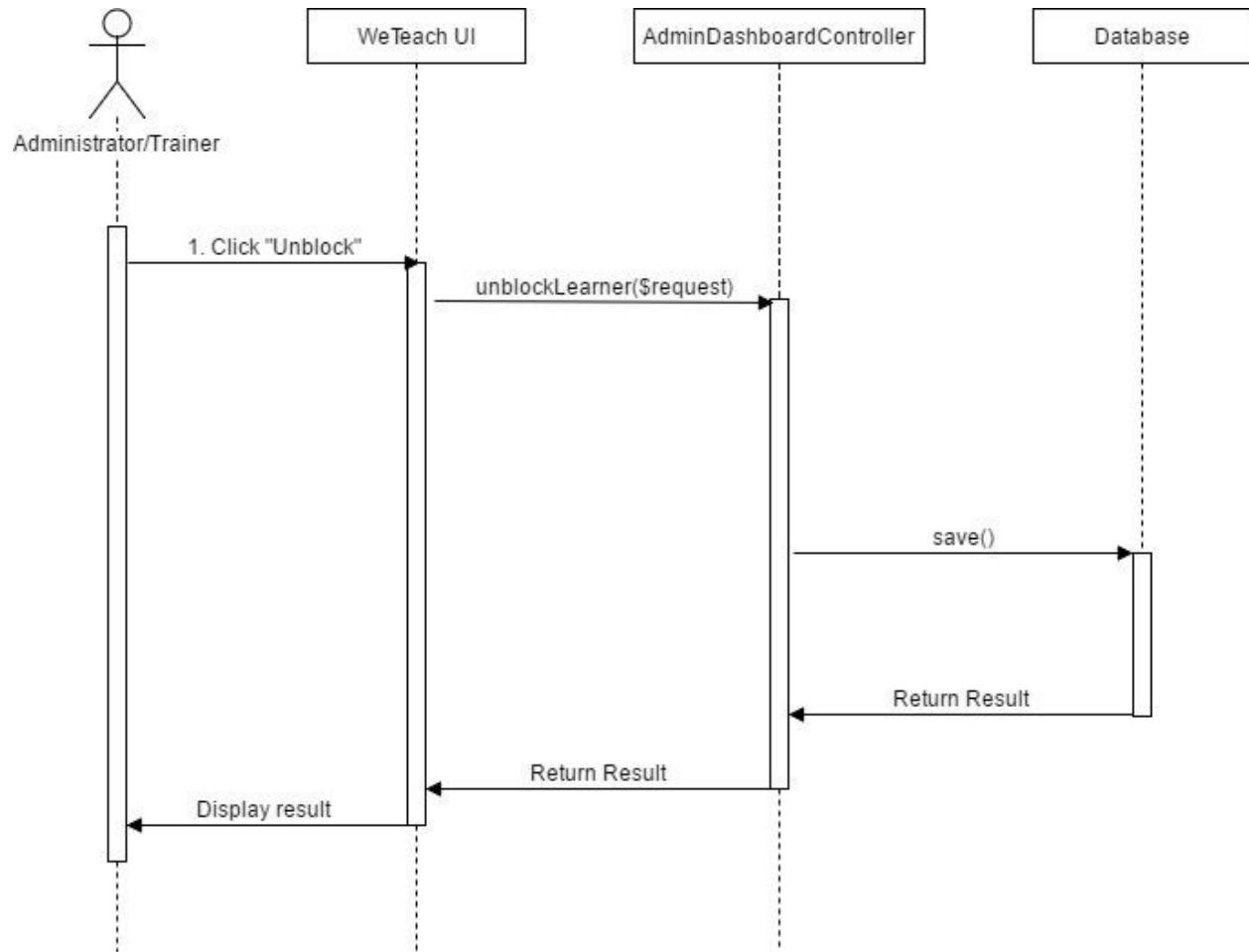
##### Description

Administrator can unblock learners that have been blocked.

##### Class Diagram



## Sequence Diagram

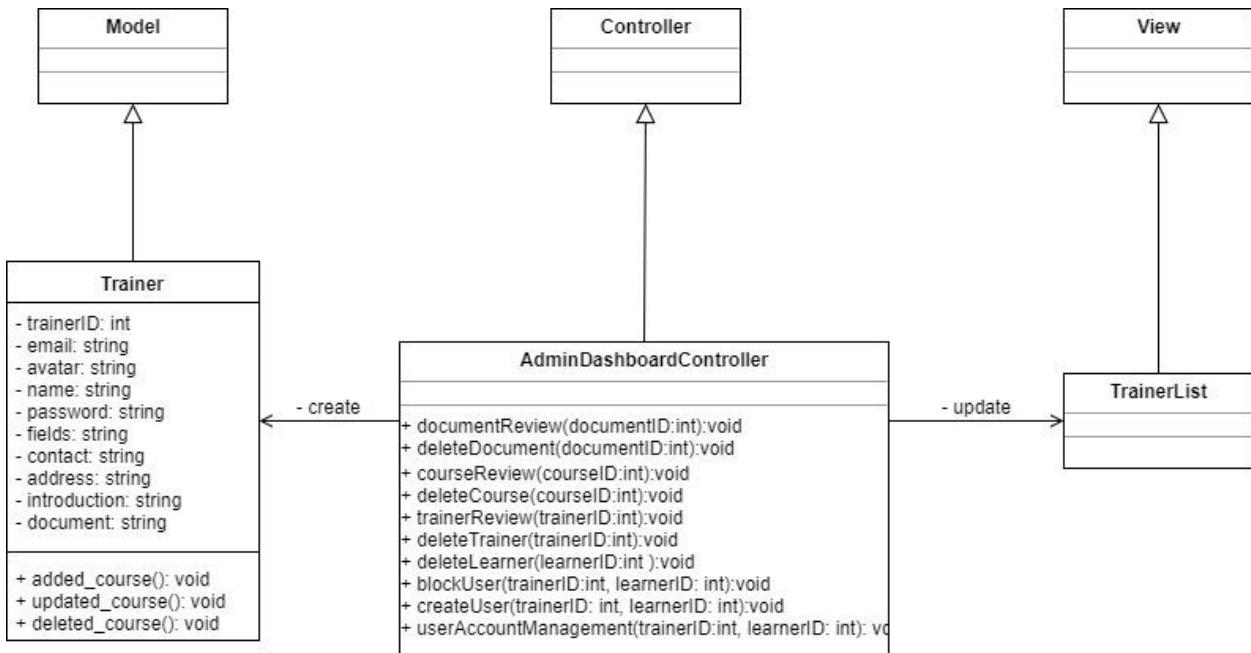


#### 4.4.40 Unblock Trainers

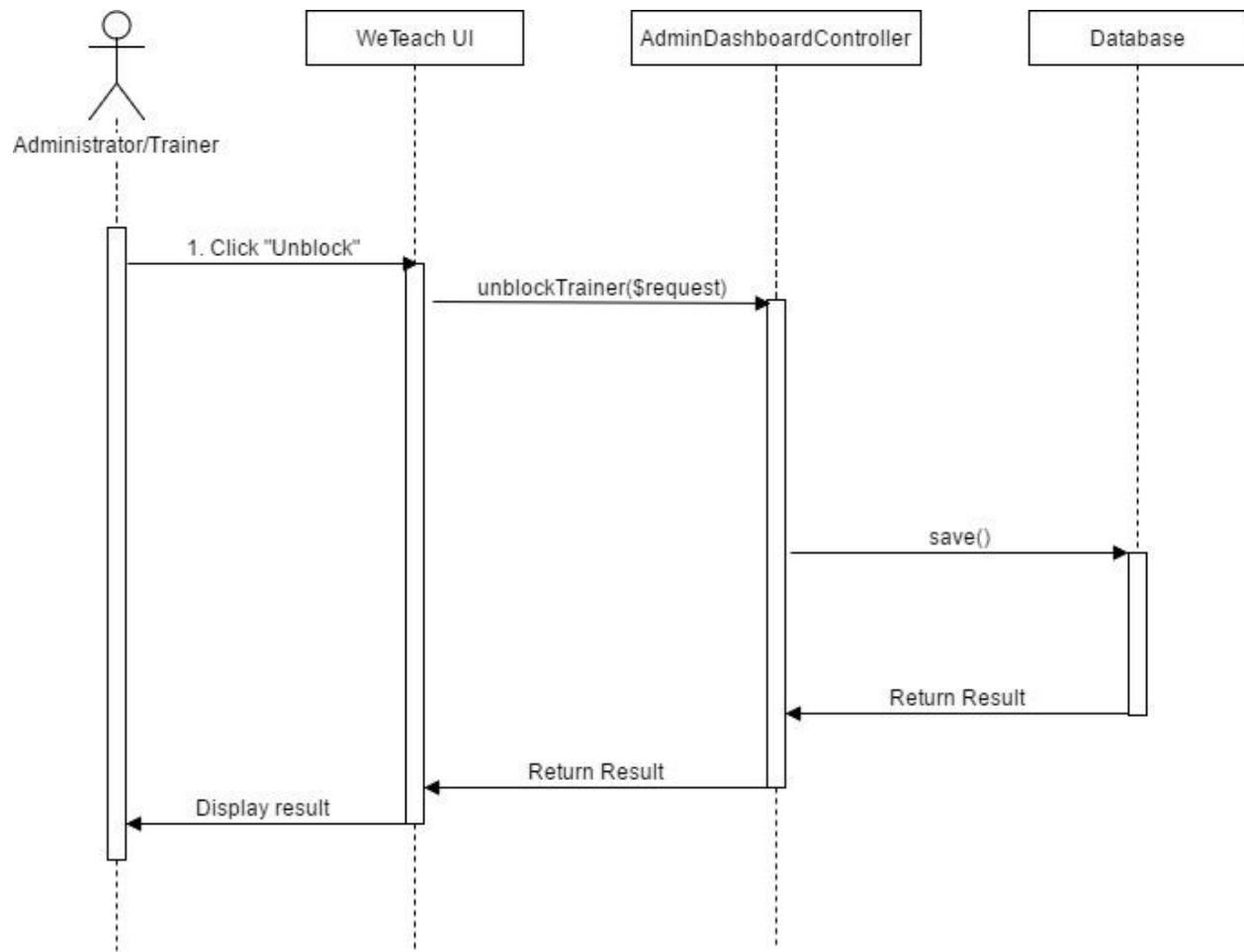
##### Description

Administrator can unblock trainers that have been blocked.

##### Class Diagram



## Sequence Diagram

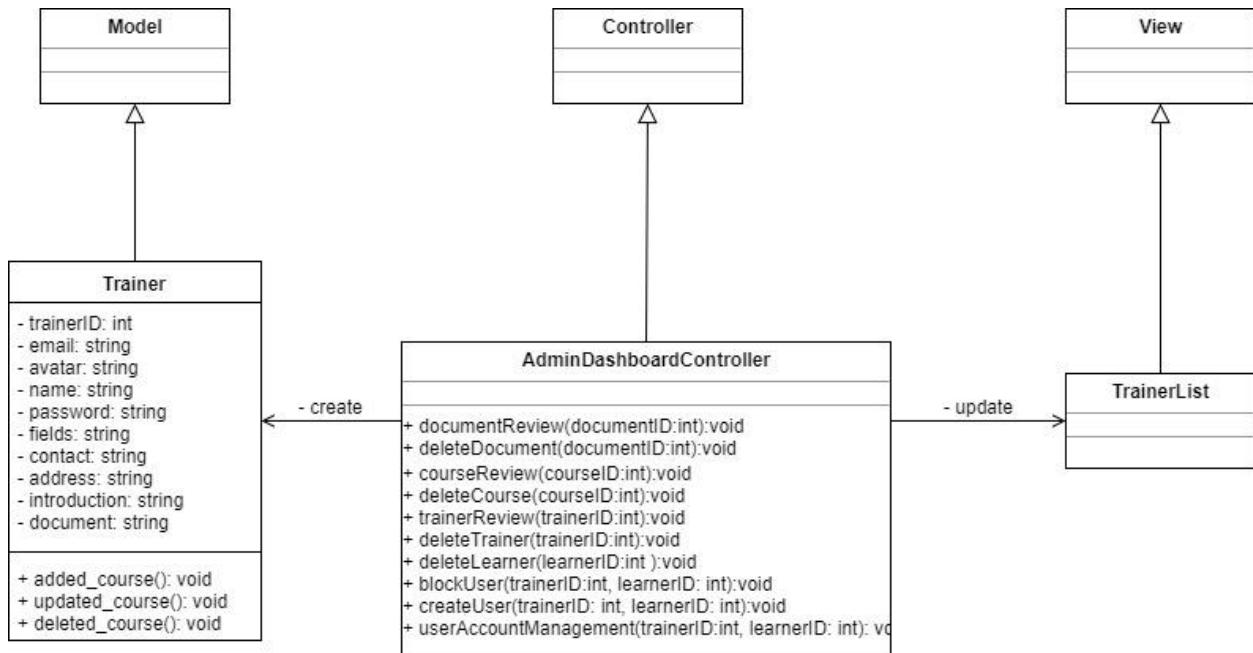


#### 4.4.41 Add New Trainer Account

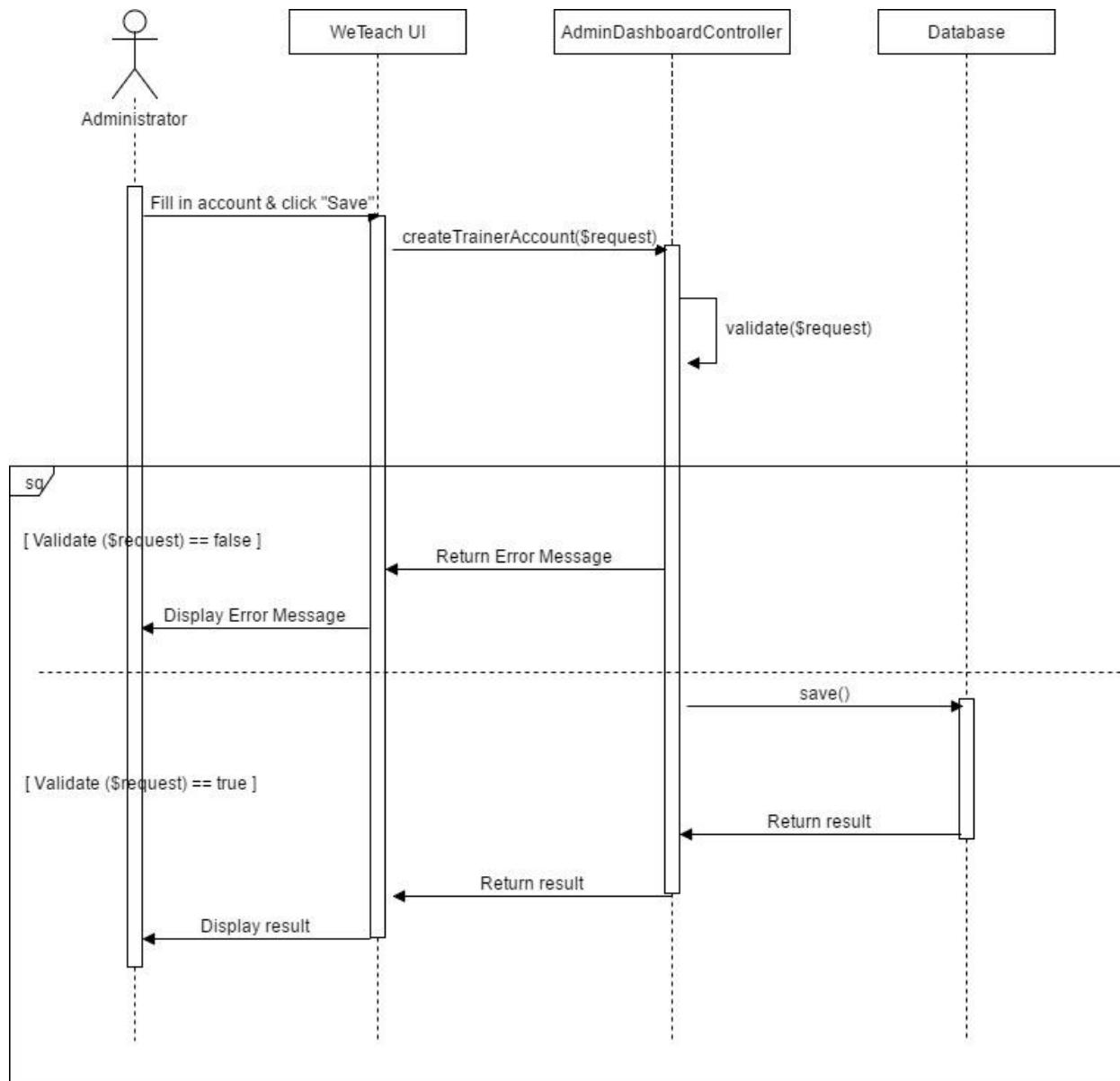
##### Description

Administrator can add new trainer account.

