**12.21**

**Software Project Management Plan**

The plan presented is for the development of the Chocoholics Anonymous software product Project Team consisting of three students: Thomas Mclennan, Farzin Dhanji, and Karanvir Gill.

***1. Overview.***

***1.1. Project Summary.***

***1.1.1. Purpose, Scope, and Objectives.*** The objective of this project is to develop a system that will assist Chocoholics Anonymous in processing data. The system will allow its users to add, modify, retrieve and delete data. It will also be responsible for sending reports to emails. All of the necessary calculations associated with the data will be performed by the system. In addition, the product must allow providers to submit claims to ChocAn via an Internet Explorer browser that would be running on a client workstation. ChocAn operators must be able to maintain the data, and the manager must be able to request various reports.

***1.1.2. Assumptions and Constraints.*** Assumptions and constraints are as follow:

* Assume that the data entered at the terminal is through keyboard input.
* Assume that is displayed at the screen.
* The deadline must be met.
* The project must be able to integrate into other systems of the company.
* The project must be reliable.
* The product must be user-friendly.
* The product must pass the acceptance test.
* The architecture must be open so that additional functionality may be added later.

***1.1.3. Project Deliverables.*** A presentation will be given on the project. A completed project including source code and documentation must be delivered on Thur. March 31, 2016.

***1.1.4. Schedule and Budget Summary.*** Duration for each workflow is as follows.

* Requirements workflow (2 weeks, one team member)
* Analysis workflow (3 weeks, two team member)
* Design workflow (3 weeks, three team members)
* Implementation workflow (2 weeks, three team members)
* Test workflow (1 week, three team members)

Total development time is 11 weeks.

***1.2. Evolution of the Project Management Plan.*** Any changes to the project must be discussed with the manager (in this case instructor of the course) of Chocoholics Anonymous.

***2. Reference Materials.*** All the workflows will be done in accordance to course. The textbook, Object-Oriented and Classical Software Engineering (5th edition), should be referenced when required.

***3. Definitions and Acronyms.*** Choc An-Chocoholics Anonymous; Choc An is the client.

***4. Project Organization.***

***4.1. External Interfaces.*** All of the work done on this project is performed by the students of COMP370 class at University of the Fraser Valley. In this group students, Farzin, Thomas and Karanvir will reference the textbook, Object-Oriented and Classical Software Engineering (5th edition), for all the requirements.

***4.2. Internal Structure.*** The development team consists of three students, Farzin, Thomas and Karanvir.

***4.3. Roles and Responsibilities.*** Farzin and Thomas will perform the requirements workflow. Farzin and Karanvir will perform the analysis workflow. All students will perform the design workflow, implementation work flow and test workflow.

***5. Managerial Process Plan.***

***5.1. Start-up Plan.***

***5.1.1. Estimation Plan.*** Total time estimated for the project is eleven weeks. Minimum one week was provided for each workflow.

***5.1.2. Staffing Plan.*** All students are needed for the entire project. Even if a student did not participate in a part of the project they still need to verify the correctness.

***5.1.3. Resource Acquisition Plan.*** CASE tools are available and all other software tools (IDEs, MS PowerPoint 2013) are available. All the UML diagrams shall be created using MS Visio 2013.

***5.1.4. Project Staff Training Plan.*** No training is required.

***5.2. Work Plan.***

***5.2.1. Work Activities and Schedule Allocation.***

* Week 1-2 (Completed) - Perform the requirements workflow.
* Week 3-5 (Completed) - Perform the analysis workflow and develop the Software Project Management Plan.
* Week 6-8 (Completed) - Perform the design workflow.
* Week 9-10 (Completed) - Perform the implementation workflow.
* Week 11 (Completed) - Perform the test workflow.

***5.2.2. Resource Allocation.*** Each of the members will be assigned some task related to the project. After a member has finished his part of the work, rest of the members will check the work to make sure everything is done according to the requirements and no mistakes are made.

***5.2.3. Budget Allocation.*** No budget is necessary for this project.

***5.3. Control Plan.*** Each of the members are responsible for ensuring that the project is done on time and ready to be presented on the presentation date. Each milestone must be accomplished on time to keep track on the project. Students are responsible for checking each other’s work to make sure that no mistakes are being made.

***5.4. Risk Management Plan.*** *The risk factors and the tracking mechanisms are as follows:*

* There is no existing product with which the new product can be compared. Accordingly, it will not be possible to run the product in parallel with an existing one. Therefore, the product should be subjected to extensive testing.
* The client is assumed to be inexperienced with computers. Therefore, special attention should be paid to the analysis workflow and communication with the client. The product has to be made as user-friendly as possible.
* Due to the ever-present possibility of a major design fault, extensive testing will be performed during the design workflow. In addition, each of the team members will initially test his or her own code then test the code of another member.
* Each of the members is responsible for checking their work. After each workflow, a test will be performed to check for correctness. Extensive testing will be done after the implementation phase.
* The product is made as user-friendly as possible. In addition to Internet Explorer browsers, the product shall work on other browsers as Google Chrome and Mozilla Firefox.

***5.5. Project Close-out Plan.*** Not applicable.

***6. Technical Process Plans.***

***6.1. Process Model.*** Unified process will be used including the UML (Unified Modeling Language).

***6.2. Methods, Tools, and Techniques.*** Product will be implemented in a web based programming language called PHP, with a combination of HTML, CSS, and JavaScript. The WAMP (Windows, Apache, MySQL, and PHP) Server shall be available to the team. The software product shall be hosted <COMP370.thomasmclennan.ca> while the source code shall reside on GitHub. In addition, SQL Server or MySQL database shall be used on the backend to store information.

***6.3.* Infrastructure Plan.** Development is done using an integrated development environment for PHP, PhpStorm, running on windows 7.

***6.4.* Product Acceptance Plan.** Acceptance is done by the client (Instructor of the course) by following the steps of unified process.

***7. Supporting Process Plan.***

***7.1. Configuration Management Plan.*** Not applicable.

***7.2. Testing Plan.*** Testing workflow of the unified process will be performed.

***7.3. Documentation Plan.*** As specified in the unified process. All of the documentation shall reside on a shared Google Drive, COMP370.

***7.4. Quality Assurance Plan and Reviews and Audit Plans.*** Students in the group will test each other’s code. Extensive testing will be done once the product is implemented.

***7.5. Problem Resolution Plan.*** Any problems will be discussed within the students and a solution shall be found together.

***7.6. Subcontractor Management Plan.*** Not Applicable.

***7.7. Process Improvement Plan.*** All activities will be done according to Appendix A, the project description.

***8. Additional Plans.***

***8.1. Presentation.*** A presentation must be prepared at the end of the project which will be delivered on the assigned date.