

Silverback Systems

Project Management Plan
The Thompson Project

Version 1.2

Revision History

Note: The revision history cycle begins once changes or enhancements are requested after the document has been baselined.

Version	Date	Notes	Author
1.0	9/26/2022	Initial version	Silverback Systems
1.1	10/11/2022	Minor changes	Silverback Systems
1.2	12/11/2022	Updates to WBS, Project Schedule, and RTM. Additional minor changes.	Silverback Systems

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1. Introduction

This PMP describes the project management processes that Silverback Systems will follow during execution of the Thompson Project website creation project. The project's processes will align with plans and processes of the Project Management Accountability System (PMAS) Guide, new processes will be defined for any management areas not covered by the PMAS Guide. This PMP will govern the management practices across the life of the project. As those practices evolve, this document will be updated to reflect the changes.

1.1. Executive Summary

The product to be delivered by December 12th, 2022, is the creation of a functional website for the Thompson Project, a nonprofit organization that benefits juveniles in detention programs through volunteer work, donations, and the use of other resources. As the Thompson Project grows – so too does its need for a digitally centrally medium that can simplify extensive business processes, such as a website. A website also provides a greater presence for The Thompson Project, especially online.

There are 3 major developmental milestones for this project, the first being Monday, October 24th, 2022, wherein our team will have constructed no less than 50% of the website. The second major developmental milestone is on Monday, November 14th, 2022, wherein our team will have constructed no less than 75% of the website. Finally, we will have the website fully constructed and fully functional no later than Monday, December 5th, 2022.

Required resources include; use and subscription to a potential CMS, access to the Internet, and access to personal computers for each of us to be able to complete our work.

Budget requirements are low, however, a subscription to a CMS may require a small monetary contribution on our parts to be able to efficiently construct a website within the allotted time.

1.2. Scope Statements

Extensive planning is the first step of the creation of this site. We will have to analyze and synthesize the developmental plans of two projects from our previous semester; Black Hat Slackers, and Tan Tabletop. Upon completion, we will have to employ the use of a website development tool, WordPress. Utilizing our synthesized plan, and this creationary tool, we will create a fully functional site that offers many different features to end-users of the planned Thompson Project website. The size of this project is of medium scope – as we will be creating many different pages and features for viewing and usage including but not limited to handling; donations, volunteers, end-user account creation, calendar, and plug-in usage for different social media sites. There are 3 major milestones for this project, our first Demo Presentation, our 2nd Demo Presentation, and our final Presentation, after which our deliverable is due.

1.3. Goals and Objectives

Business and Solution Objectives – Meet the objectives and expectations of our client and project manager.

Technical Objectives – Ensure full functionality of our site

Service Objectives – Provide a user-friendly site to end-users of The Thompson Project website.

Security Objectives – Make the site safe and secure.

1.4. Stakeholders and Key Personnel

Mr. Thompson and his associates involved with The Thompson Project are major stakeholders.

Professor Chrisman is also a major stakeholder as he is our project manager.

End-Users of our final deliverable are stakeholders in this project, as well as ourselves, Silverback Systems, whose grade is dependent on our performance on this project.

2. Project Organization

We are each assigned 4 distinct roles of which there are 5 total positions. We will rotate each person's designated position weekly. The 4 distinct roles are as follows:

Scrum Master

System Analyst

Requirements Analyst

Developer (2 positions)

3. Acquisition Process

Currently there is no acquisition process. This is subject to change as the semester progresses.

4. Monitoring and Control Mechanisms

Requirements for the project will be recorded in the Requirements Traceability Matrix. The status of each requirement and its sub requirements will be recorded in the Traceability Matrix at the start of the project and when work is completed on a requirement by any team member.

Changes to requirements will be controlled according to the requirements change control policy as written in the Requirements Management Plan.

This project follows standard monitoring and control processes as defined in ProPath for risk management, requirements traceability, and operational readiness.

5. Systems Security Plans and Requirements

System security plans and requirements will be developed as part of the project's planning phase.

6. Work Breakdown Structure (WBS)

The Work Breakdown Structure takes The Thompson Project website development project and breaks it down into a hierarchy of phases and work packages. Using the WBS, Silverback Systems will have multiple clear views as to what actionable tasks belong to which phases, dependencies for each deliverable, and in what order deliverables should be completed in. Silverback Systems will use two views of the WBS as well as a WBS dictionary to define work.

