



CAPSTONE PROJECT

THE BATTLE OF NEIGHBORHOODS

IBM APPLIED DATA SCIENCE CAPSTONE
POWERED BY COURSERA

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PROBLEM STATEMENT

- ▶ *A restaurateur wants to open an Italian restaurant in Manhattan and Queens Borough in the New York City. He needs to find a suitable neighborhood in these boroughs where an Italian restaurant would flourish and earn him profits.*

DATA

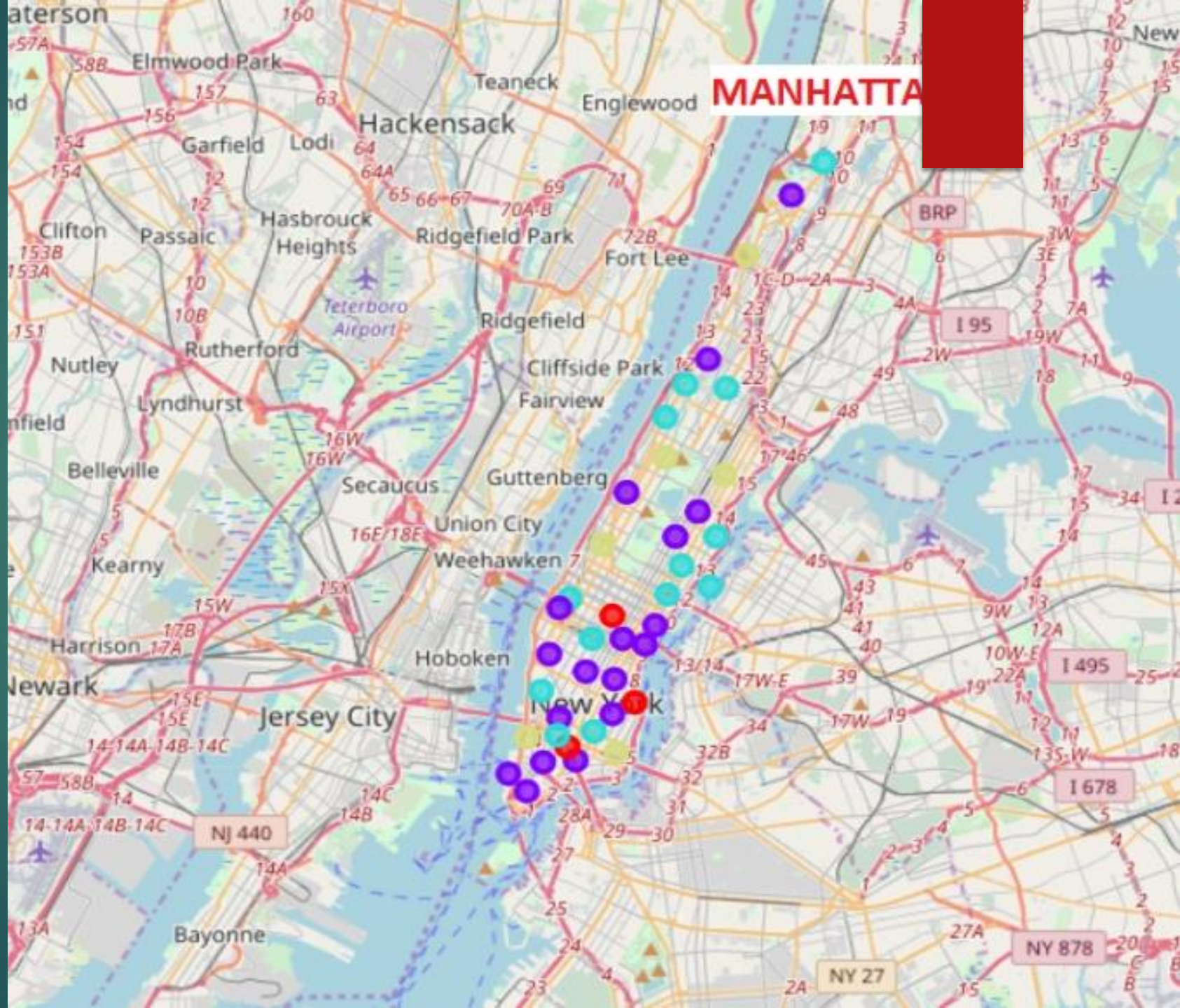
- ▶ Foursquare location API to explore Manhattan and Queens
- ▶ Gather all information of top 5 food joints in the neighborhoods of these boroughs

METHODOLOGY

- ▶ Download and explore dataset of New York
- ▶ Use Foursquare API to explore the hoods of Manhattan and Queens
- ▶ Analyze each neighborhood
- ▶ Cluster neighborhoods for Manhattan and Queens
- ▶ Examine clusters and recommend hoods

RESULTS

Clustering of hoods in
Manhattan



RESULTS

Clustering of hoods in Queens



RESULTS

Recommended hoods in Manhattan

Neighborhood

0 Inwood

1 Murray Hill

2 Gramercy

3 Tudor City

4 Marble Hill

5 Clinton

RESULTS

Recommended hoods in Queens

	Neighborhood
0	Kew Gardens
1	Richmond Hill
2	Flushing
3	Maspeth
4	Glendale
5	Woodhaven
6	South Ozone Park
7	Kew Gardens Hills
8	Briarwood
9	Jamaica Center
10	Queens Village
11	Hollis
12	South Jamaica
13	Springfield Gardens
14	Cambria Heights
15	Rosedale

	Neighborhood
16	Broad Channel
17	Breezy Point
18	Arverne
19	Rockaway Beach
20	Neponsit
21	Queensboro Hill
22	Hillcrest
23	Rockaway Park
24	Brookville
25	North Corona
26	Jamaica Hills
27	Utopia
28	Pomonok
29	Sunnyside Gardens
30	Bayswater

CONCLUSION

- ▶ Download and explore the top 5 food venues of Manhattan and Queens using Foursquare API
- ▶ Clustering of venues groups similar hoods and gives an idea about those hoods that are more likely to have Italian restaurants.
- ▶ Recommendations are made by suggesting hoods that belong to such clusters but haven't had an Italian restaurant.

THANK YOU