

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 student, 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 be delivered along with their dates	10/25/2019
Class Diagram	Describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.	11/3/2019
UML Diagram	Creating UML diagrams for the requirements and analysis of the project	11/5/2019
Final Project	Submission of the project with all the finalized documentation and application along with GitHub link.	11/24/2019

F1. Deliverables Chart

1.4 EVOLUTION OF THE SPMP

Updates to the SPMP shall be provided in accordance with the paragraph 1.3 delivery schedule. Modifications to the SPMP will be updated in the GitHub.

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

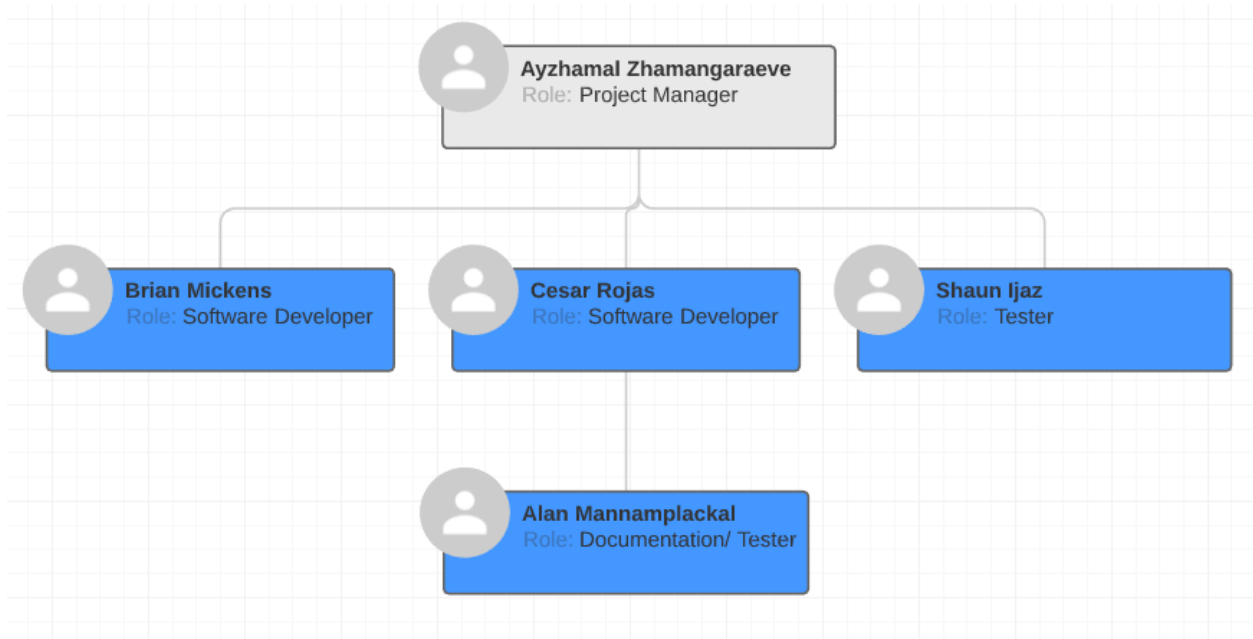
The project is initiated on October 15, 2019, and terminated with the end of the semester on December 1, 2019. The project uses UML for the development of the software. The development process is organized in several activities. The members of the project are organized in teams. The links to the essential documents on the Perforce server is also available from the project home page. The activities and milestones 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
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Ayzhamal Zhamangaraeva	1
Brian Mickens	2
Alan Mannamplackal	3
Cesar Rojas	4
Shawn Ijaz	5



F2 Organization chart Modify and insert Full First and Last names for everyone

2.3 ORGANIZATIONAL INFRASTRUCTURE:

The clients of the Learning Management System project are: UHD

The project managers are: Ayzhamal Zhamangaraeva

The Infrastructure team consists of:

Cesar Rojas, Shaun Ijaz, Alan Mannamplackal, Brian Mickens

2.4 PROJECT RESPONSIBILITIES

Role	Description	Person
Team Manager	Responsible for defining and controlling project work activities and schedules.	Ayzhamal Zhamangaraeva

Developer	Responsible for the front and some back end of the project. All around developers to aid the project lead	Ayzhamal Zhamangaraev, Brian Mickens, Shaun Ijaz
Tester	Responsible for identifying the risks likely to compromise the project success, also making sure that the project is working properly	Alan Mannamplackal, Shaun Ijaz, Cesar Rojas
Documentation	Creates a sub-discipline of project management in which software projects is planned and implemented	Alan Mannamplackal, Cesar Rojas

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. 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

We are assuming 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 as we have a 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 challenging to meet up together as other courses and projects are colliding with this project this semester.

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

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

4. TECHNICAL PROCESS

This segment specifies the technical methods and tools that will be used on the project. It also includes a description of the product and allows for a review to be held and the plans for the complete use cases in the user documentation.

4.1 METHODS, TOOLS, AND TECHNIQUES

Elicitation is a phase used in the construction of the Use cases recognizing the main actors of the system. The programming tools used to create the system is Python Django web framework for back-end, SQLite database to store and manage data, HTML, CSS, and JavaScript to structure the front end.

4.2 SOFTWARE DOCUMENTATION

First Draft: During this initial draft, the authorized Team Member will outline significant sections and subsections needed for the design.

Second Draft: The rough draft will be elaborated upon and made more precise. All team members will evaluate the report.

Final Copy: This iteration of the report will have all reviews and changes.

Software Requirements Specification: May include use cases, wireframes, and a listing of requirements

Software Design Specification: Contains design for website including database design

5. WORK PACKAGES AND SCHEDULE

Define the work packages, resource requirements, allocation of budget and resources to work packages, and a project schedule. 5.1 Work Packages

5.1 WORK PACKAGES

All work packages are written below:

Work Package	Members	Hours Estimated
SPMP	Alan Mannamplackal, Cesar Rojas	7
Test Plan	Ayzhamal Zhamangaraev, Brian Mickens	10
Research	Alan Mannamplackal, Shaun Ijaz, Cesar Rojas, Ayzhamal Zhamangaraev, Brian Mickens	15
Meetings	Ayzhamal Zhamangaraev	20
Presentation	Alan Mannamplackal, Shaun Ijaz, Cesar Rojas, Ayzhamal Zhamangaraev, Brian Mickens	10 minutes

F4 Work Package

5.2 RESOURCE REQUIREMENTS

Human resources are the primary resource used in this project. Aside from that, laptops, servers, databases where data is stored, meeting rooms, program editors such as program editing software 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