Cairo Covid-19 Explore Analysis

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Agenda

- Problem statement
- Data overview
- Methodology
- Results
- Discussion
- conclusion

Problem Statement

- The problem is the exponential growth of Covid-19 cases.
- The strategy is to slowdown this growth by targeting the areas with:
  - has the highest population
  - highest traffic (i.e many visitors).

Data Overview

- This dataset has 75 rows and 3 columns (Governorates, Neighborhoods and Population).

- It represents the population of neighborhoods in Cairo.

	Governorate	Neighborhood	Population
0	Al-Qāhirah	15 Māyū [15th of May City]	96522
1	Al-Qāhirah	'Ābidīn	41605
2	Al-Qāhirah	Ad-Darb al-Aḥmar	60336
3	Al-Jīzah	Ad-Duqqī	73309
4	Al-Qāhirah	'Ain Schams	633798

Data Overview (Cont.)

- The previous dataset is grouped by Governorate and summed by population.
- The Governorate with the highest population is chosen.

	Governorate	Population
Al-Jīzah	Al-Jīzah	7056914
Al-Qalyūbyah	Al-Qalyūbyah	3742834
Al-Qāhirah	Al-Qāhirah	9840591
Ash-Sharqiyah	Ash-Sharqiyah	234770

Data Overview (Cont.)
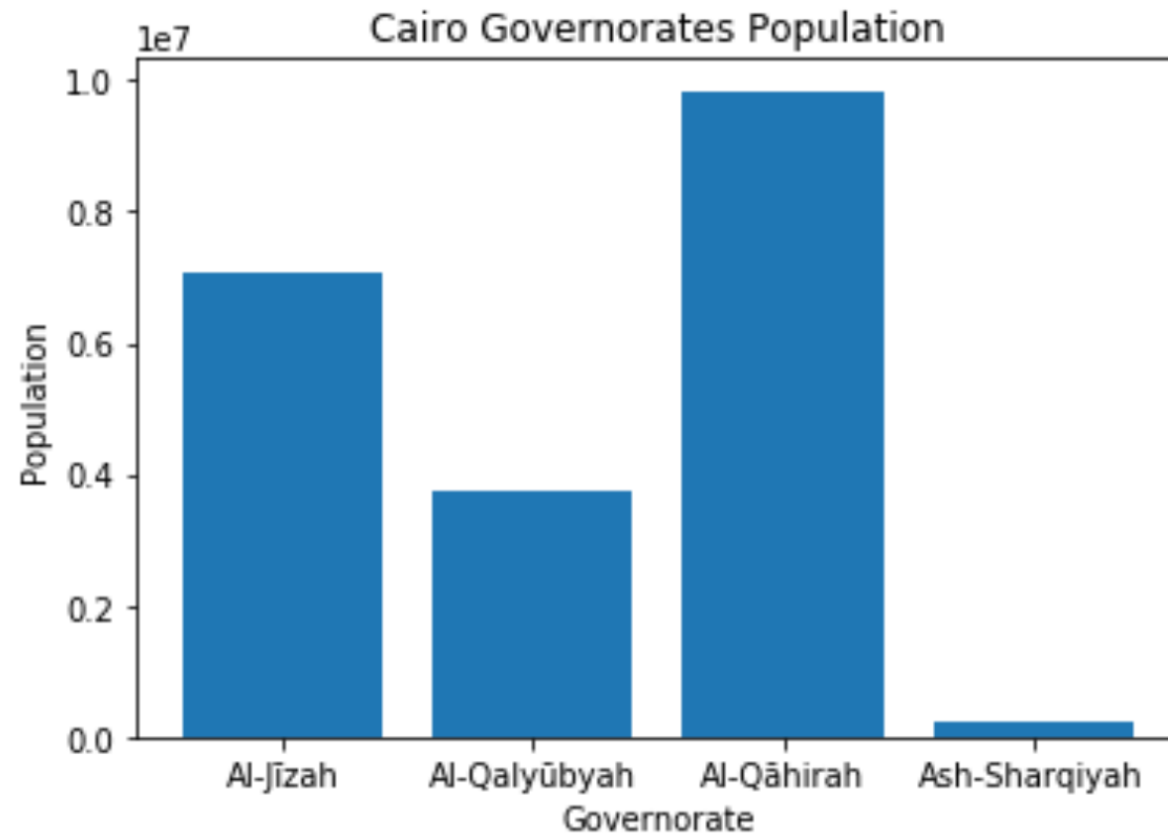
Data Overview (Cont.)

- Foursquare API is used to get the popular venues in 'Al-Qāhirah'

	name	categories	lat	lng	items
0	Halawa (حلاوه)	Clothing Store	30.050450	31.244201	[{'summary': 'This spot is popular', 'type': '...
1	Simonds	Coffee Shop	30.049971	31.242260	[{'summary': 'This spot is popular', 'type': '...
2	Happy City Roof Bar	Hotel Bar	30.046346	31.243932	[{'summary': 'This spot is popular', 'type': '...
3	Dar El Maaref (دار المعارف)	Bookstore	30.050467	31.242328	[{'summary': 'This spot is popular', 'type': '...
4	El Abd (العبد)	Pastry Shop	30.049617	31.239840	[{'summary': 'This spot is popular', 'type': '...
5	Costa Coffee	Coffee Shop	30.048983	31.242256	[{'summary': 'This spot is popular', 'type': '...
6	Kunst Gallery & Cafe	Café	30.049947	31.242113	[{'summary': 'This spot is popular', 'type': '...

