Department of Computer Science and Engineering  
The University of Texas at Arlington

Aegle

Outreach Storage System

Team Members:

Tanmaykumar Patel

Sumeet Kaur

Sean Nesburg

Jacob Fisher

Aisha Kulindwa

Late Updated: 10 July 2014 @ 3:51:00 PM

Table of Contents

[1 General Organization 1](#_Toc392770344)

[1.1 Project Manager 1](#_Toc392770345)

[1.2 Project Oversight 1](#_Toc392770346)

[1.3 Roles and Responsibilities 1](#_Toc392770347)

[1.4 Project Constraints 2](#_Toc392770348)

[1.5 Project Assumptions 2](#_Toc392770349)

[1.6 Preliminary Schedule and Cost Estimates 3](#_Toc392770350)

[2 Scope Statement 4](#_Toc392770351)

[2.1 Introduction 4](#_Toc392770352)

[2.2 Purposes and Use 4](#_Toc392770353)

[2.3 Intended Audience 4](#_Toc392770354)

[3 Cost Management Plan 5](#_Toc392770355)

[3.1 Introduction 5](#_Toc392770356)

[3.2 Cost Management 5](#_Toc392770357)

[3.3 Labor Management 6](#_Toc392770358)

[4 Earned Value Management 7](#_Toc392770359)

[4.1 Purpose and Overview 7](#_Toc392770360)

[4.2 Earned Value Components 7](#_Toc392770361)

[4.3 Performance Measurement 7](#_Toc392770367)

[4.4 Status Reports 8](#_Toc392770368)

[5 Scope Management Plan 9](#_Toc392770370)

[5.1 Introduction 9](#_Toc392770371)

[5.2 Methodology 9](#_Toc392770372)

[5.3 Change Control 9](#_Toc392770373)

[6 Work Breakdown Structure 10](#_Toc392770374)

[7 Quality Management Plan 20](#_Toc392770375)

[7.1 Introduction 20](#_Toc392770376)

[7.2 Documentation 20](#_Toc392770377)

[7.3 Software 20](#_Toc392770378)

[7.4 Hardware 20](#_Toc392770379)

[7.5 Testing 20](#_Toc392770380)

[8 Communications Plan 21](#_Toc392770381)

[8.1 Introduction 21](#_Toc392770382)

[8.2 Internal Communication 21](#_Toc392770383)

[8.3 External Communication 22](#_Toc392770384)

[9 Change Management Plan 23](#_Toc392770385)

[9.1 Purpose of Integrated Change Management Plan 23](#_Toc392770386)

[9.2 Review and Approval Process 24](#_Toc392770387)

[9.3 Change Identification, Documentation, Implementation and Reporting 25](#_Toc392770388)

[10 Risk Management Plan 27](#_Toc392770389)

[10.1 Purpose of Risk Management Plan 27](#_Toc392770390)

[10.2 Roles and Responsibilities 27](#_Toc392770391)

[10.3 Risk Identification 27](#_Toc392770392)

[10.4 Risk Triggers 28](#_Toc392770393)

[10.5 Risk Analysis 28](#_Toc392770395)

[10.6 Risk Severity 29](#_Toc392770396)

[10.7 Risk Response Planning 30](#_Toc392770398)

[10.8 Risk Documentation and Reporting 30](#_Toc392770400)

[10.9 Risk Control 30](#_Toc392770401)

[11 Procurement Management Plan 31](#_Toc392770402)

[11.1 Purpose of the Procurement Management Plan 31](#_Toc392770403)

[11.2 Roles and Responsibilities 31](#_Toc392770404)

[11.3 Required Project Procurements and Timing 31](#_Toc392770405)

[11.4 Description of Items/ Services to be acquired 31](#_Toc392770406)

[12 Project Closeout Report 32](#_Toc392770407)

[12.1 Purpose of Closeout Report 32](#_Toc392770408)

[12.2 Administrative Closure 32](#_Toc392770409)

# General Organization--DONE

## Project Manager

Karla Hernandez is the Project Manager for team Aegle. Karla was selected as a Project Manager by the Project Director Cdr. Mike O'Dell and approved by every team member. Karla is a Software Engineering Student at the University of Texas at Arlington. The project manager is in charge of guiding the team, making sure that everyone successfully accomplishes all the tasks in a timely manner. Also, the project manager is the main point of contact with the project sponsor as well as scheduling team meetings and setting the agendas to make sure the purpose of the meeting has been accomplished. The Project Manager has more than one year of industry experience working in teams, which provided her with experience on managing and leading a group as well as organizing a team and conflict resolution. The Team agreed on selecting the Outreach Storage System as the project to develop.

## Project Oversight

The team has agreed on keeping an internal calendar, having all tasks due one week before the official syllabus dictates, so that the team has more time available to have the documents reviewed by several people before officially submitting them. The tasks are broken down into the smallest possible-working units, providing the team the ability to easily understand each one of them. Tasks will be delegated according to the individual's strengths. For documentation, the team is using Google Drive, but in the process of migrating to GitHub, to enable version control of each document. The team has a group chat, which enables real time communication among all the team members, where every concern or topic is discussed or the time for a meeting is established.

## Roles and Responsibilities

The following table describes the roles and responsibilities of each stakeholder involved in the development of the Outreach Storage System.

|  |  |  |
| --- | --- | --- |
| **Team Member** | **Roles** | **Responsibilities** |
| Karla Hernandez | Team Lead | Ensure that tasks are completed on time.  Ensure that team stays on focus.  Ensure that risks are successfully handled.  Main contact with Sponsor and Change Control management.  Conflict Solver. |
| Architecture Lead | Software System Architecture Design  Software Sub System Architecture Design. |
| Joseph Finnegan | Software Manager | Manage Development Lifecycle of the Web Application. |
| Test Lead | Design a Test Plan for the project.  Keep track of any bug resolution. |
| Server Lead | Choose the best Server based on the project needs.  Set up the Server.  Maintain the Server as required. |
| Joe Martinez | Document Master | Integrate the documents.  Review the documents to ensure consistence.  Make final modifications. |
| Database Lead | Plan the Database Design.  Crate the Database structure. |
| Carlos Torres | Project Planner | Create Project Plan.  Tasks Breakdown into smallest working units.  Assign Tasks to team members. |
| Hardware Lead | Create Hardware Design of the Project.  Integration of Hardware Components. |
| Dr. Tiernan Carter | Project Sponsor | Set Requirements.  Provide Feedback. |
| Cdr. Mike O’Dell | Project Director | Supervises the Project.  Verifies Status of the team. |

## Project Constraints

The team has defined some assumptions that are required in order for the Outreach Storage System to be successful. The assumptions are listed below:

* **Limited Time:** The project has to be delivered in approximately 6 months from now, leaving approximately 3 more months for extra planning and the rest for implementation
* **Limited Budget:** The project has a limited budget of $800 dollars, which could potentially affect the design of the system due to RFID readers being high in cost, so the team has to be very careful to choose the correct type of reader.
* **Lack of Knowledge:** The team does not have experience with RFID technology, so this constraint could potentially affect the project by preventing the team of taking the best decisions possible regarding this technology.

