Lab 5

Start Assignment

- Due May 7 by 11:59pm
- Points 100
- Submitting a text entry box or a file upload
- Available until May 12 at 11:59pm

Please complete Lab 5 by the assigned due date.

Please also read all the following tips as these two things represent 80% of the questions asked about this assignment.

1. Make sure you are calling executor.submmit correctly

Word of caution about calling executor.submit. Do not forget that the method (target) of the future execution and its parameters are ALL AT THE SAME LEVEL. It is a common mistake to have this:

```
futures = [executor.submit(sleep_rand(x)) for x in range(future_count)]
```

Instead of this:

```
futures = [executor.submit(sleep_rand, x) for x in range(future_count)]
```

Notice in the second call, the "x" parameter, which will be passed to sleep_rand when it is time to execute, is at the same level as sleep_rand and not a parameter of sleep_rand. I realize this may be contrary to what you are thinking but consider this... If you code the solution the first way, what you are scheduling for future execution is the RESULT of sleep_rand(x). What you want is to pass the method to execute in the future along with any parameters for it to run.

2. Beware of index out of range exceptions when using randint()

Please also don't forget that the randint() function's stop (2nd) parameter can be a returned value (which for a list's length would be one greater than the valid indices). If you are getting index out of range errors in generate_people(), please make sure you are accounting for this.

3. Watch for proper indentation when using a context manager

When you declare a "with" block, ensure all the code that is supposed to run in its context is properly idented. If you are getting cursor errors, or blank results please make sure you have all of your code INSIDE the with block.

Attachments

Lab05.pdf (https://extcanvas.ucsd.edu/courses/23830/files/15023154?wrap=1)
(https://extcanvas.ucsd.edu/courses/23830/files/15023154/download?download_frd=1)

FirstNames.txt (https://extcanvas.ucsd.edu/courses/23830/files/15023065?wrap=1)
(https://extcanvas.ucsd.edu/courses/23830/files/15023065/download?download_frd=1)

LastNames.txt (https://extcanvas.ucsd.edu/courses/23830/files/15023032?wrap=1)
(https://extcanvas.ucsd.edu/courses/23830/files/15023032/download?download_frd=1)

Rubric - Lab 5

Criteria	Ratings	Pts
Part I: Lab setup		5 pts
Part I: File’s context manager		5 pts
Part I: Text files correctly processed		5 pts
Part I: Random name generation		5 pts
Part I: Tester implementation		5 pts
Part I: Extra Credit: ThreadPoolExecutor name loader Use a ThreadPoolExecutor to load the individual name files simultaneously using threads. 10 pts.		0 pts
Part II: create_people_database()		20 pts
Part III: PersonDB: __init__()		5 pts
Part III: PersonDB: __enter__()		5 pts
Part III: PersonDB: __exit__()		5 pts
Part III: PersonDB: load_person()		5 pts
Part III: Test PersonDB		5 pts
Part IV: ThreadPoolExecutor		5 pts
Part IV: Spawning of futures		15 pts
Part IV: Assembly of results of futures		10 pts
Part IV: Extra Credit: Sort records 5 pts.		0 pts

Criteria	Ratings	Pts
Total Points: 100		