Software Product Management Plan (SPMP)

For CS 3321 Learning Management System Project

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1 Overview

1.1 Project Summary

1.1.1 Purpose, Scope, and Objectives

The purpose of this project is to analyze the requirements of and develop a basic learning management system. The software will be able to display student information to students and allow administrators to edit student information as needed.

All activities directly related to the above purpose will be considered in scope.

Objectives:

- Complete project by the due date
- Provide all deliverables outlined in 1.1.2 by the due date
- Product must be able to display students' name, ID, courses, grades, and GPA

1.1.2 Project Deliverables

The following are all artifacts that must be submitted by the project due date of April 25, 2019:

- SPMP
- UML diagrams
- Source code
- Executable code
- Test cases
- Data storage files

2 Reference Materials

-IEEE Project Management Plan Framework

3 Definitions and Acronyms

GUI – graphic user interface
Learning Management System
Artifacts – all documents and code utilized during production
Democratic team – a team organizational model focused on finding and eliminating faults

4 Project Organization

4.1 Team Organization

For this project, the team will operate under the democratic team model. Doing so should allow us to redistribute workloads when necessary, as well as allowing all members equal voice in the final product.

4.2 Roles and Responsibilities

Yousif Mawlud – responsible for developing the front-end GUI and user-facing aspects of the software

Ameen Khan – responsible for UML and use-case documentation

Long Tran – responsible for developing back-end product infrastructure such as user profile privileges, data storage, and functions

Robert Casey – responsible for constructing and documenting test cases

Geoffrey Moffett – responsible for product development documentation

5 Managerial Process Plans

5.1 Staffing Plan

For this project, 4-5 team members will be recruited from Professor Yuchou Chang's CS 3321 class, CRN 201920. These team members will be responsible for completing the activities required to develop a product that meets the requirements of the project I addition to the regular coursework required during the semester.

5.2 Work Plan

5.2.1 Work Activities

The following activities must be completed for the project to be considered complete and ready to be submitted:

- All documentation must be complete and included with the final product. This includes the SPMP, UML diagrams, use-case diagrams, testing documentation, and source code.
- Software must include functions to
    - Manage log-in and log-out for both administrators and students
    - Display student ID, name, courses, grades, and GPA
    - Allow administrators to add, delete, and edit student profiles
- All artifacts used in product creation must be uploaded to Github in addition to being submitted on Blackboard by the project due date.

5.3 Control Plan

5.3.1 Requirements Control Plan

In the event that a change in the product requirements occurs, it shall be discussed by the team during the next semi-weekly meeting. At that time, it will be decided how to incorporate the requirement change into the product design and how to adjust the work activities and schedule to allow for the adjustment

5.3.2 Schedule Control Plan

If a change in project requirements or an unexpected problem results in work falling behind schedule, an emergency meeting will be organized to address the lack of progress if necessary. If the interruption to the workflow is minimal, it will be addressed during the next semi-weekly meeting where an updated schedule can be agreed on and workload can be redistributed if required.

5.3.3 Quality Control Plan

To ensure quality, testing will be conducted on all modules before implementation. Once new modules have been implemented, regression testing will be conducted to eliminate the possibility of unforeseen faults the new module could cause in existing code.

5.4 Project Close-Out Plan

Upon completion and submission of the project, the team will present the finished product to their peers. This presentation will include all artifacts created over the course of the project as well as a demonstration of the completed software. After this presentation, all team members' work will be considered complete and the team will be dissolved.

6 Supporting Process Plans

6.1 Testing Plan

Upon completion of a software component of the product, testing will be conducted on the newly completed module. Once the new module has passed testing, all modules that have previously passed testing will be tested once again to ensure the implementation of the new module did not interfere with the functionality of the existing code. All testing will be documented and included with the product upon submission.

6.2 Documentation Plan

Deliverable Documentation included all of the following:

- Software Product Management Plan – states the development plan for the product
- UML Diagrams – diagram representation of the functions of the software product
- Testing Documentation – documents the results of testing during software production
- Data Storage Files – files containing data used during product testing and demonstration

6.3 Problem Resolution Plan

When a problem is encountered, it will be discussed at the next semi-weekly meeting where the team will discuss possible solutions. Once a solution has been agreed upon by the team, work on the problem will begin. One week later the team will conduct a follow-up discussion on the problem. If the problem has not been resolved, this process will repeat as necessary until a solution has been found.