

A NEW CONCEPT IN COFFEE

A NEW CONCEPT IN JAZZ

**Analysis of New York City Neighborhoods
in support of a unique business proposal**

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Introduction

- Great coffee and great jazz are enjoyed around the world by people of all nationalities, and New York City has some of the best places on earth to experience both.
- My clients, a collective of jazz musicians and producers, have begun planning for a new kind of coffee experience in New York City. They have engaged me to execute neighborhood analysis within all five boroughs of the city to identify the most favorable areas for this venture.

Business Proposal

- During the day the venue will operate as a regular gourmet coffee shop but with a jazz theme
- The shop will include a stage area in the back for professional jazz performances at night, when alcohol will be available in addition to coffee.
- Unusually, the venue will also host "open mic" sessions, with a house band ready to serve as a backing group to play standards with customers who want to perform.

Business Problem and Approach

- There are a number of professional jazz clubs in New York City but few that include "open mic" opportunities and none that also focus on great coffee.
- The problem we seek to solve is which neighborhoods in New York would be the best candidates for such a unique venue.

Our approach will be to identify neighborhoods that:

- Have a higher concentration of music–related activity
- Have a lower density of coffee shops

Data

1. NYC Neighborhood Data from New York University (https://geo.nyu.edu/catalog/nyu_2451_34572)

This includes 306 neighborhoods. We will use 3 primary fields:

Field Name	Associated Data	Example
borough	Borough name	<i>Manhattan</i>
name	Neighborhood name	<i>Upper East Side</i>
coordinates	Neighborhood geographical coordinates	<i>[-73.96050763135, 40.775638573301805]</i>

2. Data from Foursquare

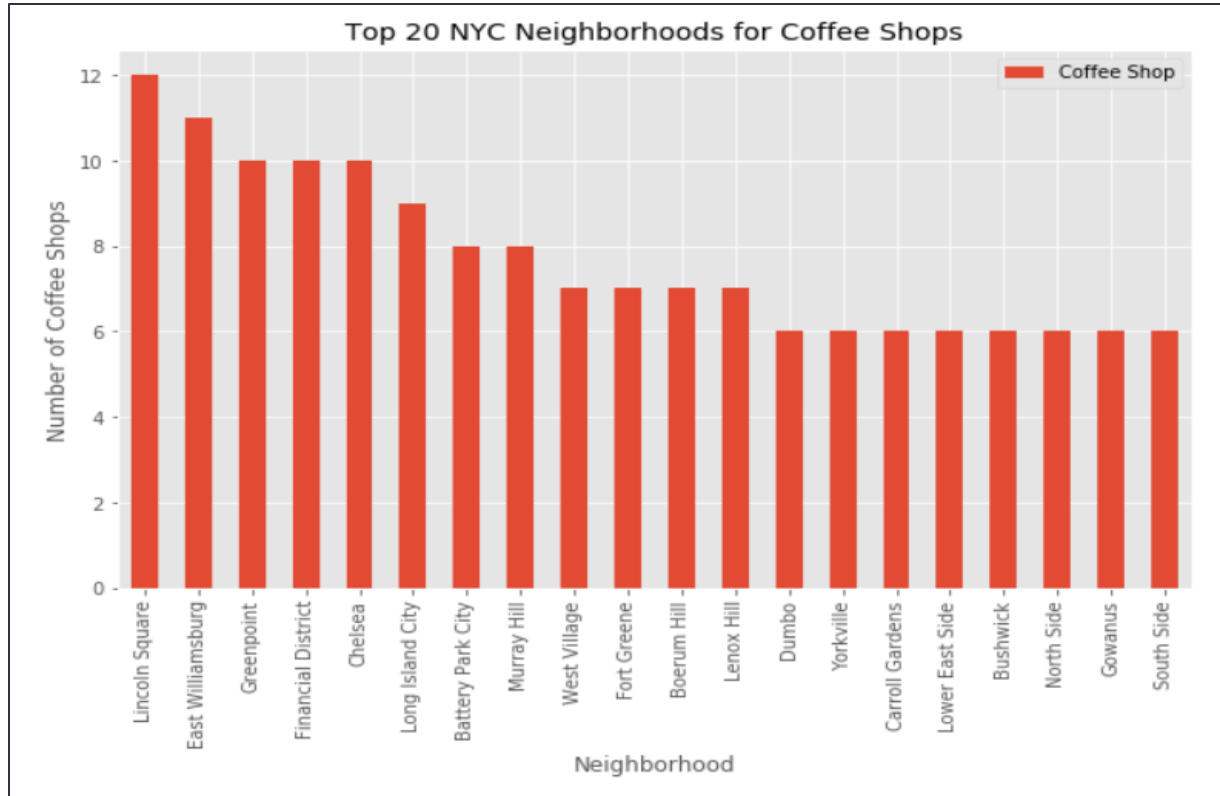
We will focus on Venue Category, in particular those relating to music plus coffee shops:

