Capstone project – final presentation

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Introduction and Business Problem

Gennaro wants to open a new B&B in Naples in Italy. Ciro requested an evaluation based on the proximity of - transport - monuments - and of course the presence of pizzerias.

Date

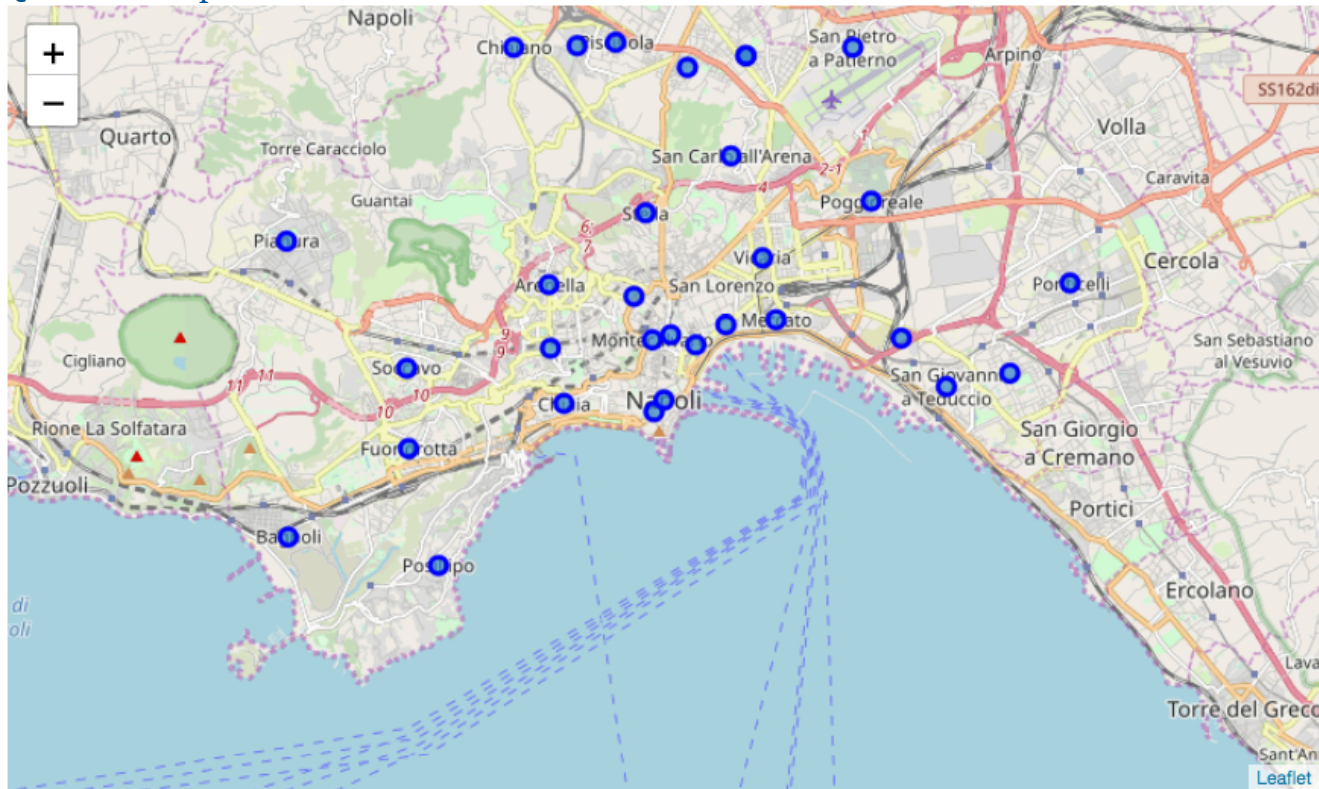To help Gennaro in his search we will need to access following data:
- The Localities of Naples, Italia from Wikipedia: https://it.wikipedia.org/wiki/Quartieri_di_Napoli
- The coordinates (latitude, longitude) ot these Localities of Naples from Open Street Map APIs
- From Foursquare we will need following venues data: - the b&b venues of the Localities   - the metro venues of the Localities   - the monuments venues of the Localities   - the pizzerias venues of the Localities

