

Spring 2022 CIS 524 Small Parser (part of Course Project)

(Due Mar. 7)

Write a Python 3 program `tlparser_XXXXXXX.py` (where `XXXXXXX` is your CSU ID) to parse the five given timelog data files in the folder "Homepage/Course Project/Small Parser" of the Blackboard to get how many hours and minutes the author spent in each file. The timelog file name will be an argument for your Python program. For example, you run your program on the **spirit** machine like "`python3 tlparser_XXXXXXX.py TimeLogCarbon.txt`" (where `XXXXXXX` is your CSU ID).

- Your program needs to report the line number if there is something wrong with the format of the time data in that line that your Python program cannot parse. We cannot assume that there will be a time data value in each line. The line like `' - 10.remove "other" '` is a perfect line.
- Your program starts to count the time after it found the hard-coded "Time Log:" (case insensitive, there is a space between Time and Log).
- The "pm" and "am" should be case insensitive, i.e., 9:10pm or 9:10PM or 9:10pM or 9:10Pm are all valid time value.
- "9:10pm - 11:40pm" or "9:10pm-11:40pm" or "9:10pm -11:40pm" are all valid time periods, i.e., the spaces between "-" and the time value are not important.
- Do not use the regular expression module "re" in your source code.
- We assume there will be no space within "9:10pm".
- Do not use the Python module "datetime" in your source code.
- Please write a function "GetTimeValue" with appropriate arguments to parse the time value like "9:10pm".
- Please write another function "GetTimePeriod" with appropriate arguments to parse the time period like "9:10pm - 11:40pm". It will call the function "GetTimeValue".

Please issue "`python3 tlparser_XXXXXXX.py TimeLogCarbon.txt`" (where `XXXXXXX` is your CSU ID) on the **spirit** machine (Python version 3.8.10) to test your Python program before you turn in it.

You should be able to use your small parser to parse your own time log file if you have recorded your time spent in this course.

Please use "`if __name__ == '__main__':`" in your code and avoid global variables (read sections 2.5 and 3.17 at [Google Python Style Guide](https://google.github.io/styleguide/pyguide.html) (<https://google.github.io/styleguide/pyguide.html>)).

Two articles about the variable `__name__` in Python:

<https://medium.com/python-features/understanding-if-name-main-in-python-a37a3d4ab0c3>

<https://www.geeksforgeeks.org/what-does-the-if-name-main-do/>

Turning it in

You have to submit your program electronically by using the following command on the **grail** machine:

```
turnin -c cis524x -p sparser tlparser_XXXXXXX.py
```

Start on time and good luck. If you have any questions, send e-mail to s.cheekatimarla@vikes.csuohio.edu , or w.xiong15@csuohio.edu .