**Software Project Management Plan**

**Monstrosity Inc.**

3/4/2020

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Document Control

**Change History**

|  |  |  |
| --- | --- | --- |
| **Revision** | **Change Date** | **Description of changes** |
| V1.0 | 3/4/2020 | Initial release |
|  |  |  |

[Note change history doesn’t have to be stored with the document. Most version control tools like SVN keep track of change history automatically. The comments entered when checking in documents become the change history for the document. However, even if your version control tool supports changing history, you make want to track a more detailed version here.]

**Document Storage**

This document is stored in the project’s SVN repository at: http://company.com/svn/project-name/docs/spmp.doc.

**Document Owner**

Larry Smith is responsible for developing and maintaining this document.**Table of Contents**

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# **Overview**

## *Purpose and Scope*

The purpose of this project is to streamline business related activities within Monstrosity Inc. to save time and provide good customer service.

At the minimum, the project will (1) allow customers and employees to connect to the internet, (2) provide Monstrosity with a secure email connection, (3) allow employees to edit databases containing customer information. Time permitting, the scope could be extended to include (1) more offices and (2) a larger database to allow for more customers.

## *Goals and Objectives*

A well-worded objective is SMART: Specific, Measurable, Attainable/Achievable, Realistic and Time-bound.

Project goals:

1. Establish a functional network

Project objectives:

1. Create a database that includes customer information and all real estate options available for sale. This must also have a back-up and clustering system
2. Provide WiFi for all branches in the company for both customers and employees.
3. Provide a stable environment for employees to send secure emails to one another.

## *Project Deliverables*

The following items will be delivered to the customer on or before 5/6/2020:

1. Stable and secure network with the database and email systems
2. User’s Guide
3. System Administrators Manual
4. Test Plan
5. System test Cases
6. Suite of regression tests
7. Data conversion program for migrating existing data to new database format.

## *Assumptions and Constraints*

Assumptions are conditions, usually outside the control of the project team, that are taken for granted. Project plans (i.e. estimates) typically depend on certain assumptions being true. Assumptions that turn out to be false, may jeopardize project success. In order to reduce project risk, the project manager may elect to validate certain assumptions as part of the risk management process.

Constraints are limits or restrictions on freedom. Projects may have technical as well as non-technical constraints. Priorities for schedule and budget can impose non-technical constraints on a project. Restrictions on programming language or delivery platform are examples of technical constraints that limit design and implementation options.

Assumptions:

1. Must be available at all times.
2. Database must be able to be hosted.
3. Managers and employees should have access to the network from home.
4. Facilities will provide private office space for 3 outside contractors for the duration of the project.

Constraints:

1. Emails must be secured (spam, virus, and intrusion prevention).
2. Web traffic must be filtered differently for customers and employees.
3. The database must be kept in MySQL and must include a backup and clustering system.
4. The software must be ready by 5/6/2020.

## *Schedule and Budget Summary*

The schedule summary

02/17/2020 - Gather requirements

02/17/2020 - Project Release Plan Complete

02/17/2020 - Iteration #1 Plan Complete  
02/23/2020 - Project Charter Complete  
02/29/2020 - Requirements Complete

03/02/2020 - Iteration #1 Complete

03/06/2020 - Project Plan Complete  
03/16/2020 - BIT Presentations   
03/16/2020 - Technical Prototype Complete

03/16/2020 - Iteration #2 Complete

04/03/2020 - Customer Approved UI Prototype Complete

04/03/2020 - Architecture Document Complete

04/06/2020 - Iteration #3 Complete

04/26/2020 - Test Report Complete  
04/27/2020 - User Guide and System Administration Manual Complete  
05/06/2020 - Product Released

The budget summary: Total: $30,200

* Switches for all offices: $8,000
* Routers and APs for offices: $6,000
* Firewall Protection: $3,000
* Email Protection: $600 - $1,200
* Cloud Services: $14,000

## *Success Criteria*

The project will be considered a success if

* The team delivers a network and database schematic at the end of the semester that satisfies goals mentioned above.
* Team members obtain a passing grade on the project

## *Definitions*

This section should define potentially unfamiliar or ambiguous words, acronyms and abbreviations.

## *Evolution of the Project Plan*

Before the start of an iteration, the “in progress” trello board will be updated to include a new list of detailed tasks for the upcoming iteration. The project schedule will also be updated to plan out what will be done in the upcoming iteration and how long we expect each task will take.

At the conclusion of an iteration, the “done” section in the trello board will be updated for all issues that have been completed. The project schedule will be updated to include the actual effort for each completed task.

Risk mitigation efforts will be evaluated at the start of each iteration. Severe risks will be analyzed and added to the project plan as soon as they materialize.

# **Startup Plan**

## *Team Organization*

This section explains project roles and the authorities and responsibilities associated with these roles. Lines of communication, authority and reporting relationships are often shown with an org chart. If the development team is known, actual names can be associated with roles.

Project Leader: Project lead is the person who knows the most about our current subject and can give advice based on his current job. This is why Zach is the perfect choice for this

Researcher(2): Researchers take the advice of the project leader and look up the specifics of the devices and programs we will use in this project. Tyler and Shawn fit this category well.

## *Project Communications*

Communication will mainly be done through a premade slack page. This will be used for posting updates and sharing important documents.

## *Technical Process*

This section describes the software development methodology or conventions the team agrees to live by. When following an organization standard process, this section will refer to the standard process and state any deviations that are planned for this project. In the absence of an organization standard process, this section will define planned phases, entry and exit criteria for each phase, major milestones, workflows, and other aspects of the proposed development process.

## *Tools*

This section specifies the development tools the team will be using to perform their work.

