

Smart Quiz

Software Requirement Specification

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Chapter One | Introduction

1.1 Purpose

The purpose of this Software Requirement Specification (SRS) is used to describe the functional requirement. The functional requirement depends on the stakeholder e.g. Lecturer, Student. They have current problems that meet. This document will encourage the users, developers, and who read this document to understand the detail of each requirement. Smart Quiz has 2 systems consisting of front-end and back-end system for running the program front-end will provide the interface and check the format of input information. Back-end will provide the database and algorithms of program.

1.2 Software Scope

Smart Quiz is system that supports web browser in order to provide convenient to lectures and student by using our feature. Moreover web browser can provide convenient to Administrator. Working of the system can divide by 3 users:

1. Administrator handles user registration and course management (e.g. create courses, add a lecturer and students in the course, and create semesters).
2. Lecturer handles score management, assignment and quiz management, course assignment sharing, and take to notify to student.
3. Student handles taking assignment and quiz, viewing score, download course material sharing, and receive notification from Lecturer.

The users must register before operate the activities in the system. The users who use this system must be the member user of the system. Also, the status of users can be changed when they login to the system via a web application.

1.3 Operation Environment

Smart quiz can operate by use notebook or pc and connect by Internet browser.

1.4 Design and Implementation constrains

- Smart Quiz has 2 systems consisting of front-end and back-end system for running the program front-end will provide the interface and check the format of input information. Back-end will provide the database and algorithms of program.
- Internet Connection is required of use Smart Quiz Web application
- Email must be Gmail for using the system.

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1.5 Definition, Acronyms and Abbreviation

1.5.1 Key Definition

Requirement (1) A condition or capability needed by a user to solve a problem or achieve an objective. (2) A condition or capability that must be met or possessed by a system or system component to satisfy a contract, standard, specification, or other formally imposed document. (3) A documented representation of a condition or capability as in definition (1) or (2). [IEEE90]

Feature Transformation of input parameters to output parameters based on a specified algorithm. It describes the functionality of a product in the language of the product. Used for requirements analysis, design, coding, testing or maintenance. [IEEE90]

Use Case (1) Concept to describe a system based on usage of system resources by its environment. (2) Notation from UML for describing a scenario (Usage approach, operational scenario) from the perspective of its users. [IEEE90]

1.5.2 Key Acronyms and Abbreviation

URS XX User Requirement Specification number XX.

SRS XX Software Requirement Specification number XX

UC XX Use Case Description number XX.

*** XX is mean the number of items

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Chapter Two | Overall Description & Requirement

2.1 Product Perspective

Smart Quiz has 3 user in the system Lecturer, Student and administrator. Smart Quiz has 6 features for provide convenience for user. The system is a tool for lecturer and student to communicate easier than ever. The system helps to Lecturer manage his/her course is easily. Also, it helps to Student access some information or takes activities about course.

2.2 User Characteristics

There are 3 types of users in Smart Quiz web application system. That are Student, Lecturer, and Administrator

1. *Student* handles taking assignment and quiz, viewing score, download course material sharing, and receive notification from Lecturer.
2. *Lecturer* handles score management, assignment and quiz management, course material sharing, and take to notify to student.
3. *Administrator* handles user registration and course management (e.g. create courses, add a lecturer and students in the course, and create semesters). Administrator can add account directly to the database.

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Chapter Three | User Requirement

User is a person using a generic system. There are 3 type of user, which interact to Smart Quiz Web application system is **Student, Lecturer, and Administrator**. The user will be separated in each feature.

Feature #1 - User registration.

Description: This feature supports registration of users for using the Smart Quiz system.

Student

URS - 01: The *student* can register to the system.

URS - 02: The *student* can manage to add or edit personal information consisting name, Student id, faculty, department, address, email, telephone number, and password in the profile detail in student personal information page

Lecturer

URS - 03: The *lecturer* can register to the system.

URS - 04: The *lecturer* can manage to add or edit personal information consisting name, lecturer id, faculty, department, address, email, telephone number, and password in the profile detail in lecturer personal information page

Administrator

URS - 05: The *Administrator* can approve *student* and *lecturer* account.

Feature#2 - Login to the system

Description: This feature supports access to the system after administrator approves the account.

Student

URS - 06: The *student* can login to the system after get approved by *administrator*.

URS - 07: The *student* can log out from system

Lecturer

URS - 08: The *lecturer* can login to the system after get approved by *administrator*.

URS - 09: The *lecturer* can log out from system.

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Administrator

URS - 10: The *Administrator* can login to the system.

URS - 11: The *Administrator* can logout from the system

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Feature#3 - Course management

Description: This feature supports managing semesters to respond academic year that change over time by Administrator. Lecturer manages his/her courses offered in each semester. Student accesses course information registered

Student

URS - 12: The *student* can view courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course as *student* in student course management page

Lecturer

URS - 13: The *lecturer* can view courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course as *lecturer* in lecturer course management page

Administrator

URS - 14: The *Administrator* can create a semester consisting semester sector, and year.

URS - 15: The *Administrator* can edit a semester consisting semester sector, and year.

URS - 16: The *Administrator* can remove a semester consisting semester sector, and year.

URS - 17: The *Administrator* can create a course consisting course name, course credit, course description, lecturer name, and a list of students in the course.

URS - 18: The *Administrator* can edit a course consisting course name, course credit, course description, lecturer name, and a list of students in the course.

URS - 19: The *Administrator* can remove a course consisting course name, course credit, course description, lecturer name, and a list of students in the course.

Feature#4 - Assignment and Quiz management

Description: This feature supports assignment and quiz management by Lecturer. This feature can process Student's answer to each question of an assignment or quiz and compute the score. Moreover, this feature supports preventing Student from copying assignments or quizzes, which are multiple choices and true/ false questions. The system can randomize the order of questions.

Lecturer

URS - 20: The *lecturer* can choose course for creating/editing assignment and quiz in course management page.

URS - 21: The *lecturer* can create assignments or quizzes which are multiple choices question, true/false question, and short answers to student in the adding test page.

URS - 22: The *lecturer* can edit assignments or quizzes information which are multiple choices question, true/false question, and short answers in the edit test page.

URS - 23: The *lecturer* can remove assignments or quizzes which are multiple choices question, true/false question, and short answers in the course information page.

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Feature#5 - Taking assignments and quizzes

Description: This feature supports taking assignments and quizzes by student.

Student

URS - 24: The *student* can choose course for taking assignment and quiz in course management page.

URS - 25: The *student* can take assignments or quizzes which are multiple choices, true/false questions, and short answers from *lecturer* in the assignment or quiz page.

Feature#6 - Score management

Description: This feature supports managing scores in each course. Score management helps Lecturer add, edit, delete, and calculate scores using Google's spreadsheets. This feature supports exporting data in pdf format for convenience of Lecturer.

Lecturer

URS - 26: The *lecturer* can marks the point for *student's* short answer.

URS - 27: The *lecturer* can view all student's answer in each choice of assignment or quiz in chart format in the chart page.

URS - 28: The *lecturer* can check the assignment that are submitted in time or not.

URS - 29: The *lecturer* can calculate score of student taking quiz or assignment by using Google's Spreadsheet system.

URS - 30: The *lecturer* can post the score to student.

URS - 31: The *lecturer* can create a new spreadsheet.

URS - 32: The *lecturer* can remove a spreadsheet.

URS - 33: The *lecturer* can upload file to Google's Drive system.

Feature#7 - Checking Score/Grade for student

Description: This feature provides an overall score in each course for studying planning of student.

Student

URS - 34: The *student* can view score in the course management page as *student*.

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Feature#8 – Notification

Description This feature supports notification for Student. Lecturer can notify Student when he/she uploads assignments, quizzes, scores and document files by E-mail

Lecturer

URS - 35: The *lecturer* can send The E-mail to *student*.

Feature#9 - Communication System

Description: This feature provides a comment system, which allows Student to ask questions and Lecturer make comments related to the file posted. This feature provides the popular posts when Student asks the same question. They can vote the post for a popular post. Lecturer can stick the post when student votes the popular post.

Student

URS - 36: The *student* can post the question to *lecturer*, *Student friends and everyone* in the post page.

URS - 37: The *student* can reply the post from *lecturer*, *Student friends and everyone* in the post page.

Lecturer

URS - 38: The *lecturer* can post the question to *student* in the post page.

URS - 39: The *lecturer* can reply the question to *student* in the post page.

URS - 40: The *lecturer* can recommend the post.

URS - 41: The *lecturer* can delete the post.

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Chapter Four | System feature

4.1 Software Requirement Specification

Feature #1 - User registration.

Student Feature #1 - User registration.

URS - 01: The *student* can register to the system.

SRS 01 - The front-end system shall provide the registration UI for register which receive *student* ID, username, password, name, address, faculty, department, email, and telephone number in the student register page.

SRS 02 - The front-end system shall check the format of the *student* information when the *student* click “REGISTER” button from *student* registration UI.

SRS 03 - The front-end system shall display “The Student ID must be the number only” when the student ID format is not numeric or Null.

SRS 04 - The front-end system shall display “The Student’s username must be only 4-16 alphabet characters” when the student username format is less than 4 or greater than 16 alphabet or Null.

SRS 05 - The front-end system shall display “The Student’s password must be only 4-16 characters” when the student password format is less than 4 or greater than 16 alphabet or Null.

SRS 06 - The front-end system shall display “The Student’s name must be the combination of alphabet and space only” when the student name format is alphabet and space combination or Null.

SRS 07 - The front-end system shall display “The Student’s telephone must be number only” when the student telephone format is not numeric or Null.

SRS 08 - The front-end system shall display “Email does not valid” when the *student* email format is not combination of an @ symbol and a domain part, for example the right format is “Smith@example.com.” or Null.

SRS 09 – The front-end system shall send Student information to back-end system.

SRS 11 - The back-end system shall check the duplication of the *student* username after student click “REGISTER” button from *student* registration UI.

SRS 12 – The back-end system send the error message to front-end system.

SRS 13 - The front-end system shall display “Existing Student’s username, please using different Student’s username” when the *student* username has already existed in database.

SRS 14 - The back-end system shall store student’s information to database after student click “REGISTER” button from *student* registration UI.

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URS - 02: The *student* can manage to add or edit personal information consisting name, faculty, department, address, email, telephone number, and password in the profile detail.

SRS 15 - The front-end system shall display the old student's personal information consisting name, password, faculty, department, address, email, and telephone number in the personal information page after student click "personal information" label bar in Student main page.

SRS 16 - The front-end system shall provide edit profile UI for add or edit the profile which receive student's name, password, address, faculty, department, email, and telephone number in the personal information page.

SRS 17 - The front-end system shall check the format of the *student* information when the *student* click "Edit" button in the edit profile UI.

SRS 18 - The front-end system shall display "The Student's password must be only 4-16 characters" when the student password format is less than 4 or greater than 16 alphabet or Null.

SRS 19 - The front-end system shall display "The Student's name must be the combination of alphabet and space only" when the student name format is not alphabet and space combination or Null.

SRS 20 - The front-end system shall display "The Student's telephone must be number only" when the student telephone format is not numeric or Null.

SRS 21 - The front-end system shall display "Email does not valid" when the *student* email format is not combination of an @ symbol and a domain part such as, for example the right format is "Smith@example.com." or Null.

SRS 22 - The front-end system send the "Student personal information" to back-end system

SRS 23 - The back-end system shall validates the confirm password.

SRS 24 – The back-end system shall record profile information to database when *student* click "Edit" button in the edit profile UI.

SRS 25 – The front-end system shall display "Editing Information Successful" message when *student* click "Edit" button edit profile UI.

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Lecturer Feature #1 - User registration.

URS - 03: Lecturer can register to the system.

SRS 26 - The front-end system shall provide the registration UI for register which receive *student* ID, username, password, name, address, faculty, department, email, and telephone number in the student register page.

SRS 27 - The front-end system shall check the format of the *lecturer* information when the *lecturer* click “REGISTER” button from *lecturer* registration UI.

SRS 28 - The front-end system shall display “The Lecturer ID must be the number only” when the lecturer ID format is not numeric or Null.

SRS 29 - The front-end system shall display “The Lecturer’s username must be only 4-16 alphabet characters” when the lecturer username format is less than 4 or greater than 16 alphabet or Null.

SRS 30 - The front-end system shall display “The Lecturer’s password must be only 4-16 characters” when the lecturer password format is less than 4 or greater than 16 alphabet or Null.

SRS 31 - The front-end system shall display “The Lecturer’s name must be the combination of alphabet and space only” when the lecturer name format is alphabet and space combination or Null.

SRS 32 - The front-end system shall display “The Lecturer’s telephone must be number only” when the lecturer telephone format is not numeric or Null.

SRS 33 - The front-end system shall display “Email does not valid” when the *lecturer* email format is not combination of an @ symbol and a domain part, for example the right format is “Smith@example.com.” or Null.

SRS 34 – The front-end system shall send lecturer information to back-end system.

SRS 35 – The back-end system shall connect to database after lecturer click “REGISTER” button from *lecturer* registration

SRS 36 - The back-end system shall check the duplication of the *lecturer* username after lecturer click “REGISTER” button from *lecturer* registration UI.

SRS 37 - The back-end system send the error message to front-end system.

SRS 38 - The front-end system shall display “Existing Lecturer’s username, please using different Lecturer’s username” when the *lecturer* username has already existed in database.

SRS 39 - The back-end system shall store student’s information to database after lecturer click “REGISTER” button from *lecturer* registration UI.

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URS - 04: The *lecturer* can manage to add or edit personal information consisting name, faculty, department, address, email, telephone number, and password in the profile detail page.

SRS 40 - The front-end system shall display the old lecturer's personal information form database consisting name, password, faculty, department, address, email, and telephone number in the personal information page After lecturer click "personal information" label bar in lecturer main page.

SRS 41 - The front-end system shall provide edit profile UI for add or edit the profile which receive lecturer's name, password, address, faculty, department, email, and telephone number in the personal information page.

SRS 42 - The front-end system shall check the format of the *lecturer* information when the *lecturer* click "Edit" button from edit profile UI.

SRS 43 - The front-end system shall display "The Lecturer's password must be only 4-16 characters" when the *lecturer* password format is less than 4 or greater than 16 alphabet or Null.

SRS 44 - The front-end system shall display "The Lecturer's name must be the combination of alphabet and space only" when the *lecturer* name format is not alphabet and space combination or Null.

SRS 45 - The front-end system shall display "The Lecturer's telephone must be number only" when the *lecturer* telephone format is not numeric or Null.

SRS 46 - The front-end system shall display "Email does not valid" when the *lecturer* email format is not combination of an @ symbol and a domain part such as, for example the right format is "*Smith@example.com.*" or Null.

SRS 23 - The back-end system shall validates the confirm password.

SRS 47 - The back-end system shall record profile information to database when *lecturer* click "Edit" button in the personal information page.

SRS 48 - The front-end system shall display "Editing Information Successful" message when *lecturer* click "Edit" button in the personal information page.

Administrator Feature #1 - User registration.

URS - 05: The *administrator* can approve student and lecturer account.

SRS 49 - The front-back system shall display the student information form database which is available for approving consisting *student ID* username, password, name, faculty, department, email, and telephone number after admin click "APPROVE STUDENT" label bar in manage account main page.

SRS 50 - The front-end system shall display the *lecturer* information which is available for approving consisting *lecturer ID* username, password, name, faculty, department, email, and telephone number when admin click "APPROVE LETURER" label bar in manage account main page.

SRS 51 - The front-end system shall provide registration approve UI for approve student accounts which receive checkbox to select the account for approving in student approve page.

SRS 52 - The front-end system shall provide registration approve UI for approve lecturer accounts which receive checkbox to select the account for approving in lecturer approve page.

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SRS 53 - The front-end system shall send approve *student* request to back-end system.
 SRS 54 - The back-end system shall approve *student* account to database when admin click “APPROVE” button in student approve page.
 SRS 55 - The front-end system shall send approve *lecturer* request to back-end system.
 SRS 56 - The front-end system shall send approve *lecturer* request to back-end system.
 SRS 57 - The back-end system shall approve *lecturer* account to database when admin click “APPROVE” button in lecturer approve page.
 SRS 58 – The back-end system send the message back to front-end system
 SRS 59 – The front-end system displays “Approve Successful” message in student approve page.
 SRS 60 – The front-end system displays “Approve Successful” message in lecturer approve page.

Feature#2 - Login to the system

Student Feature #2 - Login to the system.

URS - 06: The *student* can login to the system after get approved by *administrator*.

SRS 61 - The front-end system shall provide login interface, which receive username and password in log in page.
 SRS 62 - The front-end system shall send the login data to back-end system.
 SRS 63 - The back-end system shall validate username and password, which matched with database.
 SRS 64 – The back-end system shall send the error message back to front-end system.
 SRS 65 – The front-end system shall display “Invalid Username and/or Password” when username and password are wrong or Null.
 SRS 66 – The front-end system shall redirect to student main page when student successfully log in to the system

URS - 07: The *student* can log out from system.

SRS 67 - The front-end system shall provide logout interface for logged out the system in student main page.
 SRS 68 - The front-end system shall send the request to back-end system when users click “LOG OUT” button in logout interface of front-end.
 SRS 69 - The back-end system shall logout student’s username and password from the back-end system.
 SRS 70 - The front-end system redirect to login main page, after login successful..

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Lecturer Feature #2 - Login to the system.

URS - 08: The *lecturer* can login to the system after get approved by *administrator*.

SRS 61 - The front-end system shall provide login interface, which receive username and password in log in page.

SRS 62 - The front-end system shall send the login data to back-end system.

SRS 63 - The back-end system shall validate username and password, which matched with database.

SRS 71 - The back-end system shall validate username and password, which matched with database.

SRS 72 - The back-end system shall send the error message back to front-end system.

SRS 73 - The front-end system shall display “Invalid Username and/or Password” when username and password are wrong or Null.

SRS 74 - The front-end system shall redirect to lecturer main page when lecturer successfully log in to the system

URS - 09: The *lecturer* can log out from system.

SRS 75 - The front-end system shall provide logout interface for logged out the system in lecturer main page.

SRS 766 - The front-end system shall send the request to back-end system when users click “LOG OUT” button in logout interface of front-end.

SRS 77 - The back-end system shall logout lecturer’s username and password from the back-end system.

SRS 78 - The front-end system redirect to login main page.

Administrator Feature #2 - Login to the system.

URS - 10: The *Administrator* can login to the system.

SRS 61 - The front-end system shall provide login interface, which receive username and password in log in page.

SRS 62 - The front-end system shall send the login data to back-end system.

SRS 63 - The back-end system shall validate username and password, which matched with database.

SRS 79 – The back-end system shall send the error message back to front-end system.

SRS 80 – The front-end system shall display “Invalid Username and/or Password” when username and password are wrong or Null.

SRS 81 – The front-end system shall redirect to administrator main page when administrator successfully log in to the system

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URS - 11: The *Administrator* can logout from the system

SRS 82 - The front-end system shall provide logout interface for logged out the system in student main page.

SRS 83 - The front-end system shall send the request to back-end system when users click “LOG OUT” button in logout interface of front-end.

SRS 84 - The back-end system shall logout administrator’s username and password from the back-end system.

SRS 85 - The front-end system redirect to login main page.

Feature#3 - Course management

Student Feature#3 - Course management

URS - 12: The *student* can view courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course as student in student course management page.

SRS 86 - The front-end system shall display semester information form database consisting semester sector, and semester year in semester page after student click “ Course information” bar label in student main page.

SRS 87 - The front-end system shall provide select semester UI for selecting the semester to view the course in the in semester page.

SRS 88 - The front-end system shall display courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course from the student ID in overall course page after student click view button in select semester UI.

Lecturer Feature#3 - Course management

URS - 13: The *lecturer* can view courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course as lecturer in lecturer course management page

SRS 89 - The front-end system shall display semester information form database consisting semester sector, and semester year in semester page after lecturer click “ Course information” bar label in student main page..

SRS 90 - The front-end system shall provide select semester UI for selecting the semester to view the course in the in semester page..

SRS 91 - The front-end system shall display courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course from the lecturer ID in overall course page after student click view button in select semester UI.

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Administrator Feature#3 - Course management

URS - 14: The *Administrator* can create a semester consisting semester sector, and year.

SRS 92 - The front-end system shall provide create semester UI for receive semester information consisting semester sector, and year in the semester management page after administrator click “Semester management” bar label in administrator main page.

SRS 93 - The front-end system shall check the semester format when *administrator* click “Add” button from create semester UI.

SRS 94 - The front-end system shall display “Semester academic year must be S/YYYY form, where S is a semester and YYYY is an academic year” message. If semester format is not semester sector/year, for example the right format is “1/2015”.

SRS 95 - The front-end system shall send the semester information to back-end system.

SRS 96 - The back-end system shall check the duplication of semester academic year form database.

SRS 97 - The front-end system display an error message” The semester and academic year that already exist please type another semester or academic year”.

SRS 98 - The back-end system shall record semester information to database when *administrator* click “Add” button in the semester management page.

SRS 99 - The system shall display “Add Semester Successful” message when *administrator* click “Add” button in the semester management page.

URS - 15: The *Administrator* can edit a semester consisting semester sector, and year.

SRS 100 - The front-end system shall display semester information form database consisting semester sector, and year. After administrator click “Semester management” bar label in administrator main page.

SRS 101 - The front-end system shall redirect to edit semester page after *administrator* click “EDIT” button in semester management page.

SRS 102 - The front-end system shall provide edit semester UI for edit the semester which receive semester sector, and year in edit semester page.

SRS 103 - The front-end system shall check the semester format when *administrator* click “EDIT” button from edit semester UI.

SRS 94 - The front-end system shall display “Semester academic year must be S/YYYY form, where S is a semester and YYYY is an academic year” message. If semester format is not semester sector/year, for example the right format is “1/2015”.

SRS 95 - The front-end system shall send the semester information to back-end system.

SRS 96 - The back-end system shall check the duplication of semester academic year form database.

SRS 97 - The front-end system display an error message” The semester and academic year that already exist please type another semester or academic year”.

SRS 104 - The back-end system shall record semester information to database when *administrator* click “EDIT” button in the edit semester page.

SRS 105 - The front-end system shall display “Editing Semester Successful” message when *administrator* click “EDIT” button in the edit semester page.

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URS - 16: The *Administrator* can remove a semester consisting semester sector, and year.

SRS 100 - The front-end system shall display semester information form database consisting semester sector, and year. After administrator click “Semester management” bar label in administrator main page.

SRS 101 - The front-end system shall redirect to edit semester page after *administrator* click “EDIT” button in semester management page.

SRS 106 - The front-end system shall display semester information form database consisting semester sector, and year after and “DELETE” button administrator click “Semester

SRS 107 - The back-end system shall delete the semester from database when *administrator* click” DELETE” button in semester management page.

SRS 108 - The front-end system display “Deletion Semester Successful” message.

URS - 17: The *Administrator* can create a course consisting course name, course credit, course description, lecturer name, and a list of students in the course.

SRS 109 - The front-end system shall display semester information form database consisting semester sector, and year in select semester page for selecting semester after administrator click “Course management” bar label in administrator main page.

