



Faculty of Engineering and Applied Science
SOFE 3650U Software Design & Architecture
Assignment #2

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1.

Visual Paradigm Enterprise(Karan(University of Ontario Institute of Technology (UOIT)))



Students

- UC1. Logs in the system **R28**
- UC2. View course details (exams, prof. contact info., grades) **R8-R10, R26**
- UC3. Add/Drop Courses **R11**
- UC4. Confirm/Defer Exams **R12**
- UC5. Create discussion board for group collaboration **R13, R17, R18**
- UC6. Submit work via textual input, file upload. **R14, R15**
- UC7. Message any course members, or instructor **R16**
- UC8. Change user settings like personal info., change/reset password, subscribe/unsubscribe to course notifications, modify privacy policy of the profile via User Control Panel **R21-R23, R25, R29**

Lecturers

- UC9. Create new courses **R48, R49**
- UC10. Duplicate courses from previous years **R50, R82**
- UC11. Manage and update courses content **R51 – R53, R59, R68 – R71**
- UC12. Manage student grade, and mail students their marks **R54 – R58**
- UC13. Create and manage class enrollment policy **R60 – R65**
- UC14. Plan meetings with students **R67**
- UC15. Create and manage student teams **R72-R79**
- UC16. View grade statistics **R80, R81**

Maintainer

- UC17. Create/Restore backups **R88 – R89**
- UC18. Limit bandwidth on the system **R90 – R91**

Administration

- UC19. Manage courses (delete, create, delete, update, appoint lecturers) **R97 – R101, R118**
- UC20. Declare requirements of taking of a particular course **R102 – R106**
- UC21. Retrieve/Update lecturer information **R108 – R109**
- UC22. Perform grade statistics of students **R111 – R115**

b.

ID	Quality Attribute	Scenario	Associated Use Case
QA-1	Security	When stakeholders login to the system, they should only be able to perform activities which they are assigned to.	All
QA-2	Usability	The CMS system should have user friendly UI - include less than 3 clicks to perform single action	All
QA-3	Performance	User at most clicks 3 times to complete a task.	All
QA-4	Availability	The system cannot have unexpected downtime. It can only have a downtime of 4 hours every month.	All
QA-5	Performance	A message is sent to all the users prior to downtime of the system.	UC19
QA-6	Security	Lecturers can only view personal information of the students who are enrolled in their course.	All
QA-7	Interoperability	Course calendar information is exported out of the system.	UC2
QA-8	Scalability	As more users are added on the system, additional hardware is required to improve the performance of the system.	All
QA-9	Maintainability	Maintainers maintain the system by backing up the data.	UC17

c.

ID	Constraint
CON-1	The CMS system must be executed via a web browser (Mozilla Firefox, Chrome, and Microsoft Edge).
CON-2	A server which is sufficient to handle large amount of data is required for hosting the application.
CON-3	A minimum of 5000 simultaneous users must be supported.
CON-4	Data from past 10 years may be stored on the system.
CON-5	Relational database server must be used to store personal details of the stockholders.