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EE-551 WS Final Project Report  
Professor Mukund  
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I pledge my honor that I have abided by the Stevens Honor System  
Justin Boyd

For my final project, I decided to start working with the Twitter API. I have never worked with it before and wanted to see how much information you can get using it. I decided to take a look at trends on Twitter. I started by looking at trends based on location using WOEID's. Geocoder helped out by allowing user input to be interpreted and the location input to be checked and found. The API then takes latitude and longitude values to find the data. This data is then presented in a json format, which makes it present neatly and more in depth data can be looked at. I also wanted to look at hashtag data. I decided to write to a csv file for a few reasons: it was easier to continuously write the tweets to a csv then something like a json and I also wanted more experience using csv's, something I only had a little knowledge in. The next code prints the top five hashtags trending from the original location input from the user. Following that, the tweet volumes for the trends is listed behind its name for clarity. The next part of code is one of my ideas I had originally wanted to research. NBA teams each have their own hashtag their fans can use so when they tweet, the team logo comes up after the hashtag. I made a list of all the NBA teams hashtags and another list for their WOEID's. The code searches through the trends based on location, then looks through the trends for the specific hashtag that corresponds to the team. The tweets are written onto a csv file to get the tweets that are tweeted with the hashtag from the location. Problems I experienced were constantly hitting the rate limit when testing. I wanted to get large amounts of data and present it, but collecting the data is very difficult

given the Twitter API request rate. I enjoyed working through this API and getting actual tweets to a file that I can observe. I hope you enjoyed this project.

Sources:

<http://docs.tweepy.org/en/v3.9.0/api.html>

<https://b-weyl.github.io/blog/post/2017/09/11/twitter-trends-command-line.html>

<https://geocoder.readthedocs.io/providers/OpenStreetMap.html>

<https://medium.com/analytics-vidhya/how-to-get-trending-tweets-in-any-country-with-python-and-tweepy-af2bfe760251>

<http://woeid.rosselliot.co.nz/>