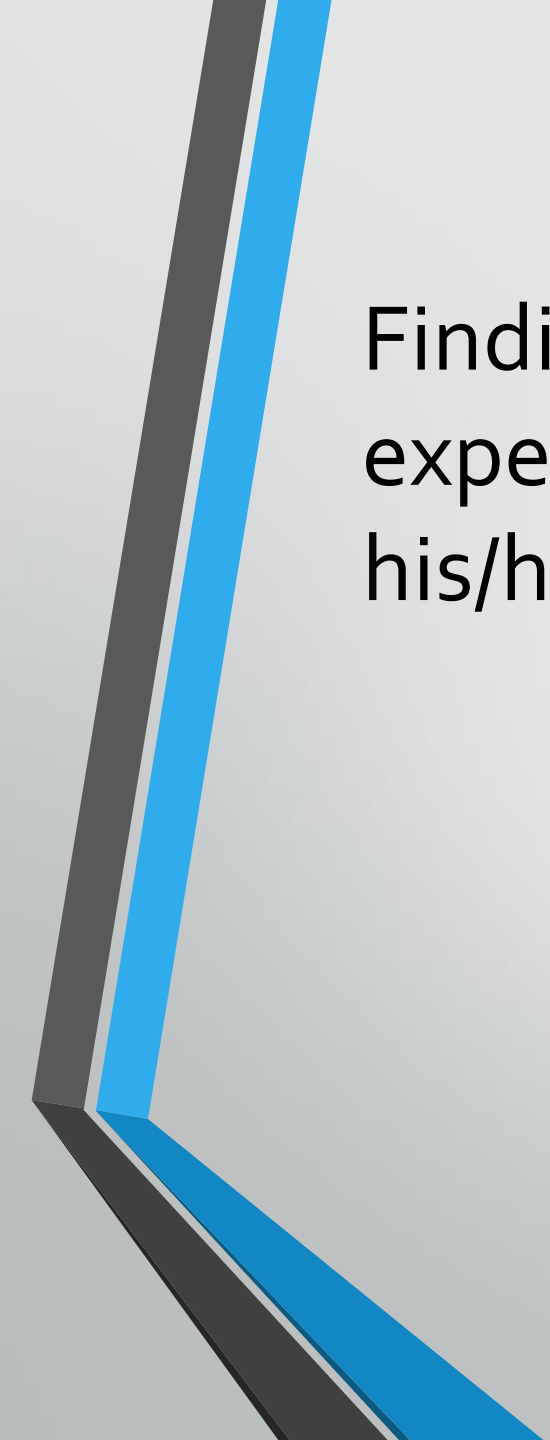




# Predicting Indian Restaurants close to hotels for best experience in New York City



Finding Restaurants closer to Hotels will give better experience for tourist who can enjoy the city as well as his/her favorite cuisine within walking distance.

# Data Acquisition and cleaning

New York data set :

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

Indian Restaurants and Hotels from Foursquare API

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

Use geopy library to get the latitude and longitude of New York city.

