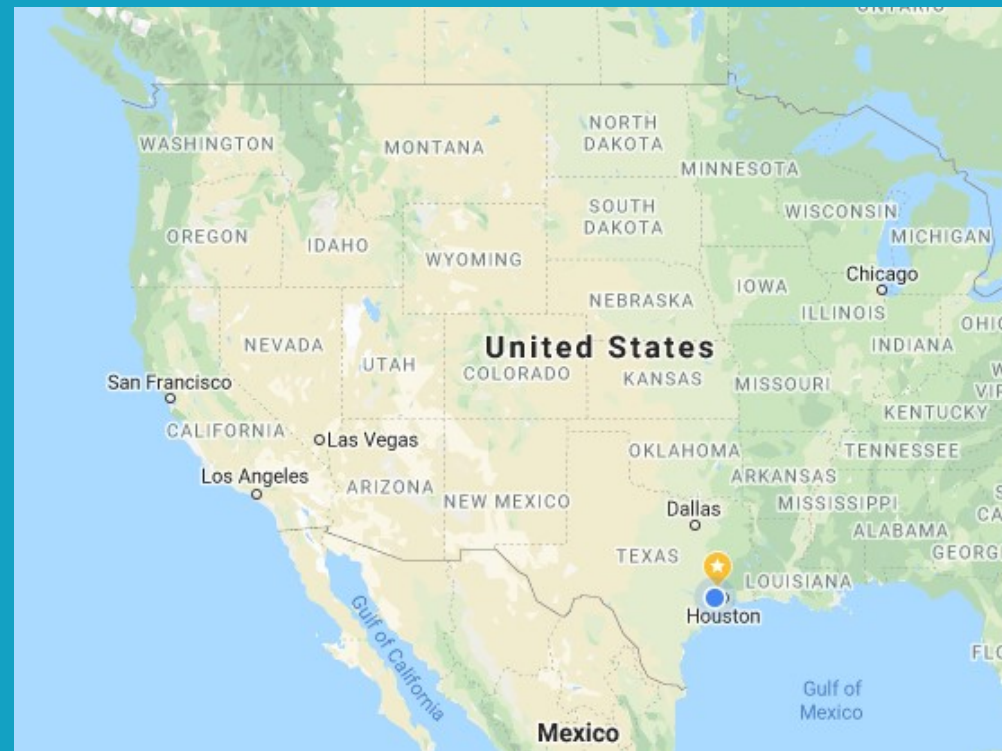




The Future of HEB

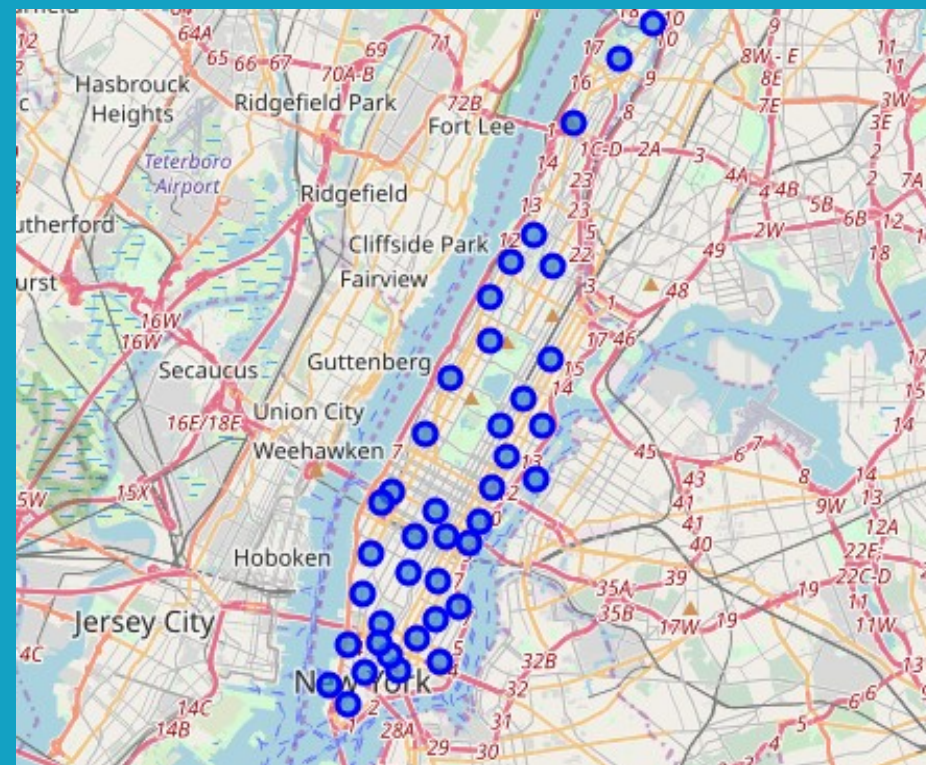
Northern Expansion

The Problem: Where In NYC Does Northern Expansion Locat



- *NYC chosen due to population density*
- *Manhattan chosen as area due to 'flagship'*
