Capstone Project - The Battle of Neighborhoods (Week 1)

Data Description

The data acquired for this project is a combination of data from 2 sources. Firstly, list of stations and their geographical coordinates is scraped from Wikipedia.

https://wiki.openstreetmap.org/wiki/List_of_London_Underground_stations

I used Python and pandas to scrape the data from Wikipedia and dropped some columns.

	Name	Latitude	Longitude
0	Acton Town	51.502500	-0.278126
1	Acton Central	51.50883531	-0.263033174
2	Acton Central	51.50856013	-0.262879534
3	Aldgate	51.51394	-0.07537
4	Aldgate East	51.51514	-0.07178

I utilized the Foursquare API to explore the metro stations' surroundings and the radius **1000 meter** for each station from their given latitude and longitude information

```python
def get_venues_count(lat,long, radius, categoryId):
    explore_url = 'https://api.foursquare.com/v2/venues/explore?client_id={}&client_secret={}&v={}&ll={},{}&radius={}&
                CLIENT_ID,
                CLIENT_SECRET,
                VERSION,
                lat,
                long,
                radius,
                categoryId)
    # make the GET request
    return requests.get(explore_url).json()['response']['totalResults']
```

The full CSV is the following figure below.

	Name	Latitude	Longitude	Arts & Entertainment	College & University	Event	Food	Nightlife Spot	Outdoors & Recreation	Professional & Other Places	Residence	Shop & Service	Travel & Transport
0	Acton Town	51.502500	-0.278126	3	3	0	33	15	18	51	4	28	13
1	Acton Central	51.50883531	-0.263033174	4	4	0	26	12	17	0	3	31	9
2	Acton Central	51.50856013	-0.262879534	4	4	0	26	12	17	29	3	32	9
3	Aldgate	51.51394	-0.07537	36	61	2	185	145	107	74	20	69	94
4	Aldgate East	51.51514	-0.07178	38	62	1	183	144	103	67	22	81	94