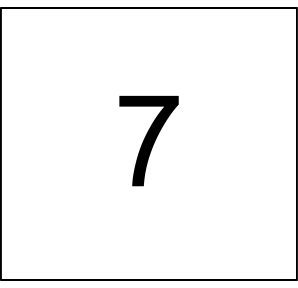
Team Se7en

Options Family Resource Program Data Management System

Version 1

*February 7, 2013*

Team 7



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| Revisions |

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| --- | --- | --- | --- |
| Version | Primary Author(s) | Description of Version | Date Completed |
| Draft 01 | Steven Liu  Tony Chiu | Completion of Progress plan | February 7 2013 |

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| 1 Introduction |

1.1 Overview

**Purpose**

This document is written for these parties with the following intent.

* Options Family B.C Organization.
  + intent: provide a comprehensive document stating all of the features that will be included in the **Options Family Resource Program Data Management System**.
* The software development team from the University of British Columbia’s CPSC 319.
  + intent : provide the development team with a guideline of the features that will be delivered in the system’s implementation.
* Any developers at Family B.C organization
  + intent: provide brief overview of the system functionality, and requirements, so that developers have general idea of the project.

**Scope**

Name of the Software Product: **Options Family Resource Program Data Management System**

**The software product will perform the following tasks**:

* Provide a centralized system for tracking individuals parents who attend programs offered by Options throughout greater Vancouver.
* Track assets such as toys, books, video, and pamphlets that have been given or lent to the customers (parents/guardians) and give staff quick access to information about the assets.
* The system will be hosted on the Microsoft Windows Server 2008 R2 operating system and accessible by client machines

**The software product will not perform the following task**:

* The coordinator at **Options Family Resource Program** mentioned there is the possibility of tablets, however, this system will not be guaranteed to work on Samsung tablets or any other tablets due to compatibility issues and company policies.

**The software’s benefits, objectives, and goals:**

This project is the Options Family Resource Program Data Management System. The main objective is to facilitate the input of client information into the software system, and be able to track and update the client information. It will also track assets that Family B.C Organization has lent to its clients. It will provide a centralized information system so that the amount of work required by the staff at Options can be minimized, and manual work by pen and paper can be reduced.

1.2 Deliverables

Software:

* + Source code for Options Family Resource Program Data Management System.
  + Installation package:
    - Create the database tables on the server.
    - Configures database for application.

User Documents:

* + Installation README.pdf
    - Instructions on how to install the Options Family Resource Program Database System onto a Windows 2008 R2 Server.
  + Database configuration README.pdf
    - Instructions on the database configurations, variables, and fields.
  + Software Requirement Specification document
    - List of all the functionalities requirements, software compatibility requirements, user requirements, performance requirements, assumptions and constraints.

Developer Documents:

* + System database schema.
  + System UML diagrams.

Video Tutorial:

* + Narrated screencast on how to use the functionalities of the program.

1.3 Assumptions and Constraints

* Assumptions on the client side.
  + Each center uses the same format registration forms, sign in sheet, and library registration.
  + Each center enforces a first and last name sign in policy for everyone.
  + The Client will have a system administrator who is capable of backing up the database when it reaches full capacity.
* Client constraints :
  + Limited to two or three meetings with the client over the course of the project schedule.
* Constraints on the development team.
  + Must use Windows 2008 R2 Server with the following software installed:
    - Microsoft Sequel Server 2008
  + Project Schedule no more than fourteen weeks.
  + The development team will not responsible for any updates, bug fixes, and feature requests after the software has been delivered to the client.

