CAPSTONE PROJECT – THE BATTLE OF NEIGHBORHOODS

OPENING A LATIN RESTAURANT IN VANCOUVER

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INTRODUCTION

- Vancouver has been recognized as one of the 5 best cities in the world to work, live and study.

- According to official censuses, approximately 500,000 latin people 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.

TARGET GROUPS

▶ Latin people living and studying in Vancouver.

▶ People interested in opening a new Latin restaurant in Vancouver.

QUESTIONS TO SOLVE

▶ In which area of Vancouver are there more restaurants?

▶ Comparing number of restaurants, what is the recommended area?

DATA

- 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

- Geocoder to 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.

USED LIBRARIES

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

METHODOLOGY

- ► Use the Vancouver zip code list. Available at the link: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_V

- ► Analyze the number of Latino restaurants by area in Vancouver.

- ► Filter restaurants and group by type Latin Restaurant

- ► View the restaurants in Latin classification by área

DATA PRE-PROCESSING

27	Scandinavian Restaurant
28	Seafood Restaurant
29	South Indian Restaurant
30	Sushi Restaurant
31	Szechuan Restaurant
32	Tapas Restaurant
33	Thai Restaurant
34	Turkish Restaurant
35	Vegetarian / Vegan Restaurant
36	Vietnamese Restaurant

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	Neighborhood	Latitude	Longitude	PostalCode	Borough	Latin Restaurant_x
0	Strathcona	49.277693	-123.088539	V6A	Vancouver	0.000000
1	NE Downtown	49.287469	-123.119579	V6B	Vancouver	0.000000
2	Waterfront	49.285544	-123.113541	V6C	Vancouver	0.000000
3	SE West End	49.285998	-123.127358	V6E	Vancouver	0.000000
4	NW West End	49.284131	-123.131795	V6G	Vancouver	0.018182
5	West Fairview	49.263476	-123.115243	V6H	Vancouver	0.000000
6	North Hastings-Sunrise	49.278714	-123.039998	V5K	Vancouver	0.000000
7	Central Kitsilano	49.269410	-123.155267	V6K	Vancouver	0.019231
8	North Grandview-Woodland	49.275849	-123.066934	V5L	Vancouver	0.028571
9	NW Arbutus Ridge	49.246305	-123.159636	V6L	Vancouver	0.000000

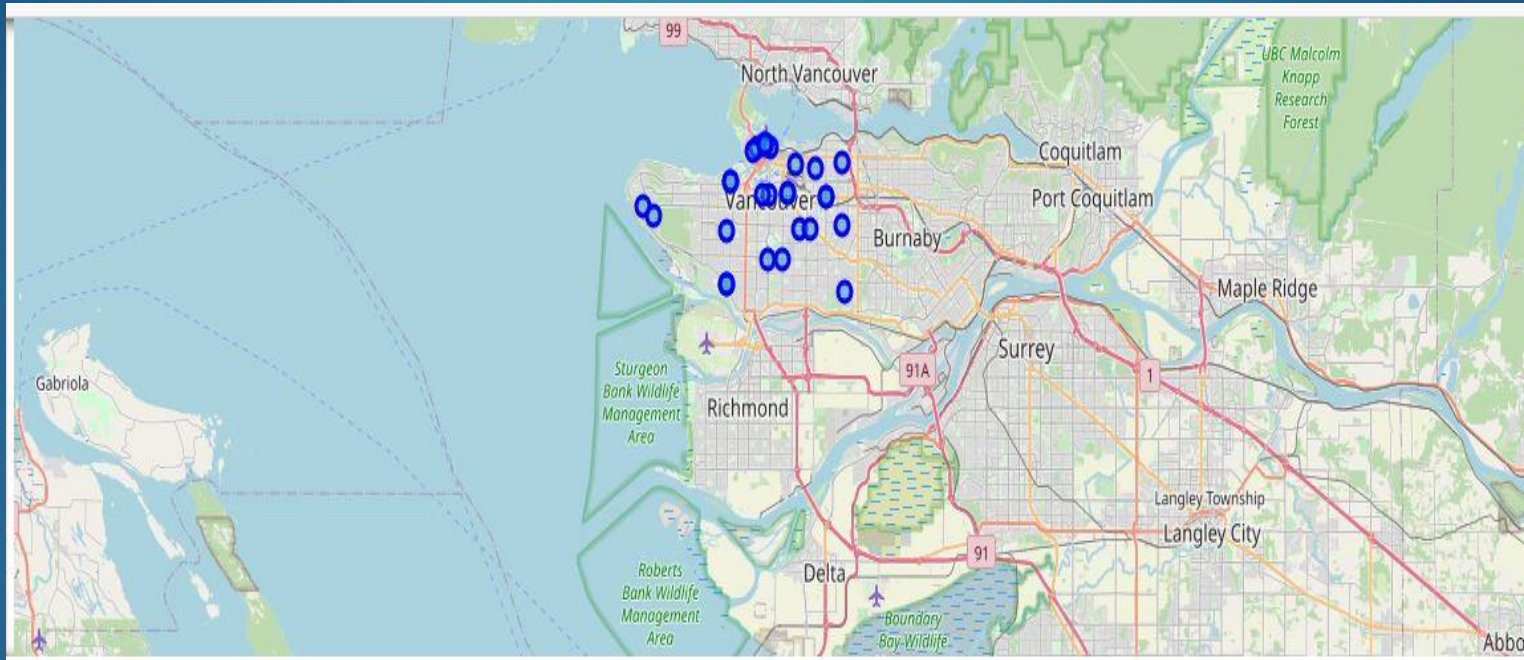Summarised the venue category and sorted out for 36 different types of restaurant.

