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Final Project: Triathlon Training Log

Purpose: An interactive training log for people preparing for a half ironman race. This race is a 1.2 mile swim, a 56 mile bike, and a 13.1 mile run.

How to Use:
Run the file triathlon_log.py to begin the program

How to Test:
Run the file unit_tests.py to test 2 public methods of the Action class

All Files:
triathlon_log.py: starts the program
unit_tests.py: tests 2 public class methods of the Action class
Action.py: contains the Action class, which is instantiated when the program is run to determine the action
that the user wants to execute
Entry.py: contains the Entry class, representing an individual log entry
calculations.py: helper functions that calculate mile pace and race time based on workout duration and distance
validate.py: Contains functions used for user input validation

Functionality:
Users can track their training by logging the date, workout type, distance, and duration of their workouts. Upon starting the program, the user has a choice of 7 different actions:
(1) New Entry
(2) Delete Entry
(3) Edit Entry
(4) View Entry
(5) View Full Log
(6) View Max Distance Entry
(7) Exit program

The functionality of each action is as follows:

1. New Entry: The user can create a new log entry of 1 of 4 workout types: Swim, Bike, Run, Other. In the case of Swim, Bike, and Run, the user must input the distance and duration of the workout. The program then calculates mile pace and race time, based on Ironman distances. For Other type workouts, the user specifies the name of the workout and the duration but does not enter the distance. Any new entry is captured in the

my_log.txt output file, and the program checks to see whether this new entry is the has the maximum distance of all entries.

2. Delete Entry: The user can delete any logged workout entry by ID number. Deletion is captured in the my_log.txt output file. If the maximum distance entry was deleted, the program finds the new max distance entry among the remaining entries.
3. Edit Entry: The user can edit any non-calculated field of any entry. Any updates made are captured in the my_log.txt output file. The program finds the new max distance entry among all entries in case the update altered max distance.
4. View Entry: The user can view any single entry
5. View Full Log: The full log can be found in an output text file called my_log.txt
6. View Max Distance Entry: The program tracks the entry or entries with the highest distance, and shows this entry to the user.
7. Exit Program: Ends program.

Future Functionality:

Additional functionality that I would like to incorporate in the future is enabling a user to upload a log. Rather than building the log from scratch, a user could open an existing log that's already been created. Another idea is to store a list of Actions, thus allowing multiple users to create logs.