EXPLORATION OF THE CAFÉ IN MELBOURNE, AUSTRALIA

Applied data science capstone

OUTLINE

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Background

- The café culture has had long history in Melbourne since 1890s.

- It started with traditional style café and street coffee stalls between 1900s and 1950s

- The café culture started gaining attention in 1970s and gradually evolved into a relaxing and less formal dining venue over the last two decades.

- Up to date, there are hundreds of café operating in Melbourne, Australia.

Question for you...

Are you a regular café customer? a coffee lover? a foodie? or even a tourist?

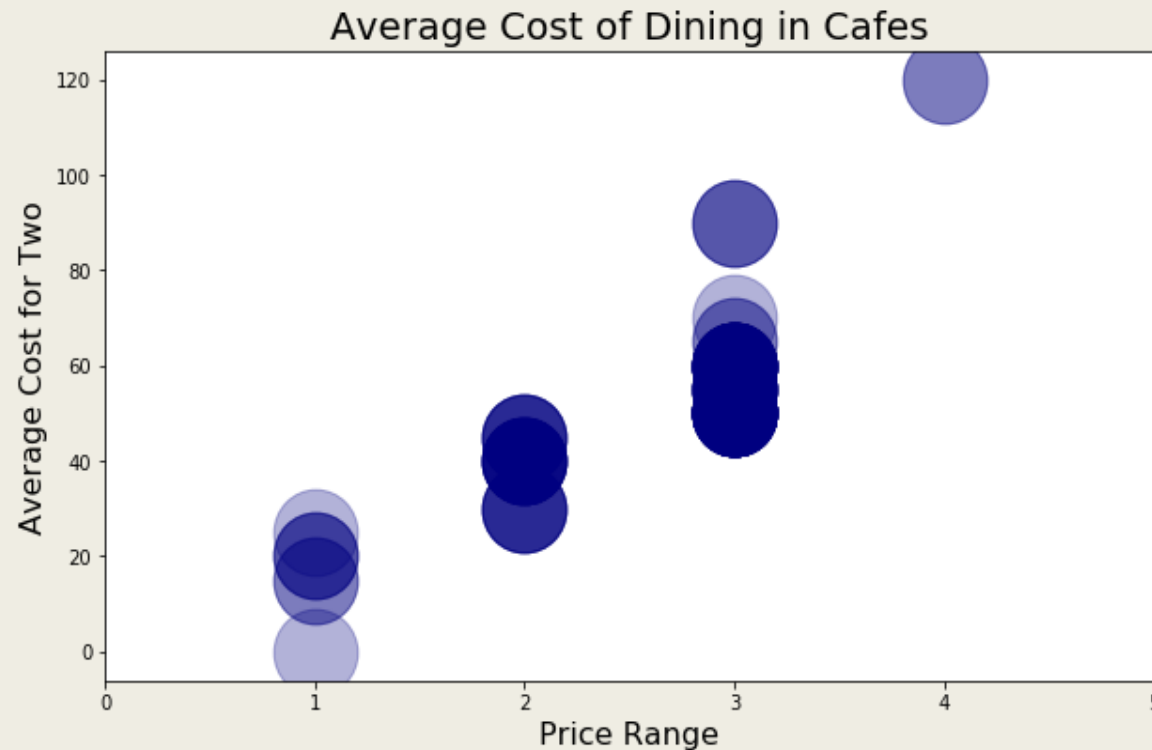How would you make the decision and choose the right cafe?

