## Battle of the Neighborhoods- Comparing Makati and Mandaluyong City

## 1. Introduction

Metro Manila, officially known as the National Capital Region (NCR), is the main metropolitan region of the Philippines and houses the seat of the government. In it lies Makati City, one of the most highly urbanized cities located in Metro Manila and is known for its upscale shopping malls, high concentration of corporate offices, and buzzing entertainment hubs. Because of these features, living in Makati City is a privilege that many people seek.

Just north of Makati City lies Mandaluyong City. While not as glamorous and developed as Makati City, Mandaluyong City is one of the fastest growing economies in Metro Manila, earning itself the moniker "The Tiger City". It is a diverse city that offers commercial districts, financial hubs, industrial areas, and plenty of shopping centers.

The goal of this project is to determine the similarities and differences between Makati and Mandaluyong City. This objective will be accomplished by comparing the neighborhoods of these cities using location and machine learning tools. By meeting this objective, we could entertain the thoughts of a person who is curious he/she can experience the Makati City lifestyle in Mandaluyong City.

## 2. Data Description and Acquisition

To complete this project, the two main data sets needed are neighborhood data and venue data. For neighborhood data, the barangays of Makati and Mandaluyong City will be explored. In the Philippines, the barangay is the smallest political unit and should serve as the equivalent of a neighborhood. Since only a list of the names of the barangays is needed, scraping data from Wikipedia would be sufficient. Afterwards, for every barangay, the latitude and longitude are retrieved using the geopy library.

## Sources for Barangay data:

- https://en.wikipedia.org/wiki/Makati#Barangays
- https://en.wikipedia.org/wiki/Mandaluyong#Barangays

For venue data, the nearby venues for each barangay are enumerated using the Foursquare API. Since Foursquare leverages data worldwide, retrieving data for areas in the Philippines will not be an issue. Also, every entry for a venue has an equivalent category in the database, which would be used for cluster analysis.