

A decorative graphic on the left side of the slide, consisting of a network of thin, light blue lines and small circles, resembling a circuit board or a stylized tree structure.

THE BATTLE OF NEIGHBORHOODS

CAPSTONE PROJECT

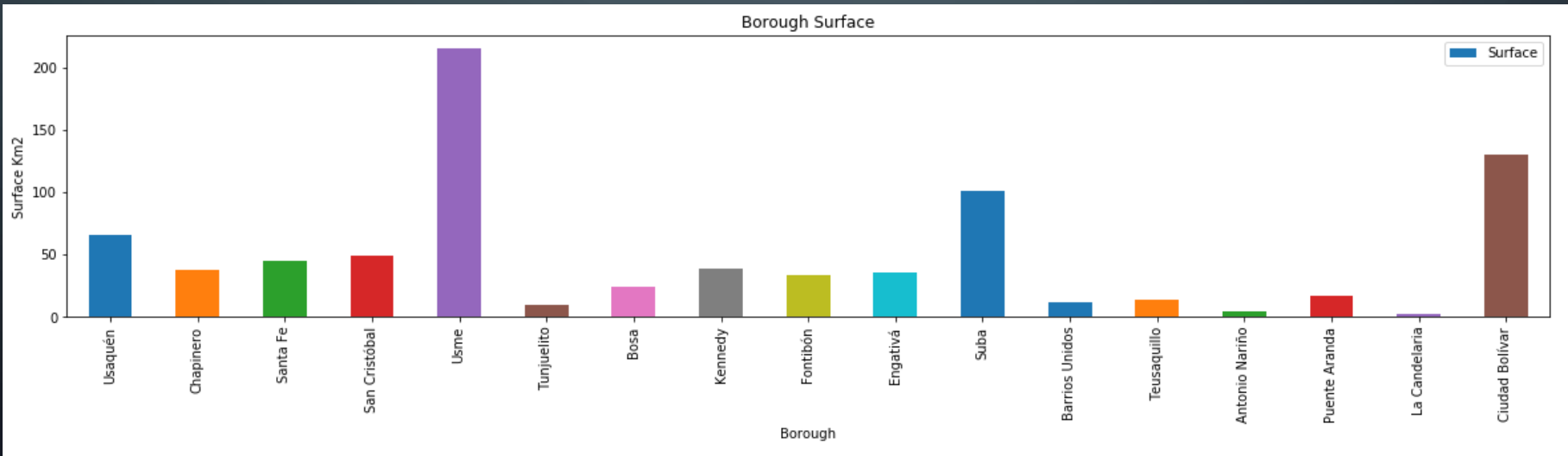
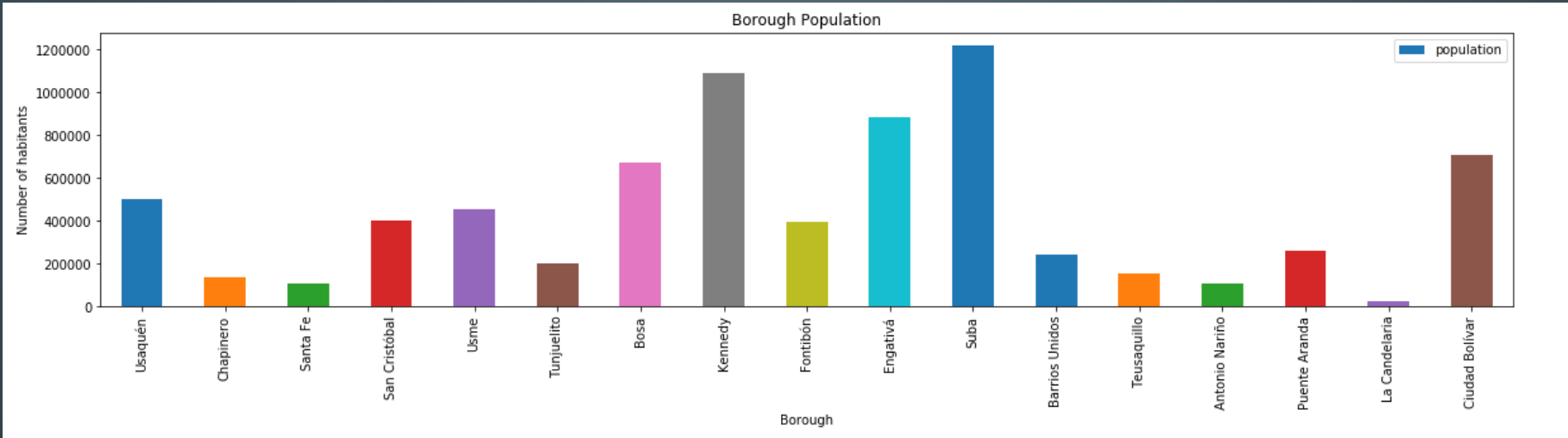
GOALS