6.1. WBS List View

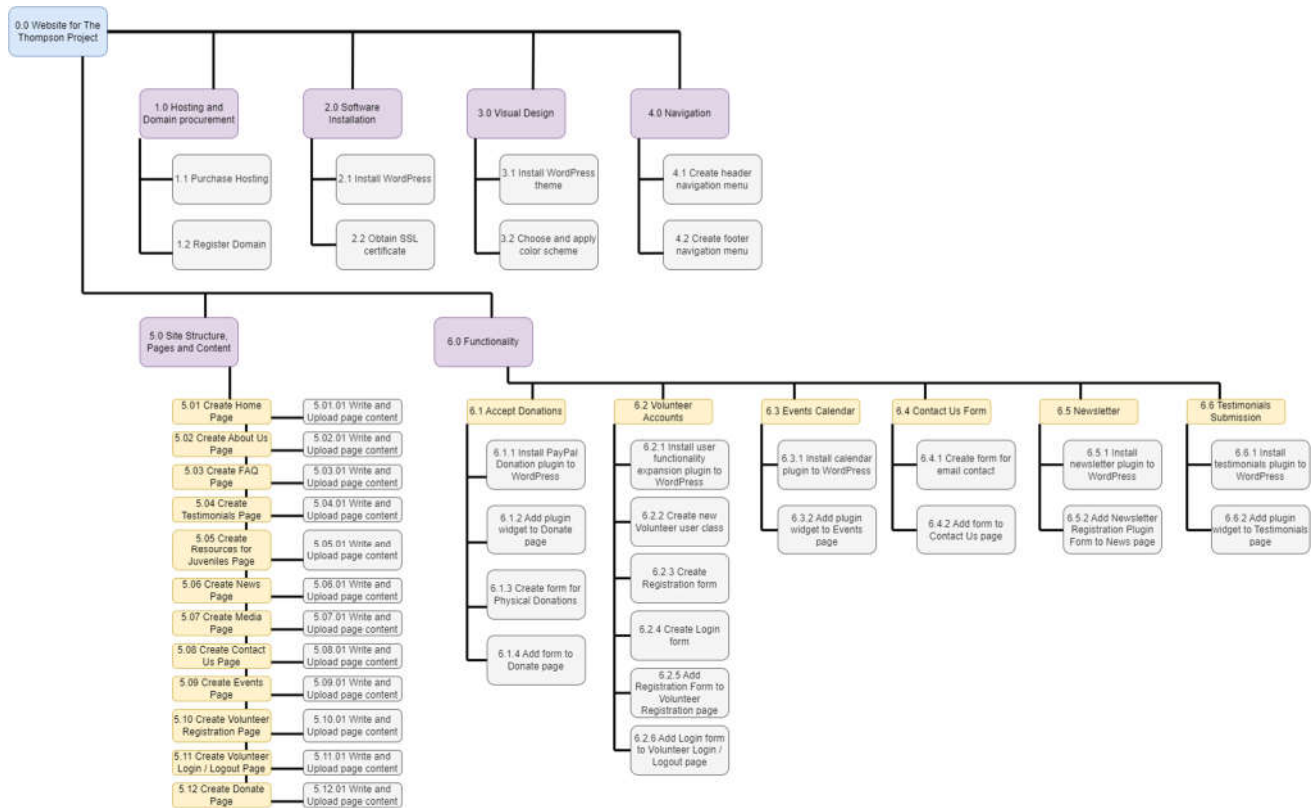
The WBS List View displays the phases and work packages for The Thompson Project in a nested list. The phases are listed in descending order and dependent work packages are indented under the appropriate phase or dependency.

