Introduction/Problem

Problem:

In what neighborhood would you recommend opening a restaurant or café in Manhattan, NY?

Multiple factors need to be considered when considering a business venture that involves a restaurant or café. Chief among these are the demand, the competition, operating cost, and time before the investment start yielding returns. The demand can be estimated from businesses and residents in a given neighborhood. The competition comprises of other eateries in the area. There needs to be a clear differentiator from the competition for a new business to gain traction. Operating costs include renting space, hiring and employing staff, raw materials, appliances, publicity charges. In this project we are going to focus on honing in which neighborhood(s) would be good candidates for investment in a café or restaurant in Manhattan. This data will be useful to potential investors, prospective small business owners, or restaurant-chains looking to expand.

Data:

We will primarily be using Foursquare location data for this project. We will examine neighborhoods in Manhattan by looking at fixed number of venues. For analysis we will define attributes for cafes and restaurants as one group and all other venues as another group. We will convert the venues is numerical datatype and analyze what kind of venue attributes are most correlated with successful restaurant businesses. We will then use predictive analytics to generate neighborhoods where new restaurant or café would be profitable. We will use folium package to generate maps of these predicted neighborhoods.