

# Battle of Neighborhoods - All about Italian Restaurants in NYC

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# Veronica's problem

Travel Writer

**IF I HAVE ONLY ONE NIGHT IN NEW YORK CITY AND I WANT TO MAXIMISE MY TIME OF FINDING THE GOOD RATING ITIAN RESTAURANT?**

As a travel writer, tasting different food has become Veronica's must-do in her travels. This time, she is in New York and will be exploring some of the best Italian restaurants in this metropolitan city.

The problem is, Veronica has a very short time – only one night in New York City and she can't travel far as she has other work to do there. In this case, she just wants to explore one or two the best-rating Italian restaurants near where she is staying. She is also keen to find out the neighbourhoods where there are most Italian restaurants so that she can better plan her trip next time.





# Data

01

**NEW YORK CITY DATA THAT CONTAINS LIST BOROUGHHS, NEIGHBOURHOODS ALONG WITH THEIR LATITUDE AND LONGITUDE.**

Data source: [https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset)

Description: This data set contains the required information. And we will use this data set to explore various neighbourhoods of New York city.

02

**ITALIAN RESTAURANTS IN EACH NEIGHBOURHOOD OF NEW YORK CITY.**

Data source: FourSquare API

Description: By using this API we will get all the venues in each neighbourhood. We can filter these venues to get only Italian restaurants.

# Questions that can be asked using the above-mentioned datasets

- What is best location in New York City for Italian cuisine?
- What areas lack Italian restaurants?





# Methodologies

numpy, pandas, json, geopy, requests, matplotlib, sklearn, and folium to conduct the analysis and draw my conclusion based on the analytical evidence.

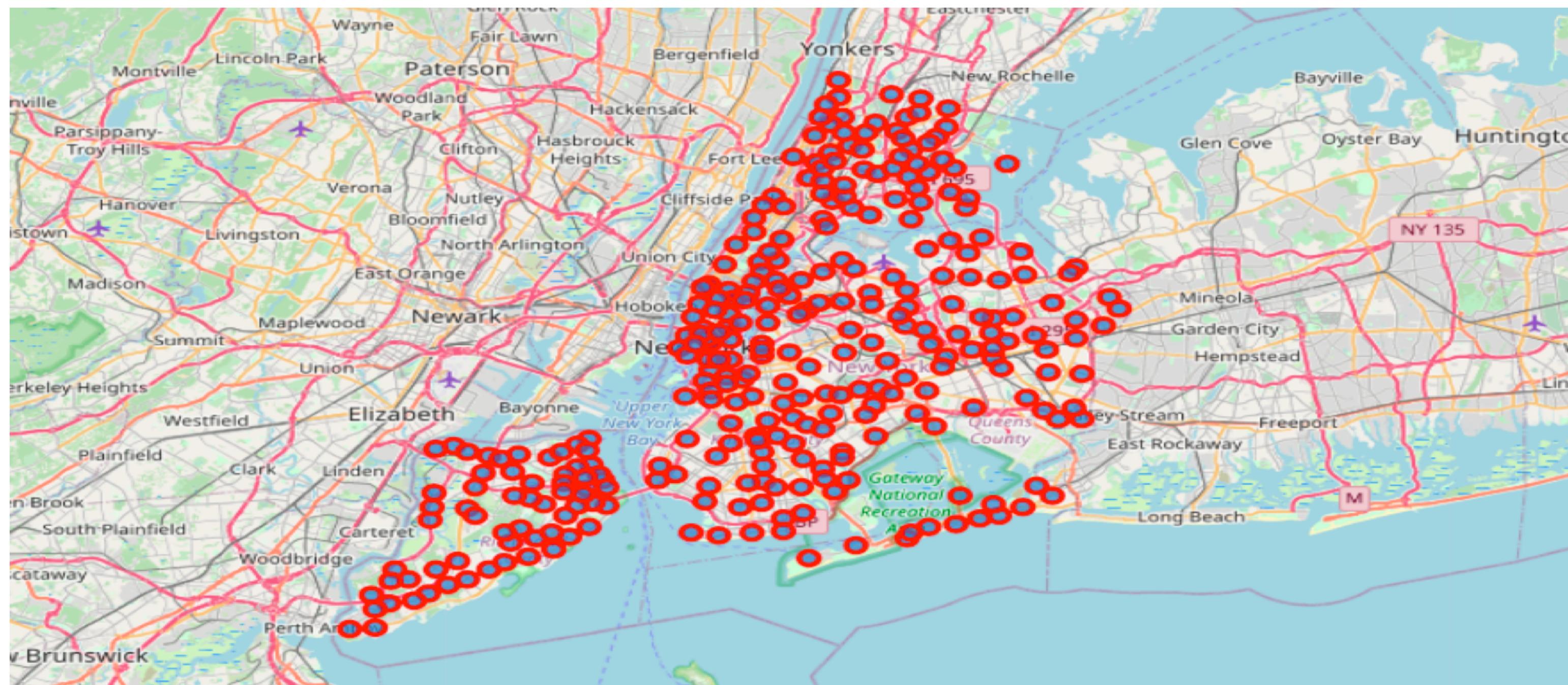
Neighbourhoods in Bronx and their latitude and longitude.

