

A client wishes to open a coffee roasting company in Times Square, New York. She finds the foot traffic from tourists and locals to be promising for her business. She needs help finding the best location for her shop.

## THE PROBLEM

Using Foursquare's API, I look up the venues for the 20 closest coffee roasters to Times Square. I obtain the coordinates for these companies.

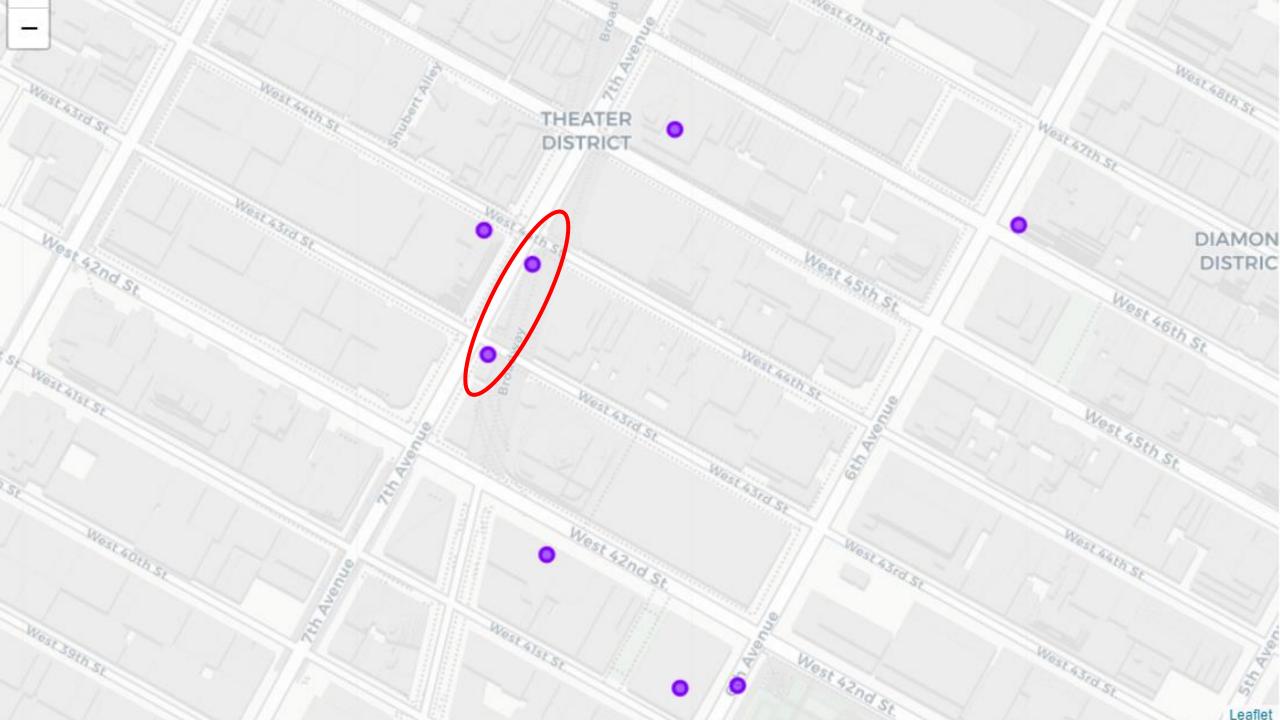
# THE DATA

I plot each roaster on a map using the folium package. Once that is done, I cluster the roasters using k-means to find the ones closest to Times Square.

#### **METHODOLOGY**

The k-means clusters return several roasting companies near Times Square. I determined there are two roasters very near or in Times Square. These shops are located on 43<sup>rd</sup> and 44<sup>th</sup> Streets, bordering Times Square.

## RESULTS



Based on the locations of these shops, I determine a shop on 7<sup>th</sup> Avenue at the midpoint between 43<sup>rd</sup> and 44<sup>th</sup> Streets is the best location for my client.

# **DISCUSSION**