## Project Assumptions

The team has defined some assumptions that are required in order for the Outreach Storage System to be successful. The assumptions are listed below:

### Team meetings.

The team is required to gather at least twice a week to provide updates on the tasks or about any concern that might arise related to the project. Each team member will be responsible for completing the assigned tasks according to the project plan. Team members have to attend all possible meetings, or ask for updates if they were unable to attend.

### Communication.

The main mean of communication between team members is trough “What’s App”, a real time group chat application. Regarding the communication with the project sponsor, email is the preferred channel; but also the team has established weekly meetings to update the sponsor and ask any questions related to the project. The team will use email or office hours to contact the Project Director regarding any activities during the project.

### Technology.

The team assumes that the system will have a working Internet connection that will be in charge of sending the storage data to the Server. It is also assumed that the interface model between the hardware and the server application will include minimal coding skills in case a predefined API does not exist. Other assumption is that the server will have the necessary hardware and software requirements needed to host the Outreach Storage System.

### Individual Effort.

Individual Effort is a key driver for the project successful completion. Each team member is required to provide quality work to the project and completing the tasks in a timely manner as the project plan dictates.

## Preliminary Schedule and Cost Estimates

The following table shows the major project deliverables, along with the due dates and the cost represented in hours.

|  |  |  |
| --- | --- | --- |
| **Preliminary Project Schedule** | | |
| **Project Milestone** | **Due Date** | **Cost (Hours)** |
| SRS Initial Draft | 10/08/2014 | 47 |
| Project Charter Initial Draft | 10/15/2014 | 36 |
| Project Plan Initial Draft | 10/15/2014 | 8 |
| SRS Baseline | 11/07/2014 | 49 |
| Architecture Design Specification Initial Draft | 12/01/2014 | 58 |
| Baseline Project Charter | 12/03/2014 | 27 |
| Baseline Project Plan | 12/03/2014 | 10 |
| Architecture Design Baseline | 12/08/2014 | 73 |

**Table 1-1: Preliminary Schedule**

# Scope Statement

## Introduction

This section describes the purpose, use and intended user audience for the Echo product. Echo is a Smart Mirror that connects to an app that will display various apps from their smart phone that the user wishes to view on their mirror. Users of Echo will be able to choose which apps to display on the mirror, when the information will be displayed, and enlarge areas on the mirror with the app that the user wishes to see in more detail. Each app will be in its own section of the mirror.

## Purposes and Use

Echo is designed for the average consumer who wishes to view information more easily than their phone. The app will allow the user to select various apps that are on common phones to be displayed on the mirror. The selected apps will be displayed on the mirror in various sections on the mirror and will allow the user to see updated information, similar to normal locked screen updates.

When the user wishes to see more detailed information about a certain app, the user clicks on the desired app on their phone and the app will enlarge on the mirror. The mirror can be toggled between always displaying and only displayed when the user is nearby allowing ease of use and privacy for the user.

## Intended Audience

The intended consumer for the Echo is the average consumer who needs reminders or likes always knowing what is going on. For example the forgetful husband who needs reminders for special dates, or the busy broker who wants updates immediately, or the average person who just likes seeing everything at once.

# Cost Management Plan

## Introduction

This section will talk about how we are going to stay on track in terms of person-hours and dollars. The cost management plan will serve as a means to keep the team and the project within the $800 budget for material, and roughly 2000 person-hours for each member of the team.

## Cost Management

Based on our cost analysis we found that a lot of hardware parts needed to be purchased for the whole project to be complete. Preliminary estimates show that we are close to the budgeted amount but within bounds. Given the overall budget of $800, we are currently at a preliminary estimated cost of $760. To make sure we do not go beyond the budget we can opt to use material from past projects, and keep a close eye on our change management plan so that we do not exceed the budget. Current cost analysis are as shown below, using the upper bound costs of the material so that we can always be within budget will our current estimates.

|  |  |
| --- | --- |
| Parts | Cost |
| Mini Motherboard | $70.00 |
| 30’’ led screen | $400.00 |
| 2Ghz Dual core processor | $60.00 |
| 24”x 24” two way mirror | $60.00 |
| Wooden Frame | $50.00 |
| 100 GB hard drive | $40.00 |
| 2GB RAM | $40.00 |
| Bluetooth dongle | $10.00 |
| Wi-Fi module | $30.00 |
| Total Cost | $760.00 |

**Table 3-1: Preliminary Cost Analysis**

## Labor Management

The team has been given approximately 6 to 8 months to complete this project. If each person allocates 10 to 15 hours per week, then this is about 240 to 480 man-hour over the project’s lifetime. Distributing this among 5 team members this is about 1200 to 2400 man-hours over the 6 to 8 month period. Our schedule analysis puts us at 6.95 calendar month on average, which shows that we will be well within the range of man-hours and effort contributed by each member. The team will measure the labor that goes into the project by using earned value management. The project plan manager will keep track of all deliverables, tasks, and overall timeline.

# Earned Value Management --DONE

## Purpose and Overview

The purpose of Earned Value Management will be to keep track of the project progress. Earned Value Management will allow us to check if the project is on schedule, behind schedule or ahead of schedule. Earned Value Management will also allow us to keep track of every team member’s progress on their assigned individual tasks, recording the amount of hours put into the tasks, and comparing these hours to the amount of time that was planned for each task. Earned Value Management will be used along with the MS Project Plan file in order to monitor the individual progress of each team member as the team progress.

## Earned Value Components

The components of Earned Value are the following: Budgeted Cost of Work Scheduled (BCWS), Actual Cost of Work Performed (ACWP), Budgeted Cost of Work Performed (BCWP), and %Complete. BCWS, ACWP, and BCWP will be measure in man-hours.

* **Budgeted Cost of Work Scheduled (BCWS):** BCWS is the amount of time planned given to work on an assigned task. Ex: Formatting Document – BCWS = 3 Hours, in theory this task should be completed in 3 hours, BCWS is an estimate.
* **Actual Cost of Work Performed (ACWP):** ACWP is the amount of time spent working on a given assigned task. Ex: Formatting Document – ACWP = 2 Hours, in reality the task took 2 hours to be completed it. ACWP is the actual amount of time spent on a given task.
* **Budgeted Cost of Work Performed (BCWP):** BCWP is the value that was earned for completing a task. Ex: Formatting Document – BCWP = 3 Hours, the earned value is 3 hours instead of 2 hours because the BCWS assigned to the task was 3 hours. Only the person assigned to this task is given credit for completing the task even if he\she got help from another team member.
* **% Complete:** this components keeps track of whether a task is complete or not, 0% means not completed, and 100% means completed.

