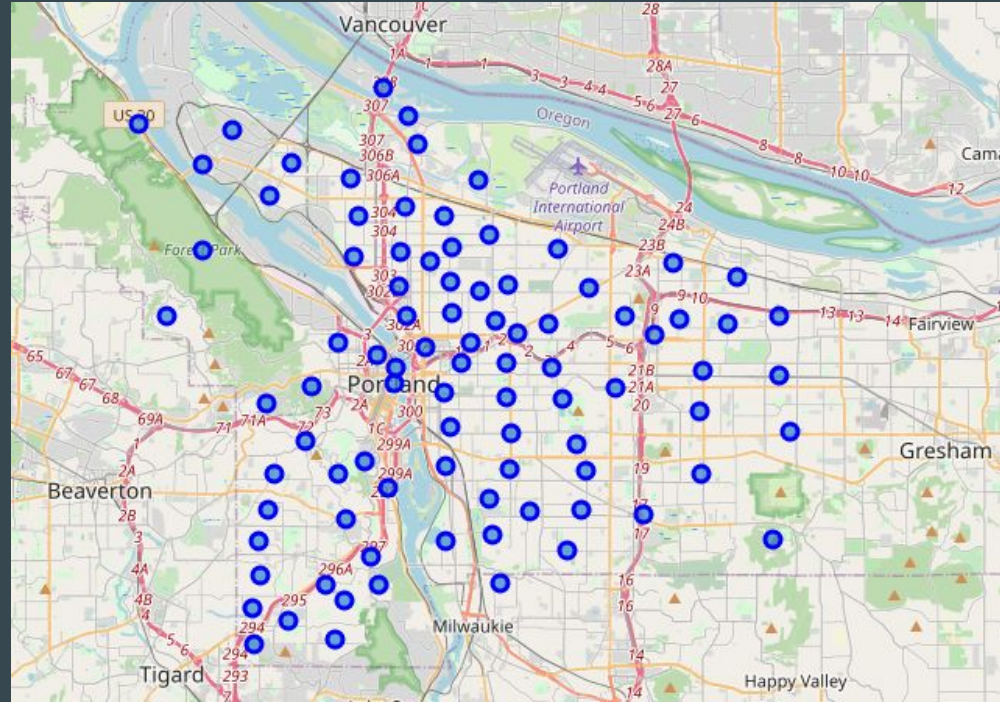


# Portland, Oregon



Best Neighborhoods for Non-Profit

A local Portland, Oregon non-profit is wanting to expand its outreach to Portland teens. They are looking for neighborhoods with access to mass transit for small group gatherings. They would also like the neighborhoods to have venues such as coffee shops and pizza places that might be willing to host these gatherings.



