

REQUIREMENTS MANAGEMENT PLAN

For The Thompson Project

Compiled by Silverback Systems

Version 1.1

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Document History

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1.0	17 September 2022	William Blevins, Minu Perera, Braden Wylie, Sam Hatter, Ryan Spillman	Initial Version
1.1	12/10/22	William Blevins, Minu Perera, Braden Wylie, Sam Hatter, Ryan Spillman	Verified contents, removed any inconsistencies with the final results

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1. Introduction/Purpose

Our group, Silverback Systems, and its members (Ryan Spillman, William Blevins, Minu Perera, Braden Wylie and Samuel Hatter) will be working towards developing a fully functional website by December 5th, 2022, using WordPress for the Thompson Project.

The Thompson Project is a non-profit organization that provides resources and events for incarcerated juveniles. The organization currently has no website, information system, or web presence other than social media accounts on Instagram, Twitter, and Facebook.

The purpose of this development project is to provide The Thompson Project with a functional front-end website and a connected back-end database to help further the organizations web presence and goals.

The resulting work from our group will be explained below through various topics and subtopics to give an idea of how we are tackling this project as we start and progress through it. The strategic goal and main objective of this project are to develop a system that meets all written specifications and the expectations of the client, Mr. Thompson.

2. Requirements Management Plan Purpose and Scope

The purpose of this Requirements Management Plan is to document the approach Silverback Systems will take while working towards satisfying the requirements of the system. This document will guide team members during their work on completing requirements. If issues arise with any requirements of the system, this document will explain how the team should approach evaluating the requirement issue. This document will also explain how requirements should be recorded, changed, labeled, categorized, and validated.

The scope of this Requirements Management Plan includes four major sections, which facilitate the creation and maintenance of the plan. These sections include:

- Requirements Documentation Process
- Requirements Traceability Approach
- Requirements Change Management Process
- Requirements Logistics

2.1. Assumptions/Constraints

Assumptions made for this project are as follows:

- Once designed by Silverback Systems, The Thompson Project will handle live deployment, system administration, and system maintenance for the rest of the system's deployment.
- The Thompson Project will assume all monetary costs of deployment, administration, and maintenance for the rest of the system's deployment.

Constraints identified for this project are as follows:

- All deliverables must be completed by December 5th, 2022, for final presentation to the Project Sponsor.
- The system must be built using the WordPress platform.
- Requirements of the system capable of being fulfilled by a WordPress plugin will be done so before other available options.

2.2. Roles and Responsibilities

Requirements Leadership (Functional/Technical Leads)				
#	Role	Responsibility	Name	Organization
1.	Requirements Analyst	Decide requirements and the execution of them	Rotational	Silverback Systems
2.	Developer	Create the code/ website sections relevant to requirements	Rotational	Silverback Systems
3.	Developer	Create the code/ website sections relevant to requirements	Rotational	Silverback Systems
4.	Systems Analyst	Analyze and connect systems and the website pages	Rotational	Silverback Systems
5.	Scrum Master	Lead overall execution, plan execution	Rotational	Silverback Systems

Table 1: Requirements Leadership Roles and Responsibilities

3. Business Capabilities

The Business Capabilities of the new system in development for The Thompson Project fall into six general categories:

- Personnel and Administration Management
- Resource Acquisition
- Data Management
- Activity Management
- Marketing and Information Dissemination
- System Administration

Personnel and Administration Management provides accounts for all users of the system, with each account receiving appropriate access controls according to their role in the organization. Each account will be grouped by the user's role for the Thompson Project and allow for records of administrators, staff, donors, students, and volunteers to be recorded.

Resource Acquisition allows the Thompson Project to acquire monetary funds through donations, grants, and fundraiser events. The system will also facilitate donation of physical goods by donors to the organization.

Data Management allows the Thompson Project to collect data about its events, personnel, donations, and other activities into a relational database. This database will be searchable by SQL query for data review as well as report generation.

Activity Management will allow for scheduling and informing interested parties of specific events ran by the Thompson Project through a calendar on the website.

Marketing and Information Dissemination is the display of informational material on the website, including posts and links to all social media accounts. This includes information about the organization, future and past events, volunteer opportunities, donation opportunities, and resources for juveniles.

System Administration deals with the deployment, upkeep, and maintenance of the information system. This includes maximum uptime, backup and restoring of data, and requirements for satisfactory user experience.

4. Requirements Documentation Process

All system requirements for this project are derived from two elaboration specifications provided to Silverback Systems by the project sponsor. A synthesis of these two documents was performed to create an initial list of requirements for the project. This document will also describe the process for any future requirements identified by Silverback Systems or The Thompson Project.

4.1. Plan Requirements Management Activities

All system requirements were provided through synthesis of elaboration specifications from Tan Tabletop and Black Hat Slackers. These requirements will be recorded in a Requirements Traceability Matrix. The Requirements Traceability Matrix will be evaluated on at least a weekly basis by the development team as work is being completed.

New requirements or changed requirements will also be discussed in weekly meetings according to this Requirements Management Plan. If changes are agreed upon and made, those will be recorded in the Requirements Traceability Matrix.

