

SQL PROJECT

TEAM BLACK



BEST PIZZA PLACE IN EACH STATE?

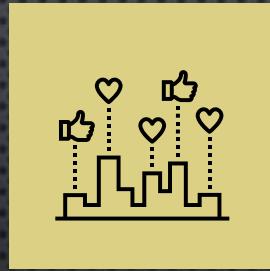
The background features a dark, textured surface with a fine halftone dot pattern. Overlaid on this are several large, overlapping geometric shapes in shades of gray, including triangles and polygons that create a sense of depth and movement. The overall aesthetic is modern and professional.

STEPS TO GET THE RESULTS

TABLES USED



CATEGORY



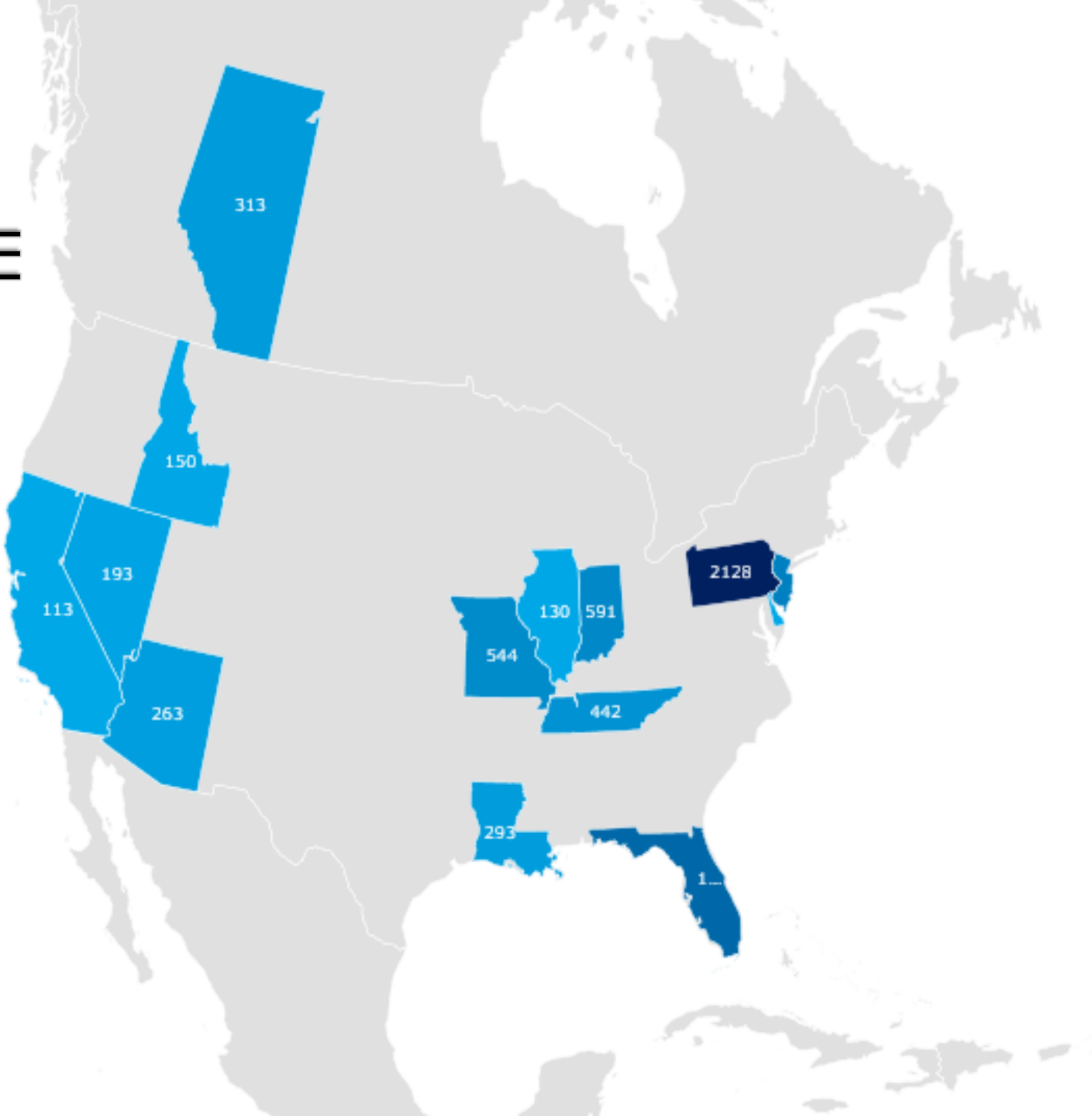
BUSINESS



REVIEW

PIZZA PLACES BY STATE

State	Pizza Places
PA	2128
FL	1071
NJ	717
IN	591
MO	544
TN	442
AB	313
LA	293
AZ	263
NV	193
ID	150
DE	144
IL	130
CA	113
HI	1





HOW SHOULD WE DEFINE THE “BEST”?

PRIORITIZE NUMBER OF REVIEWS VS OVERALL RATINGS?

1ST DATA SET

MAX (AVG – STARS)

THEN

MAX (# OF REVIEWS)



2ND DATA SET

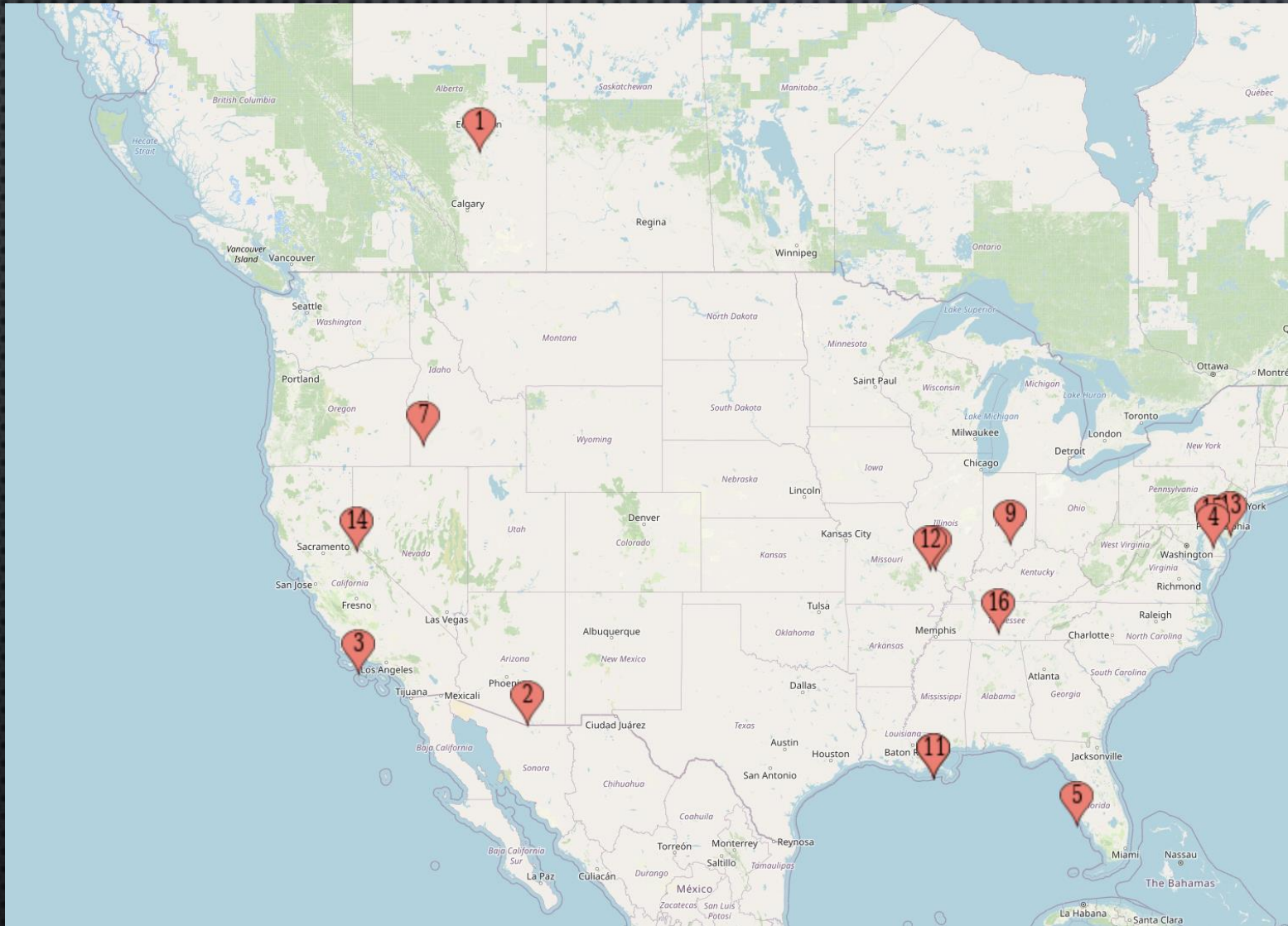
MAX (# OF
REVIEWS)
THEN
MAX (AVG
STARS)



