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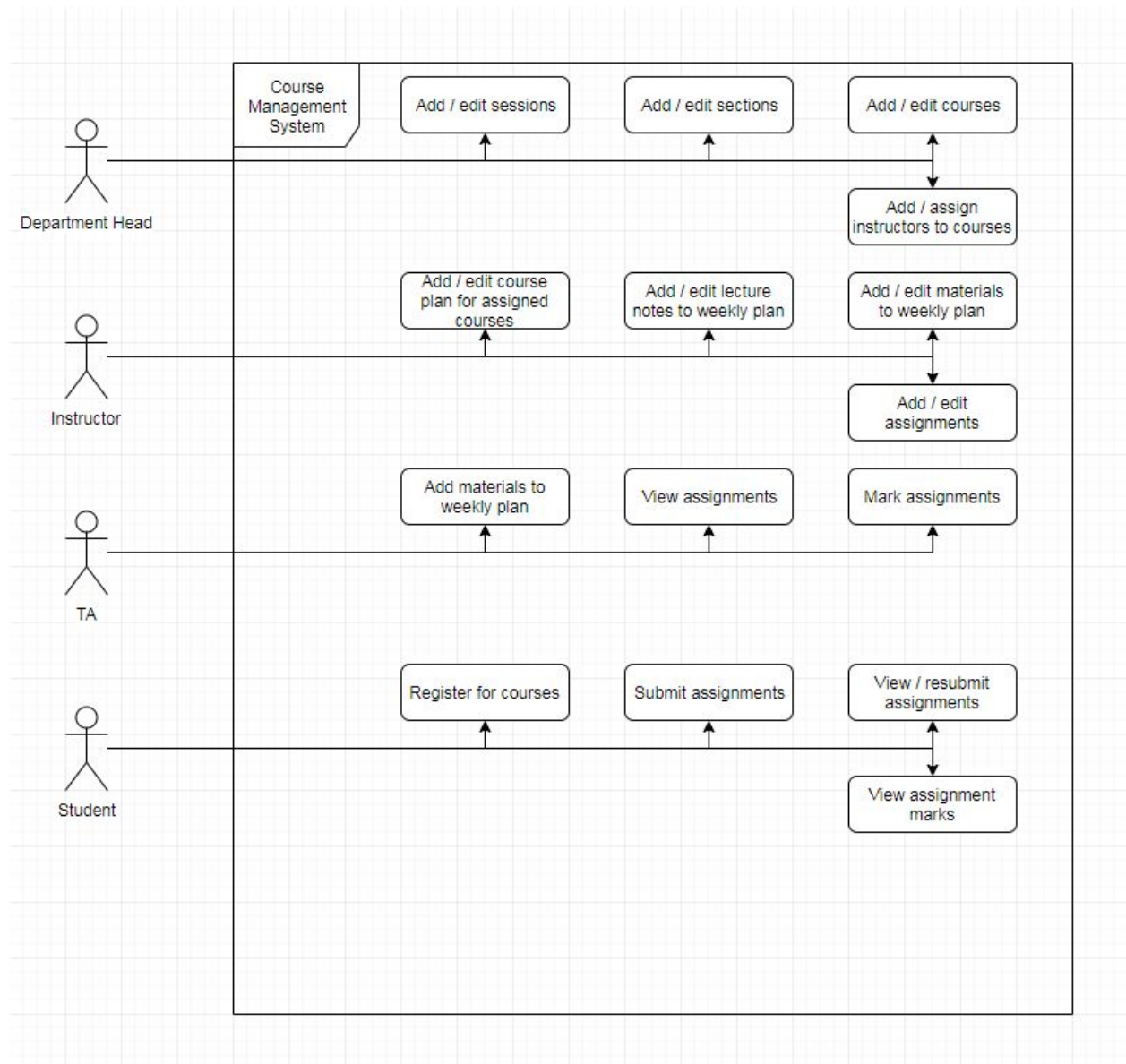**Question #1: Functional and Non-Functional Requirements**