- 0.0 Website for The Thompson Project
 - 1.0 Hosting and Domain procurement
 - 1.1 Purchase Hosting
 - 1.2 Register Domain
 - 2.0 Software Installation
 - 2.1 Install WordPress
 - 2.2 Obtain SSL certificate
 - 3.0 Visual Design
 - 3.1 Install WordPress theme
 - 3.2 Choose and apply color scheme
 - 4.0 Navigation
 - 4.1 Create header navigation menu
 - 4.2 Create footer navigation menu
 - 5.0 Site Structure, Pages and Content
 - 5.01 Create Home Page
 - 5.01.01 Write and Upload page content
 - 5.02 Create About Us Page
 - 5.02.01 Write and Upload page content
 - 5.03 Create FAQ Page
 - 5.03.01 Write and Upload page content
 - 5.04 Create Testimonials Page
 - 5.04.01 Write and Upload page content
 - 5.05 Create Resources for Juveniles Page
 - 5.05.01 Write and Upload page content
 - 5.06 Create News Page
 - 5.06.01 Write and Upload page content
 - 5.07 Create Media Page
 - 5.07.01 Write and Upload page content
 - 5.08 Create Contact Us Page
 - 5.08.01 Write and Upload page content
 - 5.09 Create Events Page
 - 5.09.01 Write and Upload page content
 - 5.10 Create Volunteer Registration Page
 - 5.10.01 Write and Upload page content
 - 5.11 Create Volunteer Login / Logout Page
 - 5.11.01 Write and Upload page content
 - 5.12 Create Donate Page

- 5.12.01 Write and Upload page content
- 6.0 Functionality
 - 6.1 Accept Donations
 - 6.1.1 Install PayPal Donation plugin to WordPress
 - 6.1.2 Add plugin widget to Donate page
 - 6.1.3 Create form for Physical Donations
 - 6.1.4 Add form to Donate page
 - 6.2 Volunteer Accounts
 - 6.2.1 Install user functionality expansion plugin to WordPress
 - 6.2.2 Create new Volunteer user class
 - 6.2.3 Create Registration form
 - 6.2.4 Create Login form
 - 6.2.5 Add Registration Form to Volunteer Registration page
 - 6.2.6 Add Login form to Volunteer Login / Logout page
 - 6.3 Events Calendar
 - 6.3.1 Install calendar plugin to WordPress
 - 6.3.2 Add plugin widget to Events page
 - 6.4 Contact Us Form
 - 6.4.1 Create form for email contact
 - 6.4.2 Add form to Contact Us page
 - 6.5 Newsletter
 - 6.5.1 Install newsletter plugin to WordPress
 - 6.5.2 Add Newsletter Registration Plugin Form to News page
 - 6.6 Testimonials Submission
 - 6.6.1 Install testimonials plugin to WordPress
 - 6.6.2 Add plugin widget to Testimonials page

6.2. WBS Tree Diagram View

The Tree Diagram View for the Thompson Project's Work Breakdown Structure displays the WBS's phases as branches from the beginning project node. Each dependent work package is branched from the phase it belongs to. The beginning project node is colored blue, the main phases of the project are colored purple, and work packages are grey.



6.3. WBS Dictionary

The WBS Dictionary defines terms that appear in the Work Breakdown Structure. If there is any confusion about what a phase, subphase, or work package means or consists of, team members can consult the WBS dictionary for clarification about definitions of words and terms relevant to The Thompson Project.

- Hosting
 - Hosting refers to the physical server that the website code and files will exist on. When a user attempts to visit the website, this hosting server will “serve” the website files to the user. By purchasing a hosting subscription from a hosting provider, we do not have to maintain a physical server or ensure the servers have continuous uptime. Hosting subscriptions will require periodical renewal.
- Domain
 - A domain is the name users will use to access the website through a web browser i.e., “google.com” or “yahoo.com”. Domains can be obtained through a standalone domain registrar or through a hosting service. To obtain a domain, we must purchase an initial registration then pay a periodical renewal. We want to attach the website to a descriptive domain to increase perception of professionalism and trust. Our first choice will be “thethompsonproject.org”.
- WordPress
 - WordPress is a free Content Management System (CMS). By installing WordPress on a webserver, the WordPress program handles the creation and presentation of pages, content, and functionality of the website. WordPress is

highly customizable through plugins, allowing the creation of many different types of websites.

