Capstone Project
Battle of the Neighborhoods:
Moving from Cambridge, MA to Manhattan, NY

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Introduction

This project explores the idea of someone like me, a young professional, moving from Cambridge, MA to Manhattan NY to take advantage of the decrease in rent prices in big cities like New York City, which was cause by people moving out of these places due to COVID-19 and the flexibility to work remotely from more affordable places.

Business Problem

Using K-means clustering, identify neighborhoods in Manhattan, NY that are similar to the neighborhood I currently live in Cambridge, MA, which is called "The Port"

Target Audience

Although this project is specific to Cambridge, MA and Manhattan, NY, it could be useful to:

- People wanting to move to similar neighborhoods in another city.

- People wanting to move to similar neighborhoods in the same city.

- People wanting to learn more about the neighborhood they live.

- People evaluating whether it's worth moving to another neighborhood.

- People trying to figure out where to stay in another city if they are visiting and they a number of things they want to have nearby.

Methodology

1. Obtain necessary data to

2. Perform K-means clustering analysis in neighborhoods in the Cambridge and Boston area to understand what sort of neighborhood The Port is.

3. Perform K-means clustering analysis in neighborhoods in Manhattan, NY to understand to learn more about this area.

4. Perform K-means analysis with all neighborhoods in all locations.

5. Take the cluster from step 4 in which The Port was labeled in and perform another K-means clustering analysis using only The Port and the neighborhoods in Manhattan that are part of the same cluster.

