

# **CSE300 Software Engineering**

# **Project Description & Model Selection**

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**Project Topic:** Learning Management System

**Project Model:** SCRUM

**Project Abstract**

The pandemic has forced the universities into a remote working style. As a result, the management of classes and resource sharing has become an aggravation for university professionals. Our project aims to bring a solution to this issue by integrating features that can handle all classroom related activities. Some of the functionalities we plan to implement includes:-

* **Class Segregation**: One of the key features of the project is the ability to create classes. In a big institution like a university or even in other smaller institutions, we aim to reduce the hassle to the instructors and the TA’s of resource sharing and improve communication.
* **Resource Sharing**: Faculties often need to share relevant resources for the class such as textbooks, reading material, guidelines, etc. this platform will have a dedicated resource sharing page per classroom that will make it easier to share resources.
* **Submission portals:** We also aim to create an assignment submission portal for the participants to streamline their experience and so that they can access everything on the same application.
* **Grading:** Assignments will be graded (Marks/Grades) time to time by faculty for individual students.
* **Open Discussion:** General discussion page where all the participants can access and add to. This will improve the communication between participating entities as it will become more transparent

**Stakeholders:**

1. Students
2. University professionals

**Process of Project Selection**

We began with an ice-breaking session that familiarised us with each other. This was followed by a meeting where various ideas were discussed and the members gave well justification for their respective ideas. We finally adjudicated the project topic by setting a poll followed by members justifying their topic. Finally, we decided to choose the Learning Management System.

**Process Model**

We are going to implement the SCRUM model in our project. After taking various factors into account, we decided to implement this model because of its simplicity, transparency, and performance.

Some of the attractive features of SCRUM are:

* The daily sprints let us divide tasks into small sub-tasks and continuously test and review the sub-tasks before the upcoming sprint.
* It also lets us work in an organized manner as the scrum master can guide the team, and keep a track of the backlogs.
* It even maintains transparency between team members. This would allow us to revert back some features in case our requirements change.

All these features help in continuous software improvement with easy fixes and changes, quick updates and feature addition and help to deliver applications that satisfy users’ needs better.

**Why Scrum over other models?**

We were inclined towards an agile group of models as they break tasks into smaller iterations and hence make the flow easy. In the Agile group, we decided to compare it with other models like Kanban and extreme programming:

* We chose Scrum over Kanban, as the project roles i.e. scrum team has well defined roles such Scrum Master, Product Owner and Developers. This would increase our efficiency because managing the product would become a bit of a conundrum otherwise. Moreover, the Kanban model does not have any timing parameters resulting in uncertain feature releases.
* We selected Scrum over XP because Scrum has longer term sprints relative to XP and adding to that, XP does not allow changes in between the sprints. Also in Scrum, the team determines the sequence in which the project will be developed rather than following a strict priority order like XP which would provide us an advantage as our project priorities change.