**Software Project Management Plan**

Group 3

Revision: Version 2.0

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Preface: Developing an Animal Adoption Website for Animal Shelters

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1. INTRODUCTION

1.1 Project Overview

According to a study regarding online resources available to Maryland residents looking to adopt a new animal, there seems to be no centralized website for placing pets throughout the state. Instead many different organizations have their own, often antiquated, websites. This causes many adoptees the inconvenience of going around to different shelters just to not find what they are seeking. This steers away many potential adopters.

In order for more shelter pets to be seen and adopted there needs to be a single site in which many different organizations statewide can upload and update available pet information. Our goal is to build a website that accomplishes these goals making pet adoption much more efficient for all involved.

We are going to develop a site that compiles state-wide shelter information into one source and allow the user to have a functional UI for easy accessibility and navigation.The site will contain an advanced search feature to filter through the hundreds of animals available for adoption.

These search features include:

* Location Services (closest shelter to user)
* Breed, weight, species, etc (see pet details)
* Keyword Query (search by name)

The site will allow shelter administration to upload/update pet information as frequently as needed. The site will contain pet details like:

* Species
* Breed
* Weight
* Age
* Color
* Gender
* Health/Behavior

The user will be able to submit an application online, where their information will be stored and made available to the administration. The site will also contain a donation portal to allow the user to donate to all statewide shelters

1.2 Project Deliverables

* Source Code
* Diagram
* User Manual (For Admin and Adoptees)
* A website that adopter and administrator can access
* Use Cases
* Requirements
* SPMP

1.3 Evolution of the SPMP

**Managing Change**

* Scheduled Change: Scheduled changes will be given to the team from the client where the project manager will assign each role member an updated plan to carry out.
* Unscheduled Change: For unscheduled changes such as missed deadlines or obstacles that may arise, the team will evaluate the change on the scheduled weekly meeting time and make a plan to control the change and return to the normal schedule.

| Version | Primary Author(s) | Version Description | Date Expected |
| --- | --- | --- | --- |
| Draft | Matt Saxton | Initial draft has all components of the document filled out | 6/28/2021 |
| Preliminary | Matt Saxton | Preliminary draft has all the components updated in the document | 7/15/2021 |
| Final Draft | Matt Saxton | Final completion of the draft with all comments and updates are implemented | 7/26/2021 |

1.4 References Materials

* <https://ase.in.tum.de/stars.globalse.org/stars1/docs/SPMP/Examples/Examples.html>
* <https://computersciencesource.wordpress.com/2009/11/22/year-2-software-engineering-use-case-diagrams-descriptions/>

1.5 Definitions and Acronyms

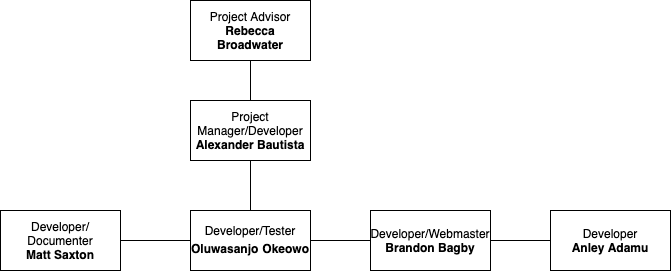
* UI - User Interface
* SPMP - Software Project Management Plan
* JS - Javascript
* MERN - Stack using MongoDB, Express, React, and Node JS

2. Project Organization

2.1 Process Model



2.2 Organizational Structure



2.3 Organizational Interfaces

* No subcontractors
* Using Heroku to host the website and [] as the payment processor for donations

2.4 Project Responsibilities

2.4.1 Responsibilities of Project Manager

* Scheduling the project meetings with group members
* Running the Project Meetings
* Making sure that each group member is carrying out their task and meeting deadlines
* Making sure that communication with each group members are running smoothly

2.4.2 Responsibilities of Developer

* Testing software and fixing the problems
* Maintaining the system while it’s running
* Intergate the front-end and back-end of the website
* Designing the user interface

2.4.3 Responsibilities of Tester

* Designing a plan to test the system
* Test the user interface
* Test each functions that are in the website to see if they are running smoothly
* Report and document any bugs or issues for the website
* Re-Test the software if the existing bugs are new bigs exist

2.4.4 Responsibilities of Webmaster

* Maintain the home website
* Updating the website (announcements etc.)
* Uploading any products or documents into the website

2.4.5 Responsibilities of Documenter

* Organize each document that is documented during the development of project
* Proof-read each document to see the grammar and information that is written is correct
* Update and edit each document if needed.

| Responsibility | Group Member |
| --- | --- |
| Project Manager/Developer | Alexander Bautista |
| Developer/Tester | Oluwasanjo Okeowo |
| Developer/Documenter | Matt Saxton |
| Developer/Webmaster | Brandon Bagby |

3. Managerial Process

3.1 Management Objectives and Priorities

* Our group’s vision for this project is to develop a web-based application that compiles state-wide shelter information into one source and allow the user to see what animals that are in the animal shelters. This will allow users to see and view the details about each animal in which they can have the option to adopt them. Also it will allow users the option to donate to the website to support the animal shelters.
* Our objective to complete this web-based application is hold team meetings at least once-twice a week in which we have time to plan and discuss about developing the project and to collaborate with each other when we are going through the implementation phase of our project. From these meetings we will conduct a project log in which it details what tasks that we have completed from those meetings or individually.

