**NUS LOGO (Format to be specified)**

**Project Title: Active\_Learning\_Group4**

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| --- | --- | --- | --- |
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**Declaration of Originality**

By submitting this work, we declare that

* We are the originator(s) of this work.
* We have appropriately acknowledged all other original sources used in this work.
* We understand that Plagiarism is the act of taking and using the whole or any part of another person’s work and presenting it as our own without proper acknowledgement.
* We understand that Plagiarism is an offence and if we are found to have committed the offence of plagiarism in relation to this submitted work, disciplinary action will be enforced.

**Identify & list down the possible problem/issues from the problem scenario.**

**(E.g. Areas of improvements. State the facts about the problem presented to you.)**

1. Project schedule is tight, hence agile is a more appropriate approach
2. Requirements are not clear, which could lead to many uncertainties. We will have to proactively approach users to gather and clarify requirements. However, this could lead to issues in project scoping.
3. Given the above constrains, the solution can be split into phases, of which the first is to fulfill the most fundamental requirements. As a result, the solution must be well designed to accommodate expansions and modifications.

**List down the system features/functionality that you can implement to fulfil the customer requirements.**

|  |  |
| --- | --- |
| **Feature** | **Justification** |
| Single Login page  **Assign to: team** | 1. Validate user name and password 2. Check user group and redirect to the respective page upon successful login |
| Change password  **Assign to: team** | Admin, instructor, admin are able to change their own password upon validating the existing password |
| Admin manage course  **Assign to: team** | 1. Admin is able to view, create, edit and delete course 2. Admin is able to batch enroll student to course as well as batch remove 3. Admin is able to batch enroll instructor to course as well as batch remove |
| Admin manage student  **Assign to: team** | Admin is able to view, create, edit, delete, activate and deactivate student account |
| Admin manage instructor  **Assign to: team** | Admin is able to view, create, edit, delete, activate and deactivate instructor account |
| Instructor view enrolled course  **Assign to: team** | Instructor is able to view the courses that he/she has been enrolled to |
| Instructor participate in chat  **Assign to: team** | Instructor is able to participate in the chat of a selected course |
| Instructor manage quiz  **Assign to: team** | 1. Instructor is able to view, create, edit, delete quiz questions for a selected course 2. Instructor is able to view create, edit, delete quiz options for a selected quiz question 3. Instructor is able to view the quiz statistics |
| Instructor manage content  **Assign to: team** | Instructor is able to view, upload, delete course content including files and videos |
| Student view course  **Assign to: team** | Student is able to view the courses that he/she has been enrolled to |
| Student participate in chat  **Assign to: team** | Student is able to participate in the chat of a selected course |
| Student participate in quiz  **Assign to: team** | Student is able to participate in the quiz of a selected course created by instructor |
| Student watch/download course content  **Assign to: team** | Student is able to watch the course video and download the file uploaded by instructor for a selected course |

**What are the possible learning issues anticipated from the features/functionalities identified?**

We face challenges of incorporating signalR, Azure and implementing MVC and repository pattern, as the team is not experienced in such fields.

The team will have to work it out while learning within the limited timeframe. During the implementation, database and architecture design have been changed a few times to accommodate such features. Besides, due to the time constrain, certain considerations might have been left out. E.g. Bruce-force-attack handling, single-sign-on. Etc.