

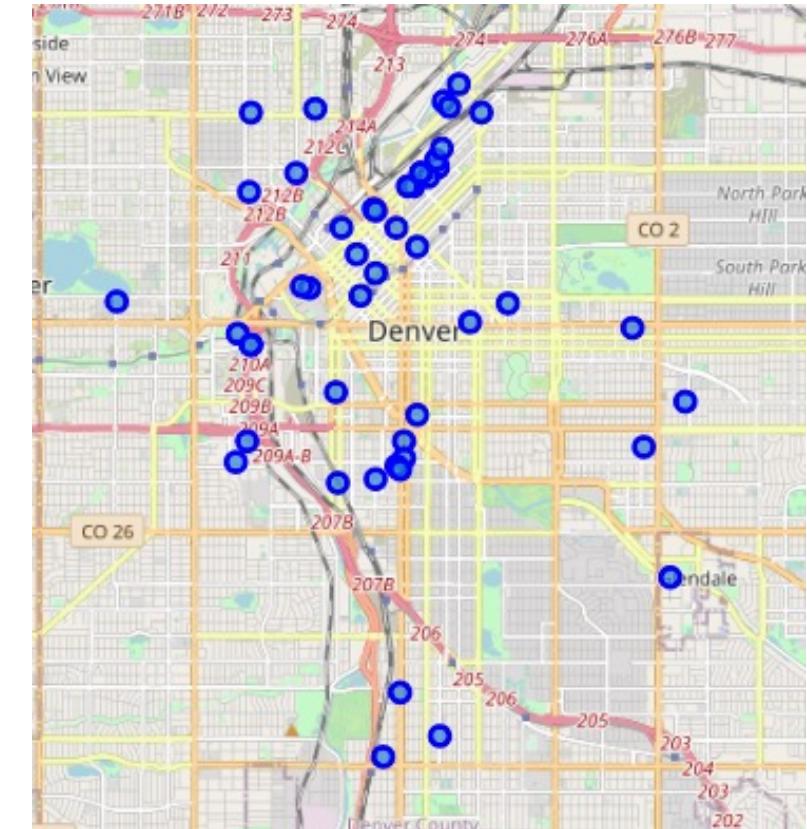
Restaurant Location
Based on Breweries

What is the best location for a new restaurant in Denver?

- New restaurant owner wants to be near highly rated breweries in Downtown Denver because of the established traffic
- There are many breweries spread around this area
- Foursquare has ratings and other data to help sort the breweries