Aims

- Explore a great variety of cafés in Melbourne

- Investigate the general affordability of dining in cafés

- Understand the rating and reviews of cafés

- Provide an easier way to choose by categorizing the cafés

Data Source

- ■ Two main datasets
  - – Information of café such as rating, price range, average cost etc. (Obtained by Zomato API)

  - – Location based dataset (Obtained by Foursquare API)
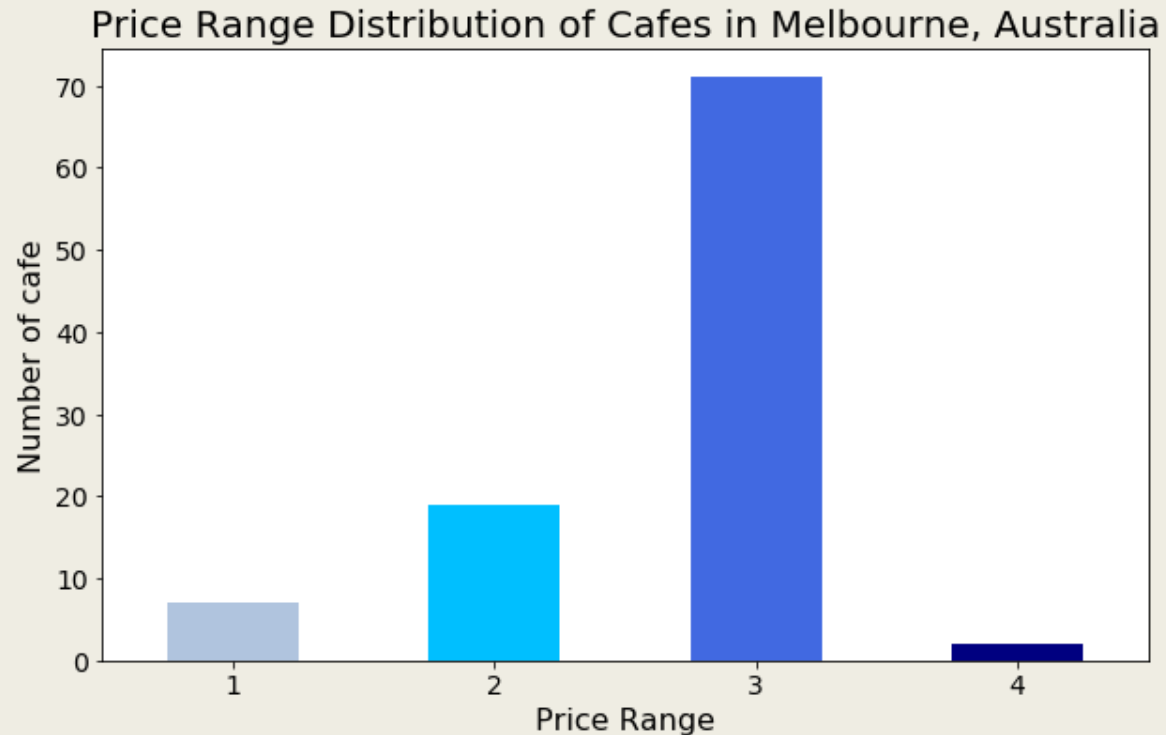
Average dining cost

Average Cost of Dining in Cafes

Price Range	Average Price for Two
1	20
2	40
3	50
4	120

NOTES
Most café fell in the price range between 2-3.