SRS 110 - The front-end system shall redirect to course management page after *administrator* click “View” button in the select semester page.

SRS 111 - The front-end system shall provide create course UI for receiving course information consisting course name, and course credit in the course management page.

SRS 112 - The front-end system display a list of students information that are available to add to the course consisting Student ID, name, faculty, department from database in the” add student” page.

SRS 113 - The front-end system shall provide UI to add students to the course which receive check box to select students in the add student page.

SRS 114 - The back-end system shall add the selected students to “student in course” table in the course management page.

SRS 115 - The front-end system display “Add student in Course is successful” message.

SRS 116 - The front-end system shall check the course format when administrator click “Add” button from create course UI.

SRS 117 - The back-end system shall store course information consisting course ID, course name, course credit, course description lecturer, a list of student in the course to database.

SRS 118 - The front-end system shall display “The course credit must be number only” message. If the course format is not numeric.

SRS 119 - The front-end system shall record course information to database when administrator click “Add” button in the course management page.

SRS 120 - The front-end system shall display “Add Course Successful” message when administrator click “Add” button in the course management page.

URS - 18: The *Administrator* can edit a course consisting course name, course credit, course description, lecturer name, and a list of students in the course.

SRS 109 - The front-end system shall display semester information form database consisting semester sector, and year in select semester page for selecting semester after administrator click “Course management” bar label in administrator main page.

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SRS 110 - The front-end system shall redirect to course management page after *administrator* click “View” button in the select semester page.

SRS 121- The front-end system shall display course information consisting course name, and course credit in course management page.

SRS 122 - The system shall redirect to course edition page after *administrator* click “Edit” button in the course management page.

SRS 123 - The front-end system shall provide edit course UI for receiving course information consisting course name, and course credit in the course edition page.

SRS 124 - The system display members of the course consisting a lecturer information, and a list of students information in the course consisting lecturer name, lecturer faculty lecturer department, student id, student name, student faculty, and student department in “EDIT COURSE” page.

SRS 125 - The front-end system provide UI to select a lecturer (one lecturer per course), and remove students in the course in the “EDIT COURSE” page.

SRS 112 - The front-end system display a list of students information that are available to add to the course consisting Student ID, name, faculty, department from database in the” add student” page.

SRS 113 - The front-end system shall provide UI to add students to the course which receive check box to select students in the add student page.

SRS 114 - The back-end system shall add the selected students to “student in course” table in the course management page.

SRS 126 - The back-end system add selected students to “student in course” table in “EDIT COURSE” page of front-end.

SRS 127 - The front-end system shall check the course format when administrator click “EDIT” button from “EDIT COURSE” page.

SRS 118 - The front-end system shall display “The course credit must be number only” message. If the course format is not numeric.

SRS 128 - The back-end system record the course information consisting course ID, course name, course credit, course description lecturer, a list of student in the course to database, After administrator click “EDIT” button in “EDIT COURSE” page

SRS 129 - The front-end system shall display “Editing Course Successful” message when administrator click “EDIT” button in “EDIT COURSE” page.

URS - 19: The Administrator can remove a course consisting course name, course credit, course description, lecturer name, and a list of students in the course.

SRS 109 - The front-end system shall display semester information form database consisting semester sector, and year in select semester page for selecting semester after administrator click “Course management” bar label in administrator main page.

SRS 110 - The front-end system shall redirect to course management page after *administrator* click “View” button in the select semester page.

SRS 121- The front-end system shall display course information consisting course name, and course credit in course management page.

SRS 122 - The system shall redirect to course edition page after *administrator* click “Edit”

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button in the course management page.

SRS 130 - The front-end system shall provide “DELETE” button in “EDIT COURSE” page.

SRS 131 - The back-end system shall delete the semester from database when *administrator* click” DELETE” button in the “EDIT COURSE” page.

SRS 132 - The front-end system display “Deleting Course Successful” message.

Feature#4 - Assignment and Quiz management

Lecturer Feature#4 - Assignment and Quiz management

URS - 20: The *lecturer* can choose the course for creating/editing assignment and quiz in course management page.

SRS 133 - The front-end system shall display semester information form database consisting semester sector, and year for selecting semester in semester selecting page.

SRS 134 - The front-end system shall display course information form database consisting course id, course name, course credit, lecturer name and semester in overall course page

SRS 135 – The front-end system display testing information form database consisting course name, testing name, testing type, amount of question, testing score, and post status in the “OVERALL TEST” page.

URS - 21: The *lecturer* can create test consist of assignments or quizzes which are multiple choices question, true/false question, and short answers to student in the adding test page.

SRS 136 - The front-end system shall provide create assignment/quiz UI for creating the assignment/quiz which receive testing name, a type of testing (assignment or quiz), an amount of questions, a testing score student name, randomize order of the question status, and posting status in the add question page.

SRS 137 - The front-end system display a list of student that is available to add to the test from the database consisting student ID, student name, student faculty, student department in the “ADD TEST” page.

SRS 138 - The back-end system shall add students to the test.

SRS 139 - The front-end system shall check the test format when lecturer click “ADD QUESTION” button from “ADD TEST” page.

SRS 140 - The front-end system shall display “please choose status of posting” when the status is Null.

SRS 141- The front-end system shall display “please choose type of testing” when the type of testing is Null.

SRS 142 - The front-end system shall display “please choose status of random” when the status of random is Null.

SRS 143 - The front-end system shall display “please choose submit time” when the submit time is Null.

SRS 144 - The back-end system shall record the testing information to the database.

SRS 145 - The front-end system shall provide assignment/quiz UI for creating the assignment/quiz which receive type of testing (multiple choice, True/False, Short answer,) Question description, choice, solution and point.

SRS 146- The system shall check the assignment/quiz format when lecturer click “ADD QUESTION” button from Add question page

SRS 147 - The front-end system shall display “Answer a, b, c, and d cannot be empty” message

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when the multiple choices answer is empty.

SRS 148 - The front-end system shall display “Answer a, and b cannot be empty” message when the true/false answer is empty.

SRS 149 - The front-end system shall display “Question point must be number only” message when the question point format is not numeric.

SRS 150 - The front-end system shall display assignment/quiz information consisting testing name, a type of testing, an amount of questions, a testing score student name, randomize order of the question status, and posting status for Lecturer adds an assignment or quiz into the system.

SRS 151 - The back-end system shall record assignment/quiz information to database when lecturer click “ADD QUESTION” button in the add question page.

SRS 152 - The record system shall display “Creating Testing Successful” message when lecturer click “ADD TESTING” button in the add question page.

URS - 22: The lecturer can edit test information.

SRS 153 - The front-end system shall display assignment/quiz information form database consisting testing name, a type of testing, an amount of questions, a testing score student name, randomize order of the question status, and posting status in overall testing page after lecturer click “OVERALL TEST” bar label in course main page.

SRS 154 - The front-end system shall redirect to edition testing page when lecturer click “VIEW” button in overall testing page.

SRS 155- The system shall provide the edit test UI for editing the test which receive testing name, a type of testing, an amount of questions, a testing score student name, randomize order of the question status, and posting status.

SRS 156 - The front-end system provides UI for removing students in the test in the “EDIT TEST” page.

SRS 157 - The front-end system provide UI for adding student in the test in the “ADD STUDENT” page which receive the checkbox to select students to add to the test.

SRS 158 - The back-end system adds students to the “EDIT TEST” page.

SRS 159 - The back-end system shall record test information to database” when lecturer click “EDIT TESTING” button in “EDIT TEST” page.

SRS 160 - The front-end system shall display “Editing Testing Successful” when lecturer click “EDIT TESTING” button in “EDIT TEST” page.

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Feature#5 - Taking assignments and quizzes

Student Feature#5 - Taking assignments and quizzes

URS - 23: The *student* can choose the course for taking assignment and quiz in course management page.

SRS 161 - The front-end system shall display semester information form database consisting semester sector, and year in select semester page for selecting semester in semester selecting page.

SRS 162 - The system shall redirect to overall course page when student click “View” button in the semester selecting page

SRS 163 - The system shall display course information form database consisting course id, course name, course credit, lecturer name and semester in overall course page

SRS 164 – The system shall provide the UI to select the course in the overall course page.

URS - 24: The *student* can take assignments or quizzes which are multiple choices, true/false questions, and short answers from lecturer in the assignment or quiz page.

SRS 165 – The front-end system shall display a list of testing form database consisting course name, testing name, amount of question in overall testing page in the “OVERALL TEST” page.

SRS 166 - The front-end system shall display the test information consisting question description, question type, and question content.

SRS 167 - The front-end system shall provide the UI for taking the assignment/quiz.

SRS 168 - The back-end system shall record student answer to database when student click “SEND ANSWER” button in take testing page.

SRS 169 - The system shall display “Answer Submission Successful” message when student click “SEND ANSWER” button in take testing page.

Feature#6 - Score management

Lecturer Feature#6 - Score management

URS - 25: The *lecturer* can marks the point for *student's* short answer.

SRS 170 – The front-end system shall display the name of testing and submission time.

SRS 171 - The front-end system shall display short answer question and student’s short answer form database in marking score page after lecturer click “VIEW ANSWER” button in “SUBMISSION” page

SRS 172 - The front-end system shall check the question point format from lecturer.

SRS 173 - The front-end system shall display “Point of student must be number only” message when the point of student format is not numeric.

SRS 174 - The back-end system shall record the point to database when lecturer click “MARK” button in the “MARKING SCORE” page

SRS 175 - The front-end system shall display “Marking point is successful” message when lecturer click “MARK” button in the “MARKING SCORE” page

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URS - 26: The *lecturer* can view all student's answer in each choice of assignment or quiz in chart format in the chart page.

SRS 176 - The front-end system shall display all student's answer in each choice of assignment or quiz in chart format in the "CHART" page after lecturer click "CHART" button in the "OVERALL TEST" page.

URS - 27: The *lecturer* can check the assignment that are submitted in time or not.

SRS 177 - The front-end system shall display testing submission information form database consisting student ID, testing name, answer sheet score, time, submit status in testing submission page after lecturer click "SUBMISSION" button in overall testing page.

URS - 28: The *lecturer* can calculate score of student taking quiz or assignment by using Google's Spreadsheet system.

SRS 178 - The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page.

SRS 179 - The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page.

SRS 180 - The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page.

SRS 181 - The front-end system shall redirect to Google's Spreadsheet page after lecturer select the spreadsheet.

SRS 182 - The Google's Spreadsheet system shall provide spreadsheets management UI for calculating the score.

SRS 183 - The Google's Spreadsheet system shall calculate the score from the formula of lecturer.

URS - 29: The *lecturer* can post the score to *student*.

SRS 178 - The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page.

SRS 179 - The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page.

SRS 180 - The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page.

SRS 184 - The front-end system shall redirect to Google's Spreadsheet page after lecturer select the spreadsheet.

SRS 185- The s Google's Spreadsheet system shall provide spreadsheets management UI for posting the score to students.

SRS 186 - The Google's Spreadsheet system shall share spreadsheets with student.

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URS - 30: The *lecturer* can create a new spreadsheet.

SRS 178 - The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page.

SRS 179 - The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page.

SRS 180 - The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page.

SRS 187 - The Google's system shall provide spreadsheets management UI for creating the new spreadsheets.

SRS 188 - The Google's spreadsheet system shall create the new spreadsheets.

URS - 31: The *lecturer* can remove a spreadsheet.

SRS 178 - The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page.

SRS 179 - The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page.

SRS 180 - The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page.

SRS 189 - The Google's spreadsheets system shall provide spreadsheets management UI for deleting the spreadsheet

SRS 190 - The Google's spreadsheets system shall delete the spreadsheets from Google's spreadsheet system after lecturer click "DELETE" button in the "SPREADSHEETS MANAGEMENT" page.

URS - 32: The *lecturer* can upload file to Google's drive system.

SRS 178 - The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page.

SRS 179 - The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page.

SRS 180 - The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page.

SRS 191 - The front-end system shall provide UI for uploading file to Google's drive system.

SRS 192 - The system shall upload the Google's drive system after lecturer select file and then click "UPLOAD" button.

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Feature#7 - Checking Score/Grade for student

Student Feature#7 - Checking Score/Grade for student

URS - 33: The *student* can view score in the course management page as *student*.

SRS 193- The back-end system shall login the Google's account when student click "SPREADSHEETS MANAGEMENT" label bar in overall course page.

SRS 179 - The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page.

SRS 180 - The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page.

SRS 194 - The front-end system shall redirect to Google's Spreadsheet page after student select the spreadsheet.

SRS 195 - The Google's Spreadsheet system shall display the student score spreadsheets.

Feature#8 – Notification

Lecturer Feature#8 – Notification

URS - 34: The *lecturer* can send The E-mail to *student*.

SRS 196 - The system shall login the Google's account when lecturer click "EMAIL" label bar in lecturer main page.

SRS 197 - The system shall provide user interface for sending e-mail which receive target email and information.

SRS 198 - The back-end system shall send mail to student when lecturer click "SEND EMAIL" button in email page.

Feature#9 - Communication System

Student Feature#9 - Communication System

URS - 35: The *student* can post the question to *lecturer, student, everyone* in the post page.

SRS 199 - The front-end system shall provide user interface for posting the question, which receive post title, and post description student's post page.

SRS 200 - The back-end system shall record the question to database when student click "SUBMIT" button in the post page.

URS - 36: The *student* can reply the post from *lecturer, student* in the post page.

SRS 201 The system shall display the post information of lecturer form database consisting post title, and post description in student's post page.

SRS 202 - The system shall provide user interface for replying the question, which receive post title, and post description in the student's reply post page.

SRS 203 - The system shall record the question to database when student click "SUBMIT" button in the student's reply post page.

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Lecturer Feature#9 - Communication System

URS - 37: *The lecturer can post the question to student in the post page.*

SRS 204 - The front-end system shall provide user interface for posting the question, which receive post title, and post description the lecturer's post page after lecturer click "POST PAGE" button in course main page..

SRS 205 - The system shall record the question to database when lecturer click "SUBMIT" button in the lecturer's post page.

URS - 38: *The lecturer can reply the question to student in the post page.*

SRS 206 - The front-end system shall display the post information of student and lecturer form database consisting post title, and post description the lecturer's post page after lecturer click "POST PAGE" button in course main page.

SRS 207 - The system shall provide user interface for replying the question, which receive post title, and post description in the lecturer's reply post page.

SRS 208 - The back-end system shall record the question to database when student click "SUBMIT" button in in the lecturer's reply post page.

URS - 39: *The lecturer can recommend the post.*

SRS 206 - The front-end system shall display the post information of student and lecturer form database consisting post title, and post description the lecturer's post page after lecturer click "POST PAGE" button in course main page

SRS 209 - The front-end system shall provide user interface for recommend the post in the lecturer's post page.

SRS 210 - The front-end system shall recommend the post from the lecturer's post page.

URS - 40: *The lecturer can delete the post.*

SRS 206 - The front-end system shall display the post information of student and lecturer form database consisting post title, and post description the lecturer's post page after lecturer click "POST PAGE" button in course main page

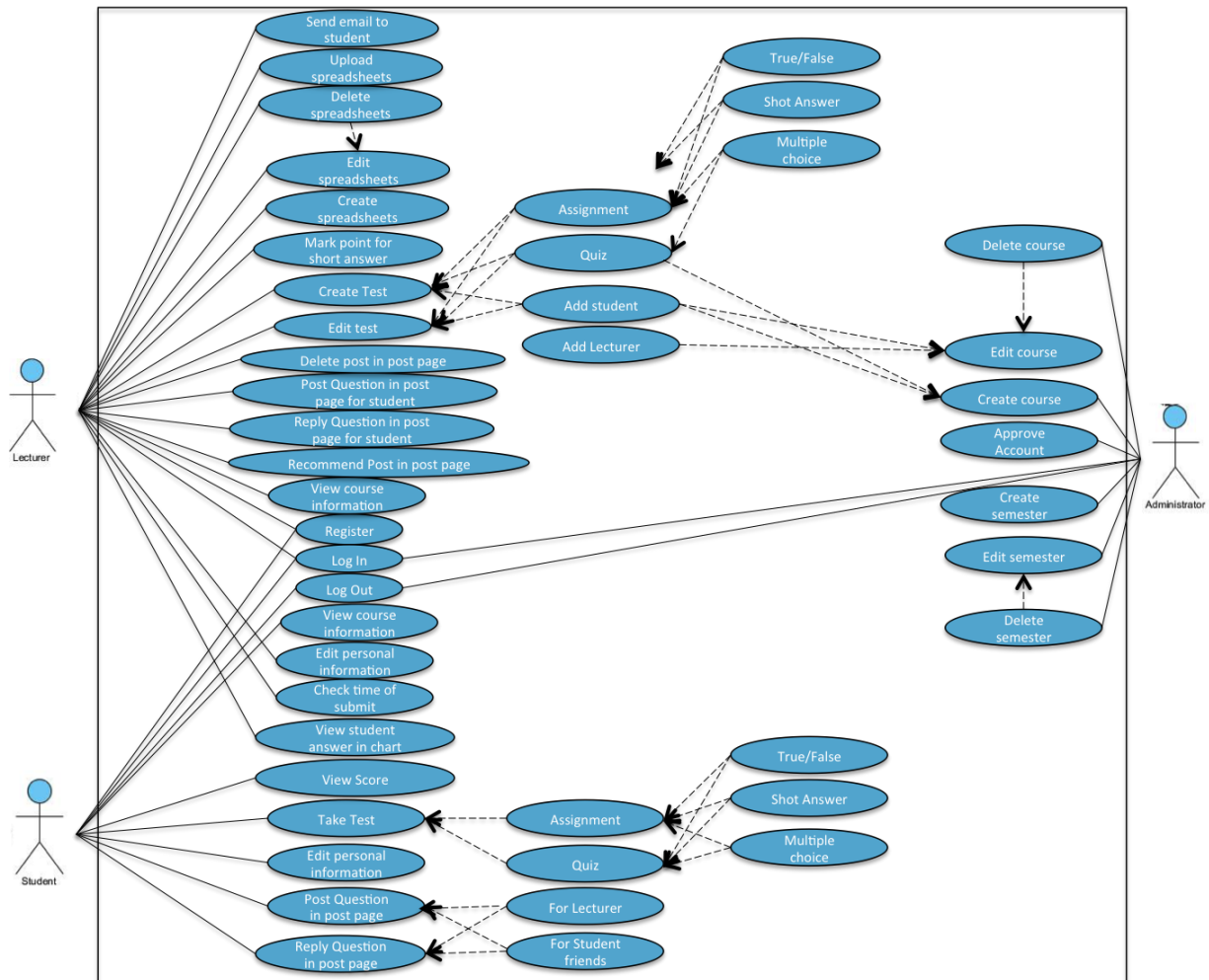
SRS 211 - The front-end system provide user interface for deleting the post.

SRS 212 - The back-end system shall delete the post from the lecturer's post page.

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4.2 Use case Description & Activity Diagram

4.2.1 Activity Diagram



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4.3 Use case Description

Student can register to the system. (UC-01)

Use Case ID:	UC-01		
Use Case Name:	Student registers to the system		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/04/2015	Last Revision Date:	3/07/2015
Actors:	Student		
Description:	This use case is provided for Student request to register account to the system on the web application.		
Trigger:	Student enters to Student registration page.		
Preconditions:	N/A		
Post conditions:	Student sees “Registration Successful” message on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Student enters to Student registration page in front-end system. 2. The front-end system redirects to Student registration page on the web application. 3. The front-end system shall provide the registration UI for register, which receive <i>student</i> ID, username, password, name, address, faculty, department, email, and telephone number in the student register page. 4. Student input the Student information in the registration page in front-end system. 5. Student click “REGISTER” button to submit the student registration information to the web application. 6. The front-end system shall check the format of the <i>student</i> information when the <i>student</i> click “REGISTER” button from <i>student</i> registration UI. 7. The front-end system shall send Student information to back-end system. 8. The back-end system shall connect to database after student click “REGISTER” button from <i>student</i> registration UI. 9. The back-end system shall check the duplication of the <i>student</i> username after student click “REGISTER” button from <i>student</i> registration UI. 10. The back-end system shall store student’s information to database after student click “REGISTER” button from <i>student</i> registration UI. 11. The system redirects to login main page on the web application. 		
Alternative Flows:	N/A		
Exceptions:	6A. when the student ID format is not numeric or Null. The front-end system provides the error message as followed:		

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	<ol style="list-style-type: none"> 1. The front-end system displays “The Student ID must be the number only” on the web application. 2. Use Case resumes on step 5 of normal flow. <p>6B. when the student username format is less than 4 or greater than 16 alphabet or Null. The front-end system provide the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s username must be only 4-16 alphabet characters” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6C. when the student password format is less than 4 or greater than 16 alphabet or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s password must be only 4-16 characters” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6D. when the student name format is alphabet and space combination or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s name must be the combination of alphabet and space only” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6E. when the student tel format is not numeric or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s tel must be number only” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6F. when the student email format is not combination of an @ symbol and a domain part, for example the right format is “<i>Smith@example.com.</i>” or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s email must be the character and only one @ symbol” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>8A. when the student username is duplicate with exist student username in the system. The front-end system provides the error message as followed: “Existing Student’s username, please using different Student’s username” on the web application.</p>
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	<ol style="list-style-type: none"> 1. The front-end system shall display “Existing Student’s username, please using different Student’s username” 2. Use Case resumes on step 4 of normal flow.
Includes:	N/A
Frequency of Use:	Only at the first time when user begins to use this application.
Assumptions:	N/A
Notes and Issues:	N/A

URS-01 Student can register to the system

Student must register into the web application, in order to using the other features as Student. Student have to provide student ID, student username, student password, student name, student address, student faculty, student department, student email, and student tel into the system. After, the registration has been completed. The web application will redirect to the Student main page.