In [8]: newyork\_boroughs.head()

Out[8]:

	Borough	Neighborhood	Latitude	Longitude
0	Bronx	Wakefield	40.894705	-73.847201
1	Bronx	Co-op City	40.874294	-73.829939
2	Bronx	Eastchester	40.887556	-73.827806
3	Bronx	Fieldston	40.895437	-73.905643
4	Bronx	Riverdale	40.890834	-73.912585

From the map generated with Folium we are able to see all the five boroughs of New York with circle markers on all neighbourhoods.



## The first 5 neighbourhoods in Manhattan.

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[12]:	Borough	Neighborhood	Latitude	Longitude
0	Manhattan	Marble Hill	40.876551	-73.910660
1	Manhattan	Chinatown	40.715618	-73.994279
2	Manhattan	Washington Heights	40.851903	-73.936900
3	Manhattan	Inwood	40.867684	-73.921210
4	Manhattan	Hamilton Heights	40.823604	-73.949688

# Findings

There are five Italian restaurants near Veronica's vicinity.

[21]:		name	categories	address	crossStreet	lat	lng	labeledLatLngs	distance	postalCode	cc	city	state	country	formattedAddress
0	Quality Italian	Italian Restaurant	57 W 57th St	at 6th Ave	40.764513	-73.976827	[{"label": "display", "lat": 40.76451329448865, "lng": -73.976827}]	227	10019	US	New York	NY	United States	[57 W 57th St (at 6th Ave), New York, NY 10019, United States]	
1	Harry's Italian Pizza Bar	Pizza Place	30 Rockefeller Plz		NaN	40.759155	-73.979007	[{"label": "display", "lat": 40.75915521536279, "lng": -73.979007}]	432	10112	US	New York	NY	United States	[30 Rockefeller Plz, New York, NY 10112, United States]
2	Serifina Italian	Italian Restaurant	Broadway & 55th Street		NaN	40.764492	-73.982426	[{"label": "display", "lat": 40.76449174480557, "lng": -73.982426}]	555	10019	US	New York	NY	United States	[Broadway & 55th Street, New York, NY 10019, United States]
3	Italian Government Tourist Board	Tourist Information Center	NaN		NaN	40.759433	-73.977502	[{"label": "display", "lat": 40.75943312941940, "lng": -73.977502}]	353	10111	US	New York	NY	United States	[New York, NY 10111, United States]
4	Jimmi's Italian	Italian Restaurant	236 W 56th St		NaN	40.764267	-73.982631	[{"label": "display", "lat": 40.76426695403975, "lng": -73.982631}]	561	10019	US	New York	NY	United States	[236 W 56th St, New York, NY 10019, United States]
5	La Vineria Ristorante Italiano	Italian Restaurant	21 W 55th St		NaN	40.761848	-73.975345	[{"label": "display", "lat": 40.761848, "lng": -73.975345}]	114	10019	US	New York	NY	United States	[21 W 55th St, New York, NY 10019, United States]
6	Lavo	Nightclub	39 E 58th St	btwn Park & Madison Ave	40.762919	-73.971338	[{"label": "display", "lat": 40.76291916804997, "lng": -73.971338}]	428	10022	US	New York	NY	United States	[39 E 58th St (btwn Park & Madison Ave), New York, NY 10022, United States]	
7	Danielle B.	Jewelry Store	871 7th Ave	btw 55th & 56th Street	40.764468	-73.980546	[{"label": "display", "lat": 40.7644682479584, "lng": -73.980546}]	413	10019	US	New York	NY	United States	[871 7th Ave (btw 55th & 56th Street), New York, NY 10019, United States]	
8	La Camiceria Italiana	Accessories Store	509 Madison Ave		NaN	40.759445	-73.974124	[{"label": "display", "lat": 40.759445, "lng": -73.974124}]	389	10022	US	New York	NY	United States	[509 Madison Ave, New York, NY 10022, United States]