Darker spots indicate the likelihood you will pay for the dining cost in the specific range.
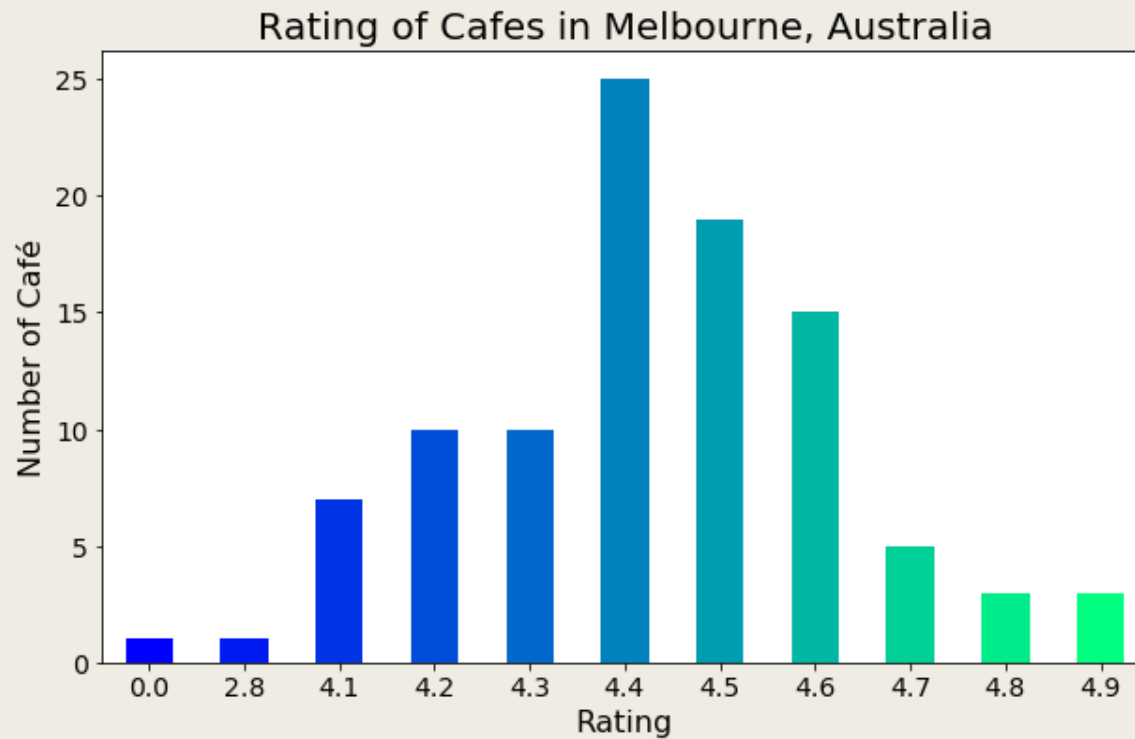
Price Range Distribution of Café

NOTES
Most café fell in the price range between 2-3.

A good indication that the pricing of most café in Melbourne is similar.

Around 28% of café lies at the lower of chart which offered a cheaper dining option