3.2 Assumptions, Dependencies and Constraints

* These are the assumptions, dependencies, and constraints that this project will encounter
  + The project will be a web-based application
  + Time constraints such as length of the semester, due dates and deadlines that are needed to be met.
  + Each animal will have it’s own page that gives the details and description of the animal.
  + Each animal that is uploaded into our system must have an automatically generated identification number.
  + Website must have an advanced search for users to narrow down what type of animal that they are searching for.
  + Must include a feature that allows people to donate to websites and also allows animal shelters to link their social media accounts.
  + Users can have the ability to download the pdf documents for pre-adoption forms or submit online pre-adoptions forms for the animal that they are adopting.
  + Administrations from shelters must have an authorization code to access the website.

3.3 Risk Management

* Contractual Risks: In the possibility of the client becoming bankrupt, if we are still in the development process, we will abandon the project. Or if we have made decent progress, we will offer our work to another client who would be interested.
* Size of the Project/Complexity of the Project: In the case that we find out that the project is too large or if we run into a requirements creep, we will ask for more time to complete the project. If that isn’t possible we will ask the client if there are things that aren’t needed on launch and that can be added later.
* Staff: Our staff consists of five developers and there is no risk of project abandonment.
* Client Acceptance: If the client doesn’t like the developed prototype, we will ask for feedback on what they don’t like about it.

3.4 Monitoring and Controlling Mechanisms

* Discord will be the main monitoring and controlling mechanism that will be used to communicate with the group. Each member will report to the general channel about what tasks that they have completed or questions that they have.

3.5 Staffing Plan

* Since the number of personnel has already been decided before the start of the project (5-6 people per group), our personnel will consist of six people to complete the project. The five people will be the group members in which they will plan, develop and document the project. Each member of the group will be assigned a developer role for the project and most of them will have a secondary role, such as project manager, tester, documenter, and web master, that they will carry out. The sixth person of the personnel will be our project advisor (Professor Rebecca Broadwater) that will provide any inquiries or consultation that the project group members will need.

4. Technical Process

4.1 Methods, Tools and Techniques

* The team will utilize the MERN stack to develop the web application
* Our Selected Software process will be based on the waterfall model. Since we are already given requirements on what the website will need, it gives us an idea how to plan out the layout and the design of the system's web application. By following the waterfall model model, our team will base off our schedule from this model. Since we know about what requirements are needed for this web application, the requirements analysis and system design will not take long to develop. This will allow us to have more time for the implementation and testing phase to thoroughly test the system to see if all functions and features are working properly.