COMPARING THE DATA SETS

	MAX (AVG - STARS) THEN MAX (# Reviews)		MAX (# Reviews) THEN MAX (AVG - STARS)	
STATE	NUMBER_OF_REVIEWS	AVERAGE_STARS	NUMBER_OF_REVIEWS	AVERAGE_STARS
AB	7	4.86	148	3.97
AZ	6	5.00	1025	4.33
CA	21	4.95	1290	4.48
DE	11	4.82	236	3.64
FL	9	5.00	1315	4.37
HI	19	3.47	19	3.47
ID	9	4.89	317	4.54
IL	28	4.96	395	4.08
IN	5	5.00	940	4.14
LA	9	5.00	1974	4.13
MO	29	5.00	1045	4.35
NJ	9	5.00	412	3.78
NV	549	4.84	724	4.02
PA	11	5.00	2974	4.27
TN	5	4.80	2618	4.45

WORST PLACES TO GET PIZZA



RANK	NAME	STATE	# OF REVIEWS	AVG STARS
1	Pizza Hut	AB	6	1
2	Little Caesars Pizza	AZ	10	1.2
3	Domino's Pizza	CA	58	1.62069
4	Papa John's Pizza	DE	8	1.125
5	Vittoria's Pizza Subs & Pasta	FL	11	1
6	Cosmetic Solutions	HI	19	3.473684
7	Pizza Hut	ID	16	1.25
8	Little Caesars	IL	13	1.153846
9	Pizza Hut	IN	15	1.266667
10	Papa John's Pizza	LA	5	1
11	Little Caesars Pizza Barataria Blvd	LA	5	1
12	Papa John's Pizza	MO	16	1
13	Old World Tomato Pie	NJ	5	1
14	Little Caesars	NV	33	1.606061
15	Ginos Pizza	PA	6	1
16	Little Caesars	TN	9	1

CHALLENGES WITH EVALUATING BUSINESSES WITH CURRENT REVIEW DATASET

- BUSINESSES TAGGED AS PIZZA BUT NOT REALLY PIZZA
 - FOR EXAMPLE-COSMETIC SOLUTIONS IN HAWAII.
- LIMITED NUMBER OF STATES IN OUR DATASET
- DOES BIAS EXIST?
 - ONLINE REVIEWS GENERALLY AFFECTED BY UNDER-REPORTING BIAS – PEOPLE ONLY POST REVIEW FOR EXTREMELY POSITIVE/NEGATIVE EXPERIENCES.
 - OBSERVED IN OUR DATASET
 - WHEN FILTER BY MAX AVERAGE STARS FOR EACH STATE – THE NUMBER OF REVIEWS ARE LOW (GENERALLY LESS THAN 10 REVIEWS). IN THIS CASE, ONLY THE MOST POSITIVE REVIEWS ARE POSTED.
 - WHEN FILTER BY MAX NUMBER OF REVIEWS FOR EACH STATE – THE NUMBER OF AVERAGE STARS DROPPED SIGNIFICANTLY (EVEN STORES WITH MOST STARS ARE MID 3 TO LOW 4 STARS). IN THIS CASE, THE EXTREME NEGATIVE REVIEWS REDUCE THE OVERALL RATING.