CSC 202: Intro to Machine Intelligence
Lab 9: Twitter

Turn in a Jupyter Notebook that completes the following:

1. Use the Twitter API to retrieve profile information for Eastern's twitter account (EasternCTStateU)**,** and answer the questions below. Note that you will need to specify the correct *user_fields* to get all of the information being asked for. Valid user fields can be found here: https://developer.twitter.com/en/docs/twitter-api/data-dictionary/object-model/user.

    a. Print out a summary of Eastern's account using the following format, where the correct information is extracted from the *user* object. [10 points]

        Name: (name)
        Username: (username)
        Description: (description)
        Location: (user location)

    b. Print out the following, where 3732 is the number of followers (stored in *followers_count*) and 114 is the number of friends (stored in *following_count*). Note that this information can be found in the *public_metrics* field. [10 points]

        Eastern has 3732 followers and 114 friends

2. Use the Twitter API to search for English-language tweets containing 'Daylight Saving Time' that were liked at least once. You can create the search string using https://twitter.com/search-advanced. You will also need to use the correct *tweet_fields* and *expansion* to get the relevant metrics and user information. As in the class example, you must create a users_dictionary so that you can look up the author of a tweet by the author_id.

    a. Output the number of tweets retrieved   [5 points]
    b. For the <u>first five tweets</u>, output the user name, the full text of the tweet, and the tweet's url (output only this information).   [10 points]
    c. For *all* tweets each, output the user name, the number of likes, and the number of retweets. [10 points]
    d. Output the text of the tweet(s) with the most likes. To do this, you can use one loop to find the maximum number of likes. Then use a second loop that outputs the tweet if its number of likes matches the maximum. This approach will correctly output multiple tweets if there is a tie. Your output should have the following format: *The maximum number of likes is 573. The text of these tweets is below: (skip a line and then display the tweets, with a blank line in between them).* [15 points]