Fitness and Nutrition Buddy GUI/Database Scenario
Group 9 - Shreya Boyapati, Ayesha Quadri Syeda, Dat Huynh, Sarthak Patipati

The Fitness and Nutrition Buddy will eventually allow users to live a healthier lifestyle by tracking their fitness and nutrition goals, filter the restaurants around them for delicious and healthy food, and track the user's steps and total calories burned. This first scenario describes the basic layout and GUI of the application, which will show users their information (location, specific nutritional goals/needs, caloric intake/calories burned, current time, etc.) and allow them to set and modify their health goals. This scenario also describes the required datasets: data on user-specific information and data on local restaurants (menu, hours of operation, type of cuisine, location/distance from user).

A key feature of the application is that it employs real-time data by constantly updating the results based on user location. The information for local restaurants is read in from a large data file that sorts by location. This information is then presented to the user as specified in figure 1 below.

Scenario "Start Buddy"

The user starts the application by pressing the "start" button. When the user first launches the program, the system displays a welcome screen with a brief description and prompts to create an account. On following launches, the user will be taken to the main screen which contains buttons for various options (e.g., nutrition tracking, map, restaurant search, meal plan, change goal, exit).

The signup screen will prompt the user to create an account with email and password. The user will then set their nutritional goals by entering their desired calories and macros. The user will then be directed to the main screen and be allowed to choose an option.

The nutrition tracking option will break down the nutritional details of the day. The user will be able to see the calories consumed, protein/fats/carbohydrates consumed, and the remaining allocations for the day.

The map option will display a map of the user's immediate surroundings with icons noting the location of nearby restaurants, similar to google maps. The user can click on the icons in order to see more info about the restaurants.

The restaurant search option will allow the user to search for nearby restaurants that fit a specific criteria, such as type of cuisine, nutritional restrictions (vegetarian/vegan, gluten free, etc.), or location.

The meal plan option will allow the user to save meals for the day based on their nutritional needs. This screen will also display the nutritional values of the meal and whether or not the meal plan fits the user's goals.

The change goal option will allow the user to change their nutritional goals (calories/macros). If the user attempts to enter a goal that could be considered dangerous, a warning message will be displayed.

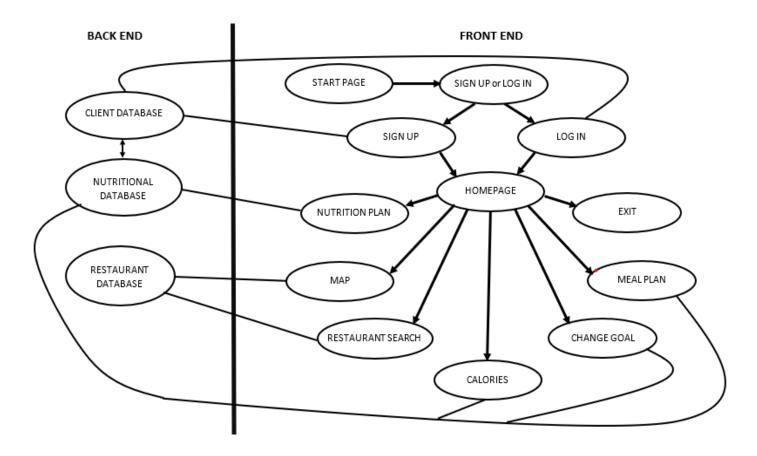When the user exits the app, by either hitting the "exit" button or closing the window, the app will return to the start screen the next time it is launched.

Figure 1 - Diagram of the GUI