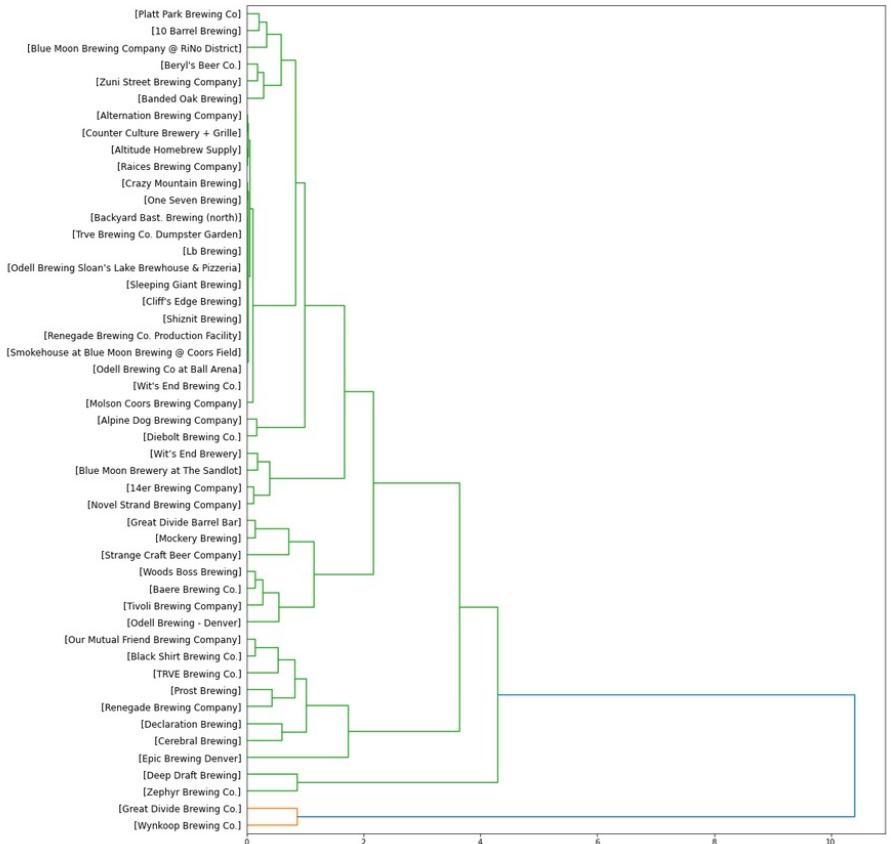
Data acquisition

- Using Foursquare API, acquire brewery ratings, rating count tip count, photo count, and listed count
- 49 breweries are returned for a particular spatial area
- Breweries that have not been rated are assigned the mean rating for those that have been rated



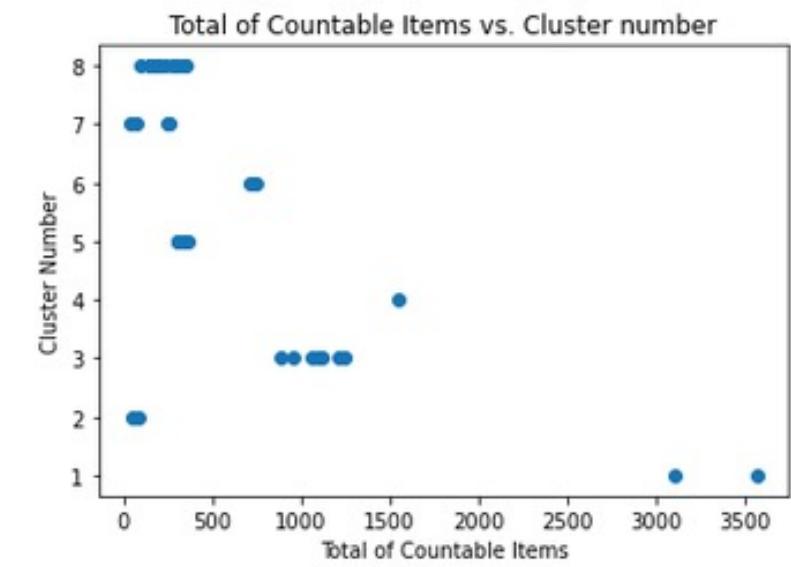
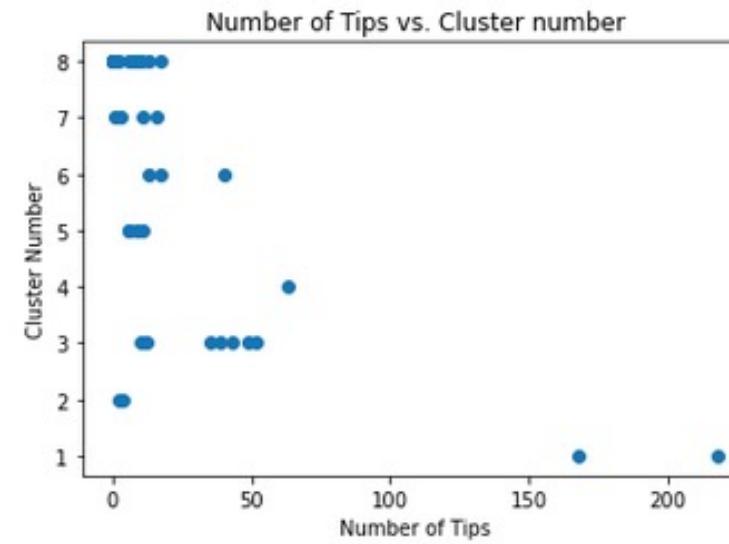
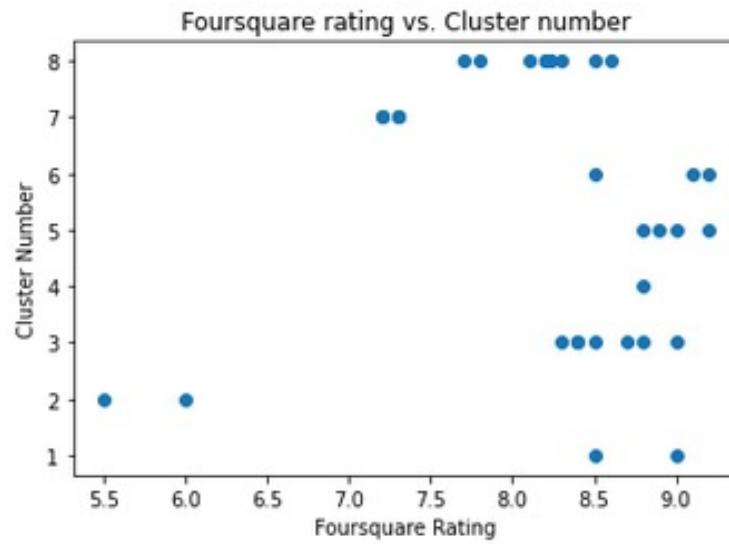
Clustering

