February 22, 2021

Group 4 SPMP

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Revisions Sheet (History):

Revised 5/17/21

- 1a Project Overview
    - Playable game explained, Weight Worm
- 1b Project Deliverables
    - Software Quality Assurance Plan (SQAP) removed, not a required deliverable
    - Source Code location added (GitHub)
- 2a Project Model
    - Presentation date added (5/17/21)
- 2d Project Responsibilities
    - Some positions removed, such as Hardware Manager and Software Quality Assurance Team, and names specified to the remaining positions

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Preface: The purpose of our project is to create an entertaining learning environment that allows teens to become more aware of how to maximize their performance in a given sport. To complete our objective, the website will utilize social media, host an interactive game, provide a way to search for fitness centers, and supply important sports/fitness information from coaches/fitness experts.

(1)Introduction

1.a Project Overview

The goal of this project is to create a working prototype of a website that offers training plans, talk with coaches, and a playable game that helps younger players learn and train to be better at their sport. This website will have detailed training guides provided by coaches along with what sports they coach, what schools or clubs they are a part of, and provide feedback to players using their drills. Students will also be able to provide which sports and school they go to in order to have training guides recommended to them. Finally, the playable game Weight Worm, will help players understand and learn better concepts for their respective sport. This game increases in difficulty as you move up levels, while introducing fitness/health facts displayed on screen for users to read. Individually each group member will complete tasks assigned to them and will cooperate together in order to provide our client the best possible service and prototype we can create.

1.b Project Deliverables

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The following deliverables will be provided.

1. Software Project Management Plan (this document)
2. Software Test Plan (STP)
3. Technical Documents and Software

    · Software Requirements Specification (SRS)

    · Software User Documentation

    · Source Code (including installation and configuration instructions, available on GitHub).

1.c Evolution of the SPMP

Our group is scheduled to have a working prototype completed by Mid-May. Unscheduled changes due to a change in clientele needs will be documented via clubhouse and will be made available to all group members. Once documented to github we will hand out tasks to each group member in order to accomplish the clienteles needs.

1.d Reference Materials

Will be added when references are utilized.

1.e Definitions and Acronyms

API – Applications Programming Interface

GUI – Computer User Interface

JDK – Java Development Kit

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RAD – Requirements Analysis Document