We will then leverage the data to determine which locality is most appropriate in order to locate the b&B
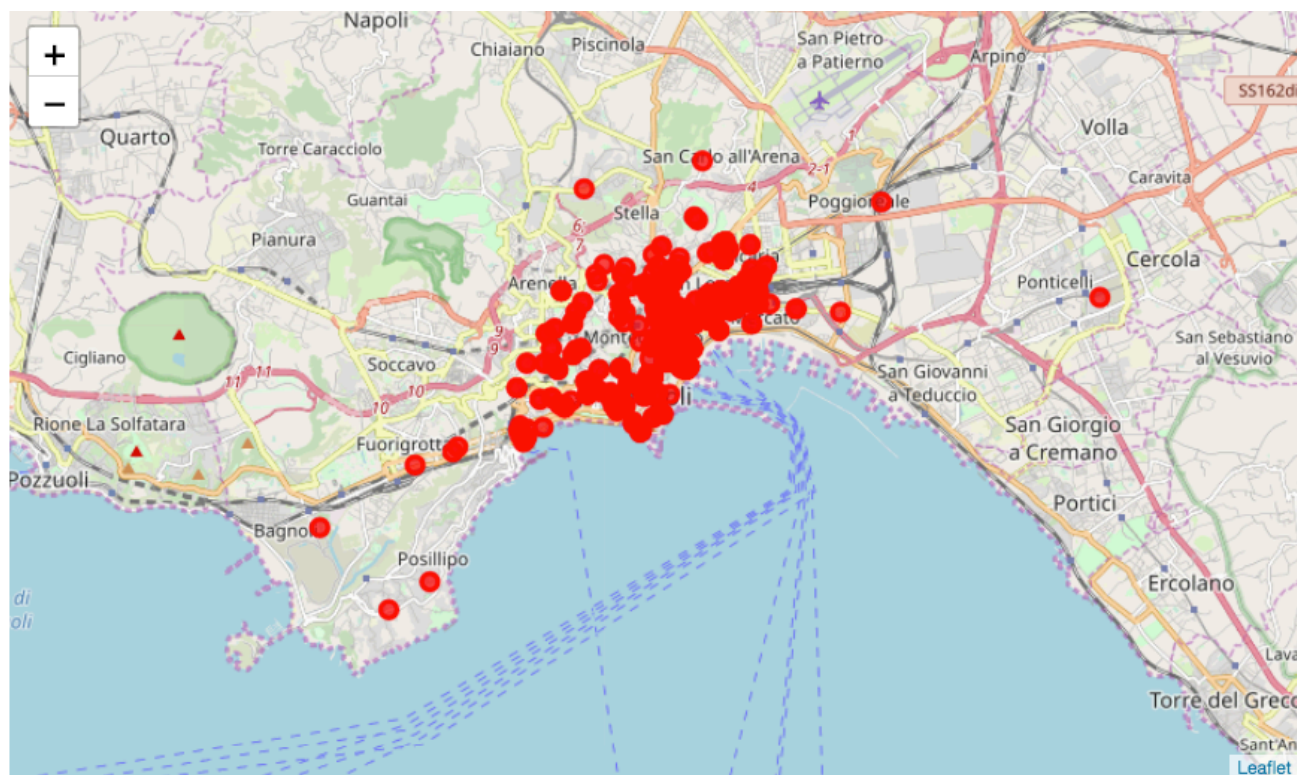
Methodology

