RECOMMENDER SYSTEM BASED ON MILLENNIAL PREFERENCES IN THE REAL ESTATE SECTOR IN MEXICO'S CAPITAL

IBM Data Science Capstone Project

BACKGROUND AND BUSINESS OPPORTUNITIES

- Generation Y prefers renting over buying, and it is slowly moving towards an age where marrying, having kids and settling

- approximately 30 million people in Mexico within the generation Y. And Mexico's capital is where 80% of young adults rent, and 20% of them chooses to buy its first home

- Profile that fits a large portion of the financially stable person, between the ages 25 – 37 approximately, and generate a list of neighborhoods that match this profile interests, as well as benefit its lifestyle

- This project aims to find the best neighborhoods for this particular generation section profile, in order to seek business opportunities in the real state sector

DATA ACQUISITION AND CLEANING

- Neighborhood, borough and geolocation scraped from

  Government's database:

  https://datos.cdmx.gob.mx/explore/dataset/coloniascdmx/tabl

  e/

- Venues by geolocation, obtained via Foursquare API:

  https://developer.foursquare.com/docs/places-api/

- Unified public transport stops:

  https://datos.cdmx.gob.mx/explore/dataset/estaciones-

  paradas-y-terminales-del-sistema-de-transporte-

  unificado/table/

- Focused on 3 main boroughs:
  Coyoacán, Alvaro Obregón, Miguel Hidalgo
- 5 principal categories:
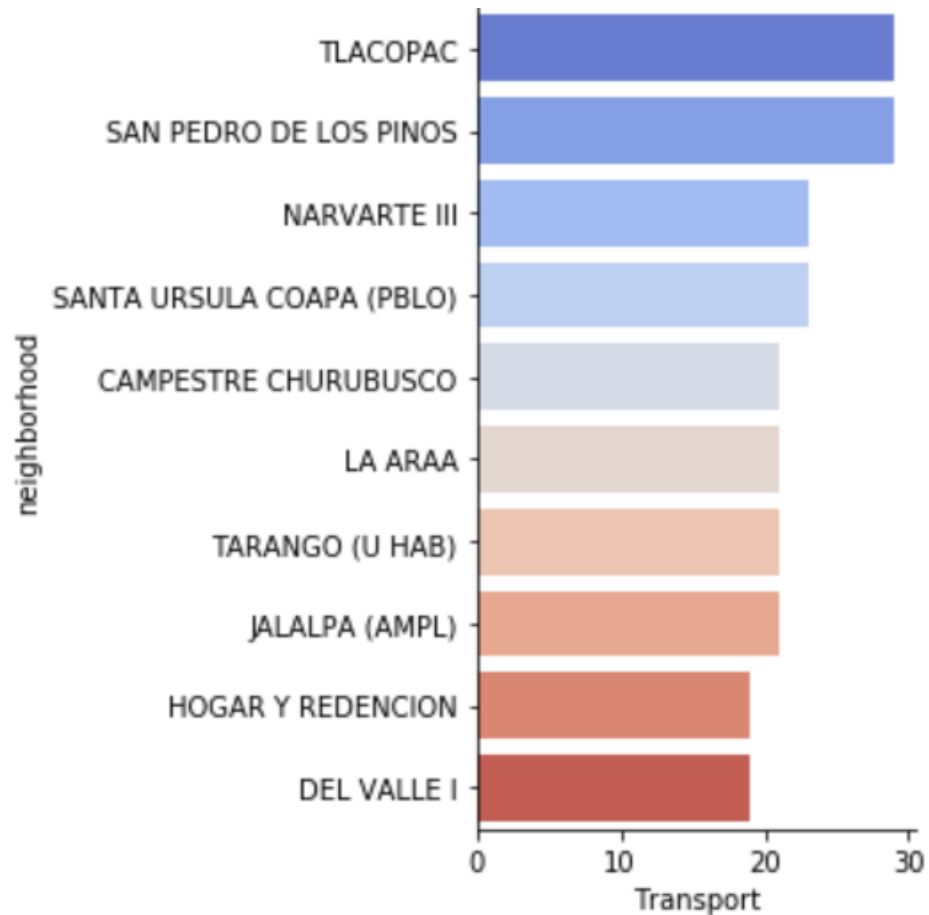 Transport, Restaurants, Arts &Entertainment,   Night Life, Fitness

