

Primary Use Case Model

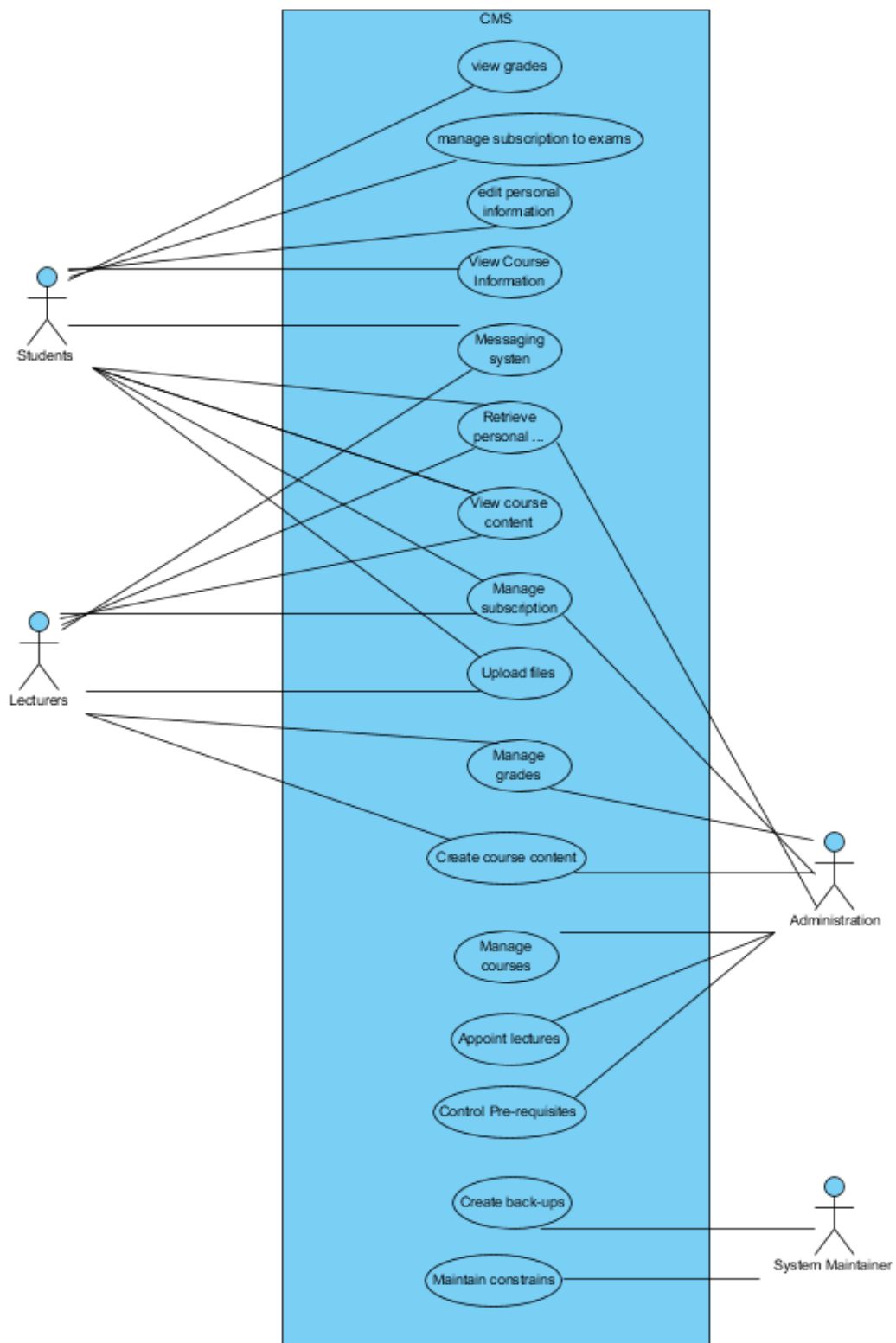
This use case model highlights the important use cases.

