

# Battle of the Neighborhoods: Makati and Mandaluyong City



# Introduction

- ❖ Makati City is one of the most urbanized cities in Metro Manila and is known as the financial capital of the Philippines
- ❖ Mandaluyong City is one of the fastest growing economies in Metro Manila, earning itself the moniker “The Tiger City”
- ❖ The goal of the project is to determine the similarities and differences between Makati and Mandaluyong City
- ❖ Would Mandaluyong City be a fitting alternative to experience the lifestyle of Makati City?

# Data Description

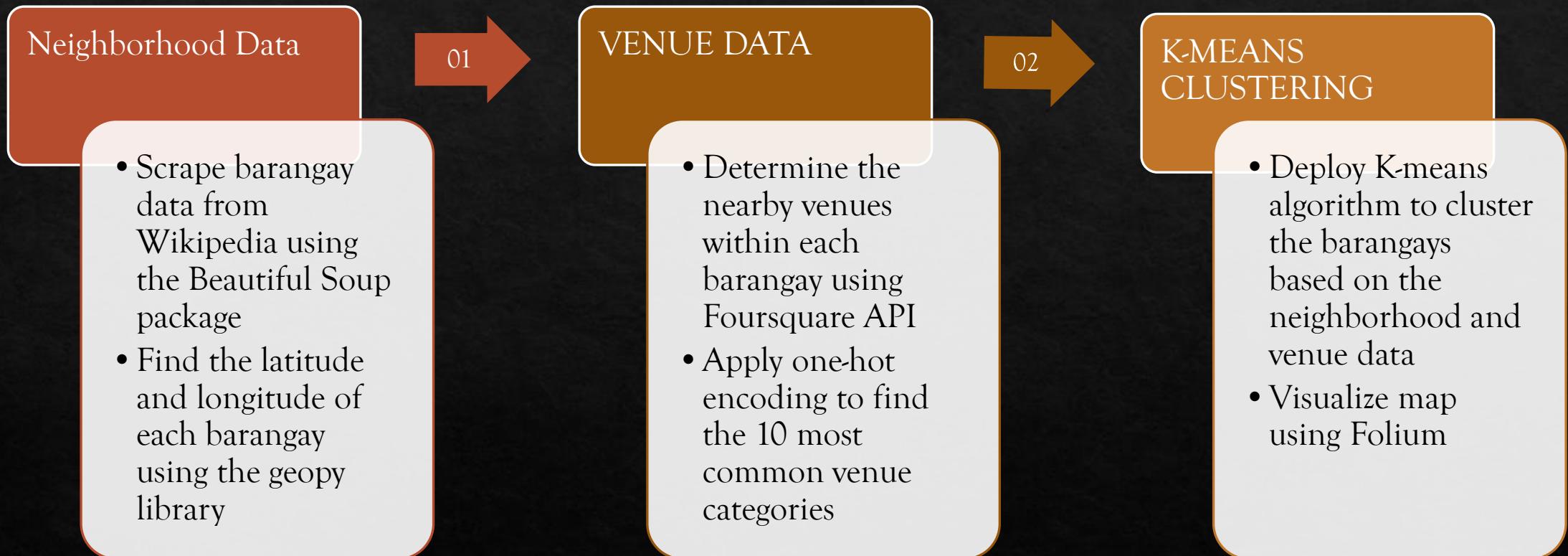
## Neighborhood Data

- ❖ Explore the barangays of each city, where barangay is defined as the smallest political unit in the Philippines
- ❖ List of barangays from Wikipedia
  - <https://en.wikipedia.org/wiki/Makati#Barangays>
  - <https://en.wikipedia.org/wiki/Mandaluyong#Barangays>

## Venue Data

- ❖ Search nearby venues for each barangay using Foursquare API
- ❖ Each venue has a corresponding category

