Capstone Project - The Battle of the Neighborhoods:
Toronto vs Manhattan

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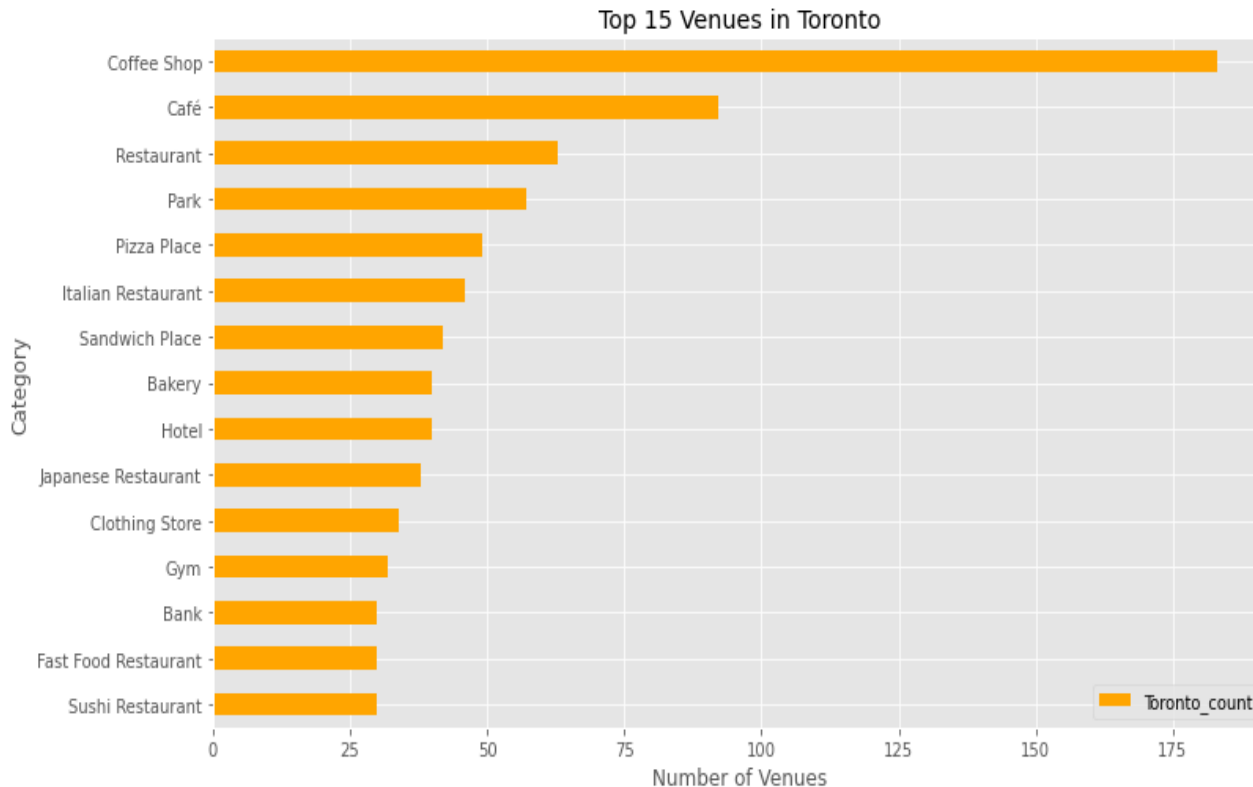
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Toronto vs Manhattan Comparison

- Despite New York and Toronto are not the capitol of their respective countries (Washington is the USA capital, and Ottawa that of Canada), these cities are financial centers of USA and Canada respectively.

