Opening an Indian Restaurant In New York City

Introduction/Business problem

Our client has decided that they want to open an Indian restaurant in New York City. They are determined that they have the best Indian food in the states, however they are worried about the competition as they know that customers are loyal to their respective favorite restaurants.

Therefore, they have hired me, Saeed Molavi, as a data scientist to explore New York city neighborhoods and try to find the best area to open the restaurant. One of the main criteria for this task is to choose an area where the competition in regard to Indian restaurants is low, as this client wants to be able to bring something new to the table, so to say. There are lots of restaurants, and Indian restaurants too, in this town and therefore the challenge is to find a spot where the distance to other Indian joins is high.

Data

For this task, I will use location data from NYU Spatial Data Repository, as well as the Foursquare API to explore neighborhoods in New York City and try to find the best spot. I will use the explore function of the API and use a k-means clustering algorithm to solve this problem in the best manner I possibly can. I will also use the Folium library to visualize the neighborhoods of New York and their emerging clusters. I will use Pandas in Python to perform these tasks and try to walk you through each and every step I take to solve the problem for the client.