BATTLE OF THE NEIGHBOURHOOD

CAPSTONE PROJECT

Introduction/ Problem:

In 2018 New York City welcomed a record 65.2 million visitors, comprising 51.6 million domestic and 13.5 million international visitors, the ninth consecutive year of tourism growth. However, given the constant flowing of visitors, the reviews in the most visited travel guide platform, Tripadvisor, on accessibility to information while travelling in New York is notoriously bad.

So why do tourists have difficulty access to information?

Target Audience:

Ministry of Tourism of United States of America; Tourism Board of New York;

Data Collection:

1. New York Neighborhood: has a total of 5 boroughs and 306 neighborhoods. In order to segment the neighborhoods and explore them, we will essentially need a dataset that contains the 5 boroughs and the neighborhoods that exist in each borough as well as the the latitude and longitude coordinates of each neighborhood.

Data source : https://cocl.us/new_york_dataset

2. Fousquare API: A dataset leveraging Foursquare API to tourist information centers/booths across the various neighborhoods of NYC.

Methodology:

For this project, I have chosen to use Jupyter notebook via IBM Cognitive AI library because it is familiar to me.

1. Install necessary programs and import dependencies, such as Pandas, Numpy, Matplotlib, Beautiful Soup, Geopy and Folium.
2. Download the dataset that has been provided in Week 3 lab, https://cocl.us/new_york_dataset.
3. In order to read the file, convert the data to Panda Dataframe. Then explore the data with columns: borough, neighbourhood, latitude and longitude.
4. Use matplotlib to find out the number of neighborhoods in the 5 borough of New York, then .count().
5. Subsequently explore the locations in New York by using Foursquare developer API, including:
   - Create a map of New York
   - Get Request url to see venues in New York
   - Find out unique venue categories- 425 categories
   - Find targeted category: Tourist Information Booth/Center
6. Analyse the neighborhood by grouping according to targeted data
7. K-means cluster to find out which cluster/neighbourhood with targeted data

Results and Discussion:

There are only two official tourist information center/booth in New York, in the neighborhood: St George (Borough: Staten Island) and Turtle Bay (Borough: Manhattan). While there are many tour companies (mainly in Manhattan) around that could offer some help when necessary, it is always under the impression that engaging a paid tour is subsequently needed. I believe this is the main reason albeit high ratings on various attraction spots, the general impression obtained from surveys is that it is hard to maneuver around by one own in New York.

Tourism office of New York should consider setting up a lot more Tourist Information Center or Tourist Information Booth nearby attraction spots, it could be run by volunteers who are interested in the field of tourism, or by those who are interested to have language exchanges.

Conclusion:

In order to attract even more visitors to one of the best cities on Earth, the Tourism Office of New York should invest money and effort to set up Tourist Information Center/Booth like in Perth, Australia; or Bangkok, Thailand.