Results

- Plotting all the popular places existing in the Governorate with the highest population in Great Cairo.

- The highest populated Governorate is found to be 'Al-Qāhirah' with population = 9.8 million.

Results (Cont.)
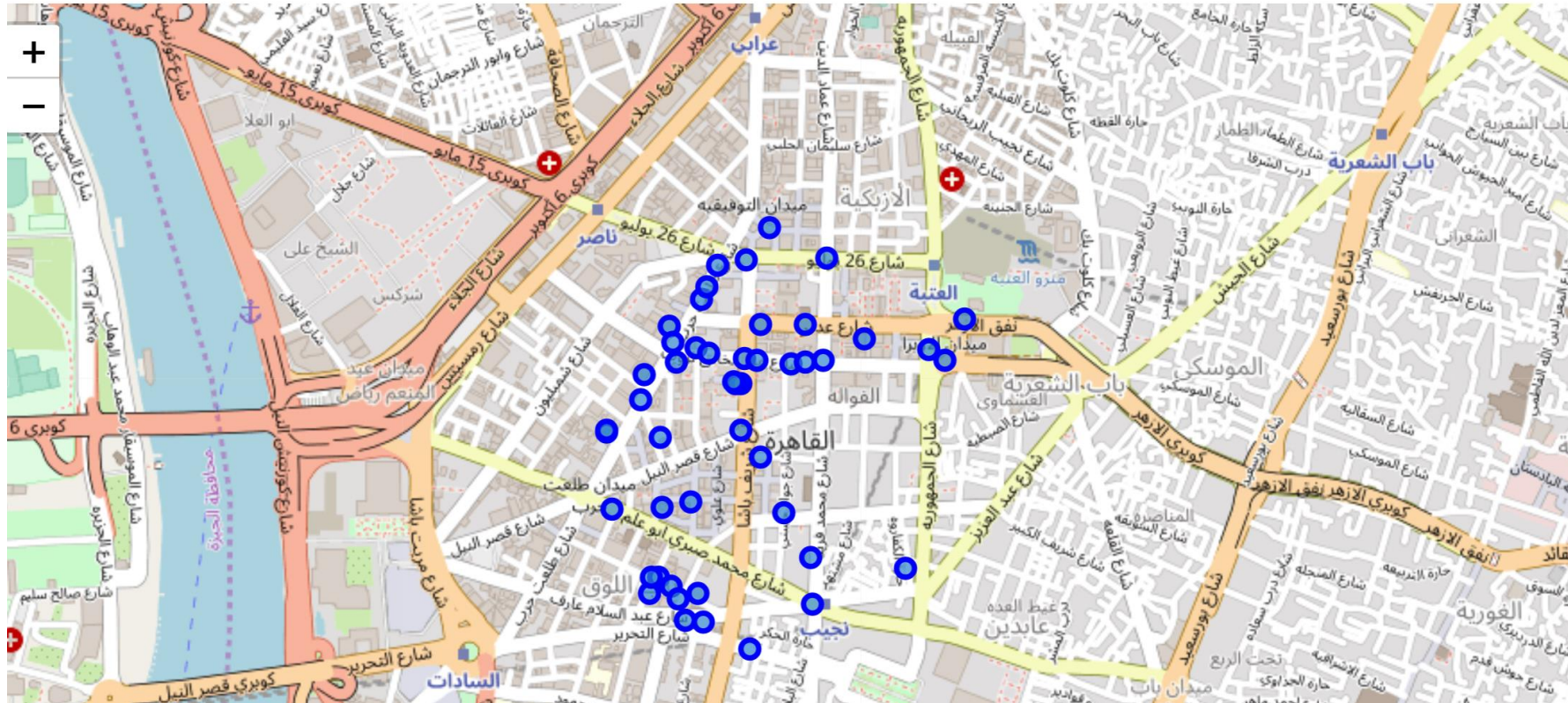
Discussion

- Two data resources were used to reach the places with the highest probability of Covid-19 virus spread inside Cairo.

- The first data resource was the population data of all Governorates inside Cairo

- The second resource was the Foursquare API dataset by exploring the most popular nearby venues in the governorate with the highest population (which was obtained from the first data resource)

- The highest populated Governorate is 'Al-Qāhirah', which venues was explored.

Conclusion

- 'Al-Qāhirah' was the highest population governorate data was used from city population website.

- Foursquare API was used to obtain the popular venues in the 'Al-Qāhirah'

- A map was plotted with the popular venues to guide the Egyptian government to do massive scans on people in these places to find out the most possible number of positive cases with Covid-19 virus. Hence slow down the growth rate of the pandemic.