Actor: The users

Prerequisite: -

Input:

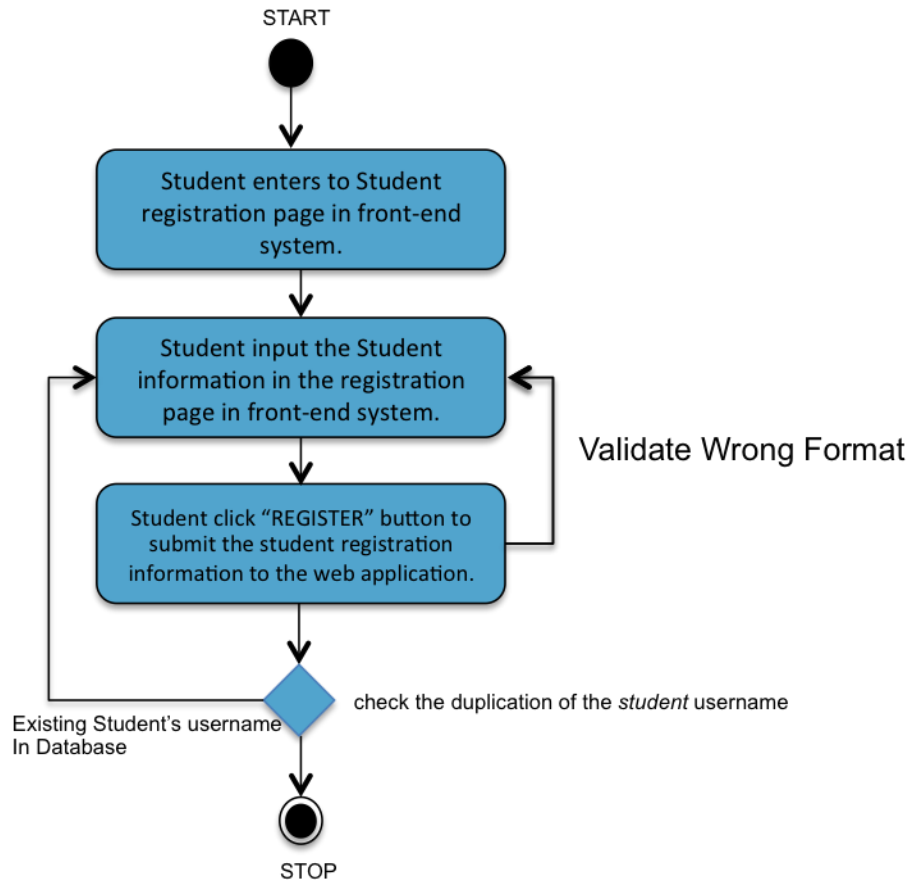
Name	Description	Example	Remarks
student ID	Only number is allowed.	542115099	
student username	Only Alphabet is allowed, within the range of 4-16 Characters	“jenny”	
student password	Can be any character within the range of 4-16 characters.	“12345”	
student name	Only The combination of alphabet and space is allowed.	“Jenny Stark”	
student faculty	Can be any character is allowed.	College of Arts media and technology, Chiang mai University	
student department	Can be any character is allowed.	Software engineer	
student address	Can be any character.	Women dorm 4, Chiang mai university, Chiang mai, Thailand, 50000	
student email	The combination of character and only one @ symbol is allowed.	jenny999@gmail.com	
student tel	Only number is allowed.	0823207777	

Flow of Execution:

1. Student enters to Student registration page.
2. Student provides the Student information into the registration page.
3. Student submits the Student registration information to the web application.

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AC-01 Student can register to the system



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Student can manage to add or edit personal information. (UC-02)

Use Case ID:	UC 02		
Use Case Name:	The student can manage to add or edit personal information consisting name, faculty, department, address, email, telephone number, and password in the profile detail.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/4/2015	Last Revision Date:	3/07/2015
Actors:	Student		
Description:	This use case is provided for Student edits his/her personal information on the web application.		
Trigger:	Student enters to Student personal information page.		
Preconditions:	Student must logged in to the system.		
Post conditions:	Student sees “Editing Information Successful” message on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Student enters to Student main page in front-end system. 2. Student click “PERSONAL INFORMATION” label bar in Student main page of front-end system. 3. The front-end system display the old student’s personal information consisting name, password, faculty, department, address, email, and telephone number in the personal information page 4. The front-end system shall provide edit profile UI for add or edit the profile which receive student’s name, password, address, faculty, department, email, and telephone number in the personal information page. . 5. Student input information that needs to be edited in the UI of front-end system. 6. The front-end system shall check the format of the <i>student</i> information when the <i>student</i> click “Edit” button in the edit profiles UI. 7. The front-end system send the “Student personal information” to back-end system 8. The back-end system shall validates the confirm password. 9. The back-end system shall record profile information to database when <i>student</i> click “Edit” button in the edit profile UI. 10. The front-end system displays “Editing Information Successful” message on the web application. 		
Alternative Flows:	N/A		
Exceptions:	7A. when the student password format is less than 4 or greater than 16 alphabet or Null. The front-end system provides the error		

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	<p>message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s password must be only 4-16 characters” on the web application. 2. Use Case resumes on step 5 of normal flow. <p>7B. when the student name format is not alphabet and space combination or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s name must be the combination of alphabet and space only” on the web application. 2. Use Case resumes on step 6 of normal flow. <p>7C. when the student telephone format is not numeric or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s telephone must be number only” on the web application. 2. Use Case resumes on step 6 of normal flow. <p>7D. when the student email format is not combination of an @ symbol and a domain part such as, for example the right format is “<i>Smith@example.com.</i>” or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Student’s email must be the character and only one @ symbol” on the web application. 2. Use Case resumes on step 6 of normal flow. <p>9A. when the student password is not matched the old password in database. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “Password and confirm password is not matched” on the web application. 2. Use Case resumes on step 6 of normal flow.
Includes:	N/A
Frequency of Use:	Often
Assumptions:	N/A
Notes and Issues:	N/A

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URS-02 Student can manage to add or edit personal information consisting name, faculty, department, address, email, telephone number, and password in the profile detail.

Student can edit his/her personal information into the web application which consist student ID, student password, student name, student address, student faculty, student department, student email, and student tel.

Actor: Student

Prerequisite: Student must have logged.

Input:

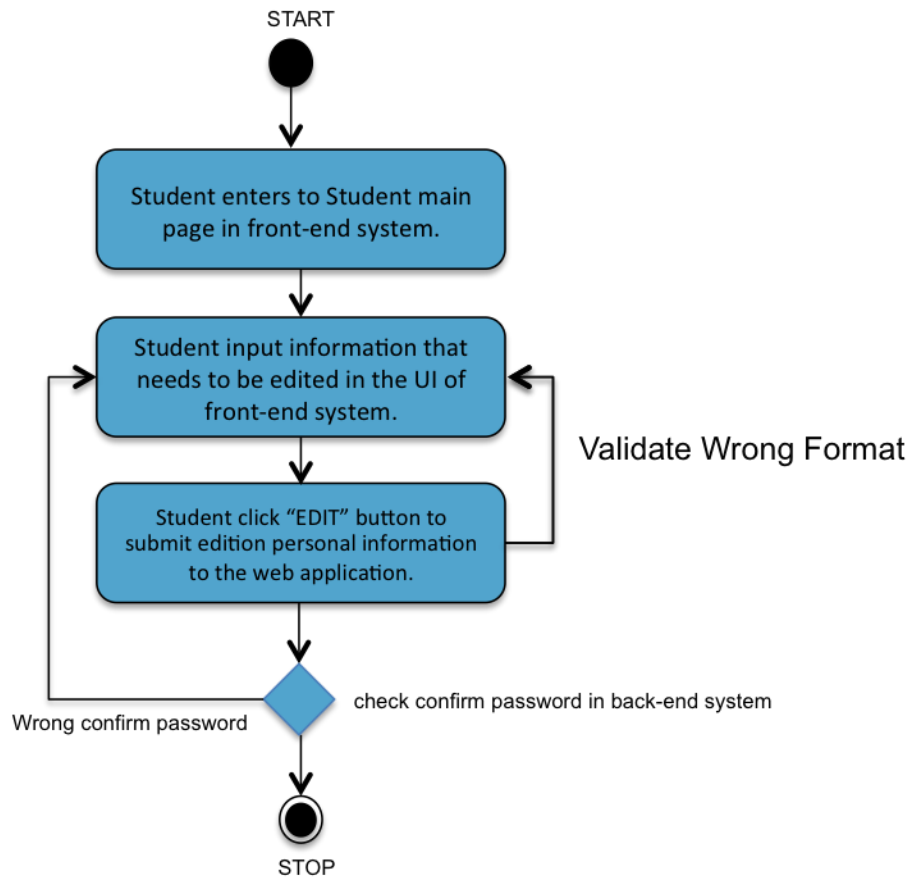
Name	Description	Example	Remarks
student ID	Only number is allowed.	542115099	
student password	Can be any character within the range of 4-16 characters.	“123456”	
student name	Only The combination of alphabet and space is allowed.	“Jenny Stark”	
student faculty	Can be any character is allowed.	College of Arts media and technology, Chiang mai University	
student department	Can be any character is allowed.	Software engineering	
student address	Can be any character.	Women dorm 4, Chiang mai university, Chiang mai, Thailand, 50000	
student email	The combination of character and only one @ symbol is allowed.	jenny999@gmail.com	
student tel	Only number is allowed.	0823207777	

Flow of Execution:

1. Student enters to Student main page.
2. Student enters to Personal information page.
3. Student provides profile information that want to edit.
4. Student provides confirm password for editing.
5. Student submits edition profile information form.

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AC-02 Student can manage to add or edit personal information consisting name, faculty, department, address, email, telephone number, and password in the profile detail.



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Lecturer can registers to the system (UC-03)

Use Case ID:	UC 03		
Use Case Name:	Lecturer registers to the system		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	3/07/2015
Actors:	Lecturer		
Description:	This use case is provided for Lecturer request to register account to the system on the web application.		
Trigger:	Lecturer enters to Lecturer registration page.		
Preconditions:	N/A		
Post conditions:	Lecturer sees “Registration Successful” message on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer enters to Lecturer registration page in front-end system. 2. The front-end system redirects to Lecturer registration page on the web application. 3. The front-end system shall provide the registration UI for register, which receive student ID, username, password, name, address, faculty, department, email, and telephone number in the student register page. 4. Lecturer input the Lecturer information in the registration page in front-end system. 5. Lecturer click “REGISTER” button to submit the lecturer registration information to the web application. 6. The front-end system shall check the format of the lecturer information when the lecturer click “REGISTER” button from lecturer registration UI. 7. The front-end system shall send lecturer information to back-end system. 8. The back-end system shall connect to database after lecturer click “REGISTER” button from lecturer registration UI. 9. The back-end system shall check the duplication of the lecturer username after lecturer click “REGISTER” button from lecturer registration UI. 10. The back-end system shall store lecturer’s information to database after lecturer click “REGISTER” button from lecturer registration UI. 11. The system redirects to login main page on the web application. 		
Alternative Flows:	N/A		
Exceptions:	6A. when the lecturer ID format is not numeric or Null. The		

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	<p>system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer ID must be the number only” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6B. when the lecturer username format is less than 4 or greater than 16 alphabet or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer’s username must be only 4-16 alphabet characters” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6C. when the lecturer password format is less than 4 or greater than 16 alphabet or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer’s password must be only 4-16 characters” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6D. when the lecturer name format is not alphabet and space combination or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer’s name must be the combination of alphabet and space only” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6E. when the lecturer telephone number format is not numeric or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer’s telephone must be number only” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>6F. when the lecturer email format is not combination of an @ symbol and a domain part such as, for example the right format is “<i>Smith@example.com.</i>” or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer’s email must be the character and only one @ symbol” on the web application. 2. Use Case resumes on step 4 of normal flow. <p>9A. when the lecturer username is duplicate with exist lecturer</p>
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	username from the database. The front-end system provides the error message as followed: “Existing Lecturer’s username, please using different Lecturer’s username” on the web application. 1. The front-end system shall display “Existing Lecturer’s username, please using different Lecturer’s username” 2. Use Case resumes on step 4 of normal flow.
Includes:	N/A
Frequency of Use:	Only at the first time when user begins to use this application.
Assumptions:	N/A
Notes and Issues:	N/A

URS 03 Lecturer can register to the system

Lecturer must register into the web application, in order to using the other features as Lecturer. Lecturer have to provide lecturer ID, lecturer username, lecturer password, lecturer name, lecturer faculty, lecturer department, lecturer email, and lecturer telephone into the system. After, the registration has been completed. The web application will redirect to the login main page.

Actor: The users

Prerequisite: -

Input:

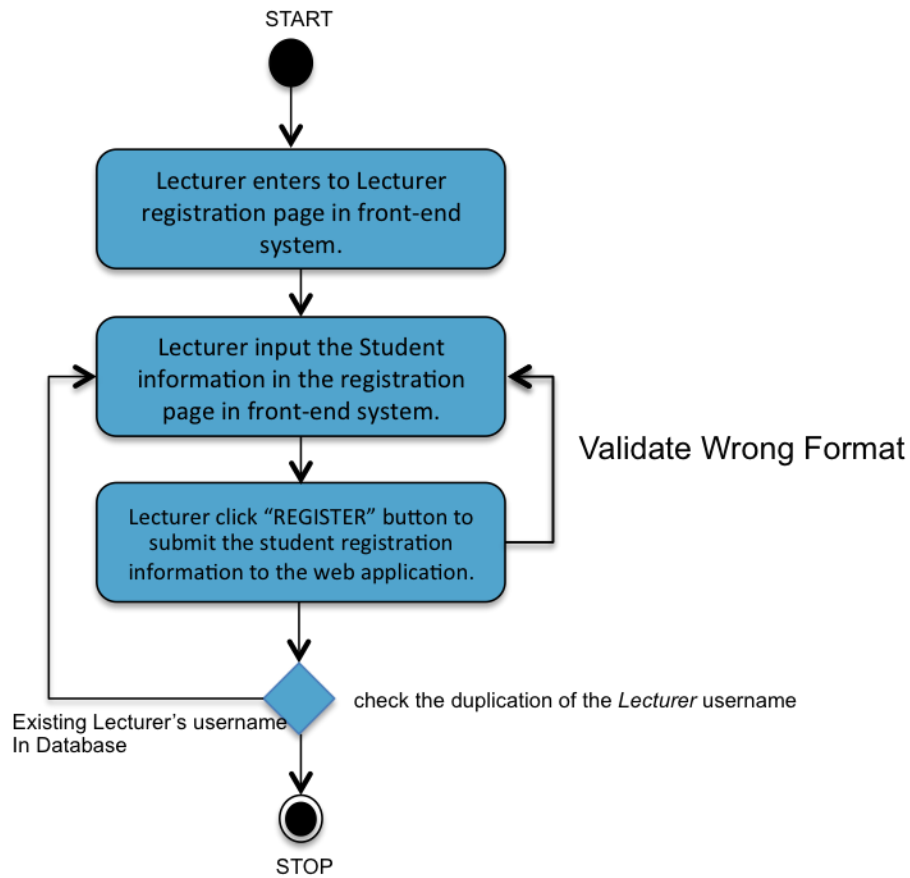
Name	Description	Example	Remarks
lecturer ID	Only number is allowed.	21115011	
lecturer username	Only Alphabet is allowed, within the range of 4-16 Characters	“tony”	
lecturer password	Can be any character within the range of 4-16 characters.	“12345”	
lecturer name	Only The combination of alphabet and space is allowed.	“Tony Stark”	
lecturer faculty	Can be any character is allowed.	College of Arts media and technology, Chiang mai University	
lecturer department	Can be any character is allowed.	Software engineer	
lecturer email	The combination of character and only one @ symbol is allowed.	tony999@gmail.com	
lecturer tel	Only number is allowed.	0832109999	

Flow of Execution:

1. Lecturer enters to Lecturer registration page.
2. Lecturer input the Lecturer information to the registration UI.
3. Lecturer submits the Lecturer registration information to the web application.

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AC-03 Lecturer can register to the system.



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The lecturer can manage to add or edit personal information consisting name, faculty, department, address, email, telephone number, and password in the profile detail page. (UC-04)

Use Case ID:	UC 04		
Use Case Name:	The lecturer can manage to add or edit personal information consisting name, faculty, department, address, email, telephone number, and password in the profile detail page.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	3/07/2015	Last Revision Date:	3/07/2015
Actors:	Lecturer		
Description:	This use case is provided for Lecturer edits his/her personal information on the web application.		
Trigger:	Lecturer enters to Lecturer personal information page.		
Preconditions:	Lecturer profile should be available in the system for editing.		
Post conditions:	Lecturer sees “Editing Information Successful” message on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer enters to Lecturer main page in front-end system. 2. Lecturer click “PERSONAL INFORMATION” label bar in Lecturer main page of front-end system. 3. The front-end system display the old lecturer’s personal information consisting name, password, faculty, department, address, email, and telephone number in the personal information page 4. The front-end system shall provide edit profile UI for add or edit the profile which receive lecturer’s name, password, address, faculty, department, email, and telephone number in the personal information page. 5. Lecturer input information that needs to be edited in the UI of front-end system. 6. The front-end system shall check the format of the <i>lecturer</i> information when the <i>lecturer</i> click “Edit” button in the edit profiles UI. 7. The front-end system send the “Lecturer personal information” to back-end system 8. The back-end system shall validates the confirm password. 9. The back-end system shall record profile information to database when <i>lecturer</i> click “Edit” button in the edit profile UI. 10. The front-end system displays “Editing Information Successful” message on the web application. 		
Alternative Flows:	N/A		

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Exceptions:	<p>8A. when the Lecturer password format is less than 4 or greater than 16 alphabet or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer ‘s password must be only 4-16 characters” on the web application. 2. Use Case resumes on step 5 of normal flow. <p>8B. when the Lecturer name format is not alphabet and space combination or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer’s name must be the combination of alphabet and space only” on the web application. 2. Use Case resumes on step 6 of normal flow. <p>8C. when the Lecturer telephone format is not numeric or Null. The front-end system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer’s telephone must be number only” on the web application. 2. Use Case resumes on step 6 of normal flow. <p>8D. when the Lecturer email format is not combination of an @ symbol and a domain part such as, for example the right format is “<i>Smith@example.com.</i>” or Null. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “The Lecturer’s email must be the character and only one @ symbol” on the web application. 2. Use Case resumes on step 6 of normal flow. <p>9A. when the Lecturer password is not matched the old password in database. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system displays “Password and confirm password is not matched” on the web application. 2. Use Case resumes on step 6 of normal flow.
Includes:	N/A
Frequency of Use:	Often
Assumptions:	N/A
Notes and Issues:	N/A

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URS 04 The lecturer can manage to add or edit personal information consisting name, faculty, department, address, email, telephone number, and password in the profile detail page.

Lecturer can edit personal information into the web application which consist lecturer ID, lecturer password, lecturer name, lecturer faculty, lecturer department, lecturer email, and lecturer tel.

Actor: Lecturer

Prerequisite: Lecturer must have logged.

Input:

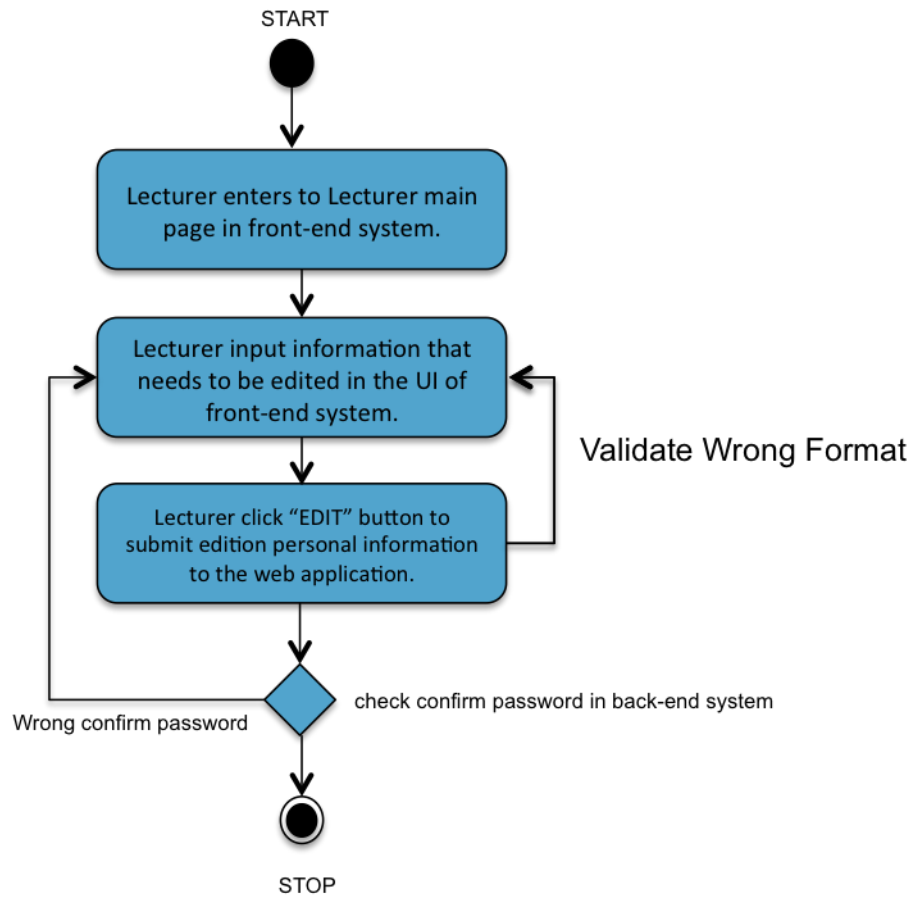
Name	Description	Example	Remarks
lecturer password	Can be any character within the range of 4-16 characters.	“123456”	
lecturer name	Only The combination of alphabet and space is allowed.	“Tony Stark”	
lecturer faculty	Can be any character is allowed.	College of Arts media and technology, Chiang mai University	
lecturer department	Can be any character is allowed.	Software engineering	
lecturer email	The combination of character and only one @ symbol is allowed.	tony999@gmail.com	
lecturer tel	Only number is allowed.	0832109999	

Flow of Execution:

1. Lecturer enters to Lecturer main page.
2. Lecturer enters to Personal information page.
3. Lecturer provides profile information that want to edit.
4. Lecturer provides confirm password for editing.
5. Lecturer submits edition profile information form.

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AC-04 Lecturer can manage to add or edit personal information.



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Administrator can approve student and lecturer account. (UC-05)

Use Case ID:	UC 05		
Use Case Name:	Administrator approve student and lecturer account.		
Created By:	Mr. Supawit Kamjina	Last Updated By:	Mr. Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	3/07/2015
Actors:	Administrator		
Description:	This use case is provided for Administrator approves account to the system on the web application.		
Trigger:	Administrator enters to manage account main page.		
Preconditions:	Lecturer and Student must register into system.		
Post conditions:	The system display “Approbation Successful” message.		
Normal Flow:	<ol style="list-style-type: none"> 1. Administrator enters the Administrator main page in front-end system. 2a. Administrator click “APPROVE STUDENT” label bar in manage account main page of front-end system. 2b. Administrator click “APPROVE LETURER” label bar in manage account main page front-end system.. 3a. The front-back system shall display the student information form database which is available for approving consisting <i>student ID</i> username, password, name, faculty, department, email, and telephone number after admin click “APPROVE STUDENT” label bar in manage account main page. 3b. The front-end system shall display the <i>lecturer</i> information which is available for approving consisting <i>lecturer ID</i> username, password, name, faculty, department, email, and telephone number when admin click “APPROVE LETURER” label bar in manage account main page. 4a. The front-end system shall provide registration approve UI for approve student accounts which receive checkbox to select the account for approving in student approve page. 4b. The front-end system shall provide registration approve UI for approve lecturer accounts which receive checkbox to select the account for approving in lecturer approve page. 5a. Administrator selects checkbox to approve student account in front-end page. 5b. Administrator selects checkbox to approve lecturer account in front-end page. 6a. Administrator clicks approve Student account from Student approve page in front-end page. 6b. Administrator clicks approve Lecturer account from Lecturer approve page in front-end page. 7a. The front-end system shall send approve <i>student</i> request to back-end system. 7b. The front-end system shall send approve <i>lecturer</i> request to 		

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	<p>back-end system.</p> <p>8a. The back-end system shall approve <i>student</i> account to database when admin click “APPROVE” button in student approve page.</p> <p>8b. The back-end system shall approve <i>lecturer</i> account to database when admin click “APPROVE” button in lecturer approve page.</p> <p>9a. The system displays “Approve Successful” message in student approve page.</p> <p>9b. The system displays “Approve Successful” message in lecturer approve page.</p> <p>10. The back-end system sends the message back to front-end system</p> <p>11a. The front-end system displays “Approve Successful” message in student approve page.</p> <p>11b. The front-end system displays “Approve Successful” message in lecturer approve page.</p>
Alternative Flows:	<p>6a. If Administrator doesn’t want to approve he should didn’t select checkbox</p> <p>1. Administrator didn’t select checkbox.</p> <p>2. Use Case resumes on step 1 of normal flow.</p>
Exceptions:	N/A
Includes:	N/A
Frequency of Use:	Depend on the user registration
Assumptions:	N/A
Notes and Issues:	N/A

URS-05 Administrator can approve student and lecturer account.

