**Business Problem**

Nowadays people prefer to travel inter-countries as tourist or job seekers. Today, I am going to compare world’s two developed cities Toronto and New York which are known for job opportunities and tourism. So, some people visit to work and others as tourist. I am going to compare neighborhood of these two cities for basic amenities any person needed like hospitals, schools, gym, grocery stores, restaurants etc. so that people can get help to choose better place to live or to visit.

**Data**

The Wikipedia is great source of information and I will use below links to get information about postal codes of Toronto [https://en.wikipedia.org/wiki/List\_of\_postal\_codes\_of\_Canada:\_M,](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M) . To get coordinates of places in Toronto will use file available at location [http://cocl.us/Geospatial\_data](https://cocl.us/Geospatial_data).

While for New York , data is available at [https://geo.nyu.edu/catalog/nyu\_2451\_34572](https://geo.nyu.edu/catalog/nyu_2451_34572?cm_mmc=Email_Newsletter-_-Developer_Ed%2BTech-_-WW_WW-_-SkillsNetwork-Courses-IBMDeveloperSkillsNetwork-DS0701EN-SkillsNetwork-21253531&cm_mmca1=000026UJ&cm_mmca2=10006555&cm_mmca3=M12345678&cvosrc=email.Newsletter.M12345678&cvo_campaign=000026UJ&cm_mmc=Email_Newsletter-_-Developer_Ed%2BTech-_-WW_WW-_-SkillsNetwork-Courses-IBMDeveloperSkillsNetwork-DS0701EN-SkillsNetwork-21253531&cm_mmca1=000026UJ&cm_mmca2=10006555&cm_mmca3=M12345678&cvosrc=email.Newsletter.M12345678&cvo_campaign=000026UJ).

From above links, I will get information about Neighborhood, Borough, and coordinates.

**Methodology**

Once get the data frame cleaned, I used geopy to fetch the coordinates of Toronto and Manhattan.

Then use folium library to visualize the coordinates and locations. Then Used Foursquare API to fetch venues of these places and explore the top 10 most common places. Also visualize the similarities between them. Then, from the scikit learn library we use the k-means algorithms to cluster the places and see similarities for different neighborhoods for each city and find similarities among them

**Result Section**

The results which were found out after visualization the neighborhoods of both cities and applying unsupervised learning algorithm i.e. K-means clustering. The results obtained after applying the K-means algorithm on both the dataset was there was a similarity for both cities first few common places in the 1st cluster. The people of both cities prefer eateries in form of restaurants, coffee shops and cafes. Then is the place for physical activities – gym, park, health fitness center. So, it seems similarity in common in the form of eating places and physical activity.

**Discussion Section**

The restaurants (of different cuisine) are popular among people of both cities. While gym and fitness center are among 10 common places for Manhattan (in most of the clusters), people of Toronto seems to be interested in parks more.

**Conclusion Section**

Thus, after analyzing both the city’s most common places by applying machine learning algorithm (K-means clustering), I conclude that quite places are common in both the cities but are distributed differently for both them and it's the nature and circumstances as well as arrangement which leads to these different distribution in both Toronto as well as New York.