# Methodology



# Barangay Coordinates

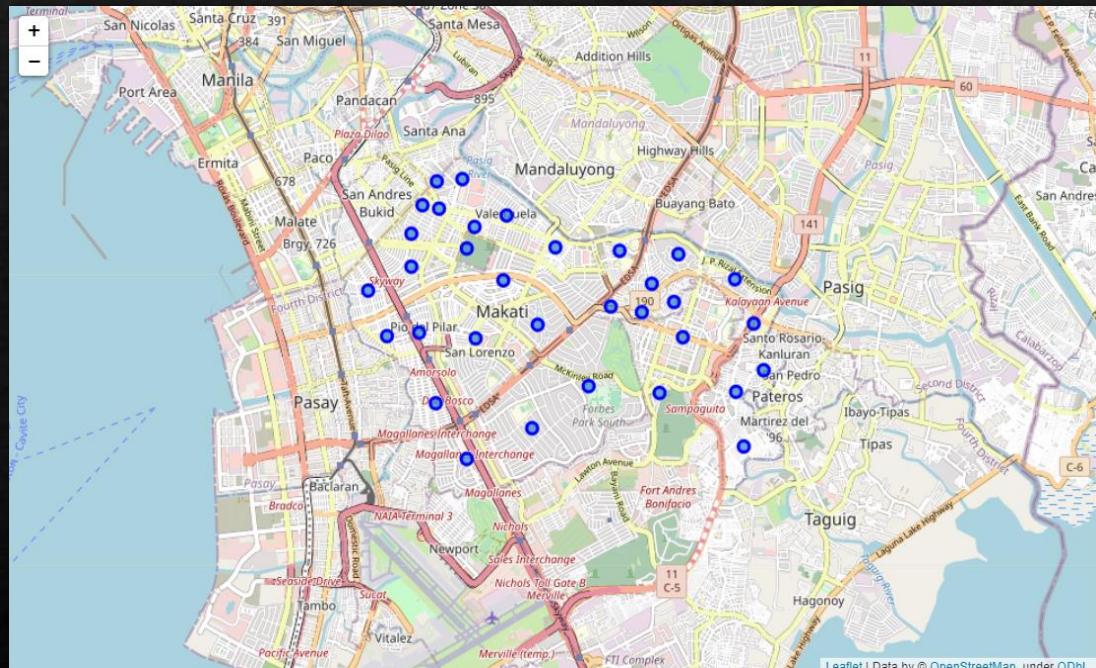
	Barangay	Latitude	Longitude
0	Bangkal	14.54359	121.01315
1	Bel-Air	14.56145	121.02362
2	Carmona	14.57622	121.01725
3	Cembo	14.56535	121.05088
4	Comembo	14.54841	121.06393

Makati City

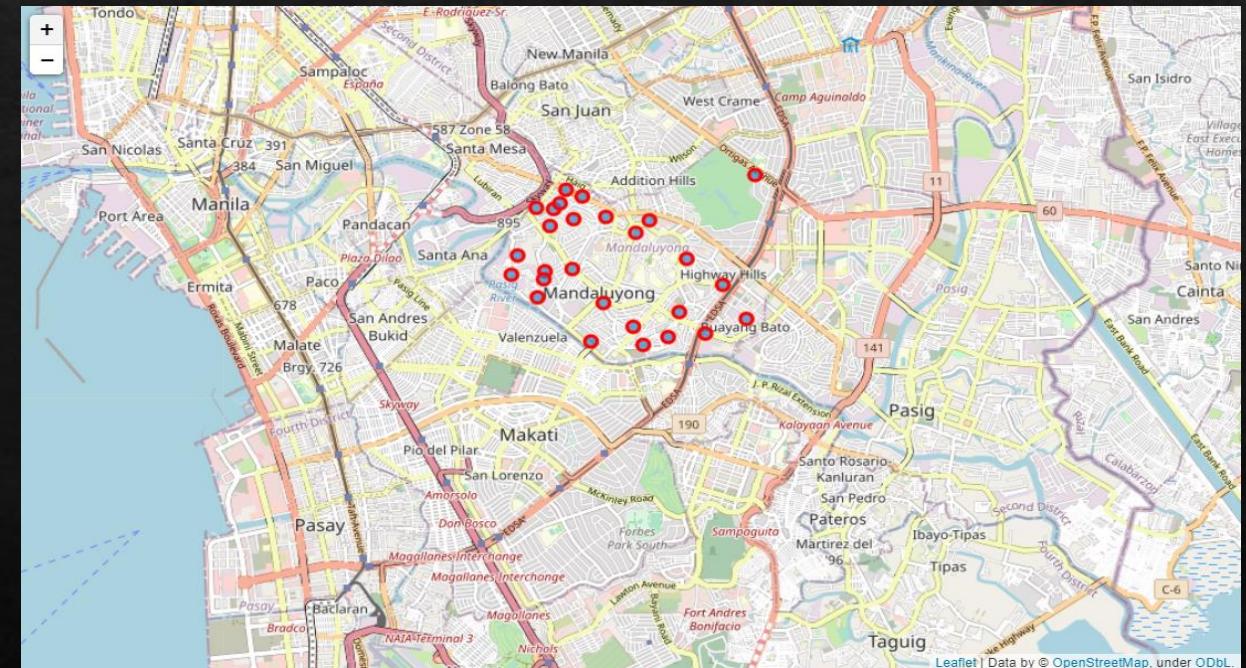
	Barangay	Latitude	Longitude
0	Addition Hills	14.58660	121.03829
1	Bagong Silang	14.59182	121.03091
2	Barangka Drive	14.57271	121.03796
3	Barangka Ibaba	14.57018	121.03926
4	Barangka Ilaya	14.57183	121.04789