- Neighborhoods of Toronto and Manhattan will be compared to determine how similar or dissimilar they are in basis of venues in Foursquare data, and choosing Toronto, will be determined a recommendation to someone to open (or not) a restaurant in basis of this venues data, and where would be recommended to open it; this last question could be a real case for open a new restaurant for an independent investor or a restaurant franchise.
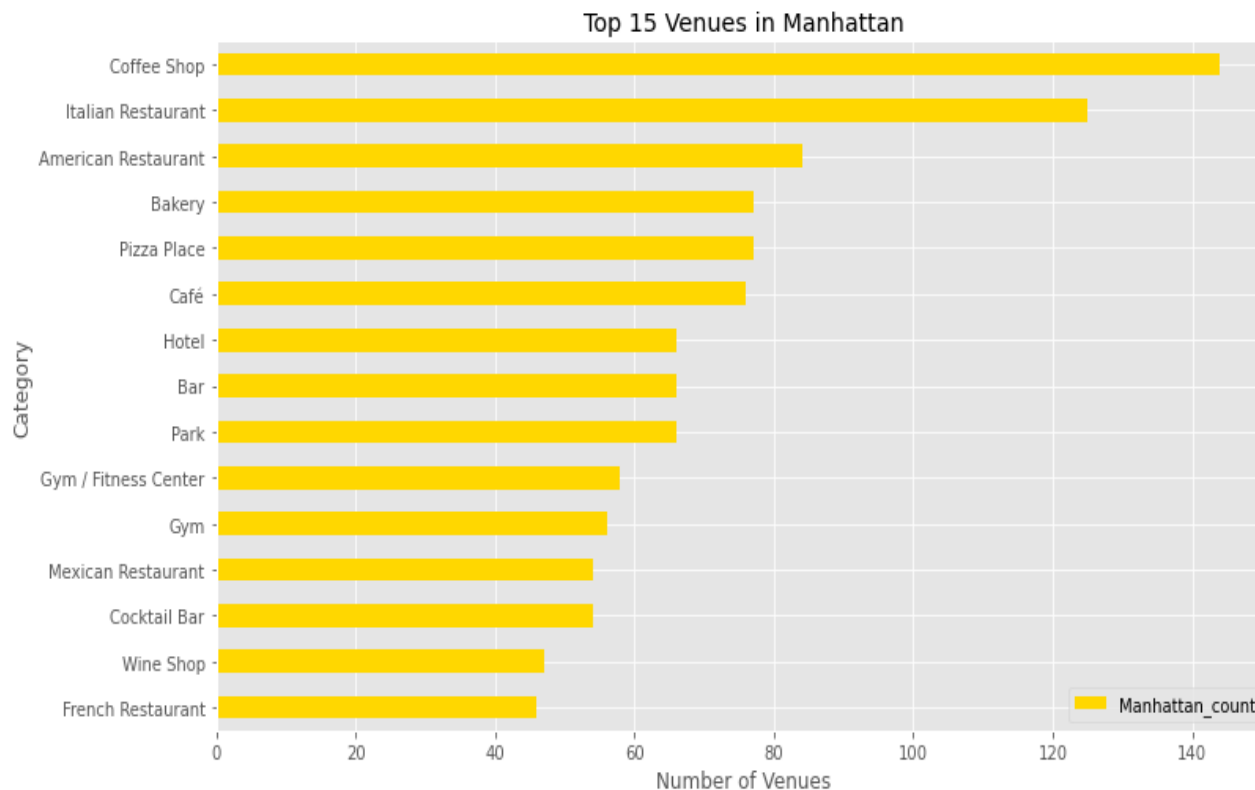
Data acquisition and cleaning

- Comparison of Neighborhoods of Toronto and Manhattan is performed in basis of Foursquare data; also for Toronto the recommendation to someone on opening a restaurant in this city, is carry out with Foursquare data.

- Data for Toronto neighborhoods was acquired from scrapping through Wikipedia site for Canada Postal Codes, and Geospatial Data for Toronto and New York is retrieved from sites on course server, a .csv file for Toronto, and a JSON file for New York (including Manhattan).

- Analysis for Manhattan from Foursquare Places API, resulted in a Manhattan venues dataframe with 3235 rows, one for each venue in Manhattan, and 7 columns with Geospatial information for venues and neighborhoods. Performed analysis for Toronto from this same API resulted in a Toronto venues dataframe with 2111 rows, and same 7 columns for venues and neighborhoods.