##### Class Diagram



## Sequence Diagram

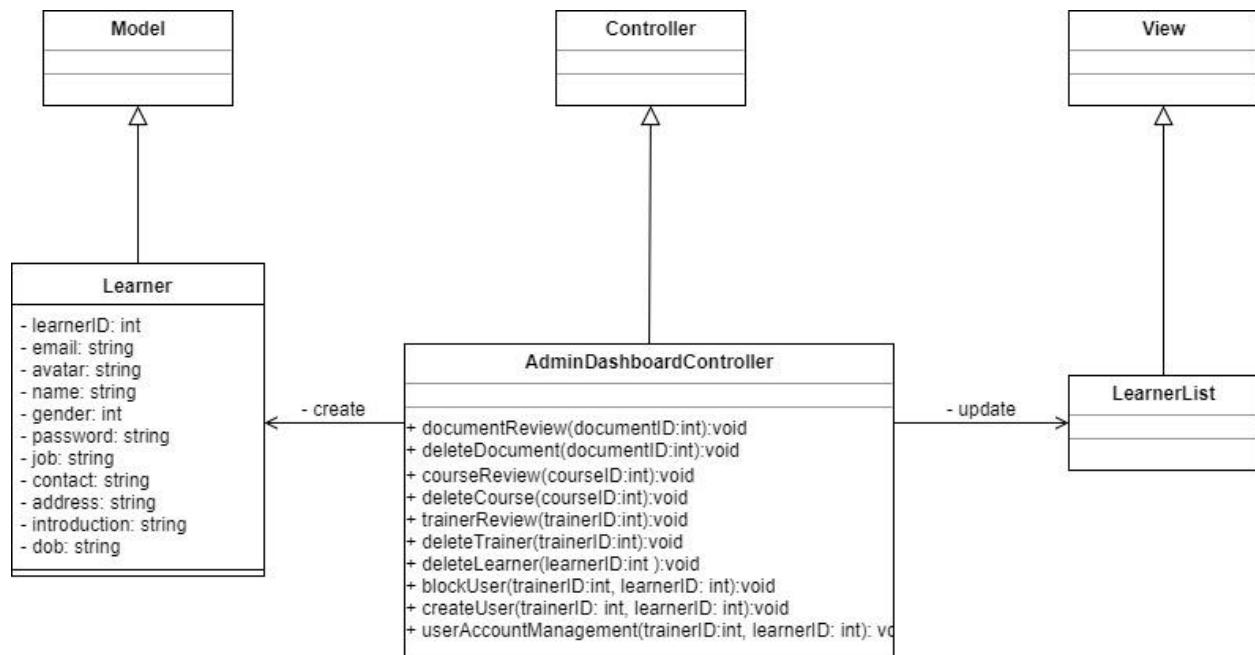


#### 4.4.42 Add New Learner Account

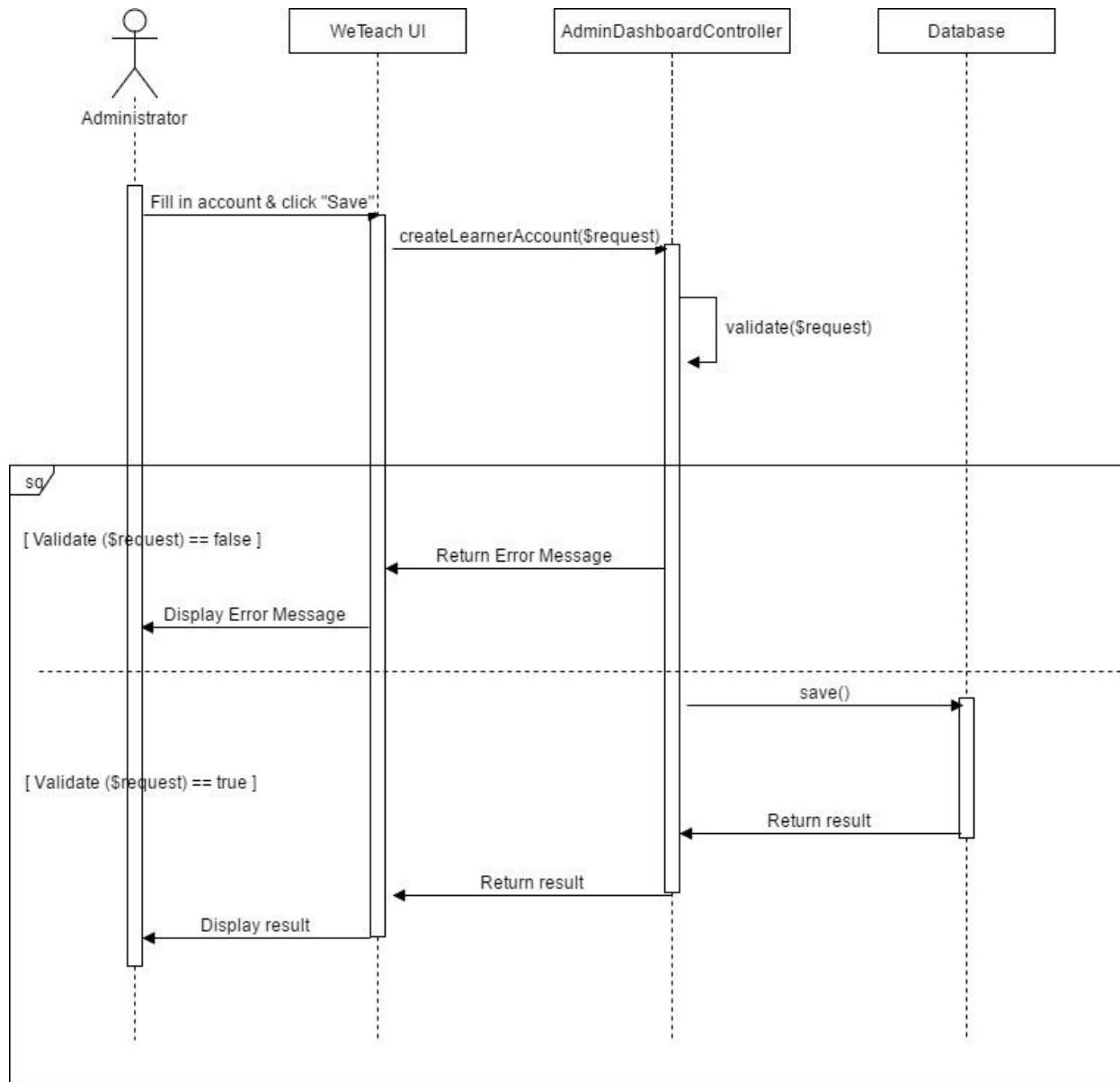
##### Description

Administrator can add new learner account.

##### Class Diagram



## Sequence Diagram

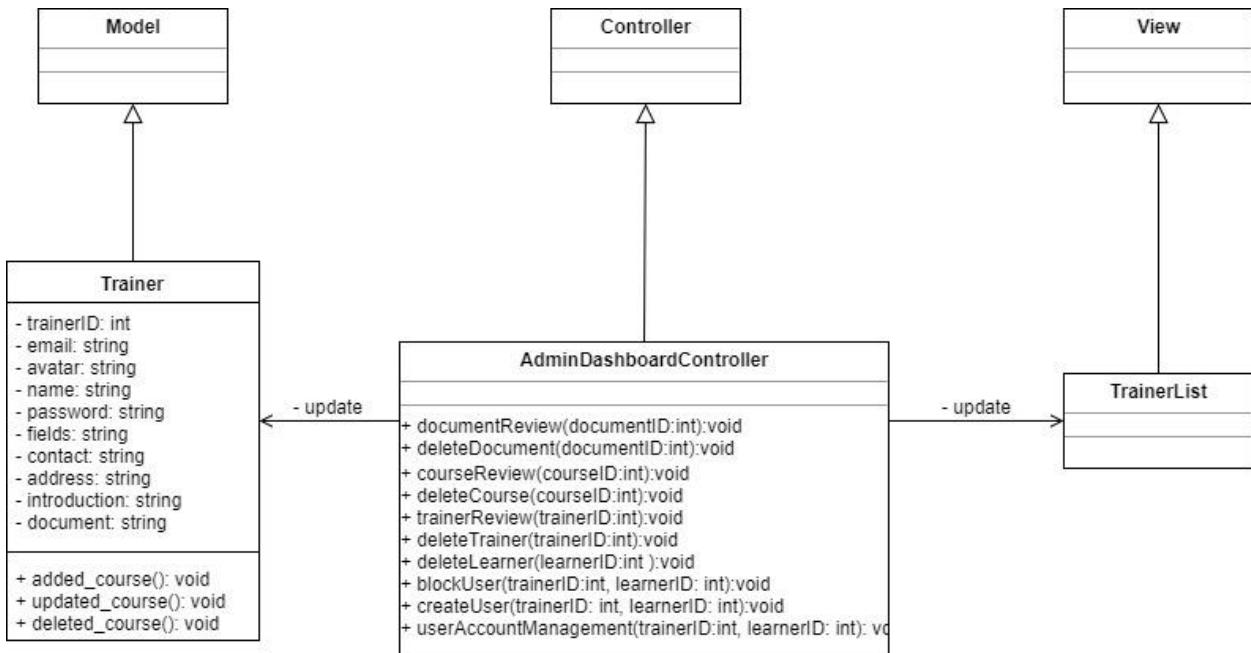


#### 4.4.43 Edit Trainer's Information

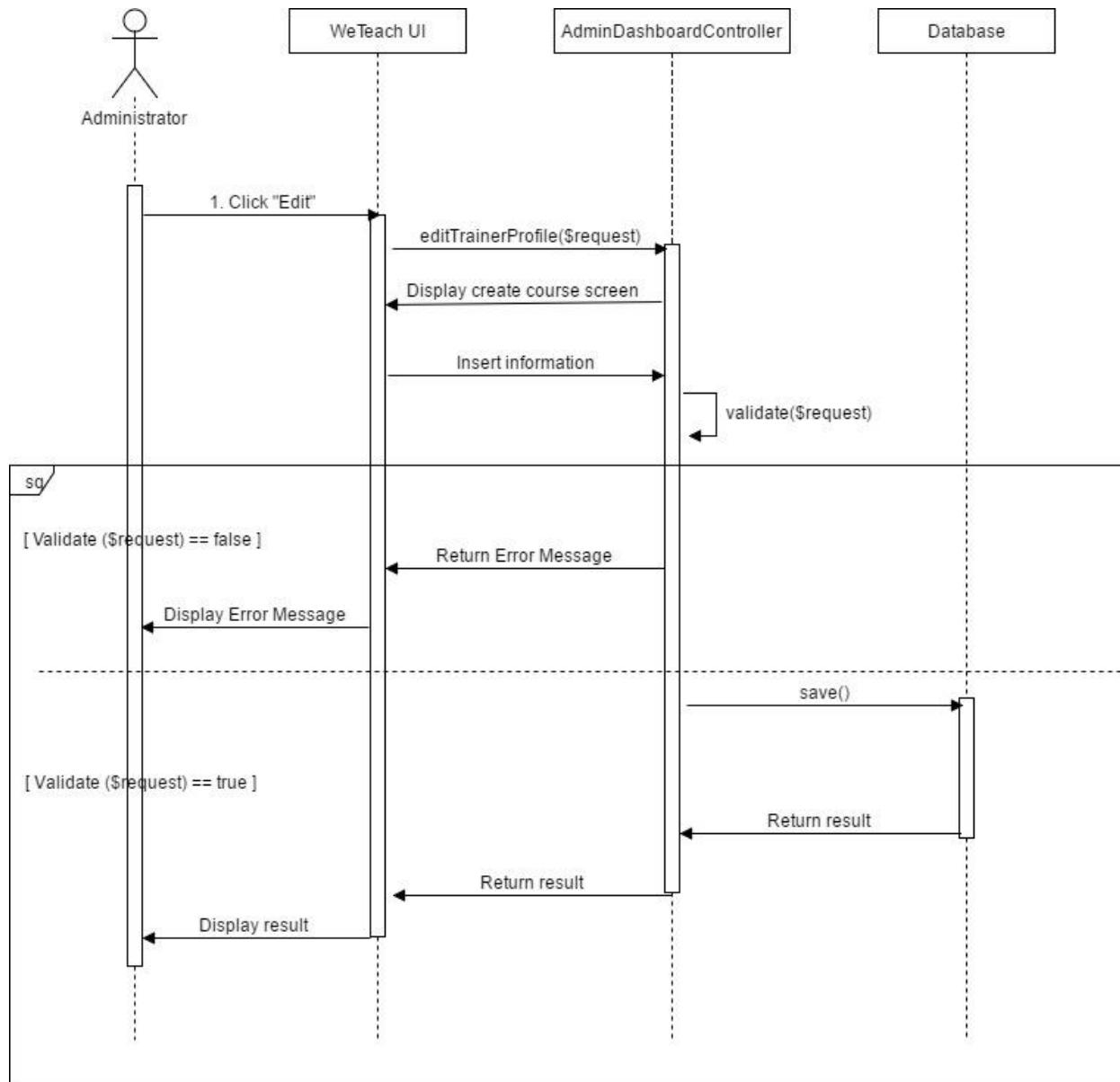
##### Description

Administrator can edit trainer's information.

##### Class Diagram



## Sequence Diagram

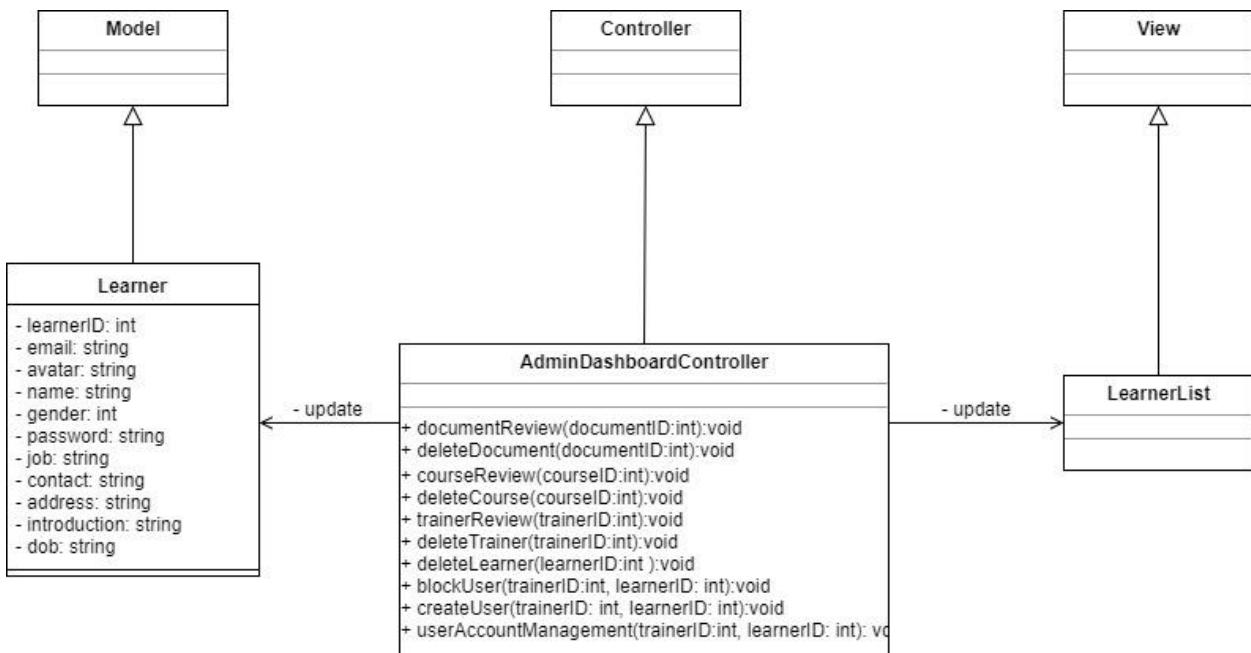


#### 4.4.44 Edit Learner's Information

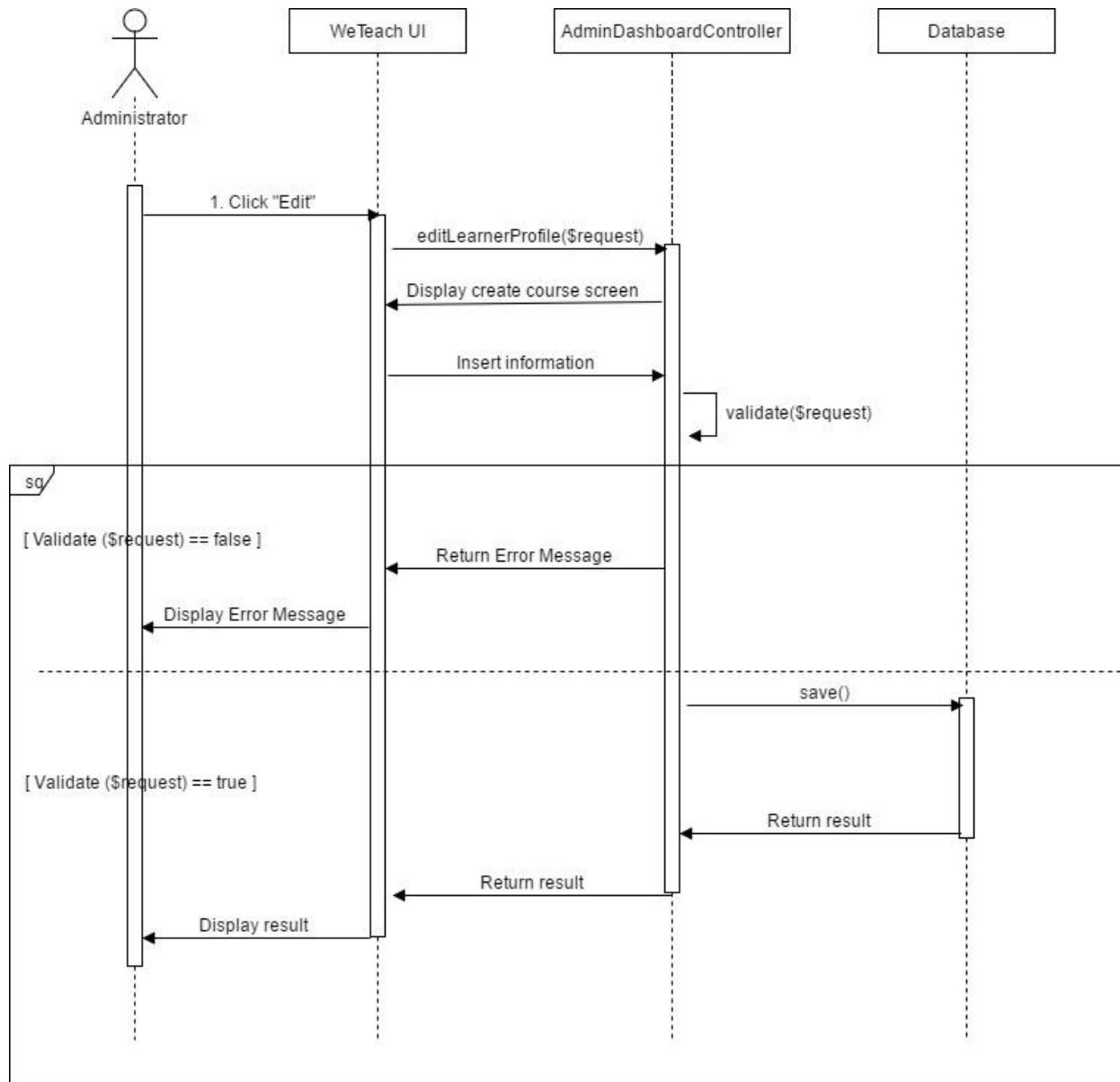
##### Description

Administrator can edit learner's information.