Functional:

- Department head can add and edit new sessions, sections, and courses
- Courses must be taught by precisely 2 people: an instructor and a TA
- Instructors can add/edit the course plan for their courses
- TA's can upload material to their courses
- Department Head can add and assign instructors to courses
- Instructor defines weekly course plan
- Weekly course plan contains lecture notes, helping materials, and assignments
- All documents in the weekly course plan can be viewed and downloaded by students in that course
- Students register for courses themselves
- Students submit assignments through the system
- TA's can view and mark assignments
- Students can view and re-submit their assignments
- Students can view their assignment marks
- Students can't see other student's assignments

Non-Functional:

- System will be web-based
- System will have an easy to use and attractive interface
- System will provide backups and a security plan

Question #2: Use Case Model

Course Management System

Department Head
- Add / edit sessions
- Add / edit sections
- Add / edit courses
- Add / assign instructors to courses

Instructor
- Add / edit course plan for assigned courses
- Add / edit lecture notes to weekly plan
- Add / edit materials to weekly plan
- Add / edit assignments

TA
- Add materials to weekly plan
- View assignments
- Mark assignments

Student
- Register for courses
- Submit assignments
- View / resubmit assignments
- View assignment marks

Question #3: Descriptions of Five Use Cases

USE CASE #1
Name: Register for Courses
Participating Actor(s): Student
Precondition: Actor is a valid student, student has navigated to the page for course registration
Main Flow of Events:
1. Student attempts to register for course
2. Student is added to course list
3. System tells student they've successfully registered for the course

Postcondition: If the student is able, they're registered for the course
Alternative Flow:
1.
2.
      a. Course list is full, system tells the student this
      b. Prerequisites for the course are not met, system tells the student this
3.

USE CASE #2
Name: Submit Assignments
Participating Actor(s): Student
Precondition: Actor is registered for the course they are trying to submit an assignment to, and student has navigated to the page for assignment submissions
Main Flow of Events:
1. Student submits assignment
2. System adds assignment to course
3. System tells student that the assignment was successfully submitted

Postcondition: Student's assignment is submitted to the course
Alternative Flow:
1.
2.
      a. Assignment submitted after the due date, submission not accepted, system tells the student this
3.

USE CASE #3

Name: View and Download Assignments

Participating Actor(s): TA

Precondition: Actor is a valid TA for the course they are attempting to view the assignments of, and TA has navigated to the page for assignment viewing

Main Flow of Events:
1. TA selects an assignment they want to view
2. System displays the assignment to the TA

Postcondition: TA has successfully viewed an assignment they wished to view

Alternative Flow:
1.
   a. TA selects an assignment they want to download, system provides a download link
2.

USE CASE #4

Name: Mark Assignments

Participating Actor(s): TA

Precondition: Actor is a valid TA for the course they are attempting to mark the assignments of, and TA has navigated to the page for assignment mark submissions

Main Flow of Events:
1. TA selects the assignment they are submitting the mark for
2. System asks the TA what mark they are giving the assignment
3. TA enters the mark
4. System records the mark submitted by the TA

Postcondition: TA has submitted the mark for a specific assignment

Alternative Flow:
1.
   a. If selected assignment is already marked, system warns TA that it is already marked, then continues
2.
3.
4.
   a. Submitted mark is not in acceptable range (i.e. assignment mark is 150% or -50%), system tells TA to resubmit a valid mark

USE CASE #5

Name: View Assignment Marks

Participating Actor(s): Student

Precondition: Actor is a valid student, student is registered for the course they are trying to view the assignment mark of, student has navigated to the page for their assignments mark viewing

Main Flow of Events:

1. Student selects one of their assignments they wish to view the mark for
2. System displays the mark they received

Postcondition: Student views their mark for an assignment

Alternative Flow:

1.
2.
    a. If no mark is available, system tells the student that the assignment is not yet marked