BIOS – Basic Input Output System

COBOL – Common Business Oriented

DBMS – Database Management System

ISP – Internet Service Provider

BEM – Block Element Modifier

CDN – Content Delivery Network

CRUD – Create Read Update Delete

CTA – Call to Action

WYSIWYG – What You See Is What You Get

(2) Project Organization

2.a Project Model

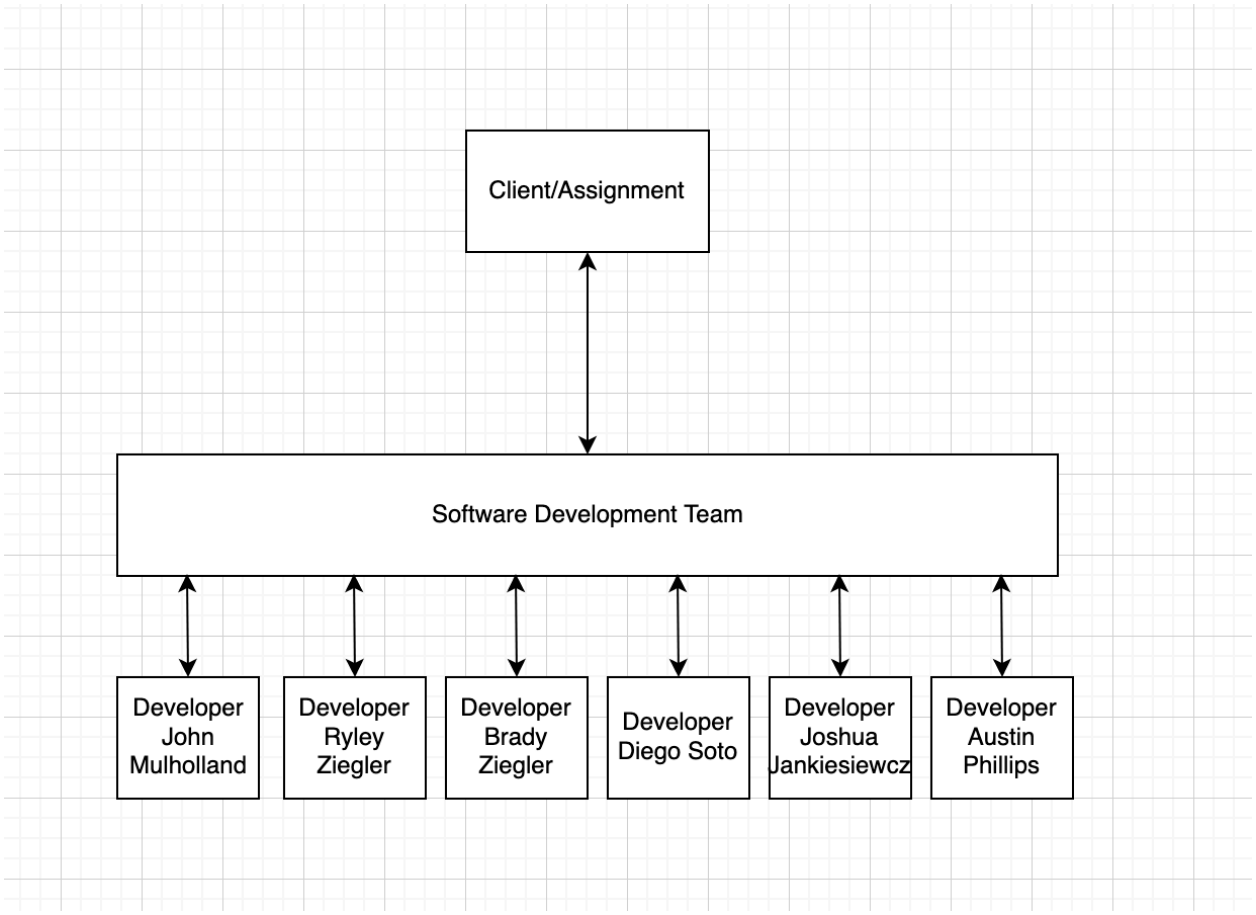
This project was started on Feb 1st, 2021 and will be completed by the end of the semester. Some major milestones are completing the Use cases and Sequence diagrams on Feb 2, 2021, Design Documents on Feb 2, 2021, and SPMP document by Feb 29, 2021.

The project will use object-oriented code and outside resources for development. The project will be split up into several organized teams to best fit their strengths. There will be a certain number of goals to complete shown on Clubhouse (a website to organize all aspects of the project) each week. After each goal is completed that team will submit them by placing them in the "Completed" section on Clubhouse. The smaller tasks will be broken up individually and chosen at free will between the group members. The group files and documents will all be uploaded

using GitHub and coded in Javascript, HTML, SCSS. There will be properly named repositories for each corresponding file and document.

The project is to be presented by the group members to the class, on 5/17/21, with a working prototype.

2.b Organizational Structure



c) Figure X Organizational Structure

2.c Organizational Interfaces

There will be minimal communication between any other entity besides the client and the developers in this current assignment. This is due to the lack of foreseeable need for a client base. However, the team will be attempting to connect the databases to other forms of frontend and backend software.

2.d Project Responsibilities

The following table identifies and states the nature of each major project function and activity, and identifies the individuals who are responsible for those functions and activities.