##### Class Diagram



## Sequence Diagram

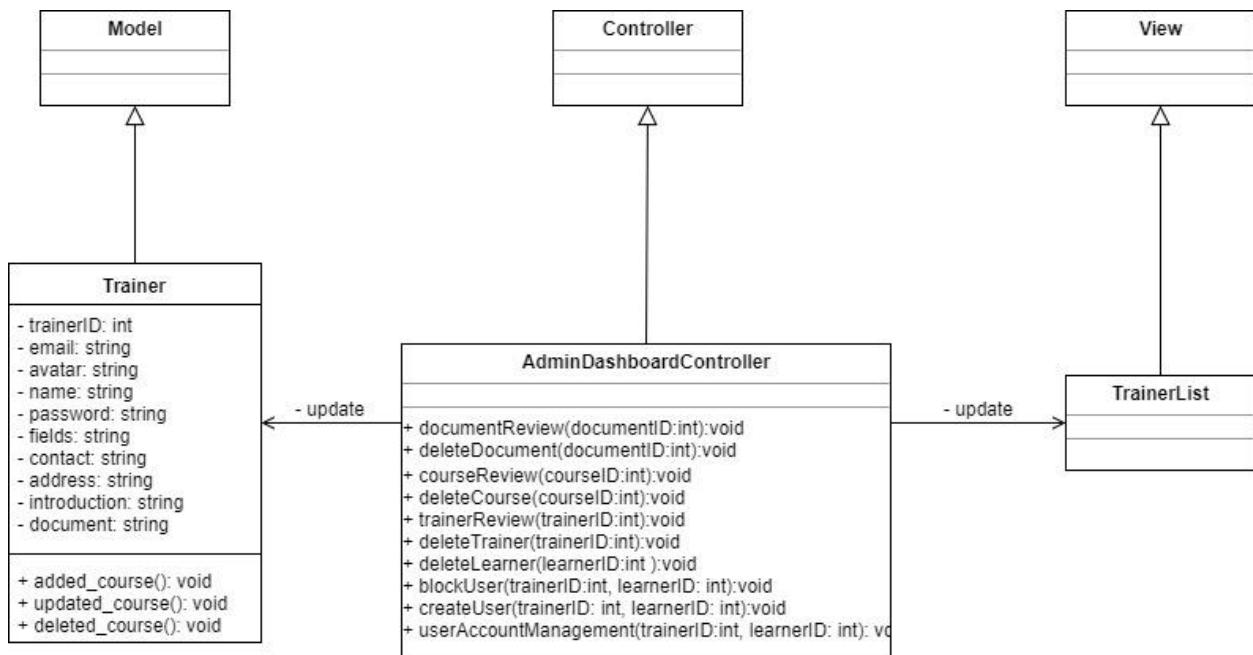


#### 4.4.45 Delete Trainer's Account

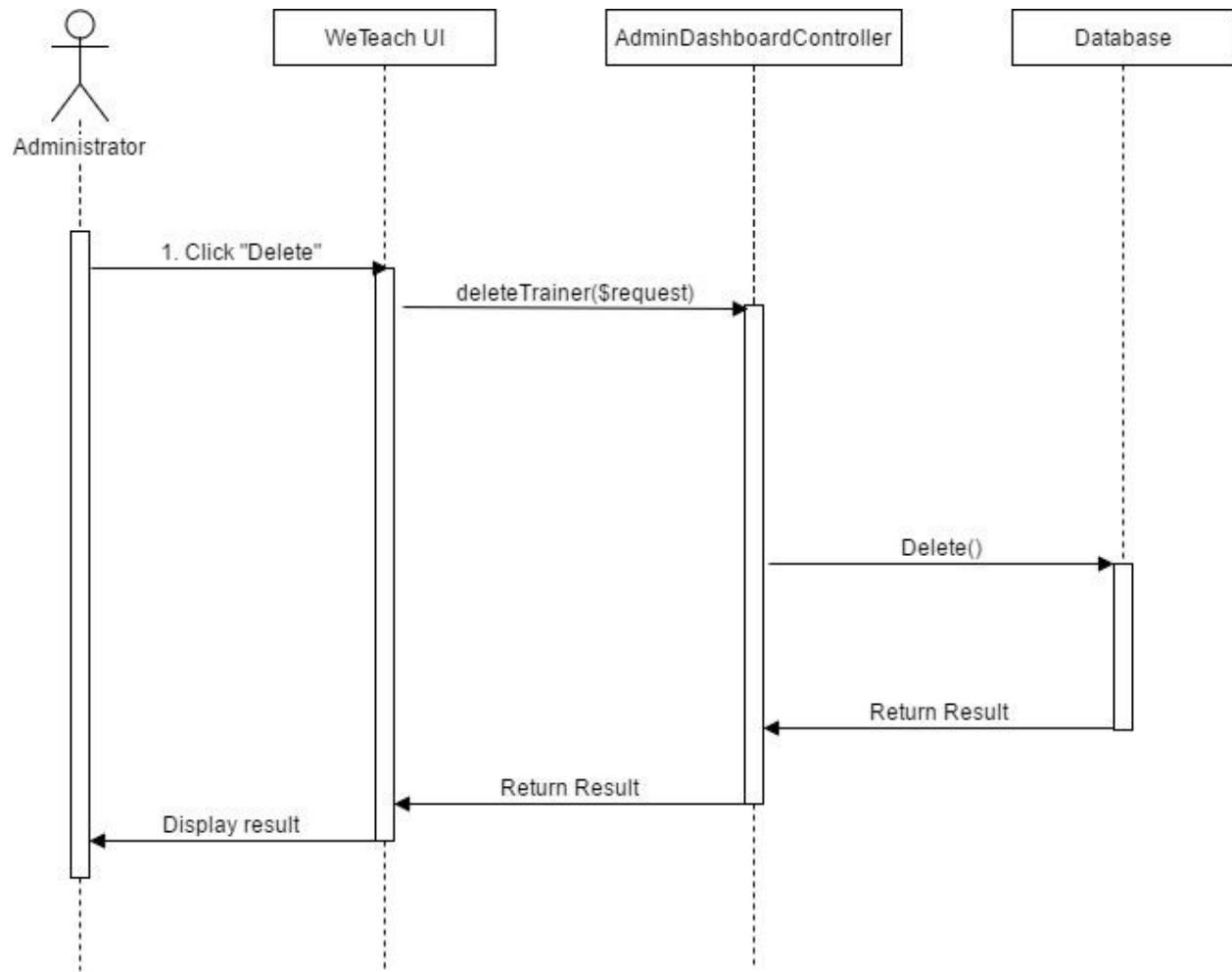
##### Description

Administrator can delete trainer's account.