- *But where in Manhattan?*

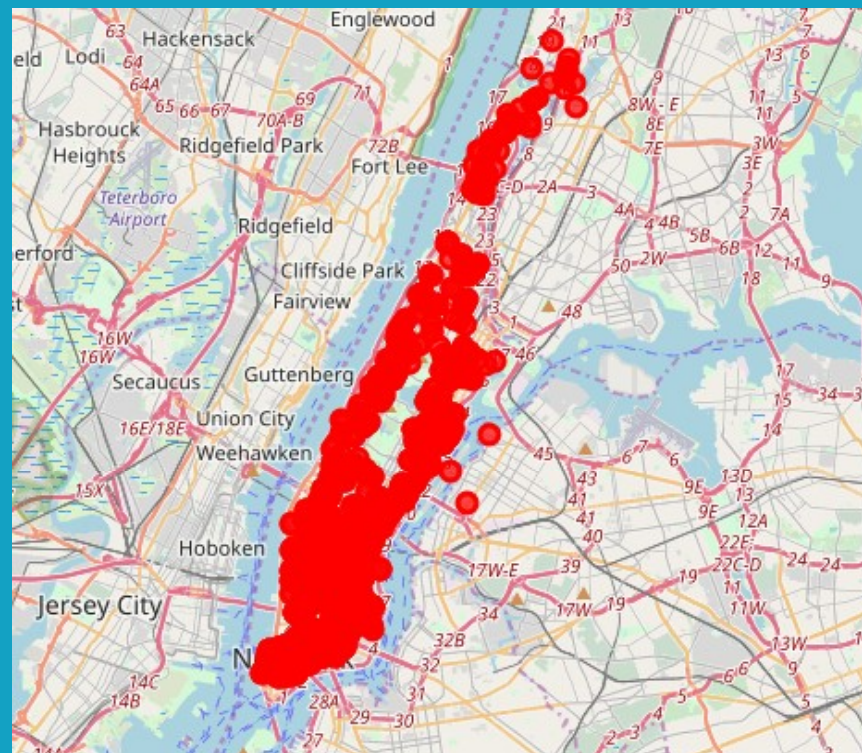
Using data from *The New York City Planning, 40 Manhattan 'Neighborhoods'*



- Data uses centroids to locate neighborhood centers
- This data set addresses population density naming framework

