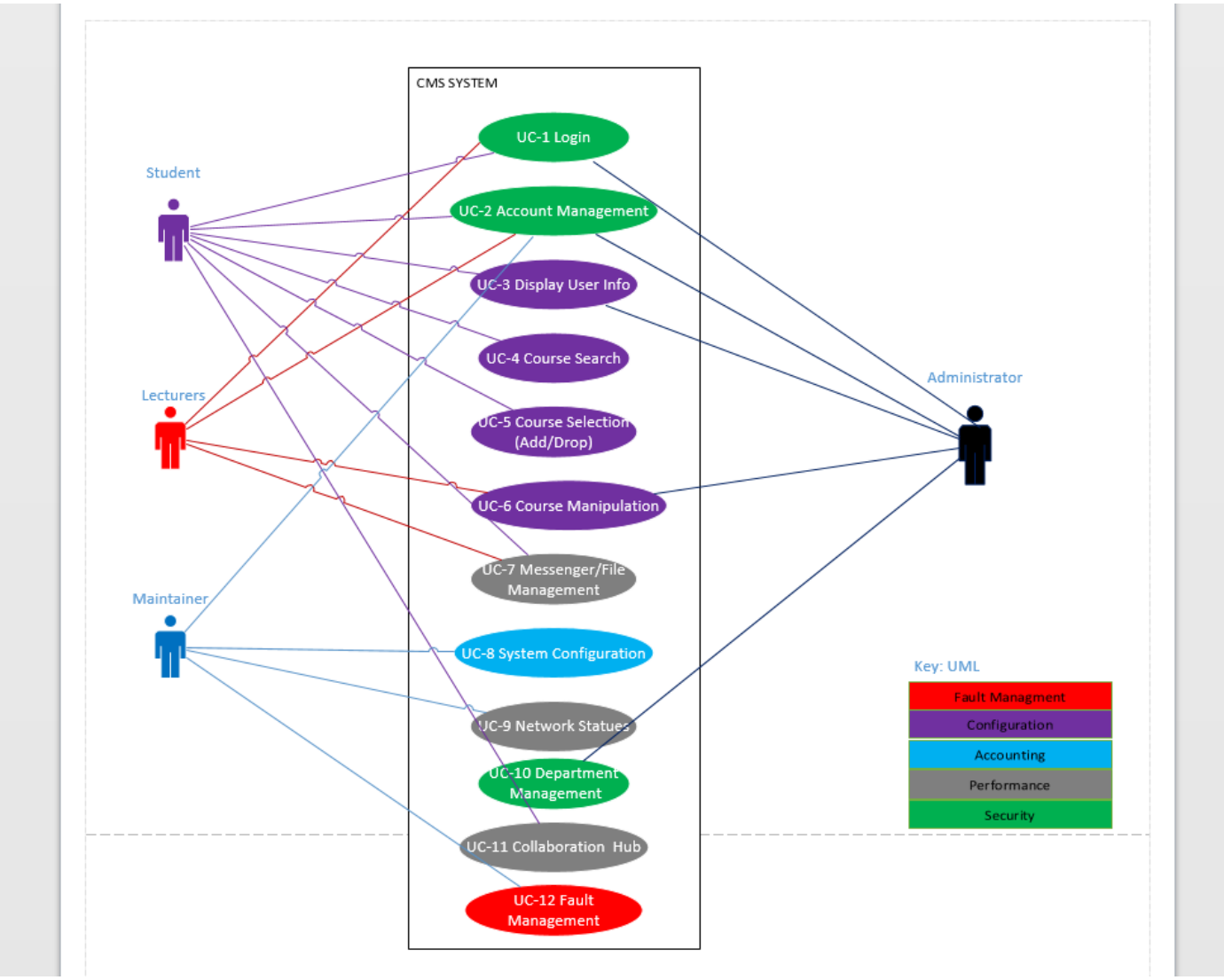
University of Ontario Institute of Technology
Department of Electrical, Computer, and Software Engineering
Faculty of Engineering and Applied Science
SOFE 3650-Fall 2018 Software Design and Architectures

Last Name	First Name	Student ID
Mohamed	Ahmed	100638984
Abdo	Ibrahim	100618561

Deliverables 1

Use Case Model :



Use Case	Description
UC-1 Login	A Login in system which prevents unauthorized personal to gain access to the system, upon logging you have been given appropriate permission within the system.
UC-2 Account Management	Gives user the ability to change information(eg. password,Font,customization) within there account.
UC-3 Display User info	Shows All the user information (year, program, classes, department, marks, schedule ...)
UC-4 Course Search	User is able to browse the course they are looking for with advanced options.
UC-5 Course Selection	User selects course with the ability to pick up, drop or view the course with full information of it.
UC-6 Course Manipulation	Admin is able to make changes to the course or add information.
UC-7 Messenger/File Management	The user is able to send files(uploading assignments, quizzes, or submitting assignments) or be able to message peers.
UC-8 System Configuration	System area where update and change are made by the maintainer.
UC-9 Network Statues	The maintainer monitors the CMS servers of the whole network. Problematic devices are highlighted.
UC-10 Department Management	Admin manages the courses for each department with there prerequisites
UC-11 Collaboration Hub	The group work section for the users to message send files to their peers.
UC-12 Fault Management	System that records, recognizes,isolate, and corrects faults with the system and the network

Constraints:

ID	Constraint
CON-1	The system should be available on cross platform devices
CON-2	The system should be be easy to use and access
CON-3	The system must able to allow user to function with it with delay less than 0.05 second
CON-4	The system must be accessible with different web browsers
CON-5	The system must be maintainable
CON-6	The system communication with the user should be dependable even with low bandwidth
CON-7	A system log that records all events which occurred within the year
CON-8	Performance data should be collected in intervals of no more than 5 minutes
CON-9	The system servers must maintain a high volume of users at a time without performance dropage

Quality Attribute Scenarios :

ID	Quality Attribute	Scenario	Associated Use Case
QA-1	Performance	Low wait time on user request	ALL
QA-2	Modifiability	The system should be easy to update and error should be visible and easy to log	UC-12
QA-3	Availability	Failure occurs in the system, a system restart will occur within 20 seconds of crash	ALL
QA-4	Scalability	Hold a high level of stress with the server without causing a drop within the performance	UL-9

QA-5	Accessibility	The system should run with no disturbance or interruption	ALL
QA-6	Security	A login in setup and all of restriction upon the user and the account in which they are on	UC-1 & ALL

Architecture Concerns :

ID	**Constraint**
CRN-1	Role and responsibilities of the team
CRN-2	Type of architectural system to use
CRN-3	Equal workload distribution
CRN-4	Data Corruption or loss