

Capstone Project - The Battle of the Neighborhoods

The analysis of the best neighborhoods New York City using data science methodologies.

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Introduction

Background

People have their own personal preferences of what they want around their house to live comfortably. When people are moving into a new neighborhood, it becomes difficult to find the best neighborhood that match their needs. Data analysis and machine learning helps solve this problem.

Problem

Customer A is planning to move to New York City. They have a personal preference of what needs to be close to their home for e.g. – Hospital, Restaurant, etc. They need help finding a neighborhood to move to in New York City with proximity to their needs and preferences.

The objective of this project is to use Machine learning algorithms and Foursquare location to determine the best neighborhood based on Customer A's needs and preferences in New York City.

Target Audience

- Anyone planning to move to a new neighborhood
- Real estate agents to help find a new place for their customers.
- This report is targeted to Customer A's preference. But this can be tailored to any person's needs.

Data Section

The datasets used for analysis for this project are:

1. **New York City data**
 - Data Source: https://cocl.us/new_york_dataset
 - Description: This data set contains Borough, Neighborhoods with latitudes and longitudes. This is used to explore different neighborhoods in New York city.
2. **Foursquare API**
 - Data Source: <https://api.foursquare.com>
 - Description: This API we will get all the venues in the New York city neighborhood. We can then analyses which neighborhood has the greatest number of venues that match Customer A's preference.