## Cost Performance Index

The Cost Performance Index (CPI) is a value that allows the team to measure the work performance of the team, basically how efficient the team is. The CPI is a ratio between the BCWP and the ACWP. Through CPI the team will be able to keep track of the work performance and address any work performance issues with the project.

If CPI > 1.0, then the team is performing well

If CPI < 1.0, then the team is performing poorly.

## Schedule Performance Index

The Schedule Performance Index (SPI) is a value that allows the team to measure if the deadlines are been met or not, basically it indicates if we are behind of schedule, ahead on schedule or right on schedule. The SPI is a ratio between BCWP and BCWS.

If SPI > 1.0, then the team is ahead of schedule

If SPI < 1.0, then the team is behind of schedule

## Status Reports

The team will meet twice a week, once during the weekdays and once during the weekend in order to check progress on every member’s performance. The performance of each member will measure using the Earned Value Components, CPI, and SPI. During these meeting, every member will let the Project Planner know how much time the person has put into their tasks, when did they start the tasks, and when did they finish the task so that the Project Planner can record all the information on the MS Project Plan File. During these meeting, the members will also address any issues that they have with their respective tasks and the team will work on finding a solution to any issue.

# Scope Management Plan -- DONE

## Introduction

The scope management plan helps ensure the success of the project by focusing the sponsor and team on what matters. It helps both parties understand what can and will be implemented in the product as well as how the path towards completion is travelled. Ultimately, it keeps the project on track, and minimizes risks and misunderstandings between the sponsor and development team.

## Methodology

In order to keep the project on track, team Aegle will meet with our sponsor, Dr. Tiernan, on a regular basis. This will minimize the impact of any surprises that our research and development yield, as well as help keep the team on track with what matters most if features need to be cut, trimmed, or potentially added. We will also maintain and adhere to a complete project plan to keep things flowing throughout the process of developing the RFID system.

### Scope Management

The scope of the project is inherently tied to the domain of the storage room; which the RFID system is expected to operate in. However, the requirements of the project are extremely susceptible to change, especially in the early stages of the project that we are currently in. Requirements refinement is expected and is actively sought so as to develop a stronger project plan to keep the team on track.

## Change Control

Changes to the project requirements after their finalization will not be implemented unless deemed absolutely paramount to the projects functionality and success. If the sponsor does wish to make a change once detailed design of the project has begun, she will have to justify the proposed change in one of the regular meetings held between the sponsor and team and submit a proposal form to the team. The team will have to come to a unanimous decision that the proposed change has high value and should be implemented in order for the team to follow through. If the team does come to this conclusion, members must revise all design, specification, and planning documents so as to include the change.

# Work Breakdown Structure

The WBS for the team is split up into two main phases of development (Senior Design 1 and Senior Design 2). All tasks are broken down into Sub-tasks that are more manageable.

Within this phase are also our weekly tasks, which consist primarily of team meetings, and sponsor meetings, status report preparations. We have also developed the phase two section to start considering the next semesters’ project aspects as soon as the first phase is completed.

|  |  |  |  |
| --- | --- | --- | --- |
| WBS | Task Name | Baseline Start | Baseline Finish |
| 1 | **Phase I (Senior Design 1)** | **Fri 6/13/14** | **Fri 8/8/14** |
| 1.1 | **Getting Started** | **Fri 6/13/14** | **Tue 6/24/14** |
| 1.2 | **MS Project Plan** | **Wed 6/25/14** | **Fri 8/8/14** |
| 1.3 | **Requirement Specification** | **Tue 6/24/14** | **Thu 7/24/14** |
| 1.4 | **Project Charter** | **Thu 7/3/14** | **Thu 7/10/14** |
| 1.5 | **Architecture Design Specification** | **Tue 7/15/14** | **Tue 8/12/14** |
| 1.6 | **Group Meetings** | **Thu 6/12/14** | **Fri 8/8/14** |
| 1.7 | **Sponsor Meeting** | **Tue 6/24/14** | **Fri 8/8/14** |
| 1.8 | **Team Status Reports** | **Fri 7/18/14** | **Thu 8/7/14** |
| 1.9 | **Project Research** | **Tue 7/15/14** | **Mon 9/15/14** |
| 2 | **August Phase** | **Wed 8/13/14** | **Sun 8/24/14** |
| 2.1 | Six Flags Trip | Fri 8/15/14 | Fri 8/15/14 |
| 2.1 | Project Research | Sat 8/16/14 | Sun 8/24/14 |
| 2.2 | Review ADS | Mon 8/18/14 | Fri 8/22/14 |
| 3 | **Phase II (Senior Design 2)** | **Tue 8/26/14** | **Thu 12/4/14** |
| 3.1 | **Getting Started** | **Tue 8/26/14** | **Mon 9/1/14** |
| 3.2 | **Detailed Design Specification** | **Thu 9/18/14** | **Tue 10/21/14** |
| 3.3 | **System Test Plan** | **Wed 10/22/14** | **Fri 10/31/14** |
| 3.4 | **Prototype Development** | **Mon 9/1/14** | **Fri 12/5/14** |
| 3.5 | **Final Project Review** | **Tue 11/25/14** | **Thu 12/4/14** |
| 3.6 | **Course Wrap-up Phase** | **Thu 1/1/15** | **Thu 12/4/14** |
| 3.7 | **Team Meetings** | **Tue 8/26/14** | **Fri 12/5/14** |
| 3.8 | **Sponsor Meetings** | **Tue 8/26/14** | **Fri 11/28/14** |
| 3.9 | **Team Status Reports** | **Mon 9/1/14** | **Tue 12/2/14** |

