CmpSc132, Summer 2020

Lab 5: Reading data from a text file.

Lab's purpose is to read ascii data from a text file.

Requirements

1. Name your Python file: **Lab5_Stats.py**.
2. Assumptions:
    a. Only 1 player per text file.
    b. All of the stats below the name are stats for that players.
3. Read data from a text file.
4. The text file is provided with this lab.
5. Store your python program and the text file in the same folder. If not you need to specify a path, in the open() statement, along with the filename.
6. Get the name of the file by asking the user to input the filename, including the file extension.
7. Try and open the text file with the read "r" and text "t" attributes.
8. Read the data line by line. Possible lines you will come across.
    a. comment line: starts with a "//". Ignore these lines. A comment can be any line.
    b. Blank Line: has no printable chars. If has spaces, that's a blank line.
    c. The Players Name: 1 Line that has a player's first & last name: "Rhys Hoskins"
    d. Stats for 1 game: Will have six #s separated by commas. When read these lines in, remember, they are considered strings. Convert to integers.
9. Read each line separately, and process it. If . . .
    a. The player's name, save it for displaying at the end.
    b.
10. When read the 5 pieces of data from the Stats Lines:
    a. The 5 numbers represent: AtBats(AB), Hits, HomeRuns(HR), StrikeOuts(SO), and Walks.
    b. Each line represents 1 game of stats for that players.
11. Add, and keep a total, of all of the data from those 5 stats categories.
12. When done reading lines of stats, calculate the following:
    a. **Batting Average (BA)**: (Hits / AB) * 1000.0. Then convert to an integer.
    b. **OnBase Pct (OBP)**: ((Hits + Walks) / (AB + Walks)) * 1000.0. Then convert to integer.
13. When done reading a calculating the data, display all of the information in a nice/readable layout.
    a. Display player's name, AtBats, Hits, HomeRuns, Walks, StrikeOuts, Batting Avg and OBP.

Testing

1. Test with data file and Python program in same folder/directory.
2. Change the data in the text file.
3. Create your own text file and test with that data.

Deliverables

4. Student will submit the .PY file to the appropriate Canvas assignment.