

# **Developer Documentation**

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## Overview

Running\_Log\_App is a python application that allows runners a simple and easy solution to track their milage. The app makes it easier for runners to input their data to conduct several calculations to evaluate and understand their performance.

The user would use Graphical User Interface (GUI) to interact and input running data in the app. The user would input the date (as month, day, and year), select road or trail running, the number of miles they ran, and the amount of time (in hours, minutes, and seconds) it took them to complete the run. The app would store data in an Excel spreadsheet. The user can also delete their data, load a different spreadsheet, save, and from the GUI. Based on the data the user inputs, the app will calculate the average pace for each run and the daily average road and trail miles per month instead of calculating the weekly road, trail and total averages.

## Final Specs

The app reads the excel file and displays the running data from the file. The user can add a new row of data or delete the last row of data. Also, the user can open another excel file, save the current file, or save as the file.

## Code Walkthrough

Below is an image of the GUI.

Running Log App

Load Excel File
Save Excel File
Save As Excel File

Date (MM/DD/YYYY):

Run Type (select one):
☒ Road
☐ Trail

Hours: 0

Minutes: 0

Seconds: 0

Miles: 0.1

Submit New Data
Delete Last Row
Calculate Daily Average

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
27	1	2	3	4	5	6	7
28	8	9	10	11	12	13	14
29	15	16	17	18	19	20	21
30	22	23	24	25	26	27	28
31	29	30	31	1	2	3	4
32	5	6	7	8	9	10	11

	Date	Run Type	Hours	Minutes	Seconds	Miles	Pace
0	2024-01-01	road	5	12	0	16.1	19
1	2024-01-02	trail	5	0	0	13.2	23
2	2024-01-03	road	6	7	6	17.5	21
3	2024-01-04	trail	8	15	30	21.3	23
4	2024-01-05	road	7	9	16	15.6	28
5	2024-01-06	trail	9	0	42	15.6	35
6	2024-01-07	road	6	0	0	23.6	15
7	2024-01-08	trail	6	0	0	25.9	14
8	2024-01-09	road	5	7	20	17.7	17
9	2024-01-10	trail	4	7	20	10.5	24
10	2024-01-11	road	4	32	20	15.5	18
11	2024-01-12	trail	3	32	20	11.1	19
12	2024-01-13	road	6	32	20	15.5	25
13	2024-01-14	trail	6	32	20	15.5	25
14	2024-01-15	road	2	23	20	13.8	10
15	2024-01-16	trail	2	23	20	13.8	10
16	2024-01-17	road	3	23	20	12.7	16
17	2024-01-18	trail	3	23	20	12.7	16
18	2024-01-19	road	3	23	20	15.5	13

The user should start with opening their excel file. From there the GUI will display with their data (if any) in the bottom textbox. There is only one class for the app and it is for the GUI.

The `__init__` function has the code for the layout, buttons, and labels for the GUI. The `input_data` function handles the functionality of adding a new row to the excel file. The `delete_row` function handles functionality of deleting the last row of data. The `month_averages_results` function houses the `get_monthly_averages` function. The `get_monthly_averages` is a function that calculates the daily average in miles for road and trail runs per month. The `save_xlsx` function saves the excel file, `save_as_xlsx` function saves the current file as a new excel file, the `load_xlsx` function allows the user to select a different excel file to load into the GUI, and the `saves_on_close` function automatically saves the current file when the user closes the app.

### Known Issues

There is only a minor issue with the app. If the user clicks on the “Calculate Daily Averages” button again when there is already text displayed in the textbox, the box itself will not clear the text. Instead, the daily averages will be printed below the previous calculations. The app will only load xlsx excel files. Any older versions of excel will not work with the app.

### Future Work

In the future, the app could be expanded upon by allowing the user to be able to edit their data within the GUI. The user could also delete any row of data instead of the just the last row. Developers could work on expanding the app to be able to use older versions of excel files. The app could also display different types of graphs based on the user’s running data.