- Identify the similarity among the areas of the city using the venues they have
- Set the relationship that exists between venues and the inhabitants number
- Set starting points like categories and location for who want to establish their new business

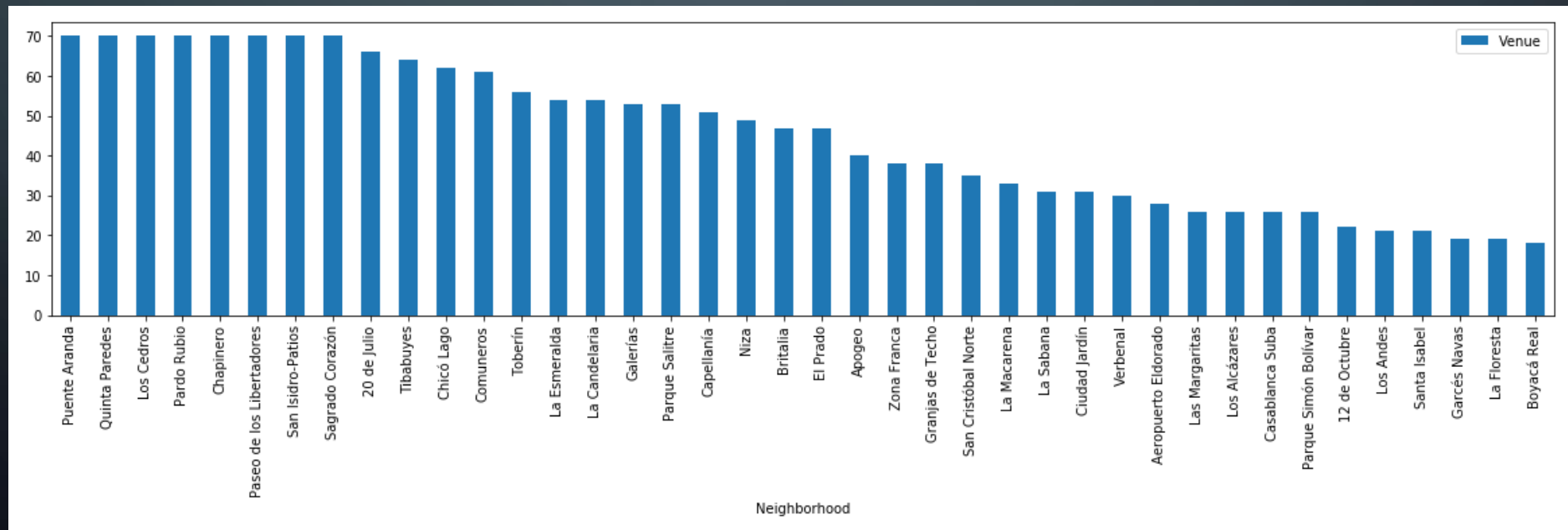
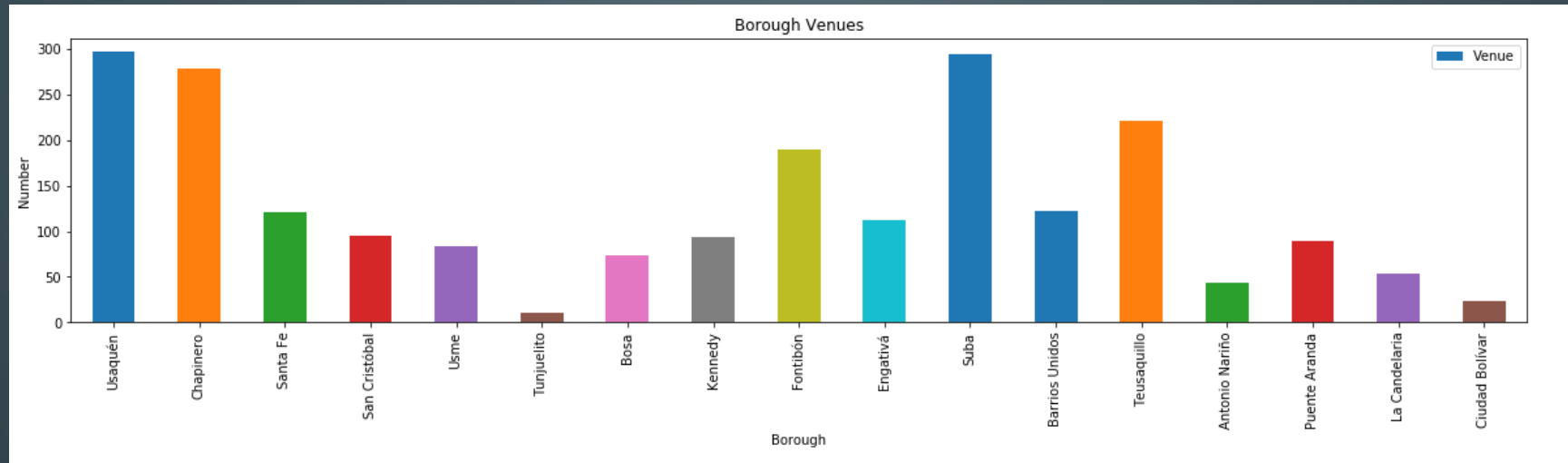
DATA ACQUISITION AND CLEANING