**Table 6-1 General Overview of Project Schedule**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| WBS | Task Name | Resource Names | Baseline Start | Baseline Finish | % Complete |
| 1 | **Phase I (Senior Design 1)** |  | **Fri 6/13/14** | **Fri 8/8/14** | **38%** |
| 1.1 | **Getting Started** |  | **Fri 6/13/14** | **Tue 6/24/14** | **100%** |
| 1.1.1 | Project Selection | Team | Fri 6/13/14 | Fri 6/13/14 | 100% |
| 1.1.2 | Initial discussion | Team | Fri 6/13/14 | Tue 6/24/14 | 100% |
| 1.1.3 | Make First Team Status Presentation | Sumeet Kaur | Wed 6/18/14 | Wed 6/18/14 | 100% |
| 1.1.4 | First Presentation Preparation | Team | Thu 6/19/14 | Thu 6/19/14 | 100% |
| 1.1.5 | Deliver Presentation | Team | Fri 6/20/14 | Fri 6/20/14 | 100% |
| 1.1.6 | Product feature discussion | Team | Fri 6/20/14 | Tue 6/24/14 | 100% |
| 1.2 | **MS Project Plan** |  | **Wed 6/25/14** | **Fri 8/8/14** | **65%** |
| 1.2.1 | **Project Plan First Draft** |  | **Wed 6/25/14** | **Thu 7/10/14** | **79%** |
| 1.2.1.1 | Make Project Plan File | Sumeet Kaur | Wed 6/25/14 | Wed 7/9/14 | 100% |
| 1.2.1.2 | Project Plan First Draft Team Review | Team | Wed 7/9/14 | Wed 7/9/14 | 0% |
| 1.2.1.3 | Make PowerPoint Presentation | Sumeet Kaur | Wed 7/9/14 | Wed 7/9/14 | 0% |
| 1.2.1.4 | Project Plan First Draft Presentation Preparation | Team | Fri 7/11/14 | Fri 7/11/14 | 0% |
| 1.2.2 | **Project Plan Final Version** |  | **Fri 7/11/14** | **Fri 8/8/14** | **0%** |
| 1.2.2.1 | Project Plan Revision | Sumeet Kaur | Fri 7/11/14 | Mon 8/4/14 | 0% |
| 1.2.2.2 | Project Plan Team Revision | Team | Tue 8/5/14 | Tue 8/5/14 | 0% |
| 1.2.2.3 | Project Plan Final Version Submission | Sumeet Kaur | Thu 8/7/14 | Thu 8/7/14 | 0% |
| 1.3 | **Requirement Specification** |  | **Tue 6/24/14** | **Thu 7/24/14** | **53%** |
| 1.3.1 | **SRS Initial Briefing** |  | **Tue 6/24/14** | **Thu 6/26/14** | **100%** |
| 1.3.1.1 | Document discussion | Team | Tue 6/24/14 | Tue 6/24/14 | 100% |
| 1.3.1.2 | Section Assignment | Sean Nesburg | Thu 6/26/14 | Thu 6/26/14 | 100% |
| 1.3.2 | **SRS First Draft** |  | **Thu 6/26/14** | **Thu 7/3/14** | **100%** |
| 1.3.2.1 | Product Concept | Sean Nesburg | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.1 | Product Description and Functional Overview | Aisha Kulindwa | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.3 | Customer Requirements | Sean Nesburg | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.4 | Packaging Requirements | Aisha Kulindwa | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.5 | Performance Requirements | Jacob fisher | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.6 | Safety Requirements | Tanmaykumar Patel | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.7 | Maintenance and Support Requirements | Tanmaykumar Patel | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.8 | Other Requirements | Sumeet Kaur | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.9 | Acceptance Criteria | Jacob fisher | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.10 | Use Cases | Tanmaykumar Patel | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.11 | **Feasibility Assessment** | **Aisha Kulindwa** | **Thu 6/26/14** | **Tue 7/1/14** | **100%** |
| 1.3.2.11.1 | Research |  | Thu 6/26/14 | Mon 6/30/14 | 100% |
| 1.3.2.11.2 | Technical Analysis |  | Thu 6/26/14 | Mon 6/30/14 | 100% |
| 1.3.2.11.3 | Cost Analysis |  | Thu 6/26/14 | Mon 6/30/14 | 100% |
| 1.3.2.11.4 | Resource Analysis |  | Thu 6/26/14 | Mon 6/30/14 | 100% |
| 1.3.2.12 | Future Requirements | Sumeet Kaur | Thu 6/26/14 | Tue 7/1/14 | 100% |
| 1.3.2.13 | Document Review/Merging | Sumeet Kaur | Tue 7/1/14 | Tue 7/1/14 | 100% |
| 1.3.2.14 | Final Requirements Specification Review | Team | Tue 7/1/14 | Tue 7/1/14 | 100% |
| 1.3.2.15 | Requirements Specification First Draft Submission | Tanmaykumar Patel | Thu 7/3/14 | Thu 7/3/14 | 100% |
| 1.3.3 | **SRS Gate Review** |  | **Mon 7/14/14** | **Tue 7/22/14** | **0%** |
| 1.3.3.1 | Product Concept Revision | Sean Nesburg | Mon 7/14/14 | Mon 7/14/14 | 0% |
| 1.3.3.2 | Product Description and Functional Overview Revision | Aisha Kulindwa | Tue 7/15/14 | Mon 7/14/14 | 0% |
| 1.3.3.3 | Customer Requirements Revision | Sean Nesburg | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.4 | Packaging Requirements Revision | Aisha Kulindwa | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.5 | Performance Requirements Revision | Jacob fisher | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.6 | Safety Requirements Revision | Tanmaykumar Patel | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.7 | Maintenance and Support Requirements Revision | Tanmaykumar Patel | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.8 | Other Requirements Revision | Sumeet Kaur | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.9 | Acceptance Criteria Revision | Jacob fisher | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.10 | Use Cases Revision | Tanmaykumar Patel | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.11 | Feasibility Assessment Revision | Aisha Kulindwa | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.12 | Future Items Revision | Sumeet Kaur | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.13 | SRS Document Review | Sumeet Kaur | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.14 | Reflection Critique of GlaDos SRS | Team | Tue 7/22/14 | Tue 7/22/14 | 0% |
| 1.3.3.15 | Gate Review Presentation Slides | Sumeet Kaur | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.3.16 | Gate Review Presentation Preparation | Team | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.3.4 | **SRS Baseline Submission Phase** |  | **Tue 7/15/14** | **Thu 7/24/14** | **0%** |
| 1.3.4.1 | SRS Revisions for Baseline | Team | Thu 7/17/14 | Thu 7/17/14 | 0% |
| 1.3.4.2 | SRS Baseline Submission | Sean Nesburg | Thu 7/24/14 | Thu 7/24/14 | 0% |
| 1.4 | **Project Charter** |  | **Thu 7/3/14** | **Thu 7/10/14** | **13%** |
| 1.4.1 | **Charter Initial Briefing** |  | **Tue 7/8/14** | **Tue 7/8/14** | **100%** |
| 1.4.1.1 | Project Charter Document Discussion | Team | Tue 7/8/14 | Wed 7/9/14 | 100% |
| 1.4.1.2 | Project Charter Section Assignments | Sean Nesburg | Tue 7/8/14 | Wed 7/9/14 | 100% |
| 1.4.2 | **Charter First Draft** |  | **Wed 7/9/14** | **Fri 7/11/14** | **13%** |
| 1.4.2.1 | General Organization | Sean Nesburg | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.2 | Scope Statement | Sean Nesburg | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.3 | Cost Management Plan | Aisha Kulindwa | Wed 7/9/14 | Thu 7/10/14 | 100% |
| 1.4.2.4 | Earned Value Management | Sumeet Kaur | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.5 | Scope Management Plan | Sumeet Kaur | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.6 | Work Breakdown Structure | Sumeet Kaur | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.7 | Quality Management Plan | Tanmaykumar Patel | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.8 | Communications Plan | Tanmaykumar Patel | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.9 | Change Management Plan | Aisha Kulindwa | Wed 7/9/14 | Thu 7/10/14 | 100% |
