



BATTLE OF CITIES

SELECT A U.S. CITY FOR SOFTWARE COMPANY
EXPANSION

DAVID ZAKARIAS, ©2020



COURSERA CAPSTONE PROJECT

IBM DATA SCIENCE COURSES

THE PROBLEM

What makes an environment ideal? Cities with high quality of life, low crime, good climate, good healthcare, low pollution all comes to mind.



GOALS

The goal of this research is to use data to find cities within the United States best suited for being the location of the new R&D office, keeping in mind the factors mentioned above.

A recommendation of neighborhood within the highest ranked cities should also be part of the final report: the neighborhood chosen should be rich in amenities for the developers to spend their free time and hard-earned pay: restaurants, cinemas, parks all come to mind.



DATA SOURCES



WIKIPEDIA

Several aspects of city climate is available in Wikipedia tables. We worked with mean temperature.



KAGGLE

Movehub City Rankings was used.
Includes:

- Purchase Power
- Healthcare
- Pollution
- Quality of Life
- Crime Rating

DATA SOURCES



GEOJSON

The candidate city's neighborhoods are visualized using GeoJSON data for that city.

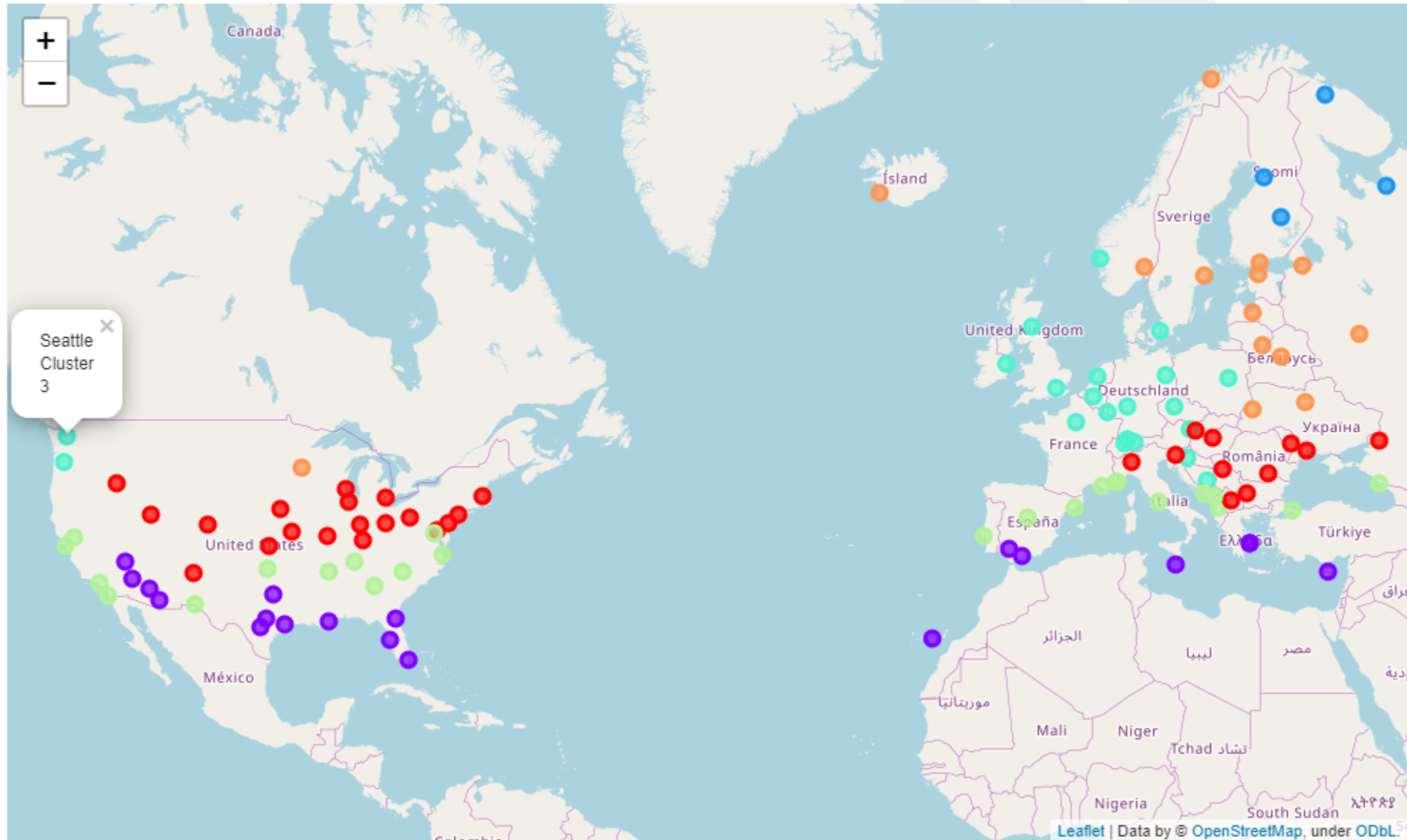


FOURSQUARE

Foursquare REST API, in particular /venue/explore for categories:

- Places to eat
- Coffee shops
- Sights
- Top Picks

CITY CLUSTERS



MOVEHUB CITY RANKINGS – OUR CANDIDATES

City	Movehub Rating	Purchase Power	Health Care	Pollution	Quality of Life	Crime Rating
Austin	84.86	69.22	73.61	28.84	86.51	42.50
San Antonio	83.76	74.78	60.97	59.19	84.88	51.41
Charlotte	84.46	77.18	72.08	67.05	84.39	30.21
Seattle	85.38	78.46	75.46	32.90	84.10	42.03
Minneapolis	83.47	69.91	62.35	77.94	83.79	40.36

EFFECT SIZES IN DETERMINING QUALITY OF LIFE

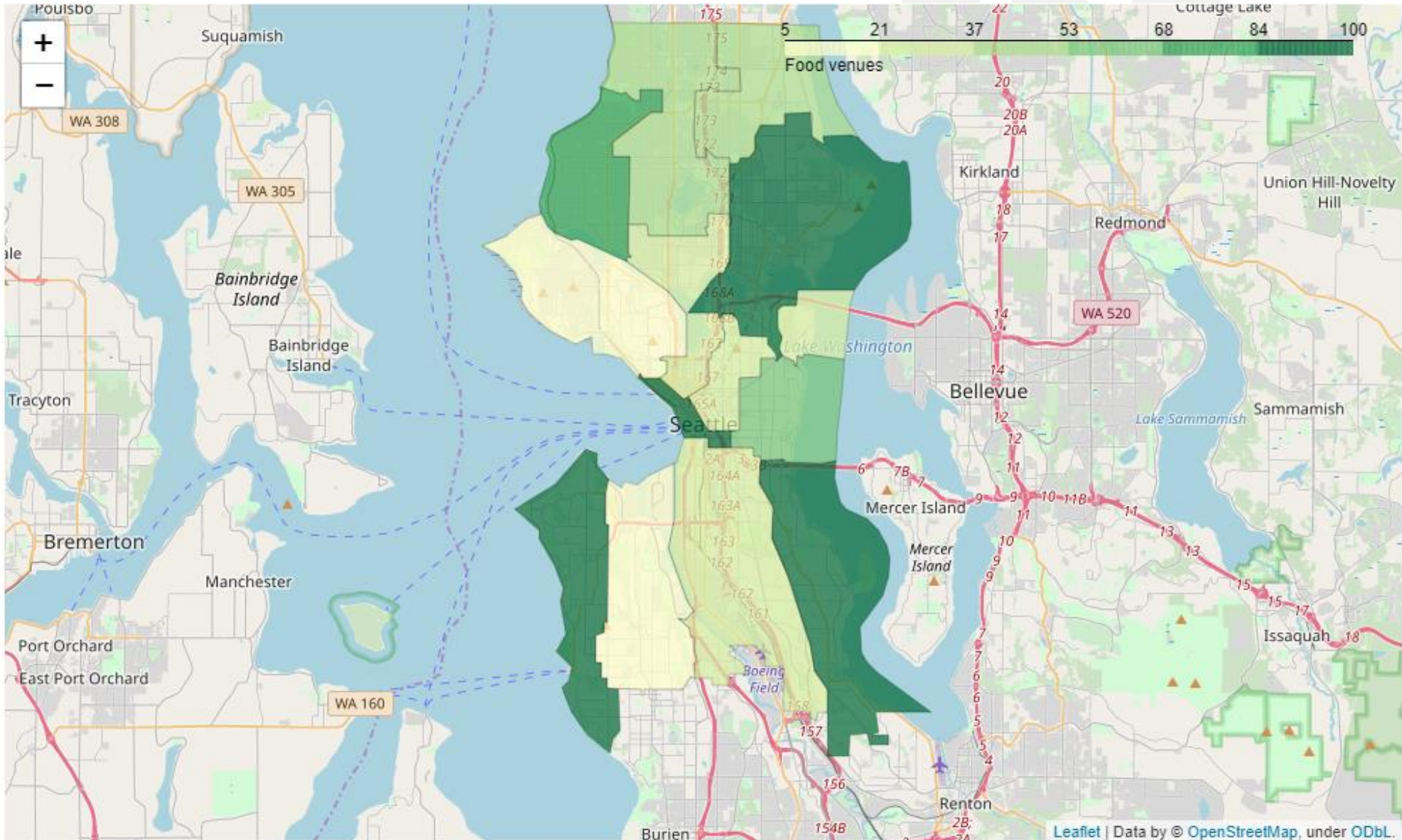
	Coefficients
Purchase Power	0.669500
Health Care	2.368927
Pollution	-0.539854
Crime Rating	-6.009810
Jan	-6.872101
Apr	10.282084
Jul	-2.811059
Oct	-0.611531

