

25 CITES & 50 BURGERS



BACKGROUND

- The food network a reality TV network that specializes in tv series about food is interested in making a reality TV series highlighting the top burgers restaurants in several cities.
- They plan on doing 25 episodes, to air weekly, each one highlighting two burger joints.
- They would like to focus on the top 25 cities by population in the United States



DATA ACQUISITION

Data requirements

- List of top 25 cities by population in the United states
- Top popular burger restaurants in each of the 25 cities
- Two popular attractions























Data sources

For the population data the web site

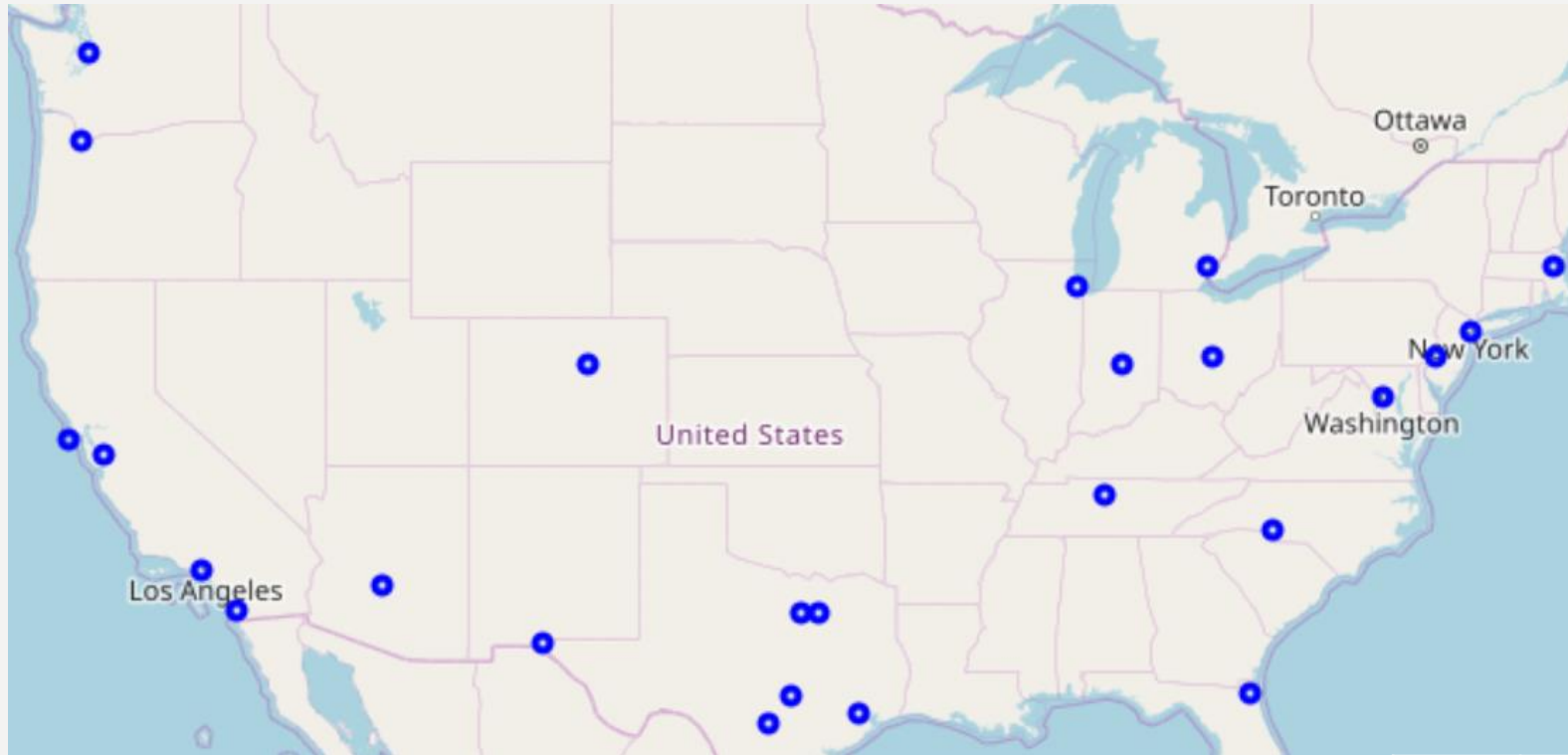
https://en.wikipedia.org/wiki/List_of_United_States_cities_by_population

was chosen to get a list of cities in the United States along with their latitude and longitude.

