Data

We will use the neighborhood data of Toronto by scraping the wikipedia page of Canada https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M,.

	Postal Code	Borough	Neighbourhood
2	M3A	North York	Parkwoods
3	M4A	North York	Victoria Village
4	M5A	Downtown Toronto	Regent Park, Harbourfront
5	M6A	North York	Lawrence Manor, Lawrence Heights
6	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government

Then we need to get the latitude and longitude of each neighborhood. To get this we will be using the csv file that has the geographical coordinates of each postal code http://cocl.us/Geospatial_data . This link is downloaded as 'Geospatial_Coordinates.csv'. The data is stored into a pandas dataframe.

	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

Now the above dataframe will be merged with our postal code/neighborhood dataframe to get a combined version of data. After that, we will filter out only neighbourhoods that are part of Toronto.

	Postal Code	Borough	Neighbourhood	Latitude	Longitude
4	M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636
6	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494
13	M5B	Downtown Toronto	Garden District, Ryerson	43.657162	-79.378937
22	M5C	Downtown Toronto	St. James Town	43.651494	-79.375418
30	M4E	East Toronto	The Beaches	43.676357	-79.293031

We will be using the above data to fetch the restaurants in the neighborhood within 500 meters. The data will look like as below:

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Regent Park, Harbourfront	43.654260	-79.360636	Impact Kitchen	43.656369	-79.356980	Restaurant
1	Regent Park, Harbourfront	43.654260	-79.360636	Cluny Bistro & Boulangerie	43.650565	-79.357843	French Restaurant
2	Regent Park, Harbourfront	43.654260	-79.360636	El Catrin	43.650601	-79.358920	Mexican Restaurant
3	Queen's Park, Ontario Provincial Government	43.662301	-79.389494	Nando's	43.661728	-79.386391	Portuguese Restaurant
4	Queen's Park, Ontario Provincial Government	43.662301	-79.389494	Mercatto	43.660391	-79.387664	Italian Restaurant