

Capstone Project - Battle of the Neighborhoods

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Introduction

New York City's demographics show that it is a large and ethnically diverse metropolis. It is the largest city in the United States with a long history of international immigration. New York City was home to nearly 8.5 million people in 2018, accounting for over 40% of the population of New York State and a slightly lower percentage of the New York metropolitan area, home to approximately 23.6 million. Over the last decade the city has been growing faster than the region. The New York region continues to be by far the leading metropolitan gateway for legal immigrants admitted into the United States.

This final project explores the best locations for Mexican restaurants throughout the city of New York. As New York is the most diverse city in the world (800 languages are spoken in New York), it has a long tradition of different ethnical restaurants. People love hot food! That's why Potentially the owner of the new restaurant can have great success and consistent profit. However, as with any business, opening a new restaurant requires serious considerations and is more complicated than it seems from the first glance. In particular, the location of the restaurant is one of the most important factors that will affect whether it will have success or a failure. So our project will attempt to answer the questions "Where should the investor open a Mexican Restaurant?" and "Where should I go if I want great Mexican food"

Business Problem

The objective of this project is to analyze and select the best locations in NY to open a Mexican Restaurant. Using Data Science, aims to provide solutions to the business question: *Where in the city of NY should the investor open a Mexican Restaurant?*

Target Audience and some Demographic information

This project is useful to developers and investors looking to open a Mexican restaurant in NY.

Overall NY is a great place to open a restaurant, very diverse in cultures. With Diverse cultures, comes the need for diverse food. Many foreigning tourists come to experience the diverse cultures, and explore the different tastes in cuisine.

Data

In order to answer the above questions, we will need the following:

New York City data containing the neighborhoods and boroughs, latitudes, and longitudes will be obtained from the data source: https://cocl.us/new_york_dataset

Latitude and longitude coordinates of the neighborhoods, and to plot the map of the data

Venue data, related to the restaurants.

All data related to locations and quality restaurants will be obtained via the FourSquare API utilized via the Request library in Python.

Data Source and methods of extraction

Data will be collected from https://cocl.us/new_york_dataset and cleaned and processed into a dataframe.

FourSquare be used to locate all venues and then filtered by Mexican restaurants. Ratings, tips, and likes by users will be counted and added to the dataframe.

Data will be sorted based on rankings.

Finally, the data will be visually assessed using graphing from Python libraries.

Problem Statement What is / are the best location(s) for Mexican cuisine in New York City? In what Neighborhood and/or borough should the investor open a Mexican restaurant to have the best chance of being successful? Where would I go in New York City to have the best Mexican food?