

The Battle of Neighborhoods (Week 1)

1. Introduction / Business Problem

Background

A foreign restaurant company is looking for the best place to open their business in the Philippines where it requires that the location should be in the following:

1. high concentration of corporations for prospect customers
2. proximity to shopping malls or grocery stores for food supplies
3. established competitors as basis for human traffic in the area

First, we need to determine which region and city in the Philippines is the best location and then finally to identify which neighborhood is ideal considering above requirements.

Target Audience

The project also aims to target the following audience:






1. Businesses looking for new location to open their shops
2. Employees and job seekers trying to find their preferred neighborhood
3. Travelers searching for a place to stay where proximity to amenities is important

2. Data

To solve the problem as defined, the following data are required:

1. **List of cities in the Philippines** from Wikipedia to ensure all top cities in the country are considered. The Wikipedia website's table containing the list of cities will be scraped using BeautifulSoup to be stored in Pandas DataFrame.

Link: https://en.wikipedia.org/wiki/List_of_cities_in_the_Philippines

City	Population (2015) ^[4]	Area ^{[5][i]}	Density (2015)	Province ^{[5][ii]}	Region	Legal class ^[6]
 Alaminos	89,708	164.26 km ² (63.42 sq mi)	550/km ² (1,400/sq mi)	Pangasinan	I	CC
 Angeles	411,634 ^[vi]	60.27 km ² (23.27 sq mi)	6,200/km ² (16,000/sq mi)	Pampanga	III	HUC
 Antipolo	776,386	306.10 km ² (118.19 sq mi)	2,500/km ² (6,500/sq mi)	Rizal	IV-A	CC
 Bacolod	561,875	162.67 km ² (62.81 sq mi)	3,500/km ² (9,100/sq mi)	Negros Occidental	VI	HUC
 Bacoor	600,609	46.17 km ² (17.83 sq mi)	13,000/km ² (34,000/sq mi)	Cavite	IV-A	CC

- The following will also be utilized to ensure that there is business demand and pricing of commodities are stable for profitability of the company:

A. Projected Population of the Philippines from 2020 to 2045 (used as basis for long term business demand)

Link: <https://psa.gov.ph/sites/default/files/attachments/hsd/pressrelease/2010%20CB%20-%20Tables%20for%20Special%20Release.xlsx>

Region/Prov/ Age/Sex	2010	2015	2020	2025	2030	2035	2040	2045
NATIONAL CAPITAL REGION								
Pop 0-4	1,172,000	1,339,600	1,230,700	1,096,800	1,000,300	926,100	858,600	772,300
Pop 0-14	3,446,100	3,550,200	3,577,900	3,518,700	3,201,000	2,918,600	2,695,200	2,475,400
Pop 15-64	8,041,800	8,556,200	8,974,200	9,262,400	9,666,800	9,901,900	9,959,400	9,817,900
Pop 60 & over	684,900	899,900	1,185,300	1,503,100	1,860,600	2,228,400	2,656,700	3,108,800
Pop 65 & over	402,900	545,300	728,800	974,100	1,245,600	1,545,100	1,853,300	2,215,000
Female 15-49	3,503,300	3,619,000	3,671,200	3,682,300	3,715,200	3,647,100	3,507,300	3,341,200

B. Consumer Price Index (CPI) for All Income Households by Commodity Group and Geographic Area 2012 to 2018 – Philippines (used to gauge and ensure stability of pricing and expenses)

Link: http://openstat.psa.gov.ph/sites/default/files/CPI_2012%3D100_2012-2018_v_1.xlsx

Geographic Location	Code	Description	Jan_1	Nov_1	Dec_1	Ave_1
NCR - National Capital Region	01	Food And Non-Alcoholic Beverages	98.6	130.0	129.6	127.7
NCR - National Capital Region	02	Alcoholic Beverages, Tobacco And Other Vegetable-Based Tobacco Products	96.7	182.1	182.2	179.0
NCR - National Capital Region	03	Clothing And Footwear	96.0	119.7	120.0	118.5
NCR - National Capital Region	04	Housing, Water, Electricity, Gas And Other Fuels	98.0	106.8	106.8	105.7
NCR - National Capital Region	05	Furnishings, Household Equipment And Routine Household Maintenance	97.5	116.8	116.9	115.5
NCR - National Capital Region	06	Health	99.1	120.2	120.3	117.8
NCR - National Capital Region	07	Transport	99.9	111.4	106.2	105.1
NCR - National Capital Region	08	Communication	99.7	101.4	101.4	101.2
NCR - National Capital Region	09	Recreation And Culture	99.1	113.0	113.0	111.7
NCR - National Capital Region	10	Education	98.1	123.0	123.0	122.6
NCR - National Capital Region	11	Restaurants And Miscellaneous Goods And Services	99.4	112.1	112.1	110.1

- Foursquare API** - to be used to get the top venues of neighborhoods

Link: <https://developer.foursquare.com/places-api#accountTypes>

The screenshot shows the Foursquare Developers website. The header includes the Foursquare logo and navigation links for Products, Docs, and Log-in. The main content area is titled 'Personal' and 'Non-Commercial'. A large 'FREE' badge is prominently displayed. Below this, a list of features and limits is provided, each preceded by a checkmark:

- ✓ 105M+ points-of-interest
- ✓ 2 Photos & 2 Tips per Venue
- ✓ 2 Queries per Second (QPS)
- ✓ 1 App per Account
- ✓ Insight into API Usage
- ✓ API Call Quota
99,500 Regular Calls + 500 Premium Calls