Characterizing the neighborhoods of Sant Martí, Barcelona
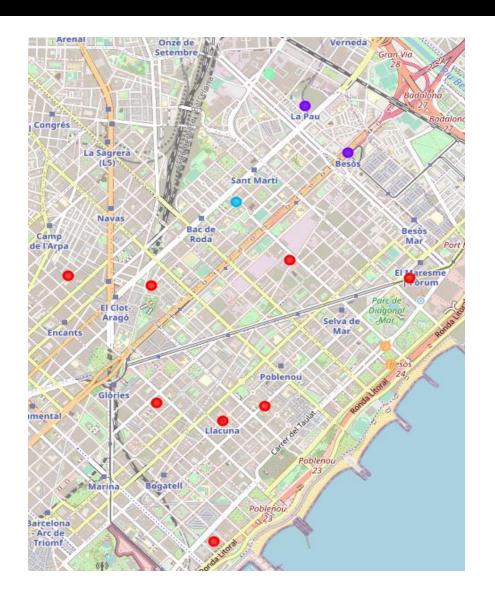
The value of characterizing the neighborhoods

- Characterizing the neighborhoods is valuable for all the people who go over there.
- Can be different type and subtypes of neighborhoods.
  - Holidays
    - Local people
    - Tourism
      - Beach
      - Mountain
      - City
      - Forest
  - Work
  - Residential
    - Upper class
    - Middle class
    - Lower class
  - Food
    - Restaurants
    - Fast Food
    - Chill Food
  - Sports
- Each type of neighborhood has its own value for different type of people at the same time.

Data acquisition and cleaning

- Borough names and Neighborhood names from Wikipedia dataset, data scraped from https://en.wikipedia.org/wiki/Districts_of_Barcelona.

- Neighborhood center locations (latitude and longitude) and venue information, data scraped from Foursquare API.

- In total, 796 rows and 169 categories in the raw dataset.

- Cleaned data contain 14 rows and 169 columns (Neighborhood and Venue Categories).

By geographical location

- 3 clusters (2, 3 and 4) are in the north
- 1 cluster (1) is in west, center, east and south
- 1 cluster (5) is in south-east

By venue categories[1]

- Cluster 1 (red), includes most of neighborhoods, is characterized by having places for crowded eating and some tourism.
- Cluster 2 (purple), is characterized by having chill eating places or to buy food and some transport stations (Café, Tapas, Supermarket, Bar, Breakfast, Tram Station, Metro Station).
- Cluster 3 (light-blue), is characterized by having a variety of food places (Restaurants, Supermarket, Coffee, Pizza).
- Cluster 4 (light-green), is characterized by having sports and food places (Food, Athletics & Sports, Soccer Field, Restaurants).
- Cluster 5 (orange), is characterized by having beach places where you can eat (Beach, Beach Bars, Restaurants).

Conclusion

- Data collected, once cleaned, contain 14 rows (neighborhoods) and 169 columns (venue categories).

- The data are clustered by 5 types.

- Clusters are analyzed by location and by venue categories.

Appendix

- 1:

Neighborhood	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
el Maresme	Café	Hotel	Italian Restaurant	Diner	Restaurant	Burger Joint	Ice Cream Shop	Cafeteria	Big Box Store	Cocktail Bar
el Clot	Spanish Restaurant	Tapas Restaurant	Mediterranean Restaurant	Café	Coffee Shop	Hotel	Restaurant	Supermarket	Plaza	Park
El Camp de l'Arpa del Clot	Bakery	Grocery Store	Hotel	Pizza Place	Café	Restaurant	Spanish Restaurant	Italian Restaurant	Mediterranean Restaurant	Burger Joint
el Parc	Hotel	Bar	Restaurant	Clothing Store	Spanish Restaurant	Mediterranean Restaurant	Tapas Restaurant	Coffee Shop	Music Venue	Sandwich Place
la Llacuna del Poblenou	Spanish Restaurant	Mediterranean Restaurant	Bakery	Italian Restaurant	Gastropub	Coffee Shop	Pizza Place	Restaurant	Empanada Restaurant	Cocktail Bar
Poblenou	Spanish Restaurant	Mediterranean Restaurant	Bakery	Italian Restaurant	Restaurant	Pizza Place	Indian Restaurant	Gastropub	Café	Tapas Restaurant
Provençals del Poblenou	Spanish Restaurant	Asian Restaurant	Pedestrian Plaza	Pizza Place	Mediterranean Restaurant	Bistro	Liquor Store	Soccer Field	Café	Recreation Center
la Vila Olímpica del Poblenou	Restaurant	Mediterranean Restaurant	Café	Italian Restaurant	Hookah Bar	Nightclub	Paella Restaurant	Spanish Restaurant	Lounge	Bar

Appendix

- 1:

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El Besòs	Tapas Restaurant	Tram Station	Metro Station	Café	Breakfast Spot	Pedestrian Plaza	Vegetarian / Vegan Restaurant	Restaurant	Plaza	Market
la Pau	Café	Supermarket	Tapas Restaurant	Fast Food Restaurant	Bar	Plaza	Pharmacy	Coffee Shop	Hardware Store	Falafel Restaurant

Neighborhood	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
Sant Martí de Provençals	Spanish Restaurant	Supermarket	Coffee Shop	Soccer Field	Grocery Store	Pizza Place	Bakery	Pedestrian Plaza	Pawn Shop	Park

Neighborhood	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
La Verneda	Food	Coffee Shop	Fast Food Restaurant	Soccer Field	Metro Station	Athletics & Sports	Smoke Shop	Empanada Restaurant	Flea Market	Farmers Market

Neighborhood	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
Diagonal Mar	Mediterranean Restaurant	Restaurant	Hotel	Beach	Italian Restaurant	Beach Bar	Park	Café	Cafeteria	Fast Food Restaurant
el Front Marítim del Poblenou	Mediterranean Restaurant	Restaurant	Beach Bar	Beach	Café	Athletics & Sports	Hotel	Park	Cocktail Bar	Fast Food Restaurant