| 1.4.2.10 | Risk Management Plan | Jacob fisher | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.11 | Procurement Management Plan | Jacob fisher | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.12 | Project Closeout Report | Sean Nesburg | Wed 7/9/14 | Thu 7/10/14 | 0% |
| 1.4.2.13 | Charter Review and Merging | Tanmaykumar Patel | Thu 7/10/14 | Thu 7/10/14 | 0% |
| 1.4.2.14 | Project Charter Document Master Review | Team | Thu 7/10/14 | Thu 7/10/14 | 0% |
| 1.4.2.15 | Project Charter First Draft Submission | Tanmaykumar Patel | Thu 7/10/14 | Thu 7/10/14 | 0% |
| 1.4.3 | **Charter First Draft Presentation** |  | **Thu 7/10/14** | **Thu 7/10/14** | **0%** |
| 1.4.3.1 | Charter Presentation Preparation | Sumeet Kaur | Thu 7/10/14 | Thu 7/10/14 | 0% |
| 1.4.4 | **Project Charter Final Version** |  | **Fri 7/11/14** | **Fri 8/8/14** | **0%** |
| 1.4.4.1 | General Organization Revision | Sean Nesburg | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.2 | Scope Statement Revision | Sean Nesburg | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.3 | Cost Management Plan Revision | Aisha Kulindwa | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.4 | Earned Value Management Revision | Sumeet Kaur | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.5 | Scope Management Plan Revision | Sumeet Kaur | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.6 | Work Breakdown Structure Revision | Sumeet Kaur | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.7 | Quality Management Plan Revision | Tanmaykumar Patel | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.8 | Communications Plan Revision | Tanmaykumar Patel | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.9 | Change Management Plan Revision | Aisha Kulindwa | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.10 | Risk Management Plan Revision | Jacob fisher | Mon 7/14/14 | Fri 7/18/14 | 0% |
| 1.4.4.11 | Procurement Management Plan Revision | Jacob fisher | Tue 7/15/14 | Fri 7/18/14 | 0% |
| 1.4.4.12 | Project Closeout Report Revision | Sean Nesburg | Fri 7/18/14 | Tue 7/22/14 | 0% |
| 1.4.4.13 | Project Charter Document Master Formatting | Tanmaykumar Patel, Team | Tue 7/22/14 | Thu 7/24/14 | 0% |
| 1.4.4.14 | Baseline Project Charter Submission | Tanmaykumar Patel | Fri 8/8/14 | Fri 8/8/14 | 0% |
| 1.5 | **Architecture Design Specification** |  | **Tue 7/15/14** | **Tue 8/12/14** | **0%** |
| 1.5.1 | **ADS Initial Briefing** |  | **Tue 7/15/14** | **Tue 7/15/14** | **0%** |
| 1.5.1.1 | ADS Document Discussion |  | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.5.1.2 | ADS Section Assignments |  | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.5.2 | **ADS First Draft** |  | **Tue 7/15/14** | **Thu 8/7/14** | **0%** |
| 1.5.2.1 | Introduction Section |  | Tue 7/15/14 | Thu 7/17/14 | 0% |
| 1.5.2.2 | Meta Architecture Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.3 | Layer Definition Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.4 | Application Input Layer Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.5 | Hardware Input Layer Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.6 | Data Processing Layer Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.7 | File Storage Layer Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.8 | Output Layer Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.9 | Inter-Subsystem Data Flow Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.10 | Requirements Mapping |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.11 | Operating System Dependencies Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.12 | Testing Considerations Section |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.13 | ADS Document Formatting |  | Tue 7/15/14 | Tue 7/22/14 | 0% |
| 1.5.2.14 | Document Review and Merging |  | Fri 8/1/14 | Mon 8/4/14 | 0% |
| 1.5.2.15 | ADS First Draft Submission |  | Thu 8/7/14 | Thu 8/7/14 | 0% |
| 1.5.3 | **ADS Gate Review Phase** |  | **Thu 8/7/14** | **Tue 8/12/14** | **0%** |
| 1.5.3.1 | Introduction Section Revision |  | Fri 8/8/14 | Mon 8/11/14 | 0% |
| 1.5.3.2 | Meta Architecture Section Revision |  | Fri 8/8/14 | Mon 8/11/14 | 0% |
| 1.5.3.3 | Layer Definition Section Revision |  | Fri 8/8/14 | Mon 8/11/14 | 0% |
| 1.5.3.4 | Inter-Subsystem Data Flow Section Revision |  | Fri 8/8/14 | Mon 8/11/14 | 0% |
| 1.5.3.5 | Subsystems Description Section Revision |  | Fri 8/8/14 | Mon 8/11/14 | 0% |
| 1.5.3.6 | Operating System Dependencies Section Revision |  | Fri 8/8/14 | Mon 8/11/14 | 0% |
| 1.5.3.7 | Testing Considerations Section Revision |  | Fri 8/8/14 | Mon 8/11/14 | 0% |
| 1.5.3.8 | ADS Document Review |  | Fri 8/8/14 | Mon 8/11/14 | 0% |
| 1.5.3.9 | Gate Review Presentation Slides |  | Sun 8/10/14 | Mon 8/11/14 | 0% |
| 1.5.3.10 | Gate Review Presentation Rehearsal |  | Mon 8/11/14 | Mon 8/11/14 | 0% |
| 1.5.3.11 | Critique of ------ADS |  | Tue 8/12/14 | Tue 8/12/14 | 0% |
| 1.5.3.12 | Architecture Design Specification Gate Review |  | NA | NA | 0% |
| 1.6 | **Group Meetings** |  | **Thu 6/12/14** | **Fri 8/8/14** | **77%** |
| 1.6.1 | Meeting 1 | Team | Thu 6/12/14 | Thu 6/12/14 | 100% |
| 1.6.2 | Meeting 2 | Team | Fri 6/13/14 | Fri 6/13/14 | 100% |
| 1.6.3 | Meeting 3 | Team | Tue 6/17/14 | Tue 6/17/14 | 100% |
| 1.6.4 | Meeting 4 | Team | Wed 6/18/14 | Wed 6/18/14 | 100% |
| 1.6.5 | Meeting 5 | Team | Thu 6/19/14 | Thu 6/19/14 | 100% |
| 1.6.6 | Meeting 6 | Team | Fri 6/20/14 | Fri 6/20/14 | 100% |
| 1.6.7 | Meeting 7 | Team | Tue 6/24/14 | Tue 6/24/14 | 100% |
| 1.6.8 | Meeting 7 | Team | Wed 6/25/14 | Wed 6/25/14 | 100% |
| 1.6.9 | Meeting 8 | Team | Thu 6/26/14 | Thu 6/26/14 | 100% |
| 1.6.10 | Meeting 9 | Team | Thu 7/3/14 | Thu 7/3/14 | 100% |
| 1.6.11 | Meeting 10 | Team | Tue 7/8/14 | Tue 7/8/14 | 100% |
| 1.6.12 | Meeting 11 | Team | Thu 7/10/14 | Thu 7/10/14 | 0% |
| 1.6.13 | Meeting 12 | Team | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.6.14 | Meeting 13 | Team | Thu 7/17/14 | Thu 7/17/14 | 0% |
| 1.6.15 | Meeting 14 | Team | Tue 7/22/14 | Tue 7/22/14 | 0% |
| 1.6.16 | Meeting 15 | Team | Thu 7/24/14 | Thu 7/24/14 | 0% |
| 1.6.17 | Meeting 16 | Team | Tue 7/29/14 | Tue 7/29/14 | 0% |
| 1.6.18 | Meeting 17 | Team | Thu 7/31/14 | Thu 7/31/14 | 0% |
| 1.6.19 | Meeting 18 | Team | Tue 8/5/14 | Tue 8/5/14 | 0% |
| 1.6.20 | Meeting 19 | Team | Fri 8/8/14 | Fri 8/8/14 | 0% |
| 1.7 | **Sponsor Meeting** |  | **Tue 6/24/14** | **Fri 8/8/14** | **33%** |
| 1.7.1 | Meeting 1 | Sean Nesburg | Tue 6/24/14 | Tue 6/24/14 | 100% |
| 1.7.2 | Meeting 2 | Sean Nesburg | Tue 7/15/14 | Tue 7/15/14 | 0% |
| 1.7.3 | Meeting 3 | Sean Nesburg | Thu 7/31/14 | Thu 7/31/14 | 0% |
| 1.8 | **Team Status Reports** |  | **Fri 7/18/14** | **Thu 8/7/14** | **0%** |
| 1.8.1 | Status Report #1 (Presentation Slides) | Sumeet Kaur | Tue 7/22/14 | Thu 7/24/14 | 0% |
| 1.8.2 | Status Report #2 (Presentation Slides) | Sumeet Kaur | Tue 8/5/14 | Thu 8/7/14 | 0% |
| 1.9 | **Project Research** |  | **Tue 7/15/14** | **Mon 9/15/14** | **0%** |

