

A thick black L-shaped frame is positioned on the left and bottom edges of the slide, framing the central text.

CLASSIFICATION OF THE MRT STATIONS IN SINGAPORE

4th September 2019

MRT in Singapore

- 119 stations in operation and more than 60 under construction
- Train network serving as backbone of Singapore's public transport system
- Stations are well integrated with the local community
 - *Interchange to busses, light rails*
 - *Shopping malls*
 - *Residential blocks*
 - *Offices*

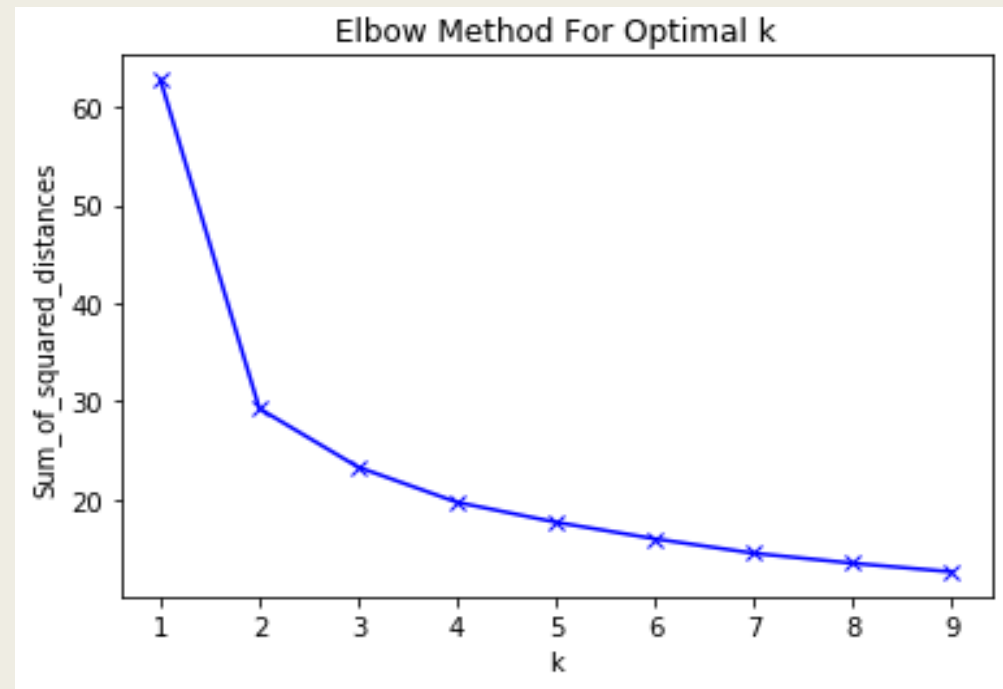
The problems...

- Any way to classify the MRT stations into a few clusters that sharing certain similarity?
- Which cluster of stations to open a snack bar or grocery store?

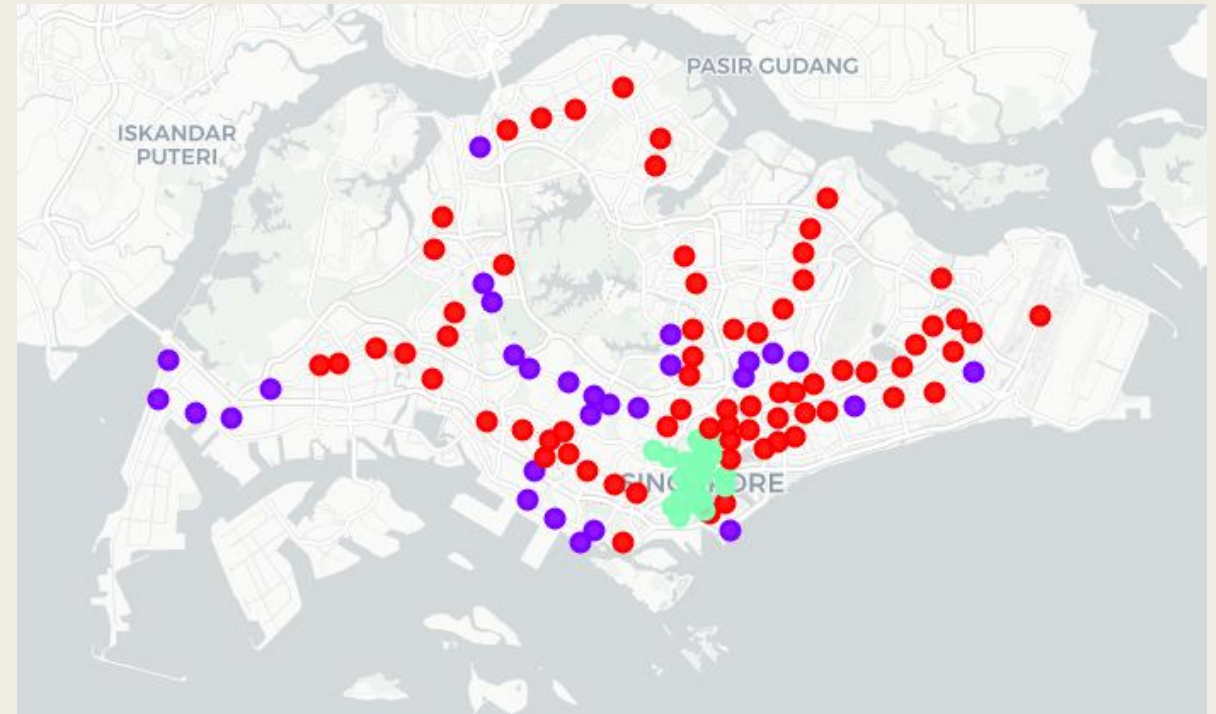
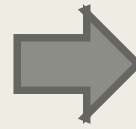
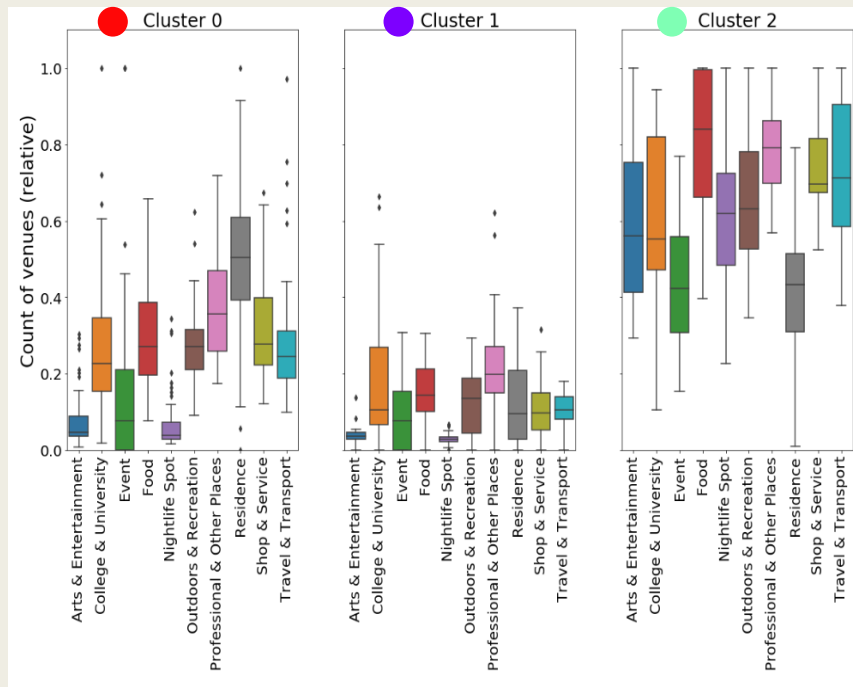
Group by the type of venues

