



THE BATTLE OF NEIGHBORHOODS

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INTRODUCTION

The City of New York is the most populous city in the United States. The city provides lot of business opportunities and business friendly environment. It has attracted many different players into the market. New York has emerged as a global node of creativity and entrepreneurship, social tolerance, and environmental sustainability, and as a symbol of freedom and cultural diversity.

With the all attributes already described, the city also shows a very competitive market.

This presentation will present the tools and analyzes utilized to locate in the city of New York the best location to build a new Brazilian Restaurant.



THE BOROUGHS

What Are the Five Boroughs and Counties of NYC?

The boroughs of New York City are as famous as the city itself. The borders that we associate with each of the five boroughs also form the county borders. The boroughs/counties are further divided into 59 community districts and hundreds of neighborhoods.

- The Bronx (Bronx County)
- Brooklyn (Kings County)
- Manhattan (New York County)
- Queens (Queens County)
- Staten Island (Richmond County)



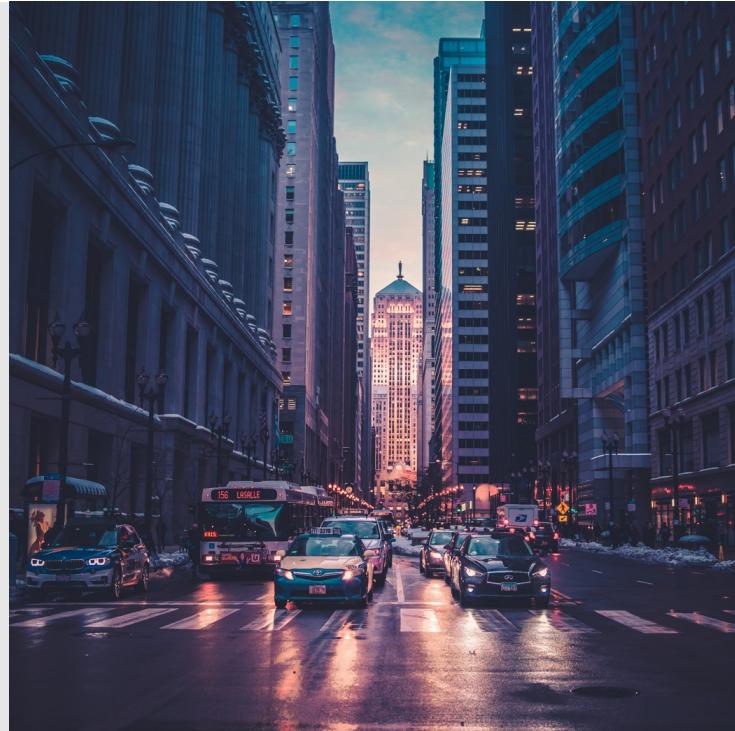
THE BOROUGHS



The Bronx and Bronx County

The Bronx was named for Jonas Bronck, a 17th-century Dutch immigrant. In 1641, Bronck purchased 500 acres of land northeast of Manhattan. By the time the area became part of New York City, people would say they were "going to the Broncks."

The Bronx borders Manhattan on the south and west, with Yonkers, Mt. Vernon, and New Rochelle to its northeast.



Manhattan and New York County

The name Manhattan has been noted on maps of the area since 1609. It is said to derive from the word *Manna-hata*, or 'island of many hills' in the native Lenape language.

Manhattan is the smallest borough at 22.8 square miles (59 square kilometers), but it is also the most densely populated. On the map, it looks like a long sliver of land stretching southwest from the Bronx, between the Hudson and East rivers.

THE BOROUGHS



Brooklyn and Kings County

Brooklyn has the largest population at 2.5 million people according to the 2010 census. The Dutch colonization of what is now New York City played a large role in the area and Brooklyn was named for the town of Breukelen, Netherlands.

Brooklyn is on the western tip of Long Island, bordering Queens to the northeast. It is surrounded by water on all other sides and is connected to Manhattan by the famous Brooklyn Bridge.



Queens and Queens County

Queens is the largest borough in terms of area at 109.7 square miles (284 square kilometers). It makes up 35% of the city's total area. Queens reportedly received its name from the Queen of England. It was settled by the Dutch in 1635 and became a New York City borough in 1898.

You will find Queens on the western part of Long Island, bordering Brooklyn to the southwest.

THE BOROUGHS



Staten Island and Richmond County

Staten Island was apparently a popular name for Dutch explorers when they reached the Americas, though New York City's Staten Island is the most famous. Henry Hudson established a trading post on the island in 1609 and named it Staaten Eylandt after the Dutch Parliament known as Staten-Generaal.

