1 Introduction

The application, Fitness App, is made for the group project component for CPSC 233 Fall 2019 of the University of Calgary. This application has the following features implemented, or to be implemented.

1. Track Fitness – Tracking the following items over time and have an interface to view a time graph.
   (a) Track Weight
   (b) Track Lifts
2. View Insights – Contains calculations and User supplied data and computed variables for recommendations.
   (a) User Data – Includes Gender, Height, Weight, Body Fat %, Activity Level, Steps, Resting BPM, Lfits (Bench, Deadlift, Squats), and other data.
   (b) Fitness Dashboard – Displays user data and calculations for recommended activities to regulate user health, either for the short term or long term. Also includes an editor for the User Data. Activities that are calculated and returned to the user include:
      i. Daily Caloric requirements
      ii. Basal Metabolic Rate
      iii. Fat Free Mass Index
      iv. VO2 Max
      v. BMI
      vi. Lifting Stats

1.1 Classes

There will be several classes that are split up into small classes to support the program.

- Structs – Data Types that holds and governs User Data. These are all abstract classes that support the Calc and Data classes. It includes Type checking to ensure that inputted data is correct. These are subsets of the Integer, String, and Double classes. Compound Data Types will be implemented for Data/Date relations later.
- Data – List of User variables defined under the Fitness Dashboard. This includes also an interface to edit and get user data.
- Calc – Classes that compute user data defined in Data.
- Menu – Holds the classes that generate the text user interface. Will possibly be able to integrate into the GUI class later.
- Docs – Contains the source code for this documentation.

The interaction of each classes is as follows: