Coursera Capstone Project – The Battle of Neighborhoods

IBM Data Science

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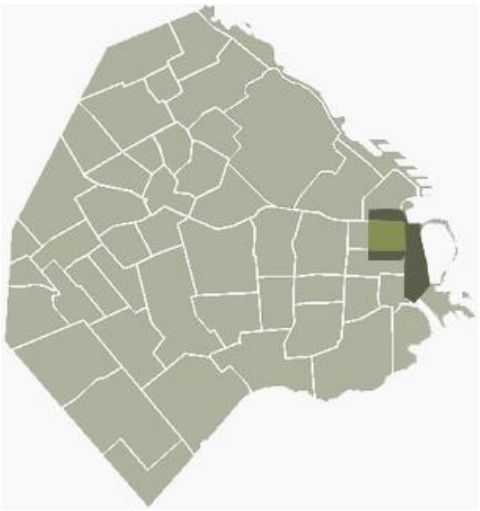
Finding the best location for a Green Eat store in Buenos Aires

Introduction:

Buenos Aires city has an area of nearly 200km^2 and it is home to about 3 million people. Before the COVID-19 pandemic most of the office-works were focused in an area known as "*microcentro*".



Salaries within this area are above the average due to the high concentration of professional workers and because it is the place where many multinational and big national companies have their headquarters. Therefore, this area generates great business opportunities for small food stores, selling anything that this group of consumers are used to consuming, from breakfasts to quick lunches that workers usually buys to be consumed within their offices.

That said, the COVID-19 pandemic has forced the vast majority of these workers to do their jobs from their homes. According to several studies, far from being a tool to prevent the spread of the disease, working from home is here to stay. Surely it will not be in the current proportion, but we can infer that many companies that did not do so will begin to offer work from home as an extra benefit, something that not only improves the quality of life of the employee, but also reduces office rental among others expenses.

Due to the above, it is to be expected that part of these workers will continue to demand healthy products for their lunch. That is why it is proposed to carry out a multi-dimensional analysis in order to find the best possible location to install a branch of the Green Eat healthy food chain.

Data sources:

For demographic and geographic resources I'll be using official databases taken from the following links:

- Neighborhoods: https://data.buenosaires.gob.ar/dataset/barrios and

http://cdn.buenosaires.gob.ar/datosabiertos/datasets/barrios/barrios.geojson

- Real estate (will be used as an income estimator): https://data.buenosaires.gob.ar/dataset/mercado-inmobiliario
- Healthy food stores in each neighborhood: Foursquare API

Approach:

- First, we will obtain geospatial information about the city's neighborhoods. Then the average of m2 in dollars by neighborhood.
- With the Foursquare API, we will look for all the venues that are around the neighborhoods. We will filter all the venues that are health food stores, group them by neighborhood and place them on the map.
- Sort the data and find the best candidate neighborhoods
- Chose the best location for our store within the selected neighborhood.