- Classifying the stations according the similarity of the venue's count in each category:
 1. *Arts & Entertainment*
 2. *College & University*
 3. *Event*
 4. *Food*
 5. *Nightlife Spot*
 6. *Outdoors & Recreation*
 7. *Professional & Other Places*
 8. *Residence*
 9. *Shop & Service*
 10. *Travel & Transport*

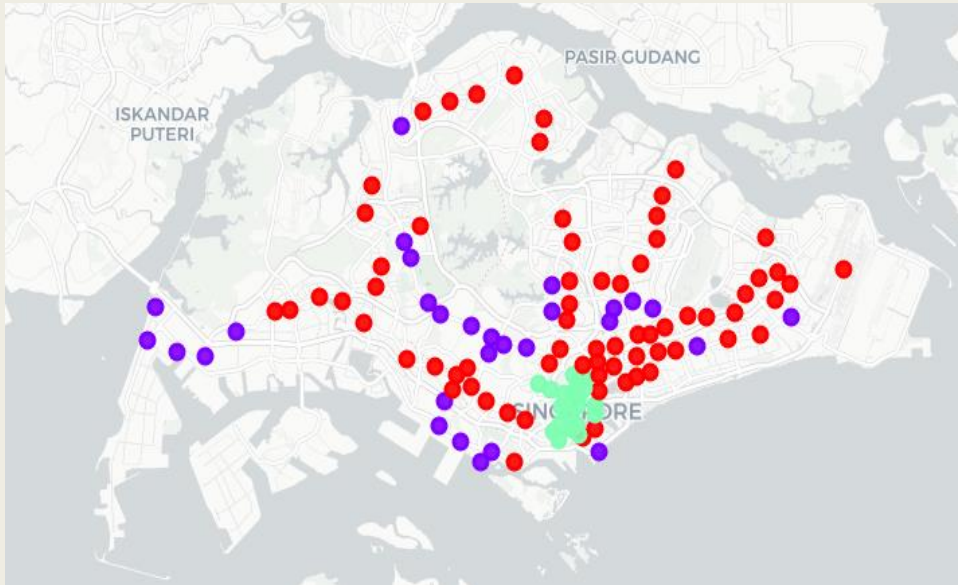
Optimal Number of Group = 3



Results: 3 Distinct Clusters



What are those cluster?



- Cluster 0: Belong to typical developed HDB estates (Singapore public housing), typically with one or more shopping malls.
- Cluster 1: Are mostly less populated areas and close to industrial parks or shipping ports.
- Cluster 2: Highly developed, fast-paced, Central Business District, with tourist attractions nearby

Where to open the snack bar or grocery store?

- Most of the Singaporean work in the Central Business District (CBD) (**Cluster 2**), live in the Housing Estates (**Cluster 0**).
- Recommendations:
 - *Snack bar in Central Business District (CBD) (**Cluster 2**) – Targeting office workers in the morning peak.*
 - *Grocery stores at Housing Estates (**Cluster 0**) – Targeting the same group of people working in CBD who returning to their home at the evening.*

