

# University of Utah

## School of Computing

CS 1060

Homework #4

Spring 2016

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**Due April 5, 2016 at the start of class.**

For each question, you would need to submit the screen output of your code and your answers in a PDF, together with your Python code (as Python files). Please put all your files in a single ZIP file. Please make sure your files are not corrupted (e.g. they can be opened), files that can not be opened will not be counted towards a successful homework submission.

If you use CADE lab (you should if you do not have Python twitter API on your own laptop/PC), please read carefully the instruction on how to run HW4 in the CADE lab in a separate PDF named: hw4-setup.pdf.

Question 1 (6 points). Read carefully and follow the instructions in using Twitter API within the file: *twitter-api-instructions.pdf*. Modify *hw4.py* to include your own ACCESS\_TOKEN, ACCESS\_SECRET, CONSUMER\_KEY, and CONSUMER\_SECRET. To learn more about Twitter API, see online resource<sup>1</sup>. Please DO NOT submit your own *hw4.py* for the homework submission!!!

(a) (3 points) Run *streaming.py* in the terminal and capture the screen output in PDF (your screen output should have 10 lines of twitter texts obtained live via streaming).

(b) (3 points) Modify *streaming.py* such that the modified code will output 5 lines of live twitter feeds. Capture the screen output of the modified file. Hint: you only need to change the value of one variable. Please make sure you submit the modified Python file.

Question 2 (6 points). Play with *wordcount.py* and *wordcount-advanced.py*.

(a) (2 points) Run *wordcount.py* in the terminal and capture the screen output in PDF.

(b) (2 points) Modify *wordcount.py* such that the modified code will search for “#healthcare” instead. Capture the screen output in PDF. Please make sure you submit the modified Python file.

(c) (2 points) Modify *wordcount-advanced.py* such that the modified code will output occurrences of the words “Trump”, “Cruz”, “Hilary”, “Bernie” and “vote” with 5000 tweets. Capture the screen output in PDF. If none of the above words show up with none zero statistics, or if you would like to have something more fun, pick your own five words that you think will have none zero count within 5000 tweets. Capture the screen output in PDF. Please make sure you submit the modified Python file.

Bonus Question (2 points). Run *streaming-extra.py* in the terminal and capture the screen output in PDF. Use search engines to find answers to unknown syntax.

(a) (1 point) Explain what the current program is doing, that is, what type of tweets it is outputting.

(b) (1 point) Modify the code in *streaming-extra.py* such that it is outputting 10 live tweets in English. Hint: you only need to modify 1 line of code. Please make sure you submit the modified Python file.

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<sup>1</sup><http://socialmedia-class.org/twittertutorial.html>