

## Exercise 5: Twitter Conversation Bot

Due: Friday, May 8<sup>th</sup>, 2020

You may be familiar with the following [tweet](#):



Although it turned out to be fake, I still found it (and it's spinoffs) hilarious. And seeing that I got into teaching so that my students could amuse me, I have an exercise for you all.

**Task:** I would like you to query Twitter's API using a parameter from a get request with express. Then I would like you all to generate a tweet of 280 characters or less using the tweets received as a basis.

### Part 1

In a file called TweetBot.js (starter code provided) I would like you to do the following:

- Using express, create a server that will read from the following URL:  
localhost:5000/api/tweets/XXX
- The XXX must be a parameter that will then be used as the search query for twitter.
- [Using the 'search/tweets' get command](#) discussed in lecture, find 50 tweets based on the parameter from above and use those tweets to compile all text related to that query

Example:

localhost:5000/api/tweets/fifa

- Searches and finds 50 tweets related to the keyword fifa

localhost:5000/api/tweets/goats

- Searches twitter to find 50 tweets related to the greatest animal in the world

## Part 2

The tweets will all have a “text” attribute which contains the text of the tweet, I would like you to compile all of the text from the tweets and use that to generate one tweet of less than 280 characters (you choose the length or could be variable). ***You may choose the approach you would like to take to generate the tweet from the text you just grabbed from twitter.*** Here are some approaches I thought about:

### Basic:

*Compile a frequency table of all of the words generated from the scraped tweets, use the most frequent words to generate the tweet response.*

### Intermediate:

*Compile a frequency table based on the parts of speech (most popular adjective or noun for example), then using a basic sentence template like below to generate a tweet based on those words.*

Ex:



### Harder:

*Use the Bag of Words approach to tokenize a sentence and process it in a way to generalize further sentences based on text. Take a look at [this](#) document with a full explanation of this approach. If you have the time, I would try this out, this is a great project to put on your resume!*

Lastly, what to do with the tweet you generate. I would like you to simply display it back in the browser where the initial request was made (aka localhost:5000/api/tweets/XXX).