Software Project Management Plan for Art Prompt and Palette Generator

Version 2.0
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Change History:

Version	Date	Author(s)	Changes
0.1	March 24, 2021	Nathalie Yap	• Initial Draft
1.0	April 13, 2021	Nathalie Yap	• Added Gantt Chart • Filled out the empty spots according to Professor Broadwater's suggestions • Made changes discussed in the design meeting
1.1	April 13, 2021	Nathalie Yap	• Removed Appendix D • Adjusted the organizational interface chart (still needs to be completed) • Added "Use Cases" to section 4.2
2.0	April 27, 2021	Nathalie Yap	• Removed organizational interfaces section as this project doesn't really interact with any outside source. • Added "The Color API" to section 4.1

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Part 1
Introduction

1.1. Project Summary

1.1.1. Purpose, Scope, and Objectives

The purpose of this project is to analyze the requirements of, design, and implement a web based application that creates randomized prompts and colour palettes that artists can use to create art when they want to draw but have no ideas.

The objectives of this project are as follows:

- Produce a generator that randomly generates an art prompt
- Create a generator that makes a random colour palette
- Give users the ability to make an account
- Give users the ability to save prompts and palettes in their account

1.2. Deliverables

The following deliverables will be produced by the due date of the project:

- A function AP&CP Generator
- Software Project Management Plan (SPMP)
- Project requirements
- Project use cases
- Design documents

1.3. SPMP Revisions

This document is a living document. Therefore, it will be subject to changes as the project moves forward. Any updates will be noted and pushed to the repository for this project.

1.4. References

IEEE Std 1058-1998, IEEE Standard for Software Project Management Plans, IEEE 1998

1.5. Definitions and Acronyms

Term	**Definition**
SPMP	Software Project Management Plan

WBS	Work Breakdown Structure
HTML	HyperText Markup Language
CSS	Cascading Style Sheet
AP&CP	Art Prompt and Colour Palette

Part 2
Organizational Processes

2.1. Process Model

The project will be using a kanban framework to implement an adaptable development method. I will be using Trello to keep track of tasks to be done. The diagram in Appendix A shows each stage of the project. As I will be using the kanban process, some stages will be repeated as necessary and features will be deployed as they are completed.

See Appendix A for this diagram.

2.2. Organizational Structure

As this is a solo project I will be tasked with putting on multiple roles.

The roles are as follows:

- Project manager
    - Make sure the project fulfills the requirements and meets the deadline
- Front-end engineer
- Back-end engineer

2.3. Project Responsibilities

Responsibilities and tasks will be assigned and handled through the kanban board which is linked here: https://trello.com/b/lPCGViIz/art-generator-kanban

Part 3
Managerial Processes

3.1. Management Objectives and Priorities

	Fixed	Constrained	Flexible
Cost		X	
Schedule		X	
Scope (Functionality)		X	

The cost, schedule, and the scope of the project are all constrained as shown in the chart above.

3.2. Assumptions, Dependencies and Constraints

The project is planned with the following assumptions:

- Third party software and already existing and available solutions can be used in the project as needed

The project is planned with the following constraints:

- The project must be completed by the due date
- The project is to be done as an individual
- The project cost must be kept to a minimum

3.3. Risk Management

- If the project becomes too difficult, I will do research to find workarounds to simplify the project and may simplify the functionality of the project.

3.4. Monitoring and Controlling Mechanisms

In order to stick to the SPMP, I will regularly check and compare the project to the SPMP every week as the build progresses.

Part 4
Technical Process

4.1. Methods, Tools and Techniques

The project uses firebase for hosting and for storing the database. I will also be using The Color API, which is an open source API, to help with colour palettes.

I will be using HTML, JavaScript, and CSS.

4.2. Software Documentation

There are several documents to be made and changed during the production of the project. These documents are the responsibility of the team's members. These documents include:

- Requirements
- Use Cases
- SPMP

These documents will be made available on the project's repository page on github.

4.3. Project Support Functions

This project uses two main project support functions:

- Trello for scheduling and keeping track of tasks
- Google Cloud Platform for API and Database management

Part 5
Description of Work Packages

5.1. Work Breakdown Structure

The work breakdown structure (WBS) summarizes the tasks and activities that need to be done to complete the project.