PROFILE CUSTOMER'S RATINGS

In order to recommend each venue based on a potential customer preferences, a rating to each general category was generated. In This case, the highest rated category was transportation. The second was Restaurant venues, and the others were rated equally.
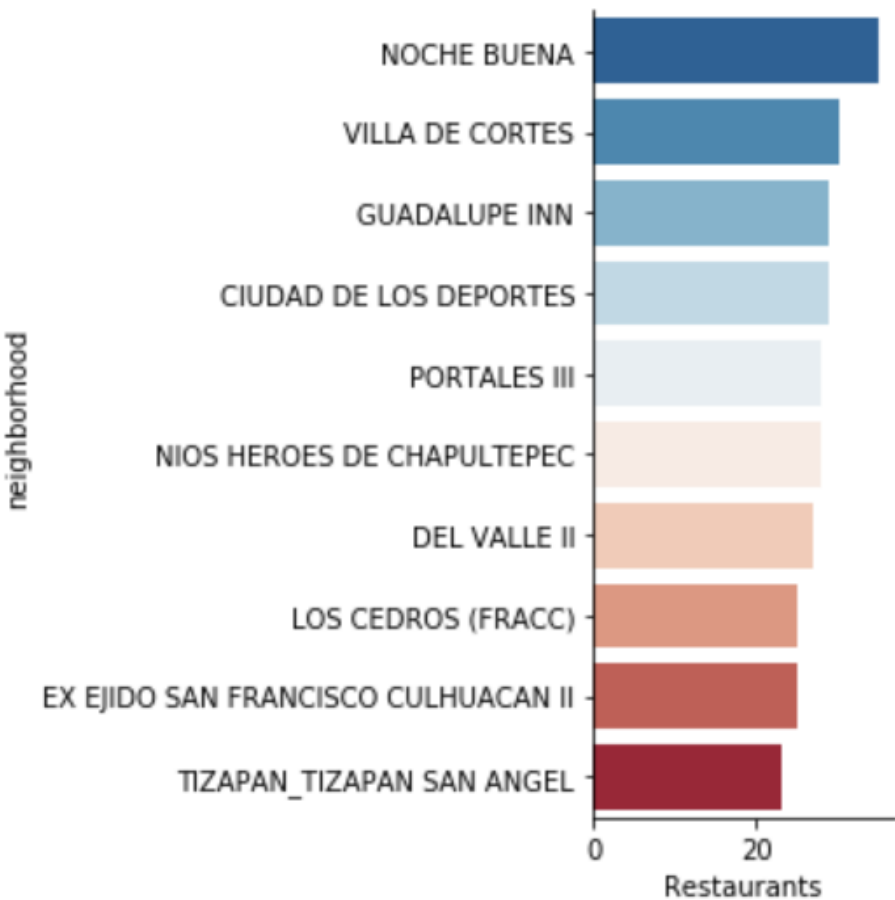
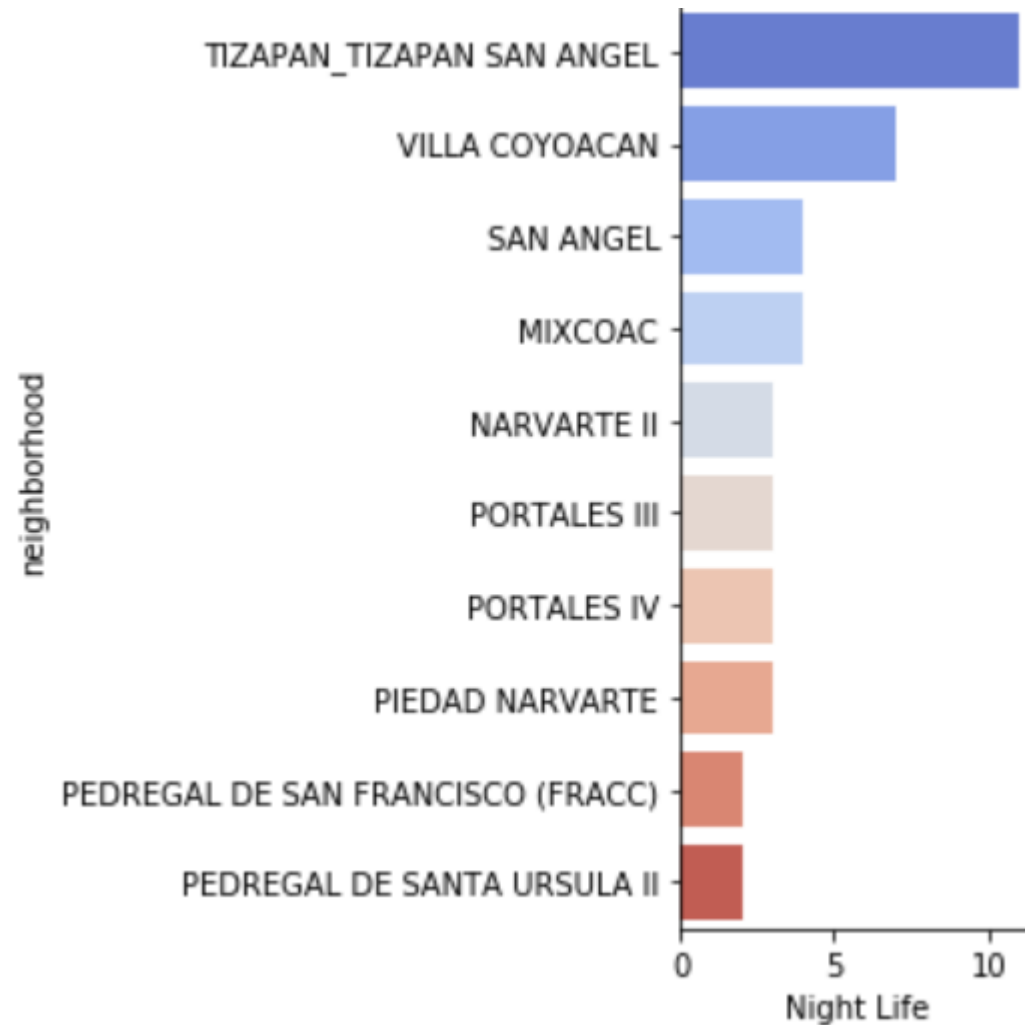| Transport	Restaurants	Night Life	Arts & Entertainment	Health lifestyle
10.0	8.0	5.0	5.0	5.0