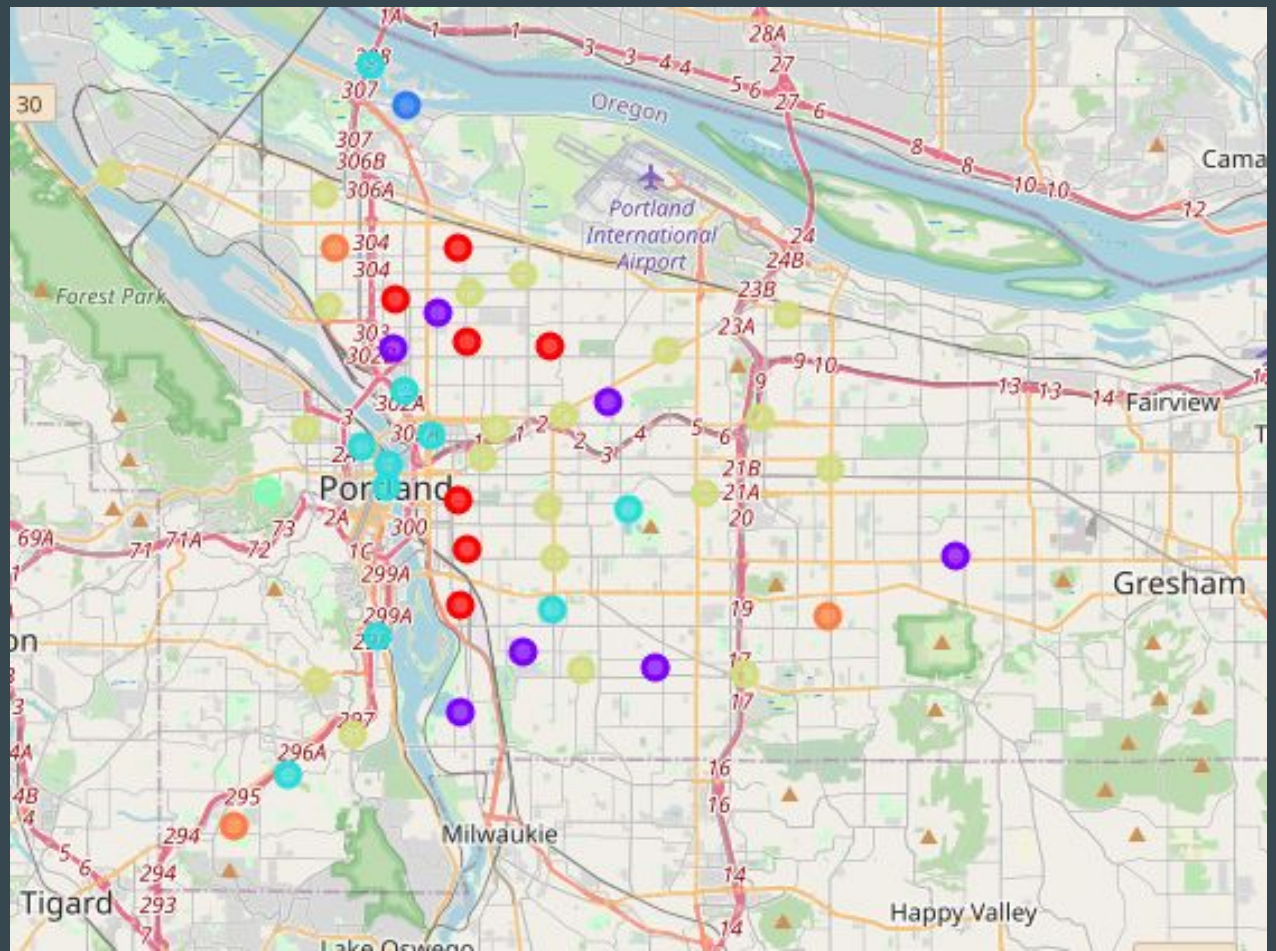
# Data

- Portland Neighborhoods from the [Portland City Government website](#)
- Neighborhood venue information from the [Foursquare API](#)
- The final dataset had 51 neighborhoods and 290 unique venue categories.

	NeighborhoodName	ATM	Accessories Store	African Restaurant	American Restaurant
0	Arbor Lodge	0.000000	0.000000	0.000	0.000000
1	Arlington Heights	0.000000	0.000000	0.000	0.000000
2	Beaumont-Wilshire	0.000000	0.000000	0.000	0.000000
3	Boise	0.000000	0.000000	0.000	0.010000
4	Bridgeton	0.000000	0.000000	0.000	0.166667
5	Brooklyn	0.071429	0.000000	0.000	0.000000
6	Buckman	0.000000	0.000000	0.000	0.018182
7	Cathedral Park	0.023256	0.023256	0.000	0.000000
8	Centennial	0.083333	0.000000	0.000	0.000000

Small sample of data frame used for k-means clustering.

# Results



Map of the 7 Portland neighborhood clusters

## Top ten venues for each cluster of neighborhoods.

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Cluster 7
Bar Grocery Store Pizza Place Coffee Shop Mexican Restaurant Flower Shop Breakfast Spot Brewery Italian Restaurant Bus Stop	Food Truck Bar Coffee Shop Pizza Place Asian Restaurant Brewery Burger Joint Gym Breakfast Spot Sandwich Place	American Restaurant Bar Deli / Bodega Ethiopian Restaurant General Travel Grocery Store Harbor / Marina Hawaiian Restaurant Motel Thai Restaurant	Coffee Shop Sandwich Place Hotel Pizza Place Park Mobile Phone Shop Yoga Studio Bus Stop Food Truck Clothing Store	Botanical Garden Field Fountain Garden Gift Shop Park Playground Tennis Court Trail Train Station	Coffee Shop Mexican Restaurant Bar Pizza Place Sandwich Place Food Truck Brewery Grocery Store Liquor Store Café	Coffee Shop Convenience Store Bar Park Grocery Store Japanese Restaurant Thai Restaurant Smoke Shop Sandwich Place Pizza Place



# Recommendations

Cluster four has coffee shops, pizza places, and parks in their top venues list. All of these venues would work well for the non-profit's needs. Also, these neighborhoods have good access to mass transportation and are centrally located. This will make it easier for the teens to get there. In addition, cluster four neighborhoods are on both the east and west sides. This gives the non-profit more options. They may choose to alternate east and west locations for their gatherings.

Cluster Four Neighborhoods
Creston-Kenilworth
Eliot
Hayden Island
Lloyd District
Markham
Mt Tabor
Multnomah
Old Town
Pearl
South Portland