**1.**

In this case, I will suggest the AGILE METHODOLOGY for doing the project. I will introduce the reason of this choose below:

First is about requirements characteristic:

- Reliability: The requirements were defined pretty clear for a basic working software helper and the need of products is very high.

- There may be more than 7 functional defined in the context.

- The requirements are defined clearly enough to understand.

- Can requirements change occasionally? Yes, the requirements may change many time during the development process.

- Requirements is defined clearly at an early stage? The requirements were defined pretty clear in the early. But several requirements are not.

- The desirable time for introducing the products or some part of the product to the release? Very high because the number of students has increased very rapidly in recently, so the need of new wed system is very large and immediately.

Second is about development team participating in project:  
 - The number of team member: 4 – 6 extensive experience and skills developers   
 - The other department can provide employees to join the project.

Third is about user involvement in the project:

+ The level of user involvement in the project: Large because this project focus on all student, staff and lecture in the university. So user involvement in the project is large.

+ The project size: Medium   
Based on the characteristics that I list, best fits the description I provided is Scrum because speed to the release is high ( require little training time to see), the level of involvement is large, and the technology can change in the future , requirements may be change,…  
 I will split project into 3 sprint:  
 **-Sprint 1:** Lecture management.

**-Sprint 2:** Student management.

**-Sprint 3:** Academic staff management.

**2.**

In this case, I suggest using black box and whitebox testing, assigning whitebox testing to our developers and blackbox testing to our Quality Control (QC) team. Developers will handle Code Review and Unit Testing to review source code and perform unit tests to ensure code quality. Meanwhile, for QC, I choose User Experience Testing to ensure availability and smooth interaction.

**3.**

Functional requirements:

* Assigning Tasks: Lecture can give task to students as answering questions, assigning presentation, voting marks for other students of groups
* Manage Tasks: Allow lecture can import student lists from the FAP system or from Excel file.
* Tracking Tasks: Academic staff can statistics on class hours .
* Answer Tasks: Allow student give answer for the lecture’s question or marks for other students.

Non-functional Requirements:

* The limited time when clicking must be under 2 seconds delay.
* The module should be load and display large number of students without significant delay.

**6.**

**-** As a lecture, I want to be able to prioritize my class that I am teaching so that I can assign presentation first and immediately.

- As a student, I want to see the newest question from my teacher so that I can answer it and have good point.

**7.**

**Story map for the lecture on the wed app**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Import Student List** | | | **Assign presentation and ReviewGroup** | |
| Import from FAP system | Import from Excel | Export Student to Excel file | Assign presentation | ReviewGroup |
| - Show list class that you teacher.  - Click submit button  - Successful on screen if process is done | Show list class that you teach.  - Click submit  - Show directory from your PC for action  - Submit file and import.  - Successful if it’s suitable with form from system | -Show list class that you teach.  - Click submit  - Show directory from your PC for action | -Has 2 option : import from PC or texting. - If import from PC  +Click submit  +Show directory from your PC for action , choose and submit  -Else typing the presentation and set up time to work it and submit | - Can view detail presentation  - View presentation by number group  - Has 2 option: See the group’s mark when it is sorted by asc or desc |