

The Battle of the Neighborhoods

Introduction and Business Model

New York city is the most populous city in the United States, with an estimated 2019 population over 8 million, New York is also New York City has been described as the cultural, financial, and media capital of the world, significantly influencing commerce, entertainment, research, technology, education, politics, tourism, art, fashion, and sports.

The **cuisine of New York City** comprises many cuisines belonging to various ethnic groups that have entered the United States through the city. Almost all ethnic cuisines are well represented in New York City, both within and outside the various ethnic neighborhoods.

Problem Background

With this doing a business is very competitive and expensive compare to other major metropolitan cities like Los Angeles, Houston or Chicago. We need to analyze any business carefully for any future growth or starting a new business. One should expect higher investment in the early stage due to real estate, labor markets, sales etc.

New York City known to support vast ethnic cultures, lifestyles and food etc.

Problem Description

Some of the most common food industry based on heavily through their culture like Jewish, Italian, European, Asian and many more.

As a Data Scientist, we are given task to find out which neighborhood can support and financially sustainable for good Indian restaurant.

Target Audience

Our Corp is hiring data scientist to analyze the New York City neighborhoods to find out which borough and neighborhood would be a good location to start a new restaurant. We pull data from multiple sources to analyze the market based on the population, foot traffic, business locations, supply chain.

We will analyze the market for starting a Indian restaurant chain who wants to start and grow in the region.

Data

For this project we will use the following data sets:

Data 1: Neighborhood has a total of 5 boroughs and 306 neighborhoods. In order to segment the neighborhoods and explore them, we will essentially need a dataset that contains the 5 boroughs and the neighborhoods that exist in each borough as well as the latitude and longitude coordinates of each neighborhood.

This dataset exists for free on the web: https://geo.nyu.edu/catalog/nyu_2451_34572

_Sample screenshot of boroughs and their coordinates can be seen in the following data frame.

[27] :

	Borough	Neighborhood	Latitude	Longitude
286	Staten Island	Sandy Ground	40.541140	-74.217766
287	Staten Island	Egbertville	40.579119	-74.127272
288	Queens	Roxbury	40.567376	-73.892138
289	Brooklyn	Homecrest	40.598525	-73.959185
290	Queens	Middle Village	40.716415	-73.881143
291	Staten Island	Prince's Bay	40.526264	-74.201526

Data 2: Below data sets are from Wikipedia for the analysis.

We will analyze data from Wikipedia about the population demographics, types of cuisines already in New York City and economic data to support for new business opportunity.

https://en.wikipedia.org/wiki/New_York_City

https://en.wikipedia.org/wiki/Cuisine_of_New_York_City

https://en.wikipedia.org/wiki/Economy_of_New_York_City

Data 3: In this data, we are going to start utilizing the Foursquare API to explore the neighborhoods from New York City and segment them.

Foursquare data will help to segment the clusters and find out opportunity for new restaurant location in the given neighborhood.

[38] :

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue
0	Battery Park City	Park	Hotel	Coffee Shop	Memorial Site	Gym	Plaza	Boat F
1	Carnegie Hill	Coffee Shop	Italian Restaurant	Café	Yoga Studio	Gym / Fitness Center	Wine Shop	C
2	Central Harlem	African Restaurant	Seafood Restaurant	American Restaurant	Bar	Gym / Fitness Center	French Restaurant	Chin
3	Chelsea	Coffee Shop	Art Gallery	American Restaurant	Ice Cream Shop	Italian Restaurant	Café	Fre
4	Chinatown	Chinese Restaurant	Bakery	Dessert Shop	Bubble Tea Shop	Ice Cream Shop	Hotpot Restaurant	Op