Role	Description	Individual(s)
Project Manager	Manage system development. Chair management reviews and project reviews.	John Mulholland
Software Project Manager	Oversee software development activities. Develop and maintain SDP.	Austin Phillips
Software Development Team	Code, integrate, and unit test the software. Support testing and delivery.	Ryley Ziegler Brady Ziegler Diego Soto Joshua Jankiewicz

(3) Managerial Process

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3.a Management Objectives and Priorities

Our main goal is to create fully functional software that will accurately meet our client's needs. We will keep a strict weekly schedule to ensure tasks are completed in a timely manner; every monday we will collaboratively distribute tasks. As our team is completely made up of students, we will keep our costs as minimal as possible, preferably under $200. Third party software may be included with the consent of all team members in a holistic fashion and/or in a modified way. Most of the third party software will likely be open source.

3.b Assumptions, Dependencies and Constraints

Assumptions: We assume that our team has very little experience in development, therefore, patience is key for each member of the team.

Dependencies: We are dependent on the client's needs; making sure that our team and the client are up to date with each other. In addition, our team is dependent on the guidance of professor Broadwater to teach the team on how to develop.

Constraints: We are constrained by classes our team is taking and as students our budget is extremely limited.

3.c Risk management

Risks will be accessed by each team member. We will check each other's work to ensure that there is minimal to no risk. Once a risk is identified it will be recorded in a separate risk lisk document and brought up in our weekly meetings unless it is critical to the fluidity of the weeks' tasks. If it is not resolved, meaning there is still a minimal risk, then it will be transferred to the

permanent watch list which all team members will have to take that risk into consideration when proceeding there on in.

3.d Monitoring and Controlling Mechanisms

Each team member will be reminded when tasks need to be done in weekly meetings as well as email groups combined with our clubhouse group. If through our monitoring we notice a team member is falling behind or are having a lack of communication we will reach out to resolve the issue and then take further action if necessary. We will set hard deadlines at meetings and are always willing to change them if extra time is needed to finish a project that team member(s) are working on.

3.e Staffing Plan

There will be six students working collectively to complete this project. Availability is a concern during these trying COVID-19 and global pandemic times, so it should be known that if something personal pops up to be understood. That is not to be taken as “I can get away with not doing my work,” but we're all humans, full-time students, and some working on top of that. Each member will have to bring new ideas to the table whether it is web design, code, etc. If for some unfortunate reason there would be a member to withdraw from the course and project there will be a group decision how to divide the workloads fair and accordingly.

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(4) Technical Process

4.a Methods, Tools, and Techniques

Some methods we will try using are group and individual coding methods to check each other's work and make sure all code is correct and we all have the same ideology of where the project is headed. We will be using tools such as clubhouse, github, gitlab, and discord to communicate and share information to each other. Some techniques we will be using are team building and surveying our clients to ensure we are together and achieving what the client is looking for in our prototype.

4.b Software Documentation

Our group will be working consistently on the task assigned to us by the client over the course of 14 weeks. In the process of doing so, it is important that we keep up on the documentation of our goals, steps completed, and coding processes. We will keep track of who is completing a specific task through a website called clubhouse.

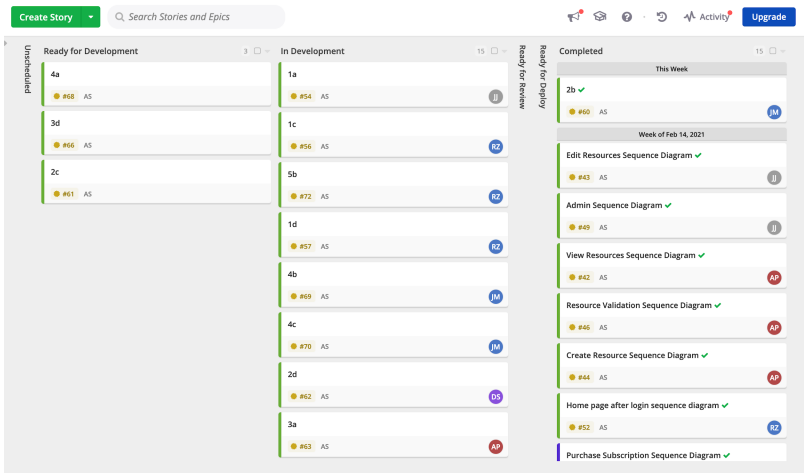

Figure X, Current clubhouse arrangement.

