

Capstone project final Assignment: Battle of Neighborhoods

New York City vs Toronto vs Paris

For week #1, you will required to submit the following:

A description of the problem and a discussion of the background. (15 marks)

- > Compare the neighborhoods of the three multicultural cities and determine how similar or dissimilar they are. Is New York City more like Toronto or Paris?
- > Discover the cities and their neighborhoods for planning travel

A description of the data and how it will be used to solve the problem. (15 marks)

(1) The data for the three cities include neighborhoods, Borough, Geographical Latitude and Longitude; Foursquare is used for exploring cities and neighborhoods.

>> **New York City:** 'newyork_data.json' downloaded from https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDeveloperSkillsNetwork-DS0701EN-SkillsNetwork/labs/newyork_data.json

>> **Toronto:** url 'https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M' and 'Geospatial_Coordinates.csv'

>> **Paris:** correspondances-code-insee-code-postal.json downloaded from <https://www.data.gouv.fr/fr/datasets/r/e88c6fda-1d09-42a0-a069-606d3259114e>

(2) Data Analysis:

- >> Wrangler the data of the neighborhood data with Pandas Dataframe
- >> Explore neighborhoods with Foursqure
- >> Visualize using folium map rendering library
- >> Combine data of all three cities for clustering analysis
- >> Cluster and segmentation the neighborhoods of all the three cities together using K-Means method
- >> Examine the cluster and show the similarities/disimilarities