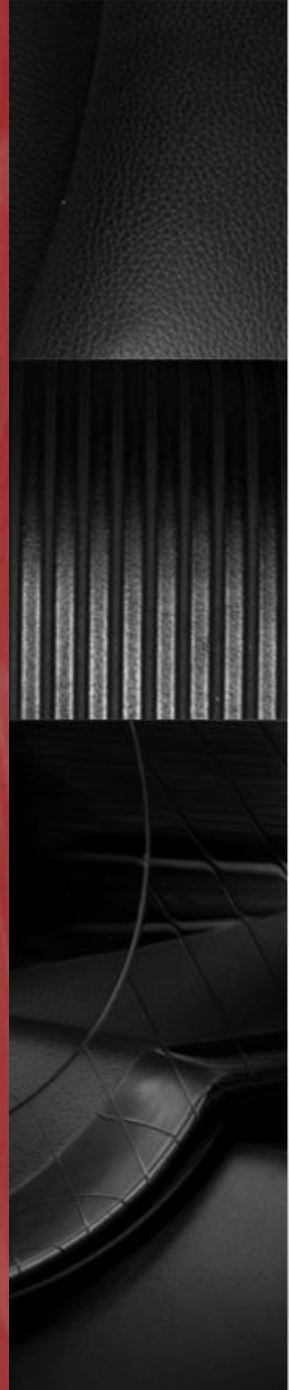


# Restaurant Guide App (Two-Factor Approach)

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# The Target Audience

- Cuisine Connoisseurs
- Food Enthusiast
- Bloggers



# Business Problem

**Does the two-factor (Rating and Price) approach sufficient to recommend a venue?**

**YES.**

The minimalistic comparison data use, which IS COMBINING RATING AND PRICE, will give our targeted audience better insight in finding great budget-friendly restaurants in downtown areas. For this presentation, we will focus within Downtown Toronto.




# Data Section

## *The Data*

- Foursquare Credentials and Version
- The geographical coordinate of Downtown Toronto are 43.6563221, -79.3809161.
- The specific venue category : radius = 500; limit = 10
- JSON file for our dataframe
- Venues\_map using folium.Map
- Restaurants IDs using “<https://api.foursquare.com/v2/venues...>”
- Google Map search to pinpoint approximate define center or coordinate
- CSV file showing Rating and Price created from dataset results

**WE WILL USE THE GENERATED DATA TO SOLVE OUR BUSINESS PROBLEM**



*Imagine our targeted audience (Cuisine Connoisseurs, Food Enthusiast and Bloggers) is in a downtown area using the Restaurant Guide App and wanted to find great budget-friendly restaurants. It is a busy town, a quick comparison of several venues in close proximity would be ideal...*

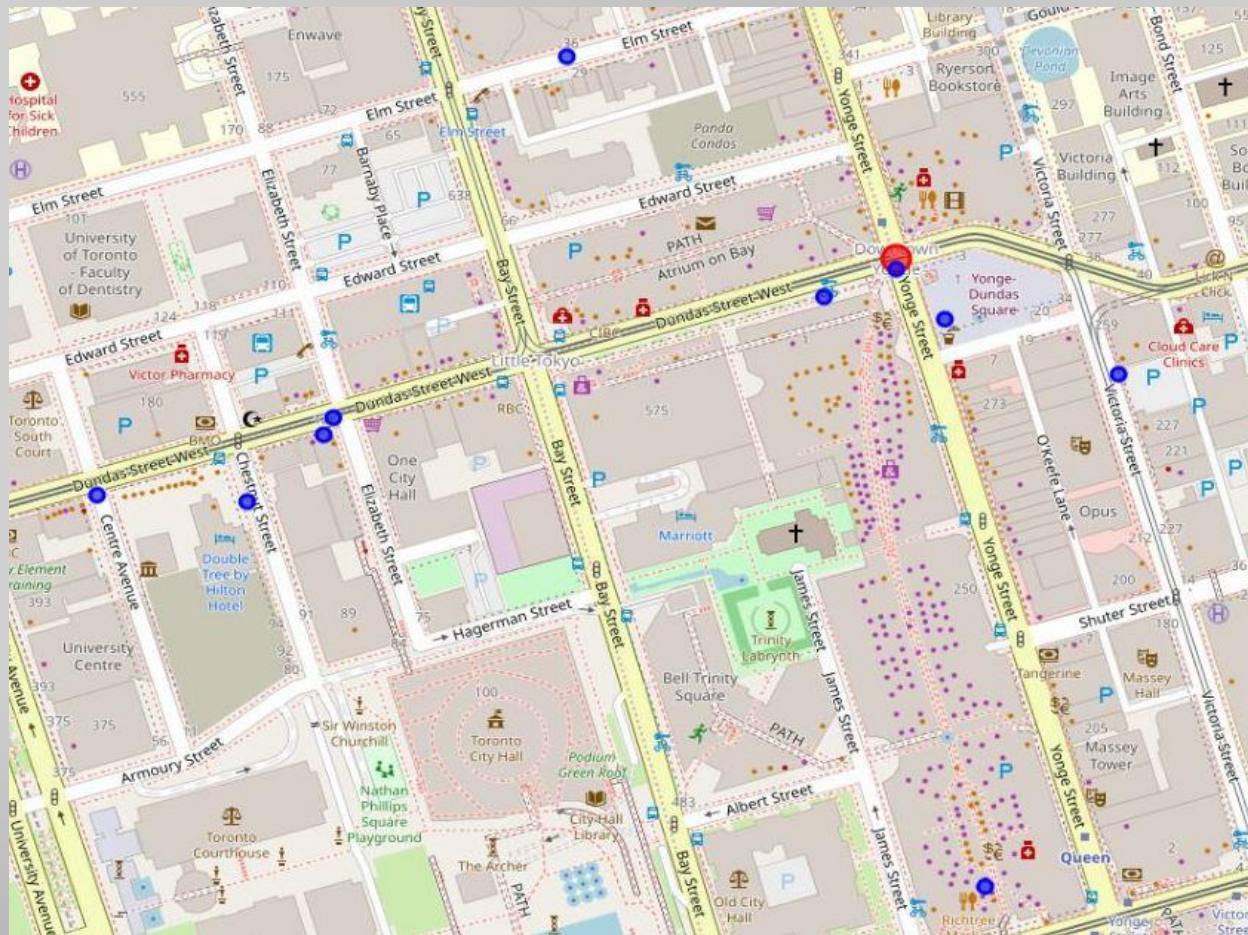
We can accomplish this by doing a query search for our Restaurant within 500 meters from Downtown Toronto and set our limit to 10, through Foursquare API. Now, let us see the filtered result as a table.

