



# **Where To Open A New Restaurant In Kirkland**



# Background

## --Facts about Kirkland

- ▶ Population of 93,000 +
- ▶ Population grows at an annual rate of 1.32%
- ▶ Close to big IT companies, Microsoft, Expedia, etc.
- ▶ Has beautiful waterfront, parks, art galleries

**There is growing  
need for restaurant**



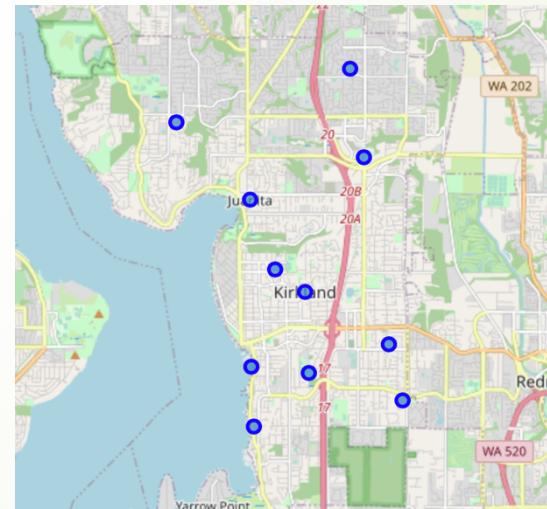
# Data Used In The Report

- ▶ Neighborhood information from Kirklandwa.org
- ▶ Venue information from Foursquare

# Methodology

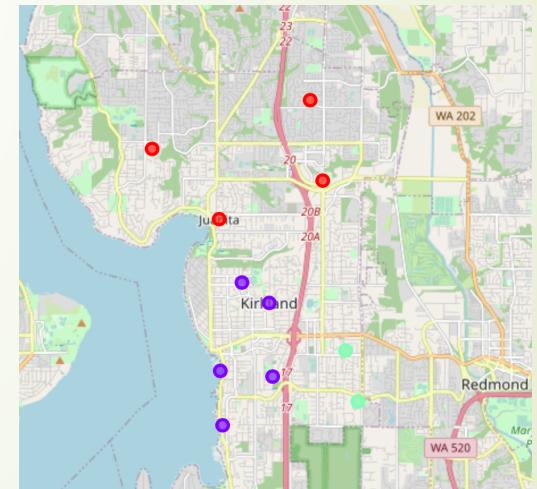
- ▶ Step 1: create a dataframe with neighborhood and geographical coordinates, and test out accuracy by mapping it out

Zipcode	Neighborhood	Latitude	Longitude
0	98034 Finn hill, Kirkland, WA	47.717321	-122.227347
1	98034 Juanita, Kirkland, WA	47.703154	-122.207069
2	98034 Kingsgate, Kirkland, WA	47.727326	-122.179758
3	98034 Totem Lake, Kirkland, WA	47.710855	-122.176017
4	98033 Market, Kirkland, WA	47.685957	-122.192025
5	98033 Norkirk, Kirkland, WA	47.690116	-122.200412
6	98033 Highlands, Kirkland, WA	47.689600	122.186000
7	98033 North Rose Hill, Kirkland	47.693200	122.170300
8	98033 Moss Bay, Kirkland, WA	47.672043	-122.206791
9	98033 Everest, Kirkland, WA	47.670958	-122.190983
10	98033 South Rose Hill, Kirkland	47.676225	-122.169086
11	98033 Bridle Trails, Kirkland, WA	47.665880	-122.165365
12	98033 Lakeview, Kirkland, WA	47.676900	122.206000
13	98033 Central Houghton, Kirkland, WA	47.660932	-122.205957



# Methodology (cont.)

- ▶ Analyze Neighborhoods
  - ▶ Obtain venue information from Foursquare
  - ▶ Get venue counts for each neighborhood
  - ▶ Get top 10 most common venues for each neighborhood
  - ▶ Cluster neighborhoods with kmeans
  - ▶ Examine each cluster to find out unique characteristics



# Methodology (cont.)

► Cluster 1

Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0 Finn hill, Kirkland, WA	Coffee Shop	Park	Sushi Restaurant	Shoe Repair	Italian Restaurant	Gym / Fitness Center	Gym	Grocery Store	Greek Restaurant	Mediterranean Restaurant
1 Juanita, Kirkland, WA	Coffee Shop	Park	Sushi Restaurant	Indian Restaurant	Shoe Repair	Italian Restaurant	Harbor / Marina	Gym / Fitness Center	Grocery Store	Mediterranean Restaurant
2 Kingsgate, Kirkland, WA	Winery	Coffee Shop	Grocery Store	Japanese Restaurant	Pharmacy	Pet Store	New American Restaurant	Mediterranean Restaurant	Karaoke Bar	Italian Restaurant
3 Totem Lake, Kirkland, WA	Coffee Shop	Japanese Restaurant	Asian Restaurant	Grocery Store	Brewery	Pet Store	Cosmetics Shop	Comic Shop	Clothing Store	Mediterranean Restaurant

► Cluster 2

Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
4 Market, Kirkland, WA	Park	Sandwich Place	Playground	Sports Bar	Mexican Restaurant	Coffee Shop	Optical Shop	Dessert Shop	Café	Burger Joint
5 Norkirk, Kirkland, WA	Park	Sandwich Place	Yoga Studio	Burger Joint	Harbor / Marina	Hotel	Ice Cream Shop	Greek Restaurant	Italian Restaurant	French Restaurant
6 Moss Bay, Kirkland, WA	Sandwich Place	Coffee Shop	Beach	Park	Playground	Chinese Restaurant	Persian Restaurant	Organic Grocery	Dessert Shop	Mexican Restaurant
7 Everest, Kirkland, WA	Beach	Park	Sandwich Place	Playground	Organic Grocery	Burger Joint	Café	Grocery Store	Chinese Restaurant	Coffee Shop
10 Central Houghton, Kirkland, WA	Sandwich Place	Hotel	Park	Beach	Burger Joint	American Restaurant	Ice Cream Shop	Grocery Store	Irish Pub	Greek Restaurant

► Cluster 3

Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
8 South Rose Hill, Kirkland	Pizza Place	Playground	Park	Coffee Shop	Waterfront	Warehouse Store	Mexican Restaurant	Knitting Store	Optical Shop	Organic Grocery
9 Bridle Trails, Kirkland, WA	Park	Coffee Shop	Japanese Restaurant	Pizza Place	Gym	Playground	Organic Grocery	Optical Shop	Knitting Store	Grocery Store

# Results

- ▶ Cluster 1 is popular for family leisure and dining
- ▶ Cluster 2 is popular for family leisure and fastfood
- ▶ Cluster 3 is popular for family leisure, fast food and errands

# Discussion

- ▶ All three clusters have parks to attract families to spend time in the area, especially during weekends and holidays.
- ▶ Cluster 1 has more table service dining options, which is a go-to area for meals. This guarantees a certain amount of potential customers for any new restaurants as it helps the exposure of the existence of a new restaurant.
- ▶ Cluster 2 seems to have more fast food options.
- ▶ Similar to Cluster 1, Cluster 3 also has more fast food option than table service restaurants.

# Conclusion

- The ideal area to open a new restaurant:

**Cluster 1 area**