COURSERA CAPSTONE PROJECT

BUILD A NEW SHOPPING CENTER IN SAN PEDRO GARZA GARCIA

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BUSINESS PROBLEM

- Locate the best place to build a new shopping mall in one of the richest cities in Latin America.

- The objective is to analyze and select the best place in San Pedro to open a shopping mall with success

DATA

- Data required:
  - Postal codes of the neighborhoods in San Pedro
  - Coordinates of the neighborhoods
  - Venue data

- Sources of Data
  - Postal code search page (https://micodigopostal.org/nuevo-leon/san-pedro-garza-garcia/)
  - Geocoder package for coordinates
  - Foursquare API for venue data

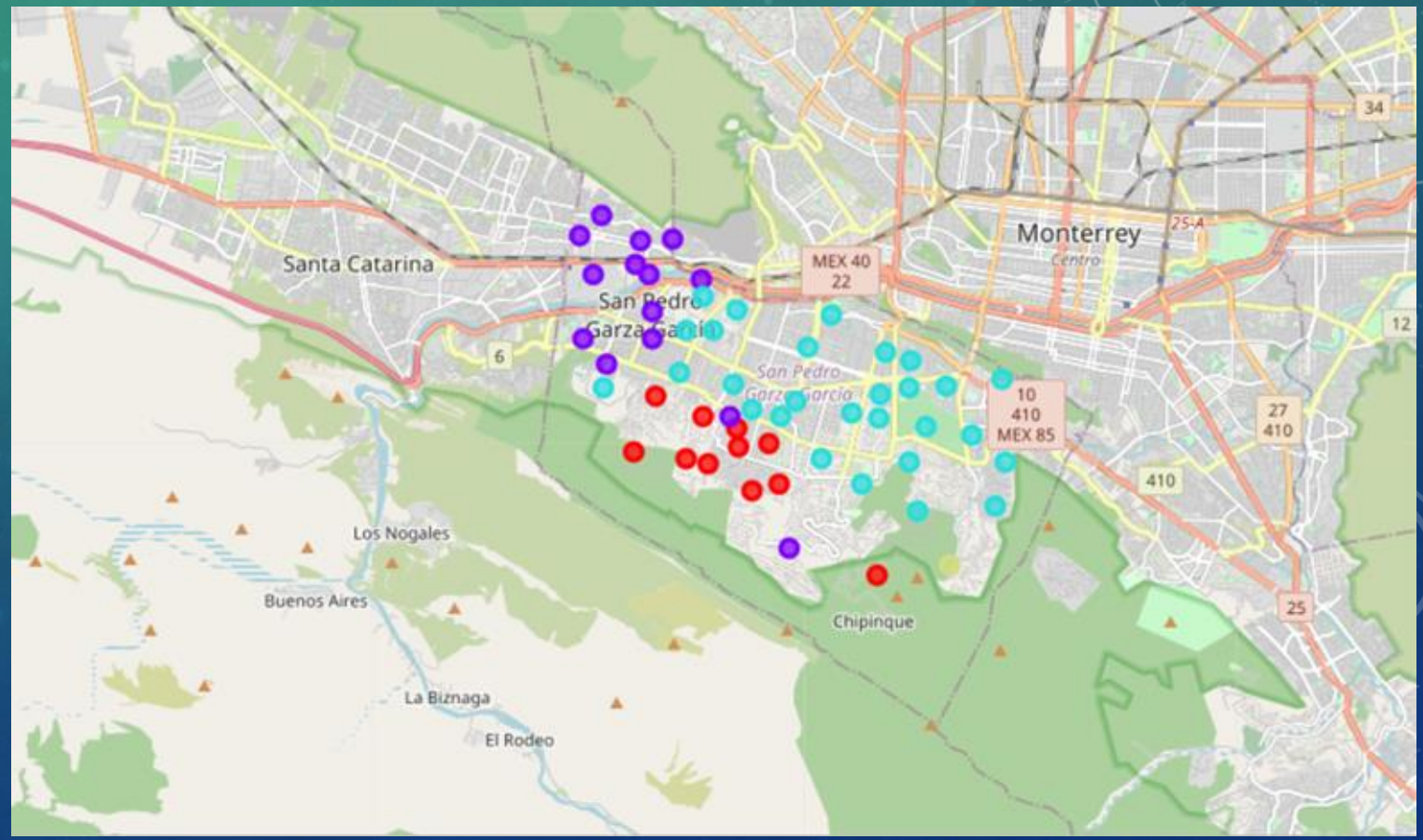
METHODOLOGY

- Scraping the web page to obtain the table
- Get coordinates using Geocoder
- Get the venue data from Foursquare API
- Group the data by the neighborhood and taking the mean frequency of occurrence of each venue category
- Filter venue category bye Shopping Mall and Shopping Plaza
- Perform K-Means clustering
- Visualize the clusters in a map

RESULTS

Categorize the neighborhoods into 3 clusters:

- Cluster 0 (red): More concentration of shopping malls
- Cluster 1 (purple): Moderate concentration of shopping malls
- Cluster 2 (mint): Low concentration of shopping malls



DISCUSSION

- As we can see from the results, in the areas with the highest concentration of shopping centers, they are areas closer to other municipalities in the metropolitan area.
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- The areas with moderate and low concentration of shopping malls are a good option for the investor, it should only be taken into account that there are areas that are close to natural protected areas.

CONCLUSION

It was possible to achieve the problem posed in the introduction, helping investors to interpret the information easier and in a more agile way than the conventional one.

Proving that with K-Mean Clustering I can find the most suitable area to start a new shopping real estate.