

Recommending best boroughs  
and neighborhoods to start a  
restaurant business in Toronto

OB

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# Problem statement

- To start a restaurant, people need to find the right place; places with high people density, not flooded with restaurant, and including other facilities that might lead people to think about food.
- Given the reality of the targeted business and its success requirements, Can we provide a short list of boroughs to help business owner decide where to start its business?

# Data used

- Data is the most important element of any data science project, almost 60% of relevancy of any machine learning model is related to the relevancy of the dataset and the different features it incorporates.
1. For our use case, the data needed can be summarized as follow:
  2. For a targeted city, The boroughs and neighborhoods and their corresponding locations.
  3. List of schools and companies for each borough and neighborhood.
  4. List of entertainment venues for each borough and neighbors (Malls, Gyms, gaming rooms ...)
  5. List of restaurants for each borough and neighborhood

# Methodology (1)

- For our study we follow different steps:
  1. Location of the targeted city and visualize using map and folium
  2. BeautifulSoup and scrap data related to borough and neighborhoods of the targeted city
  3. use open dataset to fetch the location of each neighborhood
  4. Foursquare to explore venues on each neighborhood
  5. Extract useful venues in neighbor e.g., restaurants, hotels, gyms, parks, stores

# Methodology (2)

6 - Aggregate venues by boroughs and derive frequency to highlight the relevancy of the neighborhood

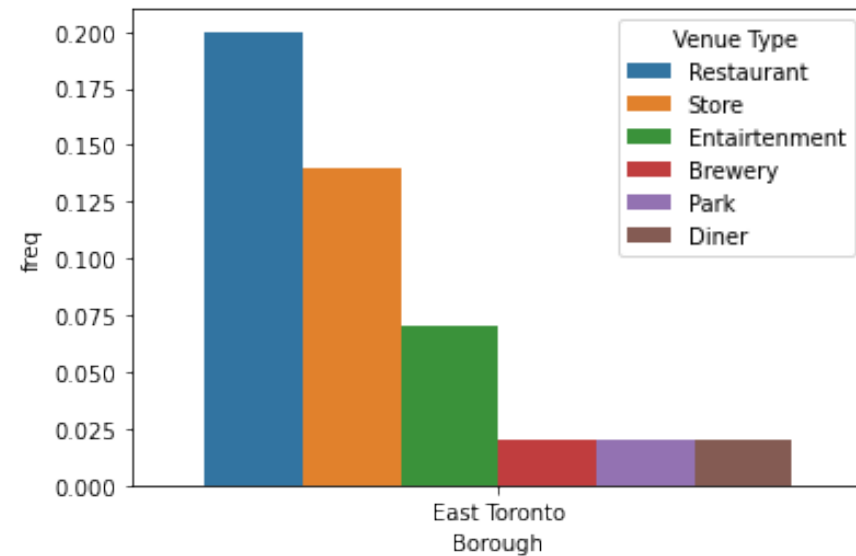
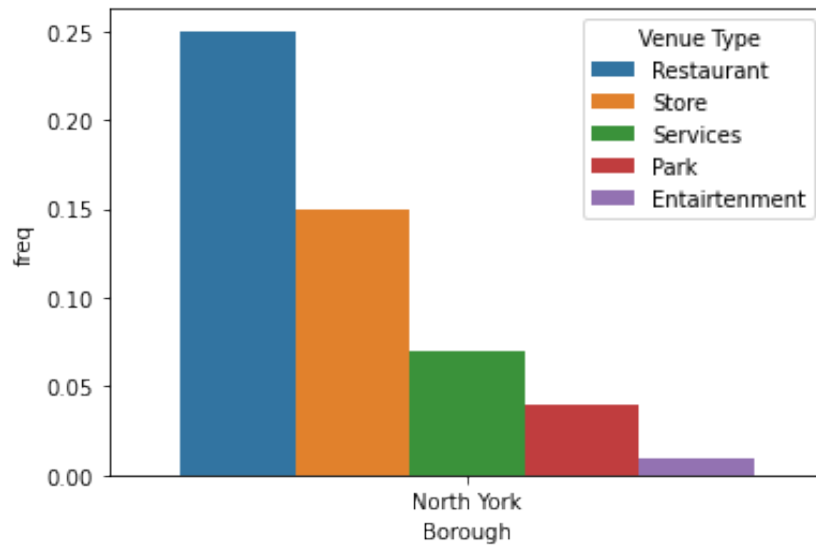
7 - Aggregate the venues by type: For instance all restaurants regardless of the type will be named restaurants and all the stores and shops will be named stores and all the facilities for entertainment will be named entertainment.