E-B

Laying Foursquare Data on The Map 1247 competitors identified



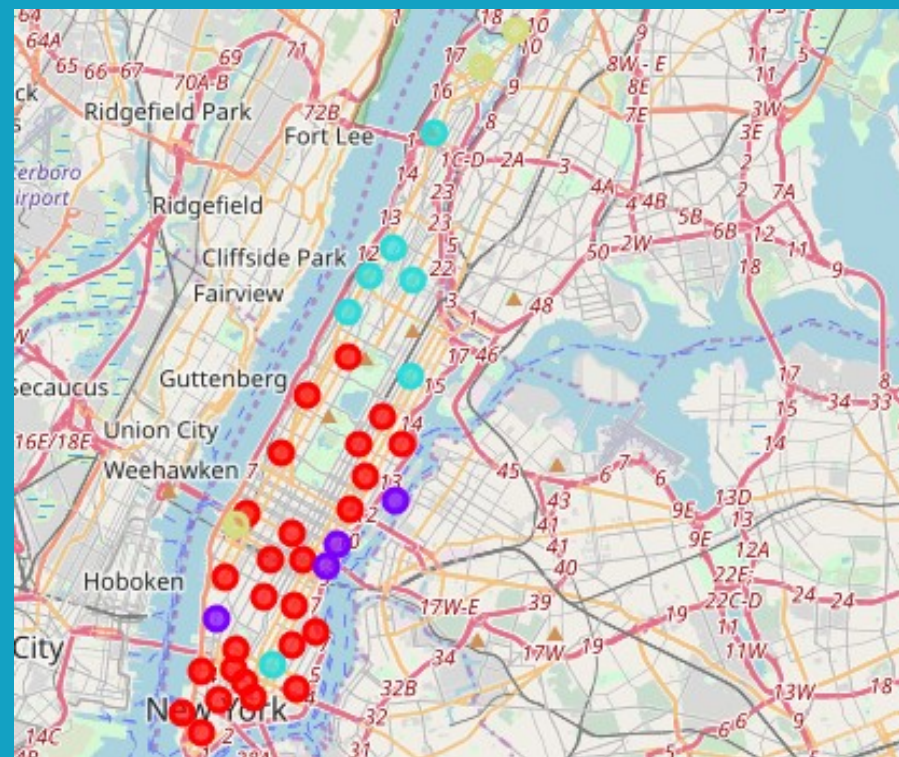
- *Foursquare data uneven in terms of reported stores*
- *There are 20 venue types, including Grocery Supermarket, plus many smaller stores like butchers*

Using One Hot Encoding, venues, numerical data and count

Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude
Battery Park City	16	16	16	16
Carnegie Hill	31	31	31	31
Central Harlem	25	25	25	25
Chelsea	33	33	33	33
Chinatown	49	49	49	49
Civic Center	50	50	50	50
Clinton	25	25	25	25
East Harlem	28	28	28	28
East Village	50	50	50	50
Financial District	17	17	17	17

- Data indicates raw number of competitors in neighborhood regardless of type
- Variation from 13 to 50

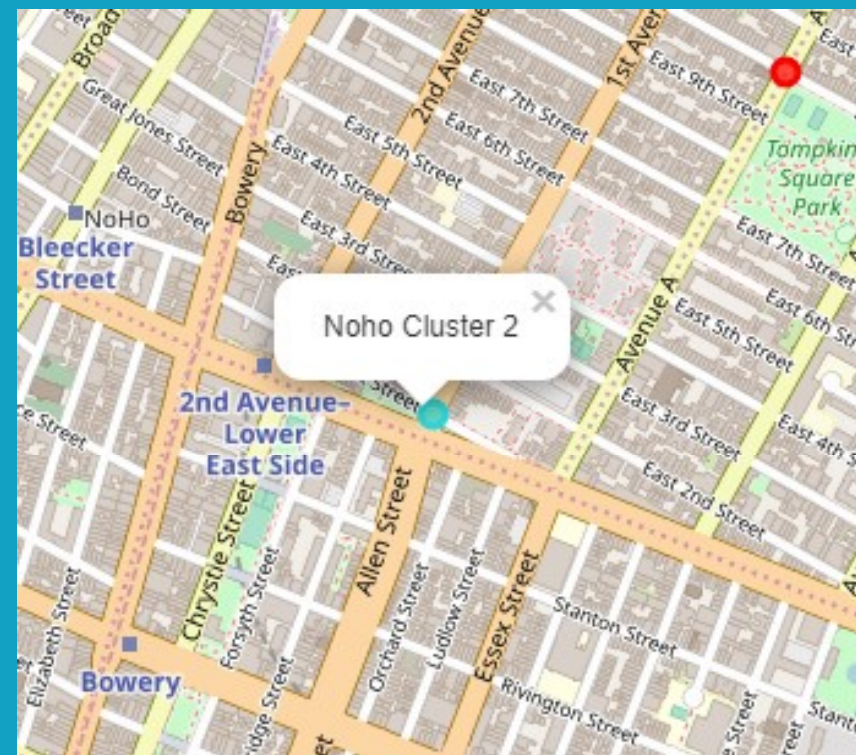
K-Means clusters venues on the top for each neighborhood



- *Red dots indicate the most common components describing 26 out of 40 neighborhoods*
- *Now, weak clusters in high density neighborhoods*

E-B

*By looking at density and uncomm
the clusters, we see high density
with low or weaker compo*



• Noho, The West Village, and Hudson Yards are highly dense neighborhoods but have lower completion and are outside the default completion configuration.



THANK YOU!

Any questions?

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