# CAPSTONE PROJECT - THE POSSIBLE COVID-19 OUTBREAK DISTRICTS IN SEATTLE

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## **INTRODUCTION**

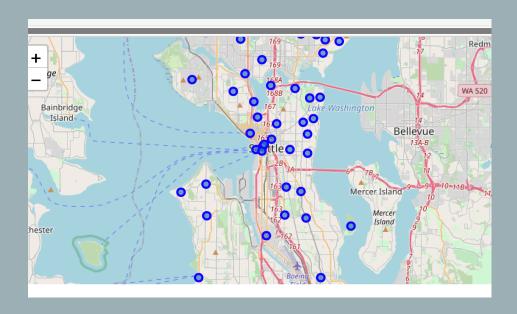


# **DATA**

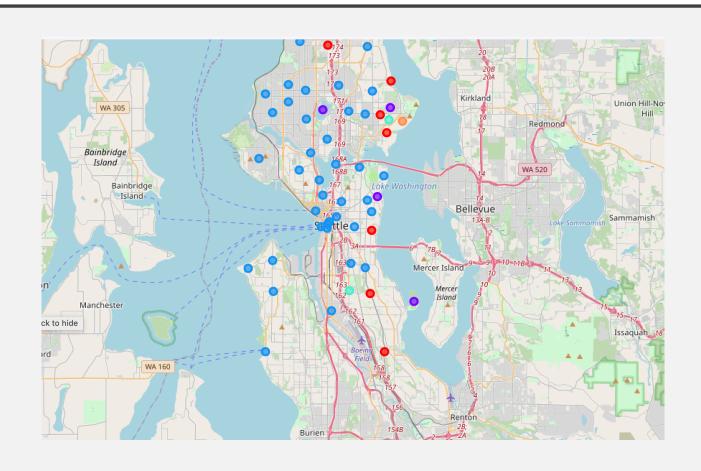
# GENERATE COORDINATE FOR ALL DISTRICTS

	district	neighborhood	Latitude	Longitude
0	Belltown	Central Seattle	47.613231	-122.345361
1	Broadmoor	Central Seattle	47.635170	-122.289711
2	Capitol Hill	Central Seattle	47.619004	-122.320215
3	Central District	Central Seattle	47.603110	-122.308270
4	Denny-Blaine	Central Seattle	47.622327	-122.285985
5	Downtown	Central Seattle	47.604949	-122.333274
6	Eastlake	Central Seattle	47.643145	-122.326172
7	First Hill	Central Seattle	47.609305	-122.324984
8	International District	Central Seattle	47.602896	-122.339841
9	Leschi	Central Seattle	47.600535	-122.291866
10	Madison Park	Central Seattle	47.635930	-122.280196
11	Madison Valley	Central Seattle	47.619916	-122.295614
12	Madrona	Central Seattle	47.612792	-122.291226

# MAP SEATTLE



#### **CLUSTERING**



### RESULT

#### 5. Results

The resulting clusters are as follow:

- Cluster 1 low probility district
- Cluster 2 low probility district
- Cluster 3 High probility district
- Cluster 4 moderate probility district
- Cluster 5 low probility district
- Cluster 6 low probility district

#### CONCLUSION

• From the result, Cluster 3 has the most density of cafe shop and resturants Therefore, Cluster 3 has the highest potential to have the covid-19 outbreak.

Str.	ict_merged. C	ocldistri	ct_merged[	'Cluster Lab	els'] == 2,	district_	merged.col	.umns[[1] + [2	!] + list(r	ange(5, di	strict_merge	u. Snape [
	neighborhood	Latitude	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 Mo Comm Ven
0	Central Seattle	47.613231	Hotel	Bakery	Coffee Shop	Breakfast Spot	Bar	Sushi Restaurant	Seafood Restaurant	Italian Restaurant	New American Restaurant	Pizza Pla
	Central Seattle	47.619004 k to hide	Coffee Shop	Bar	American Restaurant	Mexican Restaurant	Japanese Restaurant	Thrift / Vintage Store	Pizza Place	Cocktail Bar	Café	Taco Pla
		47.603110	Coffee Shop	Performing Arts Venue	Breakfast Spot	Plaza	Playground	Vietnamese Restaurant	Art Gallery	Pizza Place	Chinese Restaurant	BBQ J
5	Central Seattle	47.604949	Coffee Shop	Hotel	Cocktail Bar	Sandwich Place	Seafood Restaurant	Italian Restaurant	Breakfast Spot	Park	Pier	Pizza Pl
6	Central Seattle	47.643145	Sandwich Place	Coffee Shop	Mexican Restaurant	Playground	Italian Restaurant	Steakhouse	Bar	Burger Joint	Deli / Bodega	Furnitu Home St
7	Central Seattle	47.609305	Sandwich Place	Coffee Shop	Hotel	Pharmacy	Pizza Place	Bakery	Asian Restaurant	Restaurant	Poke Place	Inc Restaur
			Soafood									Theme I