

# **IBM DATA SCIENCE PROJECT**

## **INTRODUCTION**

In this project, I am creating a hypothetical scenario for a concept that there may not be enough Chinese Restaurants in Toronto Area. Therefore it might be a great opportunity for an entrepreneur who is based in Toronto. As the Chinese food is popular among Asian community, so this entrepreneur might think of opening its business in areas where Asian community resides. With the purpose in mind, finding the location to open such a restaurant is one of the most important decisions for this entrepreneur and I am designing this project to help her find the most suitable location.

## **BUSINESS PROBLEM**

The objective of this capstone project is to find the most suitable location for the entrepreneur to open a new Chinese Restaurant in Toronto, Canada. By using data science methods and tools along with machine learning algorithms such as clustering, this project aims to provide solutions to answer the business question : In Canada, if an entrepreneur wants to open a Chinese Restaurant, where should she consider opening it?

## **TARGET AUDIENCE**

The entrepreneur who wants to find the location to open a Chinese restaurant.

## **DATA**

- List of neighborhoods in Toronto
- Latitude and Longitude of these neighborhoods
- Venue data related to Chinese restaurants. This will help us find the neighborhoods that are more suitable to open a Chinese Restaurant.

## **RESULTS**

Most of the Chinese restaurants are in cluster 2 which is around North Toronto West, Lawrence Park. And lowest in Cluster 1 areas which are in Garden District, St. James Town, Central Bay Street, Harbourfront East and Toronto Dominion Centre areas. Also, there are good opportunities to open cluster 0 might be a good location as there are not a lot of Indian restaurants in these areas. Therefore, this project recommends the entrepreneur to open a Chinese restaurant in these locations.