1.4 Reference Materials

* Refer to team 7’s SRS for 3.2.2
* Refer to the Time Table attached at the end for 3.2.3

1.5 Definitions and Acronyms

* OFRPDMS : Options Family Resource Program Data Management System
* Database schema: the database structure blueprint.
* UML Diagrams: Unified Modeling Language diagrams specifies the blueprint of the system.
* SRS - Software Requirement Specification

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| **2 Management Structure** |

2.1 Project Lifecycle

The project lifecycle our team will be doing is the waterfall model, however for some phases we may work in parallel. For example, while one part of the group is working on completing the requirements gathering phase, one or two team members can start working on the System Design phase because we have most of the functionality requirements. Here is the rough outline of our project lifecycle:

**Requirements Gathering Phase (Jan 15 - Feb 12)**

* Gather all the system requirements and visit Options Family Resource Center to understand current workflow of their program.
* Software Requirement Specification document completion (Feb 12)

**System & Program Design Phase (Jan 20 - Feb 15)**

* Database schema completion (Feb 8)
* UML Diagrams completion (Feb 12)
* Database schema / UML Diagrams finalized (Feb 15)

**Implementation Phase (Feb 16 - Mar 15)**

* Client tracking backend implementation (Mar 1)
* Library tracking backend implementation (Mar 1)
* User authentication implementation (Mar 1)
* Client tracking, library tracking, and user authentication unit tests implementation (Mar 1)
* Front end implementation (Mar 15)

**Testing Phase (Mar 13 - April 1)**

* Unit testing completed (Mar 13)
* Integration testing completed (Mar 22)
* User acceptance testing completed (Mar 25)

\*note: We are not doing the operation & maintenance phase because our team will be disbanded as of April 4, 2013

2.2 Project Organization

2.2.1 External Interfaces

If any team member has any uncertainties or questions that need to be addressed by an external interface, they must confront the Communication Manager. The Communication Manager is in charge of contacting these people:

* Katherine MacIntyre: Client   
  Katherine is the person for whom this application will be built for. She is the person who specifies all of the requirements that will be built in the *OFRPDMS*.
* Deepak Azad: Facilitator

Oversees and evaluates the *OFRPDMS* project; provides suggestions and insight for

Team 7 during the entire development process.

* Kurt Eiselt: Instructor

Provides guidance, reference and lectures related to software engineering practices for

Team 7.

2.2.2 Internal Structure

2.2.2.1 Roles and Responsibilities

|  |  |
| --- | --- |
| **Roles** | **Responsibility** |
| Project Manager | The person who oversees the whole project, makes decisions and resolve disputes |
| Communication Manager | The person who contacts the facilitator, the instructor and the client |
| Progress Manager | The person who is responsible for keeping track of progress of the project and making sure the team is progressing accordingly with the planned schedule |
| Minutes Manager | The person who records the meeting discussions and posting it on the website |
| Configuration Manager | The person who ensures that all the requirements are met during each development phase and the team does not get off track |
| Research/Training Manager | The person who investigates the skills and technology required for this project |
| Risks Manager | The person who assess the potential risks that may affect the team and the schedule |
| Software Version Control Manager | The person who provides the team with version control for the software and documents |
| Web Master | The person who designs the team’s web page |

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Staff Member** | **Start Date** | **End Date** |
| Project Manager | Steven Liu | Jan 2, 2013 | April 4, 2013 |
| Communication Manager | Ante Zheng | Jan 2, 2013 | April 4, 2013 |
| Progress Manager | Tony Chiu | Jan 2, 2013 | April 4, 2013 |
| Minutes Manager | Rufus Zhu | Jan 2, 2013 | April 4, 2013 |
| Configuration Manager | Peter Moon | Jan 2, 2013 | April 4, 2013 |
| Research/Training Manager | Kevin Lau | Jan 2, 2013 | April 4, 2013 |
| Risks Manager | Rufus Zhu | Jan 2, 2013 | April 4, 2013 |
| Software Version Control Manager | Steven Liu | Jan 2, 2013 | April 4, 2013 |
| Web Master | Tony Chiu | Jan 2, 2013 | April 4, 2013 |

2.3 Communication

* **Team E-mails:** For group announcements, deadlines and reminders. Also to get feedback from client, TA and instructor. E-mails must be checked daily.
* **Google Group:** For online group discussions. No set schedule, this is for informal discussion about the project.
* **Team website:** For the minutes manager to post all the discussions we go through in the weekly meetings. Updated every week
* **Team weekly meetings:** Formal discussion and updates about progress on the project. Every Tuesday at 3-4pm

2.4 Risk and Asset Management

Miscommunication

**Probability Of Happening**: Low - Medium

**Prevention**: Have multiple ways of contacting each other. Read E-mails, go to weekly meetings, follow updates on team website. Always clarify with team members if something wasn’t clear (don’t hesitate to email team members to clarify)

**Correction**: Realize and identify that miscommunication is a problem and start being aware of what is happening within the team and become involved.

