



BEST BBQ HOUSTON

# INTRODUCTION

- Texas can be called the barbecue capital of US, cities like Houston, Austin, Dallas being the prime destination for visitor from different parts of the world.
- Houston being largest city in Texas attracts large number of visitors.
- Picking a barbecue joint in Houston for dinning is no easy task, as there are hundreds of barbecue restaurant with their own specialty.
- Therefore, in the current work a recommendation system is built to help visitor choose the best barbecue in city of Houston based upon Foursquare data.
- Foursquare data is leveraged for building recommendation system.

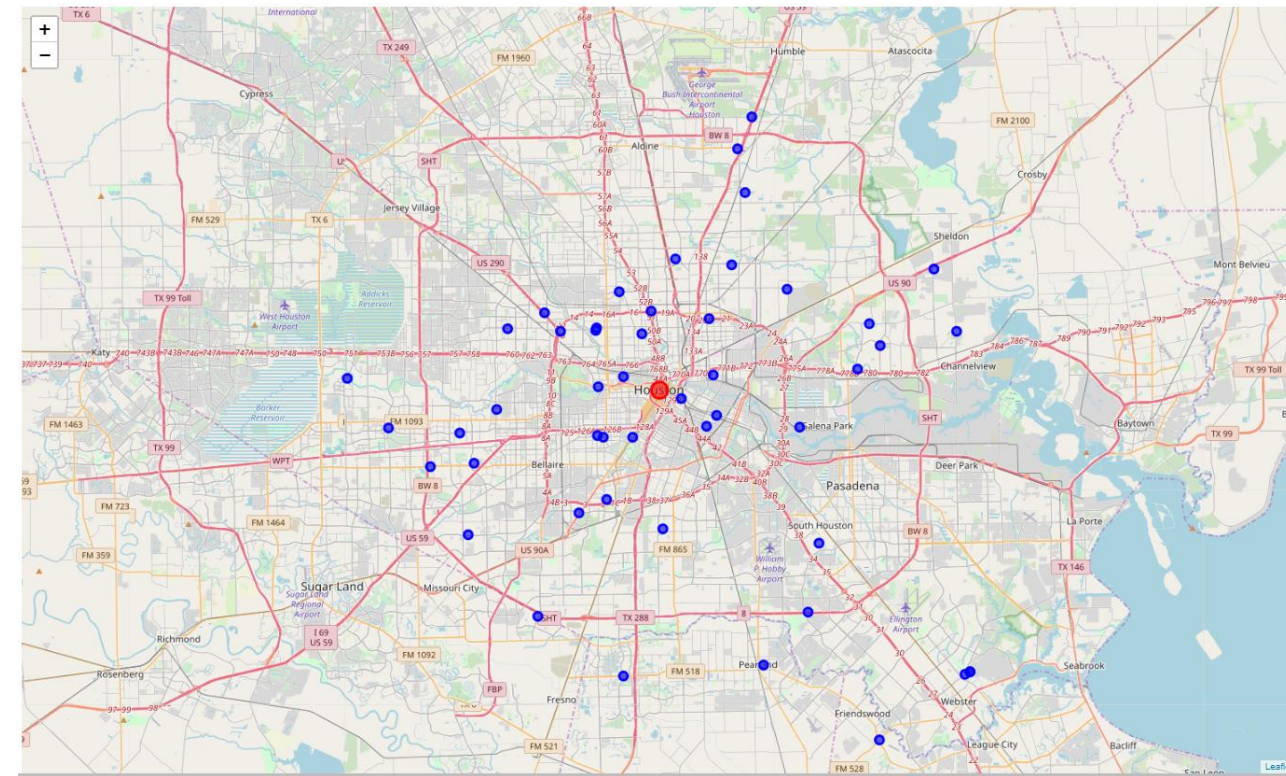
# DATA ACQUISITION

Houston, TX latitude and longitude with radius of 30km is used to retrieve data from Foursquare venue search.