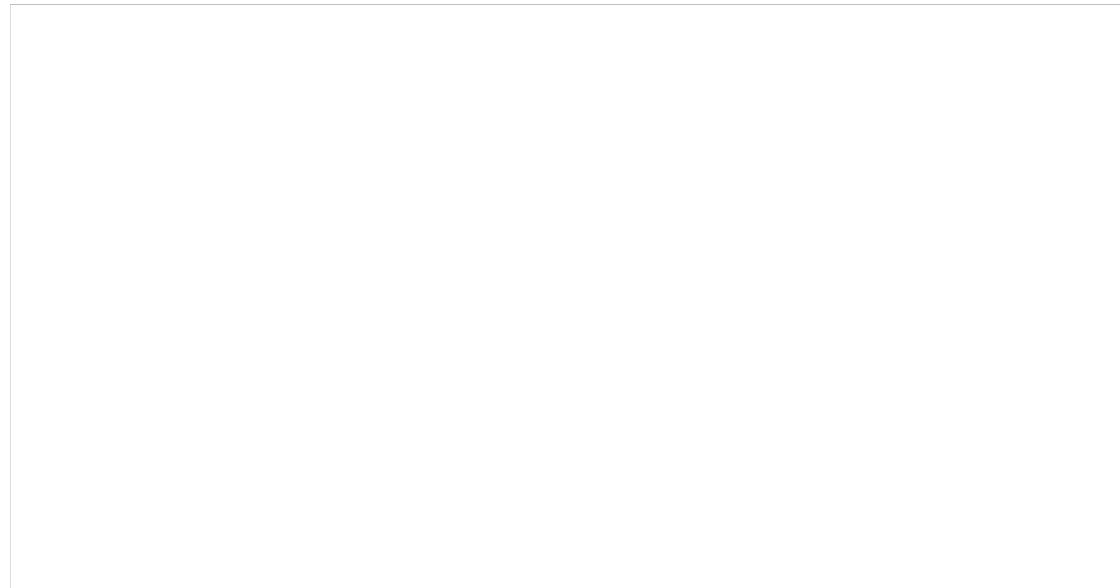
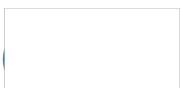
This is the least populated borough of New York City and it is a lone island at the city's southwestern edge. Across the waterway known as the Arthur Kill is the state of New Jersey.



FACTS ANALYZED



- New York Population;
- New York Demographics;
- Farmers Market, Wholesale markets accessibility;
- Competitors;
- Borough segmentation;
- Market saturation;
- Tourism



DATA

1 – The City of New York has a total of 5 boroughs and 306 neighborhoods. To segment all this data, a dataset from NYU (https://geo.nyu.edu/catalog/nyu_2451_34572) was utilized.

	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

DATA

2 – The farmers market was also an variable utilized in this study. The dataset utilized can be found on NYC OpenData webpage : <https://data.cityofnewyork.us/dataset/DOHMH-Farmers-Markets-and-Food-Boxes/8vkw-6iz2>

	FacilityName	Service_Category	Service_Type	Address	Address2	Borough	ZipCode	Latitude	Longitude	StartDate	EndDate
0	1 Centre Street	Farmers Markets and Food Boxes	Food Boxes	1 Centre Street	South Building, 9th Floor	Manhattan	11101	40.713028	-74.003753	NaN	NaN
1	125th Street Farmers Market	Farmers Markets and Food Boxes	Farmers Markets	125th St & Adam Clayton Powell Jr Blvd		Manhattan	10027	40.808981	-73.948327	6/13/17	11/21/17
2	170 Farm Stand	Farmers Markets and Food Boxes	Farmers Markets	170th St & Townsend Ave		Bronx	10452	40.840095	-73.916827	7/5/17	11/22/17
3	175th Street Greenmarket	Farmers Markets and Food Boxes	Farmers Markets	175th St bet Wadsworth Ave & Broadway		Manhattan	10033	40.845956	-73.937813	6/29/17	11/30/17
4	57th Street Greenmarket	Farmers Markets and Food Boxes	Farmers Markets	57th St & 9th Ave		Manhattan	10019	40.767925	-73.985716	5/17/17	12/23/17

DATA

3 – New York Population, Demographics, Tourism and Cuisine was extracted from Wikipedia:
https://en.wikipedia.org/wiki/New_York_City

	NewYorkCity's five boroughs	ste	Jurisdiction	Population	Gross Domestic Product	Land area	Density	persons_sq_mi	persons_sq_km
0	The Bronx	\n Bronx\n	\n Bronx	1,471,160\n	28.787\n	19,570\n	42.10\n	109.04\n	34,653\n
1	Brooklyn	\n Kings\n	\n Kings	2,648,771\n	63.303\n	23,900\n	70.82\n	183.42\n	37,137\n
2	Manhattan	\n New York\n	\n New York	1,664,727\n	629.682\n	378,250\n	22.83\n	59.13\n	72,033\n
3	Queens	\n Queens\n	\n Queens	2,358,582\n	73.842\n	31,310\n	108.53\n	281.09\n	21,460\n
4	Staten Island	\n Richmond\n	\n Richmond	479,458\n	11.249\n	23,460\n	58.37\n	151.18\n	8,112\n
5	City of New York			8,622,698	806.863	93,574	302.64	783.83	28,188
6	State of New York			19,849,399	1,547.116	78,354	47,214	122,284	416.4
7	Sources: [3] and see individual borough articl...			Nan	Nan	Nan	Nan	Nan	Nan