Through clubhouse, it will make it very easy to delegate tasks, and look back on tasks if need be. Also, we plan to efficiently use GitHub's branching capabilities to allow for us to keep track of, and version our code. Finally, a log of communications between the development team is held through a discord server titled "COSC412". We believe that in using these forms of documentation it will allow the group to efficiently work and communicate together.

4.c Project Support Functions

One project support function we have is Clubhouse which breaks down and divides up each task per person or groups of people for how many are needed for said task. Another project support function will be checking up with the Professor who in this case is an expert to assist in guiding us in the right direction if we are stuck or for reassurance.

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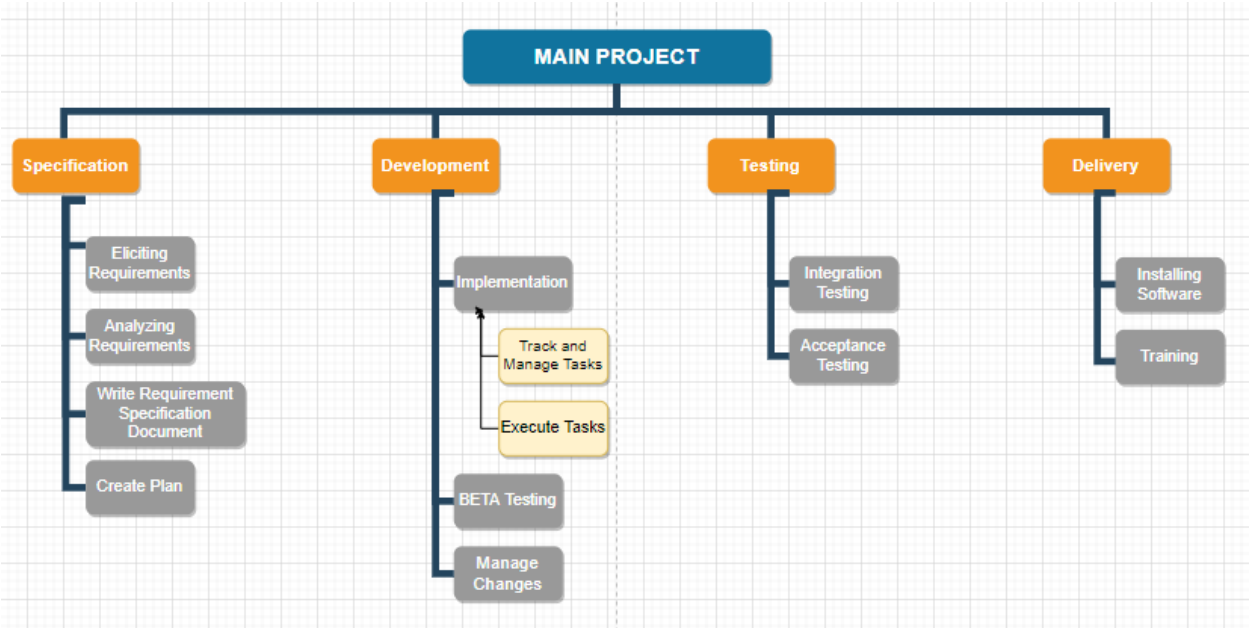
(5) Description of Work Packages

5.a Work Breakdown Structure



5.b Dependencies Between Tasks

Dependencies between tasks will occur while moving further into our project. The start-to-start dependency strategy will be the most widely used while coding different parts. This is because we will be coding different parts of the project in unison and then adding them together using github. We also depend on each other to get the work done in a timely manner and depend on the stability of our hardware and software involved in creating the website.