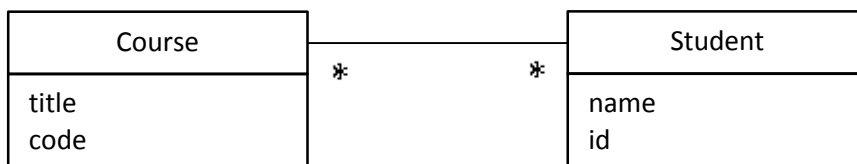# UECS2344 Software Design: Practical 7

Refer to the system in Practical 6. The course management system is extended in the third iteration.
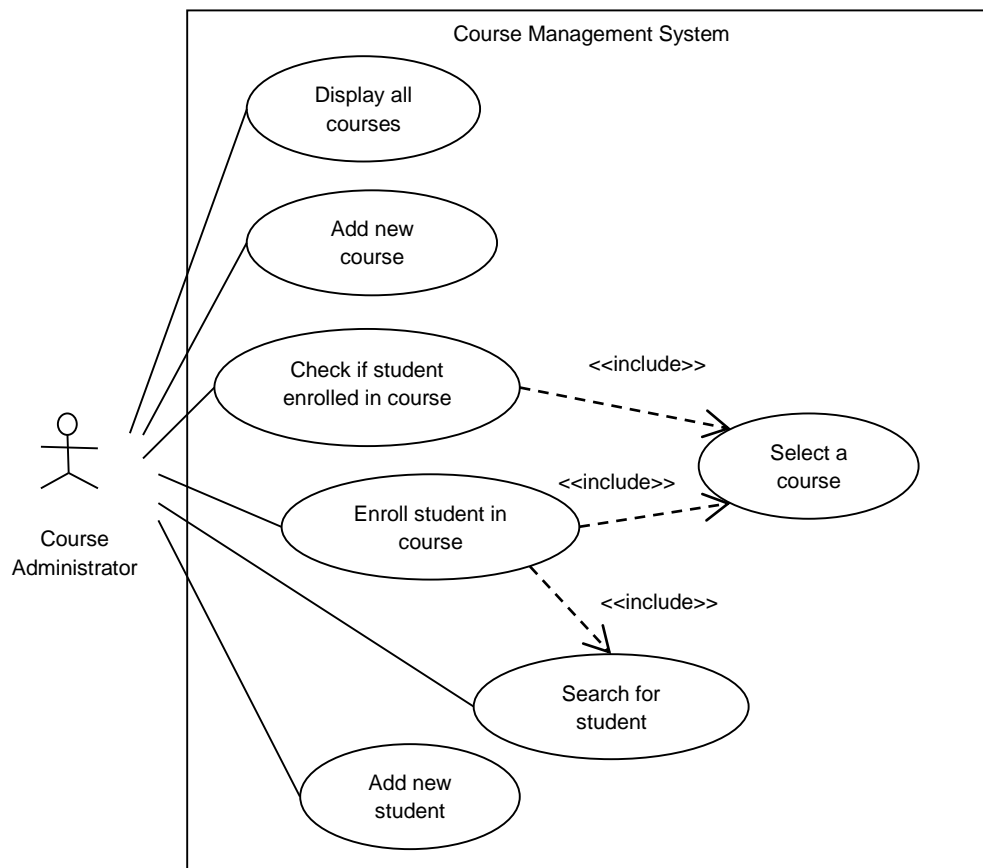
ITERATION 3

The Analysis Class Diagram, Use Case Diagram, and Use Case Descriptions for the additional or modified use cases for the system for the third iteration are given below.

Analysis Class Diagram

Use Case Diagram

Additional Prototype Screens

Use Case: Search for student (existing student)

Enter student name: xxxxxxxxxxxxx Student id: xxxxxxx

Student name:

XXXXXXXXXX

Search Student

Student id: xxxxxxx

Use Case: Add new student

Enter student name: xxxxxxxxxxxxxx Enter student id: xxxxxx New student added

Student name:

XXXXXXXXXX

 Student id:

XXXXX

Add Student

New student added

Modified Prototype Screen

Use Case: Enroll student in course (new student)

Enter course code: xxxxxxx Course title: xxxxxxxxxxxxxxxxxxxxxx Enter student name: xxxxxxxxxxxxxxxx Enter student id: xxxxxx Student enrolled in course

Course code:

XXXXXX

Select Course

Course title: xxxxxxxxxxxx

Student name:

XXXXXXXXXX

Student id:

XXXXXXXXXX

Enroll Student

Student enrolled in course

Additional Use Case Descriptions

Use Case Name	Search for student
Actor	Course Administrator
Flow of Events: 1. Course Administrator enters name of student to search. 2. System searches for the student record and displays id of the student.	
Alternative Flow of Events: 2.1 Student is not found. 　　　2.1.1 Use case terminates	

Use Case Name	Add new student
Actor	Course Administrator

Flow of Events:
1. Course Administrator enters name and id of a new student.
2. System creates a new student record.

Modified Use Case Descriptions

Use Case Name	Enroll student in course
Actor	Course Administrator
Flow of Events:	
1. Perform use case Select a course.	
2. Perform use case Search for student.	
3. System adds the student to the list of students enrolled for the course.	
Alternative Flow of Events:	
1.1 Course is not found.	
1.1.1 Use case terminates.	
2.1 Student is not found.	
2.1.1 Use case terminates.	

Note: The DataLists class manages the list of students in addition to the list of courses.

(a) Draw a Sequence Diagram for the use cases.

(b) Draw the modified Design Class Diagram.

(c) Modify the code.