Software Project Management Plan (SPMP)

Software Project Management Plan

for

Comic Strip API

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Version Release	Responsible Party	Major Changes	Date
0.1		Initial Document Release for Comment	10/14/2020
0.2		Made changes from comments from the Professor	10/16/2020

Table of Contents

1. Introduction

1.1 Project Overview

This project aims to provide an easy to use API for developers to retrieve comic strip information about a variety of comics by comic and date. It also aims to make it easy for others to extend to provide support for other comic strips than the ones initially implemented. The major work objectives are to provide a simple API interface, error handling, hosting implementation, express server simple example frontend. Milestones are implementing interface, making a request, hosting.

This project is being created because there is currently no good way to access comics based on historical date without going to the comic websites themselves.

1.2 Project Deliverables

A working hosted prototype must be provided by the end of the semester in late November/ early December. The user must be able to interact with the API through a simple UI.

1.3 Evolution of the SPMP

Changes to this document will be listed in the changelog at the beginning of the document.

1.4 Reference Materials

https://www.scrapingbee.com/blog/web-scraping-without-getting-blocked/
https://www.techighness.com/post/scrape-website-data-using-node-js-without-headless-browser/
https://www.crummy.com/software/BeautifulSoup/

2. **Project Organization**

2.1 Organizational Structure

Me

3. **Managerial Process**

This section of the SPMP specifies the management process for this project.

3.1 Management Objectives and Priorities

This project is meant as an individual project to be completed within the given semester. During this project I will use the Iterative Development Model. Iterations will be approximately one week, but can be extended to 10 days or shortened to 6 days as work specifies.

Project Dimension	Fixed	Constrained	Flexible
Cost	X		
Schedule	X		
Scope (functionality)			X

Table F-1: Flexibility Matrix

3.2 Assumptions, Dependencies, and Constraints

Assuming website is scrapable.

3.3 Risk Management

Potential delaying factors:

- Multiple projects this semester
- If not able to make request using JavaScript, other components will need to be created

4. Technical Process

4.1 Methods, Tools, and Techniques

Define a hosted API that uses JavaScript to make requests to websites and then parses them for the desired information based on the parameters entered in the request from the end user. Using JavaScript request and then parsing the JavaScript will allow the API to return the necessary values. Use express server to run it and Heroku to host.

For development, this project will be run on a locally hosted Express server and can be interacted with through Example Frontend. The Final prototype will be hosted on its own site.

4.2 Software Documentation

Software Documentation will be added to the project readme

4.2.1 Software Test Plan

Software will be created with accompanying unit tests and integration tests and the endpoints will need to be tested using both expected and unexpected input.

4.3 User Documentation

Documentation will be added to the project readme

5. Work Packages, Schedule

5.1 Work Packages

Hosting
Example Frontend
Express Server
Request Functionality
Parsing Functionality
Response Functionality

5.2 Dependencies

Must be able to make a request and receive html in a response for any of this to work.

5.3 Schedule

Check the gantt chart link at the bottom

6. Appendices

A. Repository

Link: https://github.com/ChrisPastor/comic-strip-api

B. Current Project Work Breakdown Structure

Link: https://github.com/ChrisPastor/comic-strip-api/blob/main/Documentation/WBS.png

C. Current Detailed Project Schedule

Link: https://github.com/ChrisPastor/comic-strip-api/blob/main/Documentation/Gantt_Chart.png