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1. Problem Description

In this project, the problem attempted to solve will be to find the best possible location or the most optimal, for a mexican restaurant in the city of Madrid, Spain. To achieve this task, an analytical approach will be used, based on advanced machine learning techniques and data analysis, concretely clustering and perhaps some data visualization techniques.

During the process of analysis, several data transformations will be performed, in order the find the best possible data format for the machine learning model to ingest. Once the data is set up and prepared, a modeling process will be carried out, and this statistical analysis will provide the best possible places to locate the mexican restaurant.

2. Data Presentation

The data that will be used to develop this project is based on two sites:

1. The Foursquare API: This data will be accesed via Python, and used to obtain the most common venues per neighborhood in the city of Madrid. This way, it is possible to have a taste of how the city's venues are distributed, what are the most common places for leisure, and in general, it will provide an idea of what people's likes are.

2. The Madrid City Hall's Web Portal: This site provides several data sources of great utility to solve this problem. The files are provided in Excel format, and they are built over a statstical exploitation and use basis. The data contains updated information about the inmigrant population per country and per nationality. This data will be analyzed in such a way that one could determine the best location of r anew venue/restaurant/other based on people's nationalities. For the sake of simplicity, it will be assumed for this exercise that people's likes varies according to their nationality, and that people from one specific country will be more attracted to place that matches the environment and culture of their own countries, rather than the ones from foreign countries.

You can access the data by clicking this link

3. Target Audience

The target audience of this project could be any business owner that is planning to open a new business local, restaurant, real state agency, shops, etc... Since this approach could be aplicable not only to mexican food restaurant but to other kind of businesses, anybody who is considering to place a new business local or even relocate it, could beneficiate of this project's approach.