**Software Project Management Plan**

Revision: Version 1.0

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Preface: Developing an NFL Roster Dashboard

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1. INTRODUCTION

1.1 Project Overview

Most NFL Roster Data can be found across the internet. However, they usually have a crowded interface, they are difficult to navigate, and they are often not as descriptive of certain stats and attributes that a fan, coach, scout, or analyst can find efficiently.

The goal of this project is to design an NFL Dashboard where all interested parties can rely on a single source of information that provides access to every active and non-active roster player including: up-to-date statistics, attributes, biography, scheduling, and broadcasting information.

The site will include:

* Advanced Roster Search Tool
  + includes all NFL attributes including: height, weight, combine stats, position, wingspan, age and team
* “Player Information” page
  + shows seasonal highlights, biography, college information, and full description (attributes and statistics) of selected player
* “Season Leaders” page
  + Highlights the most dominant players of the season (updated weekly)
* “Schedule and Stream” page
  + Includes full season schedule with broadcast links and information

1.2 Project Deliverables

* Source Code
* Fully Functional Site
* User Manual
* Use Cases
* Requirements
* SPMP

1.3 Evolution of the SPMP

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Primary Author(s) | Version Description | Date Expected |
| Draft | Brandon Bagby | Initial draft created for distribution and review comments | 6/30/2021 |
| Preliminary | Brandon Bagby | Second draft incorporating initial review comments, distributed for final review | 7/15/2021 |
| Final Draft | Brandon Bagby | First complete draft, which is placed under change control | 7/26/2021 |

1.4 References Materials

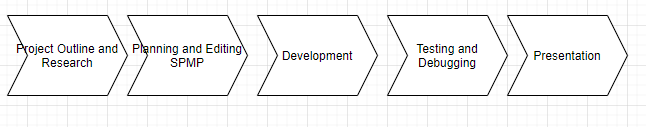
* <http://users.csc.calpoly.edu/~jdalbey/205/Mgmt/SPMP>
* <https://fantasydata.com/api/api-documentation/nfl>
* <https://www.footballdb.com>

1.5 Definitions and Acronyms

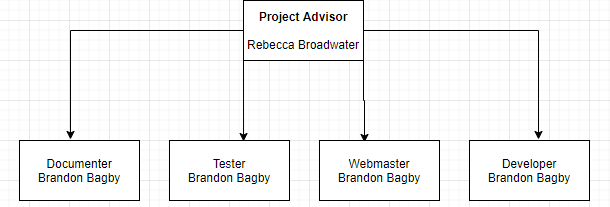
* UI - User Interface
* SPMP - Software Project Management Plan
* MEAN - Stack using MongoDB, Express, Angular, and Node JS

2. Project Organization

2.1 Process Model



2.2 Organizational Structure



2.3 Organizational Interfaces

* Towson University
  + This project is student-ran and under surveillance of Prof. Broadwater who monitors and reviews all submissions
* Heroku
  + Web delivery software to export the page to the internet

2.4 Project Responsibilities

2.4.1 Developer

* Research necessary information and create source code for webpage, database, and API used to build the site
* Continuously maintain system and fix all issues discovered by the tester
* Designing the front-end layout and UI
* Connect the API to the front end to display data

2.4.2 Tester

* Test all use cases to ensure that the site is fully functional
* Stress test the front-end and back-end to make sure it can handle an acceptable amount of requests
* Report and document all issues and bugs of any kind

2.4.3 Webmaster

* Ensure the front end layout remains smooth and efficient
* Update the site with new information if/when necessary
* Uploading any products or documents into the website

2.4.4 Documenter

* Continuously document all edits and reports
* Document test reports, bugs, patches, etc.
* Organize and upload all important documents throughout the project/organization

3. Managerial Process

3.1 Management Objectives and Priorities

* It is our responsibility to ensure all expectations and requirements of the organization are met and kept at the highest priority
* The budget is currently in review and however it will be ensured that the project will remain within the agreed amount
* The management prioritizes user-input, and our goals will not be considered met as long as the site provides any major/minor inconvenience to the user (within reason)

3.2 Assumptions, Dependencies and Constraints

* This site is expected to match every requirement and goal of the organization
  + The site will meet all IEEE standards
  + The site will up-to-date with all statistical updates and information
* There will be 5 weeks to complete the project and prepare a presentation to the client
* All software used will be open sourced or MIT licensed, the project is prohibited from using any stolen work/software

3.3 Risk Management

* Contractual Risk: If the client were to go bankrupt the project is to be suspended immediately until the contractual agreements are met.
* Size: If the project seems too large or small the organization will immediately consider new solutions/methods that can meet the client’s expectations within the time constraints
* Complexity: As the project develops, requirements are expected to shift and/or multiply. The project will make sure that the product remains in the scope of the client goals, this includes increasing/lowering the size of the project in order to minimize such complexities
* Client Acceptance: If the prototype does not meet the requirements of the client we will ensure to go back into development and ensure that the client is satisfied with our product
* Staff: This is an individual project that is managed and developed solely by Brandon Bagby

3.4 Monitoring and Controlling Mechanisms

* All deliverables are to be pushed to the organization’s github and submitted to Prof. Broadwater (Advisor/Client) to be reviewed for any possible editing and/or fixing of the product
* The changes and commits will be updated and available on a weekly basis at minimum
* All documents to be submitted through Blackboard (Towson University)

3.5 Staffing Plan

* The project is to be staffed and ran solely by Brandon Bagby while being overseen/advised by Prof. Broadwater

4. Technical Process

4.1 Methods, Tools and Techniques

Methods and Techniques:

* The website will be built using MEAN stack development tools
* The development technique will use the Agile approach that ensures that the building and testing phases occur at the same time.

Tools:

* Languages: Javascript, HTML, CSS
* API and Database: MongoDb, Express.js, Angular.js, Node.js
* Layout/UI: Bootstrap Grid System
* Web Delivery: Heroku
* IDE: Visual Studio Code, Codepen

4.2 Software Documentation

* SPMP
* Tool Selection
* Requirements
* Use Cases

All documentation will be pushed to the Github repository and submitted to Blackboard for further review

4.3 Project Support Functions

**Quality Assurance Plan**

* + Test and Monitor product consistently
  + Report any bugs or issues with any portion of the product
  + Continuously update product using up-to-date software tools
  + Send all necessary quality documentation to the project advisor
  + Testing after any edit/update to the source code and/or data pull

**All changes will verified and validated by the project advisor before being accepted as the final product**

5. Work Elements, Schedule and Budget

**Budget: TBD**

**Work Elements and Schedule(Gantt Chart)**

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| --- | --- | --- | --- | --- | --- |
| **Work Elements** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** |
| **Create development plan and outline all project goals and expectations**  **Research and become comfortable with required tools and software**  **Develop a skeleton/blueprint of the front-end layout**  **Develop a database to store all necessary player data and integrate a front-end to back-end connection**  **Design User Interface**  **Testing and Debugging**  **Preparing final product/presentation** |  |  |  |  |  |