

Distribution of Clients for Sales Reps

The problem:

I'm helping a company named CRC Pets, which distributes pet accessories across veterinaries and pet shops.

This company was founded on late 2019 and they are expecting a big expansion during 2021. Therefore, they are hiring three sales representatives that would be in charge to approach new potential clients.

The problem is that they don't know how to distribute the representatives and I recommended to do a geographical segmentation. Therefore, this project is intended to make clusters of possible clients.

Note that the company is located in San José, Costa Rica. Therefore, some of the wording you will find in the code is in Spanish.

Data:

All the data has been pulled from the Foursquare API. Variables used are:

- Name of the venue
- Latitude
- Longitude

Methodology:

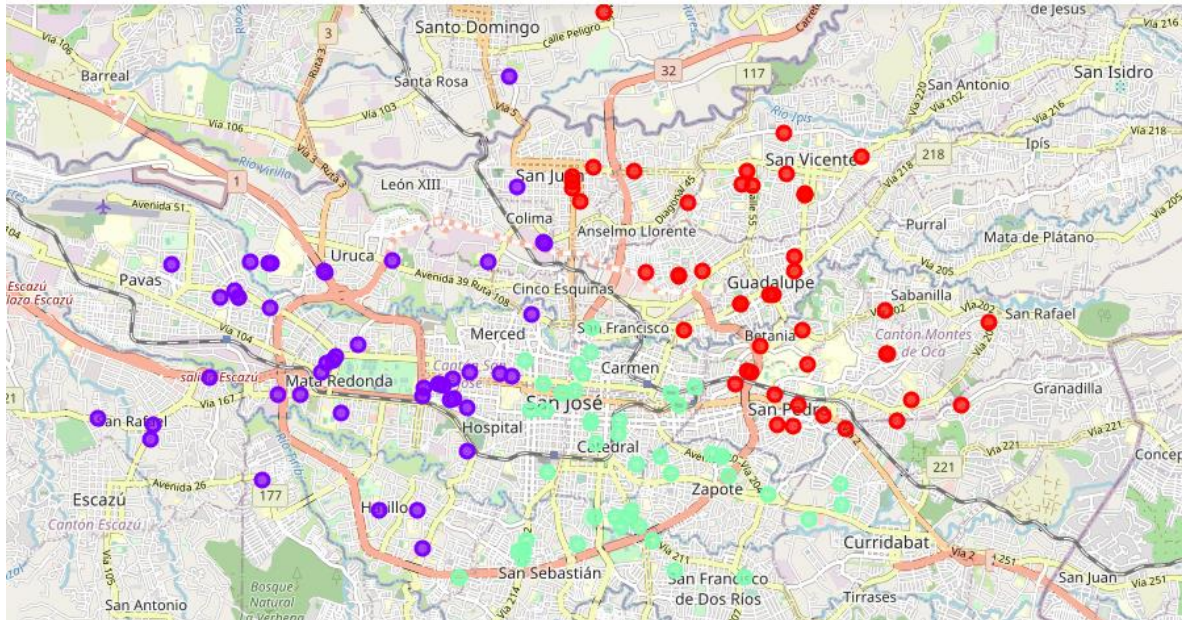
I used the k-mean methodology to create three clusters based on the latitude and longitude.

To select the venues, I used the geographic location of San José, Costa Rica and looked for venues with names including either "Vet", "Pet", "Perro" or "Gato" in a radius of 5000. In total I got 142 results.

Results:

The results are summarized on the image below, which shows the three clusters in different colors

Potential Clients of CRC Pets Grouped in geographical Clusters



Source: Own made with Foursquare API data

Discussion and Conclusion:

As we can see, there are three different clusters in the map. We can name them as Northeast, Center-South and West. Therefore, now we have the three geographical clusters for each of the sales representatives of CRC Pets.

This information is going to be shared with the company in order to start approaching the potential clients.