

Culinary Comparison between the 10 largest cities in USA



What is the difference between the largest american cities when it comes to restaurants? The answer to this could be of interest, not only to the restaurant sector itself, but also to the tourism sector, healthcare, and the government. In this report I will try to highlight the culinary highlights that could be used by the local governments to promote the city.

The data that will be used in this comparison is population and general city information sourced from Wikipedia.org, detailed restaurant information from foursquare.com and Michelin restaurant information from [guide.michelin.com](https://www.michelin.com/guide).

The data from wikipedia and the Michelin Guide will be scraped using BeautifulSoup while the Foursquare information will be sourced through their APIs.

The Foursquare API makes it easy to extract the needed information for a given location. For example:

<https://api.foursquare.com/v2/venues/search?near=%27New%20York,%20USA%27&categoryId=4d4b7105d754a06374d81259>

Which yields a JSON response beginning with this information:

```
{ "meta":
{ "code": 200, "requestId": "5ebfe2e43907e7001bb7b735" }, "response": { "venues":
[ { "id": "4c5ef77bfff99c74eda954d3", "name": "Eataly Flatiron", "location": { "address": "200 5th Ave", "crossStreet": "at W 23rd St", "lat": 40.74198696405861, "lng": -73.98991319280194, "labeledLatLngs":
[ { "label": "display", "lat": 40.74198696405861, "lng": -73.98991319280194 } ], "postalCode": "10010", "cc": "US", "city": "New York", "state": "NY", "country": "USA", "formattedAddress":
[ "200 5th Ave (at W 23rd St)", "New York, NY 10010", "USA" ] }, "categories":
[ { "id": "4bf58dd8d48988d1f5941735", "name": "Gourmet Shop", "pluralName": "Gourmet Shops", "shortName": "Gourmet", "icon": { "prefix": "https://ss3.4sqi.net/img/categories_v2/shops/food_gourmet_", "suffix": ".png", "primary": true } }, "delivery": { "id": "2150992", "url": "https://www.seamless.com/menu/eataly-nyc-flatiron-200-5th-ave-new-york/2150992?affiliate=1131&utm_source=foursquare-affiliate-network&utm_medium=affiliate&utm_campaign=1131&utm_content=2150992", "provider": { "name": "seamless", "icon": { "prefix": "https://fastly.4sqi.net/img/general/cap/", "sizes": [ 40, 50 ], "name": "\delivery_provider_seamless_20180129.png" } } }, "referralId": "v-1589633862", "hasPerk": false },
```

... which can be traversed through using any of the libraries for JSON interpretation.

By using BeautifulSoup we can get the number of Michelin restaurants, for example 560 in New York City which is a fair share of the 18634 restaurants mentioned in the guide worldwide.

From the Wikipedia page by using BeautifulSoup we can get population size, area size and demographic composition data for the cities in the comparison.

The data will be processed using python in a Jupyter Notebook which will be provided along with this report. The notebook will also be used to generate informative charts and maps using the libraries Matplotlib and Folium.

In summary the data used will be:

Source	Content	Structure
Wikipedia	Top City List	Table
Wikipedia	Population count	Table
Wikipedia	Ethnographic information	Table
Wikipedia	Income information	Table
Wikipedia	City location	latitude and longitude
Foursquare	Restaurant details	JSON structure
Michelin Guide	Restaurant details	Beautifulsoup objects