- Uses a hierarchical method of `fcluster` from scikit
- Dendrogram provides a quick look at the clusters that arise

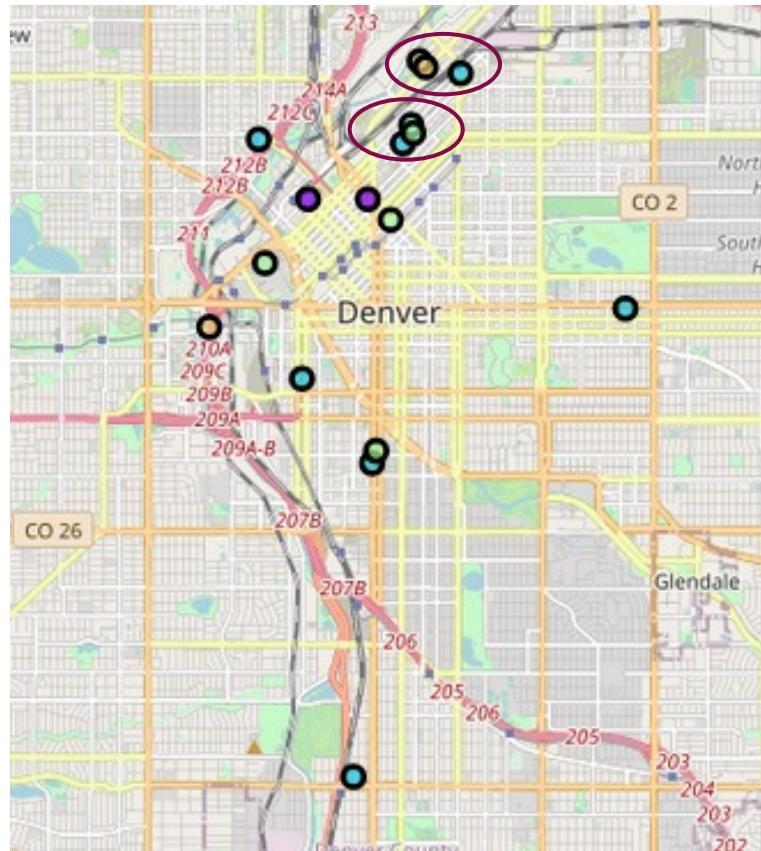


Elimination of some clusters

- Based on ratings, number of ratings, number of tips, etc. plotted against number cluster, three clusters are eliminated, 2, 7 and 8



Final Cluster Map: recommendation



The two circled areas give starting locations for a restaurant owner to begin a search, although other locations of breweries also meet the criteria.