Criterion E – Program Evaluation

Evaluation of Programming Goals:

1. Program is able to store, and recall user generated step count and sleep information.
2. Program is able to store, update, and apply user generated goals for step count and sleep information, in order to determine if goals are met for a specific entry.
3. Program detects most incorrectly formatted data that the user attempts to enter and save.

Improvements

This program is able to store and generate usable step count and sleep data that the user inputs, with a substantial degree of success. However, this program has several aspects that may be improved in future iterations.

This program is able to detect most user formatted errors and inputs. However, these detections are limited only to numerical values. If a user attempts to enter text into any of the fields, the program will throw a handled exception. All fields are clearly indicated as accepting numerical values only, however the possibility of an invalid input still exists. Future iterations could include a more sophisticated data formatter to detect and even correct incorrectly formatted data.

This program has another fault, in that it is limited only to basic analysis of retrieved data, and the data retrieval process is somewhat cumbersome. The user must input a specific date entry, and risk the program returning an "Entry not found" status if there is no entry could be found from the CSV file. The stored data would be more effectively retrieved if a list of available entries was automatically presented to the user, instead of the user having to manually enter data values into the program. However, this would need additional modifications to the CSV reader class, and a revision of the date code ID system used to identify entries in the CSV file. Additionally, in future iterations, more complex data analysis features, like trends and past history, can be added.

Although this program has potential for many future improvements, it provided an excellent opportunity for me to hone my GUI implementation knowledge and gave me valuable knowledge about data persistence techniques that are commonly used in programs. These skills can be easily transferred over from this fitness tracker program onto other applications, adding multiple layers of functionality. In future iterations, I believe this program, coupled with its CSV functionality, can easily evolve into a novel tool for maintaining fitness in an open-source and widely compatible manner.