- Dataset 1, Borough information :
[https://es.wikipedia.org/wiki/Anexo:Localidades de Bogot%C3%A1](https://es.wikipedia.org/wiki/Anexo:Localidades_de_Bogot%C3%A1)
- Dataset 2, Neighborhoods information :
[https://es.wikipedia.org/wiki/Anexo:Barrios de Bogot%C3%A1](https://es.wikipedia.org/wiki/Anexo:Barrios_de_Bogot%C3%A1)
- BeautifulSoup library for scraping data from wiki pages
- Geocoder library to get each neighborhood geographic information (latitude, longitude).
- Foursquare API to get venues information

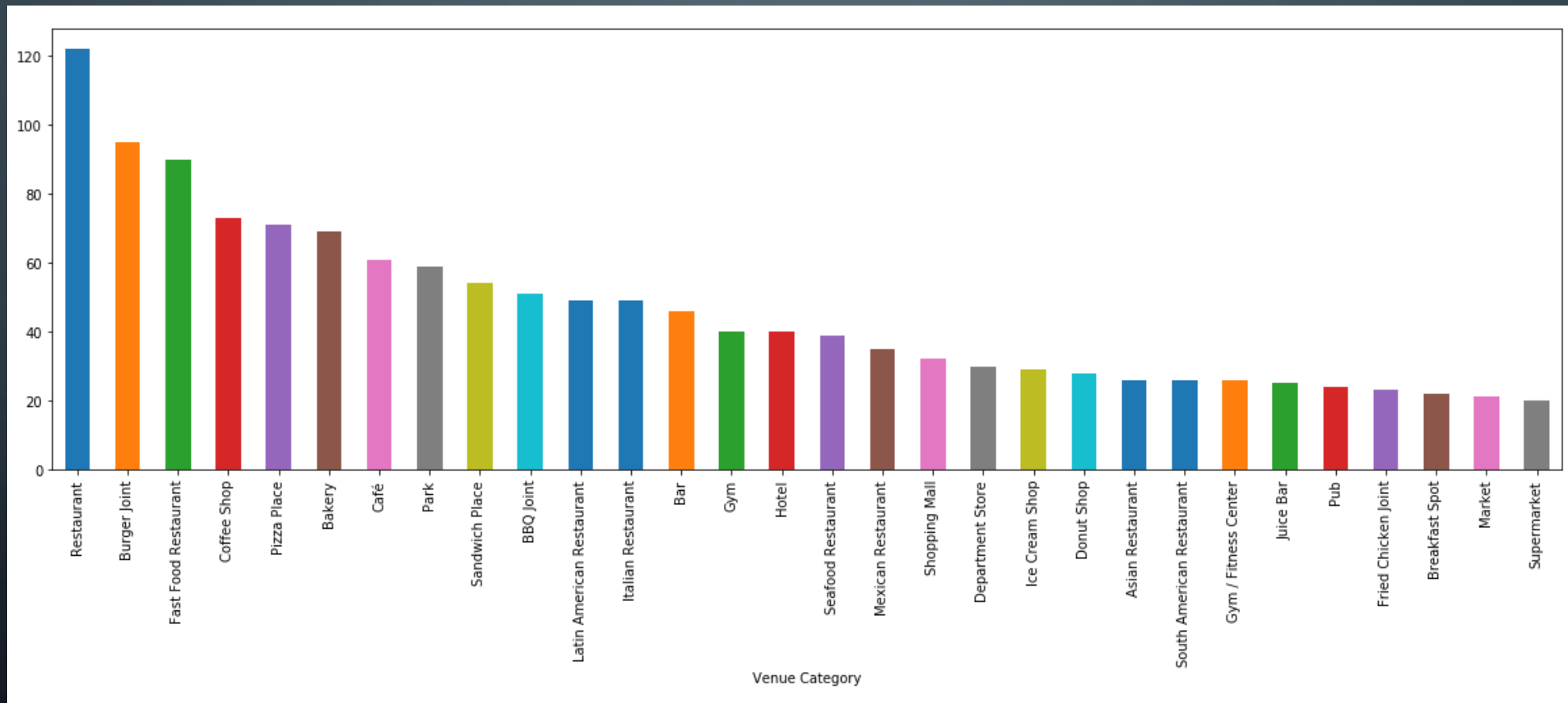
BOROUGH POPULATION / SURFACE



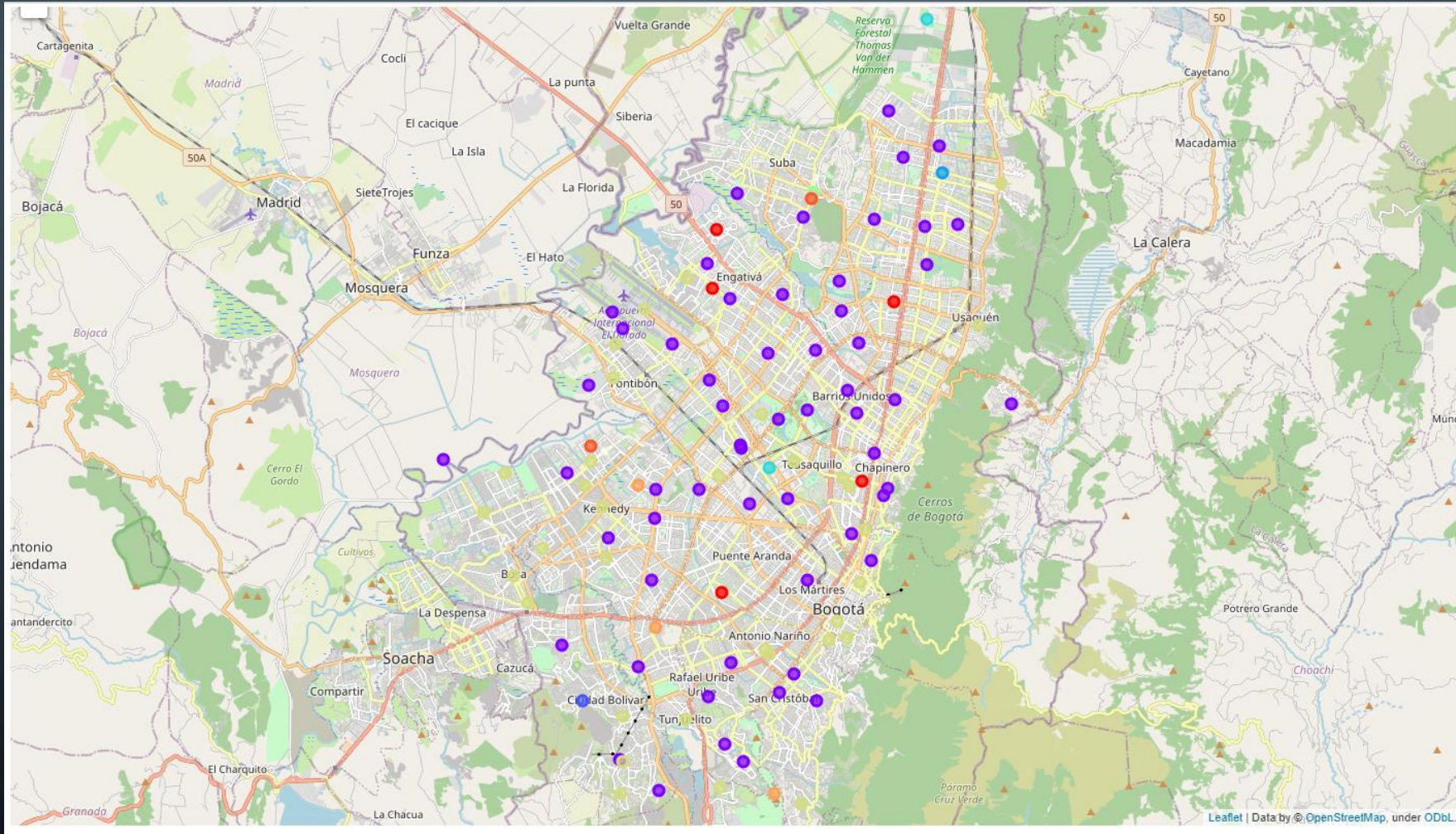
VENUES PER BOROUGH / NEIGHBORHOOD



NUMBER OF VENUES PER CATEGORY (TOP 30)