##### Class Diagram



## Sequence Diagram

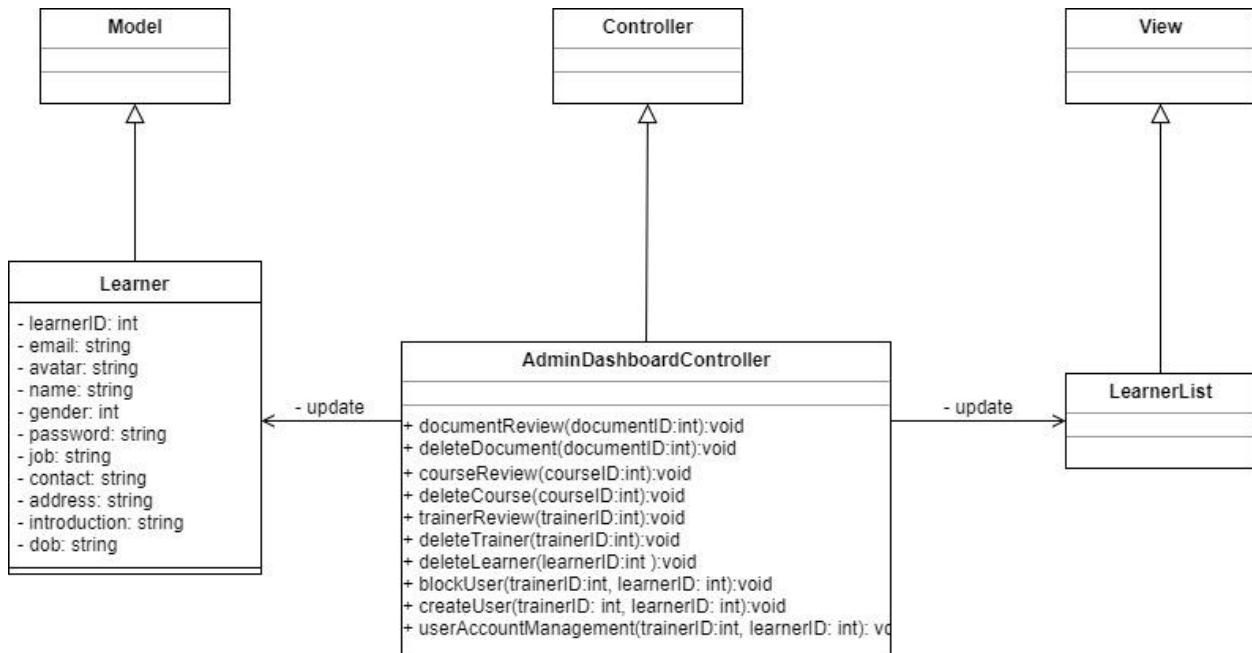


#### 4.4.46 Delete Learner's Account

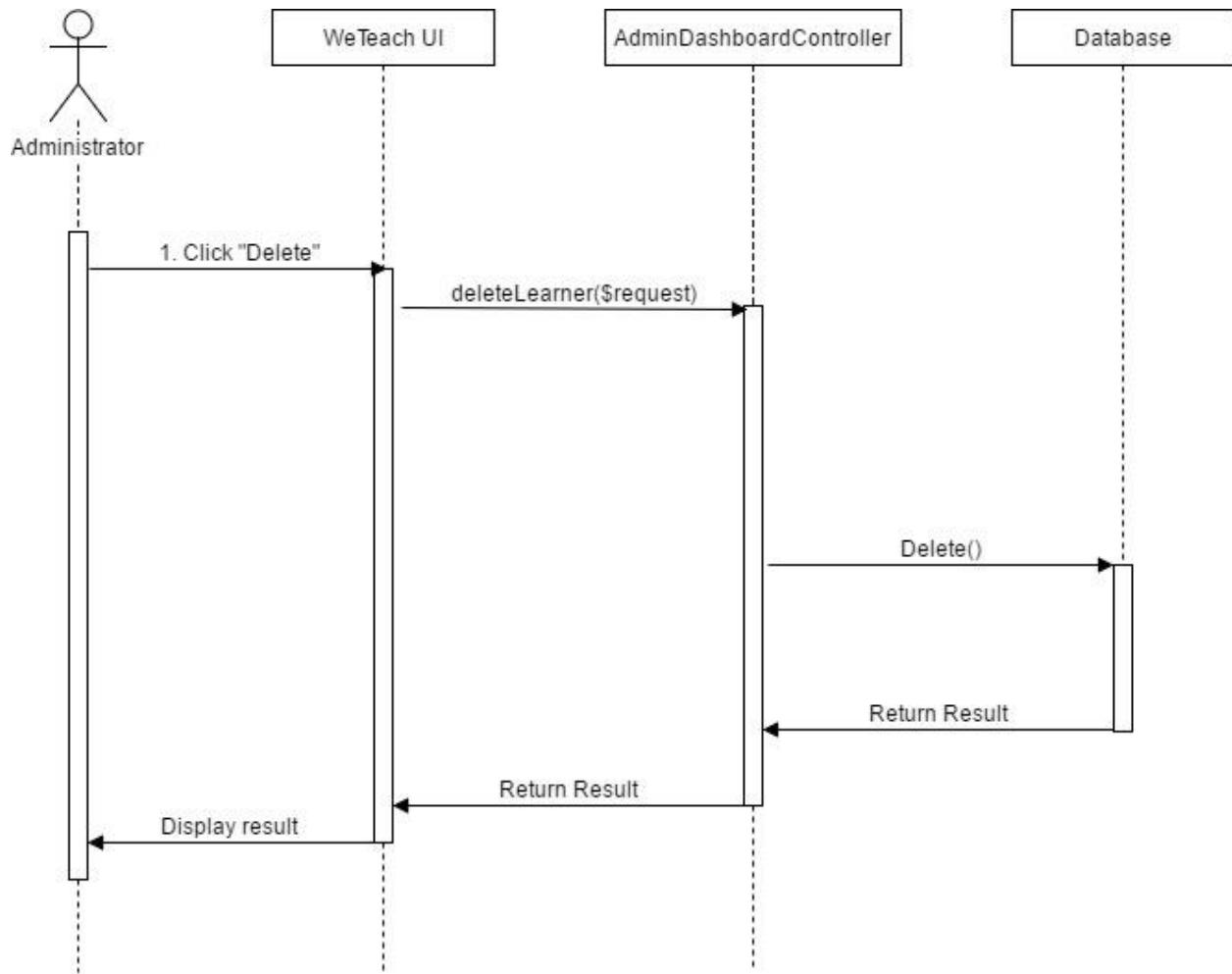
**Description**

Administrator can delete learner's account

**Class Diagram**



## Sequence Diagram

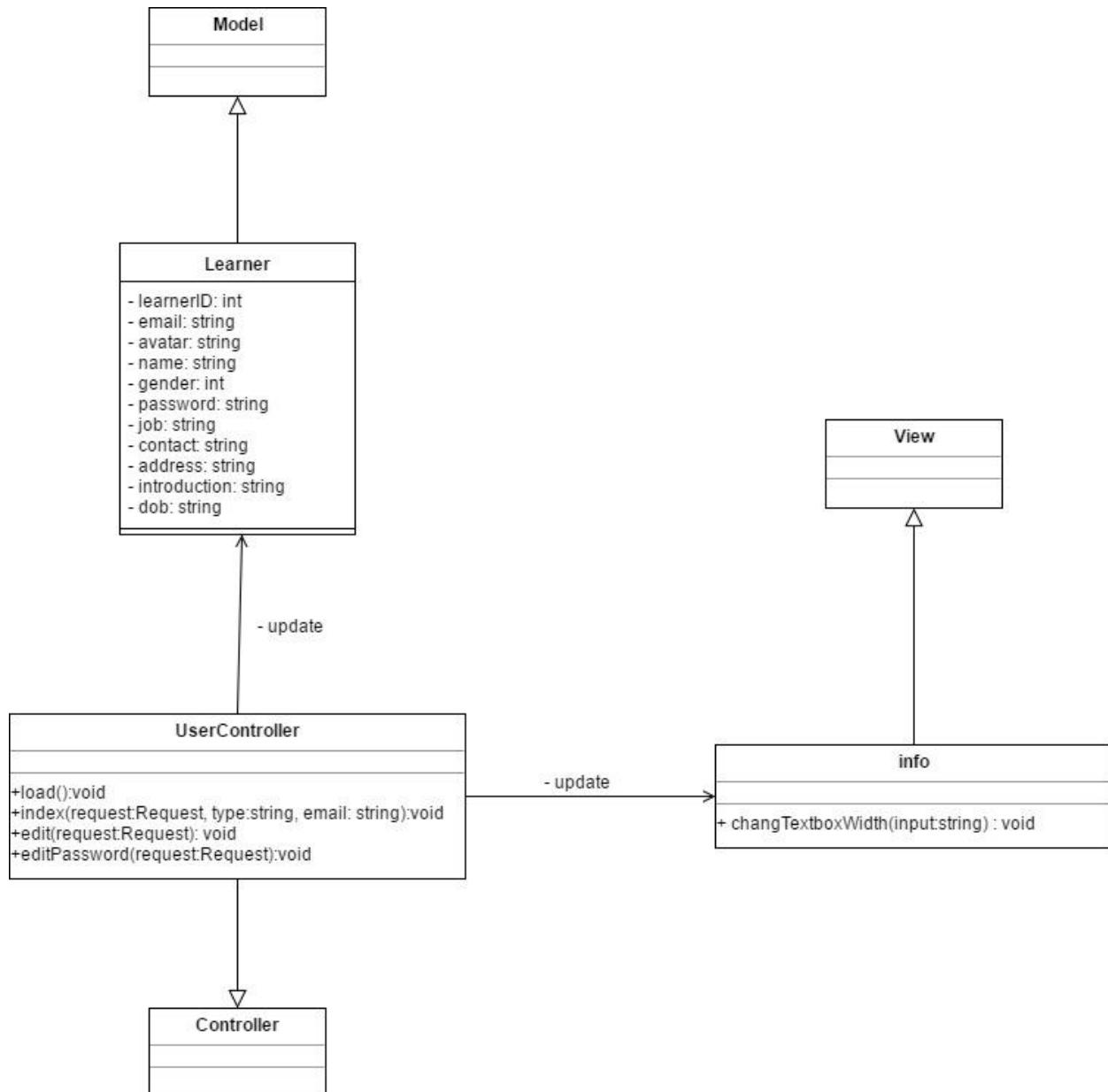


#### 4.4.47 Edit Profile (Learner)

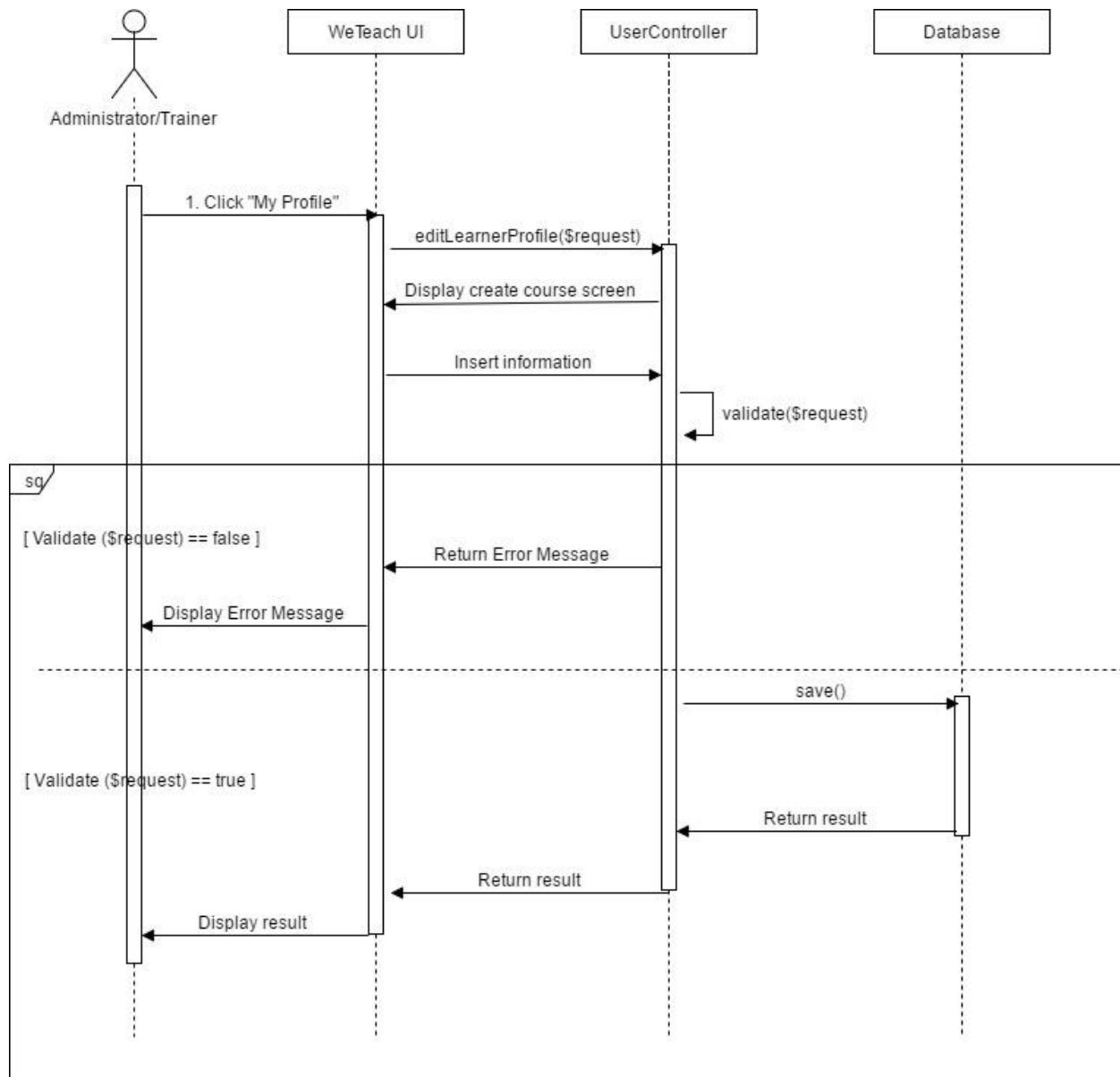
##### Description

Learner can edit profile.

##### Class Diagram



##### Sequence Diagram

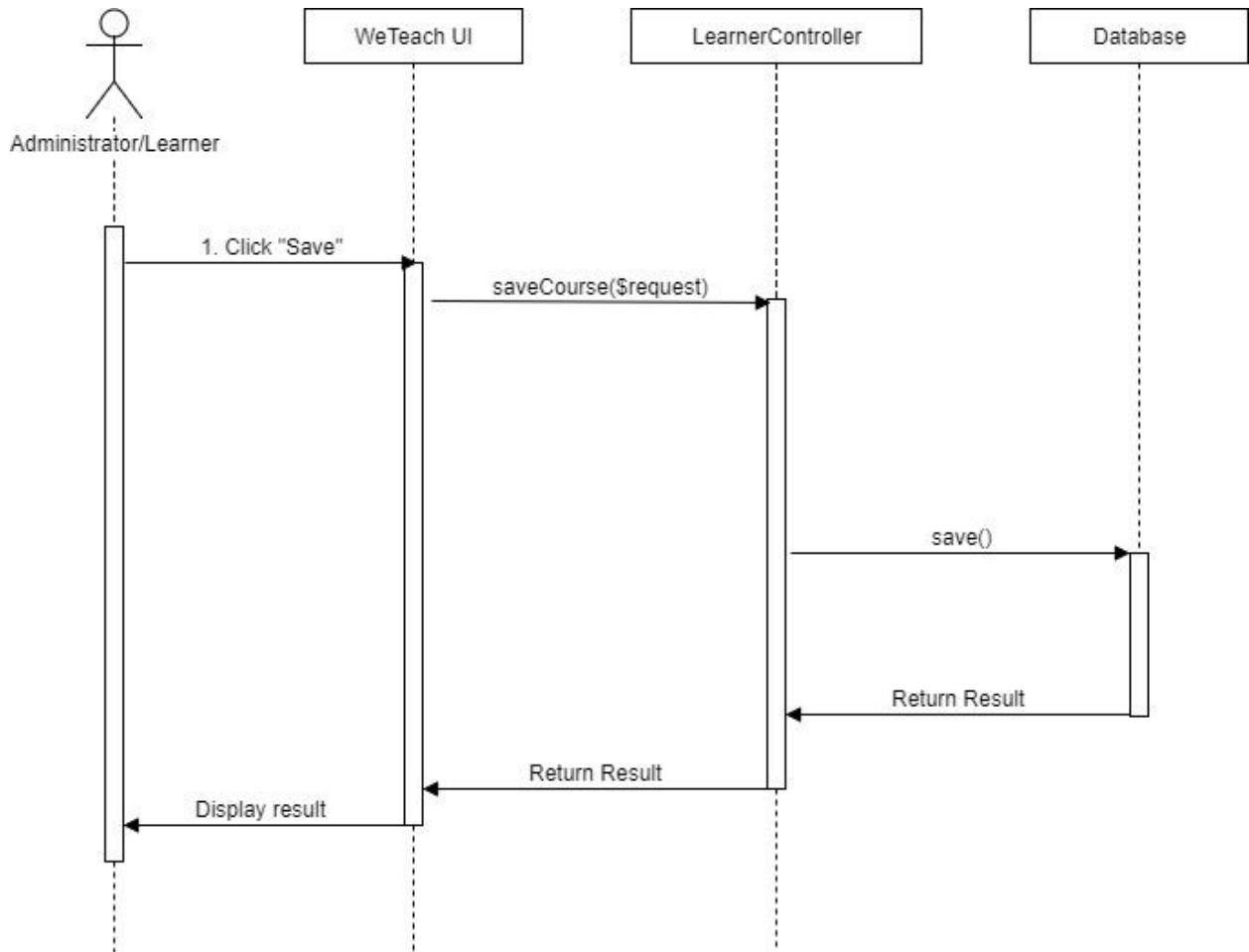


#### 4.4.48 Save Course

##### Description

Learner can save course.

##### Sequence Diagram

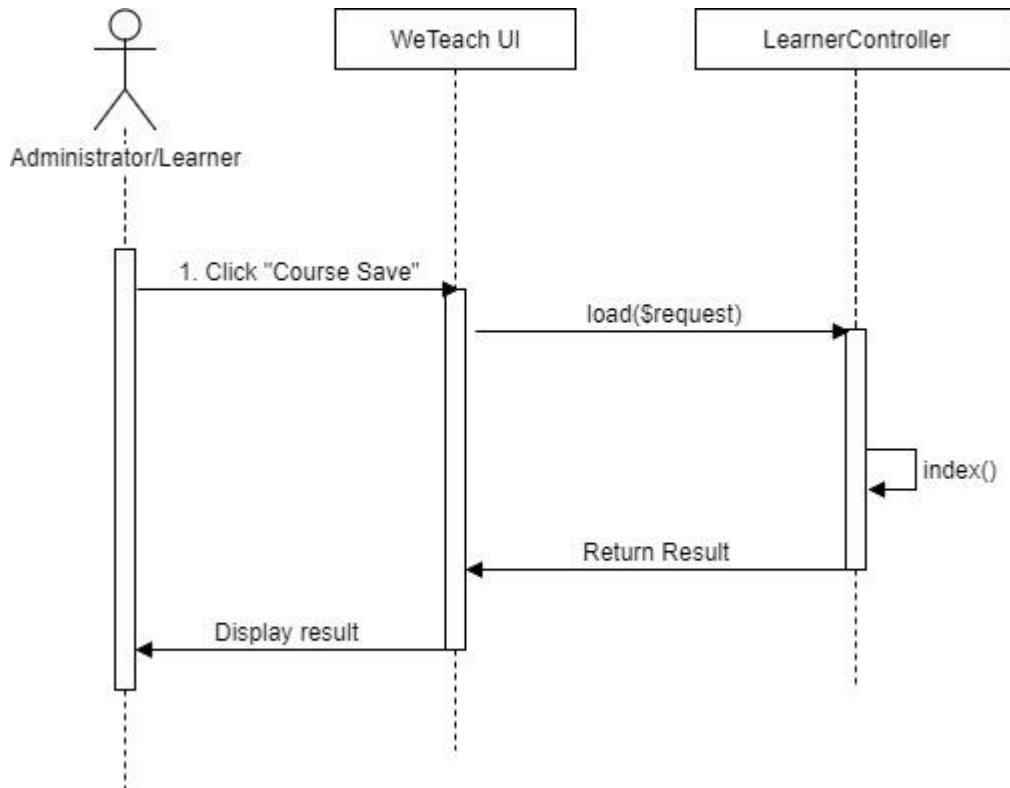


#### 4.4.49 View Course Saved List

##### Description

Learner can view course saved list.

##### Sequence Diagram

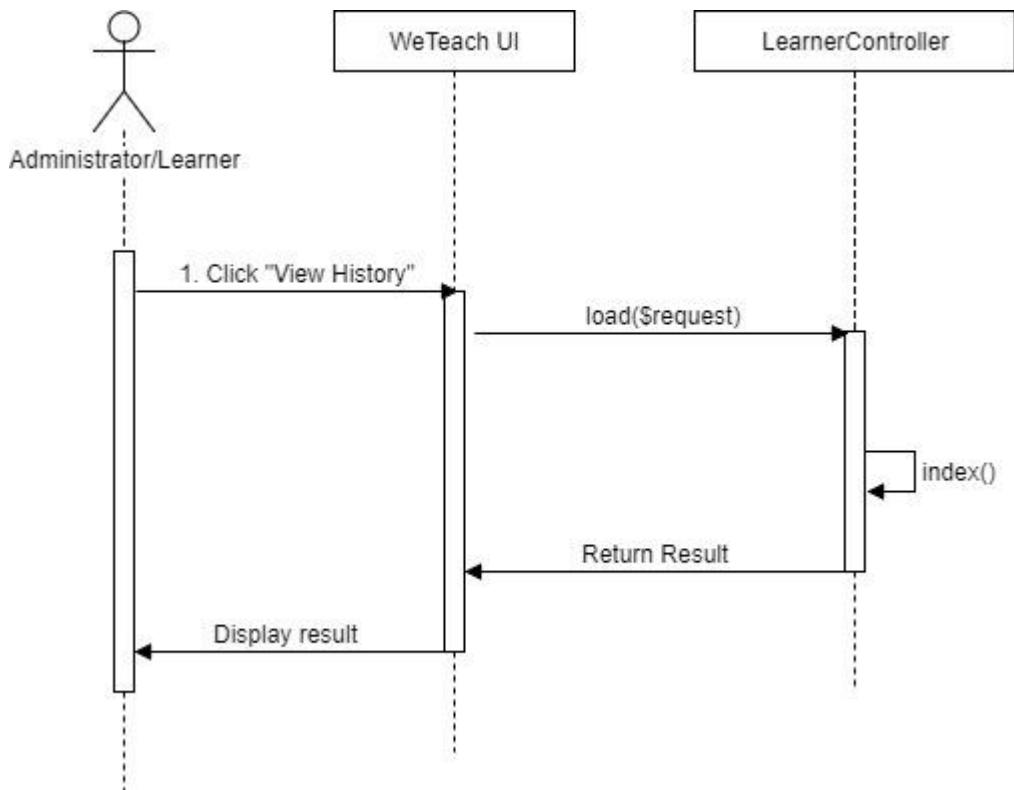


#### 4.4.50 View Course View History

##### Description

Learner can view course view history.

##### Sequence Diagram



# Chapter 5: Software Testing Documentation

## 5.1 Introduction

### 5.1.1 Purpose

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

- Scope of Testing.
- Testing Tool and Environment.
- Resources and Responsibilities.
- Test Strategy: Test approach, test stages.
- Test schedule.
- Feature to be tested.
- Feature not to be tested.
- Defect Log
- Test Report.

### 5.1.2 Scope of Testing

#### 5.1.2.1 *Stages of Testing*

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

ID	Test Stages	Description	Implementation
1	Unit Testing	During this first round of testing, the program is submitted to assessments that focus on specific units or components of the software to determine whether each one is fully functional. The main aim of this endeavor is to determine whether the application functions as designed. This will be done by the developer	Development Team: Nguyen Viet Nam, Chu Van Toan, Nguyen Thinh Cuong.

		and approved by the development team leader.	
2	Integration Testing	Integration testing allows individuals the opportunity to combine all of the units within a program and test them as a group. This testing level is designed to find interface defects between the modules/functions.	All member.
3	System Testing	System testing is the first level in which the complete application is tested as a whole. The goal at this level is to evaluate whether the system has complied with all of the outlined requirements and to see that it meets Quality Standards.	All member.
4	Acceptance Testing	The final level, Acceptance testing, is conducted to determine whether the system is ready for release. During the Software development life cycle, requirements changes can sometimes be misinterpreted in a fashion that does not meet the intended needs of the users.	All member and clients.

