



Chines Restaurant in Downtown Toronto

Business Question

- What is the relationship between Price and Rating






Data

- The database I will use are exclusively from Foursquare. The following data will be utilized:
 - 1, Chinese restaurants in Downtown Toronto
 - 2, ratings of each restaurant
 - 3, prices of each restaurant

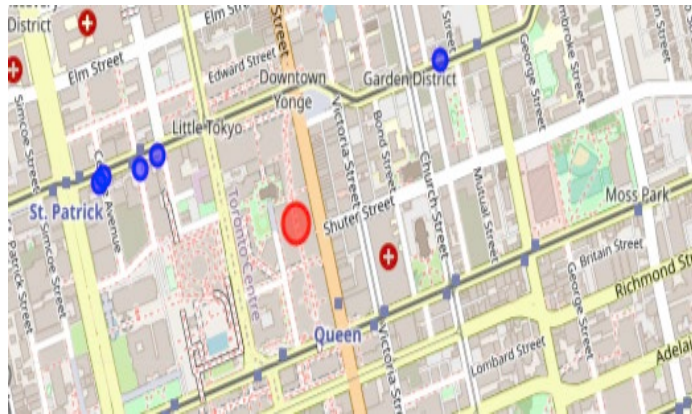


Data Source

- Data is exclusively from Foursquare databases. In Downtown Toronto, Venus under the category of “Chinese Restaurant” will be used for data analysis
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2.1 Data cleaning

- From Geocoders, the longitude and latitude of Downtown Toronto is (43.6541737 -79.38081164513409). Using this geographic location, I got a list of venues using the search query, “Chinese Restaurant”.
- Kept the items under the category of “Chinese Restaurant” only

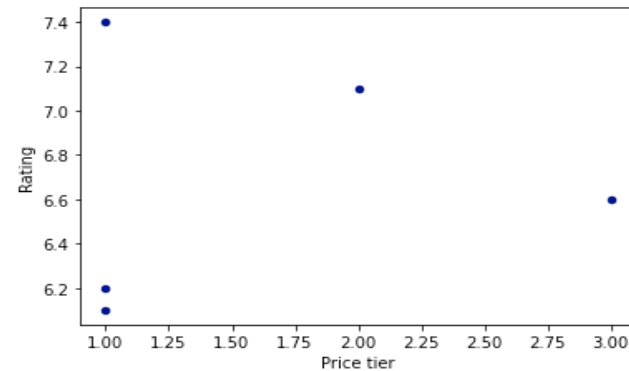


0	Hong Shing Chinese Restaurant
1	Yueh Tung Chinese Restaurant
2	Good View Chinese Restaurant
18	Wah Too Seafood Restaurant
29	Lai Wah Heen

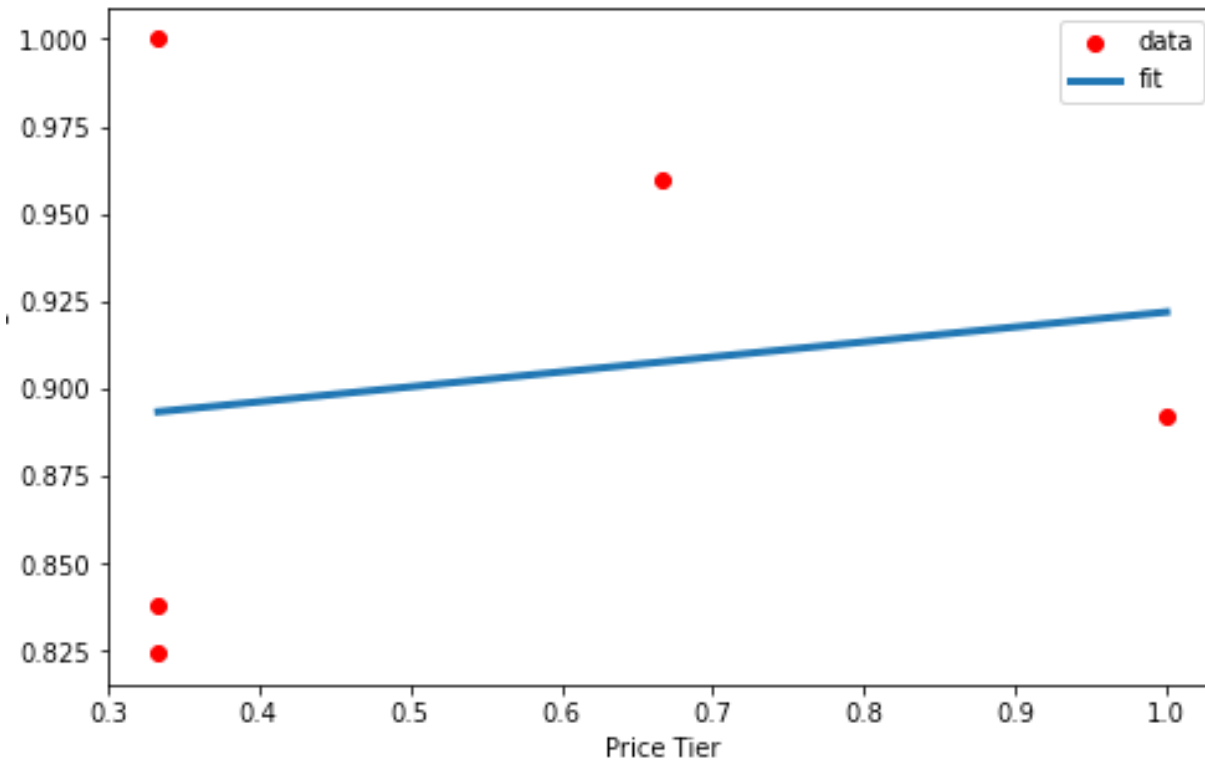
Methodology

- I used Restaurants' ID to get more information about each restaurant. Then I discovered what keys are available in dataset. The I subtracted "Price" and "Ratings" for each restaurant. Here is the final dataset for information I collected.

	ID	Price tier	Rating
0	4b2027b5f964a520f82d24e3	2	7.1
1	4adf80b9f964a5202f7b21e3	1	6.2
2	4ad4c060f964a5205cf720e3	3	6.6
3	52a7ae41498eed3af4d0a3fa	1	7.4
4	4c69740b8d22c9284d42b745	1	6.1



Build a regression model :



- $y=0.92x^{0.028}$

Result and Discussion



- The final model is $y=0.92x^{0.028}$, which is also a non-linear relationship between price and ratings for Chinese restaurant in Downtown Toronto. According to the graph, it does not seem like a good fit for our data. There are many reasons leading to the result:
1, limited data available for analysis. The number of available Chinese Restaurant in Downtown Toronto is only 5. This number cannot provide statistically significant results. 2, Ratings can be related many other factors. However, there is not enough quantitative data in Foursquare database. This also prevent building a better model for ratings.
- the model also is not trained because there is not enough data. In the future, more data is needed for discovering ratings

Conclusion



- There is no relationship between price and ratings for Chinese Restaurant in Downtown Toronto.