Mandaluyong City

# Visualizing using Folium

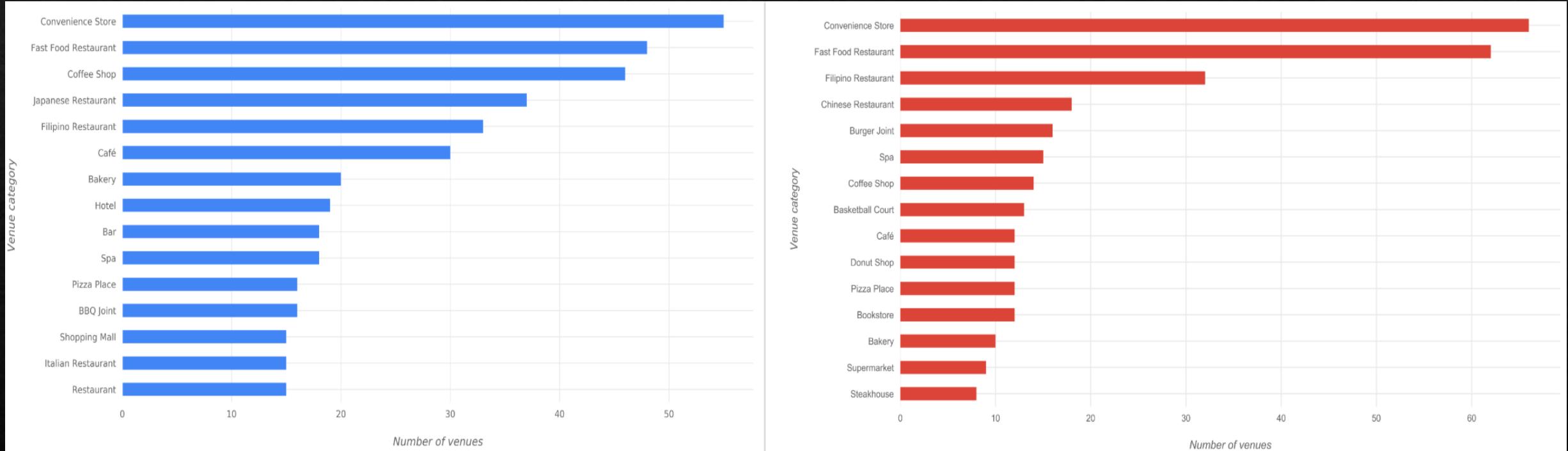


Makati City Map



Mandaluyong City Map

# Common Venues



Makati City

- Both cities have convenience store and fast-food restaurant as the top venues, respectively
- The venues that complete the top 5 for Makati City are coffee shop, Japanese restaurant, and Filipino restaurant while for Mandaluyong City, these venues are Filipino restaurant, Chinese restaurant, and burger joint
- There are no Japanese restaurants in the top 15 for Mandaluyong City while there are no Chinese restaurants in the top 15 for Makati City