<https://api.foursquare.com/v2/venues/search>

Total of 50 barbecue restaurants/joints are retrieved.

```
0      LENOX BARBECUE AND CATERING SERVICE INC.  
1      Pinkerton's Barbecue  
2      Dickeys Barbecue Pit  
3      Texas Tacos and Barbecue  
4      Phil's Texas Barbecue  
5      Dickeys Barbecue Pit  
6      Eaker Barbecue  
7      Green Oak Barbecue  
8      Barbecue Inn  
9      Otto's Barbecue and Hamburgers  
10     Texas BBQ House  
11     Khoi Barbecue  
12     Dickeys Barbecue Pit  
13     Heavenly Hands Barbecue  
14     Victorians Barbecue  
15     Willows Texas Barbecue  
16     Dickeys Barbecue Pit  
17     S and U Barbecue  
18     Smokehouse Barbecue  
19     Reid's Barbecue  
20     Heavenly D's Barbecue and Homestyle Cooking  
21     Tony's Barbecue  
22     Luka's Barbecue and Steakhouse  
23     Roegels Barbecue Co.  
24     J&S Barbecue  
25     Houston Rodeo Barbecue  
26     Houston Barbecue Company  
27     Pappas Bar-B-Q  
28     Kitchen Soul Food and Barbecue  
29     Mr. T's Barbecue truck  
30     R&R Barbecue  
31     Dickey's Barbecue Pit  
32     Dickey's Barbecue Pit  
33     H Town Barbecue and Specialists Pizza  
34     Willie's Barbecue  
35     Goode Company BBQ  
36     Dickeys Barbecue Pit  
37     A Js Chuchwagon Barbecue  
38     Dave's Barbecue  
39     Beef & Bun Bar-B-Q  
40     Texas Barbecue  
41     Brown Sugar's Barbecue  
42     Tony's Barbecue and Steakhouse  
43     Demeris BBQ  
44     Dickey's Barbecue Pit  
45     Demeris Bar-B-Q  
46     Dickey's Barbecue Pit  
47     Killen's Barbecue  
48     Tony's Barbecue and Steaks  
49     R & K Barbeque
```



Blue dots shows 50 barbecue joints location in Houston, TX



# DATA PROCESSING

- Using the restaurant ID obtained from Foursquare data, additional query is made on Foursquare to retrieve venue rating <https://api.foursquare.com/v2/venues>
- Foursquare has rated each restaurant on scale of 1-10, 10 being the highest.
- Rating for each restaurant is extracted and added to existing data frame (see blow picture )

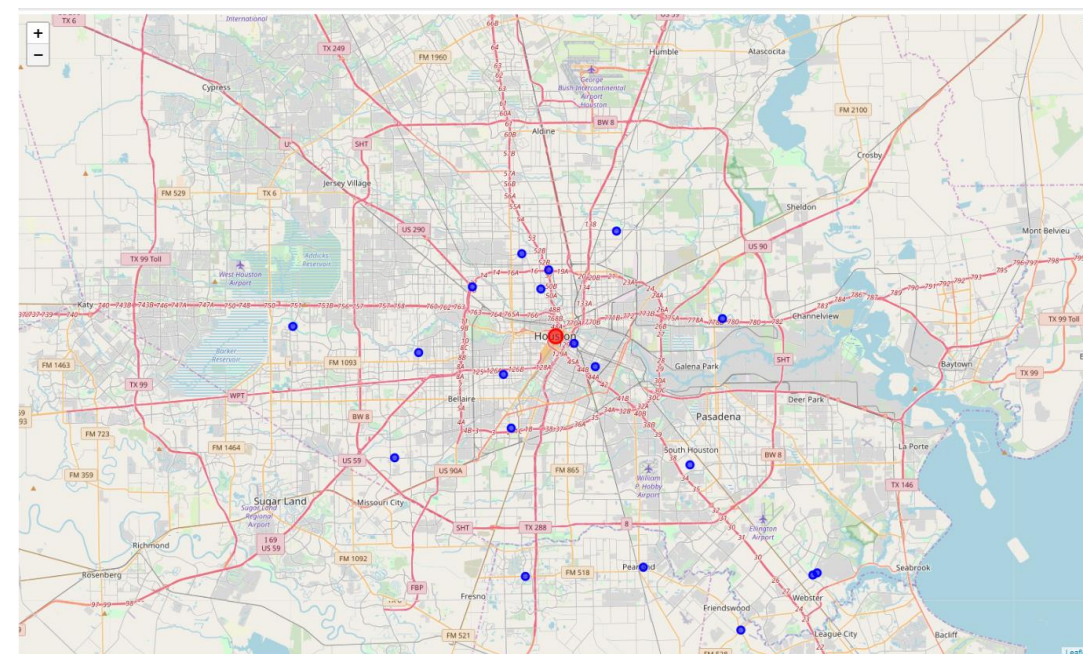
	name	categories	address	lat	lng	labeledLatLngs	distance	postalCode	cc	city	state	country	formattedAddress	crossStreet	neighborhood	id	rating
1	Pinkerton's Barbecue	BBQ Joint	1504 Airline Dr	29.798694	-95.381641	[{'label': 'display', 'lat': 29.7986937626297, 'lng': -95.38164149581642}]	4626	77009	US	Houston	TX	United States	[1504 Airline Dr (W Patton St), Houston, TX 77009, United States]	W Patton St	NaN	58436f9e1b36d42af42c3da6	9.4
2	Dickeys Barbecue Pit	Restaurant	9440 Shady Dr	29.847920	-95.308355	[{'label': 'display', 'lat': 29.84792003, 'lng': -95.30835513}]	11444	77016	US	Houston	TX	United States	[9440 Shady Dr, Houston, TX 77016, United States]	NaN	NaN	5a9faf4eeaf49a6a347ecb22	6.7
3	Texas Tacos and Barbecue	Taco Place	1000 Telephone Rd	29.733141	-95.328726	[{'label': 'display', 'lat': 29.733140696068848, 'lng': -95.32872568009621}]	4736	77023	US	Houston	TX	United States	[1000 Telephone Rd, Houston, TX 77023, United States]	NaN	NaN	56ace2ed498ef3afc4f2bc63	6.3
5	Dickeys Barbecue Pit	BBQ Joint	8330 W Bellfort St Ste B	29.656183	-95.524163	[{'label': 'display', 'lat': 29.65618296, 'lng': -95.52416278}]	18965	77071	US	Houston	TX	United States	[8330 W Bellfort St Ste B (Gessner), Houston, TX 77071, United States]	Gessner	NaN	590b9fe0cab4101c7a49a608	6.8