2018 rank ↕	City ↕	State ^[c] ↕	2018 estimate ↕	2010 Census ↕	Change ↕	2016 land area ↕		2016 population density ↕		Location ↕
1	New York^[d]	 New York	8,398,748	8,175,133	+2.74%	301.5 sq mi	780.9 km ²	28,317/sq mi	10,933/km ²	 40.6635°N 73.9387°W
2	Los Angeles	 California	3,990,456	3,792,621	+5.22%	468.7 sq mi	1,213.9 km ²	8,484/sq mi	3,276/km ²	 34.0194°N 118.4108°W
3	Chicago	 Illinois	2,705,994	2,695,598	+0.39%	227.3 sq mi	588.7 km ²	11,900/sq mi	4,600/km ²	 41.8376°N 87.6818°W
4	Houston^[3]	 Texas	2,325,502	2,100,263	+10.72%	637.5 sq mi	1,651.1 km ²	3,613/sq mi	1,395/km ²	 29.7866°N 95.3909°W
5	Phoenix	 Arizona	1,660,272	1,445,632	+14.85%	517.6 sq mi	1,340.6 km ²	3,120/sq mi	1,200/km ²	 33.5722°N 112.0901°W
6	Philadelphia^[e]	 Pennsylvania	1,584,138	1,526,006	+3.81%	134.2 sq mi	347.6 km ²	11,683/sq mi	4,511/km ²	 40.0094°N 75.1333°W
7	San Antonio	 Texas	1,532,233	1,327,407	+15.43%	461.0 sq mi	1,194.0 km ²	3,238/sq mi	1,250/km ²	 29.4724°N 98.5251°W
8	San Diego	 California	1,425,976	1,307,402	+9.07%	325.2 sq mi	842.3 km ²	4,325/sq mi	1,670/km ²	 32.8153°N 117.1350°W
9	Dallas	 Texas	1,345,047	1,197,816	+12.29%	340.9 sq mi	882.9 km ²	3,866/sq mi	1,493/km ²	 32.7933°N 96.7665°W
10	San Jose	 California	1,030,119	945,942	+8.90%	177.5 sq mi	459.7 km ²	5,777/sq mi	2,231/km ²	 37.2967°N 121.8189°W

For determining the restaurants, and their popularity as well as top local attractions the web site <https://foursquare.com/> was chosen.

MAP INDICATING LOCATION OF TOP 25 CITIES CREATED USING WIKIPEDIA WEB SITE.



```
df =  
pd.DataFrame(columns  
=["Rank", "City", "State",  
"Population", "latitude",  
"longitude"])
```

Rank	City	State	Population	latitude	longitude
1	New York	New York	8,398,748	40.6635	-73.9387
2	Los Angeles	California	3,990,456	34.0194	-118.4108
3	Chicago	Illinois	2,705,994	41.8376	-87.6818
4	Houston	Texas	2,325,502	29.7866	-95.3909
5	Phoenix	Arizona	1,660,272	33.5722	-112.0901

- The top burger restaurants list was derived using the latitude and longitude contained in the top 25 cites list.
- This was a two-part process. First a call was made to search using the search query word 'Burger' for each of 25 cites.
- A second call was made using the foursquare API for each of the Burger restaurants returned on the first call. This second call was to get the number of likes for each restaurant on the list.
- The two burger restaurants with the most “likes” was then chosen for each city.

	Name	City	State	Address	Postal_Code	ID	Likes
0	Burger Joint	New York	NY	119 W 56th St	10019	41b3a100f964a5206c1e1fe3	2290
1	5 Napkin Burger	New York	NY	630 9th Ave	10036	49d8c05df964a520c95d1fe3	1062
2	In-N-Out Burger	Los Angeles	CA	7009 W Sunset Blvd	90028	49e3c0c1f964a520c7621fe3	1897
3	Umami Burger	Santa Monica	CA	525 Broadway	90401	4bad0a75f964a52081273be3	559
4	DMK Burger Bar	Chicago	IL	2954 N Sheffield Ave	60657	4af9b20df964a5206e1322e3	561
5	Burger Bar	Chicago	IL	1578 N Clybourn Ave	60642	4c002683c30a2d7f3b1a121d	335
6	Bubba's Texas Burger Shack	Houston	TX	5230 Westpark Dr	77056	4b05c07cf964a52071e222e3	150
7	The Burger Joint	Houston	TX	2703 Montrose Blvd	77006	563932de498eb0f7a0c4ccdb	149
8	In-N-Out Burger	Tempe	AZ	920 E Playa del Norte Dr	85281	4a3d9ccdf964a5208aa21fe3	574
9	The Habit Burger Grill	Phoenix	AZ	745 E Glendale Ave	85020	4e6bc4edae609509560e72a2	66

The last query to the foursquare.com database was to get two museums from each of the cities on the list. A provision was made in the code to map any particular city and show the 2 Burger restaurants as well as the museums so they could be mapped.

Name	City	State	Address
Jewish Children's Museum	Brooklyn	NY	792 Eastern Pkwy
Brooklyn Children's Museum	New York	NY	145 Brooklyn Ave
Museum of Jurassic Technology	Culver City	CA	9341 Venice Blvd
Center for Land Use Interpretation	Culver City	CA	9331 Venice Blvd
National Museum of Mexican Art	Chicago	IL	1852 W 19th St
Jane Addams Hull-House Museum	Chicago	IL	800 S Halsted St
Art Car Museum	Houston	TX	140 Heights Blvd



CONCLUSIONS

Although the created list only used one parameter (the number of “likes”) to determine the most popular burger restaurants in each of the cities it should provide a starting place for the show.

If the information provided so far is intriguing and a decision is made to proceed more elaborate measures of popularity could be used to determine the best burger in each of the cities this could possibly include some “engineered” measures of popularity.



Images used:

Image of burger, redrobin.com/menu, 2 Feb. 2020,
<https://www.redrobin.com/menu.html>

Food network background image, foodnetwork.com/schedule, 2
Feb. 2020,
<https://watch.foodnetwork.com/schedule>

City image, YouTube, Samsung 4K UHD demo video: Cityscape,
2 Feb. 2020,
Jeremy Smith, https://www.youtube.com/watch?v=6jiNS_4CEug

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Richard Williams
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