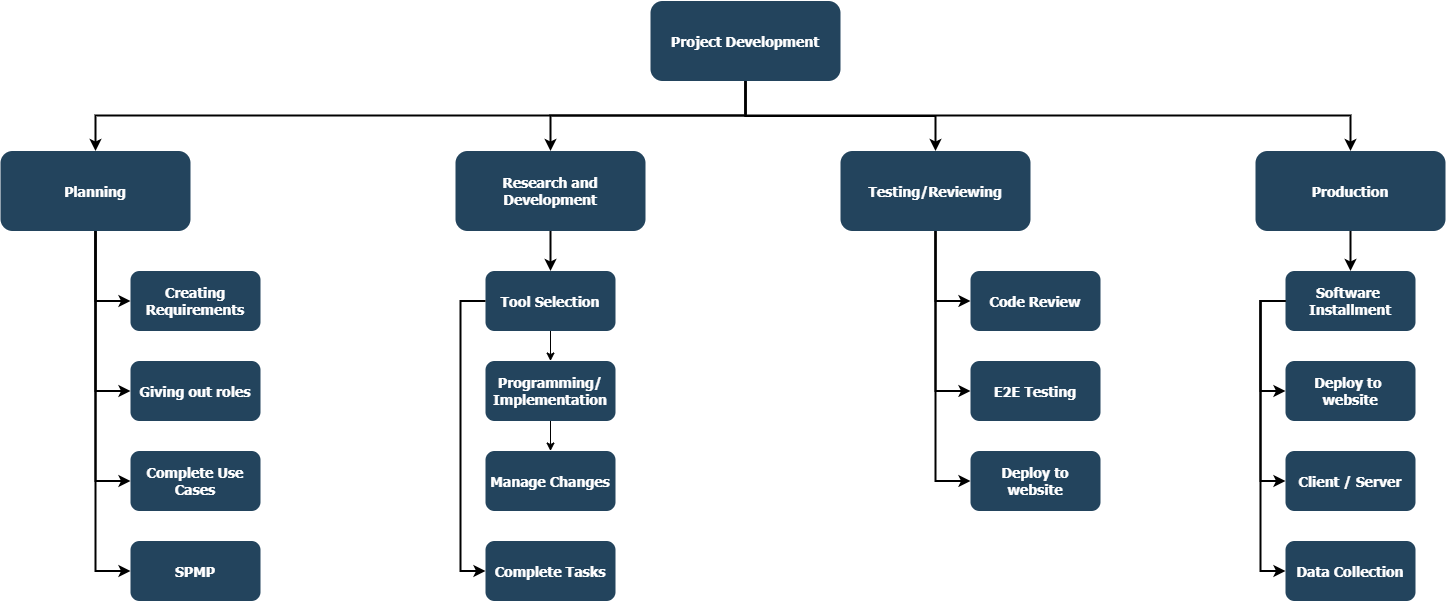
4.2 Software Documentation

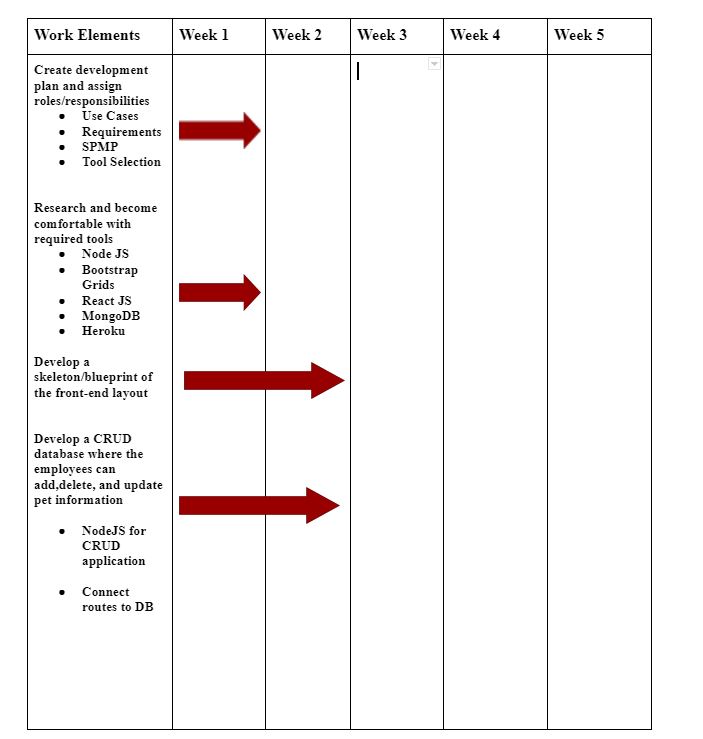
* Updates pushed through git
* Thorough in-line commenting within code
* Modifying/Updating SPMP as changes arise

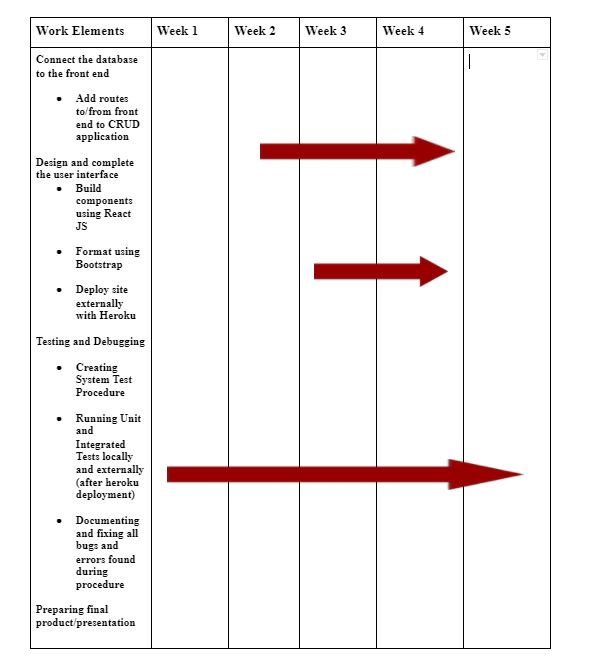
4.3 Project Support Functions

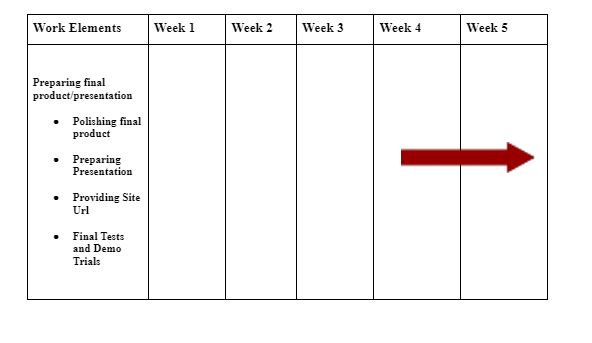
* Testing after every update to ensure everything runs smoothly
* Adhere to IEEE standards
* **Quality Assurance Plan**
  + Identify the quality objectives of the data
  + Identify the duties and responsibilities of persons involved
  + Implementation process
  + Outcome assessment
  + Formulate possible adjustments
  + Keep your team updated and informed

5. Work Breakdown Structure

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