NEIGHBORHOODS CLUSTERING



BOROUGH CLUSTERS / COMMON VENUES

	Cluster Labels	Borough	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
0	3	Antonio Nariño	Restaurant	Pizza Place	Bakery	Sandwich Place	Seafood Restaurant	Park	Convenience Store	Steakhouse	Donut Shop	Drugstore
1	1	Barrios Unidos	Fast Food Restaurant	Restaurant	BBQ Joint	Bakery	South American Restaurant	Burger Joint	Latin American Restaurant	Seafood Restaurant	Dessert Shop	Café
2	1	Bosa	Coffee Shop	Fast Food Restaurant	Pizza Place	Gym	BBQ Joint	Shopping Mall	Asian Restaurant	Seafood Restaurant	Bakery	Movie Theater
3	1	Chapinero	Restaurant	Bar	Italian Restaurant	Burger Joint	Fast Food Restaurant	Café	Bakery	Coffee Shop	French Restaurant	Latin American Restaurant
4	4	Ciudad Bolívar	Park	Department Store	Music Store	Bus Station	BBQ Joint	Mexican Restaurant	Electronics Store	Non-Profit	Furniture / Home Store	Supermarket
5	1	Engativá	Fast Food Restaurant	Bowling Alley	BBQ Joint	Pizza Place	Restaurant	Sandwich Place	Fried Chicken Joint	Burger Joint	Movie Theater	Department Store
6	1	Fontibón	Airport Lounge	Coffee Shop	Burger Joint	Café	Fast Food Restaurant	Bar	Restaurant	Sandwich Place	Italian Restaurant	Gym
7	1	Kennedy	Park	Pizza Place	BBQ Joint	Burger Joint	Coffee Shop	Department Store	Seafood Restaurant	Fast Food Restaurant	Latin American Restaurant	Ice Cream Shop
8	1	La Candelaria	Nightclub	Restaurant	Soccer Field	Gay Bar	Coffee Shop	Burger Joint	Bar	Gym	Department Store	Vegetarian / Vegan Restaurant
9	3	Mártires	Shopping Mall	Restaurant	Clothing Store	Seafood Restaurant	Sandwich Place	Department Store	Convenience Store	Pizza Place	Bowling Green	Skate Park
10	1	Puente Aranda	Café	Restaurant	Latin American Restaurant	History Museum	Burger Joint	Italian Restaurant	Bakery	Coffee Shop	Caribbean Restaurant	Mexican Restaurant
11	0	Rafael Uribe	Supermarket	Coffee Shop	Event Service	Food Truck	Business Service	Bakery	Neighborhood	Park	Massage Studio	Department Store
12	1	San Cristóbal	Fast Food Restaurant	Restaurant	Bar	Bakery	Seafood Restaurant	Mexican Restaurant	Sandwich Place	BBQ Joint	Gym / Fitness Center	Park
13	1	Santa Fe	Restaurant	Sandwich Place	Café	Burger Joint	Mexican Restaurant	Peruvian Restaurant	Deli / Bodega	Tapas Restaurant	Bakery	Hotel
14	1	Suba	Fast Food Restaurant	Burger Joint	Restaurant	Bakery	Gym	Coffee Shop	Park	Sandwich Place	Latin American Restaurant	Pizza Place
15	1	Teusaquillo	Restaurant	Hotel	Burger Joint	Pizza Place	Coffee Shop	Bakery	Seafood Restaurant	Ice Cream Shop	Park	Sandwich Place
16	2	Tunjuelito	Park	Movie Theater	Food Truck	Bus Station	Mexican Restaurant	Shopping Mall	Arepa Restaurant	Pet Store	Café	Event Space
17	1	Usaquén	Burger Joint	Pizza Place	Italian Restaurant	Gym	Coffee Shop	Steakhouse	Bar	Restaurant	Hotel	Latin American Restaurant
18	1	Usme	Café	Bakery	Department Store	Fast Food Restaurant	Restaurant	Mexican Restaurant	Bar	Pool	Shopping Mall	Pizza Place

CONCLUSION

- The most common venues in each borough are not related to the population, major part of the boroughs and neighborhoods fit with one cluster
- Boroughs that were left alone in a cluster are characterized by being small and having a very low venues quantity.
- Items in small clusters are the target that we were looking for, they represent areas with a different venues distribution and can become areas where to start new businesses
- A great interest in restaurants and bars is evident, but there are other categories growing like gyms and sport scenarios.