Combined 3 restaurant type and calculate frequency of occurrence of Latin Restaurant.

RESULTS – DATA VISUALIZATION

Latin Restaurant x Neighborhoods in Vancouver
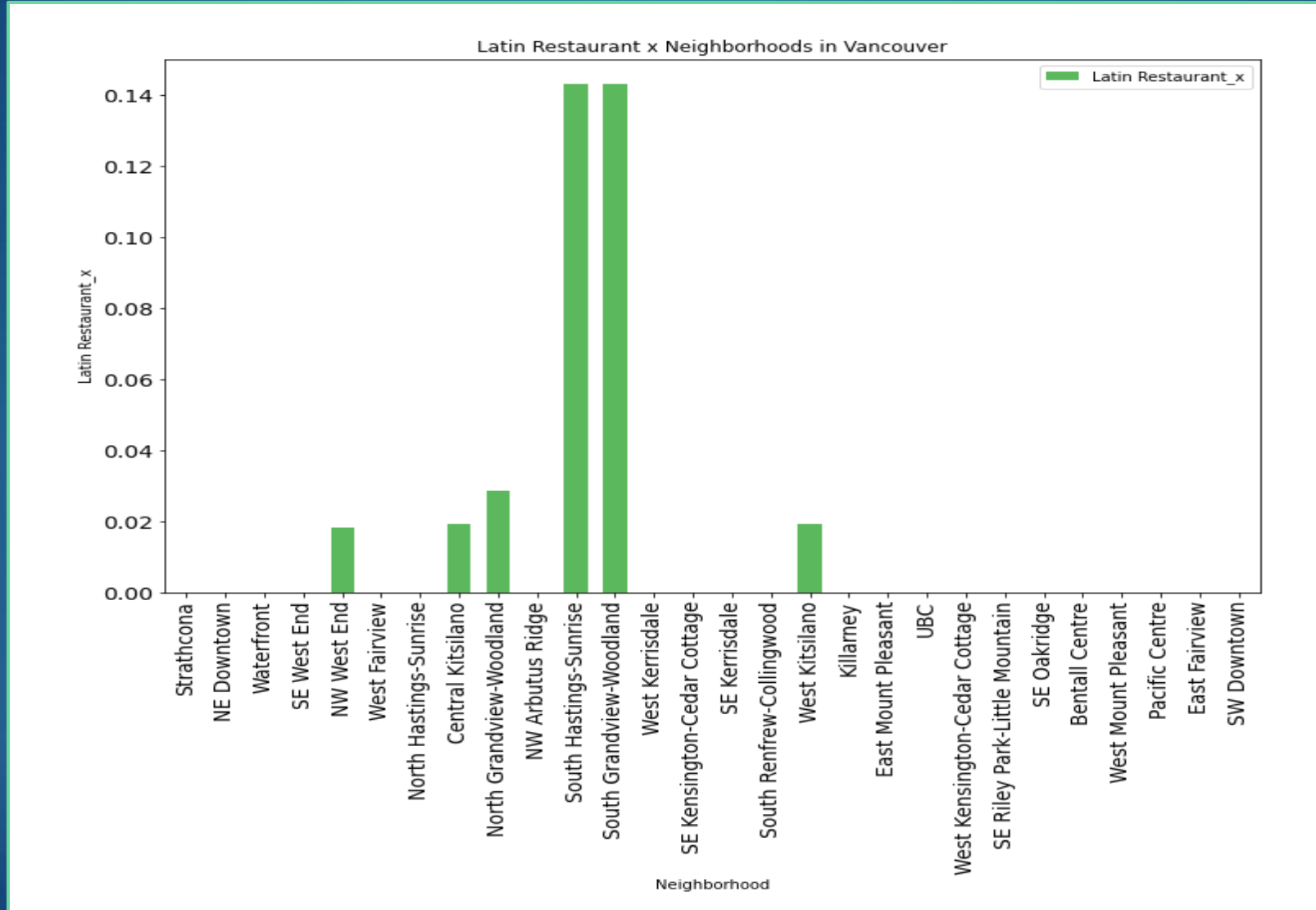
MAP -VISUALIZATION

Using folium package, the Vancouver city map can be generated.

27 NeighborhoodS in Vancouver

DISCUSSION

The low presence of Latino restaurants around Vancouver neighborhoods really does leave a big question about the feasibility of opening this type of restaurant. There may be many aspects but it must be a future analysis in which other aspects are taken into account such as the economic situation of Latin people, the time they live in the country or the failure to open restaurants that have good ratings.

CONCLUSIONS

This project was carried out in the city of Vancouver, allowing us to observe that the number of Latino restaurants in Vancouver is very low and in only 6 areas out of 27 these types of restaurants appear.

It is a good start to determine if it is really profitable to open this type of restaurant.

On the question of the project, it can be said that the best areas for the opening of the Latin restaurant would be in South Hastings-Sunrise or South Grandview-Woodland.