



Covid-19 and Venues in New York City

Presenter: Shiyun Zhang



Finding a relationship between Covid-19 and Venues In NYC

Covid-19 has affected people's daily lives since March 2020 and the number of Covid-19 cases is still increasing. Finding a relationship between Covid-19 and Venues in New York City will help people get better understanding on Covid-19 and help reduce chances to be affected.



Data acquisition and preparation

- NYC Covid-19 data from nyc.gov
- NYC population data from newyork-demographics.com
- New York City zip code list from health.ny.gov
- Venue data From Foursquare API
- Coordinates of neighbourhood /zip code centers will be obtained using Google Maps geocoding



Combine needed data into one table

	ZIPCODE	Neighborhood	Borough	Covid-Cases	Population	Covid-Cases Percentage
0	10001	Chelsea/NoMad/West Chelsea	Manhattan	485	22924	0.021157
1	10002	Chinatown/Lower East Side	Manhattan	1486	74993	0.019815
2	10003	East Village/Gramercy/Greenwich Village	Manhattan	740	54682	0.013533
3	10004	Financial District	Manhattan	60	3028	0.019815
4	10005	Financial District	Manhattan	121	8831	0.013702

Now we have zipcode, neighborhood, borough, covid-cases, population and covid-cases percentage in one table



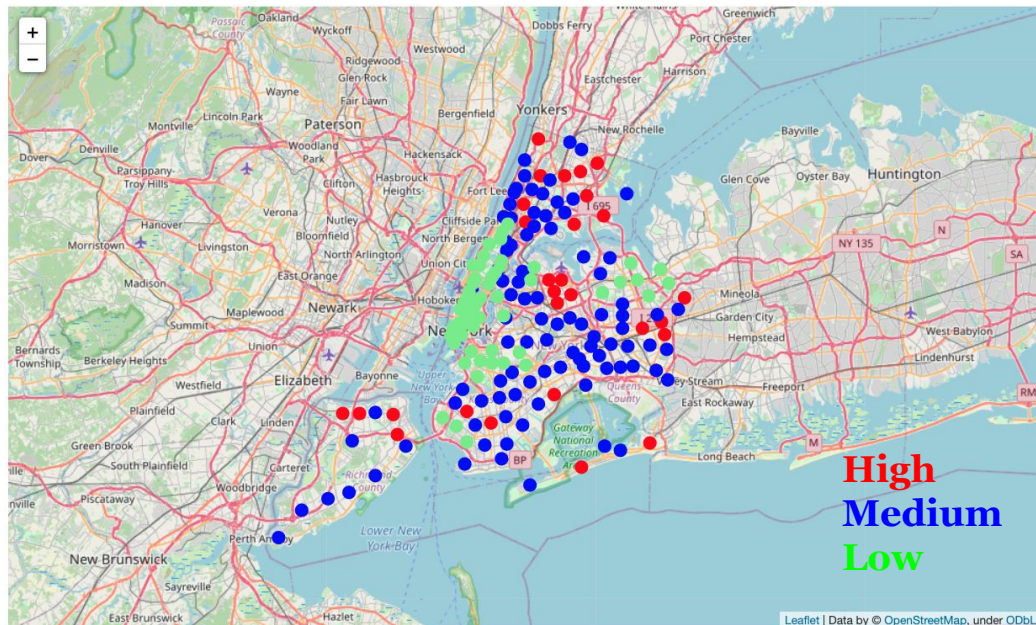
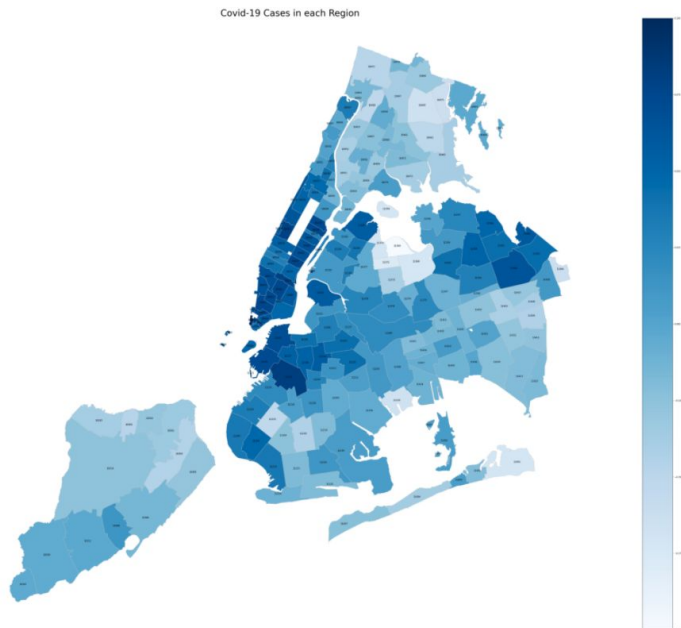
Categorize the number of covid cases into 'High', 'Medium', and 'Low'