- SSL Certificate
 - An SSL Certificate is a file stored on the webserver that helps encrypt traffic to and from the website. Use of an SSL Certificate allows the website to be addressed via HTTPS instead of HTTP. Most modern browsers do not allow easy access to websites without SSL Certificates. This certificate is issued by a third party and can be requested and renewed through the hosting provider. SSL Certificates are typically free but require periodic renewal.
- WordPress Theme
 - A WordPress Theme is a container of code that can be downloaded through the WordPress program that provides a consistent visual design across all pages of a WordPress website. Many different themes for different purposes can be installed. We want to choose a WordPress theme that gives the impression of Modern, Professional, and Trustworthy.
- Header navigation menu
 - The Header Navigation Menu is the ordered list of links that appears consistently at the top of each page on the website. This list should list all the pages of the website we want the user to be able to access. This allows the user to easily navigate between sections of the website. It can also contain extra information such as links to Social Media accounts on other websites. It also typically contains a link to search functionality.
- Footer navigation menu
 - The Header Navigation Menu is the ordered list of links that appears consistently at the bottom of each page on the website. This list should list all the pages of the website we want the user to be able to access. This allows the user to easily navigate between sections of the website. It can also contain extra information such as links to Social Media accounts on other websites.
- Monetary Donations
 - Monetary Donations refers to the functionality of the website that allows The Thompson Project to receive donated money from users of the website. Users should be able to visit the website and use functionality to have money sent from their various personal accounts to the PayPal account of The Thompson Project.
- Physical Donations
 - Physical Donations refers to the functionality of the website that allows The Thompson Project to receive donated physical goods and supplies from users of the website. The Thompson Project needs donations of clothing, hygiene products, art supplies, games, snacks, and other physical items to support the goals of the Project. Users should be able to visit the website and use functionality to alert the Thompson Project of an intent to donate physical goods and what/how much they are willing to donate.
- WordPress Plugin
 - A WordPress Plugin is a container of code that can be downloaded through the WordPress program that provides extended functionality to the WordPress instance and resulting website. Many specific functionalities of our website are not possible through a stock install of WordPress. We will need to add this

functionality through researching free plugins that can facilitate the needed functionality.

- WordPress User accounts
 - WordPress User Accounts refers to the functionality of WordPress to have accounts associated to different types of users of the website. Each user is assigned a role with different access and functionality unlocked. User functionality in stock WordPress is limited and does not meet the needs of The Thompson Project. We will need to install a plugin that allows us to create custom user roles as well as custom functionality for those roles.
- Registration Form
 - The Registration Form is a form that accepts user input when they wish to volunteer with the Thompson Project and create a volunteer account. The user will input their personal information and chosen account password into the form. When they click the submit button at the bottom of the form, their account will be created. This form will create accounts with a special “volunteer” user role created with a WordPress plugin.
- Login Form
 - The Login form will allow users with a current user account on the website to use their credentials to log in as that account. The main purpose of this form is for those who have registered on the website to have a “volunteer” user account.
- Events Calendar
 - This functionality will allow the Thompson Project to list and advertise future events they plan to hold to program beneficiaries, volunteers and the general public. It is often a graphical representation consisting of a calendar with the events appearing as links in the specific day that event is scheduled to take place. Clicking on a specific event should give the user more information about that event.
- Testimonial
 - A Testimonial is a piece of writing solicited from beneficiaries of the Thompson Project talking about their experience. We are interested in having testimonials be dynamically updated via user submission. The website will have a page to display received testimonials as well as a form to solicit testimonials from users.
- News
 - News is the functionality of periodic posts on the website informing users of recent happenings with The Thompson Project. The website will have a News page for displaying recent news posts as well as searching the archive of old news posts.
- Newsletter
 - A Newsletter is a periodic email sent to users that sign up to receive it. The Newsletter will contain information about recent news, current and future events, and other useful information. The News page of the website will have a form for users to sign up for the Newsletter.
- Content

- Content refers to any writing or media that lives on a specific page of the website i.e., pictures in the Media Gallery or the text explaining volunteering on the Volunteer Registration page.
- Pages
 - Home Page
 - The Home page is the page that sits at the top directory of the website domain. This page will provide a professional and inviting introduction to The Thompson Project and its goals. It will feature a large photo header, calls to action for donating and volunteering, photos to highlight the Project's work, and a general breakdown of functional website sections with links to relevant pages.
 - About Us
 - The About Us page will display static content describing the origin and additional information about The Thompson Project. The focus will be on Armond Thompson and his story about starting the Project.
 - FAQ
 - The FAQ page will display static questions about The Thompson Project's operation and display the Project's answers to those questions. Text hyperlinks will be used to link to relevant sections of the website related to the question.
 - Testimonials
 - The Testimonials page will dynamically display received testimonials about the Thompson Project from users as well as a form to solicit and collect testimonials from users.
 - Resources for Juveniles
 - The Resources for Juveniles page will provide information to youth in need of additional resources. The page will display a static list of text hyperlinks linking to outside websites where additional resources can be found.
 - News
 - The News page will utilize the blog functionality of WordPress to display posts about recent happenings with The Thompson Project. The page will show a collection of the most recent news posts as well as a link to see the archive of old news posts. This page will also host a form for users to sign up for the Newsletter.
 - Media
 - The Media page will display both static and dynamic photos and videos of The Thompson Project outreach, events, and operation.
 - Contact Us
 - The Contact Us page will host a form for users to send email directly to the Thompson Project as well as a static display of linked icons to The Thompson Project on various social media sites.
 - Events