8 - Derive subset of boroughs with the highest entertainment facilities and services and correlate that with high demand on food

9 – Go deeper and do the same study but this time for the most promising boroughs and per neighborhood to locate the best neighborhood to start a business.

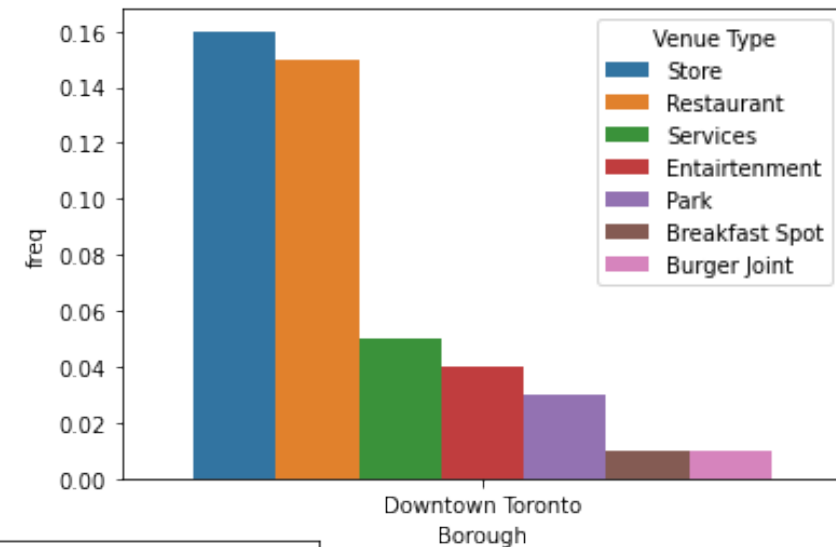
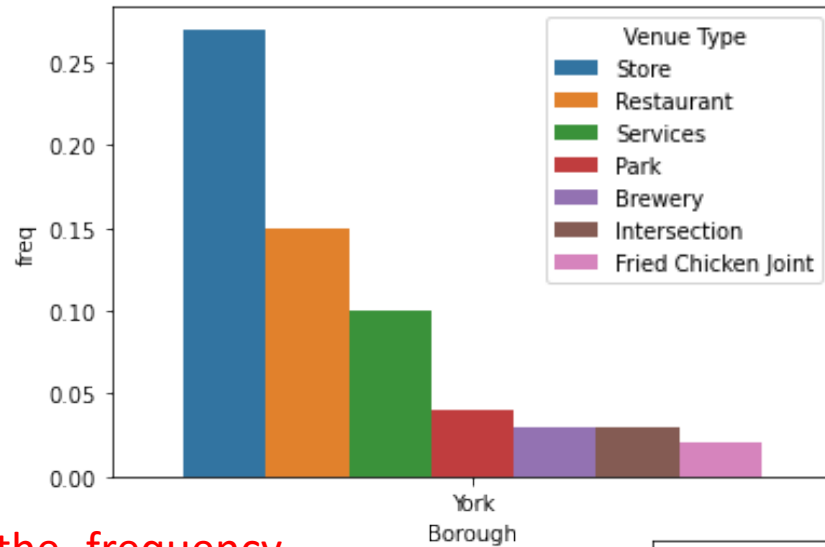
# Results (1)

- We aggregate venues per type, and compute frequency per borough:

