Battle of Neighborhoods

Analyzing Manhattan and Toronto for a startup idea

March 2019

BUSINESS PROBLEM

- **Financial Growth of a startup developed in the cities of Manhattan, New York and Toronto, Canada.**

- **Predicting the best business idea that can fuel the growth of the startup.**

DATASETS

Manhattan, New York City

	Borough	Neighborhood	Latitude	Longitude
0	Manhattan	Marble Hill	40.876551	-73.910660
1	Manhattan	Chinatown	40.715618	-73.994279
2	Manhattan	Washington Heights	40.851903	-73.936900
3	Manhattan	Inwood	40.867684	-73.921210
4	Manhattan	Hamilton Heights	40.823604	-73.949688

Toronto, Canada

	PostalCode	Borough	Neighborhood	Latitude	Longitude
0	M1B	Scarborough	Rouge, Malvern	43.806686	-79.194353
1	M1C	Scarborough	Highland Creek, Rouge Hill, Port Union	43.784535	-79.160497
2	M1E	Scarborough	Guildwood, Morningside, West Hill	43.763573	-79.188711
3	M1G	Scarborough	Woburn	43.770992	-79.216917
4	M1H	Scarborough	Cedarbrae	43.773136	-79.239476

METHODOLOGY

- We will be using the FOURSQUARE API to get the top 10 common venues that people hang out for each of the neighborhoods.
- The data will be collected for all the neighborhoods of Manhattan and Toronto.
- We will be using k-Means Clustering to classify the venues into clusters.

DEEPER LOOK INTO NEIGHBORHOODS

```
------------------------------------------------
The nearest neighborhood to the Italian Restaurant is :
['Upper East Side' 'Yorkville' 'Lenox Hill' 'Upper West Side'
 'Greenwich Village' 'Tribeca' 'West Village' 'Noho' 'Turtle Bay'
 'Hudson Yards']
------------------------------------------------
The nearest neighborhood to the Coffee Shop is :
['Murray Hill' 'Chelsea' 'Morningside Heights' 'Financial District'
 'Carnegie Hill']
------------------------------------------------
The nearest neighborhood to the Mexican Restaurant is :
['Inwood' 'Hamilton Heights' 'East Harlem' 'Tudor City']
------------------------------------------------
The nearest neighborhood to the Gym / Fitness Center is :
['Lincoln Square' 'Civic Center' 'Sutton Place']
------------------------------------------------
```

MANHATTAN

Number of Venues for the top 4 most common neighborhoods

10 Italian Restaurant

5 Coffee Shop

4 Mexican Restaurant

3 Gym / Fitness Center

DEEPER LOOK INTO NEIGHBORHOODS

```
---------------------------------------------------------
The nearest neighborhood to the Coffee Shop is :
['Woburn' 'Bathurst Manor, Downsview North, Wilson Heights' 'The Beaches'
 'North Toronto West'
 'Deer Park, Forest Hill SE, Rathnelly, South Hill, Summerhill West'
 'Cabbagetown, St. James Town' 'Church and Wellesley'
 'Harbourfront, Regent Park' 'St. James Town' 'Berczy Park'
 'Central Bay Street' 'Adelaide, King, Richmond'
 'Harbourfront East, Toronto Islands, Union Station'
 'Design Exchange, Toronto Dominion Centre'
 'Commerce Court, Victoria Hotel' 'Bedford Park, Lawrence Manor East'
 'The Annex, North Midtown, Yorkville' 'Stn A PO Boxes 25 The Esplanade'
 'First Canadian Place, Underground city' "Queen's Park"
 'Canada Post Gateway Processing Centre']
---------------------------------------------------------
The nearest neighborhood to the Pizza Place is :
['Guildwood, Morningside, West Hill'
 "Clarks Corners, Sullivan, Tam O'Shanter" 'Willowdale West'
 'Victoria Village' 'Woodbine Gardens, Parkview Hill' 'Glencairn'
 'The Junction North, Runnymede' 'Alderwood, Long Branch'
 'Bloordale Gardens, Eringate, Markland Wood, Old Burnhamthorpe'
 'Westmount'
 'Kingsview Village, Martin Grove Gardens, Richview Gardens, St. Phillips']
---------------------------------------------------------
The nearest neighborhood to the Café is :
['Bayview Village' 'Don Mills North' 'Studio District'
 'Harbord, University of Toronto'
 'Chinatown, Grange Park, Kensington Market' 'Christie'
 'High Park, The Junction South' 'Runnymede, Swansea']
---------------------------------------------------------
The nearest neighborhood to the Park is :
['York Mills West' 'East Toronto' 'Lawrence Park' 'Rosedale'
 'Caledonia-Fairbanks' 'The Kingsway, Montgomery Road, Old Mill North']
---------------------------------------------------------
```