Refer to the chart in Appendix B

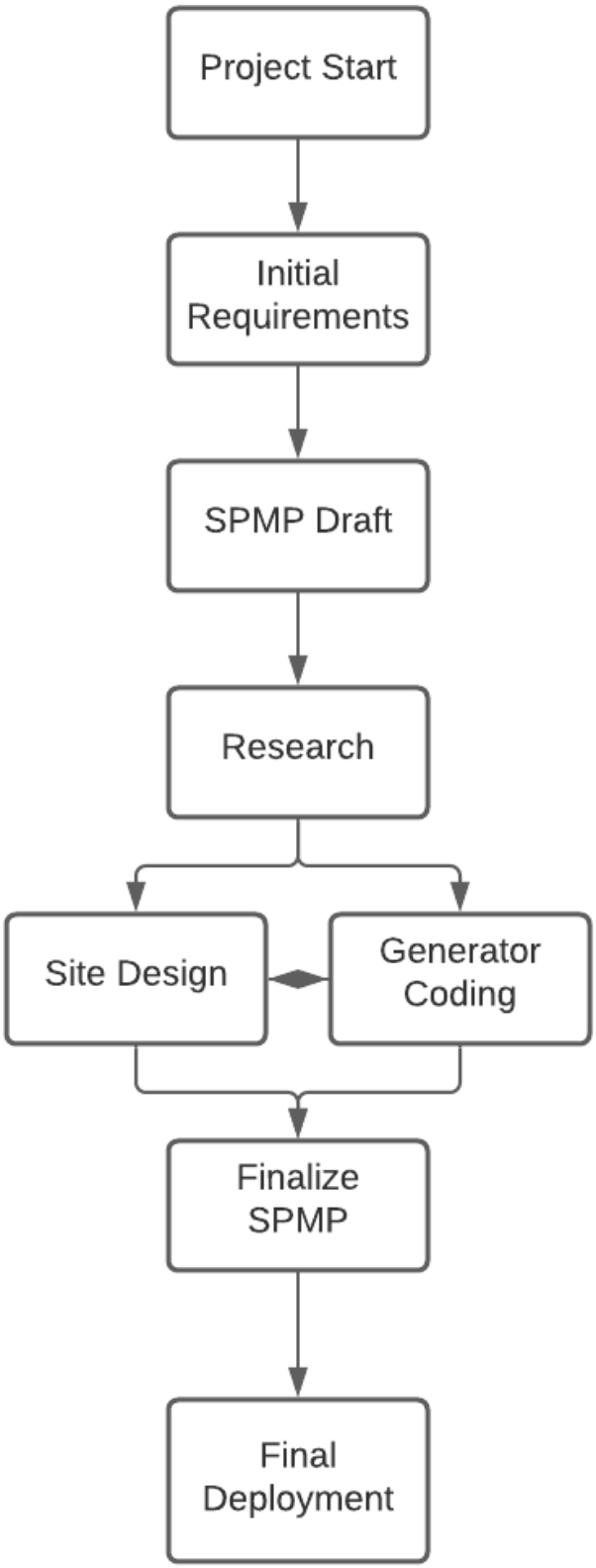
5.2. Task Interdependence

Some of the tasks needed for this project are reliant on other tasks to be completed prior to beginning while other tasks may be worked on simultaneously. In the chart located in Appendix C, tasks that require a previous one to be completed do not begin until the end of the bar of the previous task. Those that can be completed at the same time have overlaps in their bar.

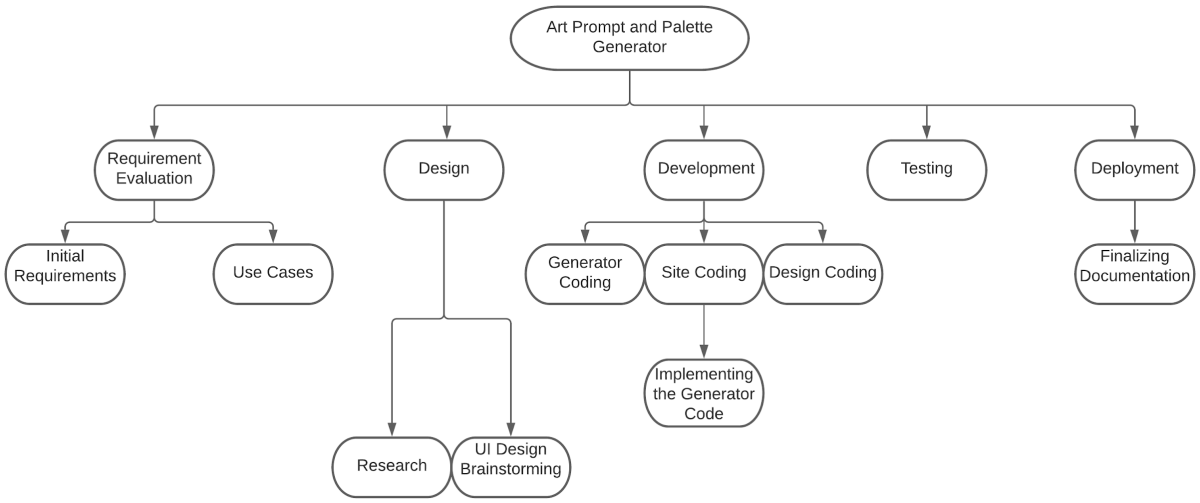
The task interdependence is summarized in the Gantt chart which is located in Appendix C.

Appendices

Appendix A
Process Model


Project Start
Initial Requirements
SPMP Draft
Research
Site Design
Generator Coding
Finalize SPMP
Final Deployment

Appendix B
Work Breakdown Structure


Art Prompt and Palette Generator
Requirement Evaluation
Design
Development
Testing
Deployment
Initial Requirements
Use Cases
Generator Coding
Site Coding
Design Coding
Finalizing Documentation
Implementing the Generator Code
Research
UI Design Brainstorming

Appendix C
Gantt Chart

AP&CP Generator