# Data Acquisition and cleaning

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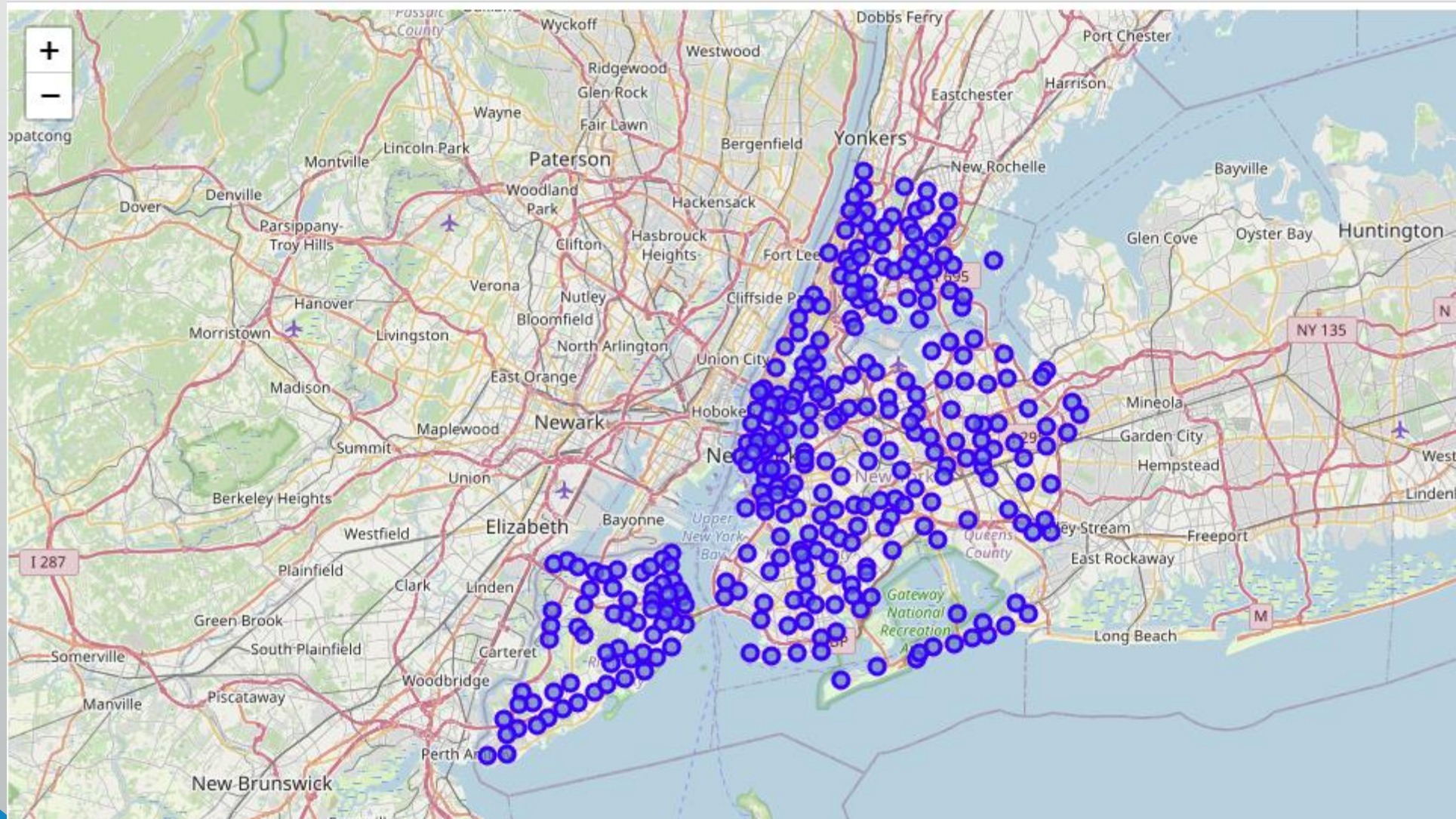
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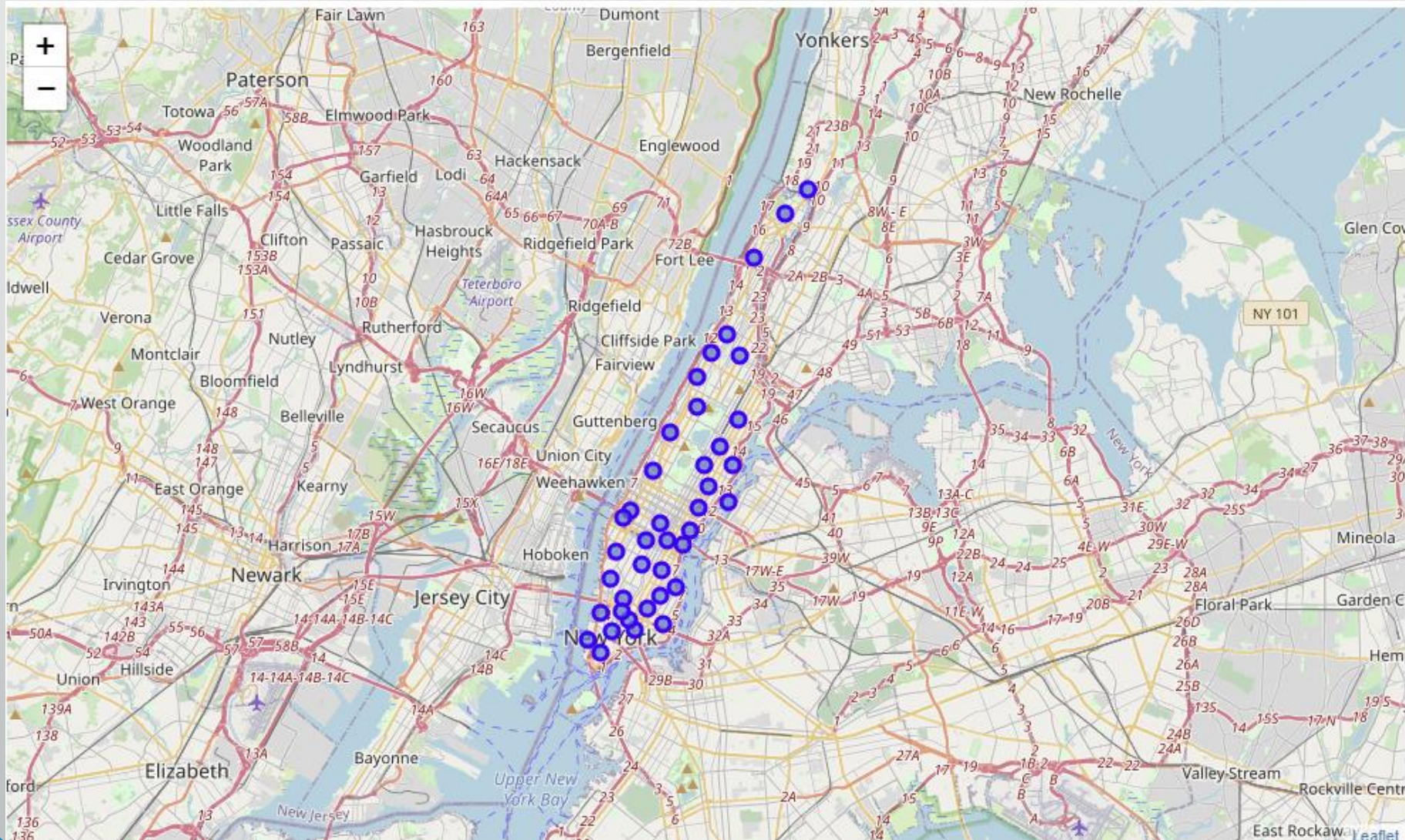
- ❑ Use geopy library to get the latitude and longitude of New York city.
- ❑ Data set has 5 Boroughs and 306 neighborhoods
- ❑ Data wrangling is done to filter out all the columns not needed while finding hotels through Foursquare.

