

Rapid Prototyping Web App

Software Project Management Plan

Version: First Revision

By: Jacob Adelstein

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1. Introduction

1.1 Project Overview

- The object of this project is to develop a project management website that will allow a company to keep its customers informed on the status of their Rapid Prototyping project. The product will allow the customers to start a project, upload a file, and write a description about their project. Once it is uploaded, customers will be able to track the status of their project. Project status updates will be provided by the website administrator.

1.2 Project Deliverables

- The website should be functional by August.

1.3 Evolution of the SPMP

- As the project proceeds, this document will be changed. When it is changed, the date and time will be recorded.

1.4 Reference Materials

- Python by the Python Software Foundation
- Django (maintained by the Python Software Foundation)
- Bootstrap (licensed by MIT)
- GitHub (GitHub, inc)
- PyCharm (JetBrains)

1.5 Definitions and Acronyms

- CSS – Cascading Style Sheet
- HTML – Hypertext Markup Language

2. Project Organization

2.1 Process Model

- The project will be developed using an Object-oriented programming language called Python. It will incorporate a Python-based framework called Django. The design and responsiveness of the website will be developed using Bootstrap, a CSS and JavaScript

based framework. There will be one person working on the project. The documentation of the project will be uploaded and managed under GitHub, a version control service.

2.2 Organizational Structure

2.3 Organizational Interface

Company	Liaison	Contact Information
Potomac Photonics	Sherry Ford	sford@potomac-laser.com

2.4 Project Responsibilities

Responsibilities	Assigned Person
Software Development	Jacob Adelstein
Software Maintenance	Jacob Adelstein
Documentation of software	Jacob Adelstein
Software Security	Jacob Adelstein

3. Managerial Process

3.1 Management Objectives and Priorities

- Philosophy: This project should be developed in an organized manner. The project should be well documented, and all code should be methodically commented.
- Goals: The goal of this project is to create a functional and reliable website to keep customers updated on their rapid prototyping project status.
- Priorities: The security and the functionality of the website is first and foremost most important.
- Third party software: All third-party software used must be approved by project overseer and be useable for commercial purposes (if open source). If the software is not open source, then a commercial license must be obtained (if offered). If the third-party software in question is not meant to be used commercially, then it must not be used.

3.2 Assumptions, Dependencies, and Constraint

Assumptions:

The person developing this project will be expected to meet deadlines. All code written is expected to be quality code. The code should be functional and reliable.

Dependencies:

Any third-party software used must be approved and commercially available. Must have access to proper tools (IDE, version control, etc).

Constraints:

Time may be a constraint during the development process.

3.3 Risk Management

- Risk management will be imperative to tracking the security of the rapid prototyping web app. The person managing the risk will be Jacob Adelstein. All code should be written with the intent of being secure. If a risk occurs, it will require immediate attention and the cause of the issue should be identified. Once the risk is identified, action should be taken to fix the issue.

3.4 Monitoring and Controlling Mechanisms

- Throughout project development, meetings will take place to review the status and the progress being made. Reporting should be made via voice chat to Professor Broadwater when expected. The progress of the project will also be reported to Potomac Photonics, inc. This will occur at least once a week.

3.5 Staffing Plan

- Jacob Adelstein will be the only person working on this project. He will handle all aspects of the project.

4. Technical Process

4.1 Tools and Techniques

- The OS used to develop the webapp will be Mac OS Catalina and the hardware used to develop will be a MacBook Pro.
- The IDE used in the development of the software will be PyCharm.
- The version control used in development will be GitHub.
- Techniques Used: Version Control will be conducted daily. The project should be well organized and well thought out.

4.2 Software Documentation

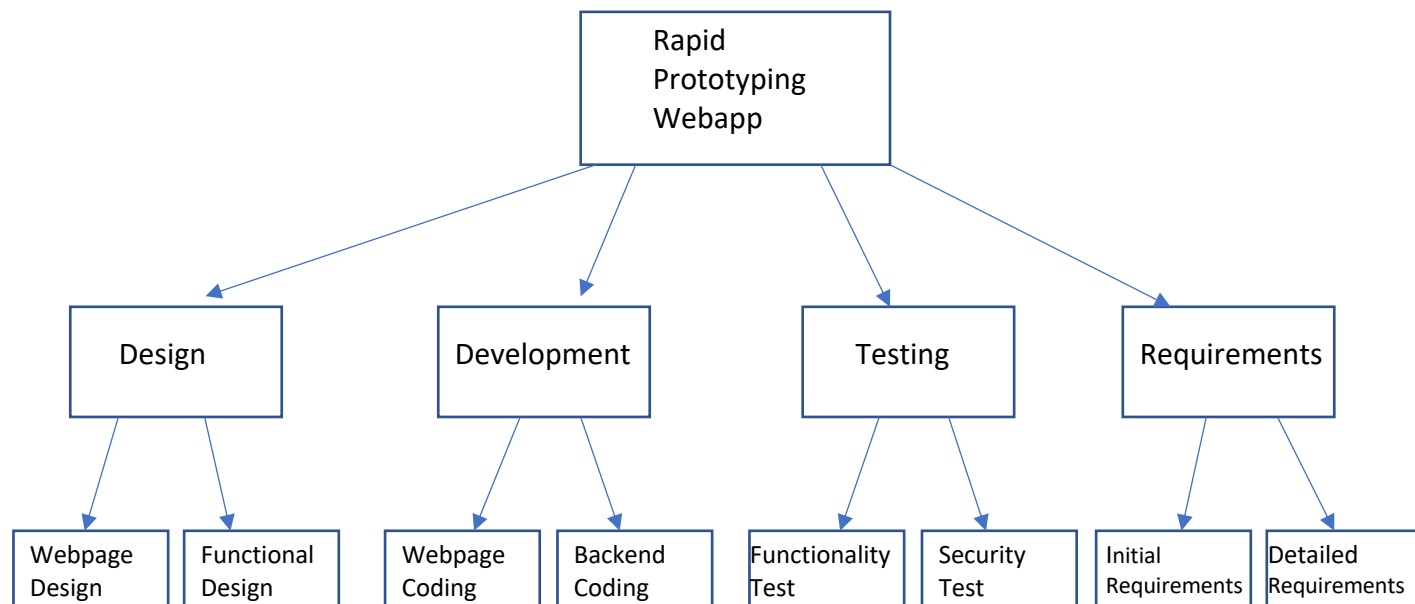
- Software documentation will occur during the duration of the project. A document to record all documentation will be created and modified as the project proceeds.

4.3 Project Support Functions

- Quality assurance checks will be taken frequently throughout the project. All checks will be recorded within the official project documentation.

5. Description of Work Packages

5.1 Work Breakdown Structures (WBS)



5.2 Dependencies between tasks

Dependencies (in order):

- SPMP, Tool Selection, Use Cases, and detailed requirements
- Meeting
- Project Development
- Code Review
- Completed Code
- Project Presentation