NEIGHBORHOOD SELECTION

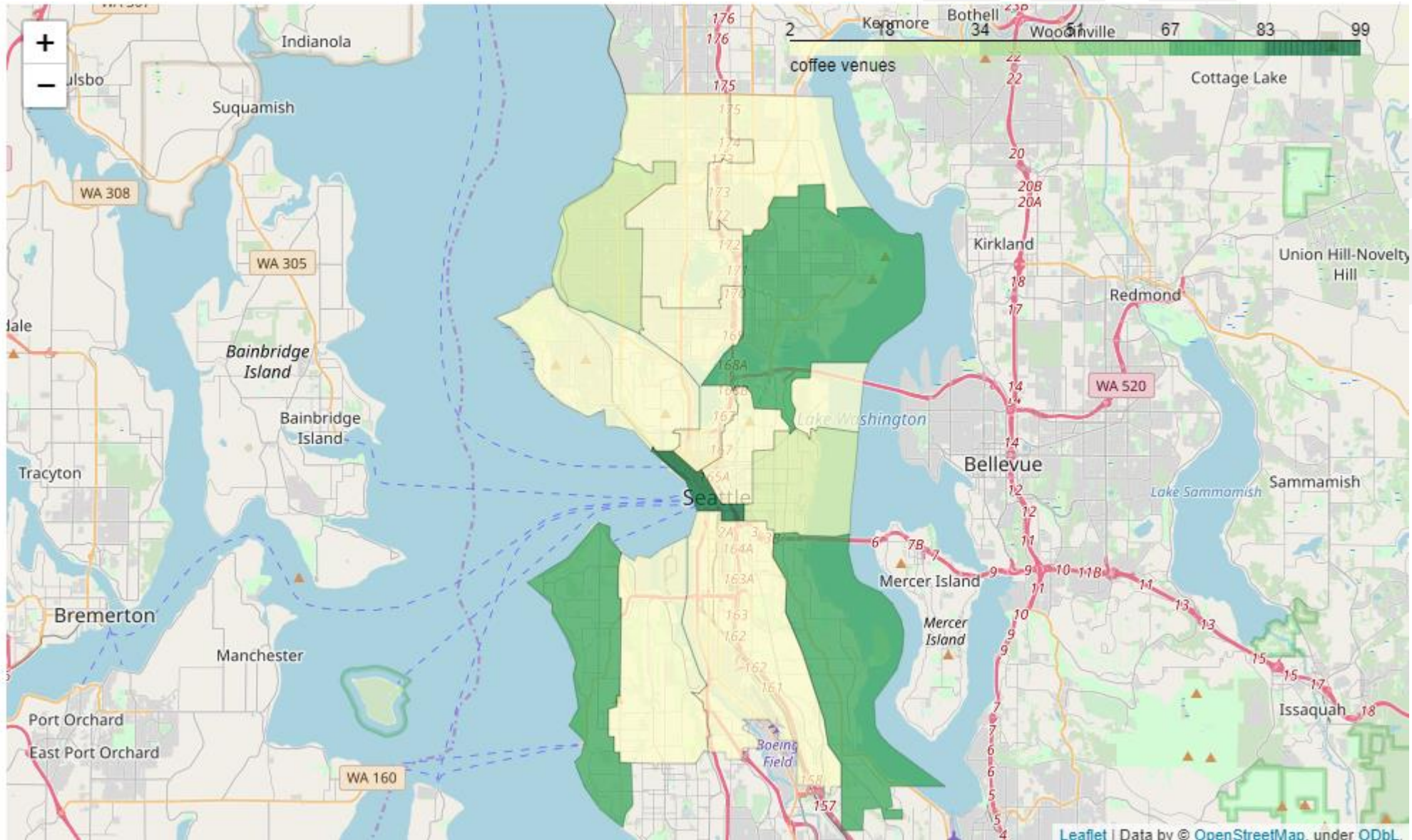
Foursquare results showing the amount of places to eat, coffee shops, sights and users' Top Picks.