**Table 6-2 Detailed Project Schedule**

# Quality Management Plan --DONE

## Introduction

The quality management plan’s purpose is to establish an acceptable level of quality for the project. The baseline standard for quality is the system requirements specification document, which compiles customer and developer requirements into a streamlined presentation to be referred to for guidance by the development team. Features necessary to attain a proper level of quality are the primary focus of this plan.

## Documentation

Documentation of the project is organized and kept together through the use of a subversion suppository on Github.com, and final versions of the documentation will be stored on a publicly visible Google drive account. Rough drafts will be read and finalized by the team’s document reviewer so as to keep a level of coherence within the documentation. Revisions will go through the same process, and the thoughts and perspectives of each individual team member will be available upon request from their engineering notebook.

## Software

The software for this project will be designed and developed following a number of principles well established within the application development community. Specifically, the team will follow the principles of test driven development, consumer inclusion, and rapid development cycles among others. Also, the end product is expected to be of high regard and standard according to all parties concerned.

## Hardware

Hardware for the RFID inventory system will be considered by the team for its quality, ease of use, price, and functionality. Each of these will be assigned an abstract weighted value by the team and used to weigh the available RFID products against each other for purchase and use by the team and consumer. The hardware that is purchased for use within the project will be extensively tested and have its relevant behavior and functionality documented for the utility of the end user.

## Testing

Testing of the end product will be performed so as to confirm its quality. The web application will be unit tested and integration tested as it is being developed, and the hardware will be tested for proper functionality as well before being fully integrated with the software. After testing of the individual components (the hardware and software), the two will be tested as a complete package for proper operation within conditions similar to the products final use.

# Communications Plan

## Introduction

A key aspect of any successful team is communication. In order to become an effective team, we have decided to use multiple avenues of communication for both the internal and external communication.

## Internal Communication

### Team Meetings

Regular meetings are the primary method of group communication between the team members. The team meets every Tuesday, Thursday, and Friday mornings from 9:00AM to 10:30AM in order to update the status on individual work as well as discuss any other pertinent information about the project. We have also decided to hold additional meetings when required based on the schedules of all of the members. The information manager of the team also updates the log after every meeting to show what was discussed in that particular meeting.

### Google Hangouts

As every member of the team cannot physically attend all of the meetings, the team has decided to use the video chat service Google Hangouts as a secondary method of group meetings. The member who cannot physically attend the meeting joins the group using the video chat service so as not to miss out on any of the decision making process.

### What’sApp

A quick and easy source of communication that the team uses daily is the What’sApp chat service. It is primarily used to coordinate any offline meetings or for asking quick questions regarding the project that might not have been clarified during our meetings.

### Email & Google Drive

Email and Google Drive is used as our primary method of sharing documents among the group members. One of the great features of Gmail is that any attachments that are received via email can be quickly saved to the Google Drive without any hassles, which can then be viewed by the rest of the group. Google Drive is used as a repository for all of the documents.

## External Communication

### Sponsor Meetings

The meetings between the Team and our official Sponsor Dr. Becker usually occur on Friday afternoon. The team meets on the Friday morning and determines the agenda for the afternoon sponsor meetings. The sponsor meetings times may change depending on sponsor’s and the team members’ schedules.

### Email

The method used to communicate with the Sponsor most often is Email. All of the documents that are to be submitted are also send to the Sponsor in order to keep them up to date on current progress.

# Change Management Plan --DONE

## Purpose of Integrated Change Management Plan

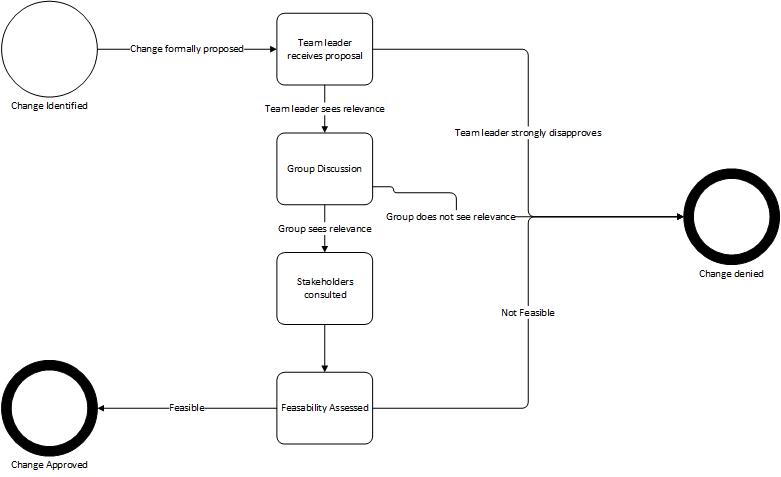
The functional purpose of the change management plan is to serve as a way for the project to stay on schedule and within the well-established budget. It will help the team anticipate, analyze, and prepare for changes that tend to be proposed throughout the process of development. Stakeholders tend to realize that they want something in the final product during design and implementation, which can adversely affect the flow of the project if allowed to push the change into the requirements. Due to time and budget constraints, change management policies must be instantiated to keep the project from falling off schedule and cutting corners. A change management plan also helps the team lobby with the project sponsor with established expectations. Stakeholders have certain expectations of the project that they are sometimes unable to convey initially, and a way is needed for both parties to come to an agreement and amend the initial project requirements that have already been established. The following sections will define all of the guidelines and roles of parties involved in the process of changing the project requirements and expectations.

