**Learning Management system**

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SOFTWARE PROJECT MANAGEMENT PLAN

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# InTRODUCTION

## 1.1 Project Summary

The learning management system is developed to help a university keep track of student grades, what courses they are enrolled in, and for teachers to alter grades.

## 1.2 Purpose, Scope, and Objectives

The purpose of the system is to build a student management system. Where the students could access the system to check on their semester grades, GPA, courses they are currently enrolled in for the semester, and to show what teachers are available for each students, and also for the teachers to update information for each student in their class. We also aim to create a platform with two types of views. One for the admin, or an instructor in our case, and another for the student.

## 1.3 Project Deliverables

|  |  |  |
| --- | --- | --- |
| ***Work*** | ***Description*** | ***Delievery Date*** |
| Initial Plan | Organize the team structure and develop the deliverables chart | ***10/15/2019*** |
| ***SPMP Document*** | Software Project Management Plan is used to define the scope, purpose and objectives of the project, to specify the roles and objective of the team members. Defines the model of the project and how the final project will delivered along with their dates | ***10/25/2019*** |
| ***SRS Document*** | Software Requirements Specification is used to describe the behavior of the software of the system to be developed. Shows the use case requirements of the document | ***11/3/2019*** |
| ***UML Diagram*** | Creating UML diagrams for the requirements and analysis of the project | ***11/25/2019*** |
| ***Final Project*** | Submission of the project with all the finalized documentation and application. | ***11/20/2019*** |

*F1. Delivarables Chart*

## 1.4 EVOLUTION OF THE SPMP

Updates to the SPMP shall be provided in accordance with the paragraph 1.1.2 delivery schedule. Modifications to the SPMP shall be done in accordance with the procedures contained in the Team Configuration Management Plan

## 1.5 DEFINITIONS AND ACRONYMS

* Cascading Style Sheets (CSS): A styling language used to change the look and feel of a document written in a markup language.
* Database Design: The design of the data store to be used in the system. Involves mapping the various entities, their attributes, and how they are associated with other entities.
* Deliverable: Any documentation or software produced that will be given to the client for review and use.
* Hypertext Markup Language (HTML): The standard markup language for documents on the web. HTML forms the building blocks for the content of a webpage.
* Research and Development (R&D): A combination of research
* Software Design Specification (SDS): Specifics regarding the implementation of the project.
* Software Requirements Specification (SRS): Complete description of behavior and requirements of system.
* Universal Modeling Language (UML): A collection of tools for abstractly modeling software systems
* Use case: An algorithmic description of a user’s interactions with a system.
* Testing: The process of finding, avoiding, and detecting defects in the project

## 2. Project Organization

## 2.1 Process Model

The project is initiated on October 15, 2019 and terminated with the end of the semester on Dec 1,2019. The project uses UML for the development of the software. The development process is organized in several activities. The members of the project are organized in teams. The links to the major documents on the Perforce server are also available from the project home page. The activities and milestones are described in the next following sections.

## 2.2 Organizational Structure

Each member in the team will be involved in the creation of a certain part of the project. Each phase has a member assigned to it and there will be tasks completed together:

|  |  |
| --- | --- |
| Members | Phases |
| Ayzhamal | 1 |
| Brian | 2 |
| Alan | 3 |
| Cesar | 4 |
| Shawn | 5 |
|  |  |

## 

*F2 Organization chart*

## 2.3 Organizational Infrastructure:

The clients of the Learning Management System project are:  
UHD, UH Main  
The project managers are:  
Ayzhamal  
The Infrastructure team consists of:  
Cesar, Shaun, Alan, brian

## 2.4 Project Responsibilities

|  |  |  |
| --- | --- | --- |
| Role | Description | Person |
| Team Manager | Responsible for defining and controlling project work activities and schedules. | Ayzhamal |
| Developer | Responsible for the front and some back end of the project. All around developers to aid the project lead | Brian, Shaun |
| Tester | Responsible for identifying the risks likely to compromise the project success, also making sure that the project is working properly | Alan, Shaun, Cesar |
| Documentation | Creates a sub-discipline of project management in which software projects are planned and implemented | Alan, Cesar |

