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COSC 412

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**Software Project Management Plan (SPMP)**

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**Part 1 Introduction:**

# 1.1 Project Overview

# This Software Project Management Plan will document and record tools I will use when working developing a website. The website's purpose is to market and sell rings. The client has given me full design and implementation control thus eliminating a huge part of preliminary investigation which would normally take place with other clients. Uses of the website should be able to brows though all rings the client is selling, and further purchasing one they like. This implies that the website should support a payment method of some sort. The ultimate goal for the client is for Facebook and Instagram market to further be implemented upon the creation of the website.

# 1.2 Project Deliverables

|  |  |
| --- | --- |
| **Deliverables** | **Deadline** |
| Topic Proposal | February 05 2021 |
| Repository | March 31, 2021 |
| Design Review Meeting | March 31, 2021 |
| Tool Selection Review | March 31, 2021 |
| SPMP | March 31, 2021 |
| Final Presentation | May 10, 2021 |

# 1.3 Evolution of SPMP

This project will follow a strict schedule outlined in the Gantt chart. Any changes to the schedule will be displayed and adjusted in the chart. However, the changes will not affect the overall project presentation deadline.

**1.4 Reference Materials**

Visual studio code (HTML, JavaScript, CSS): <https://code.visualstudio.com/>

What is PHP? <https://www.educative.io/edpresso/what-is-php>

Joomla for backend (PHP): <https://downloads.joomla.org/>

*Week 2 Spring 2021 PowerPoint slides*

# 1.5 Definitions and Acronyms

SPMP: a detailed document that shows an organized plan for a project.

WBS Chart: Stands for Work Breakdown Structure: a decomposition chart to help organize tasks for a project.

Gant Chart: a chart that shows the work done and scheduling for work to be done on a specific project.

PHP: PHP (previously referred to as Personal Home Page) is currently known as the Hypertext Preprocessor. It is a server-side, scripting language that is used for developing static and dynamic websites. PHP can also develop web applications.

GitHub: collaboration platform for software developers; for this project is mainly used for pushing files onto my repository.

**Part 2: Project Organization**

# 2.1 Process Model

This project commenced on February 5th, 2021 and will be terminated and presented on May 10th, 2021. I created a Gantt chart alongside a WBS to stay on schedule and will have frequent milestones. Taking into consideration the project scope and feasibility, I will utilize Cowboy Coding / Code-and-fix modeling and software design.

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# 2.2 Organizational Structure

Diagram

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**2.3 Organizational Interfaces**

The client has given me full creative control with design as long as they receive a working project. This means I alone will design, develop, and test the website. Some of testing will be done by family and friends through the project.

# 2.4 Project Responsibilities

|  |  |
| --- | --- |
|  | Tongwa Aka |
| System Design/ Development | √ |
| Implementation | √ |
| Testing | √ |

**Part 3: Managerial Process**

# 3.1 Management Objectives and Priorities

The main project priority is strictly abiding to the deadline. As long as developing the website begins on April 1st as stated in the Gannt schedule following no tasks being incomplete, the final deliverable should be on time.

Budgeting:

* A “.com” domain name acquired on *godaddy* is as of April 2019 costs $17.99 and the client plans to host for 2 years for now thus a cost of $35.98 for hosting this project.
* Tolls to be uses such ass Visual Studio Code and Joomla are all free thus $0 towards coding.

# 3.2 Assumptions, Dependencies, and Constraints

## 3.2.1 Assumptions

* The project will be web-based.
* Users will have experience using a website.
* All tasks will be followed as listed on WBS and Gantt chart.
* The presentation portion of the project should be completed by the date of the presentation, May 10th, 2021.

## 3.2.2 Dependencies

External dependencies include holidays, spring break, exam schedules, scheduled lectures and homework for classes other than this project.

## 3.2.3 Constraints

* The time constraint for this project: Presentation on May10th, 2021.
* Budgetary constraint $35.98.

# 3.3 Risk Management

## 3.3.1 Too many planned features lead to an infeasible design

Probability: High

Impact: High

Prevention: I try to limit design to only the most essential functionalities.

## 3.3.2 Loss of critical information, documents or code

Probability: Low

Impact: High

Prevention: Not only do DreamHost save all documentation in their database safely, they also provide redundancy topologies.

Correction: I will use the latest backups to recover the most recent version.

## 3.3.3 Learning curve with related technologies

Probability: High

Impact: High

Prevention: I will use online resources to do as much research as possible and ask for help before it is too late.

3.4 Monitoring and Controlling Mechanisms

Along with documenting the project progress, rigorous testing as I code will help point out errors as soon as they occur, so I am able to mitigate them in a timely manner.

**Part 4: Technical Process**

# 4.1 Tools and Techniques

* Visual Studio Code to write up the HTML5, JavaScript, and CSS code.
* PHP for backend.
* Bootstrap framework for code optimization.
* Account creation API for client.
* Manage user payments with PayPal’s payment API.
* DreamHost API (optional for backend)
* GitHub for Repository

# 4.2 Software Documentation

I will compile a number of documents over the lifetime of the project. The list of documents that will be created and maintained through the project include:

● Requirements specification: defines the functionality that the client requires

● Design specifications: defines the system structure

● Risk analysis reports defines risk handling issues

● Test results: tests that are completed are to be recorded

● Reviews: review documents of the phases of the project

# 4.3 Project Support Functions

## 4.3.1 Quality Assurance

Project quality is guaranteed to continuously be assessed with changes made if need be, and communications with the client make possible if a major milestone cannot be met.

4.2.2 Configuration Management Plan

Documents will be managed in DreamHost. Software will be managed on Joomla.

# Part 5: Description of Work Packages

SiiXRingS Website

* Evaluate Requirements
  + Initial requirements - Week 3
  + Detailed requirements - Week 4
* Research
  + Use Cases - Weeks 3-4
  + Sequence Diagrams - Weeks 3-4
* Design
  + Design Documents - Week 4
    - HLA
    - Class/Component Diagram
    - Interface Specification
* Develop
  + Website
    - Coding the website
* Test
  + System testing
  + Document and report test results
* Present
  + Website deployment
  + PowerPoint - Week 13

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