The Administrator must approve Lecturer or Student account that fully qualification.

Actor: The Administrator

Input: None

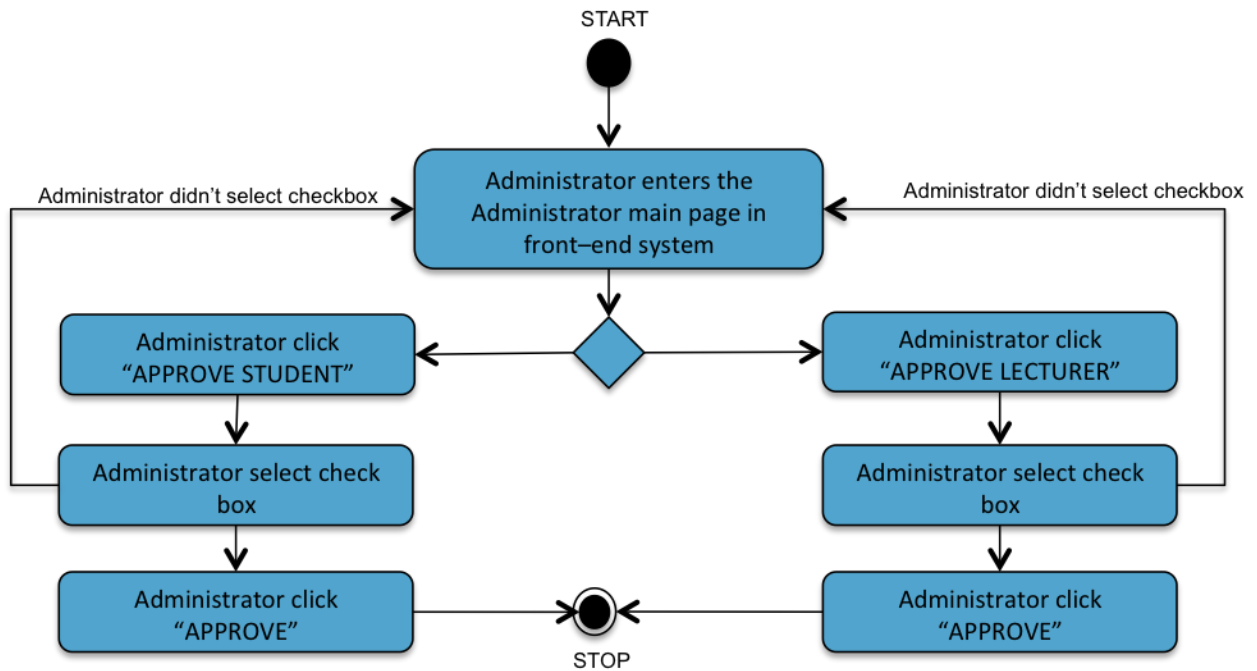
Prerequisite: -

Flow of Execution:

1. Administrator enters the Administrator main page.
2. Administrator enters to manage account main page.
3. Administrator enters the Student//Lecturer approve page.
4. Administrator approve Student/Lecturer account from Student/Lecturer approve page.

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AC-05 Administrator can approve Lecturer or Student account.



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Student/Lecturer/Administrator can log in to the system. (UC-06)

Use Case ID:	UC 06		
Use Case Name:	Student/Lecturer/Administrator log in to the system.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/04/2015	Last Revision Date:	3/07/2015
Actors:	User consists Lecturer, Student, and Administrator		
Description:	This use case is provided for User log in to the system on the web application.		
Trigger:	User enters to Login page.		
Preconditions:	User is registered into the system and has his/her account.		
Post conditions:	The system redirects to Lecture or Student or Administrator main page on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. The Users enters to Login page. 2. The front-end system shall provide login interface, which receive username and password in log in page. 3. The users input username and password in the login interface of front-end system. 4. The users click “Login” button to submit login information to the web application. 5. The front-end system shall send the login data to back-end system. 6. The back-end system shall validate username and password, which matched with database. 7a. The front-end system shall redirect to student main page when student successfully log in to the system 7b. The front-end system shall redirect to lecturer main page when lecturer successfully log in to the system 7c. The front-end system shall redirect to administrator main page when administrator successfully log in to the system 		
Alternative Flows:			
Exceptions:	6A. when the username and/or password is wrong. The front-end system provides the error message as followed: <ol style="list-style-type: none"> 1. The front-end system shall display “Invalid Username and/or Password” when username and password are wrong or Null. 2. Use Case resumes on step 4 of normal flow. 		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-06 Student can login to the system.

Student can login to the system by providing username and password into the web application.

Actor: Student

Prerequisite: -

Input:

Name	Description	Example	Remarks
student username	Only Alphabet is allowed, within the range of 4-16 Characters	“student1”	
student password	Can be any character within the range of 4-16 characters.	“12345”	

Flow of Execution:

1. Student enters to Login page.
2. Student provides login information into the web application.
3. Student submits login form into the web application.
4. Student enters to Student main page on the web application.

URS 08 Lecturer can login to the system.

Lecturer can login to the system by providing username and password into the web application.

Actor: Lecturer

Prerequisite: -

Input:

Name	Description	Example	Remarks
lecturer username	Only Alphabet is allowed, within the range of 4-16 Characters	“lecturer1”	
lecturer password	Can be any character within the range of 4-16 characters.	“12345”	

Flow of Execution:

1. Lecturer enters to Login page.
2. Lecturer provides login information into the web application.
3. Lecturer submits login form into the web application.
4. Lecturer enters to Lecturer main page on the web application.

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URS 10 Administrator can login to the system.

Administrator can login to the system by providing username and password into the web application.

Actor: Administrator

Prerequisite: -

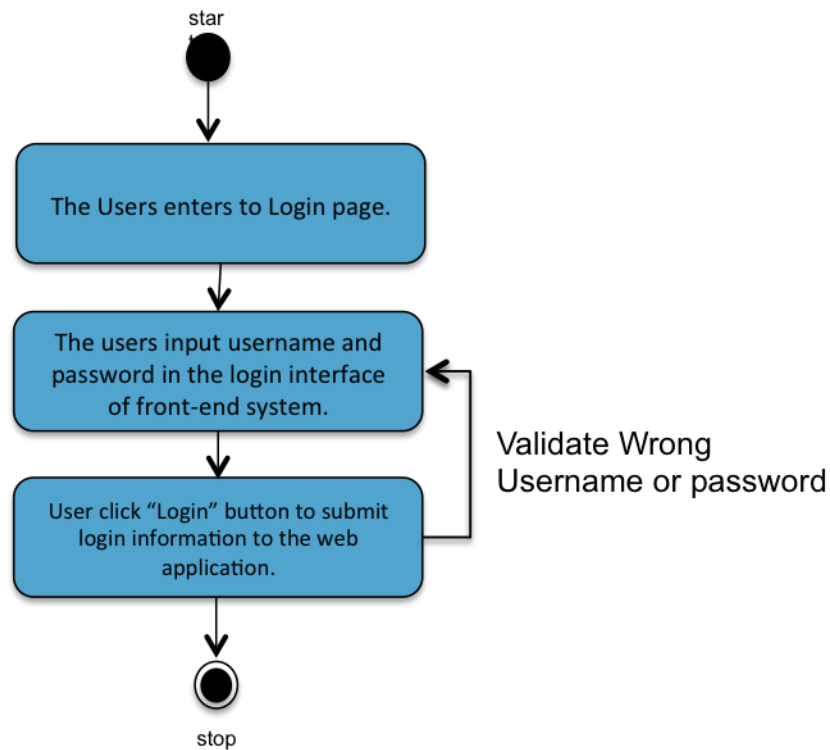
Input:

Name	Description	Example	Remarks
administrator username	Only Alphabet is allowed, within the range of 4-16 Characters	“admin”	
administrator password	Can be any character within the range of 4-16 characters.	“12345”	

Flow of Execution:

1. Administrator enters to Login page.
2. Administrator provides login information into the web application.
3. Administrator submits login form into the web application.
4. Administrator enters to Administrator main page on the web application.

AC-06 Student/Lecturer/Administrator can login to the system.



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**Student/Lecturer/Administrator can log out from the system.
(UC-07)**

Use Case ID:	UC 07		
Use Case Name:	Student/Lecturer/Administrator can log out from the system.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/04/2015	Last Revision Date:	3/07/2015
Actors:	User consists Lecturer, Student, and Administrator		
Description:	This use case is provided for User log out the system		
Trigger:	User submits log out form.		
Preconditions:	User must logged in to the system.		
Post conditions:	The system redirects to Login page on the web application.		
Normal Flow:	<p>1a. The front-end system shall provide logout interface for logged out the system in student main page.</p> <p>1b. The front-end system shall provide logout interface for logged out the system in lecturer main page.</p> <p>1c. The front-end system shall provide logout interface for logged out the system in administrator main page.</p> <p>2. The users click “LOG OUT” button in users main page of front-end system.</p> <p>3. The front-end system shall send the request to back-end system when users click “LOG OUT” button in logout interface of front-end.</p> <p>3a. The back-end system shall logout student’s username and password from the back-end system.</p> <p>3b. The back-end system shall logout lecturer’s username and password from the back-end system.</p> <p>3c. The back-end system shall logout administrator’s username and password from the back-end system.</p> <p>4. The front-end system redirect to login main page.</p>		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS 07 Student can log out from the system.

User can log out from the system on the web application in the student main page.

Actor: Lecturer, Student, Administrator

Prerequisite: Student must have logged.

Input: None

Flow of Execution:

1. Student submits log out form on the web application.

URS 09 Lecturer can log out from the system.

User can log out from the system on the web application in the lecturer main page.

Actor: Lecturer, Student, Administrator

Prerequisite: Lecturer must have logged.

Input: None

Flow of Execution:

1. Lecturer submits log out form on the web application.

URS 11 Administrator can log out from the system.

User can log out from the system on the web application in the administrator main page.

Actor: Lecturer, Student, Administrator

Prerequisite: Administrator must have logged.

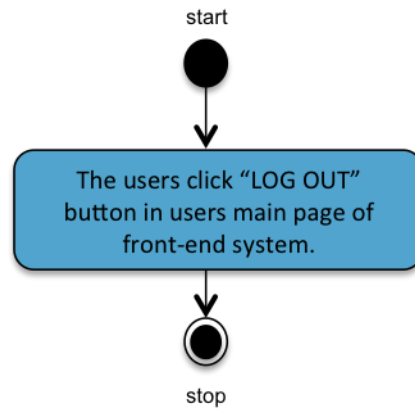
Input: None

Flow of Execution:

1. Administrator submits log out form on the web application.

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AC-07 Student/Lecturer/Administrator can log out from the system.



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Student can view course information. (UC-08)

Use Case ID:	UC 08		
Use Case Name:	Student views course information.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/04/2015	Last Revision Date:	3/07/2015
Actors:	Student		
Description:	This use case is provided for Student views his/her course information on the web application.		
Trigger:	Student click view.		
Preconditions:	Student must logged in to the system.		
Post conditions:	Student sees the course information on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Student enters to Semester page in front-end system. 2. The front-end system shall display semester information form database consisting semester sector, and semester year in semester page after student click “ Course information” bar label in student main page. 3. Student click “VIEW” button in select semester UI to selects a semester in front-end system. 4. The front-end system shall provide select course UI for selecting the semester to view the course in the in semester page. 5. Lecturer click “VIEW” button in select course UI to selects a course in front-end system. 6. The front-end system shall display courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course from the student ID in overall course page after student click view button in select semester UI. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

URS-012 The student can view courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course as student.

Student can view course information into the web application.

Actor: Student

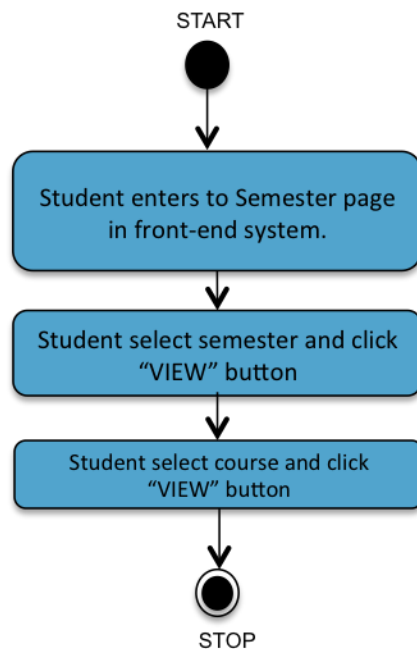
Prerequisite: Student must have logged.

Input: None

Flow of Execution:

1. Student enters to Semester page.
2. Student selects a semester.
3. Student submits view overall course form.
4. Student selects a course that want to view.
5. Student submits viewing course information form.

AC-08 The student can view courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course as student.



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Lecturer can view course information. (UC-09)

Use Case ID:	UC 09		
Use Case Name:	Lecturer views course information.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	10/05/2015	Last Revision Date:	03/07/2015
Actors:	Lecturer		
Description:	This use case is provided for Lecturer views his/her course information on the web application.		
Trigger:	Lecturer enters to Course management page.		
Preconditions:	Lecturer must logged in to the system.		
Post conditions:	Lecturer sees the course information on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer enters to Semester page in front-end system. 2. The front-end system shall display semester information form database consisting semester sector, and semester year in semester page after lecturer click “ Course information” bar label in student main page. 3. Lecturer click “VIEW” button in select semester UI to selects a semester in front-end system. 4. The front-end system shall provide select semester UI for selecting the semester to view the course in the in semester page. 5. Lecturer click “VIEW” button in select course UI to selects a course in front-end system. 6. The front-end system shall display courses information consisting course name, course credit, course description, lecturer name, and a list of students in the course from the student ID in overall course page after student click view button in select semester UI. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS 13 Lecturer can view courses information.

Lecturer can view course information into the web application.

Actor: Lecturer

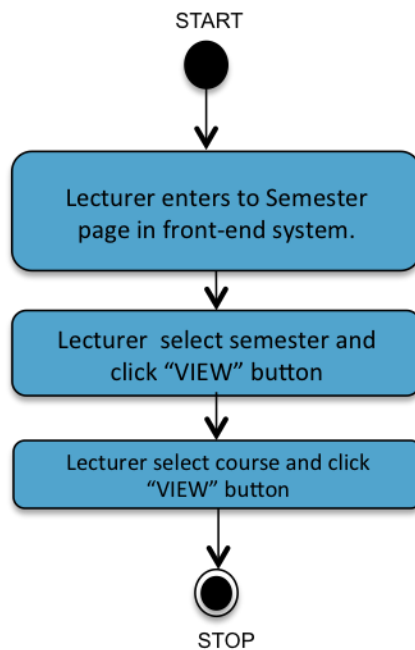
Prerequisite: Lecturer must have logged.

Input: None

Flow of Execution:

1. Lecturer enters to Course management page.
2. Lecturer enters to Course main page
3. Lecturer selects course that want to view.
4. Lecturer submits viewing course information form.

AC-09 Lecturer can view courses information.



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Administrator can create a semester. (UC-10)

Use Case ID:	UC 10		
Use Case Name:	Administrator can create a semester.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	10/05/2014	Last Revision Date:	10/05/2014
Actors:	Administrator		
Description:	This use case is provided for Administrator to create a semester.		
Trigger:	Administrator enters the Semester main page.		
Preconditions:	-		
Post conditions:	The system display “Addition Semester Successful” message.		
Normal Flow:	<ol style="list-style-type: none"> Administrator click “Semester management” bar label in administrator main page of front-end system. The front-end system shall provide create semester UI for receive semester information consisting semester sector, and year in the semester management page after administrator click “ Semester management” bar label in administrator main page. Administrator input semester information in the semester management page of front-end system. Administrator click “Add” button to send semester to the web application The front-end system shall check the semester format when <i>administrator</i> click “Add” button from create semester UI. The front-end system shall send the semester information to back-end system. The back-end system shall check the duplication of semester academic year from database. The back-end system shall record semester information to database when <i>administrator</i> click “Add” button in the semester management page. The system display “Add Semester Successful” message. 		
Alternative Flows:	N/A		
Exceptions:	<p>5A. If the semester academic year format is not semester sector/year, for example the right format is “1/2015”. the system should provide the error message as followed:</p> <ol style="list-style-type: none"> The front-end system shall display “Semester academic year must be S/YYYY form, where S is a semester and YYYY is an academic year” Use Case resumes on step 4 of normal flow. <p>7A. If Administrator input semester academic year that already exists, the system should provide the error message as followed:</p> <ol style="list-style-type: none"> The front-end system display an error message” The 		

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	semester and academic year that already exist please type another semester or academic year”. 2. Use Case resumes on step 4 of normal flow.
Includes:	N/A
Frequency of Use:	Often
Assumptions:	N/A
Notes and Issues:	N/A

URS-14 The Administrator can create a semester consisting semester sector, and year.

Administrator can create a semester by providing semester academic year information.

Actor: Administrator

Prerequisite: Administrator must have logged.

Input:

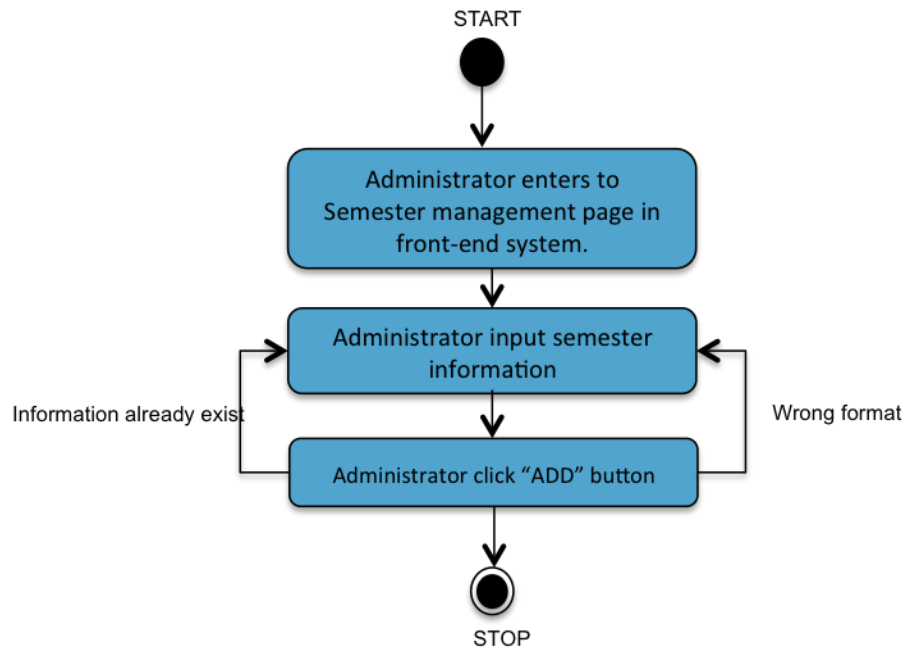
Name	Description	Example	Remarks
Semester academic year	Form of semester academic year “S/YYYY” - S is a semester - Y is an academic year	“1/2557”	

Flow of Execution:

1. Administrator enters the Semester main page.
2. Administrator provides semester academic year information to the web application.
3. Administrator submits semester academic year information.

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AC-10 Administrator can create a semester.



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Administrator can edit a semester. (UC-11)

Use Case ID:	UC 11		
Use Case Name:	Administrator can edit a semester		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	3/07/2015
Actors:	Administrator		
Description:	This use case is provided for Administrator edit a semester on the web application.		
Trigger:	Administrator enters edition semester academic year form.		
Preconditions:	Semester information should be in the system.		
Post conditions:	The system display “Editing Semester Successful” message.		
Normal Flow:	<ol style="list-style-type: none"> Administrator enters the administrator main page in front-end system. Administrator click “Semester management” bar label in administrator main page of front-end system. The front-end system shall display semester information consisting form database semester sector, and year. After administrator click “Semester management” bar label in administrator main page. Administrator click “EDIT” button in semester management page of front-end system. The front-end system shall redirect to edit semester page after <i>administrator</i> click “EDIT” button in semester management page. The system provide edit semester UI for edit the semester, which receive semester sector, and year in edit semester page of front-end system. Administrator input semester information in the UI. Administrator click “Edit” button to send semester to the web application The front-end system shall check the semester format when <i>administrator</i> click “EDIT” button from edit semester UI. The back-end system shall check the duplication of semester academic year form database. The back-end system shall record semester information to database when <i>administrator</i> click “EDIT” button in the edit semester page. The front-end system shall display “Editing Semester Successful” message when <i>administrator</i> click “EDIT” button in the edit semester page 		
Alternative Flows:	N/A		
Exceptions:	9A. If the semester academic year format is not semester sector/year, for example the right format is “1/2015”. the front-end system should		

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	<p>provide the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system shall display “Semester academic year must be S/YYYY form, where S is a semester and YYYY is an academic year” message. If semester format is not semester sector/year, for example the right format is “1/2015”. 2. Use Case resumes on step 7 of normal flow. <p>10A. If Administrator input semester academic year that already exists, the front-end system should provide the error message as followed:</p> <ol style="list-style-type: none"> 3. The front-end system display an error message” The semester and academic year that already exist please type another semester or academic year”. 4. Use Case resumes on step 7 of normal flow.
Includes:	N/A
Frequency of Use:	Often
Assumptions:	N/A
Notes and Issues:	N/A

URS 15 Administrator can edit a semester.

Administrator can edit a semester by providing semester academic year information.

Actor: Administrator

Prerequisite: Administrator must have logged.