Rating of Café
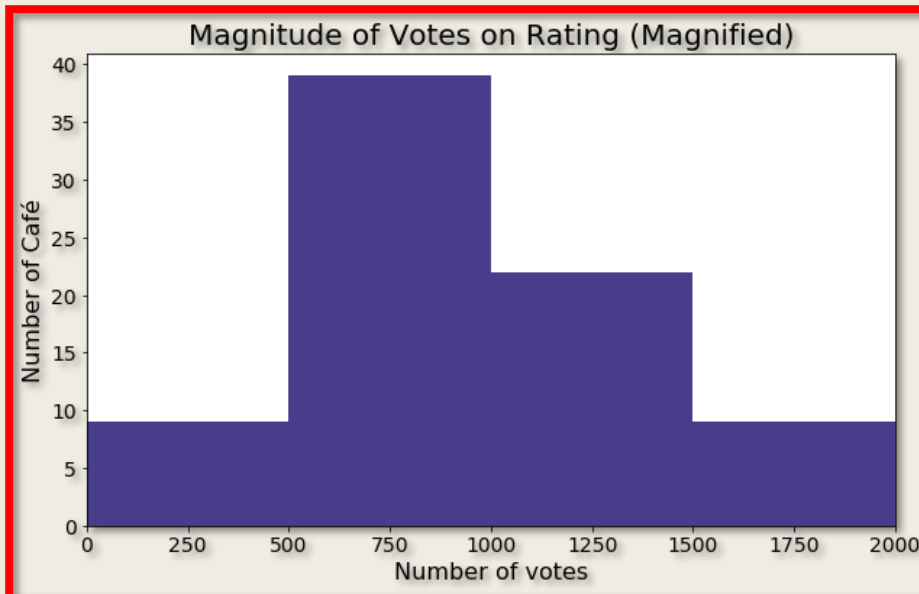

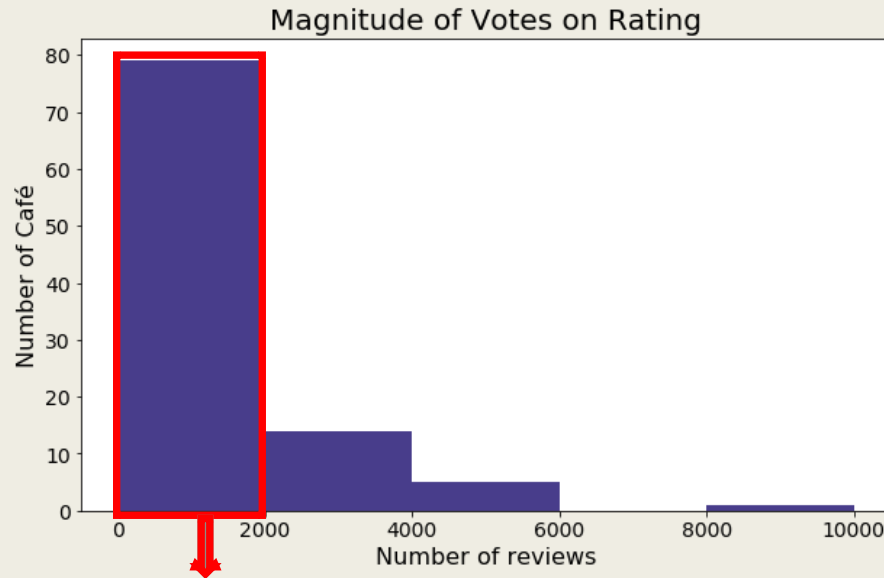Rating of Cafes in Melbourne, Australia

NOTES
Most café are rated between 4.4 and 4.6 in terms of food quality and service.

The average rating is 4.38.

