

# SWEN303 Assignment 1 - Learning Management System

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This report is created in Markdown markup for use inside of GitLab projects.

## 1. Description - Learning Management Systems

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Learning management systems are an important part of connecting students with lecturers and organizing content. This section should contain a description of the system and the overview of the relationships between the user and the system. The description needs to cover:

- Describe existing solutions: In this case it would be Blackboard, ECS wiki, Canvas, and Its Learning
- Explain the business objectives for creating a solution
- Explain the importance of the system to stakeholders

### Business Objectives

We as lecturers need to communicate with students. There are large numbers of documents and instructions that need to be shared, and students need a way of asking questions and submitting work. The LMS must support these functions. The LMS will probably take about 2-5% of the cost of running the course as the largest cost is the time of employees. As such the interface for the LMS needs to support lectures to be as efficient as possible, as that will decrease the overall cost of running courses. The income to the course comes from graduating students. The LMS must support students in passing the exam or internal assessment. This could include warning students who might be close to failing and notifying the University about students at risk of failure.

For this business case, it is clear the main objectives for the LMS:

1. Efficiency for staff interacting with the system
2. Support students to pass exams
3. Provide data to central administration

### Importance to Stake Holders

This system is the first contact a student has with course information. It forms the backbone of communication between the University and students. Thus the system is vital to the normal functioning of the educational activities within the University. Staff have to interact with the system and so it must be fast and easy to use to decrease the time spent managing the interface rather than supporting student learning.

### UML of system

The diagram below is created using the PlantUML plugin for Markdown. This allows you to define both a UML diagram of the system and also other workflow diagrams.

```
left to right direction skinparam packageStyle rectangle skinparam usecase { BackgroundColor<< Selected >> GreenYellow BorderColor
```

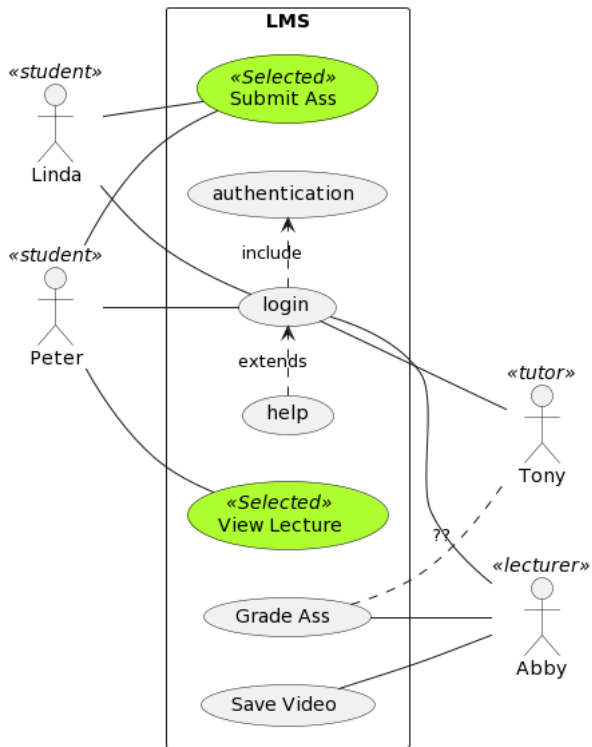
If the plugin for gitlab is not working then the image below will show an error.

You can manually create the UML from code on the PlantUML website [plantuml.com](http://plantuml.com) I have added the image from the website so you can see what that would look like.

```

left to right direction
skinparam packageStyle rectangle
skinparam usecase {
    BackgroundColor<< Selected >> GreenYellow
    BorderColor<< Selected >> Black
}
actor Linda << student >>
actor Peter << student >>
actor Abby << lecturer >>
actor Tony << tutor >>
rectangle LMS{
    (login) as LI
    (Submit Ass) << Selected >>
    (View Lecture) << Selected >>
    Linda-- LI
    Peter-- LI
    Linda-- (Submit Ass)
    Peter-- (Submit Ass)
    Peter-- (View Lecture)
    (LI) .> (authentication) : include
    (help) .> LI : extends
    LI -- Tony
    LI -- Abby
    (Grade Ass) -- Abby
    (Save Video) -- Abby
    (Grade Ass) .. Tony : ??
}

```



## 2. Personas

This example only has a single persona but we should have 2-4 if there are two in the group.

### Linda Ashford



Linda is a 22 year old domestic student, living at Everton Hall in Wellington, and studying at Victoria University of Wellington. She is a Philosophy Major in her second year, she primarily uses the web app to submit and receive her assignments. Linda is also a tutor for PHIL121, so she will use the LMS to mark student assignments. Her study goal is to get her assignments done well so she can pass her degree which is the first step towards her life goal of becoming a Academic. When using an LMS, her goal is to submit all of her assignment work without any hassle. She likes to know when the submission was received so she is sure that she does not have to worry.

**Activities:** Linda spends most of her spare time studying in the library and attending optional tutorials. She relaxes by going to the gym on weekends, and cooking/baking.

**Attitudes:** Linda is pessimistic, always expecting something to go wrong. Because of this, she is also highly organised. Linda is stressed by uncertainty.

**Aptitudes:** Linda is intelligent and literate, and is good at cramming study material under pressure.

**Weaknesses:** She's not very numerate.

**Domain Knowledge:** Linda has used a LMS before at highschool.

**System Knowledge:** Linda is familiar with LMS systems, due to her experience with them in her first year of study.

**Interaction:** Linda will interact with the LMS whenever new information is posted for her courses (Potentially multiple times a day).

**Priorities:** Linda wants to be certain she submits assignments on time so she wants to stay informed about upcoming deadlines. Also, she wants to be sure that her submissions are completed without any problems.

**Motivations:** Linda is using the LMS to stay up to date and organised to give herself the best chance possible to complete her courses and her degree to a high standard which will further her progress towards her life goal of becoming an academic.

**Computerself-efficacy:** Linda is confident when performing familiar tasks on the LMS(that she has clear steps in place for), but is less confident when she has to do a new task. If something goes wrong, she panics, and often chooses to give up and start fresh.

**Risk tolerance:** Linda has low risk tolerance - preferring to use technologies and features that are tried and tested and that she knows work.

**Information Processing:** Linda likes to absorb as much information as possible so that she is fully prepared for whatever work she is undertaking.

**Tinkering:** Linda thrives on procedure, and generally has a process-oriented learning style. She doesn't like to experiment much with programs.

### 3. Scenarios

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This section can have either essential use case scenarios or long form scenarios. The long-form scenarios follow a narrative structure to tell a story about an interaction. This describes the context as well as the goals of the users.

**Essential Use Cases** boil that down to the actions that each agent takes. This allows the designer of the interface to check that the interaction they are creating fits the tasks created during the system requirement phase.

#### **Submit Assignment *Requires Authentication***

User	System
Choose course	
	Display course info and actions
Choose submit assignment	
	Display requirements
Upload/Complete submission	
	Register submission for student
	Display confirmation and assignment status

#### **View Lecture *Requires Authentication***

User	System
Choose course	
	Display course info and actions
Choose lecture schedule	
	Display all lecturers
Select the lecture to read/view	
	Display lecture content with options for download

### Borrow a book

User Intention	System Requirements
Present ID	
	Verify and show info
Show book	
	Confirm book
	Attach to user record
	Show return date

### User Journey Map

For student to complete. See <https://www.nngroup.com/articles/journey-mapping-101/>

### Reflection

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This is where joint reflections could be added. It would also be reasonable to have individual reflections on your own page in GitLab.