

# IBM

## Data Science Capstone Week 4

### **Introduction**

This is a capstone project for the IBM Data Science professional Certificate. In this project, I will be testing my hypothesis that there are not enough Japanese restaurants in the Toronto area. With this lack of Japanese restaurants, this may provide a good opportunity for entrepreneurs to open new restaurants. I will be finding the most suitable location for a new restaurant to open.

### **Business Problem**

The main goal of this project is to find the best location to open a new Japanese restaurant in Toronto, Canada. I will be using data science methods and machine learning algorithms to provide an answer to this question.

**Question:** "Where should I open a new Japanese restaurant in Toronto, Canada?"

### **Target Audience**

Any person who wants to find the best place to open a Japanese restaurant.

### **Data**

We will need the below data to solve the problem:

1. List of neighborhoods in Toronto, Canada
2. Latitude and Longitude of the neighborhoods
3. Venue data related to Japanese Restaurants

### **Extracting the Data**

1. Scraping data of Toronto neighborhoods located in Wikipedia data set. This will be done with the imported library of BeautifulSoup4 which is a web scraping library.
2. Getting the latitude and longitude information of the neighborhoods using the Geocoder package.
3. Using Foursquare API to get venue data related to these neighborhoods.