### 5.1.2.2 *Types of Testing*

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

- GUI Test
- Function Test
- Performance Test
- Regression Test
- Acceptance Test

### 5.1.2.3 *Range of Testing*

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

## 5.2 Test Plan

### 5.2.1 Testing Tools and Environment

#### 5.2.1.1 *Testing Tools*

- Google Chrome v6.2

#### 5.2.1.2 *Testing Environment*

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

Software	Hardware
Testing environment consist: + Google Chrome v6.2 + Microsoft Office Excel + Microsoft Office Word	Personal computer with the minimum configuration: + Windows 10 + Intel Core i5 + Install memory (RAM): 4.00GB

### 5.2.2 Resources and Responsibilities

ID	Resources	Responsibilities
1	<b>Project Manager</b>	<ul style="list-style-type: none"><li>• Responsible for Project Schedules and overall success of the project.</li><li>• Review Test-case and report.</li></ul>
2	<b>Tester</b>	<ul style="list-style-type: none"><li>• Preforming the actual system testing.</li><li>• Manage test resource and assign test tasks.</li><li>• Create Test Plan.</li><li>• Create Test Cases.</li><li>• Create Test Report.</li><li>• Execute Test.</li><li>• Test Log report.</li></ul>
3	<b>Developer</b>	<ul style="list-style-type: none"><li>• Create Unit Test.</li><li>• Fix bugs.</li></ul>

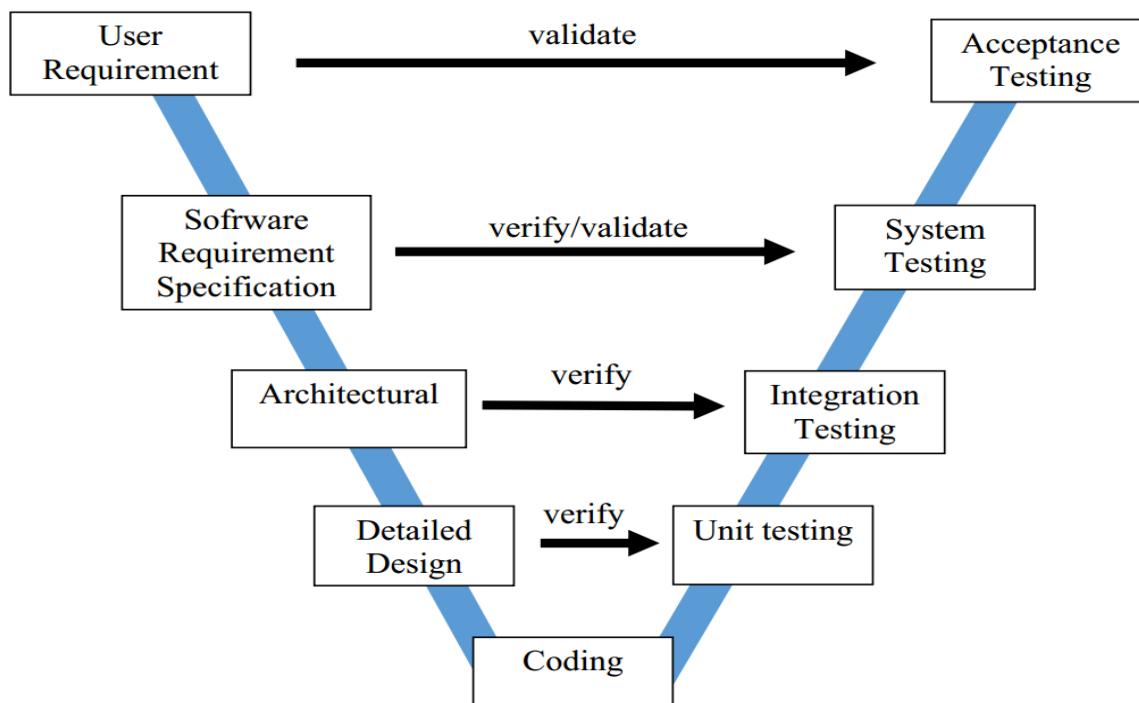
### 5.2.3 Test Strategy

#### 5.2.3.1 Test Model

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

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

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



### **5.2.3.2 *Test Type***

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

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

- **Function Test:**

- Testing of all implemented functions on the WeTeach system.
- The testing that will be covered for those functions in function test is verification the validation of the behavior according to requirements.
- Test cases will have to be designed to cover all the above and executed.
- Implemented function's error message will be included under this test.

- **GUI Test**

- Graphical User Interface (GUI) Testing verifies a user's interaction with the software. The goal of GUI testing is to ensure that the GUI provides the user with the appropriate access and navigation through the functions of the target-of-test. In addition, GUI testing ensures that the objects within the GUI function as expected and conform to requirement.
- GUI test will be performed fully on all screens.
- This test is targeted to cover the verification of the overall look and feel of the WeTeach system including initial position, font, text size, color, focus, initial button, tab order, label, screen sizes and sentences width.
- Check all the GUI elements for size, position, width, length and acceptance of characters or numbers. For instance, it must be able to provide inputs to the input fields.
  - Check Error Messages are displayed correctly.
  - Check if font used in application is readable.
  - Check the alignment of the text is proper.
  - Check the color of the font and warning messages is clear and not confusing.
  - Check that the images have good clarity.
  - Check that the images are properly aligned.
  - Check the positioning of GUI elements for HD screen resolution.

- **Performance Test:**

- The testing that will be covered for response time for WeTeach system.

- **Regression test:**

- The testing is confirmed that the bug was removed including the extent of the impact.
- The testing is confirmed that the new functions and components added to the system don't make change to existing components.

- **Acceptance test:**

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

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

### 5.2.3.3 *Test Stage*

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

Type of Tests	Stage of Test		
	Unit	Integration	System
Function Tests	√	√	√
GUI Tests	√	√	√
Regression Tests		√	√
Performance Tests			√
Acceptance Tests			√

### 5.2.3.4 *Test Schedule*

Table below are the Test Schedule for WeTeach Project. That consist of 2 phases:

Test Schedule	Start Date	End Date
Phase 1: Main features	<b>26/06/2017</b>	<b>06/07/2017</b>
<b>Functional Testing</b>	26/06/2017	31/07/2017
<b>User Interface Testing</b>	1/07/2017	06/07/2017
Phase 2: Other features and optimization	<b>11/08/2017</b>	<b>17/08/2017</b>
<b>User Interface Testing</b>	11/08/2017	12/08/2017
<b>Functional Testing</b>	13/08/2017	14/08/2017
<b>Regression Tests</b>	14/08/2017	17/08/2017

### 5.2.3.5 *Deliverable*

Table below are the Deliverables for WeTeach Project:

Deliverables	Responsibilities	Completion date
Test Plan	Tester	11/05/2017
Test Cases	Tester	15/05/2017
Test case review	Tester + PM	16/05/2017
Test Data (Data Set)	Tester	18/05/2017
Defect report	All members	27/05/2017
Final test Summary report	PM	18/08/2017

#### 5.2.4 Feature to be Tested

Use Case No.	Function Name	Actor
UC01	Sign Up as Trainer	Gs
UC02	Sign Up as Learner	Gs
UC03	Sign In	Ad, Tr, Lr
UC04	Log Out	Ad, Tr, Lr
UC05	Change Password	Ad, Tr, Lr
UC06	Forget Password	Ad, Tr, Lr
UC07	Update Profile Picture	Ad, Tr, Lr
UC08	View Personal Profile	Ad, Tr, Lr
UC09	Send Message	Ad, Tr, Lr
UC10	View Messages	Ad, Tr, Lr
UC11	Delete Message	Ad, Tr, Lr
UC12	Comment Course	Ad, Tr, Lr
UC13	Edit Comment	Ad, Tr, Lr
UC14	Delete Comment	Ad, Tr, Lr
UC15	Rate Course	Ad, Tr, Lr
UC16	Rate Trainer	Ad, Tr, Lr
UC17	View Course Statistic	Ad, Tr
UC18	Create New Course	Ad, Tr
UC19	Edit Course Detail	Ad, Tr
UC20	Delete Courses	Ad, Tr
UC21	Upload Documents	Ad, Tr
UC22	Delete Documents	Ad, Tr
UC23	View Documents Dashboard	Ad, Tr
UC24	Edit Profile Trainer	Ad, Tr

UC25	View Course Detail	Ad, Tr, Lr, Gs
UC26	Search Course	Ad, Tr, Lr, Gs
UC27	View Trainer List	Ad, Tr, Lr, Gs
UC28	View Other Public Profile	Ad, Tr, Lr, Gs
UC29	View Course Comment	Ad, Tr, Lr, Gs
UC30	View Course's Rate	Ad, Tr, Lr, Gs
UC31	View Trainer's Rate	Ad, Tr, Lr, Gs
UC32	View Document Picture	Ad, Tr, Lr, Gs
UC33	View Website Statistic	Ad
UC34	Review Trainer's Document	Ad
UC35	Review New Course	Ad
UC36	Review Trainer's Account	Ad
UC37	Block Learners	Ad
UC38	Block Trainers	Ad
UC39	Unblock Learners	Ad
UC40	Unblock Trainers	Ad
UC41	Add New Trainer Account	Ad
UC42	Add New Learner Account	Ad
UC43	Edit Trainer's Information	Ad
UC44	Edit Learner's Information	Ad
UC45	Delete Trainer's Account	Ad
UC46	Delete Learner's Account	Ad
UC47	Edit Profile (Learner)	Ad, Lr
UC48	Save Course	Ad, Lr
UC49	View Course Saved List	Ad, Lr
UC50	View Course View History	Ad, Lr

## 5.2.5 Feature not to be Tested

Out of scope features will not to be tested.

## 5.3 Test Approach

### 5.3.1 Unit Test

Unit testing will be done by the developer and approved by the development team leader.

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

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

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

### 5.3.2 Integration and System Test

The detailed Test case will be described in **TE\_TestCase\_Final.xlsx**

Test case sample:

	A	B	C	D	E	F	G	H	I	J
1	ID	Test Case Description	Pre-conditions	Test Case steps	Expected Output	Result	BugID	Note	Tester	
2	M1	Connect Database		Chay website và sever két nỗi database	Data in database display correctly.	Pass			Cuongnt	
3	M2	Test link between each page of the website		Click: Home, Trainer, Course, Trainer, Sign Up, Sign In, Search..	Link run correctly	Pass			Cuongnt	
4	M3	Test Cookies		Open browser setting, choose "Advance Setting" and then choose content settings . (Chrome Browser)	Remove, disable, accept, reject and block third-party cookies	pass			Cuongnt	
	M4	Test Sign Up Form (Trainer)		Click "Sign Up" and then select "Trainer". Fill in all required information and then click "Sign Up" otherwise system will display error message : "Please Fill In All Required Field!". Email have to be email type or else error message appear : "Email is invalid, (Incorrect Email format: abc@xyz)". Password must contains at least one upper case, one number, one special character and length must be >8", biography's length must be less than 200 character. Document type must be pdf, png.	Fill in all information to sign up	pass			Cuongnt	
5	M5	Sign up Learner		Click Sign Up in header and then select "Learner". Have to fill in all information or else system show "Please Fill In All Required Field!". Email have to be email format. Invalid show : Email is invalid, (Incorrect Email format: abc@xyz), password must contains at least one upper case, one number, one special character and length must be >8", biography's length must be less than 200 character.	Fill in all information to sign up	pass			cuongnt	
6	M6	Sign In	you must have system's account. Connect internet required. Must logout and homepage	Click Sign In in header. Email or password are left bank show please enter email and password. Enter wrong or un-register email . Display message : the email address that you're entered doesn't match any account . Sign up for an account. Enter wrong password : the password that you're entered is incorrect	sign up succesfully	pass			cuongnt	

### 5.3.3 Defect Log

WeTeach project used excel to manager bug list.

Processes:

- During the testing process, when a bug is found, testers note in a report and mark not yet completed. The bug must be described as detailed. The issue is then assigned to developing team, who was in charge of developing that module.
- Assigned developer checks out the issue in report and fixes it. Once the bug is resolved, the assigned developer mark completed and assigns it to a tester, whose responsibility is to check the bug again.
- Tester will then verify if the bug is completely resolved.
  - If the bug is fixed, tester will write “Closed” in this issues.
  - If bug is not fixed, tester will mark not yet completed and assign it to developer again.

## 5.4 Test Report

### 5.4.1 Iteration 1

- Before

No	Module code	Pass	Fail	Untested	N/A	Number of test case
1	Sign Up as Trainer	10	1	0	0	11
2	Sign Up as Learner	9	0	3	0	13
3	Sign In	8	0	0	0	8
4	Log Out	2	0	0	0	2
5	Change Password	6	0	0	0	6
6	Forget Password	3	0	0	0	3
7	Update Profile Picture	5	0	0	0	5
8	View Personal Profile	5	0	0	0	5
9	Send Messages	10	1	0	0	11
10	View Messages	5	0	0	0	5
11	Delete Message	3	0	0	0	3

12	Comment Course	5	0	0	0	5
13	Edit Comment	3	0	0	0	3
14	Delete Comment	2	0	0	0	2
15	Rate Course	4	0	0	0	4
17	View Course Statistic	5	0	0	0	5
18	Create New Course	10	2	0	0	12
19	Edit Course Detail	5	0	0	0	5
20	Delete Courses	5	0	0	0	5
21	Upload Documents	6	1	0	0	7
22	Delete Documents	3	0	0	0	3
23	View Documents Dashboard	5	0	0	0	5
24	Edit Profile Trainer	5	0	0	0	5
25	View Course Detail	5	0	0	0	5
26	Search Course	15	3	0	0	18
27	View Other Public Profile	5	0	0	0	5
28	View Course Comment	5	0	0	0	5
29	View Course's Rate	6	0	0	0	6
30	View Trainer's Rate	4	4	0	0	8
31	View Document Picture	6	0	0	0	6
32	View Website Statistic	10	0	2	0	12
33	Review Trainer's Document	5	0	0	0	5

34	Review New Course	3	0	0	0	3
35	Review Trainer's Account	5	0	0	0	5
36	Add New Trainer Account	5	0	0	0	5
37	Add New Learner Account	6	0	0	0	6
38	Delete Trainer's Account	4	1	0	0	5
39	Delete Learner's Account	5	0	0	0	5
40	Edit Profile (Learner)	6	0	0	0	6
41	Save Course	5	0	1	0	6
42	View Course Saved List	2	0	0	0	2
43	View Course View History	4	0	0	0	4
Sub Total		230	13	6	0	249

- After

No	Module code	Pass	Fail	Untested	N/A	Number of test case
1	Sign Up as Trainer	11	0	0	0	11
2	Sign Up as Learner	13	0	0	0	13
3	Sign In	8	0	0	0	8
4	Log Out	2	0	0	0	2
5	Change Password	6	0	0	0	6
6	Forget Password	3	0	0	0	3

7	Update Profile Picture	5	0	0	0	5
8	View Personal Profile	5	0	0	0	5
9	Send Messages	11	0	0	0	11
10	View Messages	5	0	0	0	5
11	Delete Message	3	0	0	0	3
12	Comment Course	5	0	0	0	5
13	Edit Comment	3	0	0	0	3
14	Delete Comment	2	0	0	0	2
15	Rate Course	4	0	0	0	4
17	View Course Statistic	5	0	0	0	5
18	Create New Course	12	0	0	0	12
19	Edit Course Detail	5	0	0	0	5
20	Delete Courses	5	0	0	0	5
21	Upload Documents	7	0	0	0	7
22	Delete Documents	3	0	0	0	3
23	View Documents Dashboard	5	0	0	0	5
24	Edit Profile Trainer	5	0	0	0	5
25	View Course Detail	5	0	0	0	5
26	Search Course	18	0	0	0	18
27	View Other Public Profile	5	0	0	0	5
28	View Course Comment	5	0	0	0	5
29	View Course's Rate	6	0	0	0	6

30	View Trainer's Rate	8	0	0	0	8
31	View Document Picture	6	0	0	0	6
32	View Website Statistic	12	0	0	0	12
33	Review Trainer's Document	5	0	0	0	5
34	Review New Course	3	0	0	0	3
35	Review Trainer's Account	5	0	0	0	5
36	Add New Trainer Account	5	0	0	0	5
37	Add New Learner Account	6	0	0	0	6
38	Delete Trainer's Account	5	0	0	0	5
39	Delete Learner's Account	5	0	0	0	5
40	Edit Profile (Learner)	6	0	0	0	6
41	Save Course	6	0	0	0	6
42	View Course Saved List	2	0	0	0	2
43	View Course View History	4	0	0	0	4
Sub Total		249	0	0	0	249

#### 5.4.2 Iteration 2

- Before

No	Module code	Pass	Fail	Untested	N/A	Number of test case
1	Sign Up as Trainer	15	5	0	0	20
2	Sign Up as Learner	16	4	0	0	20
3	Sign In	6	0	0	0	6
4	Log Out	4	0	0	0	4
5	Change Password	7	0	2	0	9
6	Forget Password	5	0	1	0	6
7	Update Profile Picture	4	0	0	0	4
8	View Personal Profile	4	2	0	0	6
9	Send Messages	12	0	0	0	12
10	View Messages	8	0	0	0	8
11	Delete Message	3	0	4	0	7
12	Comment Course	9	0	0	0	9
13	Edit Comment	12	0	0	0	12
14	Delete Comment	10	0	0	0	10
15	Rate Course	4	0	0	0	4
16	Rate Trainer	7	0	0	0	7
17	View Course Statistic	5	4	0	0	9
18	Create New Course	10	0	0	0	10
19	Edit Course Detail	2	0	0	0	2
20	Delete Courses	6	0	0	0	6
21	Upload Documents	3	0	5	0	8
22	Delete Documents	7	0	3	0	10
23	View Documents Dashboard	5	0	0	0	5

24	Edit Profile Trainer	10	0	0	0	10
25	View Course Detail	6	0	0	0	6
26	Search Course	3	2	0	0	8
27	View Trainer List	3	0	0	0	3
28	View Other Public Profile	9	0	0	0	9
29	View Course Comment	5	0	0	0	5
30	View Course's Rate	3	0	0	0	3
31	View Trainer's Rate	2	0	0	0	2
32	View Document Picture	4	0	0	0	4
33	View Website Statistic	4	0	0	0	4
34	Review Trainer's Document	5	0	0	0	5
35	Review New Course	5	2	0	0	7
36	Review Trainer's Account	3	0	0	0	3
37	Block Learners	9	0	0	0	9
38	Block Trainers	9	0	0	0	9
39	Unblock Learners	9	0	0	0	9
40	Unblock Trainers	9	0	0	0	9
41	Add New Trainer Account	2	0	4	0	6
42	Add New Learner Account	2	0	0	0	2

43	Edit Trainer's Information	5	0	0	0	5
44	Edit Learner's Information	6	0	0	0	6
45	Delete Trainer's Account	11	0	0	0	11
46	Delete Learner's Account	11	0	0	0	11
47	Edit Profile (Learner)	16	0	0	0	2
48	Save Course	3	2	0	0	5
49	View Course Saved List	8	0	0	0	8
50	View Course View History	5	0	0	0	5
Sub Total		331	21	19	0	371

