Finding alternative cities to live in for Venezuelans

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IBM Applied Data Science Capstone Project

Immigrant's Problem

The steep rise in the cost of living, insecurity and low wages are pushing Venezuelans to seek alternative places to live in.

The question for this subset of people that leave the country is ;

how to even get started browsing prospective places to move?

- as Spanish speaking countries alone are 22 cities (Mexico, Colombia, Spain, Argentina, Peru, **Venezuela**, Chile, Guatemala, Ecuador, Cuba, Bolivia, Replica Dominicana, Honduras, El Salvador, Paraguay, Nicaragua, Costa Rica, Puerto Rico, Panama, Uruguay, Guinea Equatorial and Belize).

Data

Wikipedia. *List of cities in Spanish Speaking countries*

GeocoderAPI. *City location data*

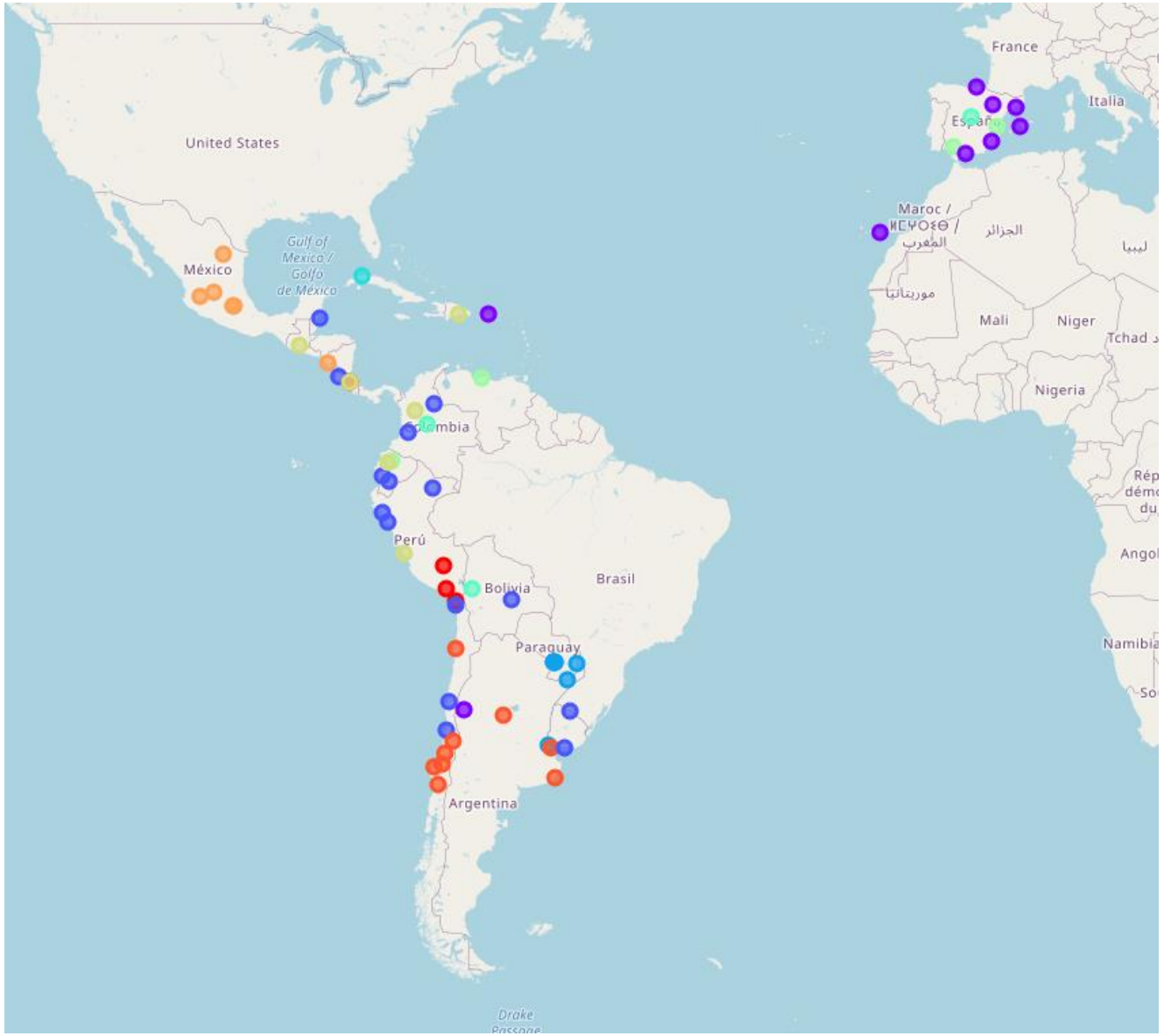
Foursquare API. *Top venues and their categories for each city*

k-means clustering algorithm to identify patterns in the data

top 5 venue categories for each city's vector profile for clustering

clusters most meaningful and interesting with k=10

Methodology



Results/Discussion

Clusters

Caracas has 3 companions in its cluster:

Valencia (Spain)

Seville (Spain)

Quito (Ecuador)

210 total big cities in the whole world speaking Spanish

158 cities with Foursquare API data representing 5935 venues

58 cities with > 50 venues in Foursquare representing 4272 venues and 326 unique categories

Conclusion