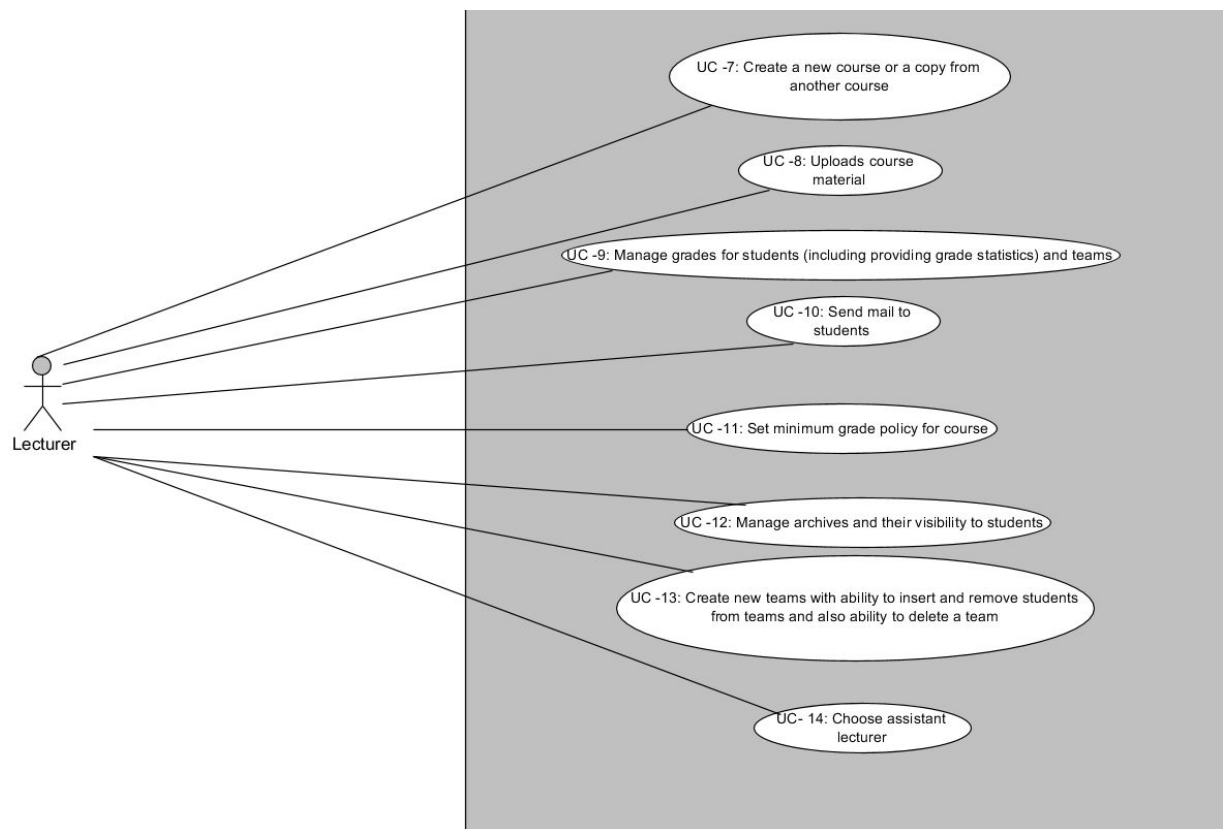
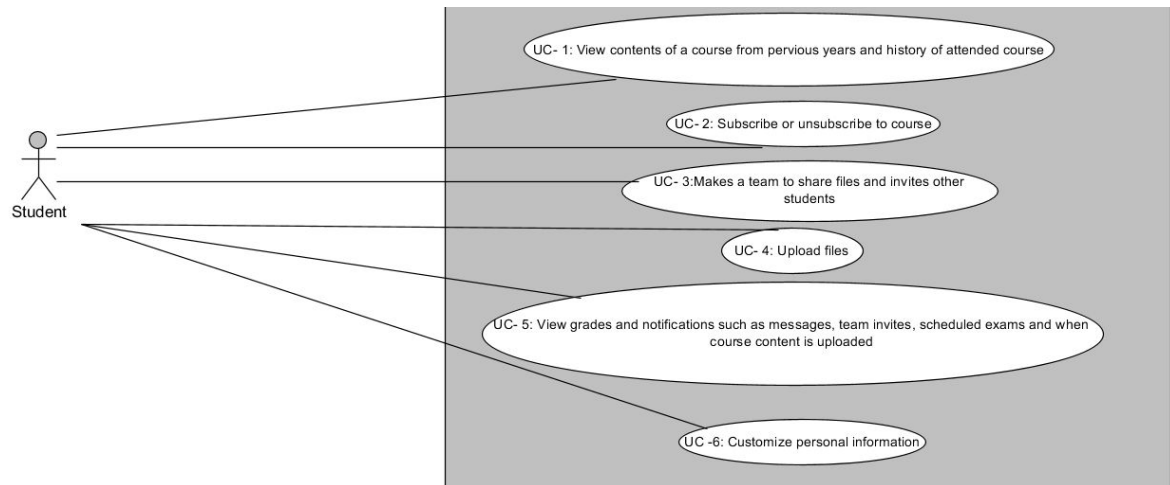