Input:

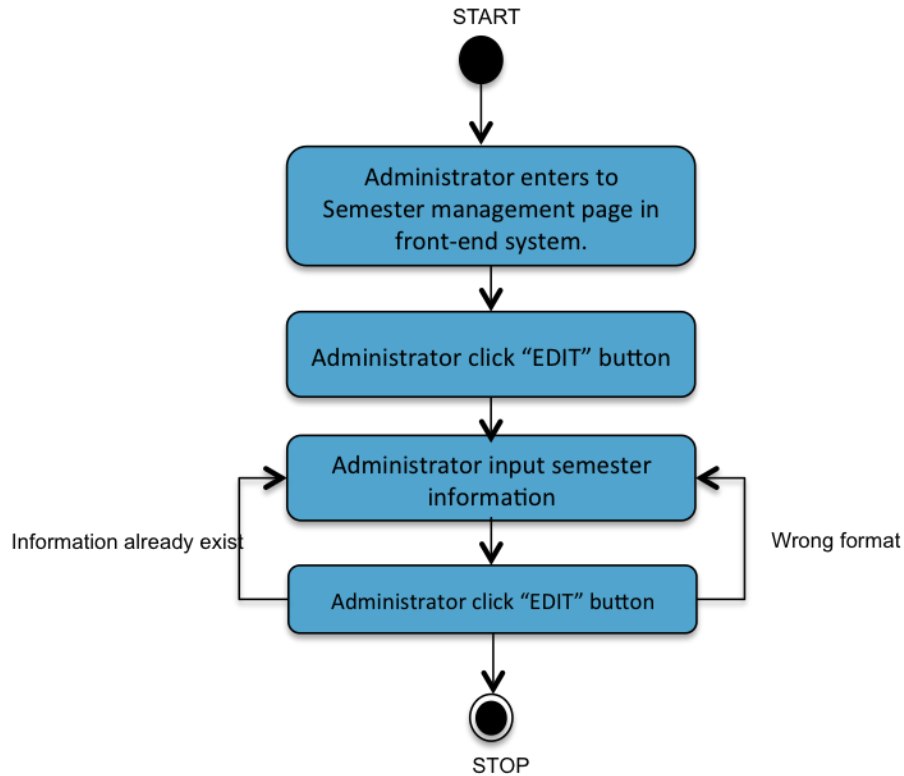
Name	Description	Example	Remarks
Semester academic year	<p>Form of semester academic year “S/YYYY”</p> <ul style="list-style-type: none"> - S is a semester - Y is an academic year 	“2/2557”	

Flow of Execution:

1. Administrator enters edition semester academic year page.
2. Administrator provides semester academic year information into the web application.
3. Administrator submits semester academic year into the web application.

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AC-11 Administrator can edit a semester.



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Administrator can remove a semester. (UC-12)

Use Case ID:	UC 12		
Use Case Name:	Administrator can remove a semester.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	3/07/2015
Actors:	Administrator		
Description:	This use case is provided for Administrator delete a semester on the web application front-end system.		
Trigger:	Administrator enters the Semester page.		
Preconditions:	Semester information should be in the system.		
Post conditions:	The system display “Deletion Semester Successful” message.		
Normal Flow:	<ol style="list-style-type: none"> 1. Administrator click “Semester management” bar label in administrator main page of front-end system. 2. The front-end system shall display semester information form database consisting semester sector, and year. After administrator click “Semester management” bar label in administrator main page 3. Administrator click “EDIT” button in semester management page of front-end system. 4. The front-end system shall display semester information form database consisting semester sector, and year after and “DELETE” button administrator click “Semester management” bar label in administrator main page of front-end system. 5. Administrator click “DELETE” button in the edit semester page of front-end system. 6. The back-end system shall delete the semester from database when <i>administrator</i> click” DELETE” button in semester management page. 7. The front-end system display “Deletion Semester Successful” message. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-16 The Administrator can remove a semester information consisting semester sector, and year.

Administrator can delete a semester.

Actor: Administrator

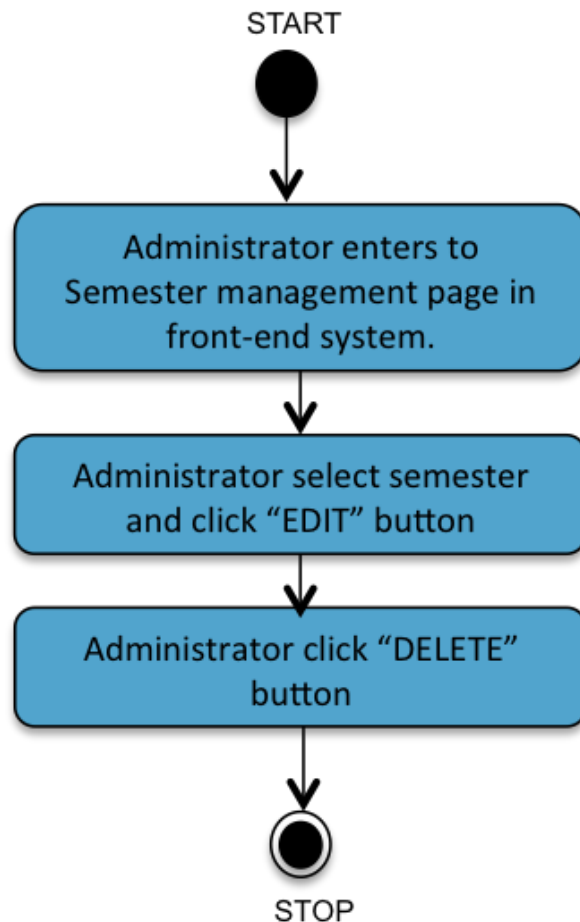
Prerequisite: Administrator must have logged.

Input: None

Flow of Execution:

1. Administrator enters the Semester main page.
2. Administrator select a semester academic year that want to delete.
3. Administrator submits deletion semester academic year form

AC-12 Administrator can delete a semester.



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Administrator can create a course. (UC 13)

Use Case ID:	UC 13		
Use Case Name:	Administrator can create a course		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	03/07/2015
Actors:	Administrator		
Description:	This use case is provided for Administrator create a course on the web application.		
Trigger:	Administrator enters the Course management page.		
Preconditions:	Semester should be in the system.		
Post conditions:	The system display “Adding Course Successful” message.		
Normal Flow:	<ol style="list-style-type: none"> 1. Administrator enters the administrator main page in front-end system. 2. Administrator click “Course management” bar label in administrator main page of front-end system. 3. The front-end system shall display semester information form database consisting semester sector, and year in select semester page for selecting semester after administrator click “Course management” bar label in administrator main page. 4. Administrator click “View” button to select semester in the “SELECT SEMESTER” page. 5. The front-end system shall redirect to course management page after <i>administrator</i> click “View” button in the select semester page. 6. Administrator click “ADD COURSE” button in the course management page. 7. The front-end system shall provide create course UI for receiving course information consisting course name, and course credit in the course management page. 8. Administrator input course information to the UI in front-end system. 9. Administrator click “ADD STUDENT” button in the “add course” page of front-end system. 10. The front-end system display a list of students information that are available to add to the course consisting Student ID, name, faculty, department from database in the” add student” page. 11. The front-end system shall provide UI to add students to the course which receive check box to select students in the add student page. 12. Administrator click checkbox to select students to add to the course in button in the add student page of front-end system. 13. Administrator click “ADD” button in the add student page front-end. 14. The back-end system shall add the selected students to 		

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	<p>“student in course” table in the course management page.</p> <p>15. The front-end system display “Add student in Course is successful” message</p> <p>16. Administrator click “ADD COURSE” button in the “ADD COURSE” page.</p> <p>17. The front-end system shall check the course format when administrator click “ADD COURSE” button from create course UI.</p> <p>18. The front-end send the course information to back-end system.</p> <p>19. The back-end system shall store course information consisting course ID, course name, course credit, course description, lecturer and list of student in the course to database.</p> <p>20. The system shall display “Add Course Successful” message.</p>
Alternative Flows:	N/A
Exceptions:	<p>8a. If the course information format is not numeric or Null. The front-end system should provide the error message as followed:</p> <ol style="list-style-type: none"> 1. The front-end system shall display “The course credit must be number only” message. If the course format is not numeric. 2. Use Case resumes on step 16 of normal flow N/A
Includes:	N/A
Frequency of Use:	Often
Assumptions:	N/A
Notes and Issues:	N/A

URS-17 Administrator can create a course.

Administrator can create a course by providing course name, course credit, course description and lecturer name. Administrator can register a list of students to a course.

Actor: Administrator

Prerequisite: Administrator must have logged.

Input:

Name	Description	Example	Remarks
course name	Can be any character is allowed.	“Computer programming”	
course credit	Only number is allowed.	3	
course description	Can be any character is allowed.	Computer programing is a learn process that leads from an original formulation of a computing problem to	

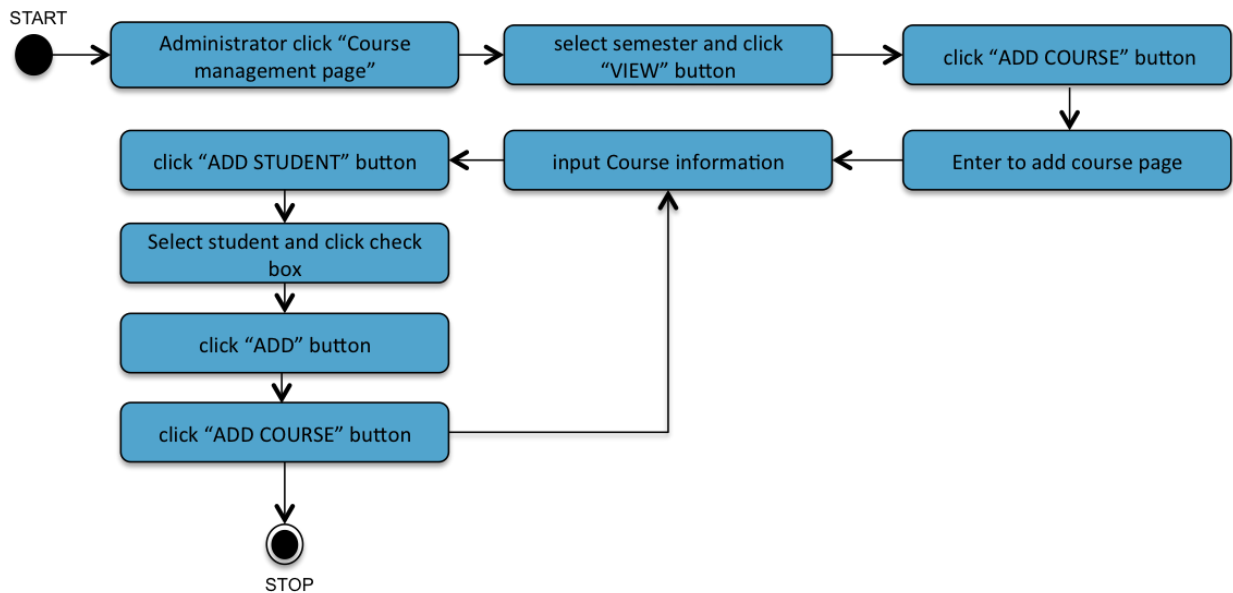
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		executable programs.	
lecturer name	Administrator select a lecturer name by selecting from the database.	“Dr. Tony Stark”	

Flow of Execution:

1. Administrator enters the Course management page.
2. Administrator selects semester that want to create course in that semester.
3. Administrator submits a semester.
4. Administrator enters to Course main page.
5. Administrator clicks add course in Course main page.
6. Administrator enters the Course Addition page.
7. Administrator provides course information into the web application.
8. Administrator adds a list of students to Course.
9. Administrator submits the course information form into the web application.

AC-13 Administrator can create a course.



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Administrator can edit a course. (UC-14)

Use Case ID:	UC 14		
Use Case Name:	Administrator can edit Course		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	03/07/2015
Actors:	Administrator		
Description:	This use case is provided for Administrator edit course information.		
Trigger:	Administrator enters to Course information page.		
Preconditions:	Course information should be in the system.		
Post conditions:	The system display “Editing Course Successful” message.		
Normal Flow:	<ol style="list-style-type: none"> Administrator enters the administrator main page. Administrator click “Course management” bar label in administrator main page. The front-end system shall display semester information form database consisting semester sector, and year in select semester page for selecting semester After administrator click “Course management” bar label in administrator main page. The system redirect to the course management page. Administrator click “View” button to select course to edit in the course management page. The front-end system shall display course information consisting course name, and course credit in course management page Administrator click “Edit” button to edit in the course information page. The front-end system shall provide edit course UI for receiving course information consisting course name, and course credit in “EDIT COURSE” page. The front-end system display members of the course consisting a lecturer information, and a list of students information in the course consisting lecturer name, lecturer faculty lecturer department, student id, student name, student faculty, and student department in “EDIT COURSE” page. The front-end system provide UI to select a lecturer (one lecturer per course), and remove students in the course in the “EDIT COURSE” page. Administrator click “ADD STUDENT” button in the “EDIT COURSE” page. The system redirect to “ADD STUDENT” page. The front-end system display a list of student’s information that are available to add to the course consisting Student ID, name, faculty, department from database in the “ADD STUDENT” page. Administrator click checkbox to select students to add to the 		

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	<p>course in button in the add student page.</p> <ol style="list-style-type: none"> 15. Administrator click “ADD” button in the “ADD STUDENT” page. 16. The front-end system display “Add student in Course is successful” message. 17. The back-end system add selected students to “student in course” table in “EDIT COURSE” page of front-end. 18. Administrator input course information to the UI in the “EDIT COURSE” page 19. The front-end system shall check the course format when administrator click “EDIT” button from “EDIT COURSE” page. 20. The back-end system record the course information consisting course ID, course name, course credit, course description lecturer, a list of student in the course to database, After administrator click “EDIT” button in “EDIT COURSE” page 21. The front-end system shall display “Editing Course Successful” message when administrator click “EDIT” button in “EDIT COURSE” page.
Alternative Flows:	N/A
Exceptions:	<p>19a. if the course information format is not numeric or Null., the system should provide the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display “The course credit must be number only” message. 2. Use Case resumes on step 18 of normal flow
Includes:	N/A
Frequency of Use:	Often
Assumptions:	N/A
Notes and Issues:	N/A

URS-18 Administrator can edit a course.

Administrator can edit a course by providing course name, course credit, course description, lecturer name. Administrator can add or remove students from a course.

Actor: Administrator

Prerequisite: Administrator must have logged.

Input:

Name	Description	Example	Remarks
course name	Can be any character is allowed.	“SE101”	
course credit	Only number is allowed.	3	
course description	Can be any character is allowed.	Se101 is a basic java programming.	

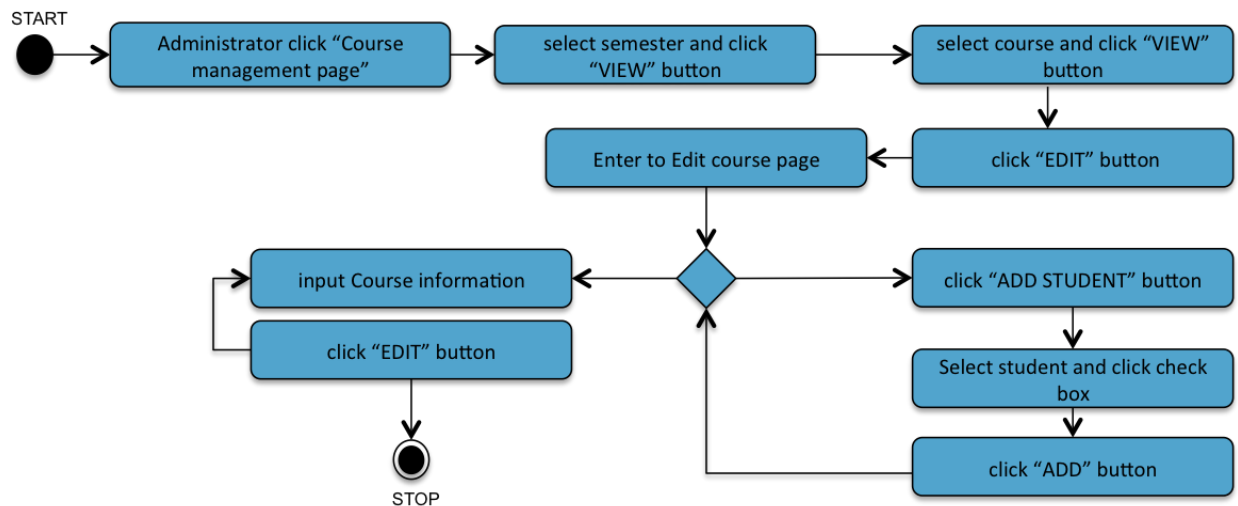
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lecturer name	Administrator select a lecturer name by selecting from the database.	"Aj. Tom"	
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Flow of Execution:

1. Administrator enters Course information page.
2. Administrator provides course information for editing.
3. Administrator submits edit course form.

AC-14 Administrator can edit a course.



Administrator can delete a course. (UC-15)

Use Case ID:	UC 15		
Use Case Name:	Administrator can delete a course		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	03/07/2015
Actors:	Administrator		
Description:	This use case is provided for Administrator delete course.		
Trigger:	Administrator click Delete course button.		
Preconditions:	Administrator must logged in.		
Post conditions:	The course was deleted		
Normal Flow:	<ol style="list-style-type: none"> 1. Administrator enters the administrator main page. 2. Administrator click "Course management" bar label in administrator main page. 3. The front-end system shall display semester information form database consisting semester sector, and year in select semester page for selecting semester after administrator click "Course management" bar label in administrator main page. 4. Administrator choose course and click "View" button in the select semester page. 5. The front-end system shall display course information consisting course name, and course credit in course management page. 6. Administrator choose the course and click "Edit" button in course management page. 7. The front-end system shall provide edit course UI for receiving course information consisting course name, and course credit in "EDIT COURSE" page. 8. Administrator click "DELETE COURSE" button in the "EDIT COURSE" page. 9. The back-end system shall delete the semester from database when <i>administrator</i> click "DELETE" button in the "EDIT COURSE" page. 10. The front-end system display "Deleting Course Successful" message. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-19 The Administrator can remove a course consisting course name, course credit, course description, lecturer name, and a list of students in the course.

Administrator can delete a course.

Actor: Administrator

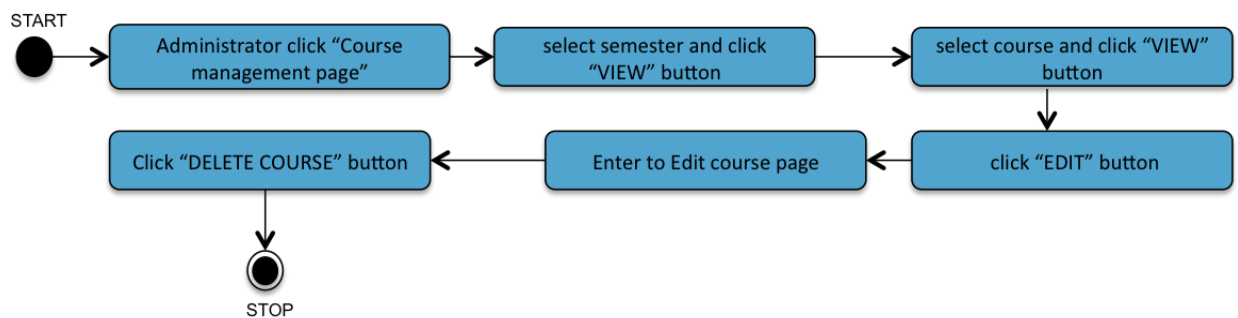
Prerequisite: Administrator must have logged.

Input: None

Flow of Execution:

1. Administrator enters Course information page.
2. Administrator submits Delete course form.
3. Administrator clicks “yes” button.

AC-15 Administrator can delete a course.



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**Lecturer can choose the course for creating/editing assignment and quiz
(UC-16)**

Use Case ID:	UC 16		
Use Case Name:	Lecturer can choose the course for creating/editing assignment and quiz		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	10/05/2015	Last Revision Date:	03/07/2014
Actors:	Lecturer		
Description:	This use case is provided for Lecturer choosing the course for creating/editing assignment and quiz on the web application.		
Trigger:	Lecturer enters to “SELECT SEMESTER” page.		
Preconditions:	Lecturer must logged in to the system.		
Post conditions:	The system displays “Creating Testing Successful” message on the web application		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click course main page. 2. The front-end system shall display semester information form database consisting semester sector, and year for selecting semester in semester page. 3. Lecturer choose semester and click “View” button in semester page. 4. The front-end system shall display course information form database consisting course id, course name, course credit, lecturer name and semester in overall course page. 5. Lecturer chooses course and click “OVERALL TEST” button in the “OVERALL COURSE” page. 6. The front-end system display testing information form database consisting course name, testing name, testing type, amount of question, testing score, and post status in the “OVERALL TEST” page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-20 The lecturer can choose the course for creating/editing assignment and quiz.

Lecturer can choose the course for creating/editing assignment and quiz.

Actor: Lecturer

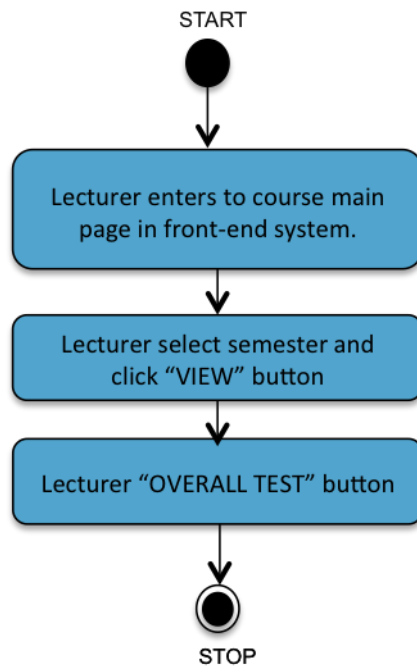
Prerequisite: Lecturer must have logged.

Input: None

Flow of Execution:

1. Lecturer enters “SELECT SEMESTER” page.
2. Lecturer select the semester to view courses.
3. Lecturer select the course to create/edit assignment and quiz.

AC-16 The Lecturer can choose the course for creating/editing assignment and quiz.



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Lecturer can create test. (UC-17)

Use Case ID:	UC 17		
Use Case Name:	Lecturer can create assignments or quizzes.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	10/05/2015	Last Revision Date:	03/07/2014
Actors:	Lecturer		
Description:	This use case is provided for Lecturer assigns assignments or quizzes on the web application.		
Trigger:	Lecturer enters to Overall testing page.		
Preconditions:	Lecturer must logged in to the system.		
Post conditions:	The system displays “Creating Testing Successful” message on the web application		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click “ADD TESTING” button in “OVERALL TEST” page. 2. The system redirect to “ADD TEST” page. 3. The system provide UI for creating the test which receive testing name, a type of testing (assignment or quiz), an amount of questions, a testing score student name, randomize order of the question status, and posting status in the “ADD TEST” page. 4. Lecturer input the test information in the “ADD TEST” page. 5. The front-end system provides a list of student for adding students to the test, which receive checkbox in the “ADD TEST” page. 6. Lecturer clicks the checkbox in the adding students page for add the student to the test. 7. Lecturer click “ADD” button in the “ADD TEST” page. 8. The back-end system shall add students to the test. 9. The front-end system shall check the test format when lecturer click “ADD TEST” button from “ADD TEST” page. 10. The front-end system redirect to “OVERALL QUESTION” page. 11. Lecturer click “ADD QUESTION” button in the “OVERALL QUESTION” page. 12. The front-end system shall provide assignment/quiz UI for creating the assignment/quiz which receive type of testing (multiple choice, True/False, Short answer,) Question description, choice, solution and point. 13. Lecturer choose type of question click “ADD TYPE” button in the “ADD QUESTION” page. 14. The front-end system provide the UI for creating the assignment/quiz which receive Question description, choice, solution, and point in the “ADD QUESTION” page. 		