Use Case	Description
UC-1:View Grades	The system shall allow students to view course grade statistics per semester (only their own). The system shall provide grade statistics (averages, standard deviation, per department, per year) for lecturers. The system shall enable lecturers to compare grade statistics with other courses. The system shall allow lecturers to view all grades of all students in the course
UC-2:Manage subscription	The student shall enable students to subscribe/unsubscribe to courses The student shall enable students to subscribe/unsubscribe to exams. The system shall prevent students from subscribing to a course they don't qualify for (not completing required courses, or not from the right department(s))
UC-3:Edit personal Information	The system shall allow students to edit their personal information. The system shall allow students to change their password using a password reset function, which resets the password and mails it to the user. The system shall allow the administration to retrieve all lecturer information and enter information.
UC-4: View course Information	The system shall allow lecturers to view the dynamic course information of courses given by other lecturers.
UC-5: Messaging System	The System shall allow sending messages to individuals, teams or all course participants at once. The system shall notify students of events. The system shall enable lecturers to mail multiple students at once. Also support mail merge templates for mass mailing. "One-click" to email all students grades.
UC-6: View personal information	The system shall enable students to retrieve contact information of students and lecturers of subscribed courses. The system shall allow lecturers to view all personal information (including pictures) of people in the system. The system shall allow the administration to

	retrieve all study and personal information of students
UC-7: View course content	The system shall provide the history of a course. The system shall allow students to view course content. The system shall allow lecturers to manage the dynamic content visibility (visible for students and lecturers, visible for lecturers, visible to self only)
UC-8:Manage Subscribers	The system shall allow lecturers to limit the number of students subscribing to a course. The system shall allow only the administration to specify the minimum number of students for a course. If there are too little subscriptions in a semester, that course will not be given during that semester. The system shall allow the administration to manually subscribe students to courses, bypassing requirements and enrolment policies
UC-9: Upload files	The system shall be able to let students submit textual content or files. The system shall allow lecturers to specify enrolment policies based on grade, first-come first-serve (fcfs), department, and based on grades.
UC-10: Manage grades	The system shall enable lecturers to manage grades (insert, update, calculate final grade). The system shall allow lecturers to specify and change the grading policy (weights of grades, determining when a student passes the course). The system shall allow the administration to calculate grade statistics per year, per student, per course, per department or a combination.
UC-11: Manage Course content	The system shall allow lecturers to upload course material for lectures. The system shall allow lecturers to duplicate courses and import materials from other courses into another course, but only from their own courses.
UC-12:Manage courses	The system shall allow lecturers to create or recreate courses. The system shall allow lecturers to manage static course information. The system shall allow lecturers to manage dynamic course information. The system shall allow only the administration to create new

	courses, delete courses, or update static course information.
UC-13: Appoint Personal	The system shall allow lecturers to register assistant lecturers. The system shall allow only the administration to appoint (principal) lecturers to courses
UC-14:Control Pre-requisite	The system shall allow only the administration to specify the course prerequisites for students. The system shall allow only the administration to specify completed courses as prerequisites of a course. The system shall allow only the administration to specify the department as prerequisite of a course
UC-15: Manage back-ups	The system shall allow maintainers to create back-ups of the entire system. The system shall allow maintainers to restore partial and complete back-ups of a specific date
UC-16- Maintain constraints	The system shall allow maintainers to limit the size of files being uploaded by lecturers and by students. The system shall allow maintainers to limit the total available space for specific courses

Use Case Model for CMS



Quality Attribute Scenarios

ID	Quality Attribute	Scenario	Associated Use Case
QA-1	Availability	Student must have high availability and must announce downtime 48 hours ahead	All
QA-2	Usability	The system should be bilingual with 3 clicks to reach any content and should have a single login to access all content	All
QA-3	Accessibility	System should have high accessibility and must be accessible for users with disability who should be able to navigate through the system and access content without a problem	All
QA-4	Securiability	System should be secure and allow students to change study information of others	UC-3
QA-5	Interoperability	System should be highly interoperable and allow students to import scheduled lectures into personal calendar	UC-7
QA-6	Testability	System should be easily testable	All
QA-7	Privacy	The system shall protect the user's	UC-1

		privacy. Through preventing students from viewing grades of others. System should allow students to view only their own grade and lecturers to view all students grades	
QA-8	Security	System should allow the view of course information given by other lecturers.	UC-7
QA-9	Interoperability	The system should be able to import BOZ roster information into the course roster	UC-11
QA-10	Extensibility / evolvability	System should be easily extensible and evolvable	All
QA-11	Scalability	System should be easily scalable	All
QA-12	Maintainability	System should be easily maintainable	All
QA-13	Interoperability	System should be interoperable with secondary university systems	All
QA-14	Extensibility	System should allow the administration to make exceptions with regard to student enrolment to courses	UC-8

Constraints

ID	Constraints
CON-1	The system shall have no or downtime at most 4 hours/month (only during low-intensity hours) with announcement at least 48 hours in advances.
CON-2	The system shall have a maximum of 3 clicks to reach any content
CON-3	The system shall have a single login to access all content
CON-4	The system shall be interoperable with secondary university systems