**Impact On Project**: High

Time Constraint

**Probability Of Happening**: High

**Prevention**: Include possibilities such as midterms or assignments when scheduling the plan.

**Correction**: If a teammate falls short and does not complete a given task, adjust schedule accordingly.

**Impact On Project**: High

Illness or Absence

**Probability Of Happening**: Low - Medium

**Prevention**: Keep everyone up to date with what they are doing. Have everyone share a bit of each other’s work.

**Correction**: If any case of unforeseen emergencies, inform teammates ASAP and get someone to cover for you by getting them up to date with what you are working on

**Impact On Project**: Low-Medium

Design Error

**Probability Of Happening**: Medium

**Prevention**: Critique the design very carefully. Have multiple team members review the design before implementing the feature.

**Correction**: When design errors are found, consult with the person who wrote the design. If it is indeed an error, correct it.

**Impact On Project**: High

Team Conflict

**Probability**: Low - Medium

**Prevention**: Always discuss with more than 2 members of the team when making a decision. Have a group vote

**Correction**: Let the team leader decide. If the problem still persists, resolve with the TA/Facilitator. If it is a personal issue, resolve with the Instructor.

**Impact On Project**: High

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| 3 Planning and Control |

3.1 Resource Identification

3.1.1 Staff

**Staff Profile:**

* Steven: Java, SQL, HTML, CSS, Javascript
* Tony: PHP(CakePHP framework), MVC paradigm, drupal, HTML, Jquery, Javascript, AJAX
* Ante: Ruby on Rails, Jersey REST, Google App Engine
* Rufus: Java, Google App Engine, SQL
* Peter: Java Google App Engine, SQL
* Kevin: Java, C/C++, SQL, Ruby on Rails, computer/network hardware and administration

**Staff Allocation:**

* Front End:
  + Steven
  + Rufus
  + Ante
* Back End:
  + Tony
  + Peter
  + Kevin

3.1.2 Time

Software package must be completed on April 4, 2013.

3.1.3 Materials

Windows 2008 R2 Server, Microsoft SQL Server 2008, and Visual Studio. These developer software can be obtained from The University of British Columbia’s DreamSpark website which is available for students specializing in computer science.

3.2 Resource Allocation

3.2.1 Milestones

|  |  |  |
| --- | --- | --- |
| **Milestone No.** | **Milestone** | **Completion Date** |
| 001 | Extract Client Requirements From First Meeting | January 25 |
| 002 | Complete second meeting with client | January 26 |
| 003 | Requirements gathering ends, started on SRS | January 28 |
| 004 | Rough Draft of SRS due, editing starts | February 1 |
| 005 | Started on progress report | February 1 |
| 006 | SRS VR 1 Deadline | February 4 |
| 007 | Progress report review with team | February 5 |
| 008 | Setup development environment (Windows 2008 R2 Server and SQL Server) | February 7 |
| 009 | Progress Report Deadline | February 8 |
| 010 | SRS VR2 begins | February 8 |
| 011 | SRS team review | February 10 |
| 012 | Database Schema editing Completed | February 11 |
| 013 | SRS VR2 Deadline, UML designing begin | February 12 |
| 014 | UML designing 80% completed, implementation begins | February 16 |
| 015 | Database tables created | February 25 |
| 016 | Database connection implemented | February 25 |
| 017 | Client tracking implemented | February 25 |
| 018 | GUI completed and integrated with backend | February 25 |
| 019 | Document design deliverable deadline | February 25 |
| 020 | Library system implemented | March 4 |
| 021 | All System functions implemented | March 8 |
| 022 | Revised Design Document reviewed by team | March 10 |
| 023 | Revised Design Document Deadline | March 11 |
| 024 | All unit test submitted | March 13 |
| 025 | Integration test completed | March 20 |
| 026 | User acceptance completed | March 25 |
| 027 | Installation package completed | March 29 |
| 028 | User Manual complete | March 31 |
| 029 | Get ready for presentations | April 1 |