Requirements that are Validated and Verified will have their status updated in the Requirements Traceability Matrix by the team member performing the action upon completion.

4.2. Document Requirements

Business Requirements will be aligned with the standards of the organization and will support the objectives of the project. These requirements will be documented in the Requirements Traceability Matrix.

Each requirement will have a unique number assigned to it. This number will be used to reference the unique requirement in any documentation created by Silverback Systems.

Each recorded requirement will have a Business Objective attribute that describes how the requirement corresponds to the organization's business needs. The categories include Personnel and Administration Management, Resource Acquisition, Data Management, Activity Management, Marketing and Information Dissemination, and System Administration.

4.3. Categorize and Prioritize Requirements

Each recorded requirement in the Requirements Traceability Matrix will have a Priority attribute to categorize the level of immediate work done on each requirement. This Priority attribute will change as work progresses on the system requirements. The Priority attribute will change to "Done" upon verification and validation of the requirement completion.

Business Requirements will be classed as Functional and Non-Functional. These two classes will help define and prioritize the requirements.

Each recorded requirement will have a Business Objective attribute that describes how the requirement corresponds to the organization's business needs. This attribute can also be used by team members to help prioritize work on system requirements.

4.4. Verify and Validate Requirements

The verification and validation process will consist of comparing the sets of business requirements and specifications. As a group, we will determine if there is overlap or consistency between the existing requirements.

The guidelines for completing verification and validation for each requirement is contained in the Verification and Validation attributes for that specific requirement. Once completed, the attributes for both Verification and Validation will be updated by the team member performing the action.

4.5. Finalize Requirements and Baseline

Through two different milestone presentations, we will take critique from our peers and professor to analyze and determine what our current baseline of the project is, and what the next steps are that need to be taken. By December 5th, 2022, we will have analyzed our project in its entirety to make sure that it fits the requirements we set when we started this project.

The initial system requirements for the project are provided by the two elaboration specifications from Tan Tabletop and Black Hat Slackers. The synthesis of these requirements are finalized until the first demonstration of the system to the project sponsor, at which time changes may be submitted for consideration.

4.6. Perform Gap Analysis

Fit-Gap analysis will be performed as needed during development. A gap is defined as a function of the system that is deemed by the development team to be needed but is not covered in documented requirements for the system.

If a gap is determined to exist, the gap will be brought to the next team meeting for discussion with team members. A consensus between team members will be reached about the best solution. If closing the gap requires significant change to development or other requirements, these changes will be appropriately documented and conveyed to the client in writing.

5. Requirements Traceability Approach

Requirements for the system being developed for the Thompson Project will be tracked in a Requirements Traceability Matrix. Requirements will be sourced from the Elaboration Specification delivered by Black Hat Slackers and Tan Tabletop. Each requirement will be labeled with a unique number, with sub numbers to denote related requirements. Further, closely related requirements will be grouped together through a classification attribute.

The Requirements Traceability Matrix will be co-owned by all members of Silverback Systems, and responsibility will be shared between all members. The status of each requirement will be tracked via attributes attached to each requirement record. The most recently updated and current version of the Requirements Traceability Matrix will be available on the file storage of Silverback System's MS Teams group.

The attributes for each requirement record are as follows:

- Requirement ID
- Category
- Requirement Description
- Priority
- Source
- Business Objective
- Deliverables
- Verification
- Verification Status
- Validation
- Validation Status

5.1. Requirements Management Deliverables

ID	Requirements Phase Deliverables	Responsible Party	Approvals Required
1	Requirements Management Plan	Silverback Systems	Armond Thompson, Dr. Chrisman
2	Requirements Traceability Matrix	Silverback Systems	Armond Thompson, Dr. Chrisman

Table 2: Requirements Management Deliverables

6. Requirements Change Control Process

Changes to the system requirements may either be submitted to the team by the client through writing or by verbal comment after any presentation before the final presentation on December 11th, 2022. Once submitted, these changes will be brought up in the next team meeting for discussion. The team will identify and categorize the possible new requirement changes and discuss the impact the change will have on current development. The team will come to a consensus on whether the change can be accepted as-is, altered, or denied.

If accepted, the requirement will be added to the traceability matrix. If altered, written communication will be had with the client to discuss issues. If denied, the client will be informed in writing.

7. Communication Activities

The Silverback Systems key communication method will go by the Interactive method due to this being the best method to communicate between both parties since both are sending and receiving information, allowing opportunities for clarifications. For this project, the team will execute via presentation in person.

The requirements lifecycle will include the following communication points with internal and external parties:

Communication Points		
Party	Description	Occurrence or Phase
Armond Thompson (The Thompson Project, Project Sponsor)	Demonstration I	24 October 2022
Armond Thompson (The Thompson Project, Project Sponsor)	Demonstration II	14 November 2022
Armond Thompson (The Thompson Project, Project Sponsor)	Final Demonstration	05 December 2022

Table 3: Communication Points

Appendix A: Key References

Table below summarizes the documents referenced in this document.

Document Name	Description	Location
Requirements Traceability Matrix, v1.0	List of unique requirements for the system and their attributes	Project Management Plan

Table 4: Key References