## Roles and Responsibilities

* **Project Sponsor:** The project sponsor, Dr. Tiernan, will be responsible for approving and proposing any significant changes that may occur within the duration of the project. The project sponsor will be contacted within 48 hours of a major change proposal and will be expected to attend a meeting with the development team to discuss the impacts of the proposed change and its validity. Any proposal that the sponsor wishes to submit must be submitted in the form of the document that describes the proposed change and justifies why it is paramount to the functionality of the final product.
* **Project Manager:** The project manager, Karla Hernandez, will be the primary point of contact for any people wishing to contact the team. She serves as a thin barrier between the development team and the project sponsor and stakeholders. She has the right to opt not to tell the team about a proposed change, or to delay the proposal so as to keep the project on schedule and ensure its security. This ensures that the developers are able to stay on track without the distraction or responsibility of dealing with interested parties
* **Project Team:** The project team’s purpose in the change control process is to discuss and analyze proposed changes and their feasibility. They will consider the effort needed, required technology, and monetary cost of a change before coming to a decision as to whether a change will be implemented. Members of this team must unanimously vote on whether a change will be included within the project.
* **Other Stakeholders:** The team’s stakeholder and project supervisor, Mr. O’Dell is to be immediately notified of approved changes to the final product. His thoughts and opinions on the change will be taken into consideration, and heavily weigh on whether or not the change reaches final approval

## Review and Approval Process

The diagram below illustrates a high level view of the process that will be used to consider and approve a change proposal.



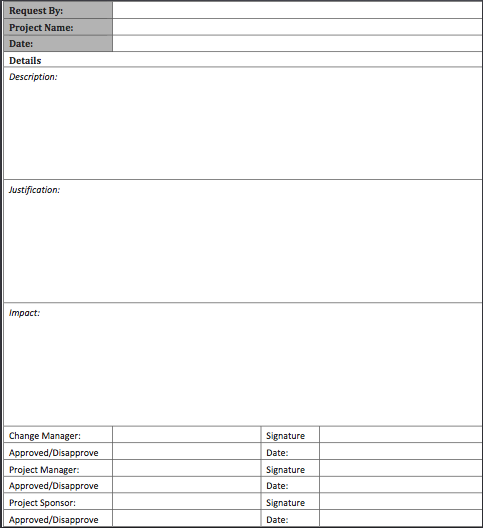
All change requests will undergo the procedure above with the exception of if the sponsor proposes the change during a meeting, at which time there would be immediate discussion with the proper procedure being followed afterwards.

## Change Identification, Documentation, Implementation and Reporting

For the process of making a major change to the project, use of a form is required. Use of the form will allow the team to keep a record of each change throughout the course of the project. The form used to record these changes will consist of the following pieces of information.

* **Source of the Change** - The form should contain the name of the individual or group that proposed the change.
* **Date of Change Request Submission** – The form should contain the date that the form was submitted
* **Description of the Change** – The form should contain a detailed description of the change proposed. This field should contain enough information for the team to understand specifically how this change would be implemented
* **Justification for the Change** – The form should contain a detailed justification for why the change is important enough to implement.

The form will also areas for the signatures of each team member and the team sponsor to sign upon approval of the change. If a change is agreed upon, then all documentation, design, and the project plan should be revised to reflect the new change



**Form 9-1: Change Request Form**

# Risk Management Plan - DONE

## Purpose of Risk Management Plan

The purpose of the Risk Management Plan is to be prepared in case of a contingency, by planning ahead the required steps to follow in such case, mitigating any risk that might affect the development of the project. In most of the cases, team Aegle will try to prevent risks from emerging; however risks are inevitable therefore the risk management plan will include the steps required to take to reduce the impact as much as possible.

## Roles and Responsibilities

The project stakeholders play a vital role in the identification of risks that might emerge during the project development lifecycle. The following section describes the roles and responsibilities of each stakeholder.

### Project Sponsor.

The project sponsor will provide risk identification from the client’s point of view. This insight is very valuable, because the team is not as familiar as the client regarding the storage policies and such. Since the project sponsor possesses a technical background, she will be able to also provide the team with some technical risks and resolutions for the project.

### Project Manager.

The project manager is responsible to guide the team in the correct path, mainly focusing on avoiding the most critical risks by having constant communication with the risk manager.

### Project Team.

The entire team is responsible for identifying risks as well as following the steps stated in the risk management plan. The Risk Manager will drive the team discussions.

### Risk Manager.

Joseph Finnegan is the designated Risk Manager. He will be responsible for recording, documenting and keeping track of any risk related issues or concerns that emerge during the entire development of the project. He will also communicate or address any concerns identified by any of the stakeholders to the whole team. If the team is facing a risk, he will ensure to communicate the team the steps to follow as well as monitoring the risk mitigation process.

## Risk Identification

Every team member is responsible of reporting any identified or emerged risks to the Risk Manager. Ideally, risks will be identified early in the development of the project with the purpose to avoid the higher risks and be prepared in case of an incident. The Risk Manager will invoke a team meeting to discuss and inform the team about the steps to take. The project sponsor and director will only be contacted when the severity of the impact is very high.

## Risk Triggers

A risk trigger refers to an identified measure that indicates that a risk might occur. The following list describes some triggers that have been identified by the team.

* Lack of knowledge, mostly related to hardware and RFID technology.
* Missing deadlines by team members.
* Change control not handled properly.
* Not having continuous communication with the project sponsor.
* Team member low involvement can impact the development of deliverables on time.
* Lack of communication among team members will prevent everyone from having a common understanding of the application.

## Risk Analysis

The table below lists the risks that have been identified by the team to this date that could potentially affect the success of the project.

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Risk** | **Probability** | **Cost** |
| Technology | Choose correct RFID reader | 20% | 14 |
| Sponsor | Tracking items in the storage room is an unrealistic requirement. | 100% | 15 |
| Team | Lack of RFID Technology | 100% | 23 |
| Team | Underestimation of tasks | 35% | 2 |
| Team | Other work | 75% | 2 |
| Team | Incorrect Project Design | 15% | 18 |
| **Total** | 74 | | |

**Table 10-1 Risk Analysis**

## Risk Severity

The following table lists the severity of every risk that was listed in the previous section along with its corresponding resolution. They are prioritized according to the likelihood of occurrence.