Toronto Top Venues

Top 15 Venues in Toronto

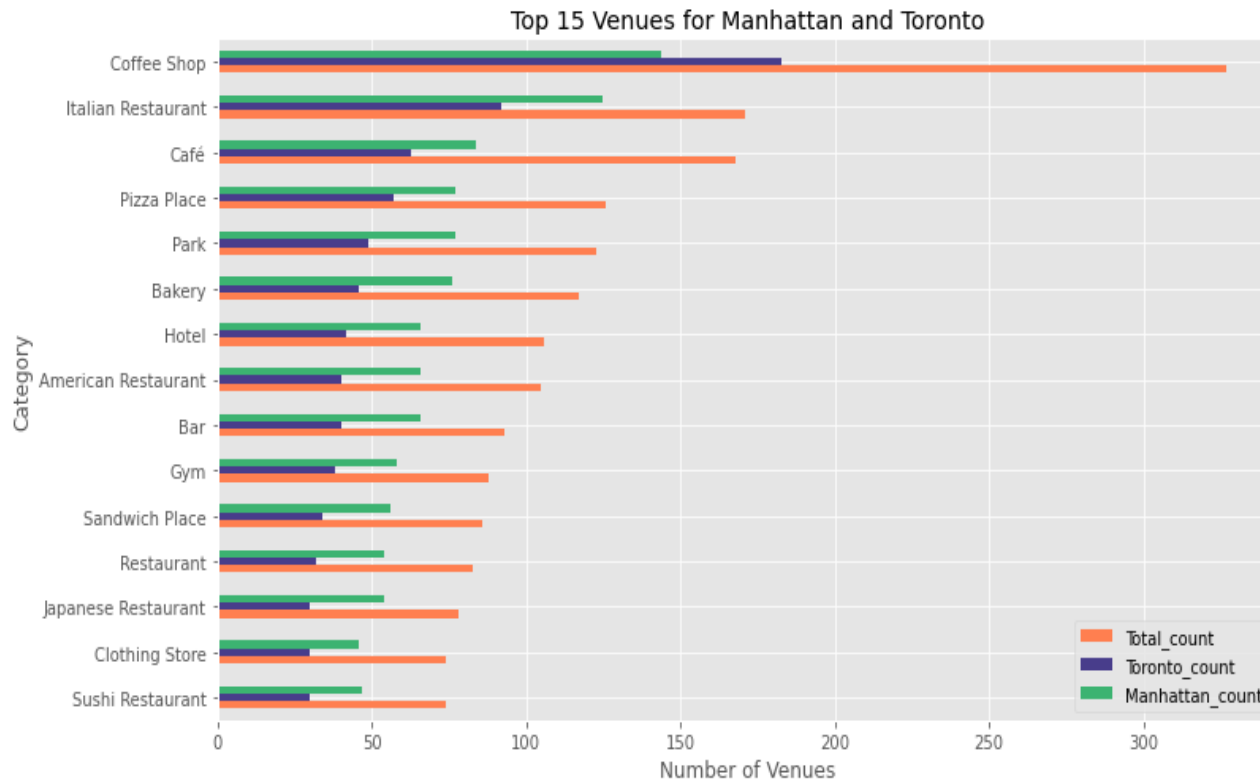- In basis of this top venues for the City of Toronto, it could be concluded for food tastes than Torontians likes the most Coffee Shops and Cafés.

- Theses food tastes are followed by Italian food (Pizza Place and Italian Restaurant), then by Sandwich Place and Bakery.

- Last in this top venues for food in this list are the Asian restaurants (Japanese and Sushi Restaurant).