- Covid-Cases Percentage = Covid-Cases / Population

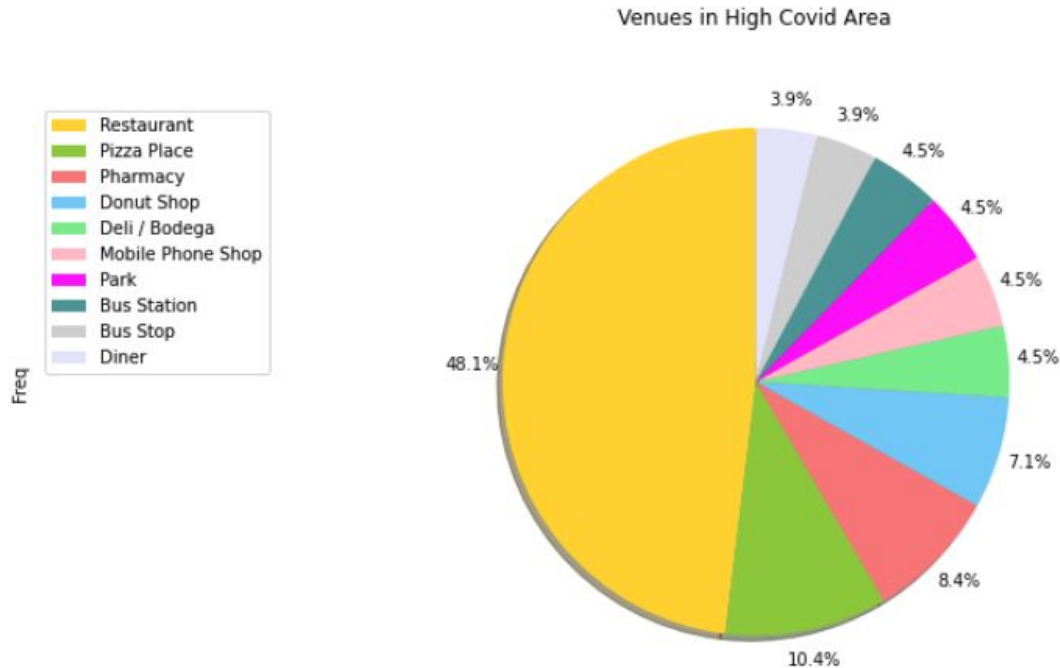
We will use the Covid-Cases Percentage to do data binning

	ZIPCODE	Neighborhood	Borough	Covid-Cases	Population	Covid-Cases Percentage	CovidCases-binned
0	10001	Chelsea/NoMad/West Chelsea	Manhattan	485	22924	0.021157	Low
1	10002	Chinatown/Lower East Side	Manhattan	1486	74993	0.019815	Low
2	10003	East Village/Gramercy/Greenwich Village	Manhattan	740	54682	0.013533	Low
3	10004	Financial District	Manhattan	60	3028	0.019815	Low
4	10005	Financial District	Manhattan	121	8831	0.013702	Low

