

Introduction:

New York is the largest city in the United States with a very ethnically diverse population. With such a diverse culture, it's cuisine is also very diverse.

Problem:

List and visualize all major parts of New York City with good hubs for Indian food.

Data:

New York City geography data containing Boroughs, Neighbourhoods, latitude, longitude

Data source: https://cocl.us/new_york_dataset

Description: This dataset contains the required geographical information, and I will use the dataset to explore the different neighbourhoods in NYC.

Indian restaurants in each neighbourhood of NYC

Data source: Foursquare API

Description: By using the API I can filter the list of all venues down to only the ones that are Indian restaurants

GeoSpace data:

Data source: <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>

Description: By using the geospace data I can find boundaries between Boroughs to help visualize choropleth map

Methodology:

I first collected the NYC geographical data from https://cocl.us/new_york_dataset

Using Foursquare API I found all venues for each neighbourhood

	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

I then filtered the venues for Indian restaurants, and using Foursquare API I found the ratings for different venues and filtered to only find venues with an average rating of 9 or higher to only display good restaurants.

	Neighborhood	Average Rating
0	Astoria	9.0
5	Blissville	9.0
12	Civic Center	9.1
69	Tribeca	9.1

Then I combined this with the geographical New York City data to find the coordinates of these places.

	Borough	Neighborhood	Latitude	Longitude	Average Rating
0	Queens	Astoria	40.768509	-73.915654	9.0
1	Queens	Blissville	40.737251	-73.932442	9.0
2	Manhattan	Civic Center	40.715229	-74.005415	9.1
3	Manhattan	Tribeca	40.721522	-74.010683	9.1

I then visualized the different neighbourhoods with good indian food hubs based on the average ratings



Results:

The best neighborhoods for Indian food are Queens and Manhattan, so a fan of Indian food looking for a place to stay in New York might choose one of these areas.

Conclusion:

There still remains much work that could be done, such as varying the threshold for consideration and examining how that might affect results.