1. Introduction/Business Problem

Toronto, New York and City of London are one of the most visited cities in the world. They have diversity in many fields such as technology, art and tourism. We want to search about their similarity and dissimilarity in their neighborhoods. Each city has its own diversity by neighborhood. Nowadays, geo information is very common which helps people to extract different types of information regarding location of a place. Moreover, many applications give you various types of information about different places all around the world. All above mentioned cities are popular in the tourisms industry with their different neighborhoods and places to visit. Now we can compare their neighborhoods of these cities and determine how are similarity and dissimilarity between them.

For example, one question can be as follows: **Is New York City more like Toronto or City of London?** The goal of this project is to figure out similarity or dissimilarity between these three cities according to information of their neighborhoods with data analysis.

2. Data and Problem Solution

For this problem, we use Foursquare API and some datasets to explore the data of these cities in terms of their neighborhoods. The Last version of dataset also includes the information about the places around each neighborhood like restaurants, hotels, coffee shops, parks, theaters, art galleries, museums and many more. Data resources are as follows:

• City of London data were obtained from Doogal website which covers UK postcodes and map tools.

• New-york city information is extracted from json dataset

• Canada post code lists were extracted from Wikipedia list and geo information of each neighborhoods were merged

• Using Foursquare API to get the venues records for all three cities