Manhattan Top Venues
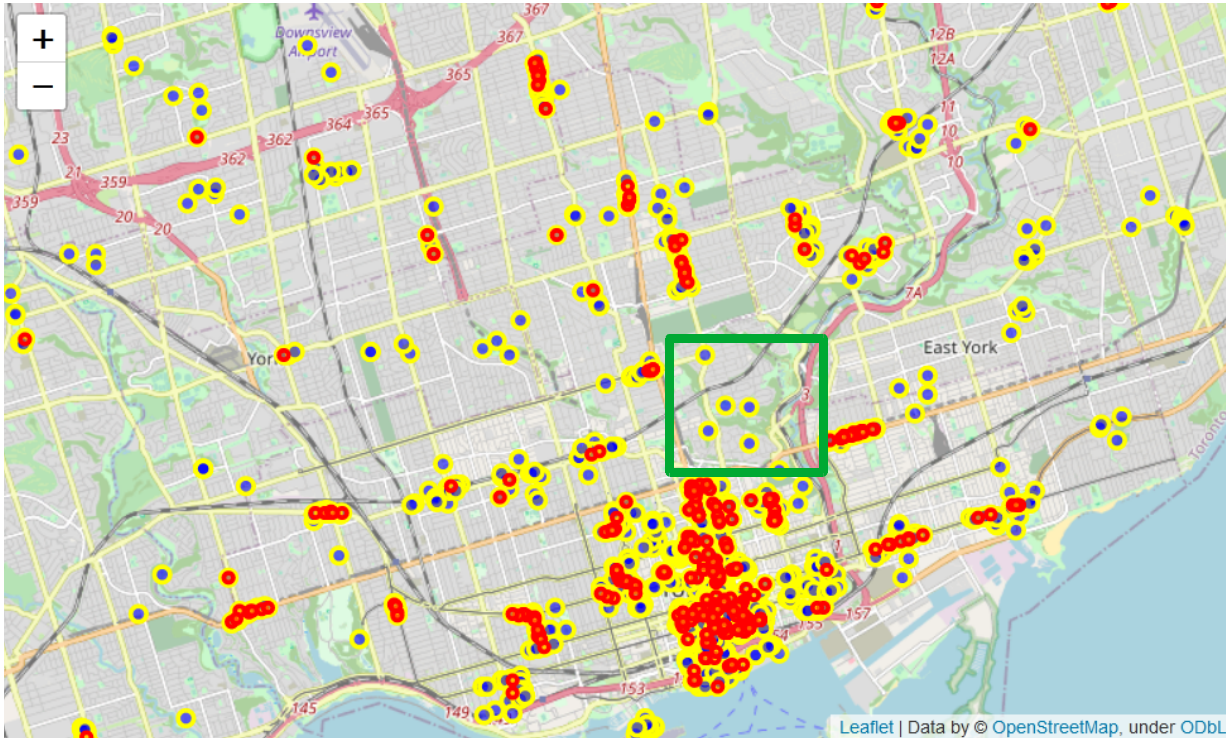
Top 15 Venues in Manhattan

- In basis of this top venues for Manhattan, it could be concluded for food tastes than New Yorkers likes the most Coffee Shops

- Theses food tastes are followed by Italian food (Pizza Place and Italian Restaurant), then by American Restaurant and Bakery,

- Last in this top venues for food in this list are the Mexican and French restaurants.

Manhattan and Toronto comparison

Top 15 Venues for Manhattan and Toronto

- In this comparison graph, both New Yorkers and Torontians likes the most Coffee Shops, and New Yorkers likes Italian restaurant more than Torontians.

- In number of venues could be concluded in general than comparing Manhattan (New York) and Toronto, these are very similar on tastes of their people, New Yorkers and Torontians.

Analysis for Restaurant Opening

- The geospatial analysis of venue data and restaurants on map from Foursquare, allows to recommend some places for opening a restaurant in Toronto, in a area bounded by a green frame on the map.

- In the area of the green frame are several venues different to restaurant (circles in blue), and without restaurants (circles in red); this allows to recommend opening of a restaurant on the neighborhoods of Sherbourne, Rosedale and Summerhill.

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Conclusion

- Foursquare is a very useful data source for data sciences, lets analysis of venues with geospatial data in almost all the world, and it is updated frequently.

- Comparing Manhattan to Toronto, could be concluded than both New Yorkers and Torontians likes the most Coffee Shops, and New Yorkers likes Italian restaurant more than Torontians. In number of venues could be concluded in general than comparing Manhattan (New York) and Toronto, these are very similar on tastes of their people, New Yorkers and Torontians, but have some differences, some of them is related to their habits, from analysis of venues, New Yorkers seem to like gym and park training more than Torontians.

- Analysis of venues allows to recommend opening of a Restaurant in Toronto. The geospatial analysis of the venue data from Foursquare on map, allows to recommend opening of a restaurant on the neighborhoods of Sherbourne (in first place), Rosedale and Summerhill (in third place, is the further of Toronto Center).