

Capstone Project - The Battle of the Neighborhoods (Week 1)

- **Introduction (background):**

The business to open is a Mexican Restaurant at Los Angeles, CA in the United States of America. Due to the fact that is well known the food preference of the people and the Latin American ethnics established in the city that would benefit this plan. However, what's the best neighborhood to open this kind of business and what are the factors that would impact our decision?

- **Problem:**

In order to help to make this decision it is imperative to establish the assumptions and parameters that would lead to the best choice, such as:

1. How many restaurants of the kind are located in the neighborhood?
2. What are the ethnics of the neighborhood?
3. How many high and upper grade schools are located in the neighborhood?

Therefore, the following checklist shall be completed:

- Enclose the neighborhoods with the most quantity of schools and colleges.
- Discard those neighborhoods with 2+ restaurants of Mexican food from the previous list.
- Select the neighborhood with a culture related to the kind of food.

- **Data:**

The research made after defining the parameters led to some reliable databases from Los Angeles government. A clustering will be made at first with the top 10 neighborhoods housing the largest quantity of schools. In addition, to accomplish the objective of the capstone project the Mexican food restaurants will be showed on a city map by using their coordinates with the OpenCage Geocoder, to finally verify the best candidates according the ethnics by showing the density of population plotting it on maps using Folium that should match with the conclusion of the machine learning algorithm after cleaning and creating the final data frame.

To shape our data information the next sources will be consulted:

- Downloadable files containing general information about California's public schools and districts. <https://www.cde.ca.gov/ds/si/ds/pubschls.asp>
- City of Los Angeles Neighborhoods Population & Race (2010 Census) <http://www.laalmanac.com/population/po24la.php>
- Kaggle dataset for latino restaurant locations in Los Angeles, CA.

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