* Research – Google
* Email Security – Barracuda
* Database security – prepared statements

# **Work Plan**

## *Activities and Tasks*

A work breakdown structure is an excellent tool for identifying a complete list of tasks.

Depending on the needs of the project, some or all of the following attributes will be recorded for each task:

* Task name
* Task Description
* Owner
* Effort estimate
* Actual effort
* Planned start and stop dates
* Actual start and stop dates
* Dependencies among other tasks

## *Release Plan*

For day-to-day project management the release and iteration plans (described in the next section) are probably the two most important project management artifacts.

The release plan lists expected completion dates for major milestones and delivery dates of key work products. The project’s technical development process to a certain extent will dictate the choice and timing of milestones and deliverables. For example, projects following the Rational Unified Process will have four major milestones: life-cycle objectives, life-cycle architecture, initial operational capability, and product release.

## *Iteration Plans*

Each iteration has an opening and a close. Between these two tasks are certain sets of documents and research to be completed.

## *Budget*

If we were to implement this project the bulk of the cost would be in the end phase. Upfront is all the research and determining what needs to be done, this would only cost the employees pay rate. after the research is done the rest of the $30,200 would come into play

# **Control Plan**

## *Monitoring and Control*

Include in this section plans and procedures for tracking progress and controlling performance. Included here will be the approximate dates of technical as well as managerial reviews. Typically each major milestone or project phase will end in a review.

Weekly – Team meeting. Project participants report status, progress and potential problems.

3/13/2020 – Group Powerpoint and Video presentation

3/15/2020 – Risk Management Report

3/16/2020 - Iteration 2 Closeout, iteration 3 begin, Technical Prototype

3/20/2020 - Project presentation

4/3/2020 - Architecture Document

4/6/2020 - Iteration 3 closeout, iteration 4 begin

4/20/2020 - Iteration 4 Closeout, iteration 5 begin

4/26/2020 - Test Plan

4/27/2020 - User and System Guide

5/4/2020 - Iteration 5 closeout, Final Presentation

## *Project Measurements*

Product and process measures support project management and estimation by analogy. At the beginning of a project, estimates are made for product size, project cost and delivery dates. During a project, progress is tracked with measures of actual effort, integrated lines of code and actual expenditures. Keeping track of estimates and actuals during a project helps to calibrate whatever technique is being used to make estimates. Storing project performance data on completed projects provides a rich source of data for estimating future projects.

|  |  |  |
| --- | --- | --- |
| **Phase** | **Measurement** | **Source** |
| Release Planning | Record effort estimates for product features | Professor |
| Iteration Planning | Record effort estimates for scheduled tasks  Update effort estimates for product features  Update estimated dates in release plan | Professor |
| Iteration Closeout | Record actual effort for scheduled tasks  Record actual effort for product features | Professor |
| System Test | Record the rate at which errors are found. | Professor |
| Project Closeout | Archive project performance data in process database. | Professor |
| Ongoing | Record defects found from integration testing through the first year of release.  Assign each defect to one of the following categories: blocker, critical, major, minor or trivial. Keep track of the state of each defect: open, assigned, fixed, closed. | Professor |

# **Supporting Process Plans**

## *Risk Management Plan*

Main risks include team members not knowing much of the subject. Research and knowledge from team members that have prior experience will aid in any frustration or complications.

## *Configuration Management Plan*

Configuration management plans for this document and other baselined work products including review procedures and change management procedures.

1. All work products will be stored in a centralized GitHub repository.
2. Previous versions of all documents will be available on the GitHub repository
3. All project (work products) items (documents, source code, test cases, program data, test data, etc) will be stored in the GitHub repository but not all will be under change control (subject to formal change control procedures.) Only the system requirements and project plan will be baselined and under configuration control.
4. Items that are subject to change control will be considered baselined after a group review at the end of the life cycle phase during which they are created. Baselined here means that the product has undergone a formal review and can only be changed through the prescribed change control procedures.
5. The change control procedure once a product is baselined is: (1) anyone wanting to make a change to a baselined item sends an email to the rest of the group describing the change, reason for the change, expected impact, and timeline for integrating the change. (2) if no one responds to the group within 2 days with a reason for why the change request shouldn't be permitted, it will be considered accepted and the person proposing the change may proceed with the change. If anyone does object to the change, the reason for objecting will be discussed at a meeting where everyone is invited to attend and voice their opinion. At the end of the meeting a democratic vote will be held to decide whether or not the change should be allowed.
6. Including a change history with all documents is encouraged but only required for baselined documents. The change history should be at the front of the work item and include: (1) the name of the person making the change, (2) brief description of what has changed, (3) reason for the change, and (4) the date the change was integrated.

## *Verification and Validation Plan*

The verification and validation plan defines what actions are being taken to assure the quality of the development process and resulting software products.

The Verification and Validation plan is specified right under here:

1. First in the verification and validation plan to make sure everything is correct, we must discuss with the group to make sure we all agree on products being used.
2. For better validation, we need to make sure that we are getting the proper research done for each product to see what best fits for the company.
3. We need to make sure that the development process stays at a high quality to get the best system for the project.
4. To make sure we are staying on track and keeping the process organized team communication is very important.

## *Product Acceptance Plan*

The product acceptance plan defines what is acceptable in terms of product quality and product functionality. Acceptance criteria should be objective and measurable. Note product success is one aspect of project success. Teams wanting to establish a clear understanding of what will be considered acceptable project performance may want to define a more general plan for project success that includes quantitative goals for delivery date, cost, etc.

1. We want our company to have the best products and have the ability to expand if needed.
2. We want our software and networks to be very easy for the IT department in the company to maintain and control when needed.
3. The easier it is to maintain makes the company not have to worry about possible errors in the system, or the network going down.
4. We are going to spend more money on getting the better equipment for the company but the perks of having really good equipment makes up for the price.