- For each locality, metro, monuments, pizzerias and b&b venues data have been collected from Foursquare.
- Then for each locality, the sums of the metro station, monuments, pizzerias and B&B were computed.
- For each of this 4 categories, a weight (or penalty) has been defined according to what Gennaro considers the most important.
  - B&B have been weighted with -1, since Gennaro wants to avoid concurrence.
  - Monuments have been weighted with 1.5, since monuments are most important for turism.
  - Metro stations are most important have been weighted with 1
  - Pizzerias have been weighted with 2, pizzerias are even most attractive.
- Note that the weights can be modified according to the importance of each category.
- Lastly, a score was computed for each locality as the weighted sum of the number of venues in each of the 4 categories (metro, monuments, pizzerias, b&b).
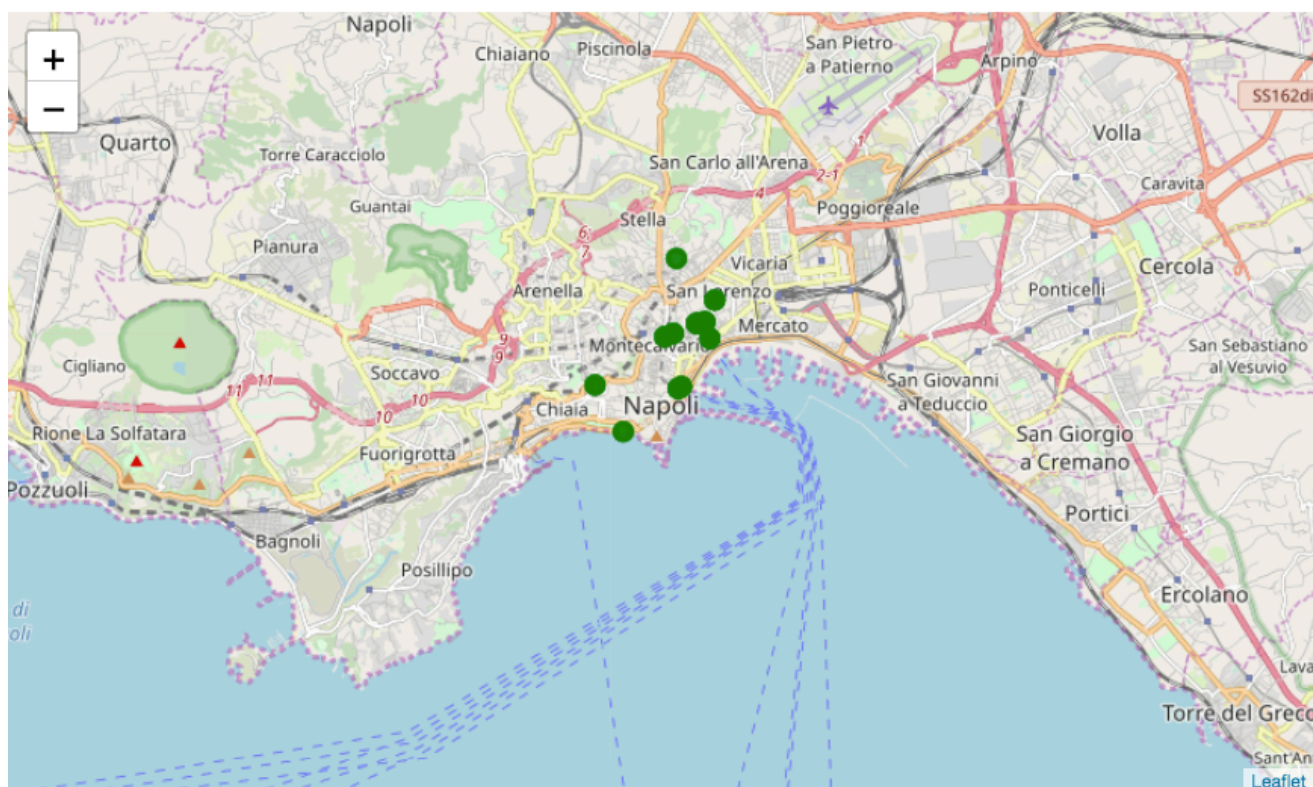
Quartes of Naples