Record Shop, Performing Arts Venue, Jazz Club, Concert Hall, Music School, Music Venue, Nightclub, Opera House, Coffee Shop

Field Name	Associated Data	Example
venue : location : lat	Venue latitude	<i>40.8769755336728</i>
venue : location : lng	Venue longitude	<i>-73.90675193198494</i>
categories : name	Venue Category	<i>Ice Cream Shop</i>

Coffee Shop Density Analysis

- There are 384 coffee shops in New York City as returned by Foursquare. These are the top 20 neighborhoods:

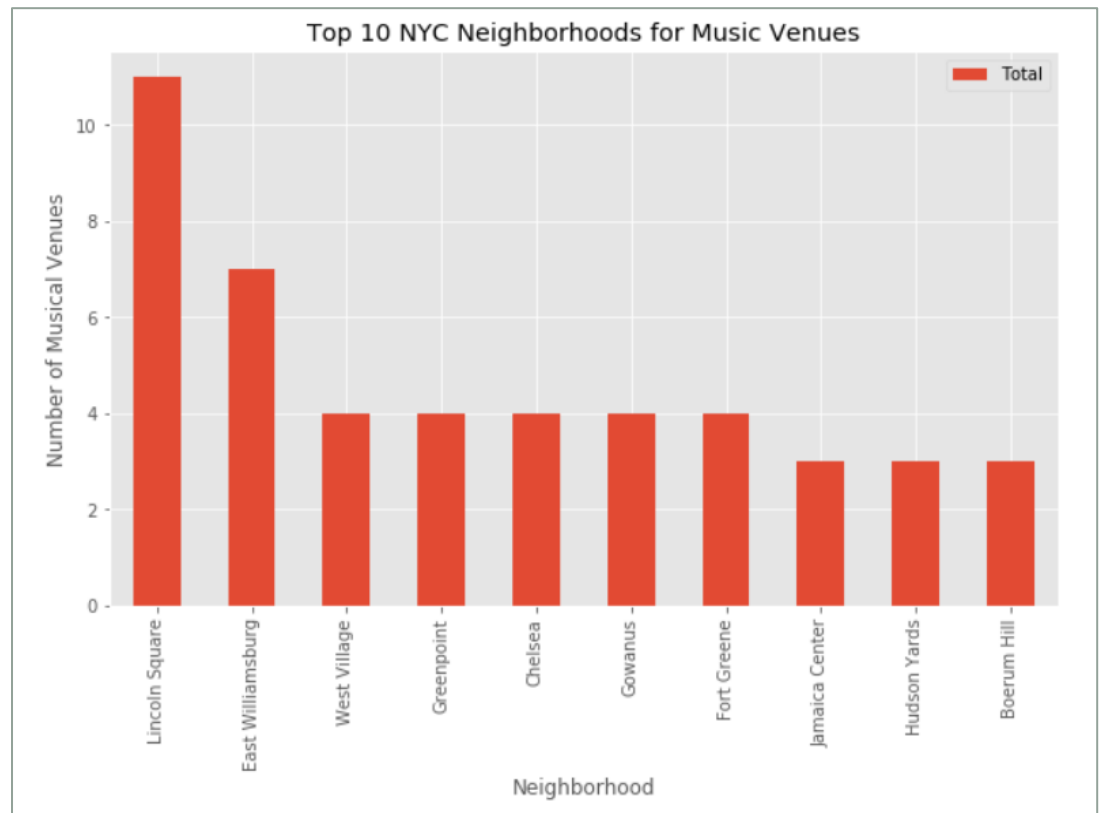


Music Venue Analysis

Using Foursquare to search only for our target venue categories, and eliminating any neighborhoods with zero musical venues the final in-scope data set has:

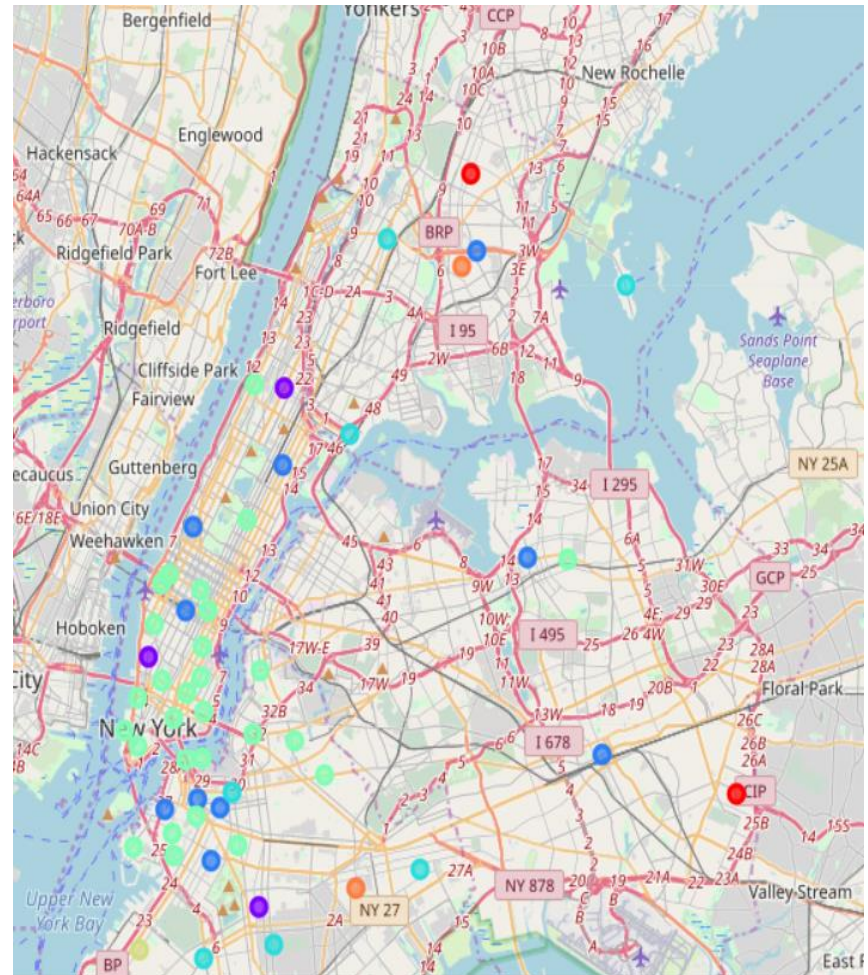
- 58 neighborhoods
- 8 musical venue categories
- 108 total musical venues

Top 10 Neighborhoods for Music in NYC



Data Clustering

- I used K-Means analysis with $k=7$. The different clusters are shown on this map across the five boroughs of New York City
- It appears that Manhattan and Brooklyn have the highest concentration of such venues.



Cluster Analysis

- Analysis of the clusters resulted in 13 strong neighborhood candidates with a high concentration of jazz and general music-related venues
 - 7 in Manhattan
 - 4 in Brooklyn
 - 1 in Queens
 - 1 in Staten Island
- The next step was to compare these 13 neighborhoods to coffee shop density and identify the top 10 candidates for closer inspection.

Target Neighborhoods with Coffee Shop Density

- Of the thirteen neighborhoods the top 10 are shown below, sorted by coffee density (starting from the lowest).
- From this target list we can observe the following:
 - In 4 neighborhoods a jazz club is the most common musical venue
 - In 3 others a jazz club is 2nd or 3rd most common
 - The remaining three neighborhoods have nightclubs as the 1st most common venue, plus music venues or record shops as 2nd or 3rd.

Borough	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	Number of Coffee Shops
Brooklyn	Manhattan Terrace	Jazz Club	Record Shop	Performing Arts Venue	2
Manhattan	Central Harlem	Music Venue	Jazz Club	Record Shop	2
Brooklyn	Prospect Lefferts Gardens	Record Shop	Music Venue	Jazz Club	3
Manhattan	Greenwich Village	Record Shop	Jazz Club	Performing Arts Venue	4
Manhattan	Upper East Side	Jazz Club	Record Shop	Performing Arts Venue	5
Manhattan	Hudson Yards	Nightclub	Music School	Concert Hall	5
Brooklyn	South Side	Nightclub	Music Venue	Record Shop	6
Brooklyn	Bushwick	Nightclub	Music Venue	Record Shop	7
Manhattan	Murray Hill	Jazz Club	Record Shop	Performing Arts Venue	8
Manhattan	West Village	Jazz Club	Performing Arts Venue	Record Shop	8

Recommendation

- Begin with the seven neighborhoods that have a local jazz club, then through internal discussion agree on the best 3-4 for a deeper dive.
- This deep dive should include a review of
 - Real estate availability
 - Rent prices
 - Accessibility to public transportation and parking
 - Any personal preferences or requirements.
- This process can continue until a narrow list of candidate neighborhoods is identified.
- With that list local real estate professionals can be engaged to begin identification of available locations within each neighborhood and the work of actually starting up the business can begin.

Next Steps

- Although these findings provides a great starting point there could be additional data analysis to further refine the results.
- Additional data could include:
 - Demographics within New York City neighborhoods (incomes, age groups, etc)
 - Average rent costs and real estate turnover data by neighborhood
 - Detailed information on coffee consumption by neighborhood in New York City