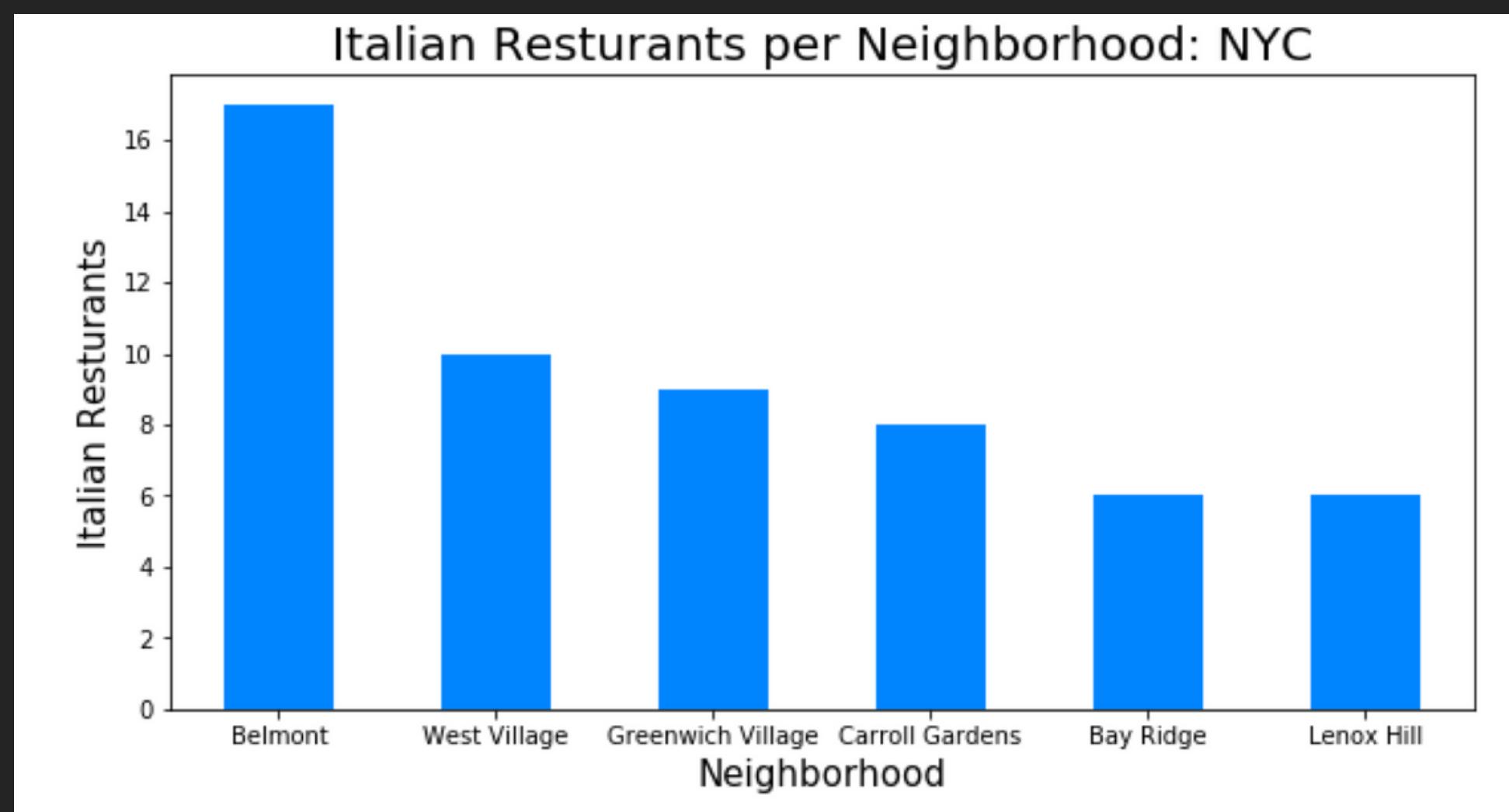
# Findings

Since Veronica is very tight on time and she doesn't want to travel far, we have chosen the first one, Quality Italian, as a starting point. The rating of the restaurant turns out not too bad: 8/10.

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[25]: try:  
    print(result['response']['venue']['rating'])  
except:  
    print('This venue has not been rated yet.')  
  
8.0
```

# Findings

Other areas that Veronica can explore for Italian food when she is back to New York again are Belmont, West Village and Greenwich Village as they are the top places where Italian restaurants boomed. Lenox Hill and Bay Ridge probably are not a good idea for staying as they have the least Italian restaurants around.



# Conclusion

- Five Italian restaurants are close to where Veronica is staying.
- Quality Italian has the best rating so Veronica can start exploring it within her time-limited stay.
- Belmont, West Village and Greenwich Village has the most Italian restaurants that Veronica can explore when she has more time on her next trip.



# Limitations

- The ranking is purely on basis of rating of restaurants and some of the reviews are from a long time ago.
- The accuracy of data depends purely depends on the data provided by FourSquare.

