FINDING THE RIGHT SPOT TO OPEN A BUSINESS

AN OPEN SOURCE APPROACH

INTRODUCTION

- In Bogota City, Colombia, someone is looking to open a restaurant and wants to know where is the best place to open it.
- We will use data analytics to find a neighborhood with a similar offer.

DATA

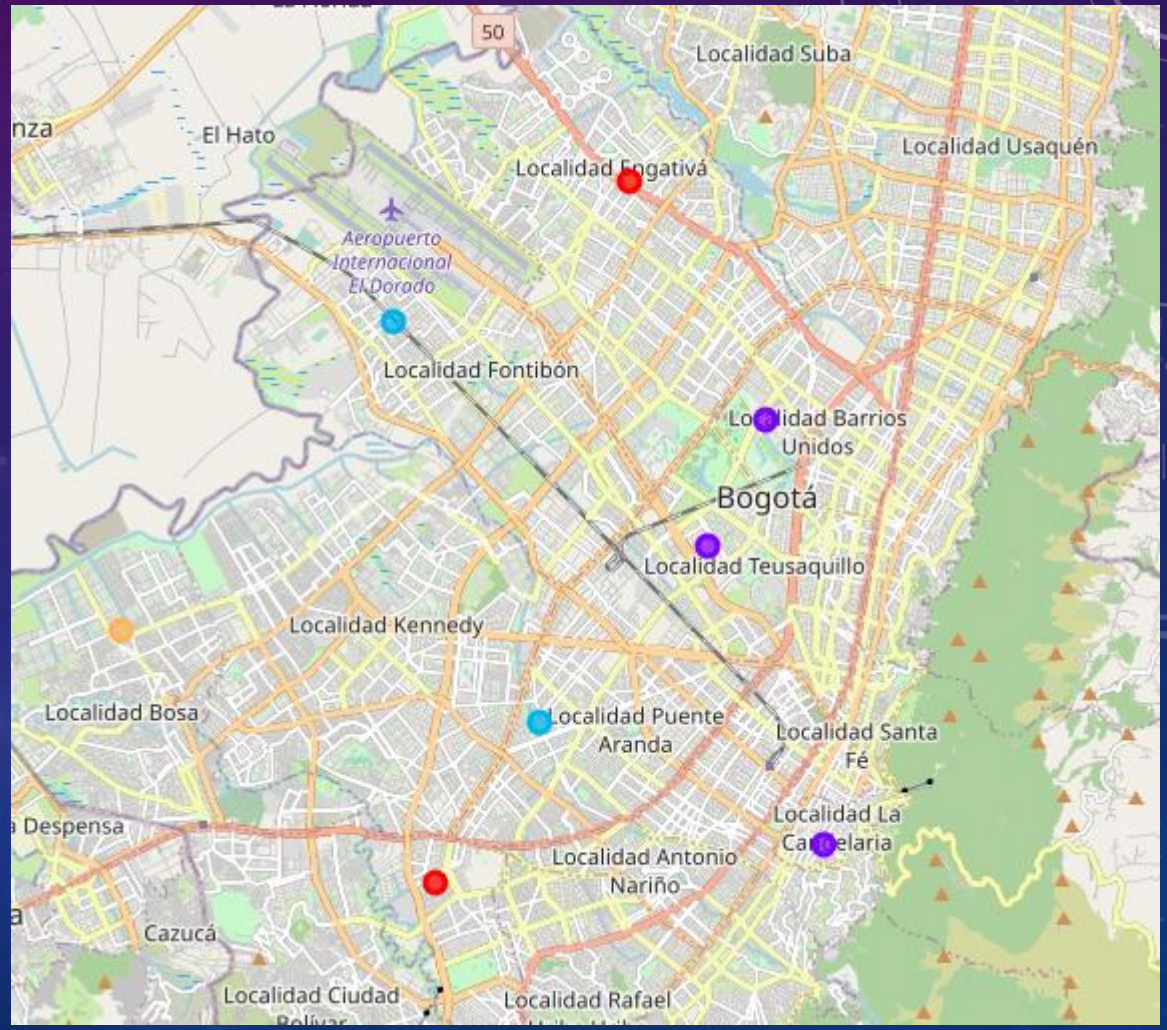
- From foursquares: the venues nearby each of the city neighborhoods. https://api.foursquare.com/v2/venues/explore?
- From local open databases: the coordinates for the neighborhoods: https://bogota-laburbano.opendatasoft.com/explore/dataset/georeferencia-puntual-por-localidad/download?format=csv

METHODOLOGY

- Geographic data for restaurants in the City's neighborhoods will be obtained and clustered by venue cathegories.
- Then a one hot encoding process will be run in order to use a clustering algorithm, which is used because it is needed to characterize each region and determine if it is a good place to open the restaurant.

RESULTS

- Five clusters were found that were named as:
  - “Fast Food”
  - “Sea Food Restaurant”
  - “Latin American”
  - “Italian”
  - “Local Restaurant”
- Depending on the type of restaurant that is to be opened, it is recommended to place it on the neighborhood of the proper cluster.



DISCUSSION

- More data is needed to fine-tune the process. There were just a hundred venues found.
- Further analysis can be made using neighborhood segmentation.

CONCLUSIONS

- Open data and web-scraping constitute a good resource for data analytics.
- Using open source tools like follium and panda it is possible to create professional GIS analysis.