TORONTO

Number of Venues for the top 4 most common neighborhoods

20
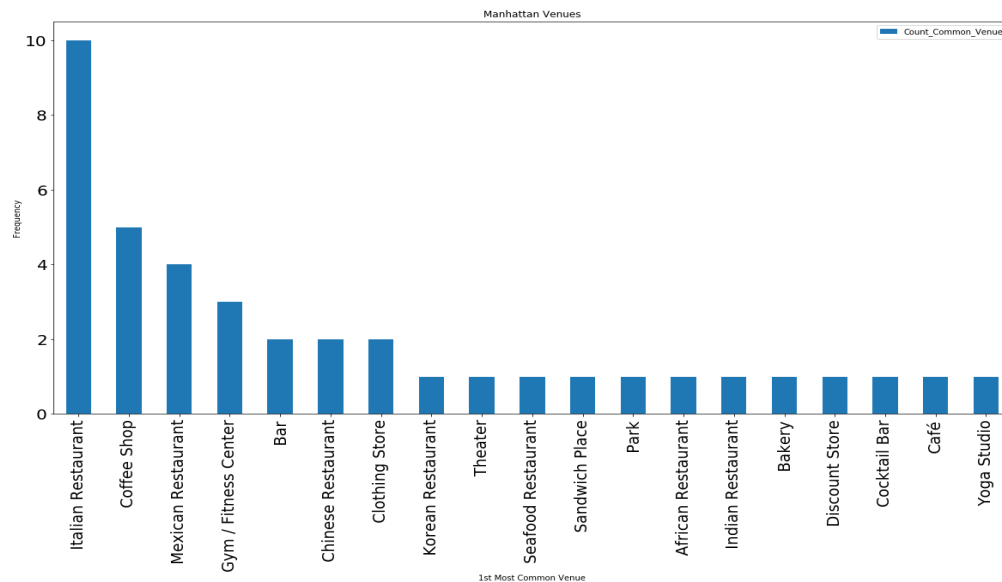Coffee Shop

11
Pizza Place
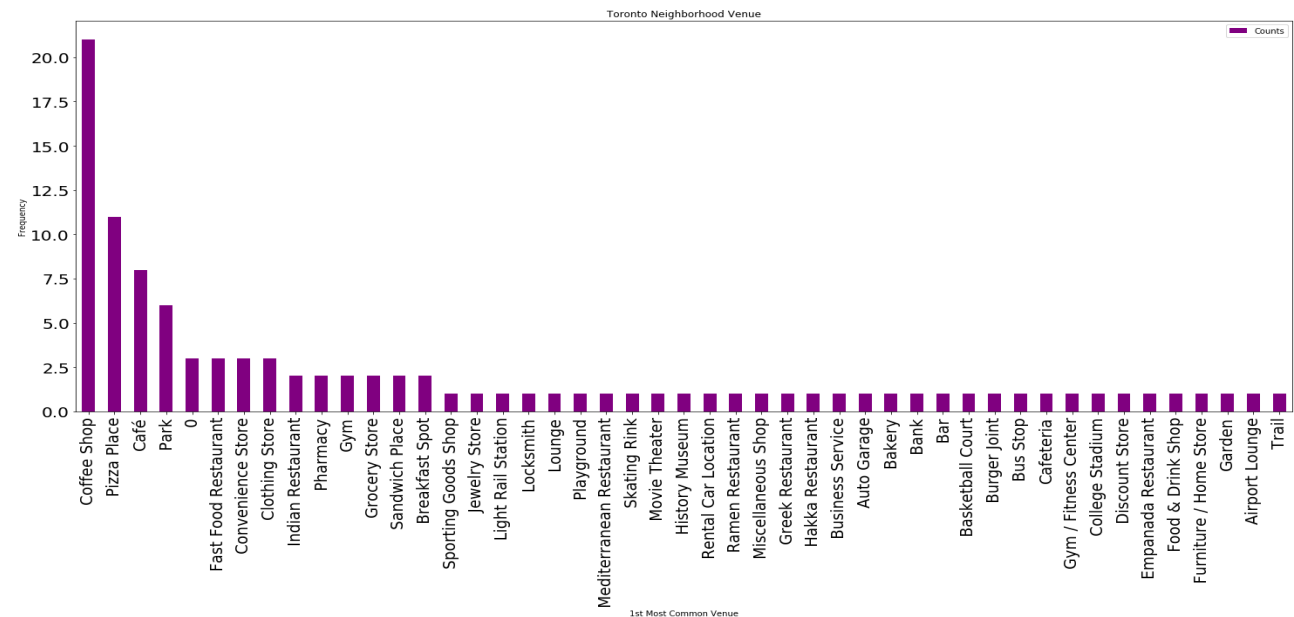
8
Cafe

6
Park

COMPARISON OF VENUES

A comparison of both the datasets shows that "Coffee Shop" is the best startup idea

Venues of Manhattan

Venues of Toronto

DISCUSSIONS AND CONCLUSION

A deeper dive for the venue "Coffee Shop" in both the datasets shows the following:

- It accounts for 22.7% of the top 4 common venues in Manhattan
- It accounts for 44.4% of the top 4 common venues in Toronto.
- It is the 1st most common venue in Toronto.
- It is the 2nd most common venue in Manhattan.

"Coffee Shop" is the best startup idea that has substantial growth and has the biggest footfall in both the cities and can be opened in either of them.

However, Toronto has an advantage since "Coffee Shop" ranks 1st among all its venues.

THANK YOU !!