- After

No	Module code	Pass	Fail	Untested	N/A	Number of test case
1	Sign Up as Trainer	20	0	0	0	20
2	Sign Up as Learner	20	0	0	0	20
3	Sign In	6	0	0	0	6
4	Log Out	4	0	0	0	4
5	Change Password	9	0	0	0	9
6	Forget Password	6	0	0	0	6
7	Update Profile Picture	4	0	0	0	4
8	View Personal Profile	6	0	0	0	6

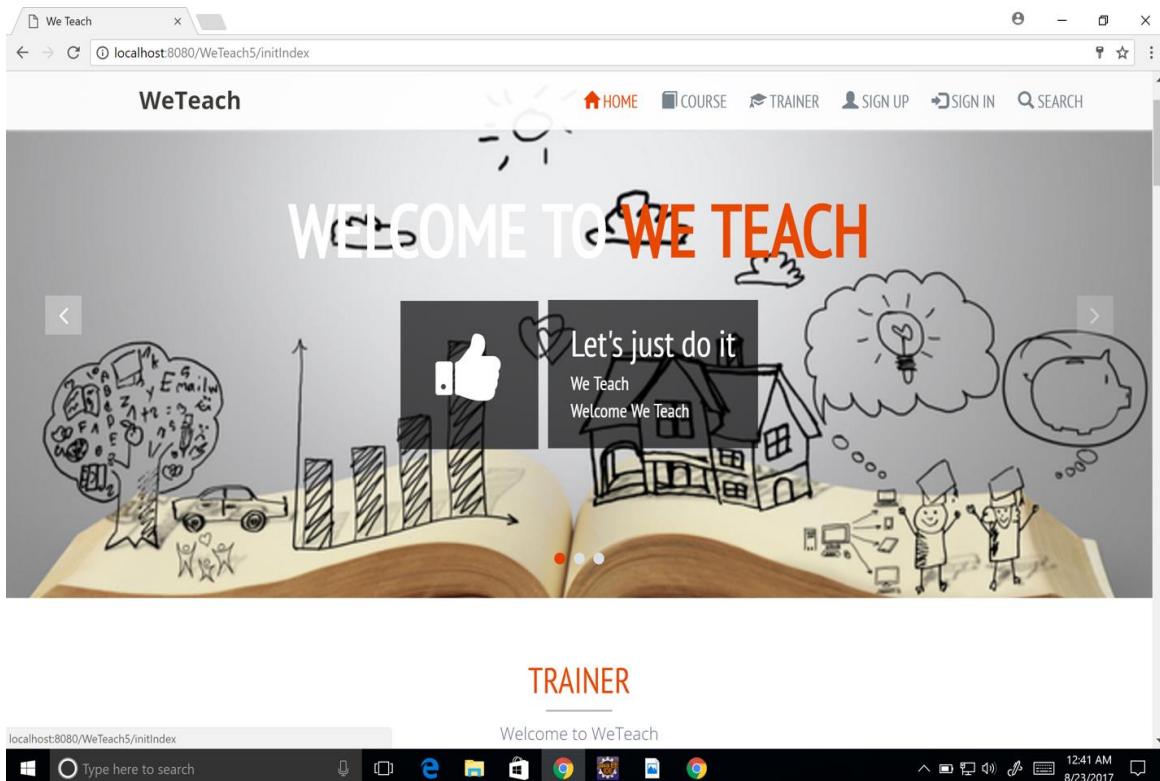
9	Send Messages	12	0	0	0	12
10	View Messages	8	0	0	0	8
11	Delete Message	7	0	0	0	7
12	Comment Course	9	0	0	0	9
13	Edit Comment	12	0	0	0	12
14	Delete Comment	10	0	0	0	10
15	Rate Course	4	0	0	0	4
16	Rate Trainer	7	0	0	0	7
17	View Course Statistic	9	0	0	0	9
18	Create New Course	10	0	0	0	10
19	Edit Course Detail	2	0	0	0	2
20	Delete Courses	6	0	0	0	6
21	Upload Documents	8	0	0	0	8
22	Delete Documents	10	0	0	0	10
23	View Documents Dashboard	5	0	0	0	5
24	Edit Profile Trainer	10	0	0	0	10
25	View Course Detail	6	0	0	0	6
26	Search Course	8	0	0	0	8
27	View Trainer List	3	0	0	0	3
28	View Other Public Profile	9	0	0	0	9
29	View Course Comment	5	0	0	0	5
30	View Course's Rate	3	0	0	0	3
31	View Trainer's Rate	2	0	0	0	2

32	View Document Picture	4	0	0	0	4
33	View Website Statistic	4	0	0	0	4
34	Review Trainer's Document	5	0	0	0	5
35	Review New Course	7	0	0	0	7
36	Review Trainer's Account	3	0	0	0	3
37	Block Learners	9	0	0	0	9
38	Block Trainers	9	0	0	0	9
39	Unblock Learners	9	0	0	0	9
40	Unblock Trainers	9	0	0	0	9
41	Add New Trainer Account	6	0	0	0	6
42	Add New Learner Account	2	0	0	0	2
43	Edit Trainer's Information	5	0	0	0	5
44	Edit Learner's Information	6	0	0	0	6
45	Delete Trainer's Account	11	0	0	0	11
46	Delete Learner's Account	11	0	0	0	11
47	Edit Profile (Learner)	2	0	0	0	2
48	Save Course	5	0	0	0	5
49	View Course Saved List	8	0	0	0	8

50	<a href="#">View Course</a> <a href="#">View History</a>	5	0	0	0	5
	Sub Total	371	0	0	0	371

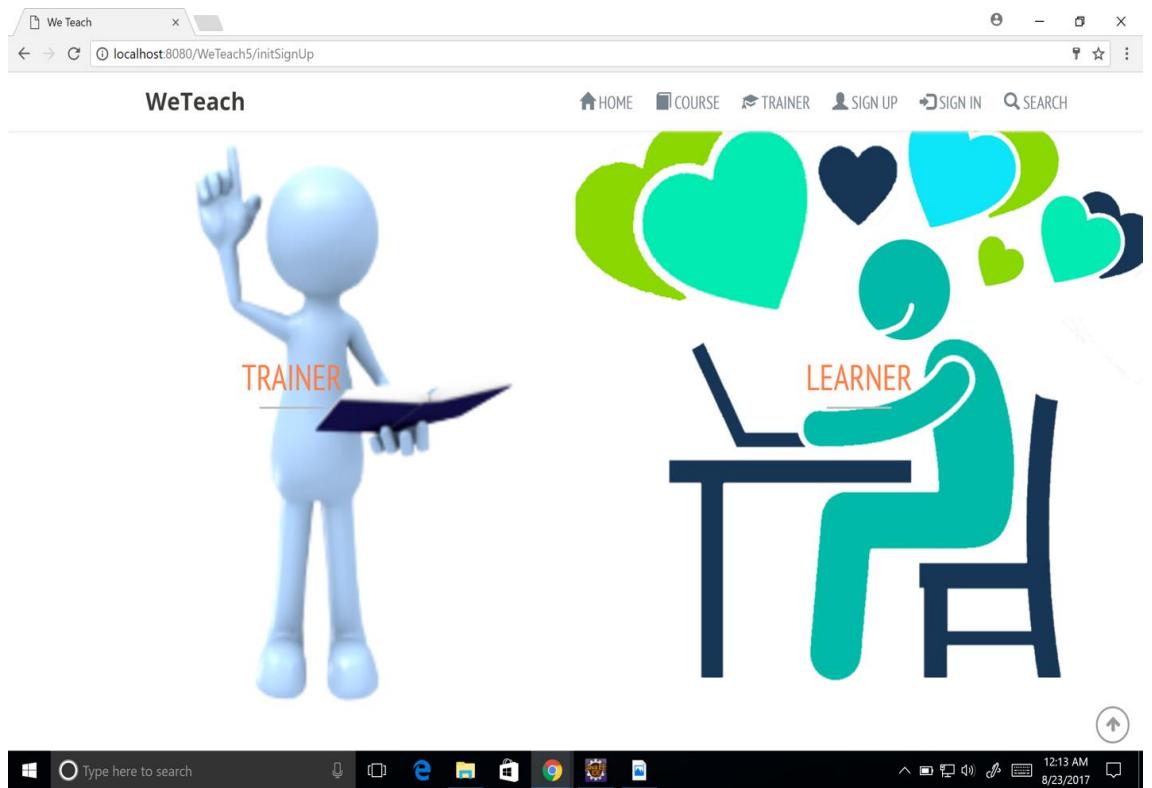
# Chapter 6: Software User's Manual

## 6.1 Homepage



## 6.2 Sign Up

- In homepage, click on “Sign Up” button.



- Click “Trainer” links
- System displays Sign Up Trainer modal

WeTeach

**Email \* :** Your Email

**Password\*:** Your Password

**Comfirm Password\***

**FullName\*:** Your Name

**Fields\*:** Công Nghệ Thông Tin

**Contact\*:** 0969666682

**Address\*:** Ha Noi - VietNam

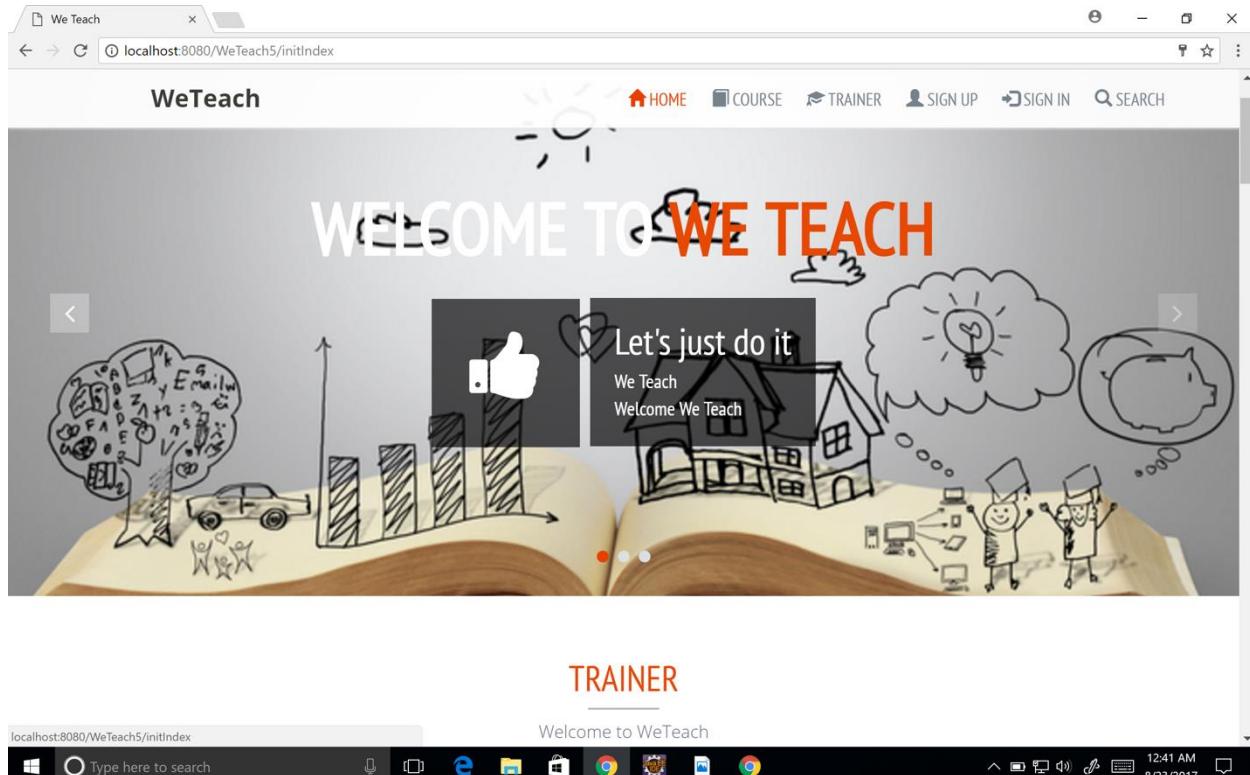
**Upload document\*:** Choose File | No file chosen

**Introduction\*:**

localhost:8080/WeTeach5/initSignUp

Sign Up

- Fill user's information to all fields
- Click on "Sign Up" button
- System display redirects User Homepage and login



- Click Learner links

We Teach

localhost:8080/WeTeach5/initSignUp

## WeTeach

- [HOME](#)
- [COURSE](#)
- [TRAINER](#)
- [SIGN UP](#)
- [SIGN IN](#)
- [SEARCH](#)

**Email\*:** Your Email

**Password\*:** Your Password

**Confirm Password\*:** Type Password again

**FullName\*:** Your Name

**Gender\*:**  Male  Female

**DOB\*:** mm/dd/yyyy

**Contact\*:** 0969666682

**Address\*:** Ha Nol - VietNam

**Job\*:** Học Sinh

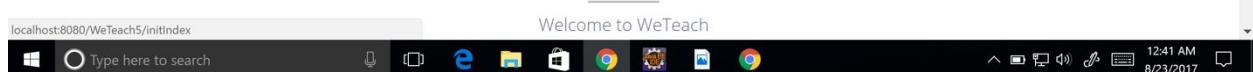
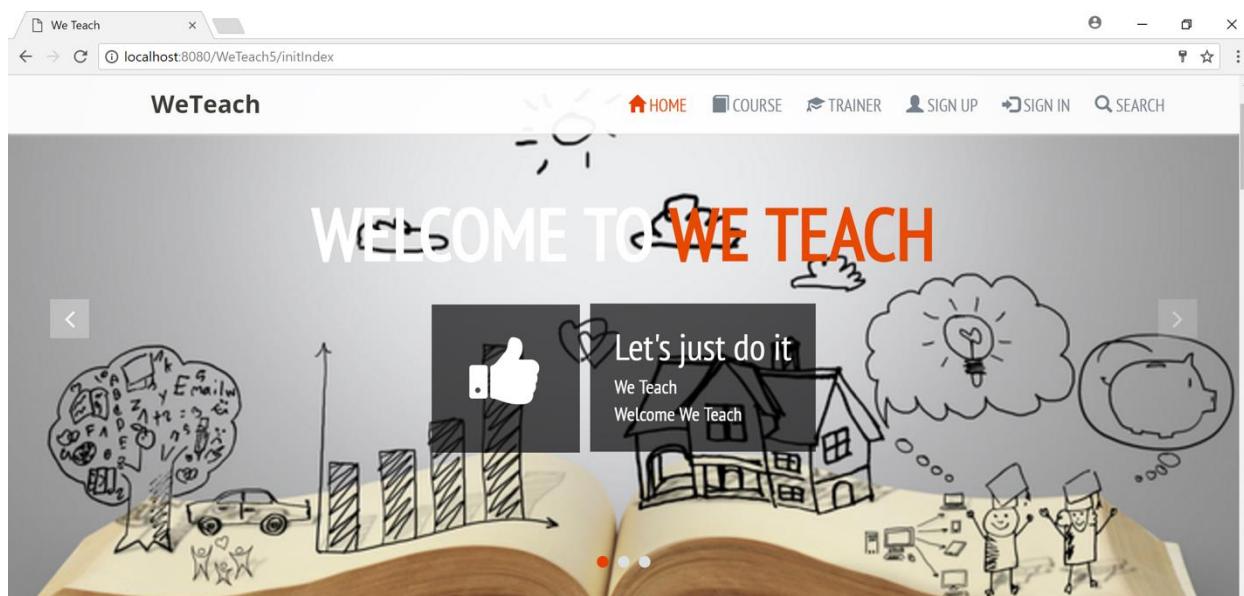
**Biography\*:**

[Sign Up](#)

Type here to search

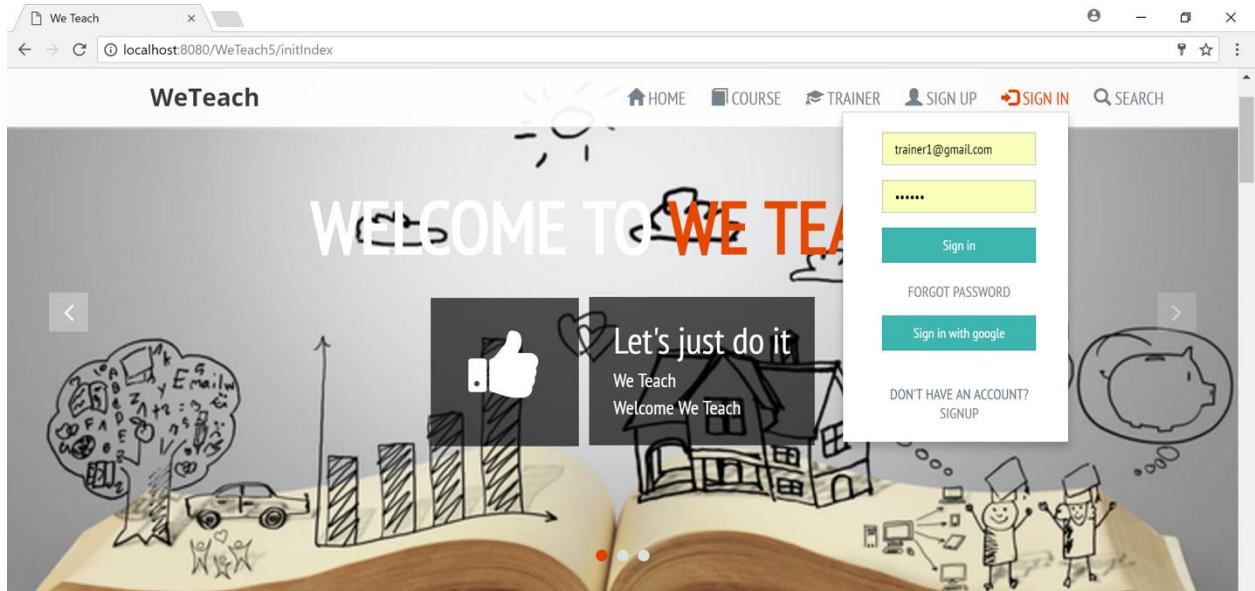
12:31 AM  
8/23/2017

- Fill user's information to all fields
- Click on "Sign Up" button
- System redirects User to Homepage and login