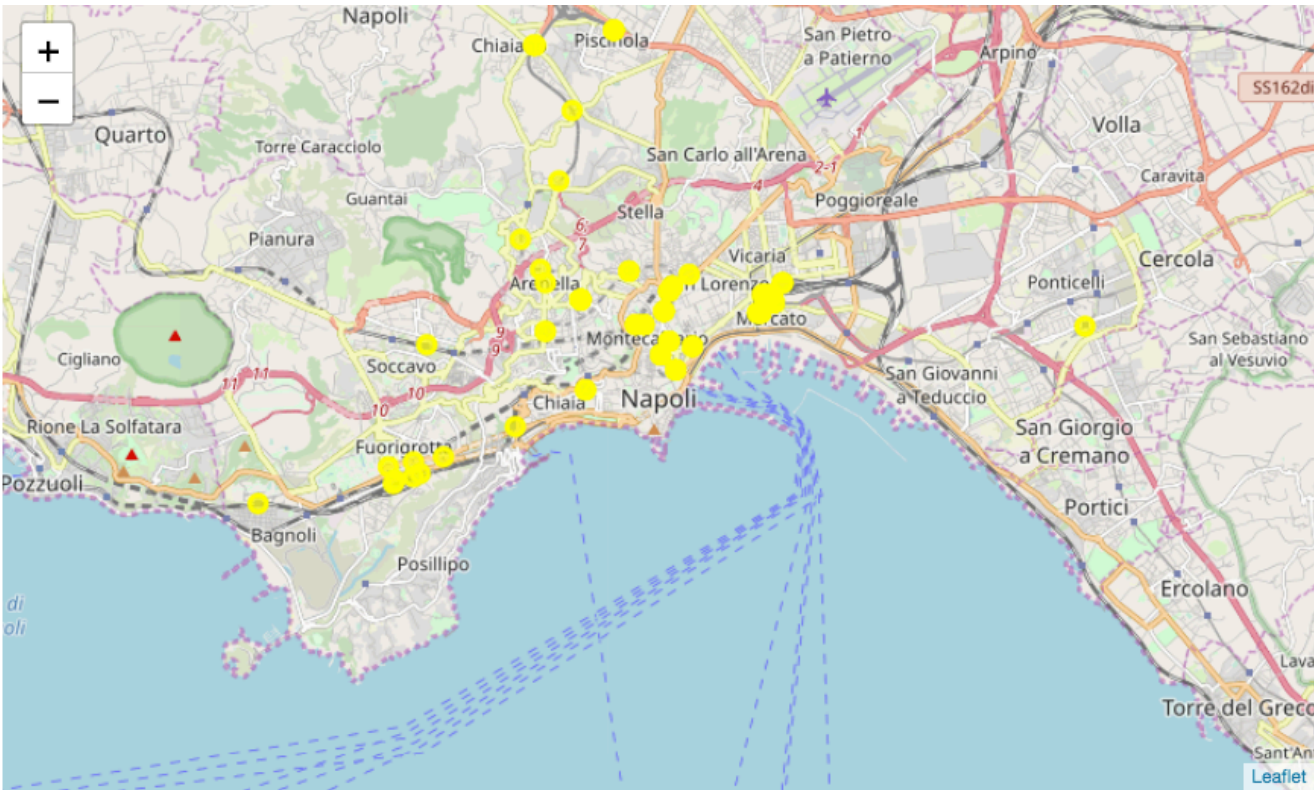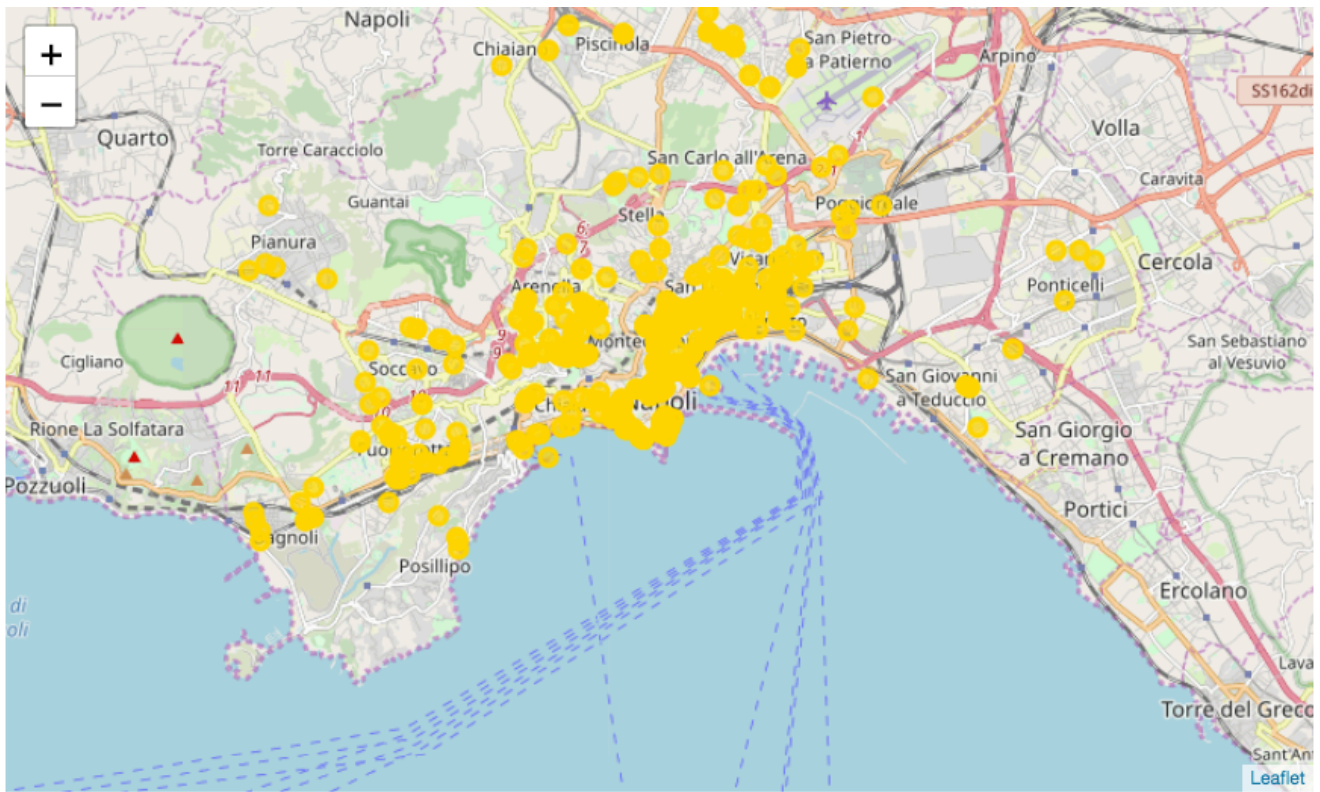|	Quarters	Latitude	Longitude
0	Arenella	40.853741	14.225307
1	Avvocata	40.852078	14.242672
2	Bagnoli	40.814694	14.171709
3	Barra	40.839954	14.319866
4	Chiaia	40.835269	14.228268
5	Chiaiano	40.890758	14.218025
6	Fuorigrotta	40.828352	14.196400
7	Marianella	40.890968	14.231026
8	Mercato	40.848357	14.271930
9	Miano	40.887580	14.253696
10	Montecalvario	40.845127	14.246372
11	Pendino	40.847646	14.261653
12	Pianura	40.860653	14.171256
13	Piscinola	40.891480	14.239064
14	Poggioreale	40.866789	14.291461
15	Ponticelli	40.853952	14.332453
16	Porto	40.844441	14.255359
17	Posillipo	40.810206	14.202435
18	San Carlo all'Arena	40.873880	14.262784

B&B in Naples

Monuments in Naples Quarters

Metro Station in Naples Quarters

Pizzerias in Naples Quarters

Results

	Quarter	Score
11	Pendino	72.0
10	Montecalvario	71.5
16	Porto	71.0
21	San Giuseppe	69.5
6	Fuorigrotta	64.0
25	1992	60.5
19	San Ferdinando	60.0
30	Vicaria	46.5
1	Avvocata	44.0
8	Mercato	40.5
0	Arenella	40.0
31	Vomero	34.5
4	Chiaia	33.5
27	Secondigliano	32.0
26	Secondigliano	32.0
28	Soccavo	23.0
2	Bagnoli	18.0
14	Poggioreale	11.0
7	Marianella	11.0

- The Locality with the best score is "Pendino" with 72.0, being the best option.
- Follows closely "Montecalvario" with 71.

Best Place for the B&B in Naples is "Pendino"