Snapshot of data frame, rightmost column showing rating for each barbecue restaurant

# RESULTS

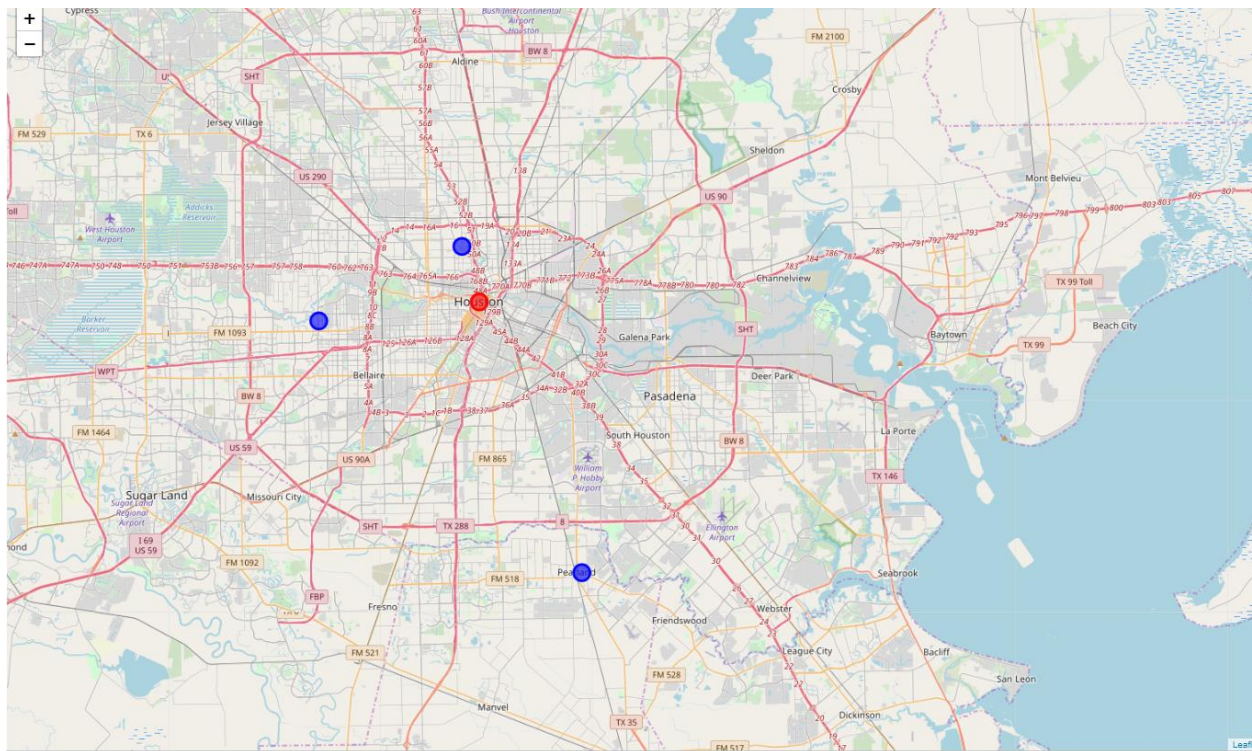
- As all the barbecue restaurants are not rated, therefore they are exclude from selection.
- Out of 50 barbecue only 19 are rated, maps shows the rated restaurants.
- Data frame is sorted based upon the rating, highest being on the top
- Table shows the list of restaurants from highest to lowest rated.