Output View					
	name	categories	address	lat	lng
0	Hemispheres Restaurant & Bistro	American Restaurant	110 Chestnut Street	43.654884	-79.385931
1	Richtree Natural Market Restaurants	Restaurant	14 Queen St W	43.652614	-79.380231
2	Akashiro Japanese Restaurant & Bar	Sushi Restaurant	220 Yonge St.	43.655965	-79.380541
3	Terrace Restaurant at Elmwood	American Restaurant	NaN	43.656101	-79.381480
4	The Senator Restaurant	Diner	249 Victoria Street	43.655641	-79.379199
5	Subway	Sandwich Place	10 Dundas St. E	43.656260	-79.380920
6	Adega Restaurant	Restaurant	33 Elm St	43.657519	-79.383462
7	Kyoto House Japanese Restaurant	Sushi Restaurant	143 Dundas St. West	43.655381	-79.385270
8	Yueh Tung Chinese Restaurant	Chinese Restaurant	126 Elizabeth St.	43.655281	-79.385337
9	Hong Shing Chinese Restaurant	Chinese Restaurant	195 Dundas St W	43.654925	-79.387089



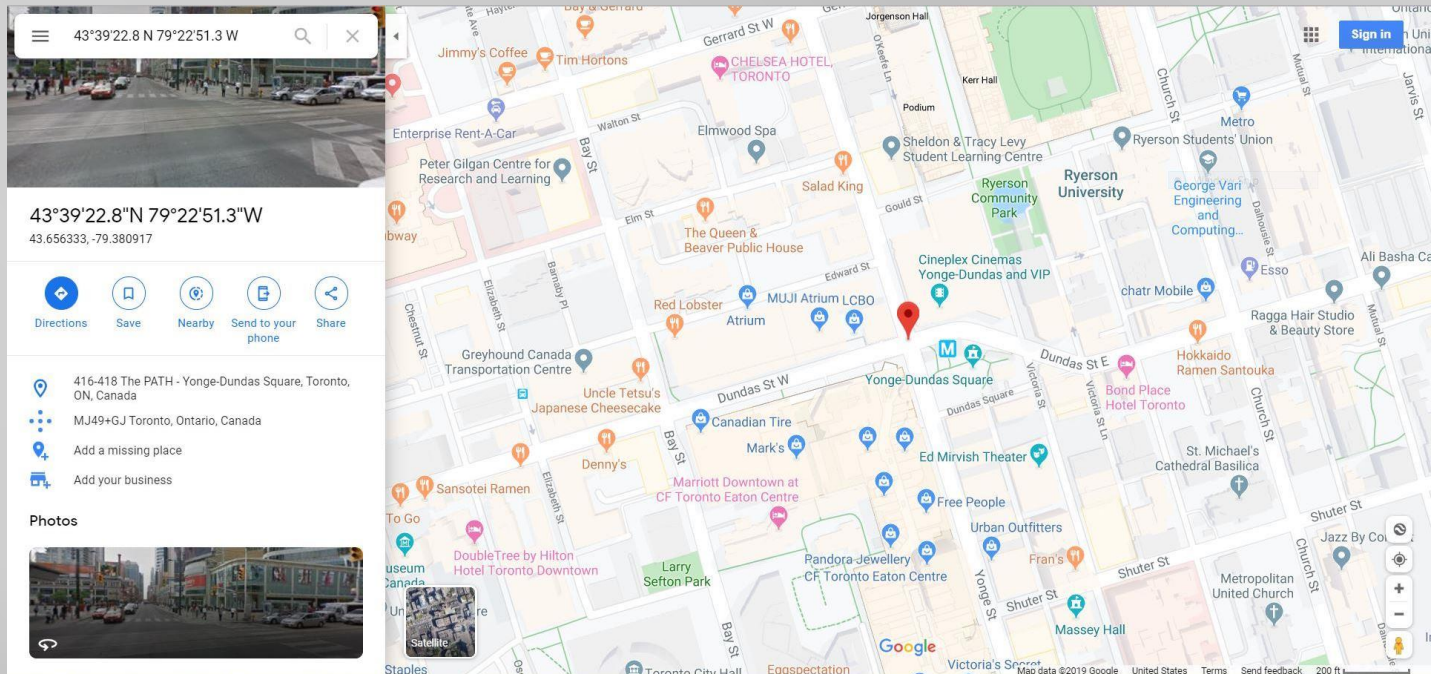
# Map of The City's Downtown Area:

