Capstone Project

DATA SECTION

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Data Section:
The following sources of the data are used in the Project.

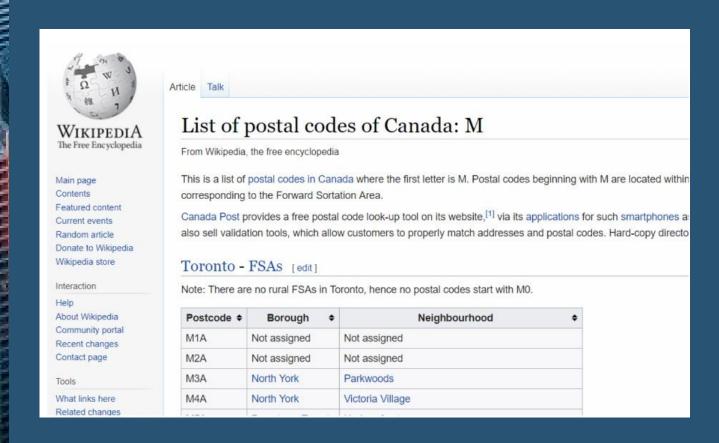* Data Title: List of postal codes in Canada: M

* Type of Data: HTML

Description of the dataset:
This is a list of postal codes in Canada where the first letter is M. Postal codes beginning with M are located within the city of Toronto in the province of Ontario. Only the first three characters are listed, corresponding to the Forward Sortation Area.
A python script was developed to harness the data and use it in the project.

*SOURCE:
https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

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* Data Title: Toronto Neighbourhood coordinates

* Type of Data: CSV

Description of the dataset:
The dataset contains the coordinates of the neighbourhood in Toronto which is used to make the API calls to Foursquare.

*SOURCE:
http://cocl.us/Geospatial_data

In [11]: # load the coordinates from the csv file on Coursera
          coordinates = pd.read_csv("http://cocl.us/Geospatial_data")
          coordinates.head()

Out[11]:

	Postal Code	Latitude	Longitude
0	M1B	43.806686	-79.194353
1	M1C	43.784535	-79.160497
2	M1E	43.763573	-79.188711
3	M1G	43.770992	-79.216917
4	M1H	43.773136	-79.239476

* Data Title: Foursquare's Location Data

* Type of Data: JSON

Description of the dataset:
Foursquare provides the details about a particular location including the places one can explore, venues, tips and photos.
We have used Foursquare's API to get the venues and their category available in a particular neighbourhood.

*SOURCE:
http://foursquare.com/

Getting the venues

In [35]: toronto_venues = getNearbyVenues(names=df['Neighbourhood'],
                                           latitudes=df['Latitude'],
                                           longitudes=df['Longitude']
)

In [38]: print(toronto_venues.shape)
          toronto_venues.head()

          (2235, 7)

Out[38]:

	Neighbourhood	Neighbourhood Latitude	Neighbourhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Rouge, Malvern	43.806686	-79.194353	Wendy's	43.807448	-79.199056	Fast Food Restaurant
1	Highland Creek, Rouge Hill, Port Union	43.784535	-79.160497	Royal Canadian Legion	43.782533	-79.163085	Bar
2	Guildwood, Morningside, West Hill	43.763573	-79.188711	Swiss Chalet Rotisserie & Grill	43.767697	-79.189914	Pizza Place
3	Guildwood, Morningside, West Hill	43.763573	-79.188711	G & G Electronics	43.765309	-79.191537	Electronics Store
4	Guildwood, Morningside, West Hill	43.763573	-79.188711	Marina Spa	43.766000	-79.191000	Spa

Using Foursquare's API