**System Design Document**

**HealthPal**

**Team 3**

**St. Charles Community College**

**Cottleville, MO, 63374**

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**Introduction**

Hello and welcome to the system design document for Team 3. This document will go over several different sections of our project. This document was created by two of our team members, Clayton Barklage worked on the first half and Blessing Iyofor worked on the second half.

This document will go over the purpose of our project, the overview of the system, the constraints that we have to deal with in our design, the roles and responsibilities of our team members, project references, system architecture, the database design, the software and hardware, and finally the security system and integrity controls.

**Purpose**

The purpose of our project is to create an app that allows the user to be able to track their health and the calories that they eat and help them make better and healthier decisions like recommending different types of exercises to do along with suggesting healthier food.

**System Overview**

Our program is broken up into several different sections the Login screen, the Dashboard screen, a Health Metrics Logging screen, a Calorie Tracking screen, and finally a Settings and Reports screen. We plan to implement APIs, AI, and different types of charts in our program.

The use of the API is so that users can choose to log in with their Google accounts. For the AI its main use would be to tell the user their progress, how they could improve a few things, and give them diet and exercise recommendations based on their data. While the different types of charts would use the user’s data to create something like a pie chart to show a visual representation of the percentages of the food groups they had in their last meal.

**Design Constraints**

Starting off with the biggest constraint that we have is having it be an app which means that we would have to design our programs to be able to fit the size of a phone but also to the size of a computer along with making sure that everything we add can be seen on all platforms and not just on one of them.

The second biggest constraint that we may have will be the implication of adding charts that is created by the user’s data. The problem with that is that if the user’s device will be able to display it or crash the app.

The final

**Roles and Responsibilities**

Blessing Iyofor: Team lead and programmer: Sets up who works on what section and works on the backend database.

Steven Valet: Team lead and programmer: Sets up Zoom meetings to discuss everyone’s progress and work on the login.

Ollie Peel: Programmer: Work on the calorie tracking and logging of the user

Clayton Barklage: Programmer: Works on the health logging of the user