- The Events page will display current, future, and past events held by The Thompson Project through a graphical Events Calendar. Each event will display additional information when clicked.
- Volunteer Registration
 - The Volunteer Registration page will display a call to action for volunteering, as well as a description of requirements needed to be met for volunteering. In addition, the page hosts the Volunteer Registration Form.
- Volunteer Login / Logout
 - The Volunteer Login / Logout page will host the Login Form for users to log into user accounts.
- Donate
 - The Donate page will display a call to action for donating both money and physical goods to the Thompson Project. This page will host a plugin widget allowing users to donate money to the Project through PayPal. In addition, this page will host a form for users to send via email to the Project notice of intent to donate physical goods and the type/amount of those donations.

7. Budget

The budget for the development of a website for The Thompson Project is documented in the figure below. Initial costs for development in Year 0 will be \$38,000 for technology and labor. Then, expected maintenance costs are expected to be \$2,000 per year. Assuming a five-year feasibility study with a grand total revenue of \$149,521, the website should break even in Year 2 and result in net income of \$86,811 in five years.

		Feasibility Analysis						
Benefits		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Donations			5,000	5,350	5,725	6,126	6,555	<u>28,756</u>
Grants			10,000	10,700	11,449	12,250	13,108	<u>57,507</u>
Sponsors			1,000	1,070	1,145	1,225	1,311	<u>5,751</u>
Fundraisers			10,000	10,700	11,449	12,250	13,108	<u>57,507</u>
Total Revenue		\$ 26,000	\$ 27,820	\$ 29,767	\$ 31,851	\$ 34,081		\$ 149,521
Costs								
Developmental								
CMS Plug-Ins			(500)					<u>(500)</u>
MySQL			(2,000)					<u>(2,000)</u>
Labor*			(36,000)					<u>(36,000)</u>
Annual								
Maintenance			(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	<u>(5,000)</u>
Website Domain			(25)	(25)	(25)	(25)	(25)	<u>(125)</u>
IBM Cloud Storage			(1,817)	(1,817)	(1,817)	(1,817)	(1,817)	<u>(9,085)</u>
MySQL			(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	<u>(10,000)</u>
Total Costs		\$ (38,500)	\$ (4,842)	\$ (4,842)	\$ (4,842)	\$ (4,842)	\$ (4,842)	\$ (62,710)
Net Income**		\$ (38,500)	\$ (17,342)	\$ 5,636	\$ 30,561	\$ 57,571	\$ 86,809	\$ 86,811

B/E POINT

*Labor calculated on hourly wage basis. \$75/hr, 8 hours/week, 15 weeks, four analysts

**Net income calculated on a rolling basis. In Years 0-2, income was spent paying off debt. Years 3-5 show accumulated revenue

Return on Investment $149,521 - 62,710 / 62,710 = 1.38$ OR 138%

NET PRESENT VALUE (NPV) $149,521 - 62,710 / (1.065)^5 = \$ 63,366$

\$5,000 = ~\$14/day for full year
Assumes Thompson Project receives 2-3 grants / year @ \$2,500- \$5,000 each
1 fundraiser sponsors / event @ \$100
10 events / year @ \$1,000 each

8. Project Success Criteria

Success on this project will be measured by the developed system meeting all written specifications as well as satisfaction from the project sponsor Armond Thompson.

9. Communication Management Plan

Silverback Systems will conduct three demonstrations of their developed system to the project sponsor Armond Thompson. Mr. Thompson will have the opportunity to ask questions after each demonstration. Suggestions for requirement changes will only be considered after the first two demonstrations. These suggestions will be considered in accordance with the Requirements Change Process documented in the Requirements Management Plan.