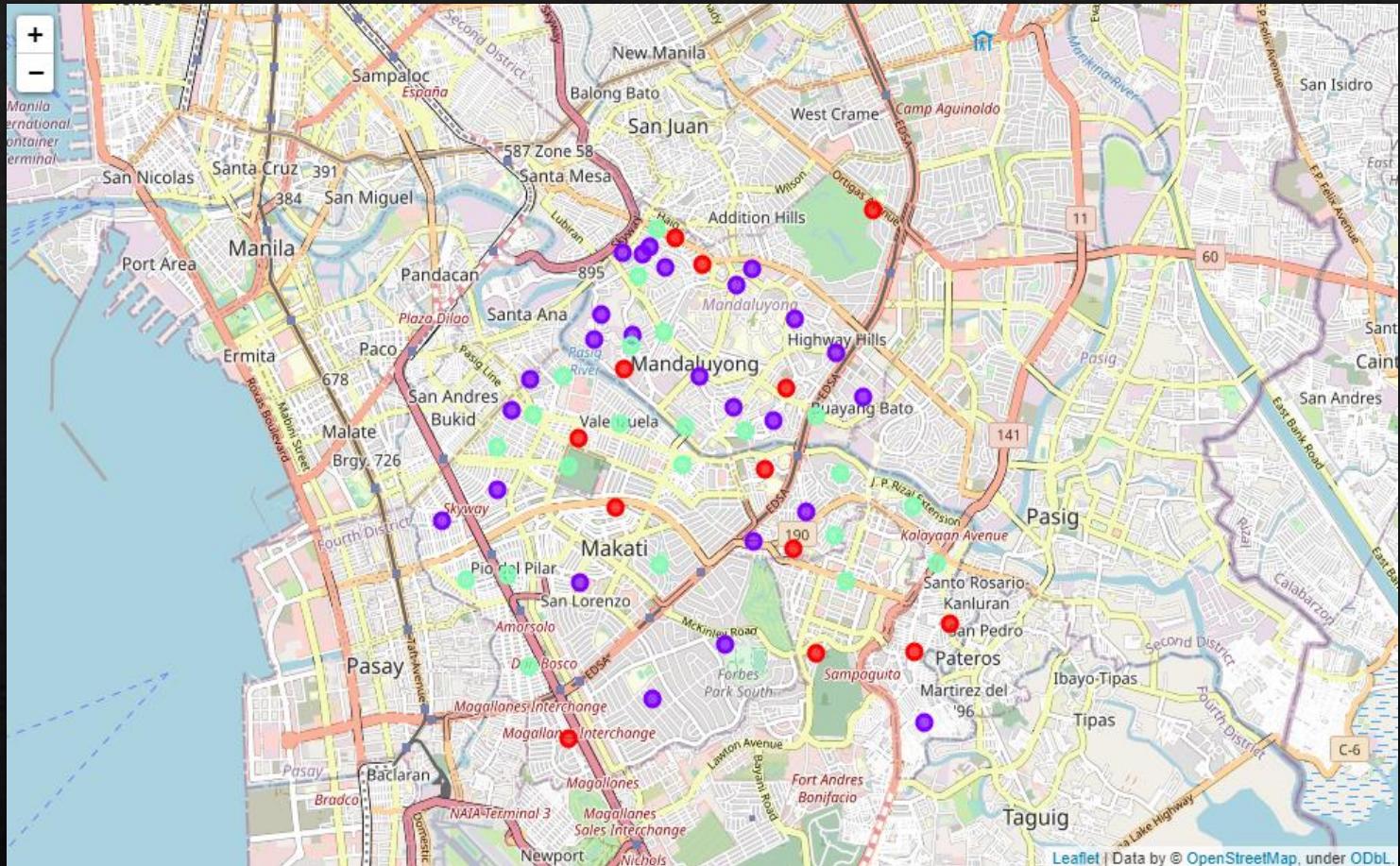
Mandaluyong City

# Merged Data Frame with Top 10 Most Common Venues

	Barangay	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Addition Hills_Mandaluyong	Convenience Store	Basketball Court	Restaurant	Bar	South American Restaurant	Tea Room	Fast Food Restaurant	Pizza Place	Fried Chicken Joint	Shoppe M
1	Bagong Silang_Mandaluyong	Fast Food Restaurant	Filipino Restaurant	Convenience Store	Chinese Restaurant	Bookstore	Salon / Barbershop	Supermarket	Spa	Donut Shop	C
2	Bangkal_Makati	Convenience Store	Art Gallery	Fast Food Restaurant	Nightclub	Cocktail Bar	Furniture / Home Store	Bar	Gym	Donut Shop	Res
3	Barangka Drive_Mandaluyong	Convenience Store	Diner	Spa	Bridal Shop	Fish Market	Filipino Restaurant	Pharmacy	Fast Food Restaurant	Shoe Store	Massa
4	Barangka Ibaba_Mandaluyong	Fast Food Restaurant	Taco Place	Hotel	Bar	Yoga Studio	Frozen Yogurt Shop	Fried Chicken Joint	French Restaurant	Food Truck	Food Co
									Health &		

# Resulting Map After K-Means Clustering was Applied

- After combining the barangays from Makati and Mandaluyong City, it could be seen that the most common venues per cluster are fast food restaurants, restaurants of different cuisines, and convenience stores
- The results suggest that Makati and Mandaluyong City are heavily commercialized areas
- Convenience stores and fast-food restaurants are usually located in high-traffic areas where people are constantly on the go



Map Dot Color	Cluster Label	Count	Most Common Venue
Red	0	13	Fast Food Restaurant
Purple	1	25	Restaurant (Different cuisines)
Green	2	22	Convenience Store

# Conclusion

- ❖ It could be inferred that the barangays of Makati and Mandaluyong City are very similar
- ❖ The results of the clustering and the utilization of location data to determine the most common venues of each barangay agree with the established description of the cities: Makati as the city with the most highly concentrated corporate offices and Mandaluyong as one of the fastest growing economies and commercial hubs in Metro Manila
- ❖ Hence, if a person intends to experience the fast-paced lifestyle of Makati City, Mandaluyong City would be a suitable alternative.
- ❖ Since this project was limited to using location data, future studies could include more variables such as housing prices, cost of living, demographics, and crime rate to render an even clearer comparison between the two cities.