## 6.3 Sign In

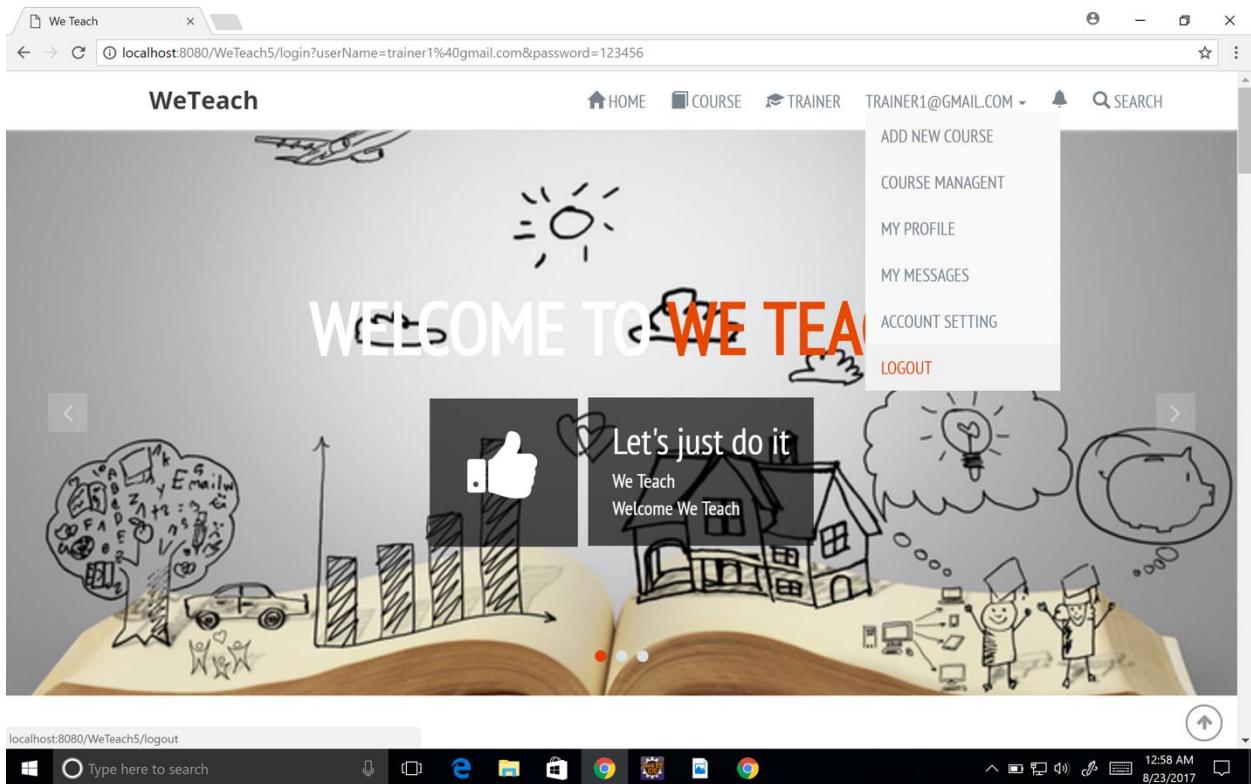
- In homepage, click on “SIGN IN” button
- System displays SIGN IN pop-up



- Enter E-mail Address & Password
- Click on “Sign in” button
- System redirects Admin/Trainer/Learner page

## 6.4 Log Out

- Admin/trainer/learner click on name on header, then click “LOGOUT”



- System redirects user to homepage as guest

## 6.5 Course

- In homepage, User click on Course on header
- System redirects user to courses list page

- User can search course in courses list or choice filed course on course list.
- Click “View More” link , system redirects to course details

## 6.6 Trainer

- In homepage, click on “TRAINER” button
- System displays trainer list page

The screenshot shows a web browser window for 'We Teach' at the URL 127.0.0.1:56839/theme/trainerList.html. The page title is 'TRAINER'. The header includes a logo, navigation links for HOME, COURSE, TRAINER, SIGN UP, SIGN IN, and SEARCH, and a search bar labeled 'Search Trainers List ...' with a magnifying glass icon. Below the header, there are four trainer profiles displayed in a grid:

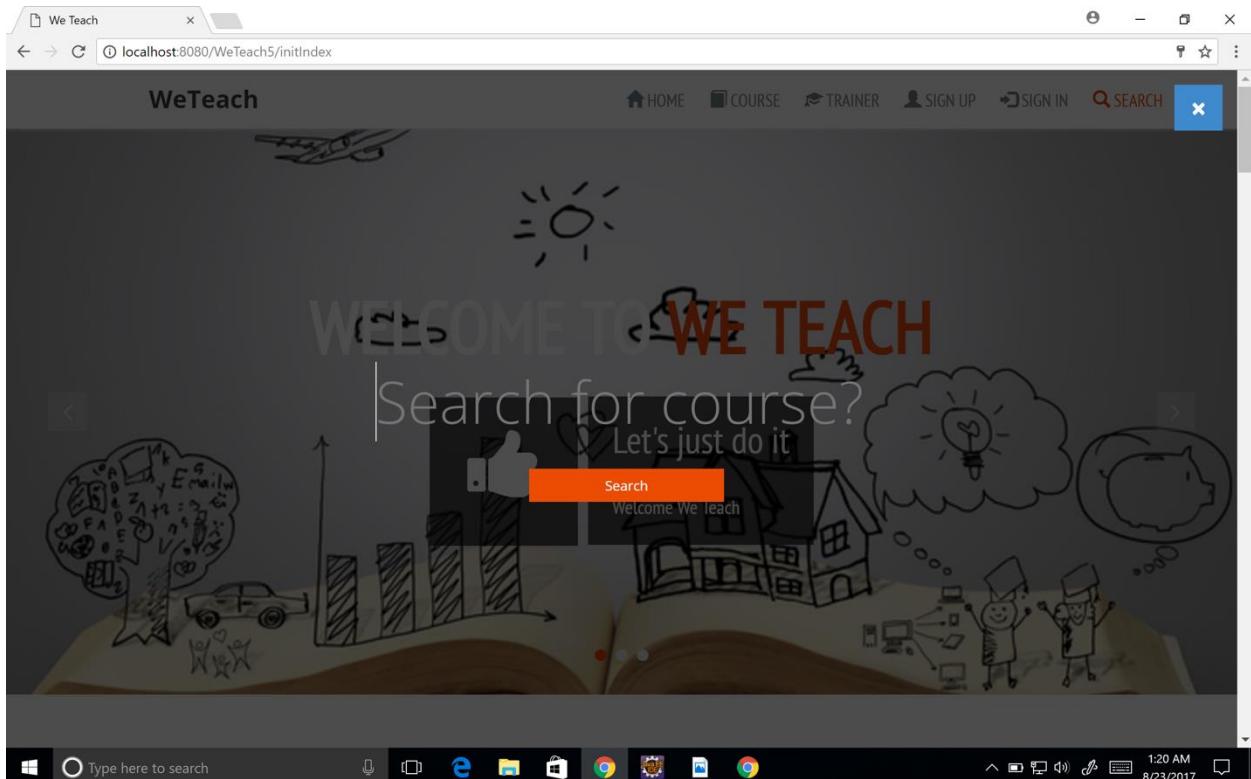
Trainer Name	Role	Rate	Course
Nguyen Van An	PROGRAMMER	★★★★	20
Tran Thi Cuc	DESIGNER	★★★★	50
Lam Chan Huy	DEVELOPER	★★★★	66
Lam Chan Huy	DEVELOPER	★★★★	66

Each profile includes a small bio: 'a story, make yours the' followed by a truncated URL. There is also a circular arrow icon in the bottom right corner.

- User can search trainer in lists

## 6.7 Search

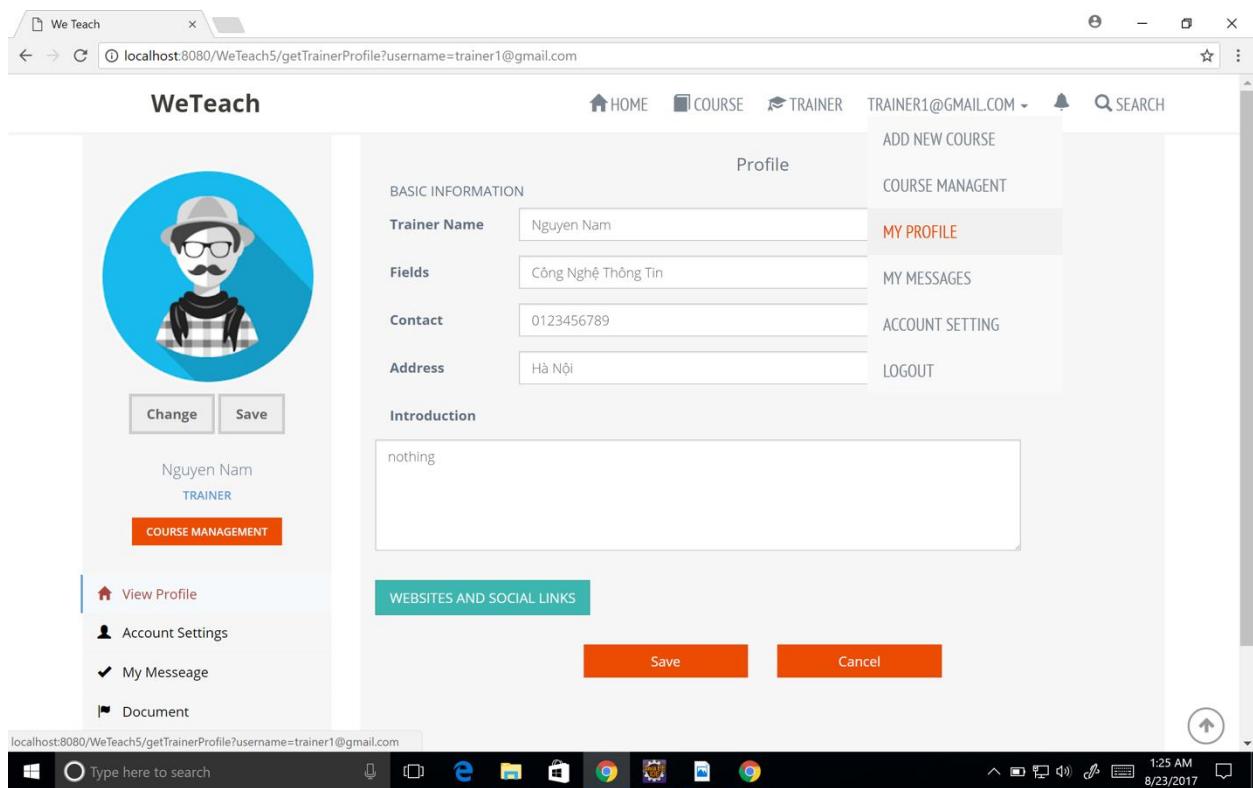
- In homepage, click on “SEARCH” button
- System display “SEARCH” pob-up



- Enter key word about course or learner
- System Display course user want find

## 6.8 My Profile Trainer/Learner

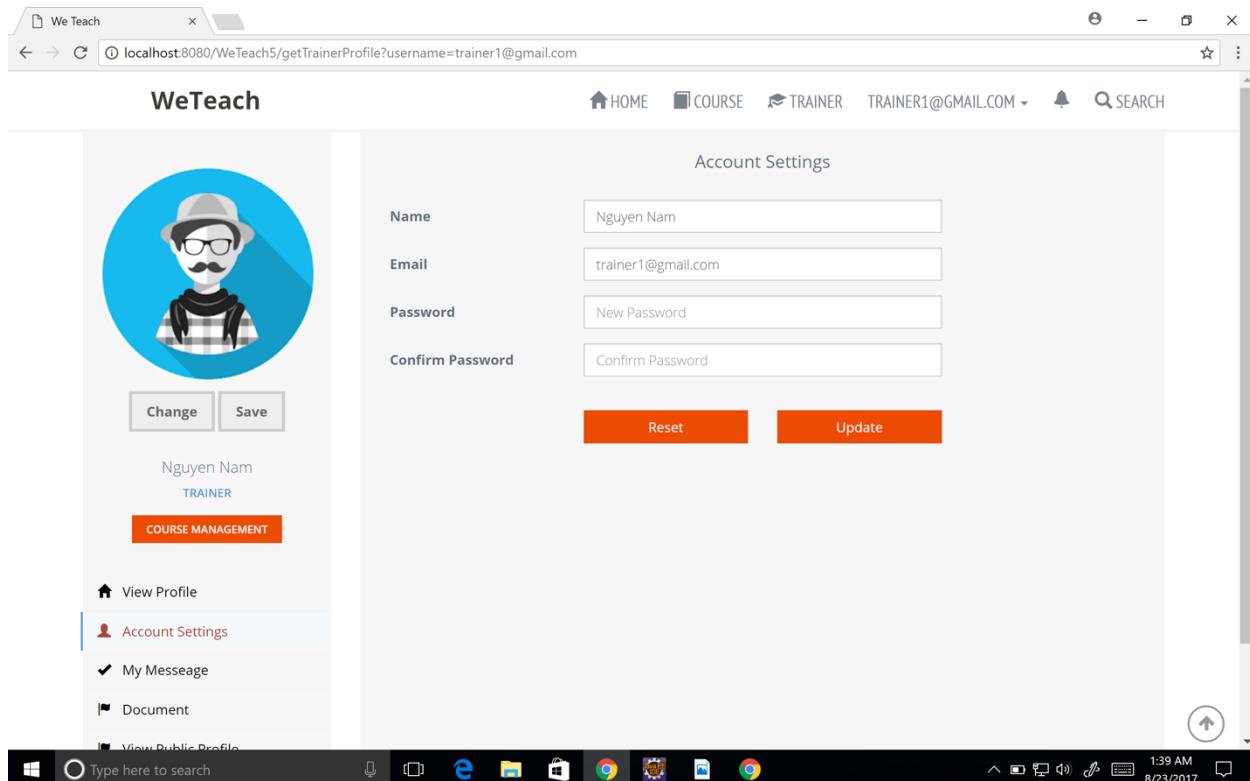
- In trainer /learn page , click name email trainer/learner on header , then click “MY PROFILE” or double click on name email on header
- System display my profile trainer/learner page



- Trainer can edit information and change image avatar , then click save to save edit to database

## 6.9 Account Setting Trainer/Learner

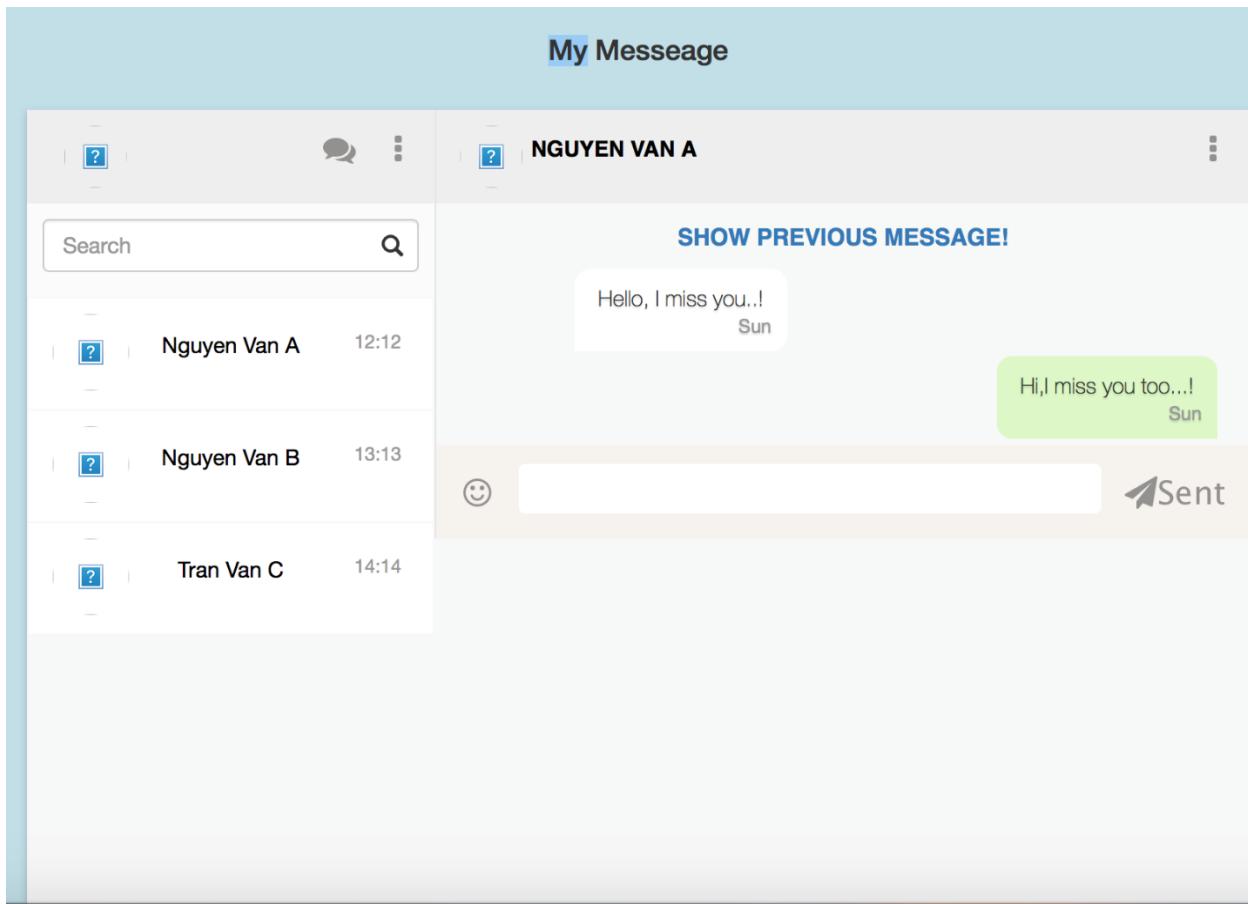
- In trainer or learner page, click name email on header, then click account setting or click account setting in tab left
- System display Account Settings page



