

Capstone Project

Battle of the Neighborhoods
Planning a trip based on city names





Introduction

- You want to go on a holiday
 - But only travel to cities that have a particular word in their name
 - For example “Anne”
 - Visit a certain type of venue there
 - For example “post offices”
- Goal: find all post offices in cities in the USA with “Anne” in their name
 - But in a general way, such that it also works for other words and venues



Data before cleaning

	Zip	City	State	Latitude	Longitude	Timezone	Daylight savings time flag	geopoint
0	55795	Willow River	MN	46317812.0	-9284315.0	-6	1	46.317812,-92.84315
1	45388	Yorkshire	OH	40328535.0	-8447938.0	-5	1	40.328535,-84.47938
2	39483	Foxworth	MS	31218509.0	-8990761.0	-6	1	31.218509,-89.90761
3	31503	Waycross	GA	31205194.0	-8237534.0	-5	1	31.205194,-82.37534
4	45833	Delphos	OH	40841409.0	-8434178.0	-5	1	40.841409,-84.34178
...
43186	25612	Chauncey	WV	3776662.0	-8198755.0	-5	1	37.76662,-81.98755
43187	59444	Galata	MT	48635319.0	-11124083.0	-7	1	48.635319,-111.24083
43188	60532	Lisle	IL	41789079.0	-8808536.0	-6	1	41.789079,-88.08536
43189	61638	Peoria	IL	40796887.0	-89611146.0	-6	1	40.796887,-89.611146
43190	85326	Buckeye	AZ	33354418.0	-11256941.0	-7	0	33.354418,-112.56941

43191 rows × 8 columns



Data after cleaning

	City	State	Latitude	Longitude
0	Princess Anne	MD	38205272.0	-7570169.0
1	Saint Anne	IL	41045785.0	-8768963.0
2	Queen Anne	MD	38945143.0	-7596915.0
3	Annemanie	AL	32048079.0	-8726226.0



Find all venues

0	4bf58dd8d48988d1ce941735	Seafood Restaurant
1	4bf58dd8d48988d16e941735	Fast Food Restaurant
2	4bf58dd8d48988d110941735	Italian Restaurant
3	4bf58dd8d48988d14e941735	American Restaurant
4	52dea92d3cf9994f4e043dbb	Discount Store
5	4bf58dd8d48988d1c5941735	Sandwich Place
6	52dea92d3cf9994f4e043dbb	Discount Store
7	4bf58dd8d48988d10f951735	Pharmacy
8	4bf58dd8d48988d113951735	Gas Station
9	4d4ae6fc7a7b7dea34424761	Fried Chicken Joint
10	4bf58dd8d48988d16e941735	Fast Food Restaurant
11	4bf58dd8d48988d1c5941735	Sandwich Place
12	52f2ab2ebcbcb57f1066b8b46	Supermarket
13	4bf58dd8d48988d172941735	Post Office
14	4d4ae6fc7a7b7dea34424761	Fried Chicken Joint
15	4bf58dd8d48988d113951735	Gas Station
16	4bf58dd8d48988d1fa931735	Hotel
17	4bf58dd8d48988d11b951735	Flower Shop
18	4bf58dd8d48988d175941735	Gym / Fitness Center
19	4bf58dd8d48988d186941735	Liquor Store
20	4bf58dd8d48988d16e941735	Fast Food Restaurant
21	4f4528bc4b90abdf24c9de85	Athletics & Sports
22	4bf58dd8d48988d1d0941735	Dessert Shop
23	4d954b0ea243a5684a65b473	Convenience Store
24	4bf58dd8d48988d14b941735	Winery



Results

	id	category	address
0	4bf58dd8d48988d172941735	Post Office	[31676 Eden Allen Rd (Rt 13), Eden, MD 21822, ...
1	4bf58dd8d48988d172941735	Post Office	[702 Saint Charles St, Beaverville, IL 60912, ...
2	4bf58dd8d48988d172941735	Post Office	[22043 Main St, Hillsboro, MD 21641, United St...
3	4bf58dd8d48988d172941735	Post Office	[2560 County Road 4, Minter, AL 36761, United ...
4	4bf58dd8d48988d172941735	Post Office	[8545 County Road 59, Furman, AL 36741, United...



Conclusion & Discussion

- All venues with a certain city have been found
 - Nonetheless, it works based on radius, therefore, it doesn't exactly have to be in the city

**Thank you for your
attention!**