Communication Points		
Party	Description	Occurrence or Phase
Armond Thompson (The Thompson	Demonstration I	24 October 2022

Project, Project Sponsor)		
Armond Thompson (The Thompson Project, Project Sponsor)	Demonstration II	14 November 2022
Armond Thompson (The Thompson Project, Project Sponsor)	Final Demonstration	05 December 2022

10. Risk Management Plan

The risks for The Thompson Project will be classed by severity and probability. Silverback systems will use a five-step process when dealing with risks, these include: risk planning, risk identification, risk analysis, risk response planning, and risk monitoring/control. There will be a risk registry like the requirements traceability matrix which will act as a risk registry. Initial risks include budget and system requirements.

Budget is incredibly important to this project. If the costs of maintaining this site exceed expectations for a scope of medium size for this project, considerable changes will have to be made.

Careful consideration must also be given to the System Requirements; WordPress may not offer enough functionality to satisfy every requirement exactly as defined in the System Requirements.

11. Training Plan

Our main source of training will be class attendance and resulting classwork. Professor Chrisman will teach and inform each of us on different subjects pertaining to the development of this project throughout the semester.

If we are required to write moderate to complex levels of code – especially in languages, we don't have much experience in – we will have to seek outside training on those subjects. Potential languages include but are not limited to C#, JavaScript, HTML, C, or C++.

12. Quality Assurance Plan

Each system requirement listed in the Requirements Traceability Matrix will have both a Verification and Validation attribute attached. The verification is how the development team will prove the requirement is completed in a satisfactory manner. The validation is how the completed requirement will be verified or tested by the team.

Upon completion of each system requirement, the team member responsible for completion will ensure their work matches what is listed in the Verification attribute for that requirement. Once verified, that team member will update the Verification Status attribute for that requirement. The same will be done for the Validation attribute once Validation is completed by the team member.

By tracking the status of these attributes, Silverback Systems can ensure proper quality assurance for this development project.

13. Project Measurement Plan

We will measure the completeness of the project as a percentage of the total number of mandatory system requirements completed, as well as measuring time needed for completion of tasks. We will also track the cost of systems and requirements as needed.

