**Final Assignment**

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**Introduction**

The goal of my final project is to explore a business idea of opening a new pizza restaurant in Toronto. My target audience for this analysis is the entrepreneurs who want to open restaurants in Toronto as it shows the current state of this industry. Entrepreneurs want to know:

* Which part of the city has the most and least restaurants at this moment?
* How are the reviews of each restaurant that might be considered as a competitor?
* Which type of restaurants is the most popular in each neighborhood?
* Where can a new restaurant fit in perfectly? We assume that a neighborhood where there are no or comparatively less pizza restaurants located.

**Data**

The data I am going to use is the scrapped data of Toronto neighborhoods from the past assignment. I used Scrapy framework to scrape the data provided below. The scraped data contains postal codes, borough names, and corresponding neighborhoods.

I had issues with scraping boroughs that were unidentified ("Not Assigned"), so these values had to be removed. Additionally, another issue of duplicated values in the dataset was solved in the process .Next, I made an attempt to get the coordinates for each neighborhood using geopy, but it didn't work out due to technical issues, so I used an existing file of Toronto neighborhoods with coordinates provided by Coursera and matched all the records with my scraped data. Finally, I turned to the Foursquare API to find and map all the restaurants in each neighborhood and further explore them in detail.

**Methodology**

My target audience for this analysis is the entrepreneurs who want to open restaurants in Toronto as it shows the current state of this industry.

* K-Clustering ML technique will be used for this analysis.
* Foresquare API is used in order to get relevant information on restaurants in each neighborhood in Toronto, such as reviews and the type of food they serve.

**Results**

We analyzed each neighborhood in Toronto and defined where more restaurants are located, what type of food is the most popular in each area and if reviews are good or not. According to the findings, entrepreneurs can choose any neighborhood where pizza is not the most popular cuisine as presented in the analysis, so there is no competition for an up-and-coming business. For instance, according to the results, North York can be a great area to set up a new pizza restaurant and gain popularity.