**Project 5B | Sentiment Analysis**

You will need to complete all of the following activities for this project –

* Obtain **Twitter keys and tokens**:
  + consumer\_key = 'XXXXXXXXXXXXXXXXXXXXXXXX'
  + consumer\_secret = 'XXXXXXXXXXXXXXXXXXXXXXXXX'
  + access\_token = 'XXXXXXXXXXXXXXXXXXXXXXXXXXX'
  + access\_token\_secret = 'XXXXXXXXXXXXXXXXXXXXXXX'
  + How do I get a Twitter Consumer Key and Consumer Secret key?
    - <https://support.yapsody.com/hc/en-us/articles/360003291573-How-do-I-get-a-Twitter-Consumer-Key-and-Consumer-Secret-key->
  + **Get your keys and tokens immediately, as you won’t be able to complete the project without them**
* Read the following article:
  + Introduction to sentiment analysis: What is sentiment analysis?
    - <https://algorithmia.com/blog/introduction-sentiment-analysis>
* **Complete the following tutorials**:
  + Sentiment Analysis in Python with TextBlob
    - <https://stackabuse.com/sentiment-analysis-in-python-with-textblob/>
  + Tutorial: Simple Text Classification with Python & TextBlob
    - <https://stevenloria.com/simple-text-classification/>
  + A Beginner’s Guide to Tweepy
    - <https://towardsdatascience.com/my-first-twitter-app-1115a327349e>
* **Analyze tweets** **from two additional people of your choice** (e.g., President Biden, LeBron James, Dr. Fauci)
  + Create two charts of your choice to illustrate your analyses
  + Create Word Clouds to support your analyses
  + **Discuss your findings**
* Submit a Python file of your completed work

**Academic Honesty Policy Reminder** | **Do your own work** – each submitted project will be compared against other submissions from current and previous semesters

**Python Expectations**

* A working .py or .ipynb submission

**Assumptions**

* What other assumption(s) do you need to make?

**Concepts Utilized in Project**

* Previously covered course topics
* Matplotlib
* Pandas

**Write-up & Submission Requirements**

Review the provided rubric and understand project expectations, including documentation, CMSC206, and programming requirements.

Two artifacts MUST BE submitted for this project – Python code and a write-up.

At a minimum, the write-up needs to address -

* Approach, design & algorithm
  + **DO NOT** start coding your project immediately! Come up with a high level design of the project first
    - What’s your game plan to complete the project?
    - Break the project into smallest modules where applicable
  + **Complete this step first, then write your code**
  + Each student is welcome to expand on the design, if it makes sense. Students will not be penalized for going “above and beyond” the specifications of the project
* Test plan & test cases
  + What test cases did you run?
  + Capture test runs as screenshots in your write-up, as you run your test cases
  + I want to understanding your “thinking,” as to how you are testing your program
  + Each submission should be rock solid, with “zero bugs”
  + **I am a typical user and will be able to break your code with ease**
* Any assumptions that you are making for this project
* Highlight your learning experience and lessons learned
  + **I am very interested to learn about what you have done, how you did, etc.**
* Anything else that you want to share with me

Each student must submit one compressed (.zip) file back to the Assignment (link) with the following deliverables:

* Source code
* Write-up (in Word or PDF – one write-up per project)
* Name the compressed file as <lastname>\_project\_x
  + where x is the project number and your last name (e.g., Thai\_Project\_1.zip)
* Review provided instructions on how to submit the project carefully (don’t assume anything)
* **Double check your submission. I can only grade what’s being submitted**
* **I MUST BE able to compile, run and test every submitted project on my computer using a set of test cases.** Just as important, I READ your write-up first

**Not clear? That’s okay, but do ask your questions. “I did not know” or “I did not understand” is not good enough.**

Start working on each project immediately so that we can discuss any concerns or questions you have!

**Sample Test Runs**

**![A screenshot of a cell phone

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![A picture containing screenshot, businesscard

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**![A screenshot of a cell phone

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