The rating should be backed up by a considerable number of votes in order to avoid the biases of users.
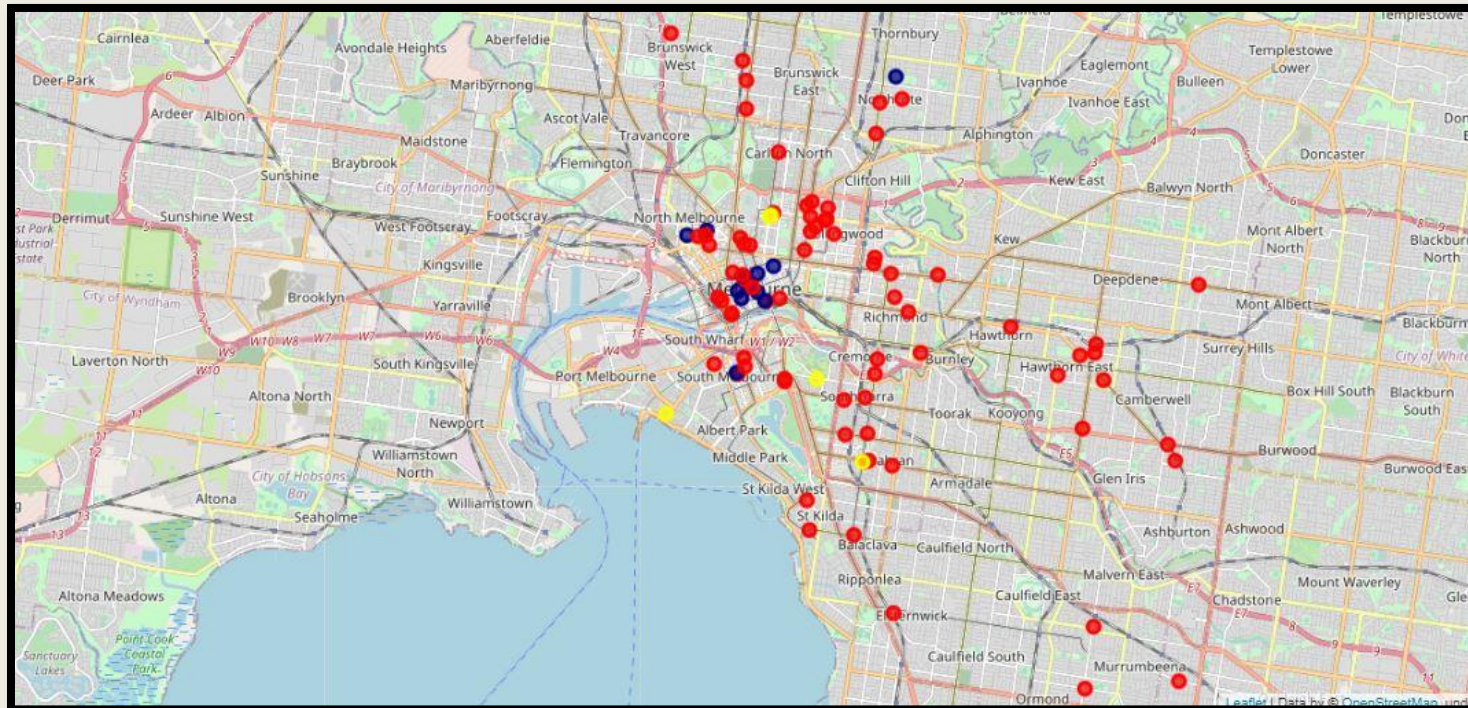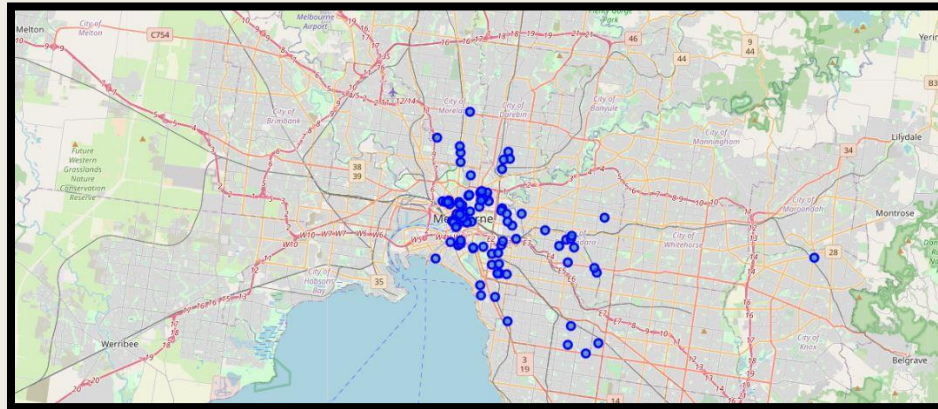
Magnitude of Votes on Rating

NOTES

Around 80% of café received less than 2000 votes

In the magnified version, ~70% of café received more than 500 votes to generate the rating.

Therefore, the rating data is reliable to be used as a judging criterion in choosing the right café.

K-Means Clustering

NOTES

3 centroids generated

	Average dining cost for two persons	Average rating	Number of Cafés
Cluster 1	$52.68	4.39	82
Cluster 2	$102.00	4.38	5
Cluster 3	$22.08	4.30	12

Conclusion

- 70% of the selected cafés had a price range of 3 which indicated the average cost for two persons to be $50.

- The selected cafés received an average rating of 4.38/5.0 and ~70% of the café received more than 500 votes.

- Clustering gives the following result for customers in choosing their café
  - Cluster 1: **average** dining cost and **good** rating,
  - Cluster 2: **high** dining cost and **average** rating and
  - Cluster 3: **low** dining cost and **low** rating.