- Trainer or Learner enter new password , confirm , then click updates

## 6.10 My Message

- In trainer or learner page, click name email on header, then click My Message or click account setting in tab left
- System display My Message page



- Trainer /Learner creat new message , view all , rep

## 6.11 Document Trainer

- In trainer page, click name email on header, then click Document or click Document in tab left
- System display Document page

The screenshot shows the 'Document' page of the 'We Teach' application. At the top, there is a header bar with the title 'We Teach' and a URL '127.0.0.1:56839/theme/ProfileTrainer.html'. Below the header are navigation links for 'HOME', 'COURSE', 'TRAINER', 'NGUYEN VAN AN', and a search bar. On the left side, there is a sidebar with a profile picture of a person wearing a hat and glasses, and the text 'Nguyen Van A TRAINER'. Below this, there are several menu items: 'COURSE MANAGEMENT' (highlighted in red), 'View Profile', 'Account Settings', 'My Message' (with a checked checkbox), 'Document' (highlighted with a dashed blue border), and 'View Public Profile'. The main content area is titled 'Document' and displays six thumbnail cards, each showing a world map with various icons and the text 'Css/html'. At the bottom right of the main content area, there is a link 'View More'.

- Trainer view document , view all document when click view more

## 6.12 View Public Profile Trainer

- In trainer page, click view public profile in tab left
- System display public trainer profile

The screenshot shows a web browser window for the 'We Teach' application. The URL in the address bar is 127.0.0.1:56839/theme/PublicTrainer.html. The page title is 'Public Trainer'. On the left, there is a sidebar with a profile picture of a man with a mustache and glasses, the name 'Nguyen Van A', the title 'TRAINER', and a 'Send Message' button. Below this is a rating section with three stars. At the bottom of the sidebar are 'COURSE' and 'DOCUMENT' buttons. The main content area displays the following information:

- Email: nguyenvana@gmail.com
- Account Type: Trainer
- Fields: English
- Contact: 0966668888
- Address: Ha Noi - VietNam
- Introduction: I complete graduation from FPT University. My hobbies are traveling and surfing the internet. At present, I am looking for a course where I can increase my knowledge further.

Below the introduction, there are four categories: All Courses, Popular Courses, Newest Courses, and Discount Courses, each accompanied by a small icon. The background features a light blue sidebar on the left and right sides.

## 6.13 History (Learner)

- In learner page, click name email on header, then click View History or click View History in tab left
- System display history learner

The screenshot shows a web browser window with two tabs both titled "We Teach". The active tab displays a user profile for "Nguyen Van A" (LEARNER). On the left, there is a sidebar with navigation links: "View Profile", "Account Settings", "My Message", "View History" (which is highlighted with a blue border), and "View Public Profile". Below these is a "COURSE SAVE" button. The main content area is titled "History" and shows a grid of six course entries, each with a thumbnail icon and the text "Css/html". At the bottom right of the grid is a "View More" link. The URL in the address bar is "127.0.0.1:56839/theme/ProfileLeaner.html#document".

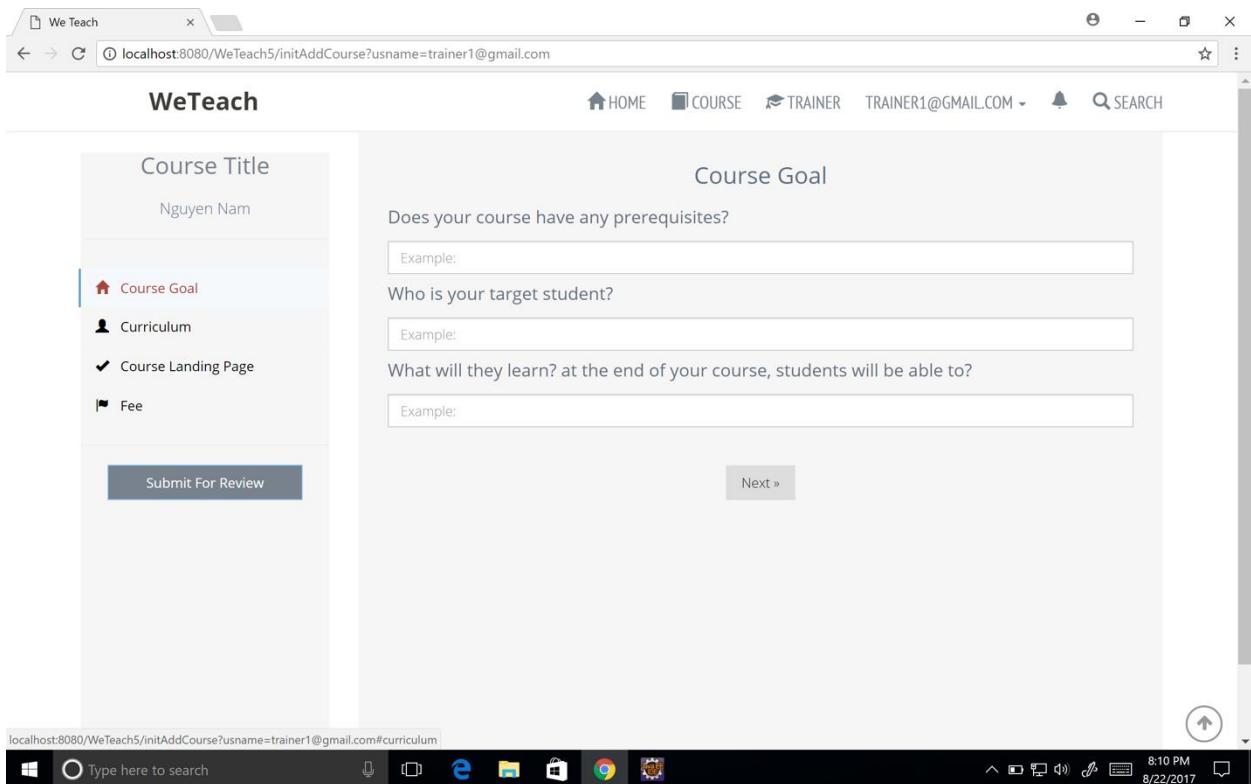
## 6.14 Public Profile

- In learner page, click view public profile in tab left
- System display public profile learner

The screenshot shows a web browser window with three tabs all titled "We Teach". The active tab displays a "Public Learner" profile for "Nguyen Van A" (LEARNER). The profile includes a circular icon, contact information (Email: nguyenvana@gmail.com, Job: Student, Gender: Male, Account Type: Learner, Contact: 0966668888, DOB: 01/01/1995), and an introduction text: "I complete graduation from FPT University. My hobbies are traveling and surfing the internet. At present, I am looking for a course where I can increase my knowledge further". Below this is a "View All History" and "Today History" section, followed by four course history items with thumbnails and the text "Course Name" and "DRIVE + ENE". The URL in the address bar is "127.0.0.1:56839/theme/PublicLearner.html".

## 6.15 Add New Course

- In trainer page, click name email on header , then click ADD NEW COURSE
- System display course goal page



- Enter fill fields and click next or curriculum to redirect curriculum tab

WeTeach

HOME COURSE TRAINER TRAINER1@GMAIL.COM SEARCH

Course Title

Nguyen Nam

Curriculum

Start putting together your course by creating sections and lectures belows.

Choose File No file chosen

« Previous Next »

Course Goal Curriculum Course Landing Page Fee

Submit For Review

localhost:8080/WeTeach5/initAddCourse?username=trainer1@gmail.com#course-landing

- Choose file to upload , then click next to redirects course landing or click previous to come bac course goal tab

WeTeach

HOME COURSE TRAINER TRAINER1@GMAIL.COM SEARCH

Course Title

Nguyen Nam

Course Landing Page

Yours Course Landing Page is firsts thing students see when they find your course in the marketplace and will influence students enrollsments.

Course Title  
Insert your course title

Course Subtitle  
Insert your course subtitle

Course Description

Basic Information

Language: Tiếng Việt Level: Beginner Select Category: Công Nghệ Thông Tin

localhost:8080/WeTeach5/initAddCourse?username=trainer1@gmail.com#course-landing

The screenshot shows the 'WeTeach' application's course creation page. At the top, there are dropdown menus for 'Language' (Tiếng Việt), 'Level' (Beginner), and 'Select Category' (Công Nghệ Thông Tin). Below these are input fields for 'What is primarily taught in your course?' (Example: Landscape Photography) and 'Tag'. A large green placeholder image for the course image features the text 'I Teach + UTeach WeTeach'. To the right of the image, instructions state: 'Please review our course image quality standards careful to ensure your image is approved. Required dimensions: 2048x 1152 pixels. Required format: jpg, jpeg, png..'. A 'Upload Course Image' button is located below the placeholder image.

- Enter fill fields and click next or fee to redirect fee tab

The screenshot shows the 'Fee Course' tab of the course creation interface. On the left, a sidebar lists 'Course Title' (Nguyen Nam) and navigation links: 'Course Goal', 'Curriculum', 'Course Landing Page', and 'Fee' (which is currently selected and highlighted in blue). On the right, the 'Fee Course' section displays a message: 'Select the currency and price of your course below and click "Save". To create Free press 0'. It includes a 'Currency' dropdown set to 'VND' and a 'Course Price' input field. A 'Submit For Review' button is positioned below the price field. Navigation links '« Previous' and '» Next' are visible at the bottom of the right panel.

- Enter course fee and click submit for review , then waiting admin approved course

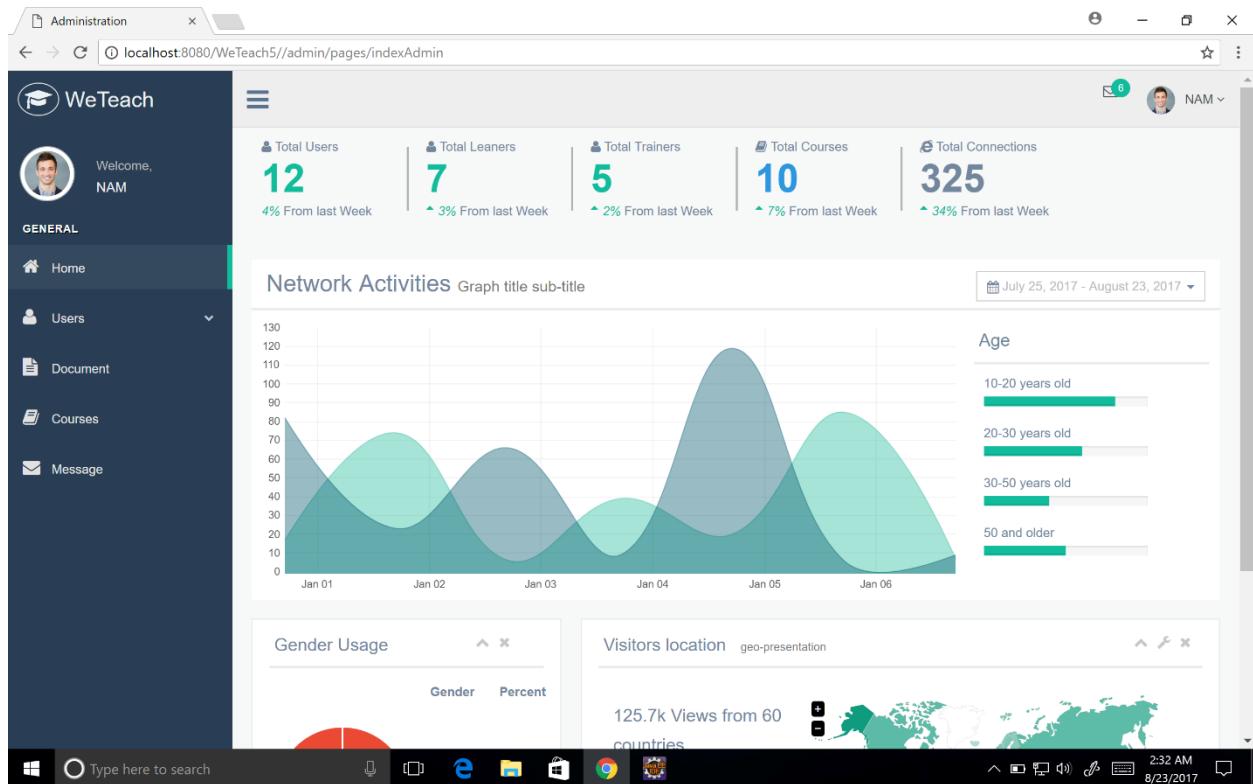
## 6.16 Course Management

- In trainer page, click name email on header , then click COURSE MANAGEMENT.
- System display Course management page.

Course Name	Course Management
HTML	Edit   Remove   View Static
CSS	Edit   Remove   View Static

- click to “edit, remove” link to edit course or view static to view chart of user view course

## 6.17 Admin Dashboard



- Administrator can view website's statistic. Website's statistic includes: Total users, total learners, total trainers, total courses....

## 6.18 User Management

List of Trainers

Name	Field	Address	Age	Status
Nguyen Nam	Công Ngh? Thông Tin	Hà N?i		✓ Validated
Nguyen Nam	S?c Kh?e	Nam ??nh		✓ Validated
Nguyen Nam	Công Ngh? Thông Tin	Hà Nam		✓ Validated
Nguyen Nam	Marketing	?à N?ng		✓ Validated
Nguyen Nam	Doanh Ngh?p	H? Chí Minh		✓ Validated

Showing 1 to 5 of 5 entries

List of Users

Name	Job	Gender	Address	Age	Status
Nguyen Nam	H?c Sinh	Female	H? Chí Minh	21.0	✓ Validated
Nguyen Nam	Giáo Viên/Gi?ng Viên	Female	Hà N?i	21.0	✓ Validated
Nguyen Nam	K? S? Công Ngh? Thông Tin	Female	C?n Th?	21.0	✓ Validated
Nguyen Nam	Bác S?	Female	H?i Phòng	21.0	✓ Validated
Nguyen Nam	Nhân Viên V?n Phòng	Female	Nam ??nh	21.0	✗ Not validate
Nguyen Nam	Khác	Female	Hà N?i	21.0	✗ Not validate
Nguyen Nam	Khác	Female	Hà N?i	21.0	✓ Validated

Showing 1 to 7 of 7 entries

- Administrator can manage Trainer and User account thought user management.

## 6.19 Administrator Account Manage

The screenshot shows the 'Administrations' section of the WeTeach administrator interface. On the left, a sidebar menu includes 'Home', 'Users' (selected), 'Admin', 'Leaners', 'Trainers', 'Document', 'Courses', and 'Message'. The main area displays four user profiles: 'nam', 'truong', 'cuong', and 'toan'. Each profile card contains the user's name, email, address, phone number, and a 'View Profile' button. Below the profiles is a placeholder box with a green cross icon and a 'View Profile' button.

## 6.20 Administrator's Message Page

The screenshot shows the 'Messages' section of the WeTeach administrator interface. The sidebar menu is identical to the previous screen. The main area shows an 'Inbox' with several messages listed. A compose button is at the top right. The messages are:

- Dennis Mugo** 3.00 PM  
Ut enim ad minim veniam, quis nostrud exercitation enim ad minim veniam, quis nostrud exercitation...
- Jane Nobert** 4.09 PM  
Ut enim ad minim veniam, quis nostrud exercitation enim ad minim veniam, quis nostrud exercitation...
- Musimbi Anne** 4.09 PM  
Ut enim ad minim veniam, quis nostrud exercitation enim ad minim veniam, quis nostrud exercitation...
- Jon Dibbs** 4.09 PM  
Ut enim ad minim veniam, quis nostrud exercitation enim ad minim veniam, quis nostrud exercitation...

Below the messages, there is a note from 'Jon Doe' to 'me' dated 8:02 PM 12 FEB 2014. The note content is: "Donec vitae leo at sem lobortis porttitor eu consequat risus. Mauris sed congue orci. Donec ultrices faucibus rutrum." The note also includes a link to download attachments and view images. The status bar at the bottom shows the date and time as 8/23/2017 2:37 AM.