Borough	Neighborhood	Cuisine	Latitude	Longitude	Zipcodes	Unnamed: 6	Unnamed: 7	Unnamed: 8
0	The Bronx	Bedford Park	Mexican, Puerto Rican, Dominican, Korean	40.870	-73.886	10458, 10468	Nan	Nan
1	The Bronx	Belmont	Italian, Albanian	40.855	-73.886	10457, 10458, 10460	Nan	Nan
2	The Bronx	City Island	Italian, Seafood	40.848	-73.786	Nan	Nan	Nan
3	The Bronx	Morris Park	Italian, Albanian	40.852	73.853	10461, 10462	Nan	Nan
4	The Bronx	Norwood	Filipino	40.878	-73.878	10467	Nan	Nan

DATA

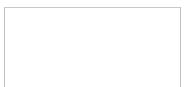
4 – The Venues information from each neighborhood was extracted from foursquare.com utilizing New York city geographical coordinates.

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Marble Hill	40.876551	-73.91066	Arturo's	40.874412	-73.910271	Pizza Place
1	Marble Hill	40.876551	-73.91066	Bikram Yoga	40.876844	-73.906204	Yoga Studio
2	Marble Hill	40.876551	-73.91066	Tibbett Diner	40.880404	-73.908937	Diner
3	Marble Hill	40.876551	-73.91066	Sam's Pizza	40.879435	-73.905859	Pizza Place
4	Marble Hill	40.876551	-73.91066	Loeser's Delicatessen	40.879242	-73.905471	Sandwich Place



ANALYZES AND METHODOLOGY

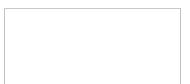
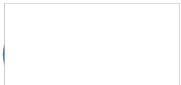
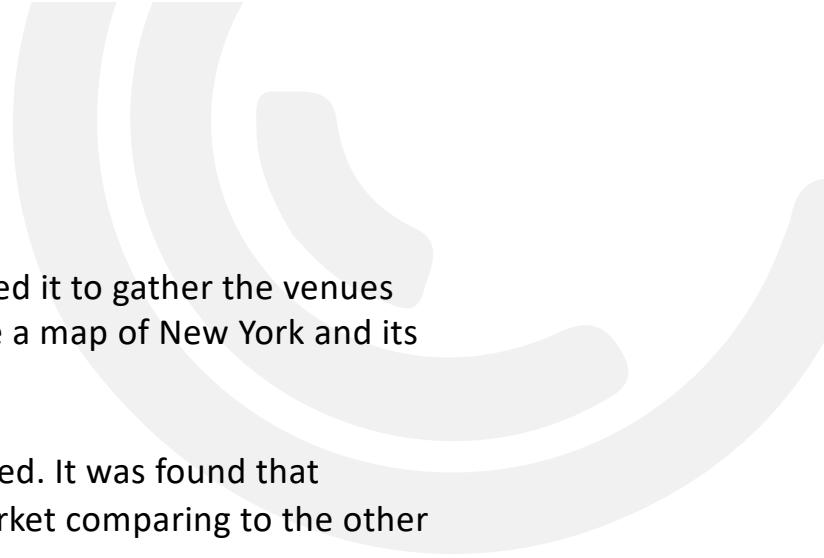
- The New York city has a total of five boroughs and 300 neighborhoods.
- First – I cluster Manhattan and Brooklyn
- Second – I cluster Bronx, Queens and Staten Island.
- Utilize foursquare to gather all the restaurants from these boroughs





ANALYZES AND METHODOLOGY

- Imported New York geographic data into panda dataframe and utilized it to gather the venues data from Foursquare. Geopy and folium libraries was used to create a map of New York and its neighborhoods.
- From NYC OpenData, the Farmers Market information was also utilized. It was found that Manhattan and Brooklyn, 98, has the highest number of farmers market comparing to the other three boroughs, 46.
- Beautiful library was used to analyze the New York population, demographics and cuisine from Wikipedia.
- Using Wikipedia to collect the cuisine information from New York, a word cloud was created for each borough and I was able to identify the most preferred food on each area.
- Foursquare API data was used to explore each neighborhood in New York. The analyzes was done for Manhattan and Brooklyn, and Queens, Bronx and Staten island





Conclusion

- Brooklyn and Manhattan has the higher concentration of restaurants business and is the most competitive market comparing to the other three borough.
- There are 112,700 hotel rooms in the city, a jump from 62,200 in 1988. Of the 80 new hotels built since 2015, two-thirds are outside Manhattan
- The Bronx, Queens and Staten Island also has a good number of restaurants but not the number required because its population. So this are areas that can be explored.
- This dataset was used to predict an optimal place for a new investment in the food business (Brazilian Restaurant), but it can also for other businesses since the results contain a lot of useful information about other as well.