**PennWest California Vulcan Activity Tracker**

**The Activity Tracker for PennWest California Students.**

**Specification**

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**Course:**

**Software Engineering Project I**

**School:**

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**Instructor Comments/Evaluation**

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# **Abstract**

This project, the Vulcan Activity Tracker, is an activity tracker that can be accessed by students attending Pennsylvania Western University’s California branch. The activity tracker will allow students to track any physical activity they participate in, which may include running, sports, walking, lifting, and many more. This project will use a Docker container, a database, and a Python backend. All these components will be used to track user data, such as login information and the activities the user has completed. The Docker container will be used to keep the frontend, backend, and database in one place. This will also ensure that the app runs consistently across multiple platforms. The database will store all the users and their data. Functions to retrieve, create, and delete data will be written in the Python programming language. The user will be able to add activities manually and view other users activities. This document will cover all necessary details for the user and the development team regarding the functionality of the final product.

**Description of the Document**

The purpose of this document is to define the scope and specific requirements for the project. These requirements include the product’s functionality and system requirements. The developers and clients will use this document to state the terms of their arrangement. The client has the right to dispute the contents of this document, so the product properly reflects their desired requirements. After acceptance of the terms stated in this document, it shall be known that this document becomes a binding contract.

**Intended Audience**

This document’s intended audience include the clients and product developers. The product developers have created this document to make an outline of their finished product. By doing so, it helps the client to know exactly what product, functionality, and the cost that will be associated with this project. It also assists the development team to know which direction they are headed in and states their priorities for the project. Any uncertainty in this document needs to be addressed as this serves as a binding contract.

**System Description**

**Overview**

The Vulcan Activity Tracker is a software application, accessed via a web application. The main function of the activity tracker is to manually track exercise activities. A user can track exercise activities ranging from multiple sports. These could include running, lifting, biking, swimming, any organized sport, and many other activities. A user will also be able to join their sports team, recreational club team, or create a group with friends. With recreational clubs and teams their will be a person to admit users into the organization. Users can view activities from everyone on campus. A leaderboard for each activity will also be accessible to all users in order to inspire some friendly competition.

**Environment and Constraints:**

**End User Profile**

The most common user end users of the Vulcan Activity Tracker are PennWest students, most likely ones involved in sports or recreational clubs. Users should be familiar with using web applications to interact with the website. With a basic understanding of navigating web applications, any student will be able to add an activity, view their statistics, view other students activities, and view the leaderboards.

**User Interaction**

The user interaction will be through the software application that runs the web application. Once the user logs in or creates a new account with Pennsylvania Western credentials, they will be redirected to the home page with all recent student activities. The user can then find the buttons to redirect them to the leaderboard section, group section, and the section to actually add an activity. In the leaderboard section, users will be able to filter based on activity type and by group, meaning they can see the leaderboard of only their group or organization.   
**Hardware Constraints**

There is no hardware involved in the Vulcan Activity tracker.

**Software Constraints**

**Cost Constraints**

**Other Concerns**

The end-user will need to have access to WiFi to utilize the website. The user must also have valid Pennsylvania Western Universtiy credentials.