

Computer Science 4140

Assignment 2

Your assignment is to complete exercise 27 of chapter 2 subject to the following requirements.

1. Name your source code *c2e27.py*
2. The output of your program should consist of four lines that use the following format.

Average polysemy for noun = X.YY
Average polysemy for verb = X.YY
Average polysemy for adverb = X.YY
Average polysemy for adjective = X.YY

where X.YY represents the calculated value (i.e., the average should be displayed to two decimal places). Consulting the Python documentation about formatted output should provide you with guidance on how to produce nicely formatted output. At least one way to do it is similar to the *printf* command of C++ and Java.

3. Your code should include comment lines at the top with your name and four lines representing the calculated scores of your program (a copy/paste of your output).
4. Feel free to add small comments to the right of your code as you feel appropriate.

Program Details

1. In implementing your solution, use `nlk.corpus.wordnet.words()` for your base set of words.
2. You will want to consult the Wordnet section of the NLTK API for other helpful information. You may also find consulting the general Wordnet documentation to be helpful, but I would suggest starting with the NLTK documentation.
3. Coding style is very important. Solutions that contain four copies of the code for calculating average polysemy will be severely penalized. Solutions that put the code for calculating average polysemy in a function but then have four individual calls to the function for manually passing the parameters is better but still sub-optimal.

Ethics Policy

As stated in the course syllabus, "It is acceptable to discuss with your fellow classmates how to use the software tools, packages and libraries that will be provided throughout the course of the semester." It is also acceptable to discuss what output results are being generated by your program, but not how it does it.

In addition, for this assignment your work on algorithmic development and programming implementation should be your work alone without any consultation other than possibly with the instructor.

Program Deadlines

February 11, 11:00 P.M.

Deadline for submitting completed program. The `<assignment_ID>` should be *c2e27*. No paper submission is necessary.

Program Evaluation

The assignment is worth 30 points. Your grade on this assignment will be weighted as follows:

Code Correctness	60%
Coding Style and Documentation	40%