

SENG 300 WINTER 2020

UCID: 30063099

Tutorial Number: 4

ASSIGNMENT 1

By
HAOHU SHEN

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Functional Requirements

- The department head should be able to add new sessions in the portal.
- The department head should be able to edit new sessions in the portal.
- The department head should be able to add new sections in the portal.
- The department head should be able to edit new sections in the portal.
- The department head should be able to add new courses in the portal.
- The department head should be able to edit new courses in the portal.
- An instructor should be able to add the course plan.
- An instructor should be able to edit the course plan.
- A TA should be able to upload the course material.
- The department head should be able to add instructors to courses.
- The department head should be able to assign instructors to courses.
- An instructor should be able to define weekly course plan.
- A weekly plan should be able to contain lecture notes, helping material and assignments.
- A student should be able to register to a course.
- A student should be able to view lecture notes, helping material and assignments in any weekly plan of the course he/she registered to.
- A student should be able to download lecture notes, helping material and assignments in any weekly plan of the course he/she registered to.
- A student should be able to submit his/her assignments.
- A TA should be able to evaluate the assignments.
- A student should be able to review his/her assignment.
- A student should be able to re-submit his/her assignment.
- A student should be able to view his/her assignment marks.

Non-Functional Requirements

- The system would be a web-based system.
- No TAs can change the course plan.
- One course should have only one lead instructor.
- Every course must have an instructor.
- The interface should be easy and attractive.
- The system should ensure that students cannot see each other assignments for security and privacy reason.
- The system should be able to provide backup and security plan.

Use Case Diagram

See the diagram on the last page of the assignment.

Use Case Descriptions

CITATION Please note before grading, some format of use case descriptions below act in a similar manner to that provided in **Use Case Description Example 2** in order to providing clear and professional use case descriptions.

Use Case Description 1

UC-ID	UC-1
UC-Name	Assign instructors to courses
Description	The department head accesses the system and views the courses he/she added and all instructors' accounts he/she added, selects at least one instructor and a course, and assigns all instructors selected to the course.
Primary Actor	The department head
Pre-condition	The department head is logged into system
Main Success Scenario	<ol style="list-style-type: none">1. The department head turns to the webpage where he/she can assign instructors to courses.2. System displays the list of courses the department head added so far and the list of instructors' accounts the department head added so far on the same page.2. The department head selects one course from the course list.3. The department header selects at least one instructor from the name list of instructors according to some factors, such as if the instructor's research field relates to the contents of the course.4. The department head assigns all instructors he/she selected to the course selected and also assigns who is the lead instructor of the course.5. System pops out a message and asks the department head to confirm before proceeding.6. The department header presses the button to confirm.7. System saves the record and updates the course list the instructors selected. A message of confirmation is displayed.

Post-condition	A course has been assigned at least one instructor.
Extensions	<p>2a. The department header has not added any course yet.</p> <p>---2a1. System displays an error message saying the course list is empty and asks the department head to add courses first.</p> <p>---2a2. The department header either backs out of this use case, or tries again after adding some courses.</p> <p>2b. The department header has not added any instructor yet.</p> <p>---2b1. System displays an error message saying the name list of instructors is empty and asks the department head to add instructors first.</p> <p>---2b2. The department header either backs out of the use case, or tries again after adding some instructors' accounts.</p> <p>6a. The department head abandons the action and cancels the confirmation.</p> <p>---6a1. No courses are assigned instructors.</p> <p>7a. The assignment fails because the schedule of at least one instructor conflicts the schedule of the section of the course.</p> <p>---7a1. System displays an error message saying the conflict and asks the department head to adjust first.</p> <p>---7a2. The department head may leave the use case, or re-select other instructors, or edits the schedule of the section of the course then tries to assign again.</p>

Use Case Description 2

UC-ID	UC-2
UC-Name	Upload the material
Description	A TA uploads the material of the course that he/she is assigned.
Primary Actor	TA
Pre-condition	<ol style="list-style-type: none"> 1. The TA has been assigned to the course 2. The TA is logged into system.
Main Success Scenario	<ol style="list-style-type: none"> 1. The TA turns to the web page of the course where he/she can upload files. 2. The TA clicks a button on the webpage to trigger the file uploading API. 3. System opens a file manager for the TA 4. The TA selects the files in the file manager. 5. The TA clicks a button to confirm the uploading. 6. System closes the file manager and uploads the files selected. 7. System stores the files somewhere, saves the record and refreshes the page and pops up a message of confirmation.
Post-condition	The material has been added and shown in the course page.
Extensions	<p>4a. The TA abandons the uploading for some reason and closes the file manager. ---4a1. Nothing is uploaded.</p> <p>6a. The uploading fails since the size of files is larger than the limitation ---6a1. System displays an error message saying the situation and asks the TA to upload again. ---6a2. The TA may leave the use case or try again to upload.</p>