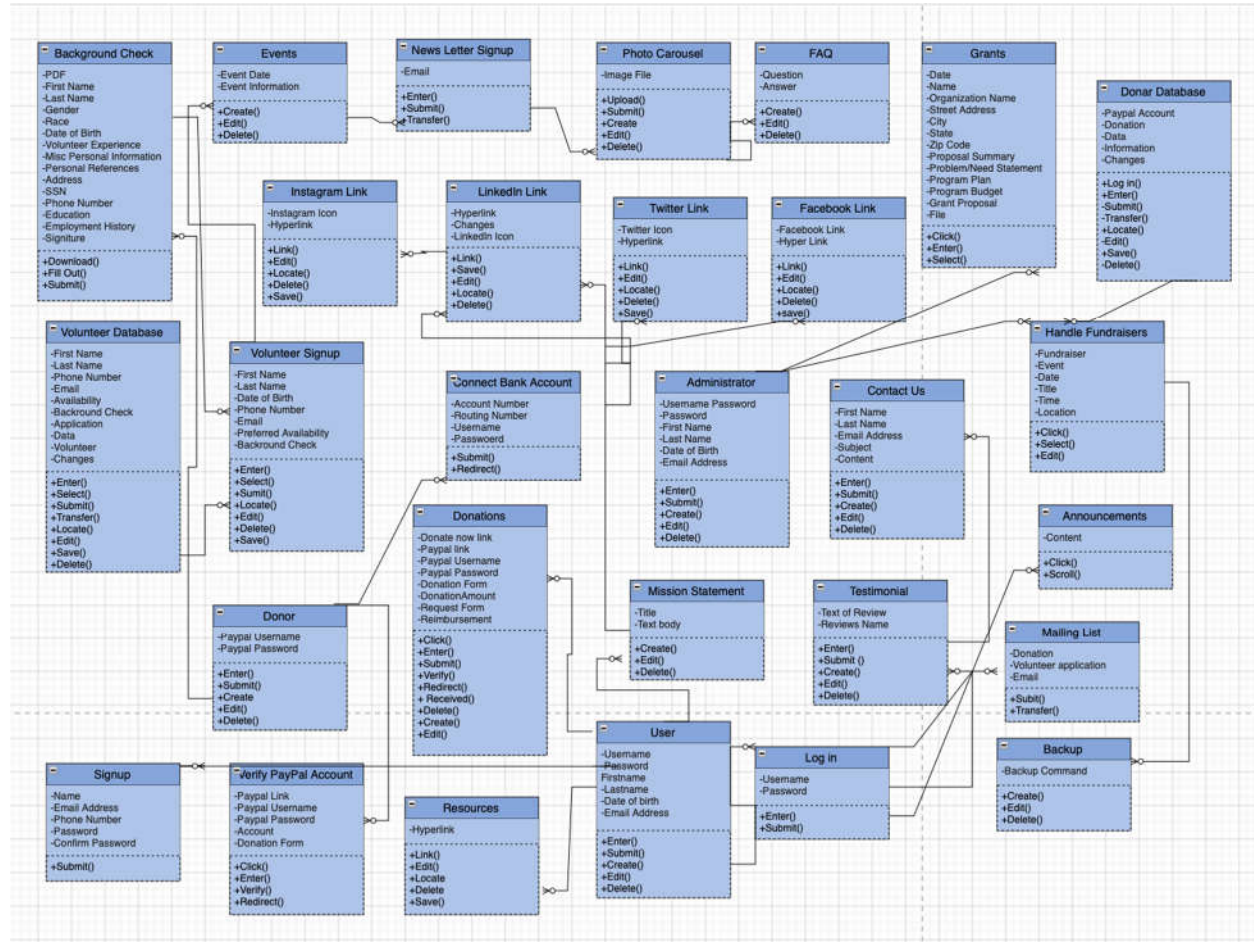
13.1. Performance Measurements

The main metric we will be focusing on is completed and functional system requirements as a percentage of all system requirements. Our objective is as follows:

No.	Measurement Name	Measurement Objective	Metric
1.	First deliverable	50%	Peer-Review
2.	Second deliverable	75%	Peer-Review
3.	Final deliverable	100%	

