Where should I go?

ANALYSIS OF THE STATE CITIES OF COLIMA

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Data Based Recommendations

- Supose that a person, who owns a dive center, is in a tourist city that has had a great increase in insecurity and has decided to move to the state of Colima. But he doesn't know in which city of the state of Colima open his diving business so that his business can prosper.

- Data that might contribute to determining in which city of the state of Colima it is convenient to open a business

People who may be interested

- There are many people who seek to move from their respective cities for several reasons and need to find cities where their businesses can thrive.

- This project seeks to recommend a city to people looking to open a business based on data that provide information related to the behavior of the local economy.

Data Acquisition and Cleaning

- Database with information on the State of Colima regarding the postal codes of the town. As well as latitude, longitude and cities associated with those postal codes.

- Data obtained through the Foursquare platform referenced to the longitudes and latitudes of each postal code in the State of Colima.

- Fisrt database contains 16 columns and 564 rows and shows us the real estate assets of the state of Colima in the year 2018.

- Cleaned data contains 21 rows and 5 columns.

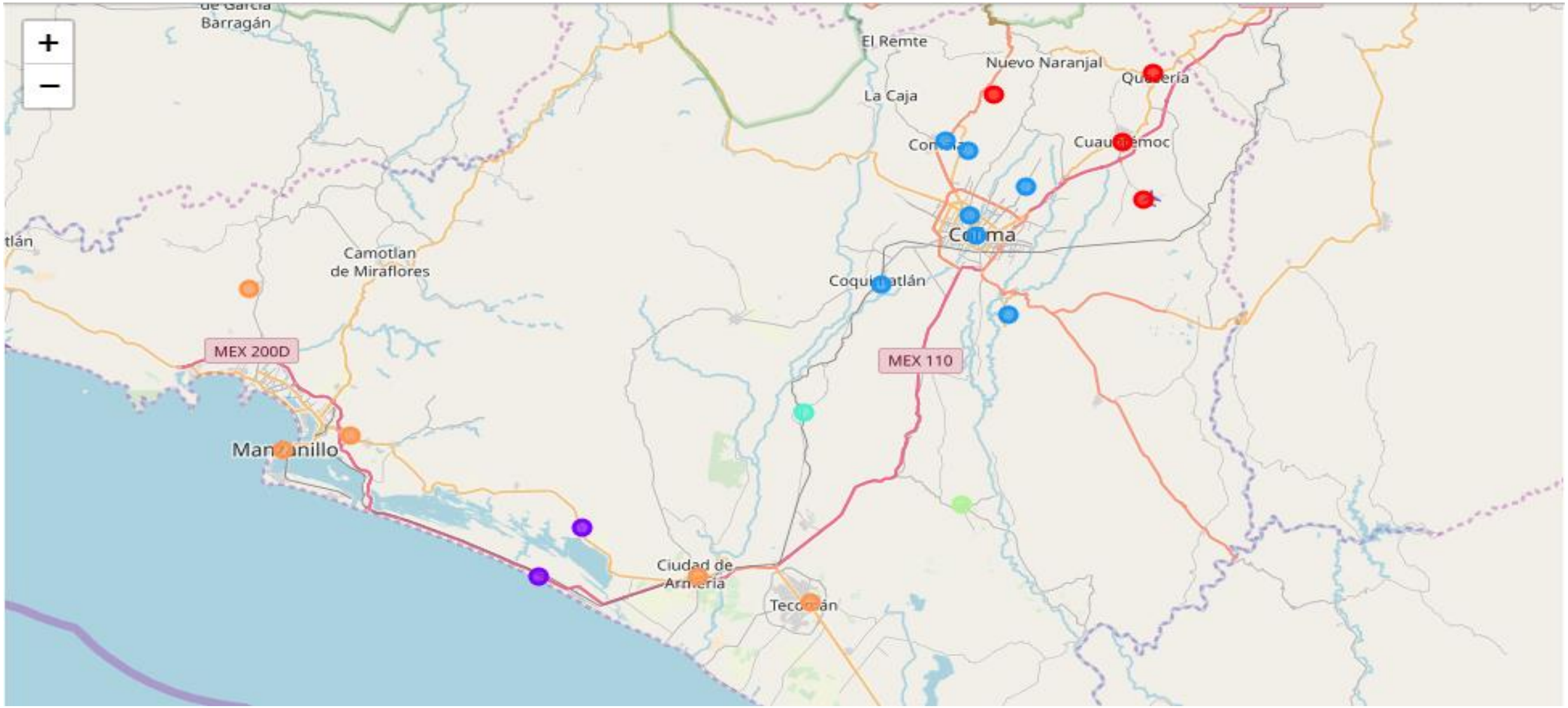
K-Means-Clustering

- I used a procedure similar to the one carried out in the "Segmenting and Clustering Neighborhoods in Toronto" project and obtained the 10 most popular types of places in each city within a 10km radius.

- Using the machine learning method K-Cluster-Means, six clusters were created for all the cities in the State of Colima.

City	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
BUENAVISTA	Mexican Restaurant	Convenience Store	Brewery	Airport	Seafood Restaurant	Garden	Hotel	Food & Drink Shop	Lounge	Park
CHANDIABLO	Beach	Resort	Mexican Restaurant	Breakfast Spot	Seafood Restaurant	Golf Course	Café	Burger Joint	Plaza	Convenience Store
CIUDAD DE ARMERÍA	Convenience Store	Beach	Taco Place	Seafood Restaurant	Hotel	Steakhouse	Pizza Place	Sandwich Place	Sculpture Garden	Mexican Restaurant
CIUDAD DE VILLA DE ÁLVAREZ	Taco Place	Mexican Restaurant	Seafood Restaurant	Park	Pizza Place	Ice Cream Shop	Argentinian Restaurant	Bar	Hotel	Restaurant
COFRADÍA DE SUCHITLÁN	Mexican Restaurant	Pizza Place	Taco Place	Coffee Shop	Restaurant	Plaza	Convenience Store	Bar	Bakery	Café

Colima Cluster Map Analysis



Colima Cluster Map Analysis

- An early analysis would lead us to think that the cities near the coast (beach) would have more things in common and we may come to think that they should belong to the same cluster.

- After a deep cluster análisis we can separate the cities of Colima into two large groups. Those that are tourist cities and those that are not so much.

- We can now infer that the cities that we are going to recommend to open a diving business must belong to those that present a greater tourist activity in comparison with the other clusters.

Results an Conclusion

- The machine learning clustering-k-meaning method is a great tool for identifying groups that look alike. But it is only a tool, it does not work if the results obtained after the application of the method are not analyzed.

- The most visited places and the proximity of the cities does not imply that they belong to a particular group.

- Influence many other factors such as the history of the city and the development of the local economy

Results an Conclusion

- We can now recommend that the group of cities that he must have in mind,must belong to cluster number two (purple), since the development of the local economy matches the type of deal.

- We can now understand how with information as “simple” as the most visited places, we come to a recommendation with great implications and that answers the million dollar question. Where should I open my business and why?

We can conclude then that with creativity and data we can answer complicated questions with enormous implications. That is what a data scientist does!!.