# New York City's Longitude and Latitude





# Focusing on Manhattan as it has maximum number of Indian Restaurants



# Foursquare API for finding hotels in Manhattan

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress
0	Hotel Wales	Hotel	1295 Madison Ave	US	New York	United States	92nd St	648	[1295 Madison Ave (92nd St), New York, NY 1012...
1	Days Inn Hotel New York City-Broadway	Hotel	215 West 94th Street	US	New York	United States	at Broadway	1106	[215 West 94th Street (at Broadway), New York,...
2	Broadway Hotel	Hostel	230 W 101st St	US	New York	United States	at Broadway	1247	[230 W 101st St (at Broadway), New York, NY 10...
3	Belnord Hotel	Hotel	209 W 87th St	US	New York	United States	Broadway	1280	[209 W 87th St (Broadway), New York, NY 10024,...
4	Hotel 99 Llc	Hotel	244 W 99th St	US	New York	United States	NaN	1194	[244 W 99th St, New York, NY 10025, United Sta...
5	Excelsior Hotel NYC	Hotel	45 W 81st St	US	New York	United States	at Columbus Ave	1399	[45 W 81st St (at Columbus Ave), New York, NY ...
6	Hotel Alexander New York	Hotel	306 W 94th St	US	New York	United States	NaN	1360	[306 W 94th St, New York, NY 10025, United Sta...



# Foursquare API for finding Indian Restaurants within 10 mile radius of hotel

```
[('Hotel Wales', 5), ('Renaissance New York Hotel 57', 3), ('The Algonquin Hotel, Autograph Collection', 3), ('The Park Lane Hotel', 2), ('Renaissance New York Times Square Hotel', 2), ('Broadway Hotel', 1), ('Hotel 99 Llc', 1), ('Marrakech Hotel', 1), ('The Plaza Hotel', 1), ('The Lucerne Hotel', 1), ('6 Columbus, a SIXTY Hotel', 1), ('The Premier Hotel New York', 1), ('Sanctuary Hotel New York', 1), ('The Roosevelt Hotel', 1), ('The Empire Hotel', 1), ('Baccarat Hotel', 1), ('The Empire Hotel Lobby Rooftop', 1), ('Hotel Delmonico', 1), ('The Lexington Hotel, Autograph Collection', 1), ('Fifty Hotel', 1), ('Days Inn Hotel New York City-Broadway', 0), ('Excelsior Hotel NYC', 0), ('Hotel Alexander New York', 0), ('Hudson Hotel', 0), ('Swimming Pool @ ONE UN Plaza Hotel', 0), ('Trump International Hotel & Plaza Athénée', 0), ('Gardens Suites Hotel by Affinia', 0), ('Sheraton New York Times Square Hotel', 0), ('Park Central Hotel New York', 0), ('Hotel Berkers', 0), ('The Hotel @ Times Square', 0), ('Hotel @ NYC', 0), ('The Watson Hotel', 0), ('Hotel Pennsylvania', 0), ('Riverside Studios Hotel', 0), ('West Western Plaza Hotel', 0), ('Chambers Hotel', 0), ('Ameritania Hotel', 0), ('MObar at Mandarin Hotel', 0)]
```



## Conclusion and Result:

We found out the maximum number of Indian Restaurants are closer to Hotel Wales in Manhattan.

There is always different ways to find out the solution to problem. I have found a small glimpse of how real life problems could be solved through Data Science.

Finally you have any friend visiting New York, they can use this to find out which hotels would fit best to their dietary need. I have given an example of Indian Restaurant but this can be used to find out any cuisine which a tourist is interested in.