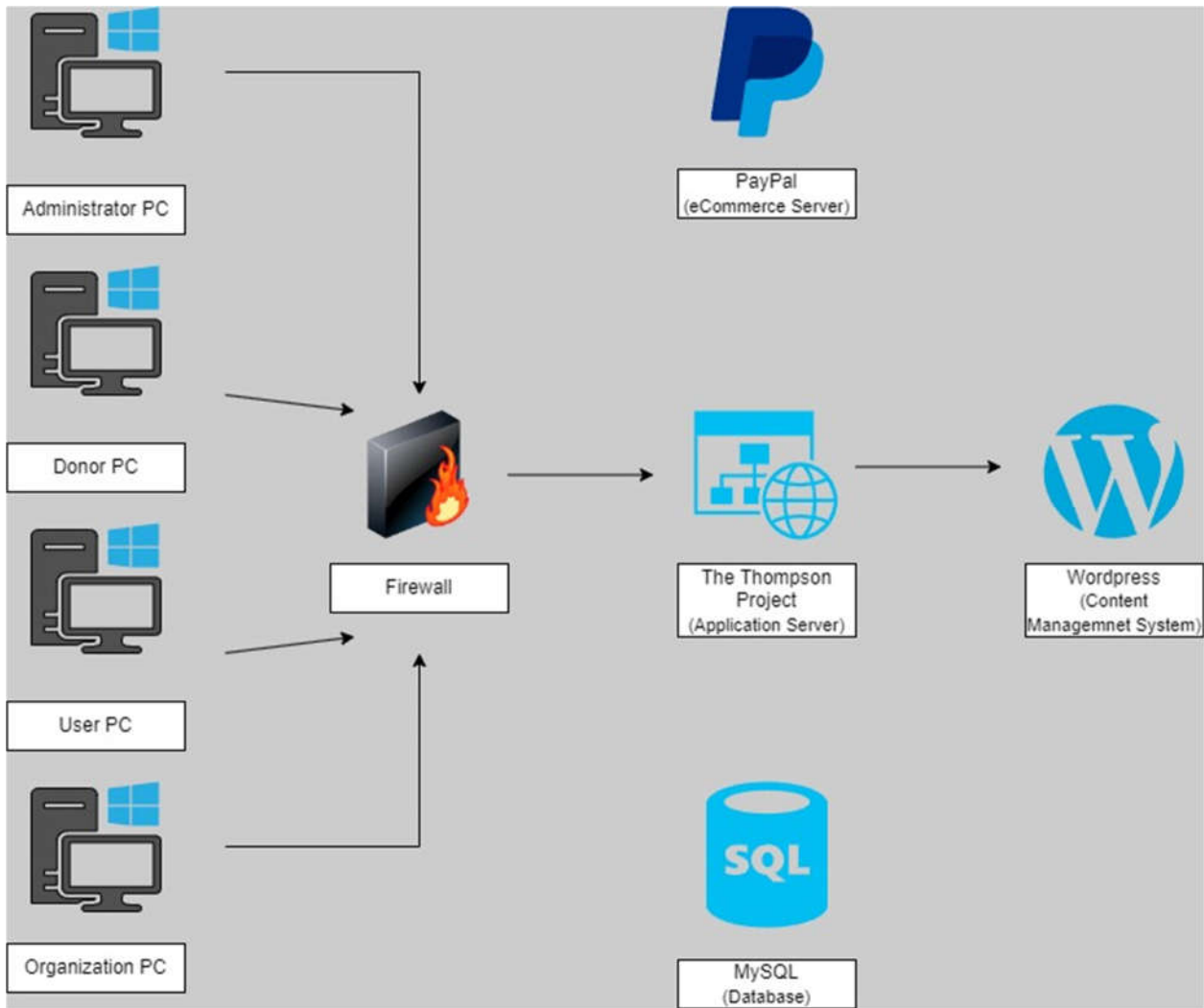
14. Entity Relationship Diagram

This diagram shows the associations between the classes and attributes that are required for the Thomson Project database in 3NF. Each table lists the attributes for each class which have been presented with no partial or transitive dependencies.



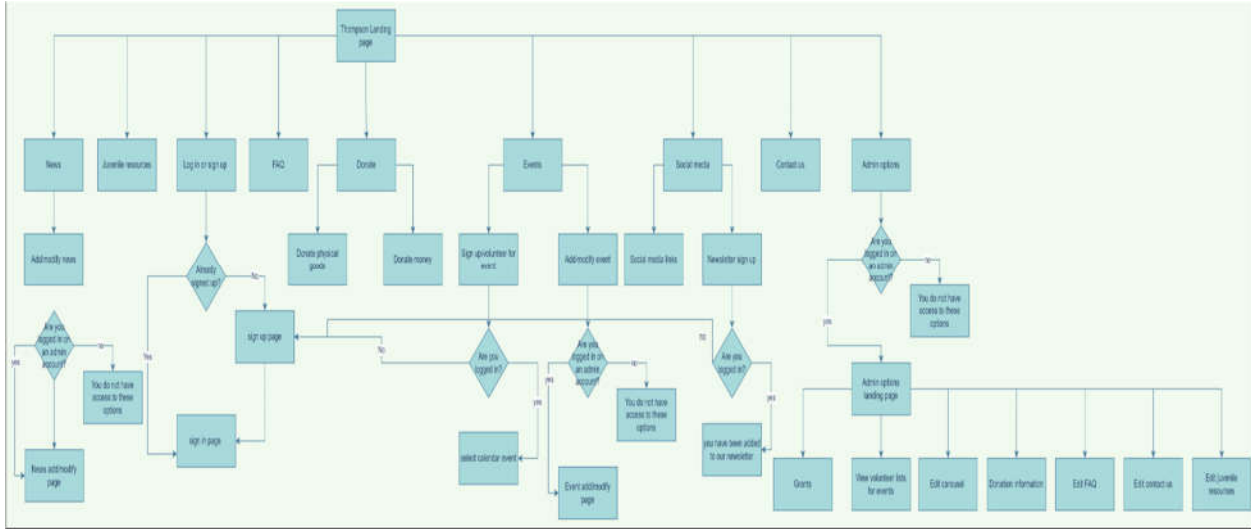
15. Systems Architecture Design

The Systems Architecture Design defines the structure and behavior of the system by modeling the physical structure of the hardware. Administrator, donor, user, and organization are those accessing the application server. They must enter through a security system security to ensure the server remains stable. PayPal is the payment management system and eCommerce server that will collect donations. MySQL is the database that this project will be used. WordPress is a content management system that pairs with the database to design and manage the website.



16. User Flow Diagram

The user flow diagram shows how a user would interact and flow through our website. This displays where redirects occur and to where, and when to prompt people to login, signup, etc.



17. Reference Materials

Project Charter



Project Charter.docx

Statement of Work



SOW.docx

Requirements Management Plan



RMP - Final.docx

Requirements Traceability Matrix



RTM.xlsx

Project Schedule



Project Schedule.xlsx

Stakeholder Management and Communication Plan



Stakeholder
management and con