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	<p>15. Lecturer input assignment/quiz information in the creating the assignment/quiz UI in the “ADD QUESTION” page.</p> <p>16. Lecturer click “ADD QUESTION” button from in the “ADD QUESTION” page.</p> <p>17. The front-end system shall check the assignment/quiz format when lecturer click “ADD QUESTION” button from Add question page</p> <p>18. The front-end system redirect to the “OVERALL TEST” page.</p> <p>19. Lecturer click “ADD TESTING” button in the “OVERALL TEST” page.</p> <p>20. The back-end system shall record assignment/quiz information to database when lecturer click “ADD QUESTION” button in the add question page</p> <p>21. The record system shall display “Creating Testing Successful” message when lecturer click “ADD TESTING” button in the add question page.</p>
Alternative Flows:	<p>9a. when the amount of questions format is not numeric or Null. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display “Amount of questions must be number only” 2. Use Case resumes on step 4 of normal flow. <p>9b. when the status is Null. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display ““please choose status of posting” 2. Use Case resumes on step 4 of normal flow. <p>9c. when the type of testing is Null. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display “please choose type of testing” 2. Use Case resumes on step 4 of normal flow. <p>9d. when the status of random is Null. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display “please choose status of random” 2. Use Case resumes on step 4 of normal flow. <p>9e. when the submit time is Null. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display “please choose submit time” 2. Use Case resumes on step 4 of normal flow. <p>17a. When the multiple choices answer is empty. The system</p>

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	<p>provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display “Answer a, b, c, and d cannot be empty” 2. Use Case resumes on step 15 of normal flow. <p>17b. When the true/false answer is empty. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display “Answer a, and b cannot be empty” 2. Use Case resumes on step 15 of normal flow. <p>17c. When the true/false answer is empty. The system provides the error message as followed:</p> <ol style="list-style-type: none"> 1. The system display “Answer a, and b cannot be empty” 2. Use Case resumes on step 15 of normal flow. <p>19a. If The lecturer wants to add more questions in the test.</p> <ol style="list-style-type: none"> 1. Lecturer click “ADD QUESTION” button in the “OVERALL TEST” page. 2. Use Case resumes on step 13 of normal flow.
Exceptions:	N/A
Includes:	N/A
Frequency of Use:	Often
Assumptions:	N/A
Notes and Issues:	N/A

URS-21 Lecturer can create test consist of assignments or quizzes, which are multiple choices question, true/false question, and short answers to student in the adding test page.

Lecturer can assign assignments or quizzes into the web application. Lecturer can limit access to the assignment or quiz of authority. Lecturer must provide testing name, type of testing, type of question, question information, student name, randomize order of the question status, submission time, and posting status.

Lecturer must provide question information by separating from type of questions.

- Lecturer can assign multiple choices questions which provide type of question, question description, choice description, a solution, and question point.
- Lecturer can assign true/false questions which provide type of question, questions description, choice description, a solution, and question point.
- Lecturer can assign short answers which provide type of question, questions description, and question point.

Actor: Lecturer

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Prerequisite: Lecturer must have logged.

Input:

Name	Description	Example	Remarks
testing name	Can be any character only.	Math testing	
type of testing	The system provides two types of testing which are assignment and quiz. Lecturer must select one type only.	Assignment	
amount of question	Only number is allowed.	3	
testing score	Only number is allowed	100	
student name	Lecturer adds a list of students for limiting access to the assignment or quiz.	542115099, 542115091	
randomize order of the question status	This status is showing status of random order of the question to student.	random	
Posting status	Status is an available and not available.	available	

Multiple choices question

Name	Description	Example	Remarks
type of question	The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only.	Multiple choices	
question description	Can be any character is allowed.	What is an answer of 1+1?	
choice description	Choices must have four choices. Can be any character is allowed.	a. 2 b. 1 c. 3 d. 5	
solution	Only “a, b, c, d” is allowed.	a	
question point	Only number is allowed.	1	

True/false question

Name	Description	Example	Remarks
type of question	The system provides three types of question which are multiple choices, true/false question, and	True/false question	

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	short answer. Lecturer must select one type only.		
question description	Can be any character is allowed.	Answer of 1+1 is 2.	
choice description	Choices must have two choices. Can be true and false is allowed.	a. false b. true	
solution	Only “a, b, c, d” is allowed.	b	
question point	Only number is allowed.	1	

Short answer

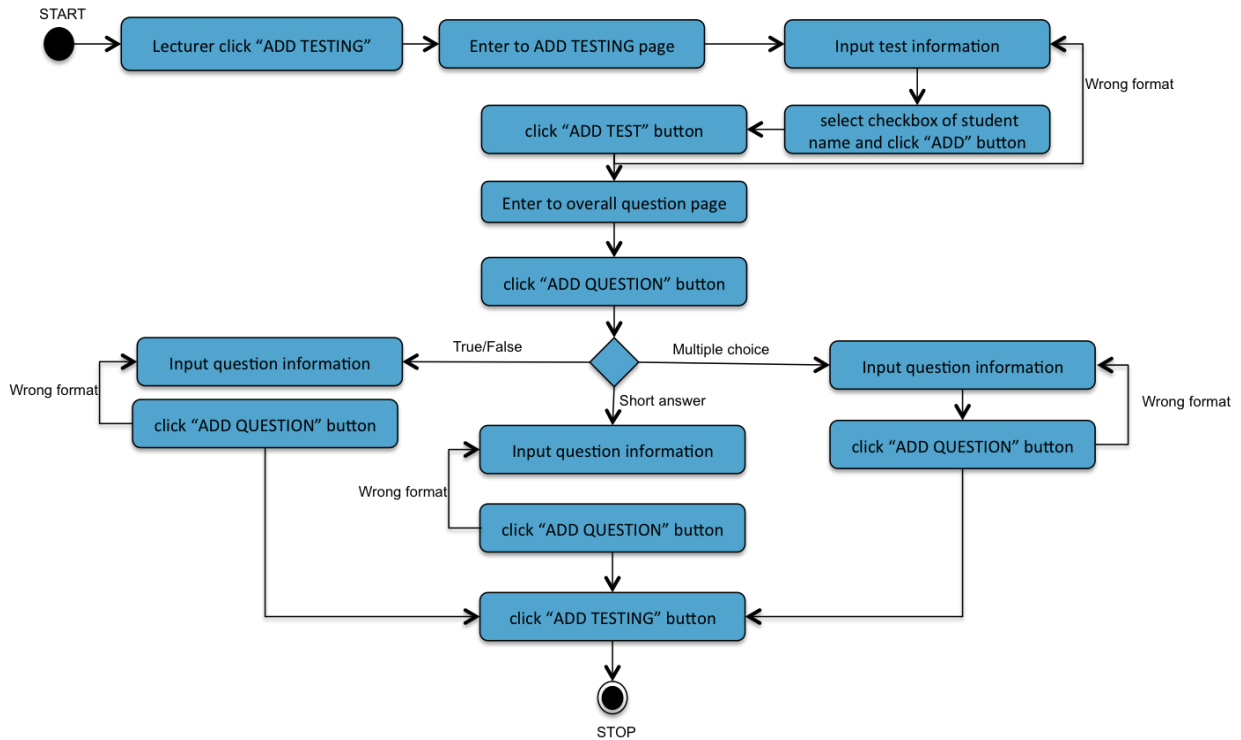
Name	Description	Example	Remarks
type of question	The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only.	Short answer	
question description	Can be any character is allowed.	What is an answer of 1+1? You must explain how to find the answer.	
question point	Only number is allowed.	1	

Flow of Execution:

1. Lecturer enters to “OVERALL TEST” page.
2. Lecturer enters to “ADD TEST” page
3. Lecturer provides testing information which consist testing name, a type of testing, student name, randomize order of the question status, submission time, and posting status into the “ADD TEST” page
4. Lecturer submits testing information into web application.
5. Lecturer enters to “OVERALL QUESTION” page.
6. Lecturer enters to “ADD QUESTION” page.
7. Lecturer provides question information which consist a type of question (Multiple choices), question description, choice description, a solution, and a question point.
8. Lecturer submits question information into web application.
9. Lecturer redirect to “OVERALL QUESTION” page.
10. Lecturer submits creating testing form.

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AC-17 Lecturer can create test consist of assignments or quizzes, which are multiple choices question, true/false question, and short answers to student in the adding test page.



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Lecturer can edit testing information. (UC 18)

Use Case ID:	UC 18		
Use Case Name:	Lecturer edits assignments or quizzes.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	10/05/2015	Last Revision Date:	03/07/2015
Actors:	Lecturer		
Description:	This use case is provided for Lecturer edits assignments or quizzes on the web application.		
Trigger:	Lecturer select a testing that want to edit.		
Preconditions:	Lecturer must logged in to the system.		
Post conditions:	The system displays “Editing Testing Successful” message on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click “OVERALL TEST” in course main page of front-end system. 2. The front-end system shall display assignment/quiz information form database consisting testing name, a type of testing, an amount of questions, a testing score student name, randomize order of the question status, and posting status in overall testing page after lecturer click “OVERALL TEST” bar label in course main page. 3. Lecturer choose test for edit and click “VIEW” button in overall testing page. 4. The front-end system shall provide the edit test UI for editing the test which receive testing name, a type of testing, an amount of questions, a testing score student name, randomize order of the question status, and posting status. 5. The front-end system provides UI for removing students in the test in the “EDIT TEST” page. 6. Lecturer input the test information to the editing test UI. 7. Lecturer click “ADD STUDENT” button in the “EDIT TEST” page. 8. The front-end system provide UI for adding student in the test in the “ADD STUDENT” page which receive the checkbox to select students to add to the test. 9. Lecturer click “ADD” button in the “ADD STUDENT” 10. The back-end system adds students to the “EDIT TEST” page. 11. The front-end system redirect to the “EDIT TEST” page. 12. Lecturer click “EDIT TESTING” button in the “EDIT TEST” page. 13. The back-end system shall record assignment/quiz information to database” when lecturer click “EDIT TESTING” button in “EDIT TEST” page. 		

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	14. The front-end system shall display “Editing Testing Successful” when lecturer click “EDIT TESTING” button in “EDIT TEST” page.
Alternative Flows:	N/A
Exceptions:	N/A
Includes:	N/A
Frequency of Use:	Often
Assumptions:	N/A
Notes and Issues:	N/A

URS-22 Lecturer can edit testing information.

Lecturer can edit test information into the web application. Lecturer can limit access to the assignment or quiz of authority. Lecturer must provide testing name, type of testing, type of question, question information, student name, randomize order of the question status, submission time, and posting status.

Lecturer must provide question information by separating from type of questions.

Actor: Lecturer

Prerequisite: Lecturer must have logged.

Input:

Name	Description	Example	Remarks
testing name	Can be any character only.	Math testing	
type of testing	The system provides two types of testing which are assignment and quiz. Lecturer must select one type only.	Assignment	
amount of question	Only number is allowed.	3	
testing score	Only number is allowed	100	
student name	Lecturer adds a list of students for limiting access to the assignment or quiz.	542115099, 542115091, 542115092	
randomize order of the question status	This status is showing status of random order of the question to student.	random	
Posting status	Status is an available and not available.	Available	

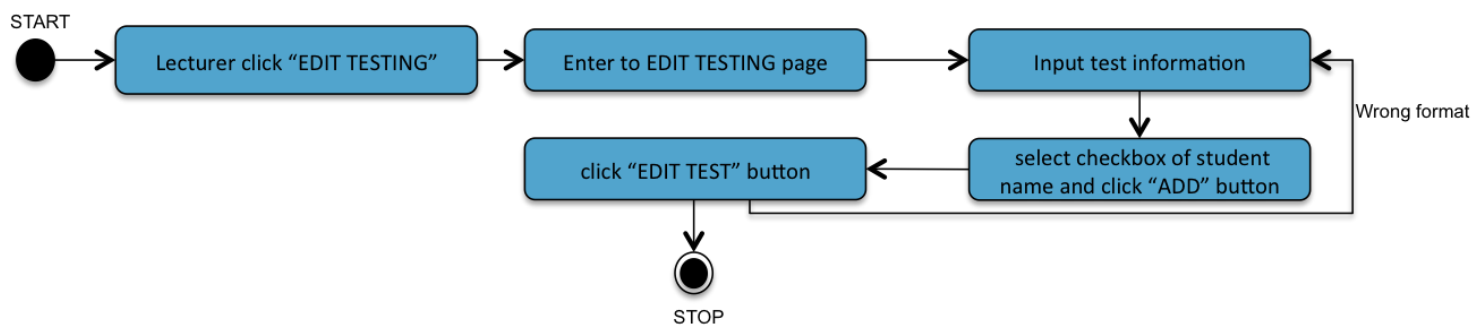
Flow of Execution:

1. Lecturer selects a testing that want to edit.
2. Lecturer submits edition testing form.

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1. Lecturer provides testing name, type of testing, an amount of questions, testing score, student name, randomize order of the question status, and posting status into the testing page.
2. Lecturer add/remove student in the test.
3. Lecturer submits editing testing form.

AC-18 Lecturer can edit testing information.



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Student can choose the course for taking assignment and quiz (UC-19)

Use Case ID:	UC 19		
Use Case Name:	Student can choose the course for taking assignment and quiz		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	3/07/2015
Actors:	Student		
Description:	This use case is provided for Student choose the course for taking assignment and quiz on the web application.		
Trigger:	Student enters to “SELECT SEMESTER” page.		
Preconditions:	Student must logged in to the system.		
Post conditions:	The system displays message “Take this testing already”.		
Normal Flow:	<ol style="list-style-type: none"> 1. Student click course main page. 2. The front-end system shall display semester information form database consisting semester sector, and year for selecting semester in semester page. 3. Student choose semester and click “View” button in semester page. 4. The front-end system shall display course information form database consisting course id, course name, course credit, lecturer name and semester in overall course page 5. Student chooses course and click “OVERALL TEST” button in the “OVERALL COURSE” page. 6. The front-end system display testing information form database consisting course name, testing name, testing type, amount of question, testing score, ” page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-23 The student can choose the course for taking assignment and quiz in course management page.

Student can choose the course for taking assignment and quiz in course management page.

Actor: Student

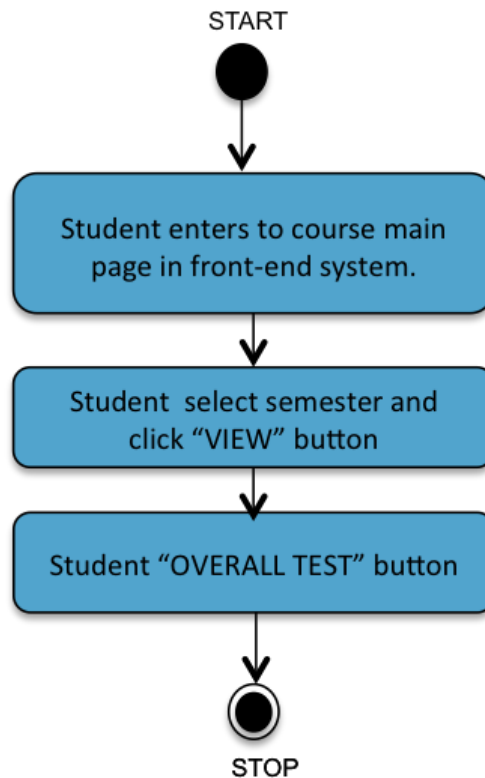
Prerequisite: Student must have logged.

Input:

Flow of Execution:

1. Student enters to “SELECT SEMESTER” page.
2. Student selects the semester that want to take a course
3. Student enters to “OVERALL COURSE” page
4. Student select the course that want to take the assignment and quiz

AC-19 The student can choose the course for taking assignment and quiz in course management page.



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Student can take assignments or quizzes which are multiple choices, true/false questions, short answers. (UC-20)

Use Case ID:	UC 06		
Use Case Name:	Student takes assignments or quizzes		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	20/05/2015	Last Revision Date:	3/07/2015
Actors:	Student		
Description:	This use case is provided for Student takes assignments or quizzes on the web application.		
Trigger:	Student enters to Overall testing page.		
Preconditions:	Student must logged in to the system.		
Post conditions:	The system displays message “Take this testing already”.		
Normal Flow:	<ol style="list-style-type: none"> 1. Student click “OVERALL TEST” button in course main page. 2. The front-end system shall display a list of testing form database consisting course name, testing name, amount of question in overall testing page in the “OVERALL TEST” page. 3. Student click “TAKE TESTING” button in the “OVERALL TEST” page. 4. The front-end system shall display the test information consisting question description, question type, and question content. 5. The front-end system shall provide the UI for taking the assignment/quiz. 6. The back-end system shall record student answer to database when student click “SEND ANSWER” button in “Take testing” page. 7. The front-end system shall display “Answer Submission Successful” message when student click “SEND ANSWER” button in take testing page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-24 Student can take assignments or quizzes which are multiple choices, true/false questions, short answers.

Student can take assignments or quizzes which are multiple choices, true/false questions, short answers by using web application.

Student must provide answer information by separating from type of questions.

- Student can take multiple choices questions which provide one answer only in each order of questions.
- Student can take true/false questions which provide one answer only in each order of questions.
- Student can take short answers which provide characters or texts.

Actor: Student

Prerequisite: Student must have logged.

Input:

Multiple choices question

Name	Description	Example	Remarks
multiple choices answer	Only “a, b, c, d” is allowed.	a	

True/false question

Name	Description	Example	Remarks
true/false answer	Only “a, b, c, d” is allowed.	b	

Short answer

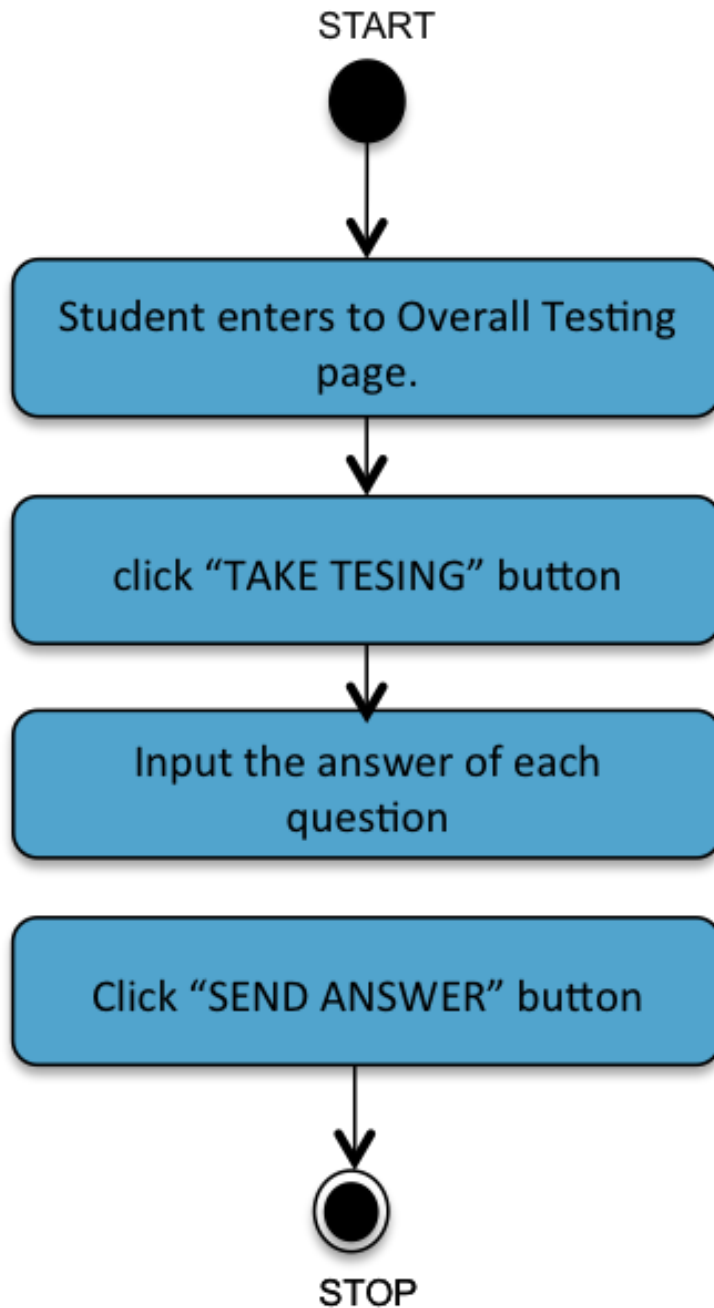
Name	Description	Example	Remarks
short answer	Can be any character is allowed.	From the picture is a dog.	

Flow of Execution:

1. Student enters to Overall testing page.
2. Student selects a testing that want to take an assignment or quiz.
3. Student submits taking assignment or quiz form.
4. Student enters to Assignment or quiz page.
5. Student provides answers in every question.
6. Student submits answers.

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AC-20 Student can take assignments or quizzes which are multiple choices, true/false questions, short answers.



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Lecturer marks the point for student's short answer. (UC-21)

Use Case ID:	UC 21		
Use Case Name:	Lecturer marks the point for student's short answer.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	10/05/2015	Last Revision Date:	03/07/2015
Actors:	Lecturer		
Description:	This use case is provided for Lecturer marks the point for student's short answer.		
Trigger:	Lecturer selects a testing that want to mark the point for student's short answer.		
Preconditions:	Student have already finished taking the assignment or quiz and the answers are recorded in the system.		
Post conditions:	The system displays "Marking point is successful" message on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer clicks "SUBMISSION" button in "OVERALL TEST" page. 2. The front-end system shall display the name of testing and submission time. 3. Lecturer select test and click "VIEW" button 4. The front-end system shall display short answer question and student's short answer form database in the "MARKING SCORE" page after lecturer click "VIEW ANSWER" button in "SUBMISSION" page 5. Lecturer click "MARK" button in the "MARKING SCORE" page. 6. The front-end system shall check the question point format from lecturer. 7. The back-end system shall record the point to database when lecturer click "MARK" button in the "MARKING SCORE" page 8. The front-end system shall display "Marking point is successful" message when lecturer click "MARK" button in the "MARKING SCORE" page 		
Alternative Flows:	N/A		
Exceptions:	5a when the point of student format is not numeric, the system provides the error message as followed: <ol style="list-style-type: none"> 1. The system displays "Point of student must be number only" message on the web application 		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS -25 Lecturer marks the point for student's short answer.

Lecturer can mark the point for student's short answer in each assignment or quiz.

Actor: Lecturer

Prerequisite: Lecturer must have logged.