BEST NEIGHBORHOOD RESULTS
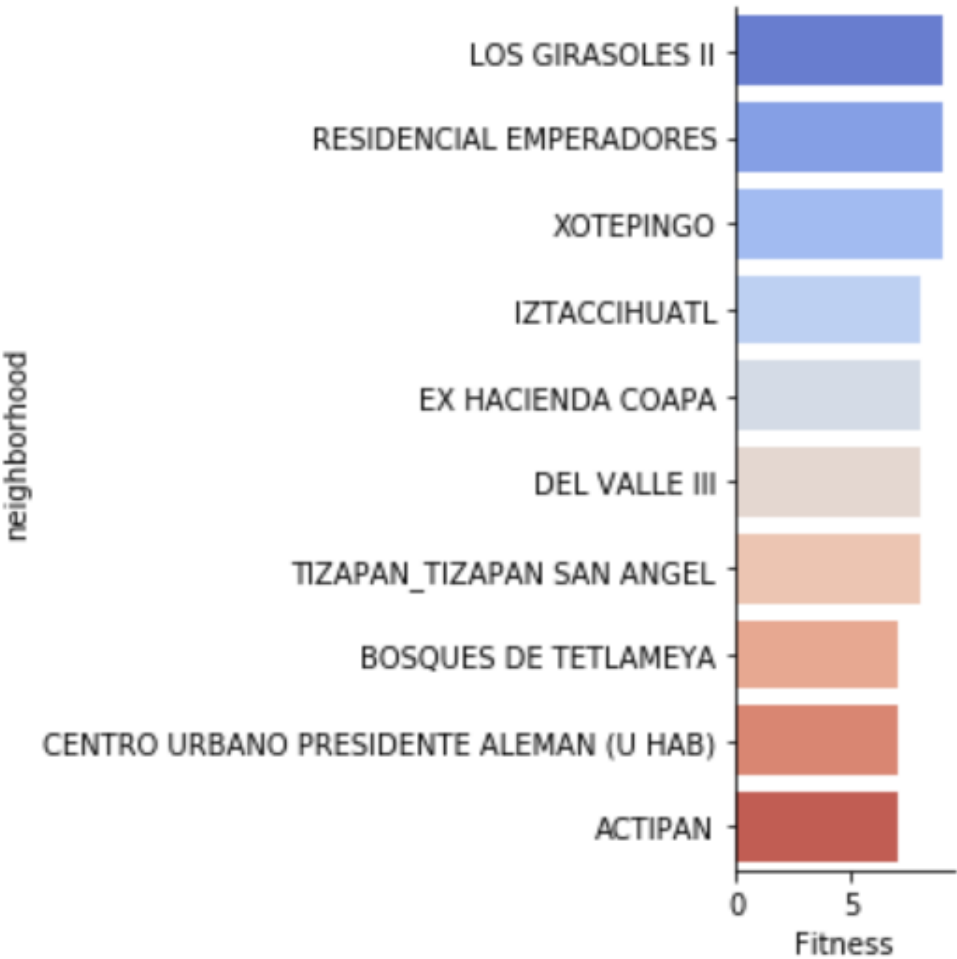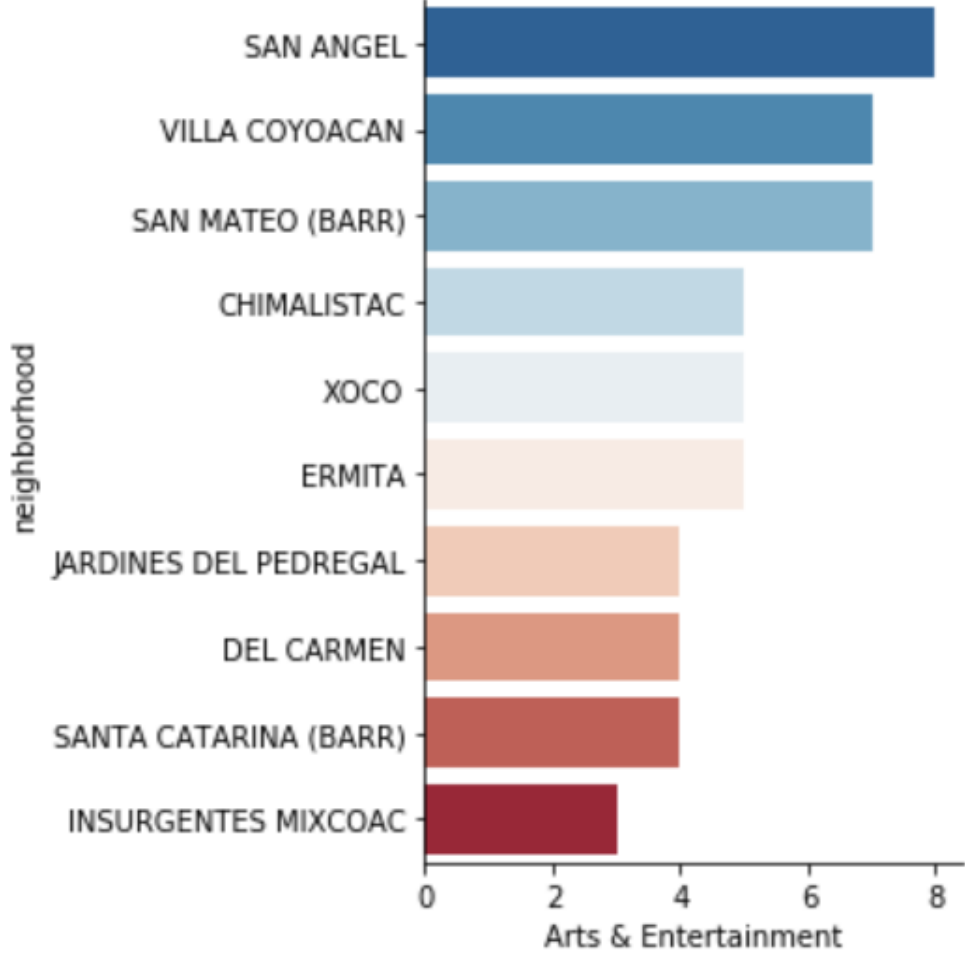
COMMUTING FACILITIES

