Instructions for executing the program have been provided in the “README.md” file

1. A, A, B, B, B, A, A, B, B, A

A = 26

B = 29

Team A wins

A computer screen shot of a black screen

Description automatically generated

A screenshot of a computer program

Description automatically generated

1. A, A, A, A, A, A, A, B, B, B, B, B

A = 15

B = 50

Team A wins

A screenshot of a computer program

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1. A, B, B, A, B, A, B, A, A, A, B, B, A, B

A = 28

B = 28

Team A wins by tie breaker (their 6th runner finished 10th and Team Bs 6th runner finished 11th)

A screenshot of a computer program

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A screenshot of a computer program

Description automatically generated

Testing by “pytest:

I faced several problems conducting tests using “pytest”. To get a clear idea please refer to the following screenshot.

A screenshot of a computer program

Description automatically generated

I spent more than an hour to figure out and tried some online solutions as well:

1. <https://stackoverflow.com/questions/70570165/how-to-solve-importerror-with-pytest>
2. <https://stackoverflow.com/questions/41748464/pytest-cannot-import-module-while-python-can>
3. <https://stackoverflow.com/questions/75036841/unittest-directory-structure-cannot-import-src-code>
4. <https://stackoverflow.com/questions/61706293/separate-src-and-test-directories-with-python>

There are no “ \_\_init\_\_ “ in my “tests” module. I guess it requires them to have in different module, but I ran out of time to get the rainy test cases to work.

Finally, I was able to test and learn the importance of \_\_ini\_\_.py: 7/9 tests passed.

A screenshot of a computer program

Description automatically generated

Refined Test Cases:

1. Initialize two teams with valid names and runners.

A black screen with white text

Description automatically generated

1. Empty team names: By default, it stays empty and moves on the next line

A black screen with white text

Description automatically generated

1. Initialize two teams with valid names and no runners: It will keep prompting user until the user enters right values.

A computer screen with white text

Description automatically generated

1. Team with less Runners:
   1. Add 4 runners to Team A with valid place values: The program terminates

A screenshot of a computer program

Description automatically generated

* 1. Add 4 runners to Team B with valid place values: The program terminates.

A screenshot of a computer

Description automatically generated

1. Entering lower case values while runner’s placement:
   1. Team A: discards the choice and prompts again

A screenshot of a computer

Description automatically generated

* 1. Team B: discards the choice and prompts again

A computer screen shot of a black screen with white text

Description automatically generated

Things pytest revealed that can be improved in the program:

1. Needs to improve the program structure.
2. It’s not optimized.
3. Need a handler for invalid inputs.
4. Code needs to be more modular.
5. The program structure give “Arrange” and “Assert” portion but is missing “Act” part to fully implement DRY.