Use Case Description 3

UC-ID	UC-3
UC-Name	Evaluate an assignment
Description	A TA evaluates the assignments submitted from the course that he/she is assigned.
Primary Actor	TA
Pre-condition	<ol style="list-style-type: none"> 1. The TA has been assigned to the course 2. The TA is logged into system.
Main Success Scenario	<ol style="list-style-type: none"> 1. The TA turns to the web page of the course where he/she can evaluate the assignments. 2. System displays a list of assignments available for evaluation. 3. The TA selects one assignment from the assignment list to view. 4. System extends a space in the web page for the assignment viewing 5. The TA marks the assignment according to the grading rules given by the lead instructor and wrote down the final mark somewhere on the web page. 6. The TA confirms the final mark by pressing a button. 7. System pops up a message to ask the TA to confirm the grading. 8. System collapses the space. 9. System updates the mark of the assignment and updates the information of grades in the student who submitted this assignment as well. 10. System saves the record, refreshes the assignment list and pops up a message of confirmation.
Post-condition	One assignment has been evaluated.
Extensions	<ol style="list-style-type: none"> 1a. No submissions of assignments yet thus the assignment list is empty. 4a. The TA abandons the grading of this assignment and closes the assignment viewing. ---4a1. No grades are made.

Use Case Description 4

UC-ID	UC-4
UC-Name	Register for courses
Description	A student accesses the system and checks if there are courses available for him/her to register. Then he/she selects the courses and registers for them.
Primary Actor	Student
Pre-condition	The student is logged into the system.
Main Success Scenario	<ol style="list-style-type: none"> 1. The student turns to the web page where he/she can register new courses. 2. System displays a list of courses available for registration. 3. The student chooses one in the list to register. 4. The student clicks a button to submit. 5. System pops up a window to ask the student for final confirmation. 6. The student clicks a button to confirm. 7. System registers the student for his/her selected courses, refreshes the course list, saves the record and pops up a message of confirmation.
Post-condition	The student is registered for courses.
Extensions	<p>2a. No courses available for the student thus the course list is empty.</p> <p>---2a1. System pops up an error message saying no available courses at this moment.</p> <p>---2a2. The student may leave this use case or come back to re-check after some time.</p> <p>5a. The student abandons the registering and cancels the window of confirmation.</p> <p>---5a1. No courses are registered by the student.</p> <p>7a. At least one course cannot be registered for reason.</p> <p>---7a1. System displays an error message saying all the courses which could not be registered along with the respective reason and asks the user to re-select.</p> <p>---7a2. The student may leave this use case or come back to select again after some time.</p>

Use Case Description 5

UC-ID	UC-5
UC-Name	Download the course material
Description	A student accesses the system and downloads the course material from a course he/she registered.
Primary Actor	Student
Pre-condition	1.The student registered the course. 2.The student is logged into the system.
Main Success Scenario	1. The student turns to the web page of a course he/she registered and switches to the sub-item where the course material is downloaded. 2. The student presses the 'Download' button along the name of the course material. 3. System pops up a message to ask the student for confirmation below downloading. 4. The student presses the button to confirm. 5. System starts transferring the course material to the student's local machine and pops up a window to notify the student when the download is finished.
Post-condition	The student downloaded the course material.
Extensions	2a. No course material is available at this moment for the student. ---2a1. System pops up an error message saying that no available course materials. ---2a2. The student may leave the use case or come back to check later. 4a. The student abandons the action and closes the window to cancel the download. ---4a1. No course materials are downloaded for the student. 5a. The course materials fails to download for some reason, such as the space of storage in the student's device is not sufficient ---5a1. System displays an error message saying the situation and the reason for it. ---5a2. The student either backs out of this use case or re-tries after fixing the issue.

Use Case Diagram

Student Information System