## 3. Managerial Process

This section of the SPMP specifies the management process for this project:

## 3.1 Management Objectives and Priorities

The objective is to learn how to design and implement a project from start to finish. All the team members are going to learn how to create and manage a database, how to combine that database with code and deliver everything according to the chart listing all deliverables.

|  |  |  |  |
| --- | --- | --- | --- |
| Project Dimension | Fixed | Constrained | Flexible |
| Cost |  | X |  |
| Schedule | X |  |  |
| Functionality |  |  | X |

*F3. Management diagram*

## 3.2 Assumptions, Dependencies, and Constraints

It is assumed that the project will be a web based application and hosted by a network at the university computer science department and will depend on the stability of the hardware and software involved in the development of the project. Constraints fall upon meeting the actual deadline for the project and creating two user views.

## 3.3 Risk Management

Limited resources – Limited number of team members to finish the task for the projects on time. Not enough members to work on a project at one time so finding it hard to meet the deadline.

Team Member availability: since we are all students and have different courses in the same semester it is difficult to meet up together as there are other courses and projects colliding with this project this semester.

Software Design Risks: When building the system there will be any errors that occur and have to purged before the deadline.

Missing deadlines: The deadline for the project itself is one of the major risks involved. It is a bigger project than we are all used to so managing our times respectably will be necessary.

## 4. Technical Process

This section specifies the technical methods, tools, and techniques that will be used on the project. It also includes identification of the work that will turn into the end product and allow for a review to be held and the plans for the complete use cases in user documentation.

## 4.1 Methods, Tools, and Techniques

Elicitation is phase used in the development of the Use cases identifying the main actors of the system. The programming tools used to create the system is Python, django, SQL database, HTML and CSS to work the front and the back end.

## 4.2 Software Documentation

First Draft: during this first draft, the assigned Team Member will outline major sections and subsections required for the project.

Second Draft: The rough draft will be expanded upon and made more specific. All team members will review the document.

Final Copy: This iteration of the document will have all revisions and changes.

Software Requirements Specification: May include use cases, wireframes, and a listing of functional/non-functional requirements

Software Design Specification: Contains design for website including database design

## 5. Work Packages AND Schedule

Specify the work packages, dependency relationships, resource requirements, allocation of budget and resources to work packages, and a project schedule. Much of the content may be in appendices that are living documents, updated as the work proceeds.

## 5.1 Work Packages

All work packages are written below:

|  |  |  |
| --- | --- | --- |
| Work Package | Members | Hours Estimated |
| SPMP | Team Member | 7 |
| Test Plan | Manager | 10 |
| Research | All Members | 5 |
| Meetings | Manager | 20 |
| Presentation | All Members | 5minutes |

*F4 Work Package*

## 5.2 Resource requirements

Human resource is the main resource used in this project. Apart from that laptops, servers, databases where data is stored, meeting rooms, program editor such as atom and printers are required as resources for this project.

## 5.3 Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| Phase | Milestone | Description | Date |
| Initial Plan | M1 | Plan Approval | October 15, 2019 |
| SPMP Document | M2 | Document approved by the manager | November 01, 2019 |
| Database and design documents | M3 | Approval of use case and UML diagrams and database design | November 22, 2019 |
| Presentation | M4 | Presenting of the finalized product | November 25, 2019 |

*F5 Schedule List*

## 6 Appendices (a)

**Current Risk Chart**

|  |  |
| --- | --- |
| **Risk Involved** | **Level** |
| Miscommunication | High |
| Time shortage | Medium |
| Design Errors | Medium |
| Absence of member | High |
| Product crash | Medium |
| No technical Knowledge | High |
| Over budget | Low |
| Requirement Change | High |
|  |  |