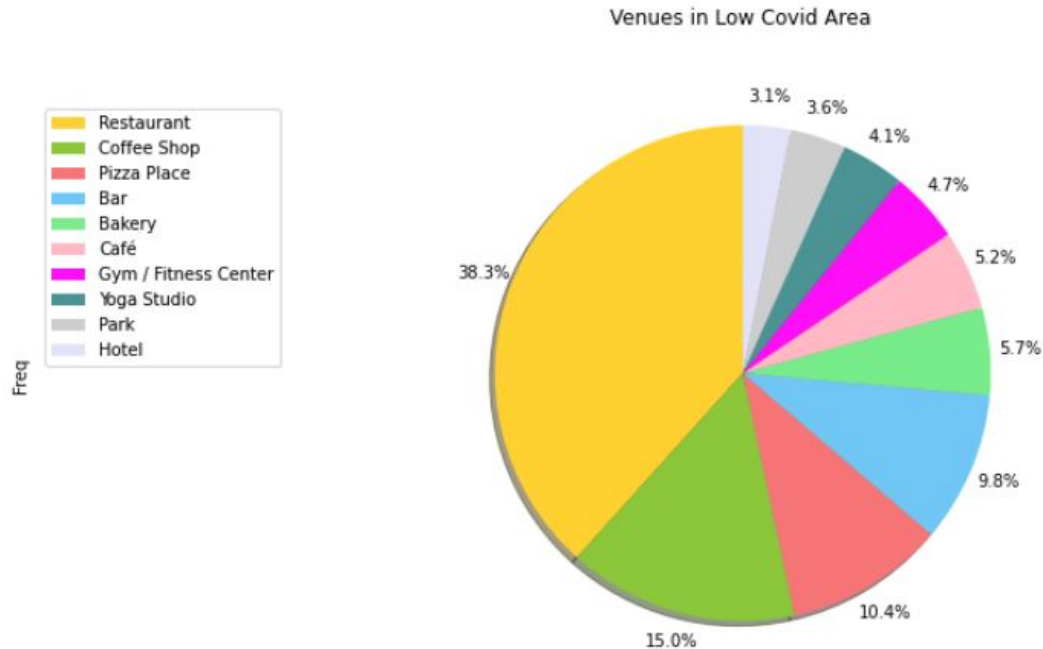
Covid-19 In NYC



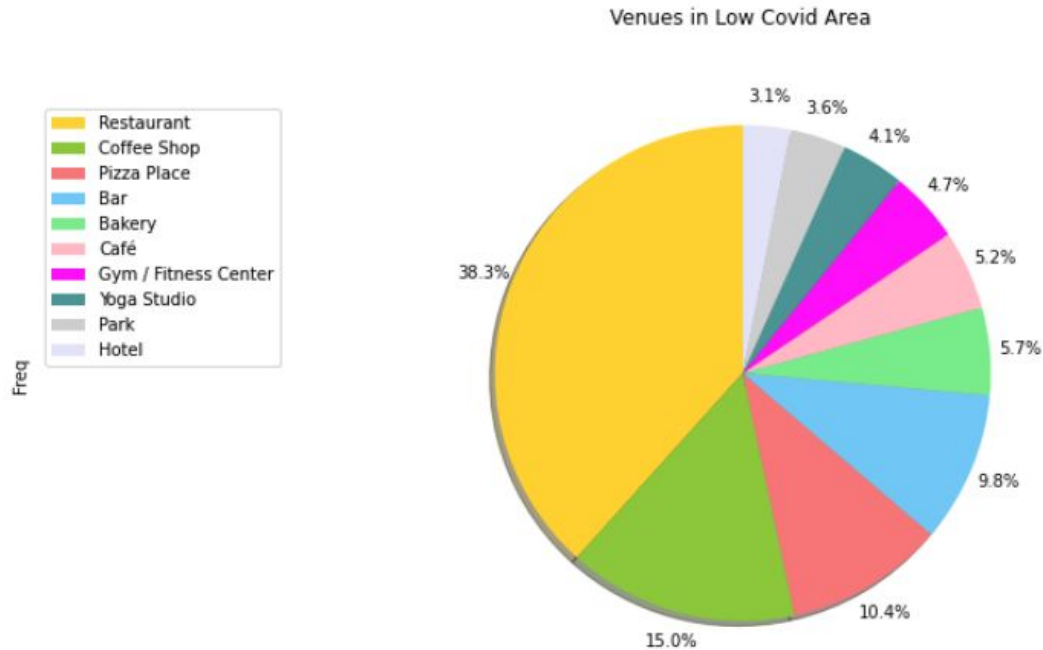
Venues in High Covid Area



Venues in Medium Covid Area



Venues in Low Covid Area





Compare The High, Medium and Low Area

	High Covid Venue	Medium Covid Venue	Low Covid Venue
0	Restaurant	Restaurant	Restaurant
1	Pizza Place	Pizza Place	Coffee Shop
2	Pharmacy	Bank	Pizza Place
3	Donut Shop	Deli / Bodega	Bar
4	Deli / Bodega	Pharmacy	Bakery
5	Mobile Phone Shop	Bakery	Café
6	Park	Grocery Store	Gym / Fitness Center
7	Bus Station	Coffee Shop	Yoga Studio
8	Bus Stop	Sandwich Place	Park
9	Diner	Supermarket	Hotel

The different between the High Covid Area and The Medium and Low Covid Area is the **Bus Station** and **Bus Stop**



Conclusion

- The different between High Covid Area Venues and the Medium and Low Covid Area Venues are **Bus Station** and **Bus Stop**.
- Covid-19 is a contagious respiratory and vascular disease.
- People have more chance to be affected if they travel with public transit