	name	address	lat	lng	distance	city	formattedAddress	rating
0	Pinkerton's Barbecue	1504 Airline Dr	29.798694	-95.381641	4626	Houston	[1504 Airline Dr (W Patton St), Houston, TX 77009, United States]	9.4
1	Killen's Barbecue	3613 Broadway St	29.563920	-95.282355	23225	Pearland	[3613 Broadway St, Pearland, TX 77581, United States]	8.9
2	Roegels Barbecue Co.	2223 S Voss Rd	29.745243	-95.500873	12960	Houston	[2223 S Voss Rd, Houston, TX 77057, United States]	8.7
3	Goode Company BBQ	5109 Kirby Dr	29.727070	-95.418348	6045	Houston	[5109 Kirby Dr (at Bartlett Street), Houston, TX 77098, United States]	8.3
4	Demeris Bar-B-Q	1702 West Loop N	29.800557	-95.448452	9074	Houston	[1702 West Loop N, Houston, TX 77008, United States]	8.1
5	Pappas Bar-B-Q	4430 I-45 North	29.815303	-95.374125	6305	Houston	[4430 I-45 North (btwn Crosstimbers & Airline), Houston, TX 77022, United States]	8.1
6	R & K Barbeque	911 Normandy St #A	29.773785	-95.205646	15746	Houston	[911 Normandy St #A, Houston, TX 77015, United States]	7.9
7	Barbecue Inn	116 W Crosstimbers St	29.828555	-95.400292	8364	Houston	[116 W Crosstimbers St (Yale St), Houston, TX 77018, United States]	7.3
8	Houston Rodeo Barbecue	NaN	29.681663	-95.410571	9548	Houston	[Houston, TX 77054, United States]	7.2
9	Dickeys Barbecue Pit	8330 W Bellfort St Ste B	29.656183	-95.524163	18965	Houston	[8330 W Bellfort St Ste B (Gessner), Houston, TX 77071, United States]	6.8
10	Dickeys Barbecue Pit	9440 Shady Dr	29.847920	-95.308355	11444	Houston	[9440 Shady Dr, Houston, TX 77016, United States]	6.7
11	Dickey's Barbecue Pit	9759 FM 1960 Bypass Rd W	29.650374	-95.237315	17463	Humble	[9759 FM 1960 Bypass Rd W (Whitaker Rd), Humble, TX 77338, United States]	6.7
12	Dickey's Barbecue Pit	210 E Parkwood Ave Ste F	29.510601	-95.187760	32670	Friendswood	[210 E Parkwood Ave Ste F, Friendswood, TX 77546, United States]	6.7
13	Dickey's Barbecue Pit	11401 Broadway St	29.556069	-95.397132	22761	Pearland	[11401 Broadway St, Pearland, TX 77584, United States]	6.7
14	Texas BBQ House	2401 Texas St	29.753241	-95.349842	1838	Houston	[2401 Texas St, Houston, TX 77003, United States]	6.3
15	Dickey's Barbecue Pit	1109 Bay Area Blvd	29.557583	-95.117862	32962	Houston	[1109 Bay Area Blvd, Houston, TX 77058, United States]	6.3
16	Texas Tacos and Barbecue	1000 Telephone Rd	29.733141	-95.328726	4736	Houston	[1000 Telephone Rd, Houston, TX 77023, United States]	6.3
17	Tony's Barbecue and Steakhouse	17052 Saturn Ln	29.559097	-95.113657	33147	Houston	[17052 Saturn Ln, Houston, TX 77058, United States]	6.1
18	Houston Barbecue Company	1127 Eldridge Pkwy	29.767516	-95.623095	24698	Houston	[1127 Eldridge Pkwy (Enclave Pkwy), Houston, TX 77077, United States]	5



# TOP BARBECUE RESTAURANTS IN HOUSTON

	name	address	lat	lng	distance	city	formattedAddress	rating
0	Pinkerton's Barbecue	1504 Airline Dr	29.798694	-95.381641	4626	Houston	[1504 Airline Dr (W Patton St), Houston, TX 77009, United States]	9.4
1	Killen's Barbecue	3613 Broadway St	29.563920	-95.282355	23225	Pearland	[3613 Broadway St, Pearland, TX 77581, United States]	8.9
2	Roegels Barbecue Co.	2223 S Voss Rd	29.745243	-95.500873	12960	Houston	[2223 S Voss Rd, Houston, TX 77057, United States]	8.7







## SUMMARY AND CONCLUSION

- Model is build to determine the best barbecue restaurant in Houston, TX
- Foursquare venue data is used to select best barbecue.
  - Rating index of 1-10 is used, 10 being best
- Out of 50 barbecue joints, Pinkerton's Barbecue, Killens Barbecue and Roegels Barbecue are the best in Houston TX.
- In future, user comments/likes can be combined with foursquare data to improve the model.