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**Weight Log Tracker**

**Introduction**

Many people often try to maintain their weight. Whether they are overweight, underweight, want to maintain their weight, or need to be a certain weight for their job, many people could benefit from tracking their weight daily. Because of this, I decided to make a Python program that allows a user to create a Weight Log and find their Basal Metabolic Rate (BMR) thus they know how many calories they can consume in a day given they are at rest for the entire day.

**Program**

The program features two python files, one for the HealthLog Class (HealthLog.py) and one for the user to run and interact with their Weight Log text file (UserInterface.py).

The HealthLog Class initializes with six attributes, five public and one private (name). The name of the log (log) attribute is required in order to create your own instance while the others have defaults. Two magic methods are featured, ‘\_\_repr\_\_’ and ‘\_\_index\_\_’. ‘\_\_repr\_\_’ allows the user to print the instance and see the name of the text file that has the weight loss log. ‘\_\_index\_\_’ allows the user to find a weight recorded given the date, allowing the user to find their weight easily in a long weight log text file. One private class method ‘\_\_bmr’, that is used to calculate a person’s BMR given their weight (lbs.), age, sex, and height (inches). This private class method is used by the five public class methods: ‘new\_log’, ‘record\_weight’, ‘get\_bmr’, ‘change\_height’, and ‘change\_age’. ‘new\_log’ allows the user to create a new text file for their log or overwrite an old one. ‘record\_weight’ allows the user to add a weight at a specific date given they already have a weight log. ‘get\_bmr’ allows the user to retrieve their BMR for their current weight. ‘change\_height’ allows the user to change their height in log and update their BMR. ‘change\_age’ allows the user to change their age in log and update their BMR.

The UserInterface.py has a ‘bmr’ function and a while loop that continuously runs until the user is done updating their weight log. The ‘bmr’ function allows the user to calculate anyone’s BMR thus they do not have to create a log just to see someone else’ BMR. The while loop prompts user to choose what they want to do, whether that be make a new log or update an old one. They can also choose to close the program.

To use this program, just run the UserInterface.py and begin creating a log, editing a log, or calculating a BMR. The appendix features the BMR equation and Choices for User Interface.

**Appendix**

**BMR Equations:**

Text

Description automatically generated

**Figure 1. Choices for user to create new log, edit old one, and calculate some**