**Business Plan/ Introduction**

A client wants to open a Taiwanese restaurant in Toronto but he wants to know which neighbourhood he should choose to answer the problem. Choosing the correct neighbourhood is of extreme importance as it could maximise or minimise the profit generated based on the area selected. A thorough analysis will thus be performed to answer this question.

**Data used to answer the problem:**

Relevant data about the neighbourhoods of Toronto are taken from Wikipedia. This data contains the neighbourhood names and postal code as well as relevant other information.

The Foursquare API will be used to get data about venues from the different neighbourhoods. With the Foursquare API it is possible to obtain details about what are the most popular places and other relevant information.

**Methodology**

It was decided to use a minimalist approach to solve the problem as we decided to follow the proverb “Less is more”. Once the data was retrieved it was necessary to perform one hot encoding in order to transform these categorical values into binary values before being able to perform the classification. This procedure was therefore realized. It was decided to choose a value of 7 as the total number of clusters as this corresponded to the best way to have a somewhat uniform repartition of the neighbourhood. Despite that, the cluster number 1 was still composed of 79 neighbourhoods. It was therefore decided to use a further step to choose which neighbourhood was best suited for the opening of the restaurant. Find the number of neighbourhood where either the first 2nd or 3rd most common value is a Taiwanese restaurant. Then, find in their cluster the closest neighborhood without a Taiwanese restaurant. The results are discussed below.

**Results and Discussion**

After the clustering, and the condition applied. 2 neighbourhood of cluster one were found to have one Thai restaurant. They were the index 40 and 79. It was thus decided to use the clustering distance to find the neighbourhood the closest to one of these 2. The final neighbourhood was found to be Northwood Park

**Conclusion**

Finally, to maximize the profit of the restaurant of the client we recommend him to open it at Northwood Park as it is similar to the High Park neighbourhood where a Thai restaurant is 3rd most popular venue.