Introduction/Business Problem

Clearly define a problem or an idea of your choice, where you would need to leverage the Foursquare location data to solve or execute. Remember that data science problems always target an audience and are meant to help a group of stakeholders solve a problem, so make sure that you explicitly describe your audience and why they would care about your problem.

"The idea of this study is to help people planning to open a new restaurant in Toronto to choose the right location , by providing data about the income and population of each neighborhood as well as the competitors already present on the same regions."

Data section execute your idea

Describe the data that you will be using to solve the problem or execute your idea. Remember that you will need to use the Foursquare location data to solve the problem or execute your idea. You can absolutely use other datasets in combination with the Foursquare location data. So make sure that you provide adequate explanation and discussion, with examples, of the data that you will be using, even if it is only Foursquare location data.

Restaurant Style

The restaurant style involves the type of service, experience, and price point you want to provide. It typically ranges from fast food to to midscale, to fine dining.

- *Quick Service/Fast Food* – Low price; Limited menu options; Casual and Convenient; Good for families, teens, millennials, and people who either travel for work or work in industries with limited break times so they need something convenient & on-the-go.
- *Midscale* – Affordable; Sit-down style service with a variety of menu options. Good for families, millennials, and individuals with some disposable income.
- *Upscale* – Higher price point. Focus is on the quality of cuisine and ingredients. Good for individuals with more disposable income like empty nesters, seniors, business men & women, and special occasions.

Concept

Based on your target market and the experience you want to create, identify the theme/plan for the venue. Some examples would be a breakfast/brunch spot, a steakhouse, a coffeehouse, a pizzeria, a bakery, a sports bar & grill, a BBQ joint, etc.

Location

Location can make or break a restaurant. Find out where your target customer lives, works, and goes out. Look into the restaurant competition in those areas. Are there any existing venues that offer something similar or are there opportunities for your business to provide something not yet available? Would your venue/service “fit in” with the location — for example, you wouldn’t necessarily open up a fine dining restaurant next to a freeway surrounded by fast-food restaurants. Chances are you’d probably want to be situated in more of a high foot-traffic, aesthetically pleasing location.
With location, you’ll also want to consider things like ease of parking, local activities or events, and nearby attractions — how accessible is it to potential customers. Some “prime” locations could mean higher costs and rent, but it could also lead to higher anticipated sales volume so you’ll want to plan out how

location plays a role in your restaurant’s success.

Business Plan

Developing a strategic, thorough, and research oriented Business Plan is imperative when opening a new restaurant. Some things you’ll want to include are a detailed description of your concept, information about your target customer, menu items and pricing, financial expenses + forecasts, and employee hiring + training + and retention plans. Including a competitive analysis and some market research is also recommended.

Statement :

“To provide the stakeholders the necessary information I'll be combining Toronto's 2016 Census that contains Population, Average income per Neighborhood with Toronot's Neighborhoods shapefile and Foursquare API to collect competitors on the same neighborhoods.

Toronto's Census data is publicly available at this website:*https://www.toronto.ca/city-government/data-research-maps/open-data/open-data-catalogue/#8c732154-5012-9afe-d0cd-ba3ffc813d5a*

Toronto Neighborhoods' shapefile is publicly available at this website:*https://www.toronto.ca/city-government/data-research-maps/open-data/open-data-catalogue/#a45bd45a-ede8-730e-1abc-93105b2c439f* ***“***

3) Method

Methodology section which represents the main component of the report where you discuss and describe any exploratory data analysis that you did, any inferential statistical testing that you performed, and what machine learnings were used and why.

For this report I used a few different maps that could help a new investor to decide the best neighborhood to open a restaurant in Toronto based on it's income, population and available competitors. In order to do that I've used the 2016 Census information combined with choropleth maps to visually display the wealthier and more populational neighborhoods and Foursquare data to display the current restaurants in each region.

4) Results

Results section where you discuss the results.

Comparing the maps we can notice the majority of the restaurants grouped on main streets and on the south of the city, although some of the welthiest neighborhoods are up to the north. Also, the areas with a dense population don't reflect on the number of restaurants.

5) Discussion

Discussion section where you discuss any observations you noted and any recommendations you can make based on the results.

When I first decided to create this study I was expecting to find clusters of restaurants in certain regions and the final result didn't meet that expectation.

6) Conclusion

Conclusion section where you conclude the report.

This report may be helpful for someone planning on opening a restaurant in Toronto, by comparing the current offers and neighborhoods profiles, however it may not cover all variables such as access to public transportation or even the restaurants profiles, so it shall not be used as a single decidion making tool.