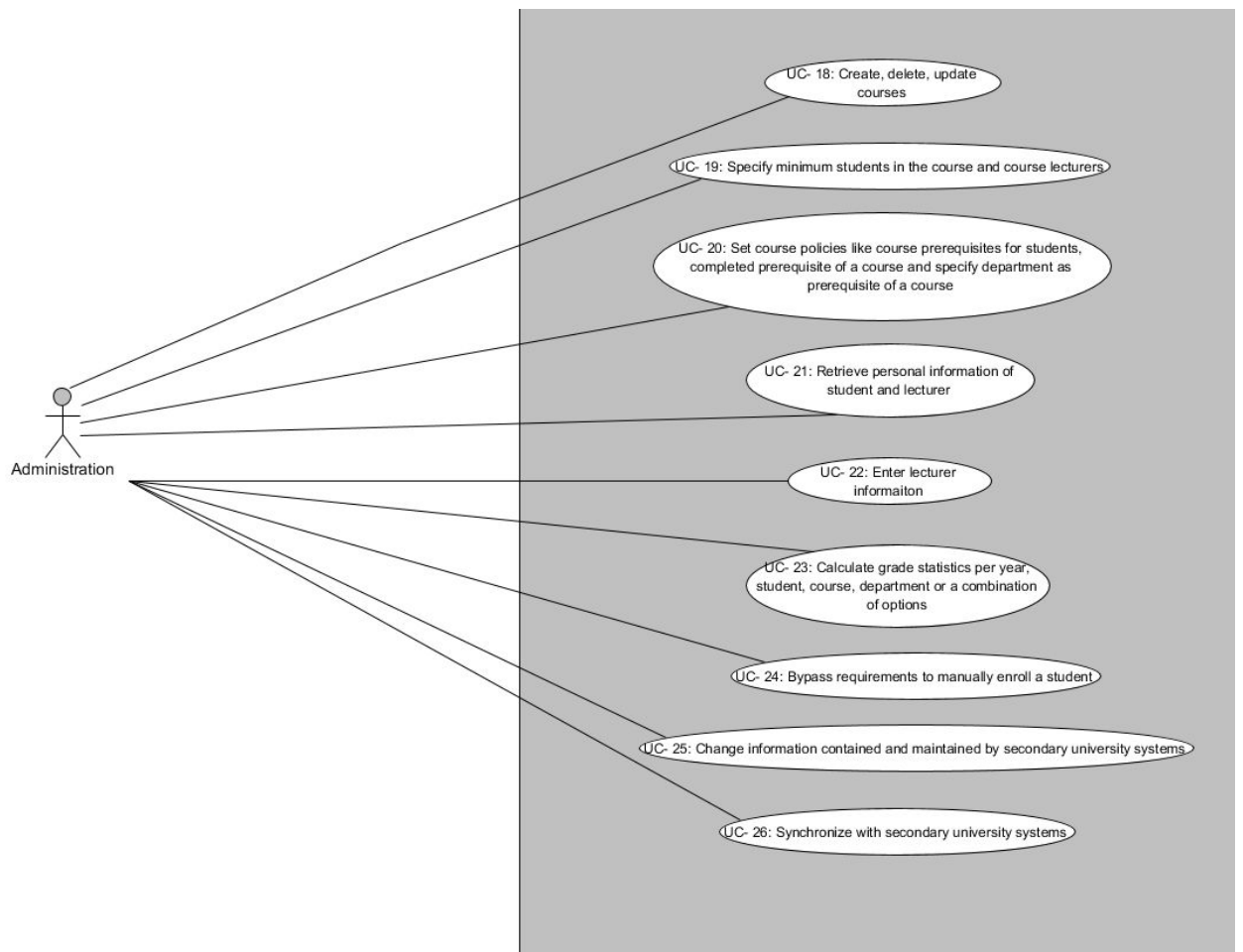
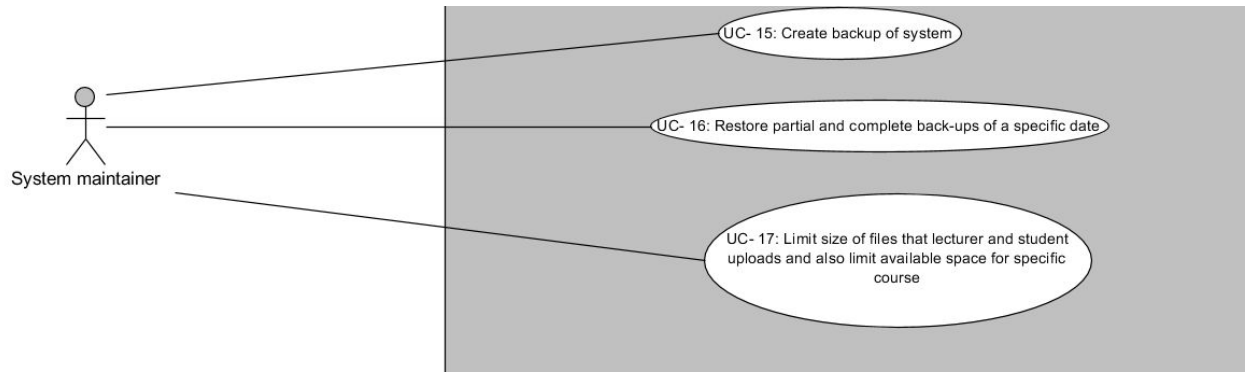