RESTAURANT OFFER

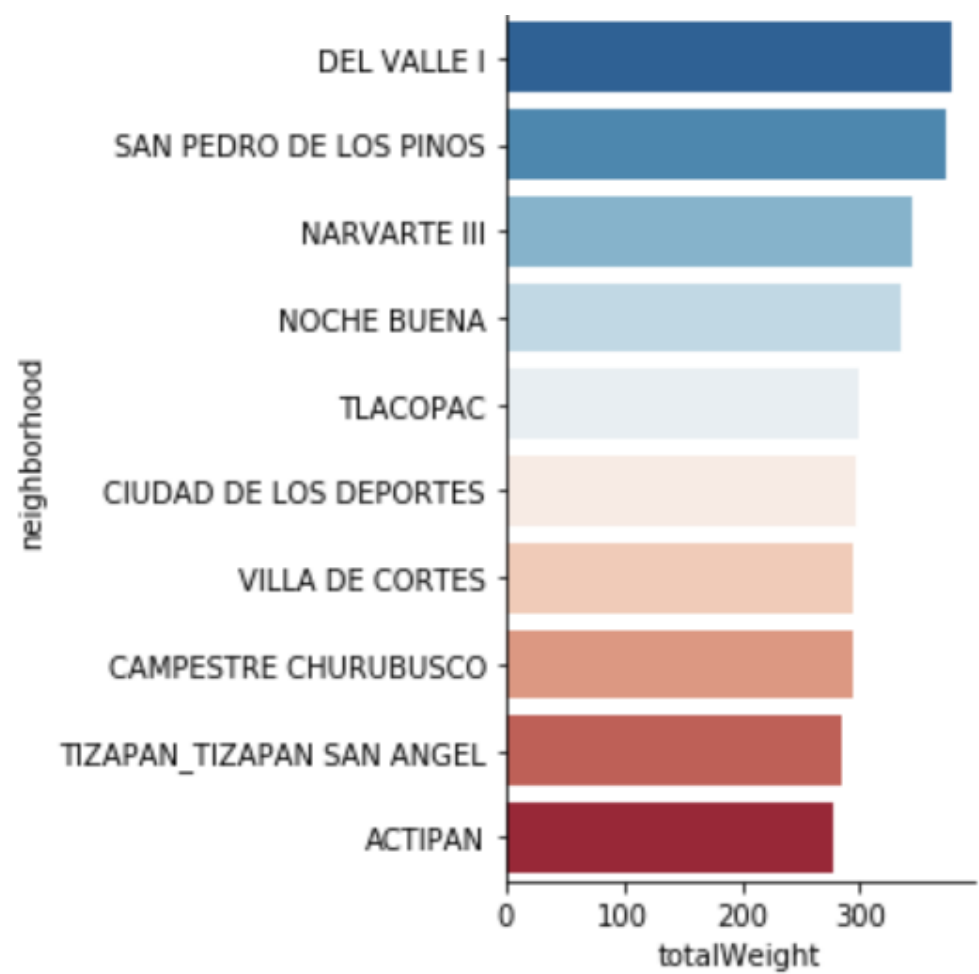# NIGHT LIFE

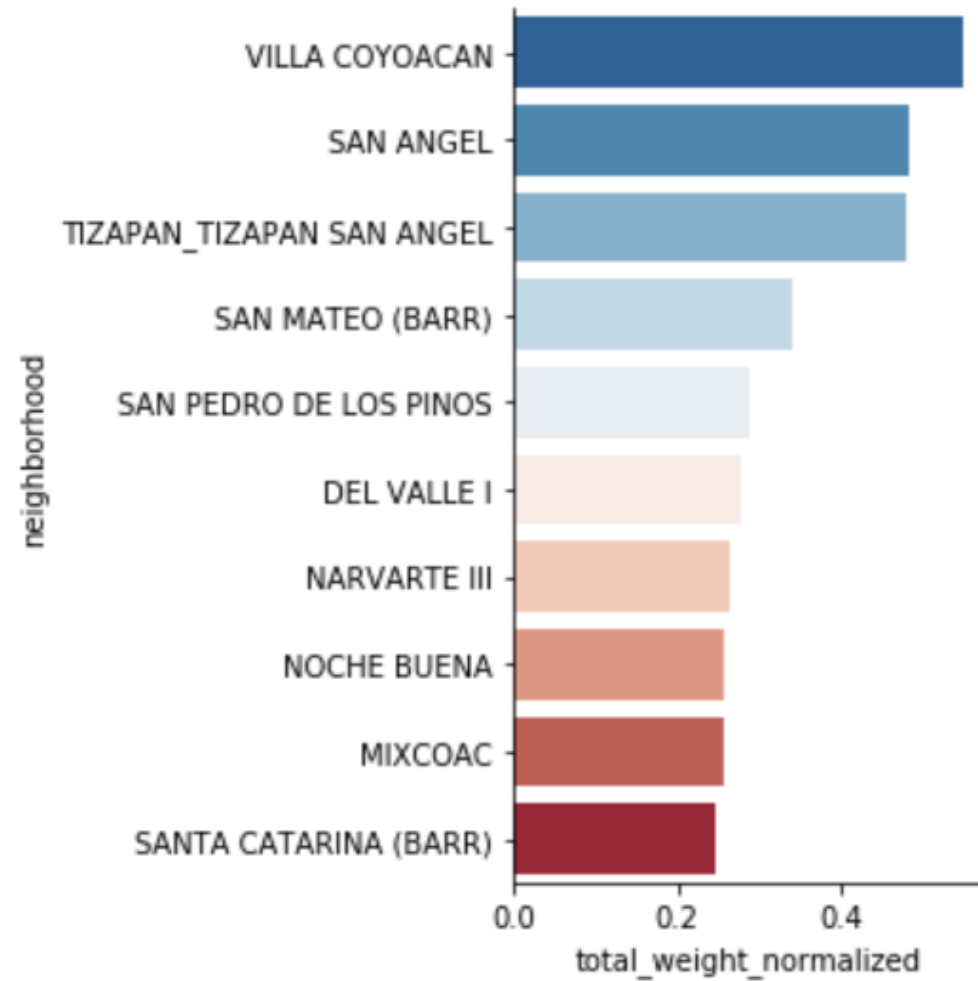# HEALTH LIFESTYLE

ARTS & ENTERTAINMENT
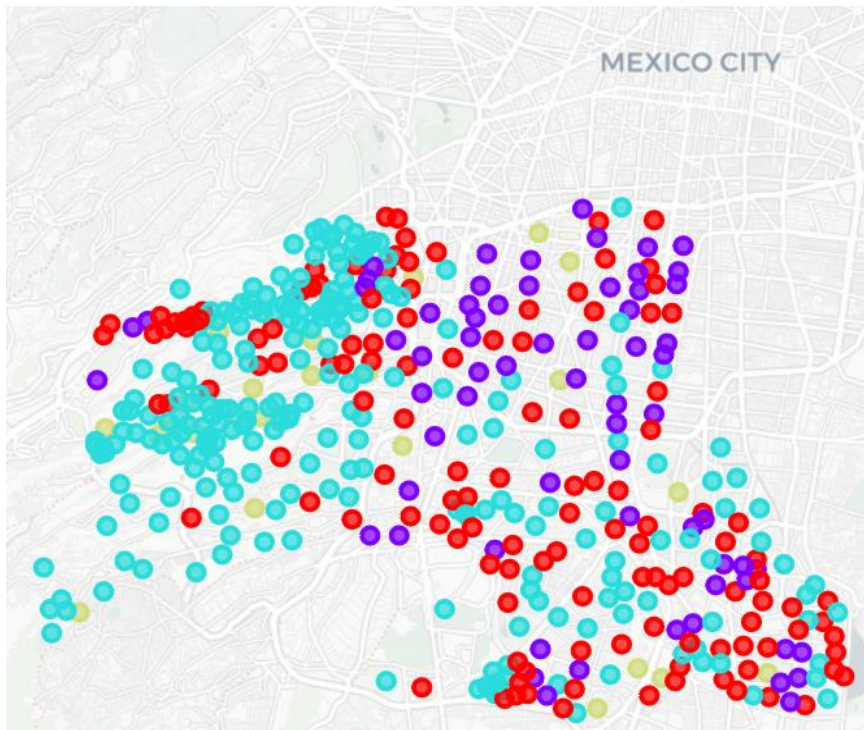
OVERALL BESTS NEIGHBORHOODS

MOST WELL-ROUNDED

CONCLUSION

MAIN VENUE CATEGORIES' DISTRIBUTION

Transport: yellow
Fitness: red

Restaurant: purple
Arts & Entertainment: light blue

The analysis of these neighborhoods can be highly beneficial to any company that sells or rents in Mexico City.

The project was finished based on initial goals, and with the information obtained, new analysis can be made to the city.

The distribution of the neighborhoods could lead to new insights and business opportunities, and a better understanding of the city.