- Introduction where you discuss the business problem and who would be interested in this project:
  The business problem I addressed in this project is to analyze the conditions and arrangements of the neighborhoods in city of Toronto. I think that the business people who want to do something in industry, such as opening a hotel or restaurant will be interested in it.
- Data where you describe the data that will be used to solve the problem and the source of the data:
  The data I used to analyze the above business problem is the geographical information about the city of Toronto. It's from a page of wikipedia. The source data contains postal code, borough names, and related neighborhoods.
- 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, if any, and what machine learnings were used and why:
  First, I preprocessed the data by doing some cleaning work and rearrangement to the source data to make the data more easily to be used to solve the problem. After I preprocessed the data, I used the K-means machine learning algorithm to analyze the neighborhood data.
- Results section where you discuss the results:
  By preprocessing the data and doing one-hot coding, I found out different top ten venues of different neighborhoods, For example, the neighborhood "Berczy Park", the top 10 venues are as following: Coffee Shop, Seafood Restaurant, Bakery, Farmers Market, Restaurant, Cafe, Cocktail Bar, Cheese Shop, Beer Bar and Museum. By using the K-means algorithm, I found out that those neighborhoods could be clustered into 5 sections. For example, The Danforth West, Riverdale, India Bazzar, The Beaches West, Studio District belong to one cluster, which means that those neighborhoods might have the similar conditions or properties.
- Discussion section where you discuss any observations you noted and any recommendations you can make based on the results:
  From the results I got from the analysis, I think I can dig into one of the clusters of those neighborhoods and to see if there are more divisions or categories inside one specific cluster currently.
- Conclusion section where you conclude the report:

In the project, I analyzed the source data from the neighborhoods in the city of Toronto I used the K-means algorithms to find out that those neighborhoods could be divided into five categories. Each category has similar property so that the business people who want to open some coffee shop or restaurants can use this report as a reference to decide which neighborhood is suitable for opening a coffee shop or a restaurant specifically.