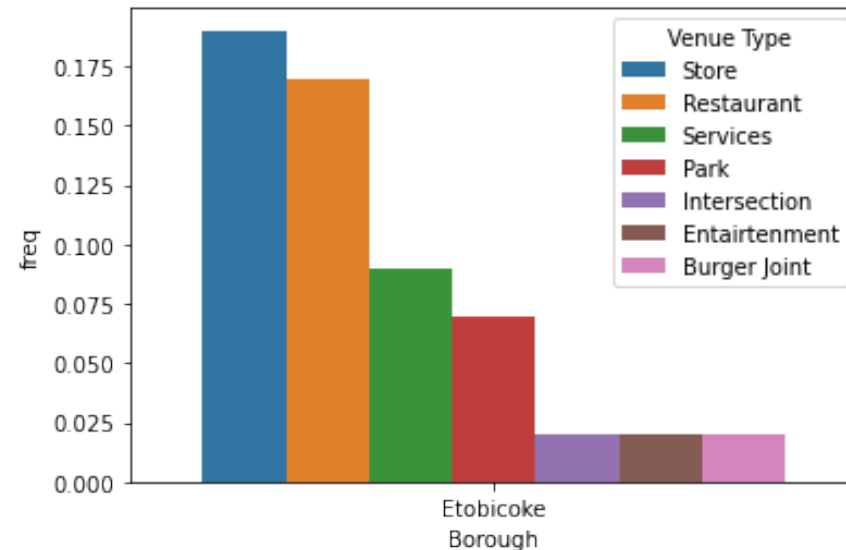


In this example we show the frequency of venues for North York and East Toronto

# Results (2)



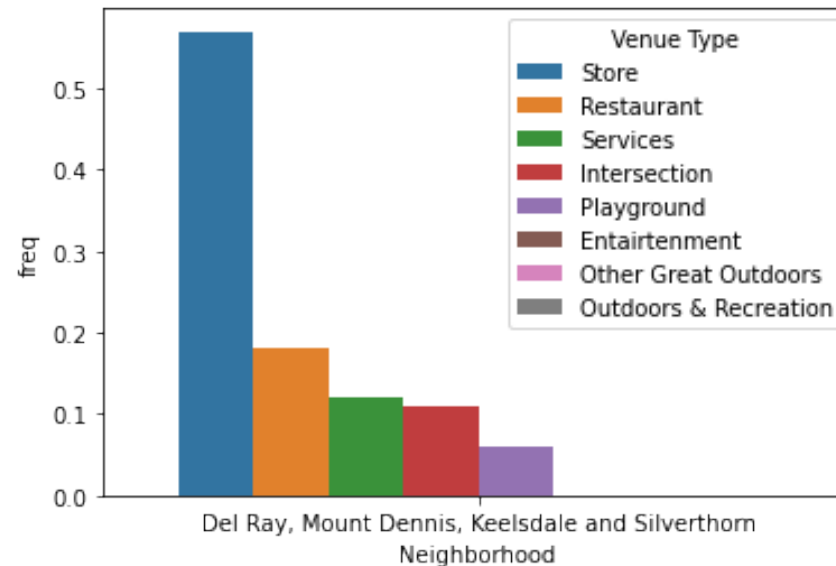
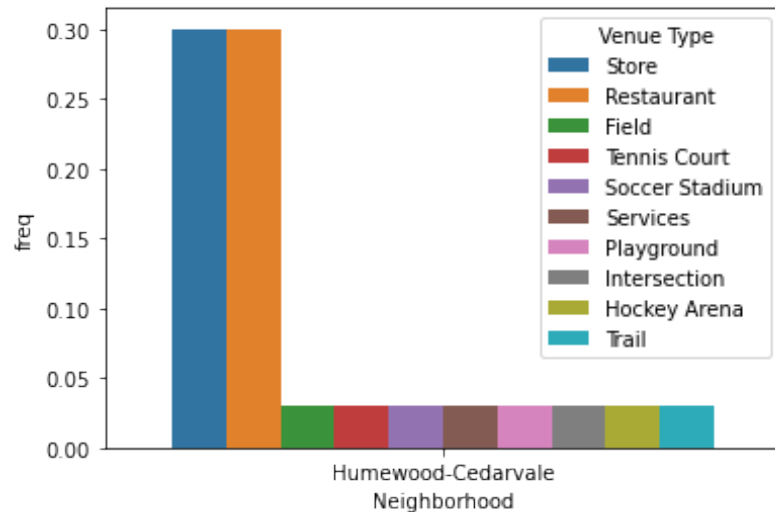
York, York, the frequency of stores is around 0.25 and the frequency of restaurants is around 0.15. it has parks and other services facilities





# Best neighborhood in York

- We select York as one of the best boroughs, we redo the same study per neighborhoods:



In Del ray neighborhood, the stores are almost half of the venues and restaurants have a frequency of 0.2. this is a very good neighborhood with multiple facilities attracting young people

# Conclusion

- For a business man, starting a restaurant project in Toronto we would recommend the following boroughs:
  - York
  - Etobicoke
  - East York
- Downtown Toronto
- For a specific borough like York, we would recommend the following neighborhoods:
  - Runnymede, the junction north
  - Del Rey, Mount dennis