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk** | **Priority** | **Resolution** | **Trigger** |
| Choose Correct RFID reader | High | Learn about RFID technology and possibly borrow a testing reader from Dr. Jones | Lack of knowledge related to RFID technology. |
| Tracking items in the storage room is an unrealistic requirement. | High | Find a technology work around so that we don’t exceed the budget. | Sponsor defines unrealistic requirements. |
| Lack of RFID technology | High | Dr. Jones Students will train us on RFID technology topics. | Identifying the use of the unknown technology in the requirements phase. |
| Underestimation of tasks | Medium | Have an internal calendar with early due dates so that we have time in case of a contingency. | Tendency of the team to underestimate hours for the tasks. |
| Other Work | Low | Distribute the work among the remaining team members. | Team members require to miss a meeting or get assigned extra course work. |
| Incorrect Project Design | High | Consult with several individuals the correctness of our ADS before turning in the baseline document. | Confusion on how to design the Architecture of the system. |

## Table 10-2 Risk Severity

## Risk Response Planning

The Risk Plan is one of the most critical elements to ensure that the risks are correctly mitigated if not entirely prevented, which will ensure that the project is successfully delivered on a timely manner.

The key driver in this plan is the Risk Manager, who will stay on top of any risks, executing the corresponding risk mitigation steps. The risk mitigation process is described below:

* Risk Identification: The whole team will be responsible for identifying new risks in the different parts of the project that each team member is working. The risks can be either identified before occurrence (preferably) or on time of the occurrence.
* Risk Analysis: Once a risk has been identified, the Risk Manager will schedule a meeting so that all the team members can discuss the priority of each risks and the impact it will create to the project development.
* Risk Management Plan: After coming up with a list of possible risks, the team will define the steps that are needed to mitigate the risk to the lowest impact possible.

## Risk Documentation and Reporting

Risks will be properly documented by the Risk Manager, in a special MS Word document which will have as solely purpose to provide detailed information on the risks, as well as the mitigation plan and steps followed by the team. Also, after the risk was mitigated the risk manager should document all the monitoring in case the risk has more impacts than the team had anticipated.

## Risk Control

The team has to have a set mind oriented towards Risk Control. To ensure this, the team will put up a sign in their respective cubicle so that in each meeting they are reminded that risks have to be part of each single detail. The risks will be properly documented along with its resolution and monitoring.

# Procurement Management Plan --DONE

## Purpose of the Procurement Management Plan

The purpose of the procurement management plan is to provide the team and any project stakeholder with a set of guidelines that will be follow during the purchase of the components, and services needed to completed the project in order to get the best components, and services within our budget and get the components and services in time to avoid any delays during the project. Also the procurement management plan will make sure that only components and services necessary for the project are purchased and it also states the roles and responsibilities of the people involved in the project.

## Roles and Responsibilities

* **Project Sponsor:** Dr. Tiernan can provide the team with any suggestions and advice related to the components and services needed for the project, but besides she would not have any other roles or responsibilities on the procurement plan.
* **Project Manager:** Karla Hernandez will be the link between the team, and the project supervisor, she will also have the final decision as to which components and services are purchased for the project, and she will also have the final decision with any other issues related to the procurement plan.
* **Project Team:** Every team member will provide the project manager with their opinion, and advice as to which components and services are necessary for the project. The team will also be responsible for researching the components needed for the project, and to let the project manager if any other components or services are needed to complete the project.
* **Project Supervisor:** The project supervisor has the final decision as to which components and services will be purchase.

## Required Project Procurements and Timing

The components and services needed for the project will be procured at least 2 weeks before the implementation part of the project. Components will be purchase at least two weeks in advance of the implementation phase of the project, while services will be schedule 2 weeks before the implementation phase and set to the date that the services will be need it. The objective is to have all the components and services ready before the implementation phase begins. The team will constantly monitored and make sure that the components list is up to date in order to avoid unnecessary purchases. Acquiring the components in time and avoiding the purchase of components are critical to avoid schedule delays and budget issues.

## Description of Items/ Services to be acquired

The following list shows all the necessary components to complete the project.

* RFID Reader
* RFID Tags
* Antennas (4 Antennas, one per corner of the storage room)
* WMS Software (Warehouse Management System)
* Cables to Connect Antennas to RFID Reader
* Ethernet Cable to Connect RFID Reader to Host Computer
* Host Computer

# Project Closeout Report --DONE

## Purpose of Closeout Report

The purpose of the Closeout Report is to address any personnel issues, administrative issues, and financial issues at the end of the project and resolved the issues in a well and timely manner. Also, during the closeout report the team should make sure that all the documents from the project are archived together, and that all the lessons learned are documented.

## Administrative Closure

### Were the objectives of the project met?

At the end of the project, the team will meet with the sponsor and determine if the project was successful or not. The overall satisfaction of the sponsor with the final product is important, but at the end the success or failure of the project will be measure and determine by comparing the features of the final product to the System Requirement Specification of the project. The team and sponsor should take into consideration how many requirements were accomplish, and the priority of the requirements, with the high priority requirements weighting more than the low priority requirements in the final decisions as to determine if the project was successful or not.

### Archiving Project Artifacts

The following list contains all the documents of the project that will be archive in both physical and electronic copies for future references.

* System Requirement Specification
* Project Charter
* MS Project Plan
* Architectural Design Specification
* Detailed Design Document
* System Test Plan
* Financial Records
* User Manual
* Lessons Learned
* Source Code Documentation

### Lessons Learned

At the end of the project, the team will meet to discuss the overall performance of the project. During this meeting, the team will make an assessment of the project from start to finish and determined what the team could it done better to increase the overall performance of the project and efficiency of the team, and what the team did well during the project. This assessment will be the team’s lessons learned and will be documented, and included in the project documents to be archived.

### Plans for Post Implementation Review (PIR)

After the project it’s over, the team will meet with the sponsor, and determine if the project was a success or not. The success of the project will be determined by comparing the final product with the System Requirement Specification. The team and the sponsor will determine how many requirements were completed, and the priority of the requirements will also dictate if the project was successful as requirements with higher priority are more important. The System Requirement Specification also contains the Acceptance Requirements section that will be use to validate the correct functionality of the Outreach Storage System.

### Final Customer Acceptance

At the end of the project, the team will meet with the sponsor to discuss the end product. The team and the sponsor should go over the end product and check which customer requirements were completed and which ones were not. The team should explain the reason why the incomplete requirements were not accomplish and discuss how to implement the incomplete requirements in the future if the costumer desires to implement the missing requirements.

### Financial Records

The team will keep a record of all purchases made throughout the project with all the vendor’s receipts from any purchases made. All of these purchases will be documented and will be included in the project documents to be archived. The project closeout report will also have a record of all the purchases made.

### Final Project Performance Report

At the end of the project, the team will meet and produce a report containing information regarding the project’s scope management, schedule performance, cost performance, quality of achievements, and a review of the risk containment performance. If there were any changes in the project’s budget cost or any schedule variances, it will be explain and documented in this report.