Input:

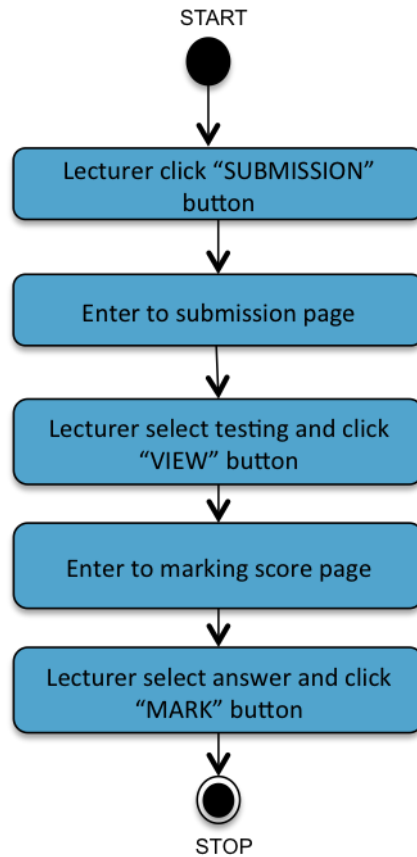
Name	Description	Example	Remarks
point of student	Only number is allowed	1	question point

Flow of Execution:

1. Lecturer selects a testing that want to check students that submit assignments or quizzes.
2. Lecturer submits submission status form.
3. Lecturer enters to submission page.
4. Lecturer submits Marking the point form.
5. Lecturer enters to Marking the point for student's short answer page.
6. Lecturer marks point of student in each short answer question.
7. Lecturer submits marking point form.

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AC-21 Lecturer marks the point for student's short answer.



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Lecturer can review overall student's answer in each choice of assignment or quiz in chart format. (UC-22)

Use Case ID:	UC 22		
Use Case Name:	Lecturer reviews student's answers in chart		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	10/05/2015	Last Revision Date:	03/07/2015
Actors:	Lecturer		
Description:	This use case is provided for Lecturer reviews student's answers in chart on the web application.		
Trigger:	Lecturer select a testing that want to review overall student's answer in each choice of assignment or quiz in chart format.		
Preconditions:	Student have already finished taking the assignment or quiz and the answers are recorded in the system.		
Post conditions:	The system displays overall student's answer in each choice of assignment or quiz in chart format into Chart format of student's answer page on the web application.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click "OVERALL TEST" in course main page of front-end system. 2. Lecturer click "CHART" button in the "OVERALL TEST" of front-end system page. 3. The front-end system shall display all student's answer in each choice of assignment or quiz in chart format in the "CHART" page after lecturer click "CHART" button in the "OVERALL TEST" page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-26 The lecturer can view all student's answer in each choice of assignment or quiz in chart format in the chart page.

Lecturer can review overall student's answer in each choice of assignment or quiz in chart format into the web application. Which Lecturer can analyze thinking of students in decision choose answers.

Actor: Lecturer

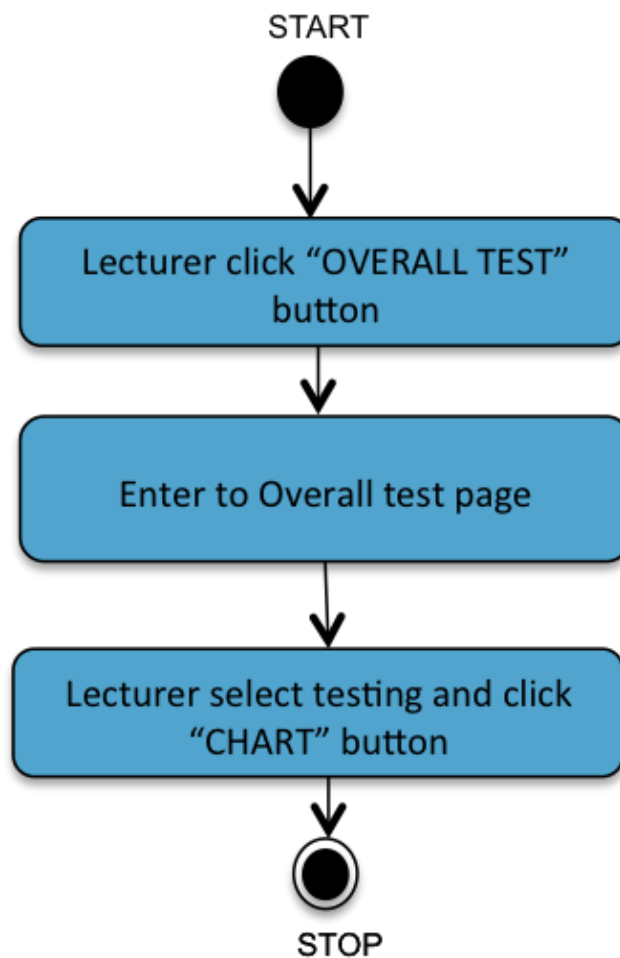
Prerequisite: Lecturer must have logged.

Input: None

Flow of Execution:

1. Lecturer selects a testing that want to review overall student's answer in each choice of assignment or quiz in chart format.
2. Lecturer submits chart format of student's answer form.

AC-22 Lecturer can view all student's answer in each choice of assignment or quiz in chart format.



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Lecturer can check whether the assignments are submitted in time. (UC-23)

Use Case ID:	UC 23		
Use Case Name:	Lecturer checks student's assignment or quiz submission.		
Created By:	Mr.Supawit Kamjina	Last Updated By:	Mr.Supawit Kamjina
Date Created:	10/05/2015	Last Revision Date:	03/07/2015
Actors:	Lecturer		
Description:	This use case is provided for Lecturer checks student's assignment or quiz submission on the web application.		
Trigger:	Lecturer selects a testing that want to check students that submit assignments or quizzes.		
Preconditions:	Student have already finished taking the assignment or quiz and the answers are recorded in the system.		
Post conditions:	Lecturer can checks student's assignment or quiz submission.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click "OVERALL TEST" in course main page of front-end system. 2. Lecturer click "SUBMISSION" button in the "OVERALL TEST" page. 3. The front-end system shall display testing submission information form database consisting student ID, testing name, answer sheet score, time, submit status in testing submission page after lecturer click "SUBMISSION" button in overall testing page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	Often		
Assumptions:	N/A		
Notes and Issues:	N/A		

URS-27 The lecturer can check the assignment that is submitted in time or not.

Lecturer can check whether who submitted an assignment or quiz in time into the web application. Also, who didn't submit an assignment or quiz in time.

Actor: Lecturer

Prerequisite: Lecturer must have logged.

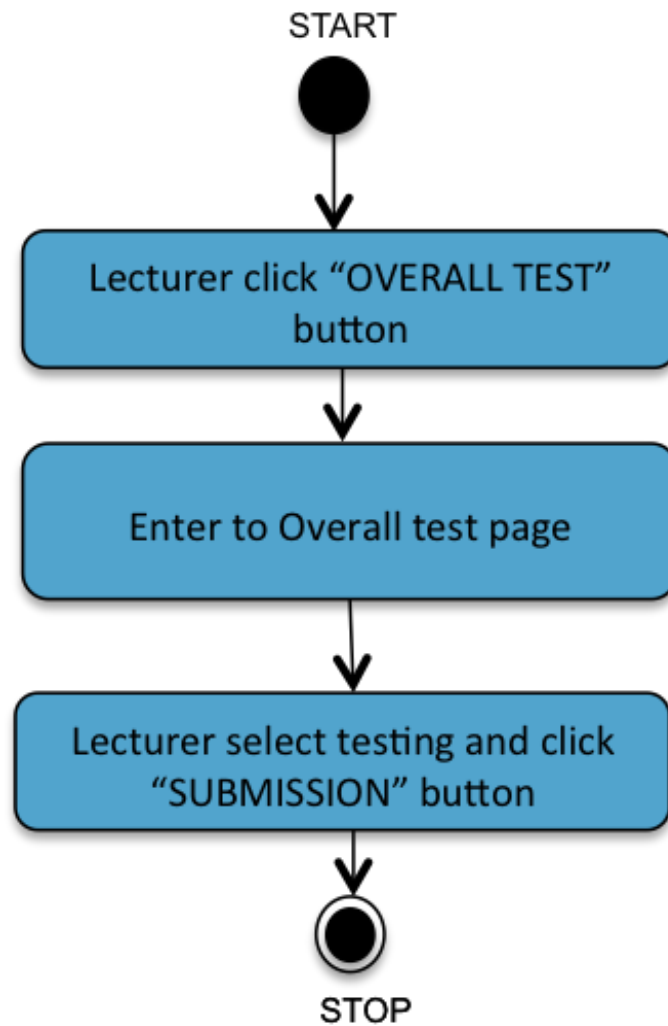
Input: None

Flow of Execution:

1. Lecturer selects a testing that want to check students that submit assignments or quizzes.
2. Lecturer submits submission status form.

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AC-23 The lecturer can check the assignment that is submitted in time or not.



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Lecturer can calculate score of student taking quiz or assignment by using Google's Spreadsheet system. (UC-24)

Use Case ID:	UC 24		
Use Case Name:	Lecturer can calculate score of student taking quiz or assignment by using Google's Spreadsheet system.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	03/07/2015
Actors:	Lecturers		
Description:	This use case is provided for Lecturer to manage Score by using Google spreadsheets.		
Trigger:	Lecturer clicks manage score		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	Lecturer can use Google Spreadsheets to manage score.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 2. The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 3. The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page. 4. The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page. 5. Lecturer chooses the spreadsheets and click name of spreadsheets. 6. The front-end system shall redirect to Google's Spreadsheet page after lecturer select the spreadsheet. 7. The Google's Spreadsheet system shall provide spreadsheets management UI for calculating the score. 8. Lecturer input student score and calculate the score in the Google's spreadsheet page. 9. The Google's Spreadsheet system shall calculate the score from the formula of lecturer. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS -28 The lecturer can calculate score of student taking quiz or assignment by using Google's Spreadsheet system.

Lecturer can calculate score by using Google's spreadsheets system.

Actor: Lecturers

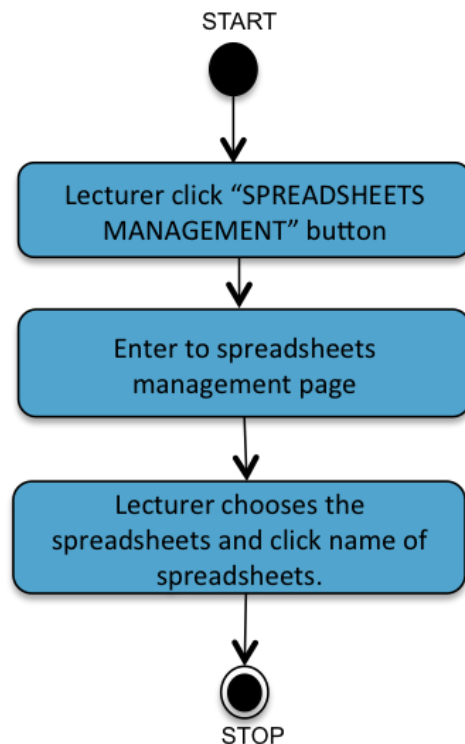
Prerequisite: Lecturer must log in to the system already.

Input: None

Flow of Execution:

1. Lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page.
2. The system shall redirect to "SPREADSHEETS MANAGEMENT" page.
3. Lecturer select spreadsheets.
4. The system shall login the Google's account and redirect to Google's spreadsheets system.
5. Lecturer provide student score and calculate the score in the Google's spreadsheets system.
6. The Google's spreadsheets system shall calculate the score.

AC 24 Lecturer can calculate score of student taking quiz or assignment by using Google's Spreadsheet system.



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Lecturer can post the score to student. (UC-25)

Use Case ID:	UC 25		
Use Case Name:	Lecturer can post the score to student.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	03/07/2015
Actors:	Lecturers		
Description:	This use case is provided for Lecturer to manage post score for student who's take the assignment.		
Trigger:	Lecturer clicks sharing spreadsheet.		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	Lecturer sharing spreadsheet with student.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 2. The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 3. The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page. 4. The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page. 5. Lecturer choose the spreadsheets and click name of spreadsheets. 6. The front-end system shall redirect to Google's Spreadsheet page after lecturer select the spreadsheet. 7. The Google's spreadsheets system provide spreadsheet management UI for share the spreadsheet. 8. The Google's spreadsheets system share the spreadsheet. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-29 Lecturer can post the score to student

Lecturer can sharing spreadsheets with student who's take the assignment.

Actor: Lecturers

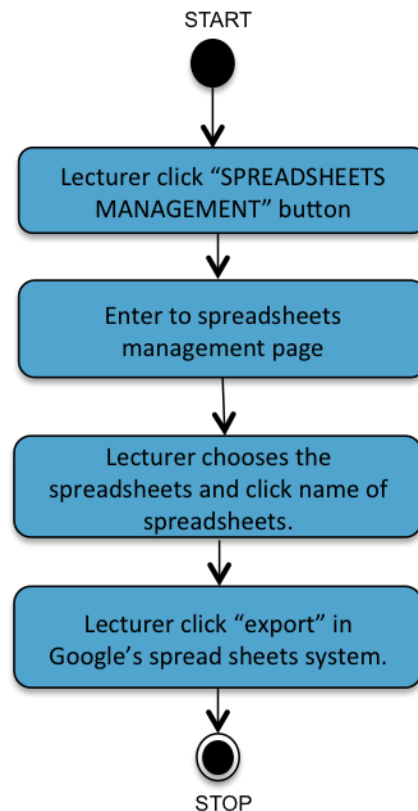
Prerequisite: Lecturer must log in to the system already

Input: None

Flow of Execution:

1. Lecturer selects course.
2. The system shall redirect to Course Main Page on the web application.
3. Lecturer clicks spreadsheets management
4. The system shall redirect to Google's spreadsheets.
5. The system shall automatic login the Google's account.
6. The system shall display list of spread sheets.
7. Lecturer click sharing
8. The system shall display score for Student.

AC-25 Lecturer can post the score to student.



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Lecturer can create new Google's spreadsheets. (UC-26)

Use Case ID:	UC 26		
Use Case Name:	Lecturers can create new Google's spreadsheets.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	03/07/2015
Actors:	Lecturers		
Description:	This use case is provided for Lecturer create new Google's spreadsheet.		
Trigger:	Lecturer clicks new topic.		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	The system will display the post.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 2. The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 3. The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page. 4. The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page. 5. Lecturer choose the spreadsheets and click name of spreadsheets. 6. Lecturer click "new file" button in Google's spreadsheet system. 7. The Google's system shall provide spreadsheets management UI for creating the new spread sheets. 8. The Google's spreadsheet system shall create the new spread sheets. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-30 Lecturer can create new Google's spreadsheet

Lecturer can create the new spreadsheets for calculate the score.

Actor: Lecturers

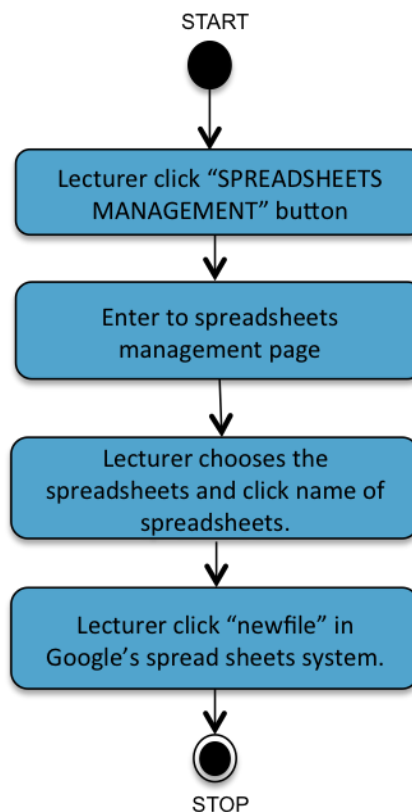
Prerequisite: Lecturer must log in to the system already.

Input: None

Flow of Execution:

1. Lecturer selects course.
2. The system shall redirect to Course Main Page on the web application.
3. Lecturer clicks spreadsheets management.
4. The system shall automatic login the Google's account.
5. The system shall display list of spread sheets
6. Lecturer clicks new spreadsheets.
7. The system shall create the new spread sheets

AC 26 Lecturer can create new Google's spreadsheet.



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Lecturer can delete Google's spreadsheet. (UC 27)

Use Case ID:	UC 27		
Use Case Name:	Lecturer can delete Google's spreadsheets		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	03/07/2015
Actors:	Lecturers		
Description:	This use case is provided for Lecturer to delete Google's spreadsheet.		
Trigger:	Lecturer clicks new topic.		
Preconditions:	Lecturer must log in to the system already.		
Post conditions:	The system will delete Google's spread sheet.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 2. The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 3. The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page. 4. The front-end system shall display a list of spreadsheets in the "SPREADSHEETS MANAGEMENT" page. 5. Lecturer chooses the spreadsheets and click name of spreadsheets. 6. The Google's spreadsheets system shall provide spreadsheets management UI for deleting the spreadsheet 7. Lecturer click "Delete" in spreadsheets management UI of Google's spreadsheets system. 8. The Google's spreadsheets system shall delete the spreadsheets from Google's spreadsheet system 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-31 Lecturer can remove Google's spreadsheet

Lecturer can delete the Google's spreadsheets for calculate the score.

Actor: Lecturer

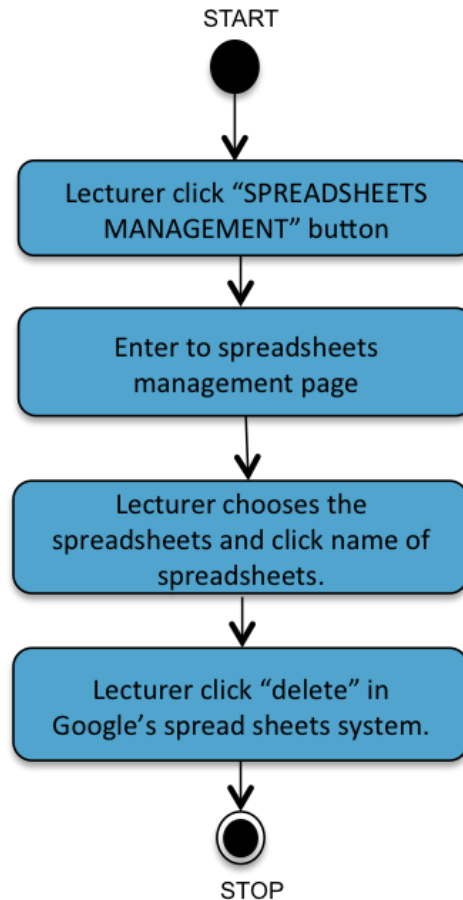
Prerequisite: Lecturer must log in to the system already

Input: None

Flow of Execution:

1. Lecturer selects course.
2. The system shall redirect to Course Main Page on the web application.
3. Lecturer clicks spreadsheets management.
4. The system shall automatic login the Google's account.
5. The system shall display list of spread sheets.
6. Lecturer selects Google's spreadsheets and click delete.
7. The system shall delete Google's spreadsheets form database.

AC 27 Lecturer can delete Google's spreadsheet.



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Lecturer can upload file to Google's drive. (UC-28)

Use Case ID:	UC 28		
Use Case Name:	Lecturer can upload file to Google's spreadsheets.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	03/07/2015
Actors:	Lecturers		
Description:	This use case is provided for Lecturer to upload file to Google's spreadsheets.		
Trigger:	Lecturer click choose file		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	The file was uploaded.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 2. The back-end system shall login the Google's account when lecturer click "SPREADSHEETS MANAGEMENT" label bar in overall course page. 3. The front-end system shall redirect to the "SPREADSHEETS MANAGEMENT" page. 4. The front-end system shall provide UI for uploading file to Google's drive system. 5. Lecturer selects the file to upload. 6. Lecturer click "UPLOAD" button in the "SPREADSHEETS MANAGEMENT" page. 7. The system shall upload the Google's drive system after lecturer select file and then click "UPLOAD" button. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-32 The *lecturer* can upload file to Google’s drive system.
Lecturer can upload file to Google’s drive system

Actor: Lecturer

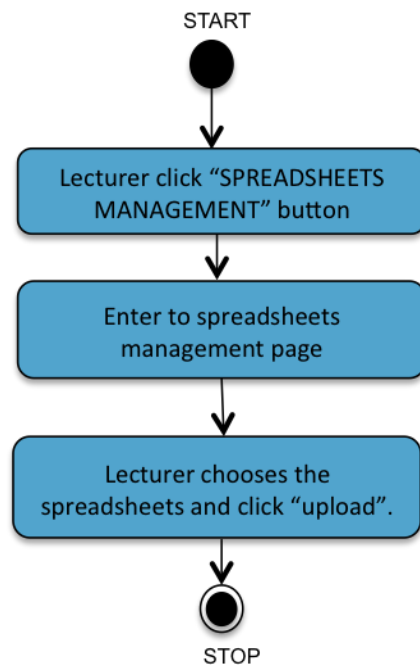
Prerequisite: Lecturer must log in to the system already

Input: File

Flow of Execution:

1. Lecturer selects course.
2. The system shall redirect to Course Main Page on the web application.
3. Lecturer clicks spreadsheets management
4. The system shall redirect to Google’s spreadsheets.
5. The system shall automatic login the Google’s account.
6. The system shall display list of spread sheets.
7. Lecturer clicks choose file
8. Lecturer clicks upload.
9. The system shall upload file to system.

AC-28 Lecturer can upload file to Google’s drive.



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Student can view score. (UC 29)

Use Case ID:	UC 29		
Use Case Name:	Student can view score		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/05/2015	Last Revision Date:	3/7/2015
Actors:	Students		
Description:	This use case is provided for student for view score		
Trigger:	Student clicks view score		
Preconditions:	Student must log in to the system already		
Post conditions:	The system display the score		
Normal Flow:	<ol style="list-style-type: none"> 1. Student click "SPREADSHEETS MANAGEMENT" label bar in "overall course" page. 2. The system login the Google's account. 3. The system redirect to "SPREADSHEETS MANAGEMENT" page. 4. The system display the list of spreadsheets from the Google's account in the "SPREADSHEETS MANAGEMENT" page. 5. Student choose the spreadsheets score.. 6. The system shall redirect to the Google's spreadsheet page. 7. The Google's spreadsheet display the spreadsheet score. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-33 The student can view score in the course management page as student.

Student can view score in Google's spreadsheets.

Actor: Students

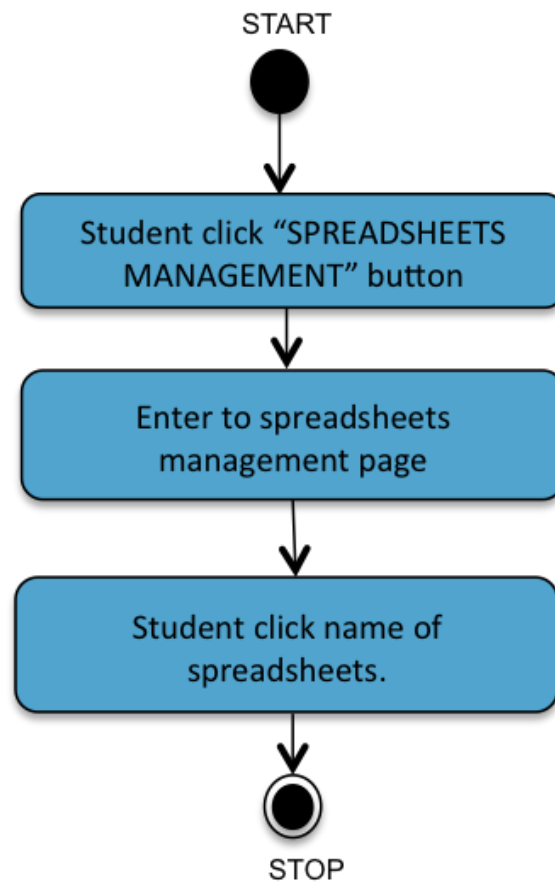
Prerequisite: Student must log in to the system already

Input: None

Flow of Execution:

1. Student selects course.
2. The system shall redirect to Course Main Page on the web application.
3. Student clicks spreadsheets management
4. The system shall redirect to Google's spreadsheets.
5. The system shall automatic login the Google's account.
6. The system shall display list of spreadsheets.
7. Student selects Google's spreadsheets.
8. The system shall display Google's spreadsheets.