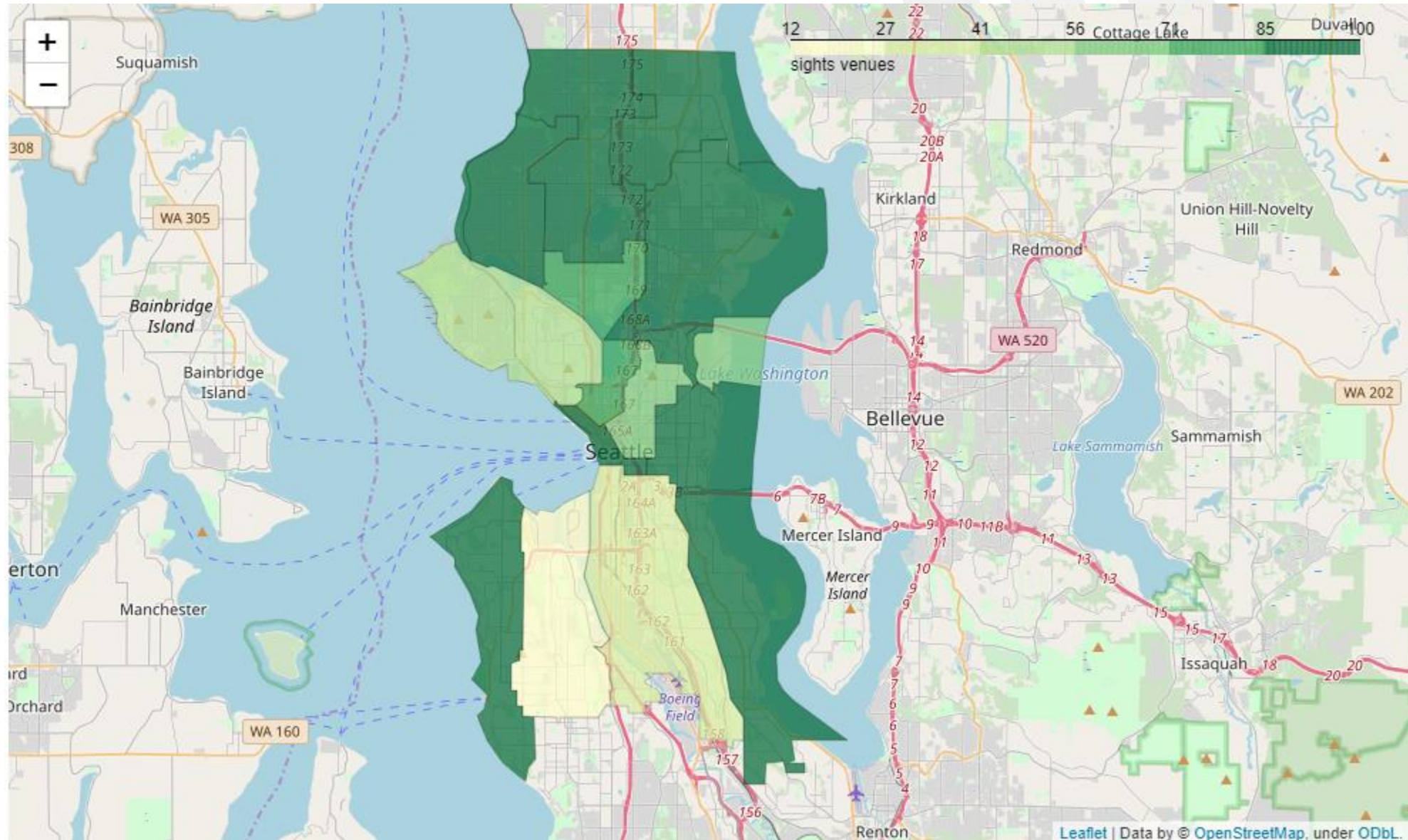
NEIGHBORHOODS – PLACES TO EAT



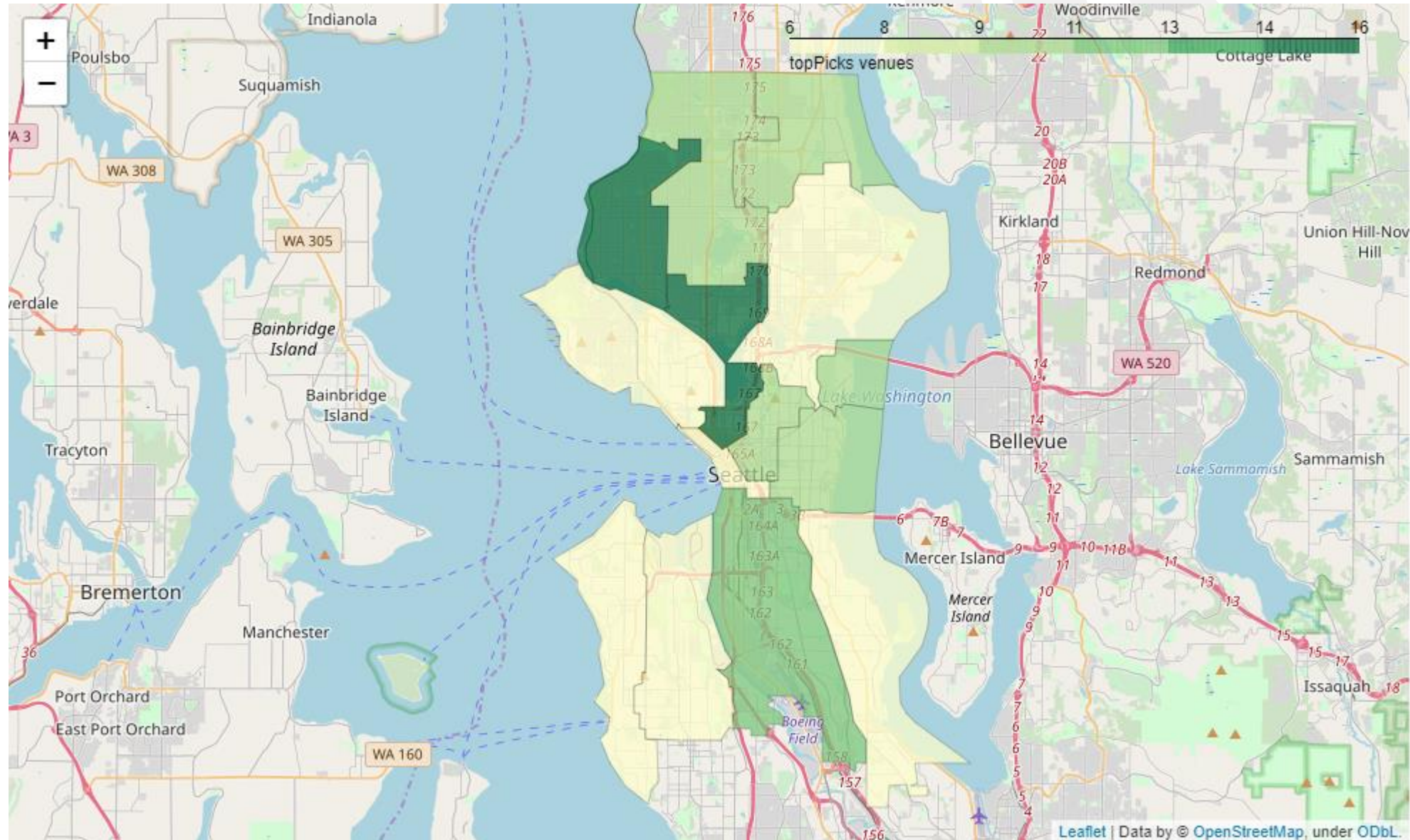
NEIGHBORHOODS – COFFEE SHOPS



NEIGHBORHOODS - SIGHTS



NEIGHBORHOODS – TOP PICKS





THANK YOU



DAVID.ZAKARIAS@GMAIL.COM