3.2.2 Work Breakdown Structure

**Client meeting breakdown:**

* Peter and Rufus: Recording and uploading client responses
* Steven: Asking questions and taking notes
* Ante: Responsible for setting a time with other teams to meet with client
* Kevin: Taking notes
* Tony: Taking notes

**Client meeting #2 breakdown:**

* Ante, Kevin and Tony: go to Options Family Resource to do a site visit and understand workflow

**SRS Task breakdown:**

* Peter:
  + section 1
  + first part of section 2
* Steven:
  + section 2
  + section 5
* Rufus:
  + section 3
  + section 4
* Ante :
  + responsible for section 3.2 and 2.2.
  + sending e-mails to client for clarifications
* Kevin:
  + overall editing for grammar and correctness of requirements
  + oversee the progress and quality of SRS report
* Tony:
  + overall editing
  + oversee the correctness of requirements

**Progress Report:**

* Tony and Steven: come up with a suitable progress report draft

**Software Design Specification:**

* Peter:
  + section 1
  + Database schema
* Kevin:
  + section 2
  + research system environment
* Tony:
  + section 3
  + Database schema
  + Oversees progress and quality
* Rufus:
  + section 4
  + UML diagram
* Ante:
  + section 5
  + UML diagram
  + Oversees progress and quality
* Steven:
  + section 6
  + UI mock-up

**Coding:**

* Steven:
  + Oversees the progress and quality
  + Front end implementation:
    - Log in view
    - Main view
  + Integration with back end
* Ante:
  + Front end implementation:
    - Add user view
    - Edit user view
    - Edit event view
    - Add library item view
  + Integration with back end
* Rufus:
  + Front end implementation:
    - Add new participant view
    - Add event view
    - Edit participant view
    - Edit library item view
  + Integration with back end
* Kevin
  + Back end implementation:
    - Primary Guardian table
    - Children table
    - Primary Borrowers table
  + Integration with front end
* Peter
  + Back end implementation:
    - Toy table
    - Video table
    - Books table
  + Integration with front end
* Tony
  + Back end implementation:
    - Centers table
    - Free reading material table
    - Event participant table
  + Integration with front end

**Testing:**

* Steven: Integration testing
* Ante: Integration testing
* Tony: Unit testing
* Kevin:
  + Oversees the progress and quality
  + Unit testing
* Peter:
  + Oversees the progress and quality
  + Unit testing
* Rufus:
  + Oversees the progress and quality
  + Integration testing

**Manuals:**

* Steven: Interface User guide
* Ante: Interface User guide
* Rufus: Interface User guide
* Kevin: Database Configuration Read Me File
* Tony: Database Configuration Read Me File
* Peter: Database Configuration Read Me File

3.2.3 Schedule

[Refer to the end of the document for attachment]

3.3 Tracking and Control

The project is divided into different phases and at each phase there is a phase leader. The phase leader decides what the tasks are and distributes them to the team members accordingly. The phase leader oversees the cost, progress, functionality, and quality of work. If an issue arises, such as a teammate is having troubles and not completing the task in time, it is reported to the team leader by the phase leader. It is the team leaders’ job to act accordingly. At the weekly meeting with the TA, each team member has to report what they have done, how much time it took them and what they will be doing next. The progress manager is responsible for tracking the number of hours worked

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| 4 Supporting Plans |

4.1 Configuration Management

The Version Control Manager will be in charge of setting up a private repository from Github, which the team will be using as a version control for documents and source code.

4.2 Quality Assurance

The Configuration Manager will be in charge of meeting the requirements stated by the client and following the deliverable deadlines set by the instructor. Furthermore the phase leaders will be in charge of overall quality and tracking for the phase that they are the leader of. To track and report bugs, we will either have a discussion on the Google Groups (for small bugs) or an in person team meeting (for serious bugs).