AC-29 Student can view score.



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Lecturer can send the E-mail to student. (UC-30)

Use Case ID:	UC 30		
Use Case Name:	Lecturer can send the E-mail to student		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	13/10/2015
Actors:	Lecturers		
Description:	This use case is provided for Lecturer can send the E-mail to student		
Trigger:	Lecturer click sent E-mail		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	The E-mail was sent		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer click "Email" label bar in the lecturer main page. 2. The back-end system login the Google's mail account. 3. The front-end system redirect to email page. 4. The front-end system shall provide user interface for sending e-mail, which receive target email and information. 5. Lecturer input email and information in "EMAIL" page of front-end system. 6. Lecturer click "send" button in "EMAIL" page of front-end system. 7. The back-end system shall send mail to student when lecturer click "SEND EMAIL" button in email page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-34 Lecturer can send The E-mail to student.

Lecturer can send e-mail to student.

Actor: Lecturers

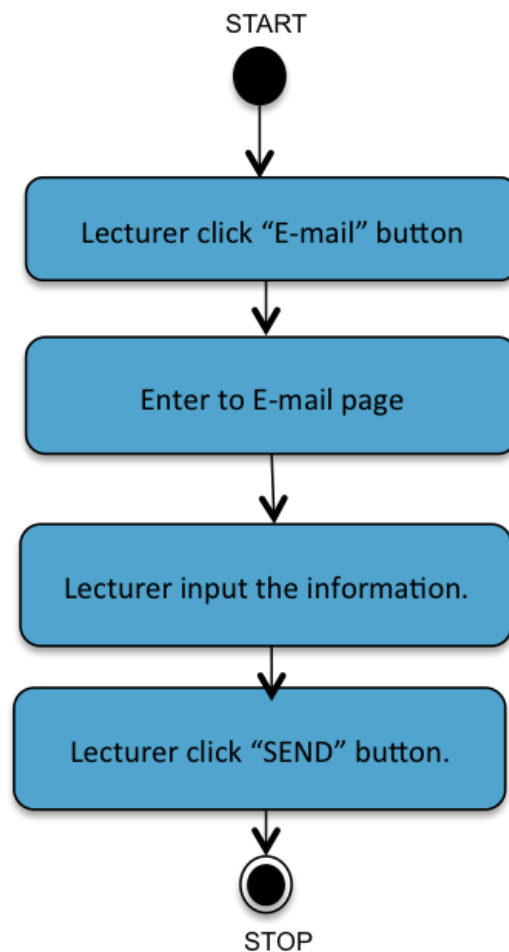
Prerequisite: Lecturer must log in to the system already

Input: E-mail

Flow of Execution:

1. Lecturer selects Lecturer Main Page.
2. The system shall redirect to Lecturer Main Page on the web application.
3. Lecturer clicks Send E-mail Page.
4. The system shall automatic login the Google's account.
5. The system shall redirect to Send E-mail Page.
6. The system shall display the interface of Send E-mail Page.
7. Lecturer type the information and student's e-mail.
8. Lecturer clicks send.
9. The system shall send mail to student.

AC 30 Lecturer can send The E-mail to student.



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The student can post the question to lecturer, student, everyone in the post page. (UC-31)

Use Case ID:	UC 31		
Use Case Name:	Student can post the question to lecturer in the post page.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/05/2015	Last Revision Date:	3/7/2015
Actors:	Students		
Description:	This use case is provided for Student post the new topic.		
Trigger:	Student clicks new topic.		
Preconditions:	Student must log in to the system already.		
Post conditions:	The system will display the post.		
Normal Flow:	<ol style="list-style-type: none"> 1. Student selects the course then click “POST” button in the “OVERALL COURSE” page. 2. The front-end system shall provide user interface for posting the question, which receive post title, and post description student’s post page. 3. Student input the question and select the person to ask. 4. Student click “submit” button in the student’s post page. 5. The back-end system shall record the question to database when student click “SUBMIT” button in the post page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

URS-35 student can post the question to lecturer, student, everyone in the post page.

Student can communicate with Lecturer by post or reply the question in the system

Actor: Students

Prerequisite: Student must log in to the system already

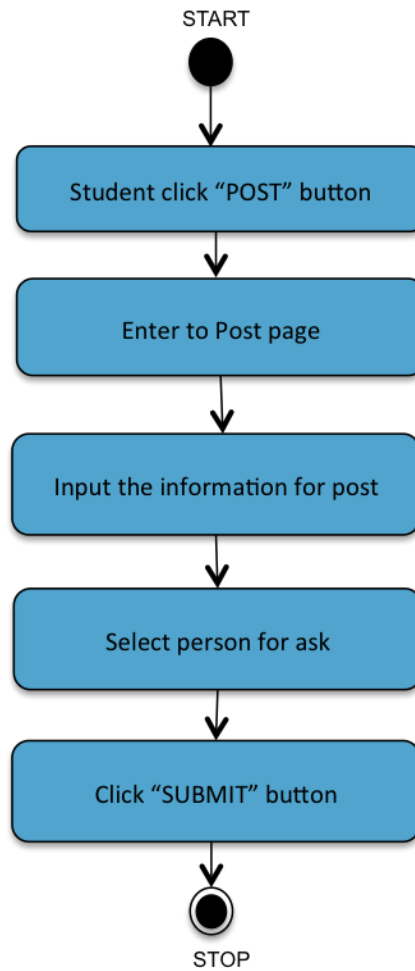
Input: Information of post

Flow of Execution:

1. The system shall redirect to “overall course” page on the web application
2. Student select the course and then clicks “post” button in “overall course”.
3. The system shall redirect to post page.
4. The system shall provide the interface of post page.
5. Student type information.
6. Student click “submit” button

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AC-31 The student can post the question to lecturer, student, everyone in the post page.



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The student can reply the post from lecturer in the post page. (UC-32)

	UC 32		
Use Case Name:	Student can reply the post from lecturer in the post page.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/10/2014	Last Revision Date:	13/10/2014
Actors:	Students		
Description:	This use case is provided for Student reply post.		
Trigger:	Student clicks reply		
Preconditions:	Student must log in to the system already		
Post conditions:	The system will display the reply post.		
Normal Flow:	<ol style="list-style-type: none"> 1. Student selects the course then click “POST” button in the “OVERALL COURSE” page. 2. The system display the post information form database consisting post title, and post description in student’s post page. 3. The system provide UI for replying the question which receive post title, and post description in the student’s post page. 4. Student input the post. 5. Student click “submit” button in the student’s post page. 6. The system shall record the post to database 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

URS-36 The student can reply the post from lecturer in the post page.

Student can communicate with Lecturer by reply the post in the post page

Actor: Student

Prerequisite: Student must log in to the system already

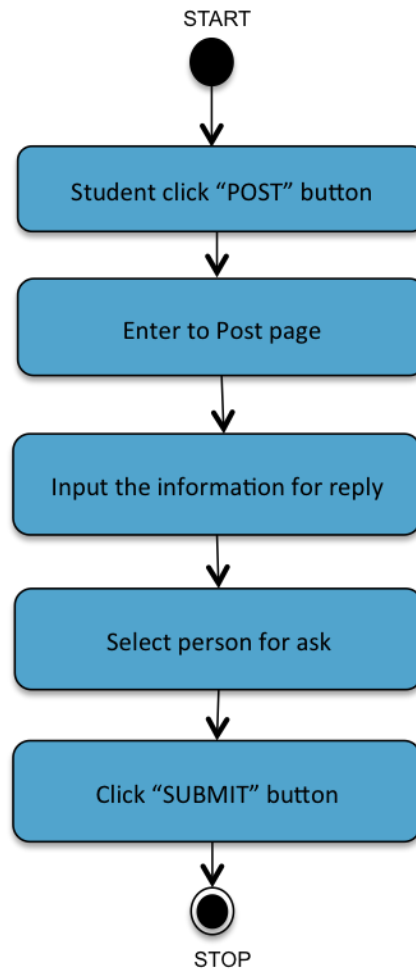
Input: None

Flow of Execution:

1. The system shall redirect to “overall course” page on the web application
2. Student select the course and then clicks “post” button in “overall course”.
3. The system shall redirect to post page.
4. The system display the lecturer’s post.
5. The system shall provide the interface of post page.
6. Student type information.
7. Student click “submit” button

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AC-32 Student can reply the post.



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The lecturer can post the question to student in the post page. (UC-33)

Use Case ID:	UC 33		
Use Case Name:	The lecturer can post the question to student in the post page.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	03/07/2015
Actors:	Lecturers		
Description:	This use case is Lecturer post question for student.		
Trigger:	Lecturer clicks new topic.		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	System display new topic		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer select the course then click “POST” button in the “OVERALL COURSE” page. 2. The front-end system shall provide user interface for posting the question, which receive post title, and post description the lecturer’s “POST” page. 3. Lecturer type the information of post and select person for ask. 4. Lecturer click “submit” button in the student’s post page. 5. The system shall record the question to database when lecturer click “SUBMIT” button in the lecturer’s “POST” page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

URS-37 The lecturer can post the question to student in the post page.

Lecturer can communicate with student by post the question in the system

Actor: Lecturers

Prerequisite: Lecturer must log in to the system already

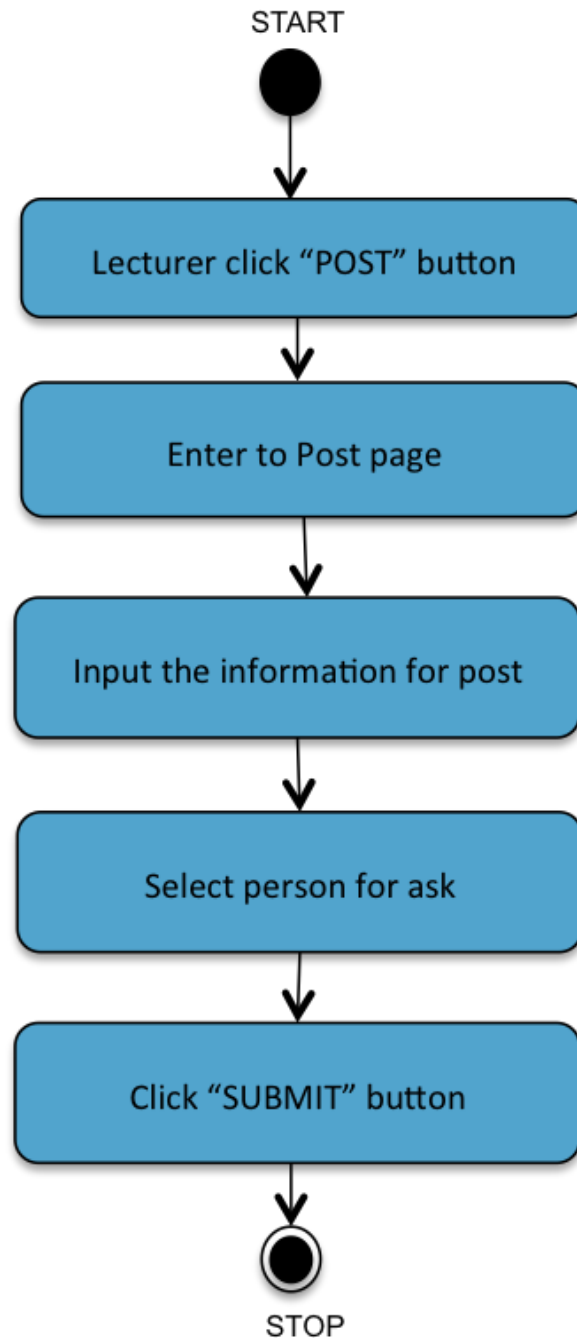
Input: Post Information

Flow of Execution:

1. Lecturer selects the course and then clicks “post” button in “overall course”.
2. The system shall redirect to post page.
3. The system shall provide the interface of post page.
4. Lecturer type information.
5. Lecturer click “submit” button

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AC-33 The lecturer can post the question to student in the post page.



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The lecturer can reply the question to student in the post page. (UC-34)

Use Case ID:	UC 34		
Use Case Name:	The lecturer can reply the question to student in the post page.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	03/07/2015
Actors:	Lecturers		
Description:	This use case is provided for Lecturers to reply post for student		
Trigger:	Lecturer clicks reply		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	System display reply post		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer select the course then click “POST” button in the “OVERALL COURSE” page. 2. The front-end system shall display the post information of student form database consisting post title, and post description the lecturer’s post page after lecturer click “POST PAGE” button in course main page. 3. The system shall provide user interface for replying the question, which receive post title, and post description in the lecturer’s reply post page. 4. Lecturer types the information of post and select person for asks. 5. Lecturer click “SUBMIT” button in the lecturer’s post page. 6. The back-end system shall record the question to database when student click “SUBMIT” button in in the lecturer’s reply post page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-38 The lecturer can reply the question to student in the post page.

Lecturer can communicate with student by reply the question in the system

Actor: Lecturer

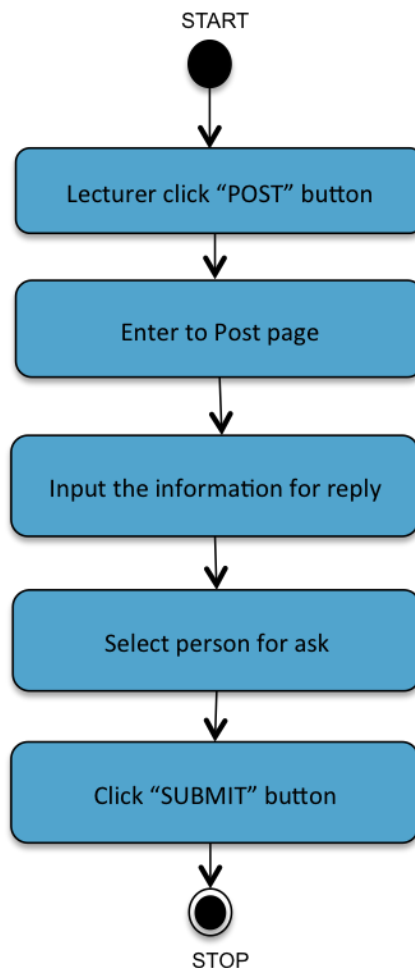
Prerequisite: Lecturer must log in to the system already

Input: None

Flow of Execution:

1. The system shall redirect to “overall course” page on the web application
2. Lecturer select the course and then clicks “post” button in “overall course”.
3. The system shall redirect to post page.
4. The system display the student’s post.
5. The system shall provide the interface of post page.
6. Lecturer type information.
7. Lecturer click “submit” button

AC 34 Lecturer can reply the question.



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The lecturer can recommend the post the post. (UC-35)

Use Case ID:	UC 35		
Use Case Name:	The lecturer can recommend the post.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/5/2015	Last Revision Date:	03/07/2015
Actors:	Lecturers		
Description:	This use case is provided for Lecturer click recommend post for suggestion student.		
Trigger:	Lecturer clicks recommend		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	System display recommend post.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer select the course then click “POST” button in the “OVERALL COURSE” page. 2. The front-end system shall display the post information of student form database consisting post title, and post description the lecturer’s post page after lecturer click “POST PAGE” button in course main page. 3. The front-end system shall provide user interface for recommend the post in the lecturer’s post page. 4. Lecturer select the post and then click “recommend” button 5. The front-end system shall recommend the post by stick the post in the top of from post page. 6. The front-end system shall recommend the post from the lecturer’s post page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

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URS-39 The lecturer can recommend the post.

Lecturer can click recommend post for suggestion student.

Actor: Lecturers

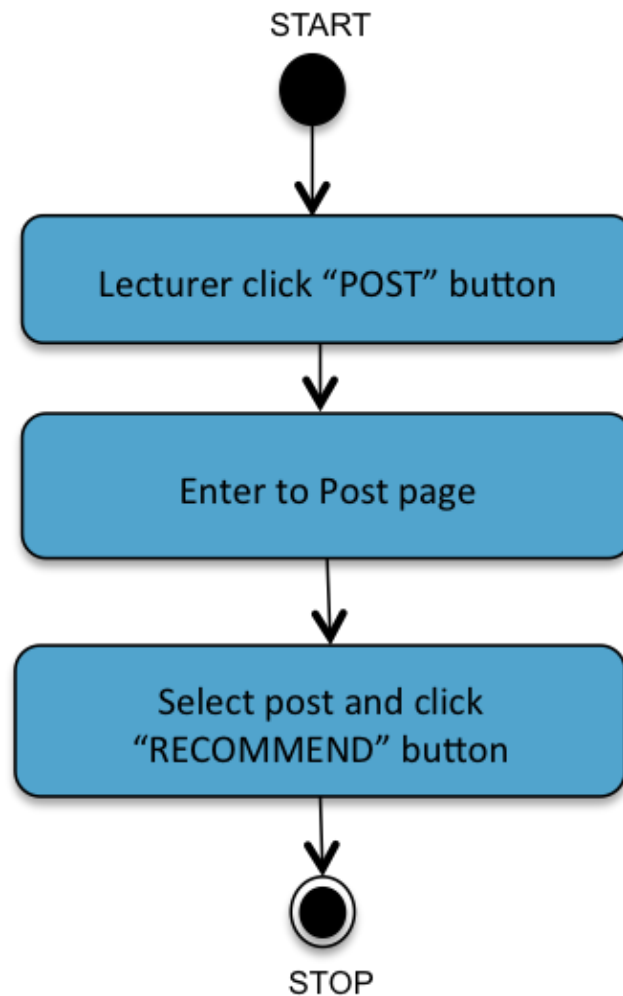
Prerequisite: Lecturer must log in to the system already

Input: None

Flow of Execution:

1. The system shall redirect to “overall course” page on the web application
2. Lecturer select the course and then clicks “post” button in “overall course”.
3. The system shall redirect to post page.
4. The system display the student’s post.
5. The system shall provide the interface of post page.
6. Lecturer select the post and then click “recommend” button.

AC-35 The lecturer can recommend the post.



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The lecturer can delete the post. (UC-36)

Use Case ID:	UC 36		
Use Case Name:	Lecturer can delete the post.		
Created By:	Mr.Chaichan Suttee	Last Updated By:	Mr.Chaichan Suttee
Date Created:	13/10/2014	Last Revision Date:	13/10/2014
Actors:	Lecturers		
Description:	This use case is provided for Lecturer to Delete post in postpage.		
Trigger:	Lecturer clicks delete		
Preconditions:	Lecturer must log in to the system already		
Post conditions:	System delete the post form database.		
Normal Flow:	<ol style="list-style-type: none"> 1. Lecturer select the course then click “POST” button in the “OVERALL COURSE” page. 2. The front-end system shall display the post information form database consisting post title, and post description the lecturer’s post page after lecturer click “POST PAGE” button in course main page 3. The front-end system provide user interface for deleting the post. 4. Lecturer selects the post and then click “DELETE” button in the lecturer’s post page. 5. The back-end system shall delete the post from the lecturer’s post page. 		
Alternative Flows:	N/A		
Exceptions:	N/A		
Includes:	N/A		
Frequency of Use:	often		
Assumptions:	N/A		
Notes and Issues:	N/A		

URS 40 The lecturer can delete the post.

Lecturer can delete the post in post page.

Actor: Lecturers

Prerequisite: Lecturer must log in to the system already

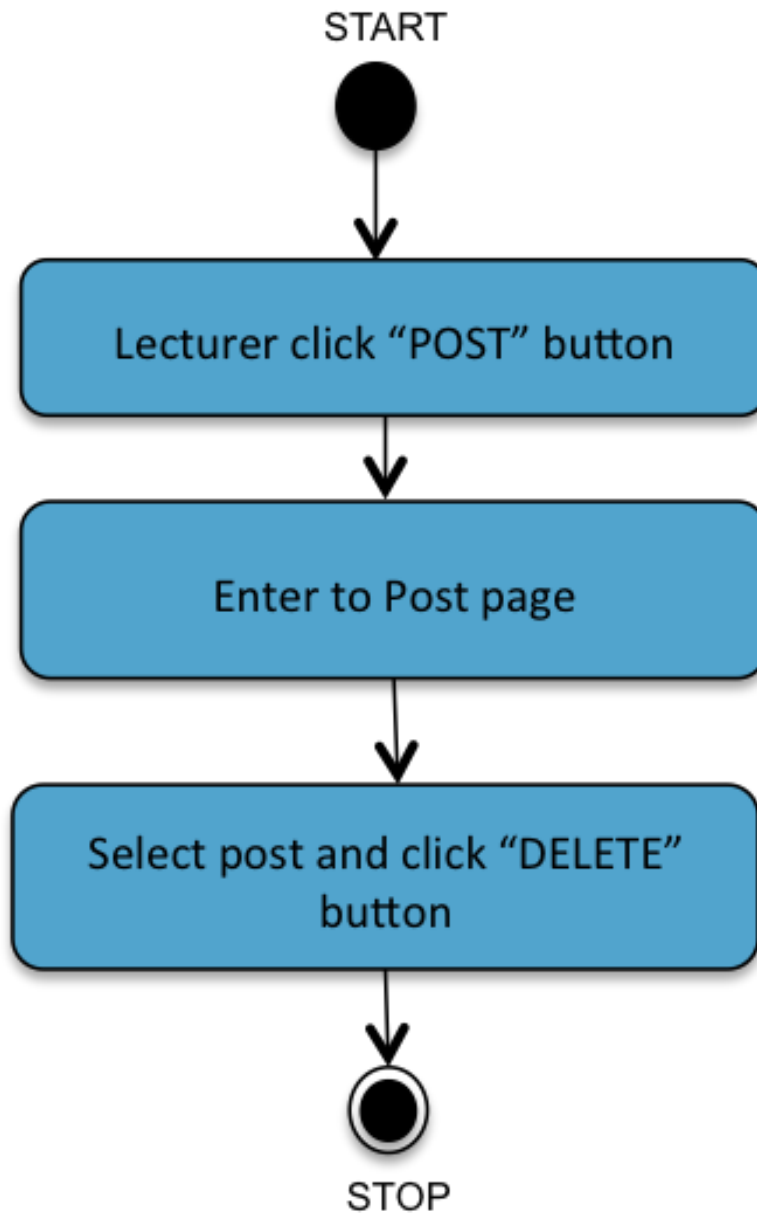
Input: Post or reply

Flow of Execution:

1. The system shall redirect to “overall course” page on the web application
2. Lecturer select the course and then clicks “post” button in “overall course”.
3. The system shall redirect to post page.
4. The system display the student’s post.
5. The system shall provide the interface of post page.
6. Lecturer select the post and then click “Delete” button.

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AC 36 Lecturer can delete the post.



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