Results

# K-Means Clustering in Cambridge/Boston Area
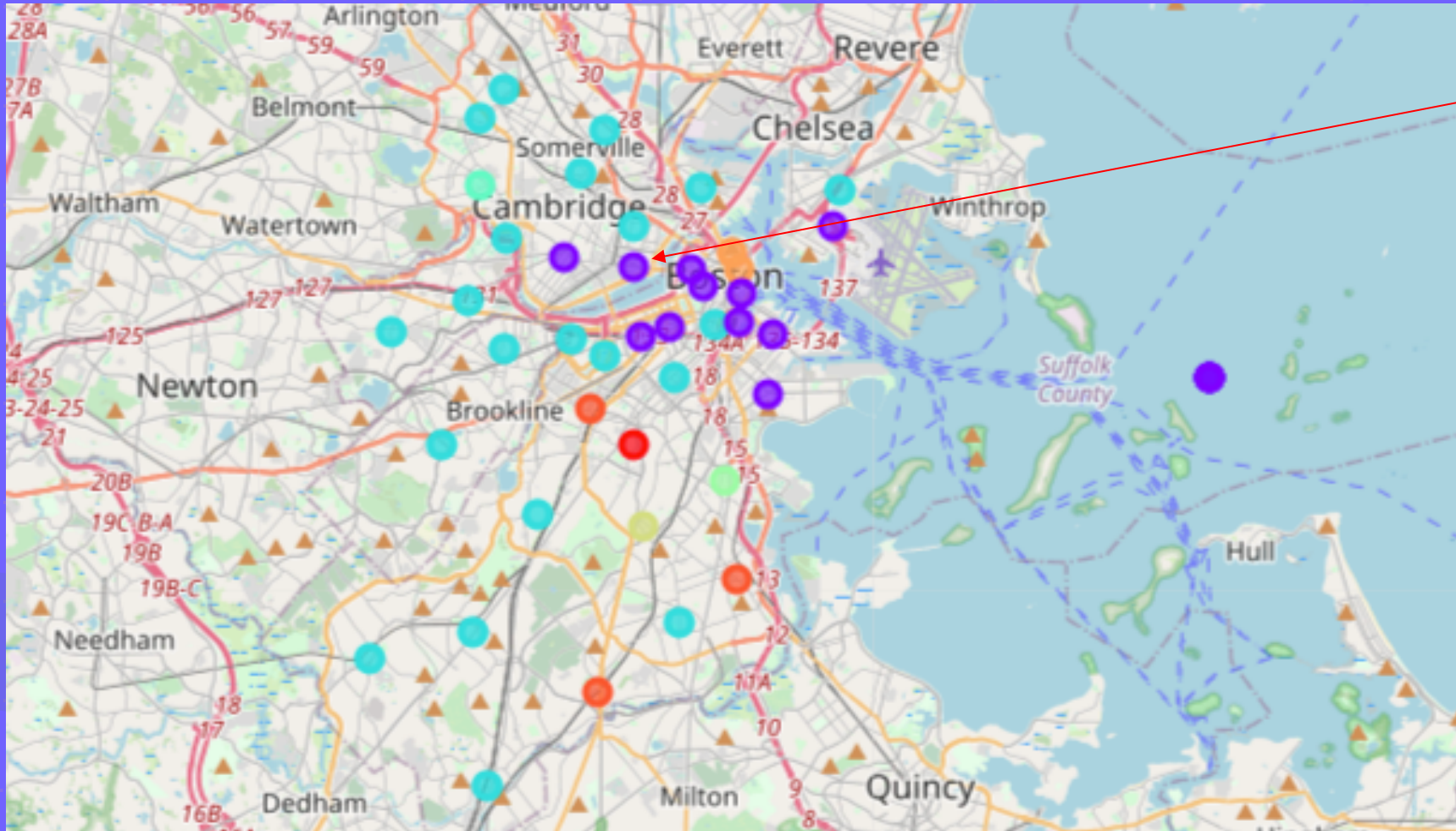
The Port

The analysis had 10 Clusters

The Port was placed in Cluster 2, which is characterized by having a lot of restaurants and fitness center. It's also a cluster that receives visitors often as evidenced by the number of hotel and car rentals in the area and the proximity to the city's landmarks. I knew this as a someone who has been living in the area for 8 years, but it's interesting to see the analysis confirming what I already new. Plus, my old neighborhood 'Prudential' is in the same cluster.

K-means Clustering in Manhattan
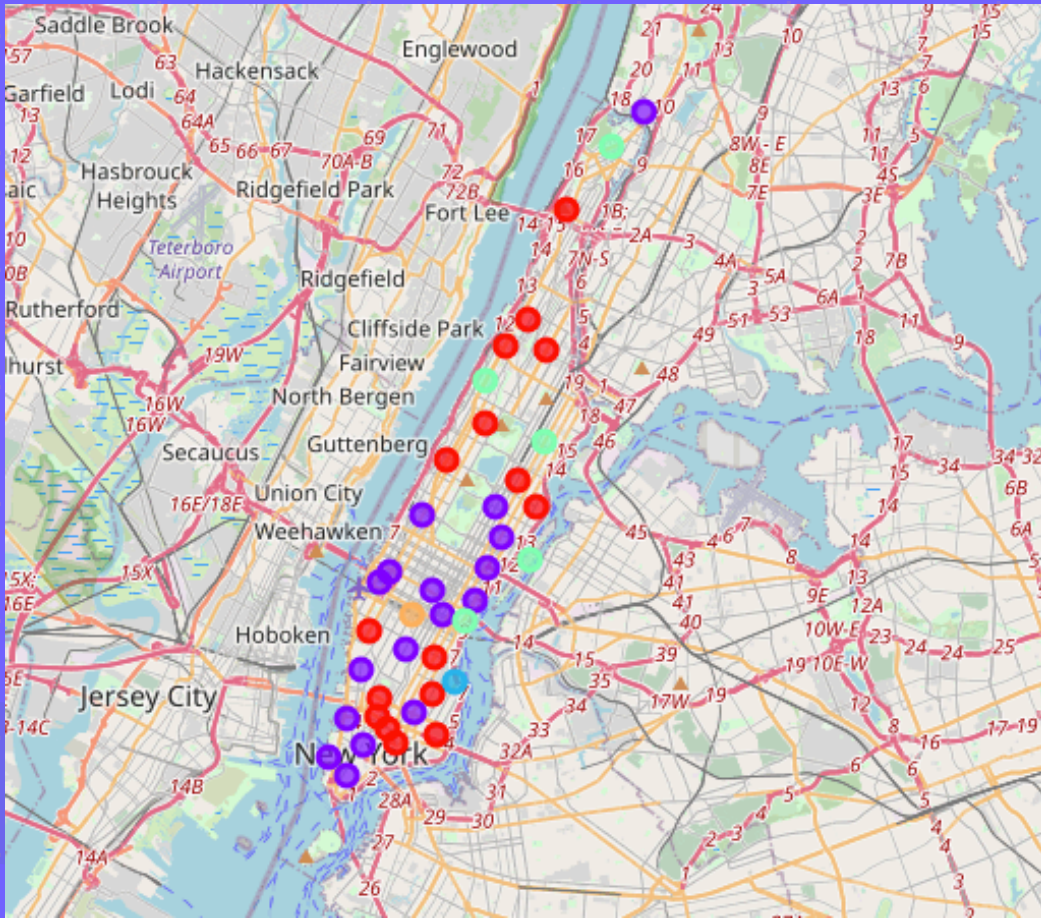
Analysis has 5 clusters as depicted in the map

K-means clustering analysis for all neighborhoods