Would it be convenient if we could show our targeted audience the map of their search and visualize how far they are from a prospective venue? Let us locate the approximate center and explore neighboring restaurants.



# Using Google Maps:

In Google Maps, we can search for coordinate 43.6563221, -79.3809161, Downtown Toronto. Using the result, we can test venue location accuracy and other information. Result shows "The PATH - Yonge-Dundas Square, Toronto, ON, Canada". This is our approximate defined center.





We can further explore the Restaurants using their IDs and sort by distance

Output View	
name	id
Subway	4c6abb8c2c29d13ad2720e41
Akashiro Japanese Restaurant & Bar	4fbbb3ace4b01e39077b4d55
Terrace Restaurant at Elmwood	4edbccaaf9abeea3db5268df
The Senator Restaurant	4ad7929cf964a520500c21e3
Adega Restaurant	4ad4c060f964a52070f720e3
Kyoto House Japanese Restaurant	4ae4b055f964a520229d21e3
Yueh Tung Chinese Restaurant	52a7ae41498eed3af4d0a3fa
Richtree Natural Market Restaurants	4b295e10f964a520ba9d24e3
Hemispheres Restaurant & Bistro	4ad4c05ff964a52048f720e3
Hong Shing Chinese Restaurant	4b2027b5f964a520f82d24e3

Here, by making calls to Foursquare API we can get the “Given Values”; Rating and Price. We will be using The Senator Restaurant for our pilot call. Then get the Rating and Price for other restaurants using the same process.

Output View	
name	id
Subway	4c6abb8c2c29d13ad2720e41
Akashiro Japanese Restaurant & Bar	4fb0bb3ace4b01e39077b4d55
Terrace Restaurant at Elmwood	4edbccaaf9abeea3db5268df
The Senator Restaurant	4ad7929cf964a520500c21e3
Adega Restaurant	4ad4c060f964a52070f720e3
Kyoto House Japanese Restaurant	4ae4b055f964a520229d21e3
Yueh Tung Chinese Restaurant	52a7ae41498eed3af4d0a3fa
Richtree Natural Market Restaurants	4b295e10f964a520ba9d24e3
Hemispheres Restaurant & Bistro	4ad4c05ff964a52048f720e3
Hong Shing Chinese Restaurant	4b2027b5f964a520f82d24e3

The API call outputs were extracted to a spreadsheet format to create a new filtered table.

Restaurant	Rating	Price
Subway	5.7	Cheap
Akashiro Japanese Restaurant & Bar	5.4	Moderate
Terrace Restaurant at Elmwood	NR	Moderate
The Senator Restaurant	7.9	Moderate
The Elm Tree Restaurant	8.3	ND
Hendricks Restaurant & Bar	6.1	Moderate
Kyoto House Japanese Restaurant	5.9	Moderate
Yueh Tung Chinese Restaurant	7.8	Cheap
Richtree Natural Market Restaurants	6.2	Moderate
Hemispheres Restaurant & Bistro	NR	ND



We can now sort by category Rating and Price, and “Cheap” as our sub category.

Our table shows, **Yueh Tung Chinese Restaurant** as our top pick

TABLE 1

Restaurant	Rating	Price
Subway	5.7	Cheap
Yueh Tung Chinese Restaurant	7.8	Cheap




Repeating the same process, we can sort by sub category “Moderate”.

Our table shows, **The Senator Restaurant** as our top pick.

TABLE 2

Restaurant	Rating	Price
Akashiro Japanese Restaurant & Bar	5.4	Moderate
Terrace Restaurant at Elmwood	NR	Moderate
The Senator Restaurant	7.9	Moderate
Hendricks Restaurant & Bar	6.1	Moderate
Kyoto House Japanese Restaurant	5.9	Moderate
Richtree Natural Market Restaurants	6.2	Moderate





As we can virtually see from the tables, we can quickly analyze our top picks. At this point, we had already answered the main question to the data science problem.

**The Two-Factor (Rating and Price) Approach is sufficient to recommend a venue.**