Input artifacts:

Course Management System - Use Case Model





Course Management System - Quality attribute scenarios

Quality attributes: performance, modifiability, availability, usability, security, reliability, efficiency, maintainability

ID	Quality Attribute	Scenario	Associated Use Case
QA- 1	Usability	User can perform a desirable task (if they are allowed to) without any hesitation from the system.	All
QA- 2	Maintainability	System should maintain data that is stored.	UC- 25, UC- 15
QA- 3	Performance	System must respond within 3 seconds to a users request to do a task.	All
QA- 4	Security	Only administrator can be authorized changes towards courses.	UC- 18, UC- 19, UC- 20
QA- 5	Security, availability, modifiability	Only administrators can access information about students and lecturers and also modify it.	UC- 21, UC- 22
QA- 6	Maintainability, availability, reliability	Restore backup of data if system failures occur or the system is being updated	UC- 16
QA- 7	Scalability	As more users are added to the system, improved hardware will be required to manage and handle the extensive load put on by the increase in the user count.	UC- 17
QA- 8	Testability	All features should be able to be tested by system maintainers and if applicable, even the users should be able to see if the functionality of desired task is done correctly.	All
QA -9	Security	A student views only their grades and no one else can view them except lecturers and administrators.	UC- 5, UC- 9
QA- 10	Usability	Administration uses grades to get grade statistics.	UC- 23
QA- 11	Availability	Backup system is provided when	All

		system is down for maintenance or updating	
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Course Management System - Constraints

ID	Constraint
CON- 1	Certain minimum of students must be enrolled in a coarse for the course to given in a semester
CON- 2	A highly reliable database with high storage capacity is required to store the informations of students and lecturers.
CON -3	System must be accessed from browsers like Google Chrome, Firefox, Safari, IE in platforms like , Windows, IOS, Linux, OSX, Android.
CON- 4	High bandwidth is required to upload files to the system and download files from the system.
CON- 5	A minimum of 500 users should be able to access the system at any time simultaneously.

Architectural Concerns

ID	Concern
CRN- 1	Establishing an overall initial system structure
CRN - 2	Leverage the team's knowledge about various programming languages.
CRN - 3	Distribute work to members of the development team