## OPENING A LATIN RESTAURANT IN VANCOUVER

# CAPSTONE PROJECT - THE BATTLE OF NEIGHBORHOODS

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#### **INTRODUCTION**

Vancouver has been recognized as one of the 5 best cities in the world to work, live and study. This fact is due to order, security, cleanliness and the enormous cultural offer for both locals and foreigners.

Without a doubt, it is one of the most attractive cities for latin people who seek to emigrate or carry out some type of study abroad.

According to official censuses, approximately 500,000 Latinos live in Vancouver and the number of students each year is increasing.

One of the things that are most missed when emigrating is the food, so with this project we will seek to analyze a series of data that will allow us to make a recommendation about the place where it would be a good decision to open a new Latin restaurant.

For this, some of the techniques, libraries and applications learned throughout this course will be used.

The goal will be to answer the following questions:

- ✓ In which area of Vancouver are there more restaurants?
- ✓ How many universities are there around that area?
- ✓ Comparing number of restaurants and universities, what is the recommended area?

### DATA

The data will be generated and extracted like this:

- List of postal codes of Vancouver, the information will be read and prepared to create a dataframe with the necessary columns ['PostalCode', 'Borough', 'Neighborhood']. Source:
  - https://en.wikipedia.org/wiki/List\_of\_postal\_codes\_of\_Canada:\_V
- Get the Longitude and Latitude of each Vancouver postal code. Create new dataframe.
- Using Foursquare API get the restaurant's number and their type and location.
- ➤ Using Foursquare API get the university's number near to location.

#### **Libraries Which are Used to Develope the Project:**

- 1. Pandas: To create and manipulate data frames.
- 2. Folium: Python visualization library would be used to visualize the neighborhood cluster distribution of using an interactive leaflet map.
- 3. Scikit Learn: To import k-means clustering.
- 4. JSON: Library to handle JSON files.
- 5. Geocoder: To retrieve Location Data.
- 6. Beautiful Soup and Requests: To scrap and library to handle HTTP requests.
- 7. Matplotlib: To Python Plotting Module.
- 8. urllib.request: Open URL