Functional requirements

3.1 Registration

Description: Simply, Users who want to make an account in the website so they can store their information and to be saved. Info will be stored such as gender, age, weight, height and weight goals. Furthermore, they can upgrade their account to be a premium user with more features.

Inputs: Username, password and e-mail

Output: Account profile

Action: When the OTP verification code has been checked, an account will be created, and the page will be forwarded to the profile page for filling out the personal information.

Pre-condition: Valid e-mail to receive verification code.

Post-condition: Welcoming message on e-mail containing terms & policy.

3.2 Login

Description: Following registration, users must sign in to access the information they have entered. If you forget your password, there will be a "Forget Password?" button. Click it, then enter your email address to get a link to create a new password. Note that the link will expire in 15 minutes.

Inputs: Username and password

Output: Home page

Action: Checking in database if the credentials are correct. If not,

Pre-condition: Registerion

Post-condition: Login successful

3.2 Daily Calories

Description: The user wants to calculate his proper calories in order to lose weight, so basically he just types his gender, age, weight, and height. After that, click on "Calculate," and the target calories for losing weight will appear and be saved in his profile.

Inputs: Gender, age, weight and height.

Output: Target calories to lose weight.

Action: Some calculations.

Pre-condition: User should be in Calculator page.

Post-condition: Calories saved on user’s profile.

3.3 Water Amount

Description: Below the calories calculator, user will see the water amount per day calculator. In order to know how much amount needed per day, users need to provide their age, weight, and activity level.

Inputs: weight, age and activity level.

Output: Target calories to lose weight.

Action: Some calculations.

Pre-condition: User should be in Calculator page.

Post-condition: Water amount saved on user’s profile.

3.4 Steps Counter

Description: Step counter is a service that is provided in most fitness application or even in the main application of any new device, so it is considered an important factor on fitness application. This service is a branch of pedometer applications. In our application, we will use the electronic pedometer.

Inputs: Location service.

Output: Counting steps in the background.

Action: Pedometer dealing with GPS to locate the person location and after a while estimate the distance in steps.

Pre-condition: Allow location service.

Post-condition: Steps will still be counting in the background.

3.5 Macros Calculator

Description: Macros are an important factor after calculating the calories. Once you have calculated your daily calorie, now its time to divide these calories into three main part which they are carbohydrate, fat and protein. The inputs are gender, weight, height, and age; for logged-in users, they can see a button "Fill My Data"  which fills the inputs with saved gender, weight, height, and age from the profile.

Inputs: Age, wight, height and gender.

Output: Total grams of each carbohydrate, fat and protein.

Action: For carbohydrate and protein, in each, take the ( total calorie x 0.4 ) divide it by 4; hence, you get it in grams; for fat, take the (total calorie x 0.3) divide it by 9; hence, the result will be in grams.

Pre-condition: Age, wight, height and gender.

Post-condition: Detailed grams of carbohydrate, fat and protein.

3.6 Burned Calories

Description: Burned calories is a services that helps you to know how many calories burned during the day, it works based on your heart rate and also with counting your activity such as the steps.

Inputs: Location service.

Output: Count burned calories in background.

Action: Using smart watch there will be a sensor for heart rate that helps in calculation.

Pre-condition: Location service, smart watch

Post-condition: Burned calories will still be counting in the background.