Movie Theater Analysis

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Predicting locations for new theaters

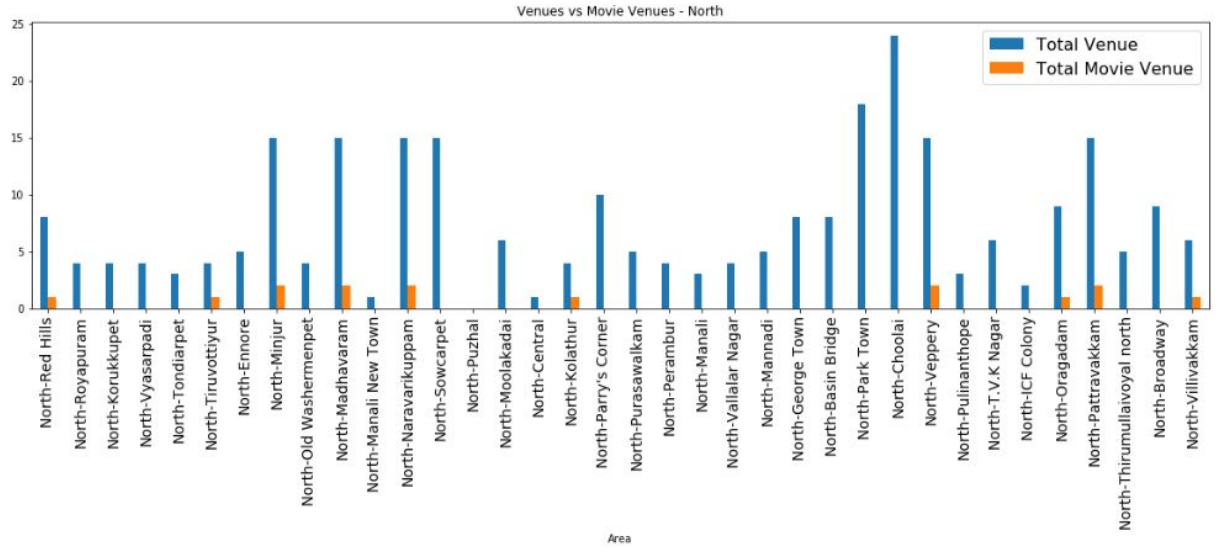
- **Chennai, Tamil Nadu is one of the major cities in India.**
- **It is the cultural capital of India.**
- **So Movie/Cinema one of the art form is widely respected.**
- **Has a huge movie market almost of the scale of Bollywood.**
- **Theatre business one of the profiting business in the state**

Data acquisition

Sources:

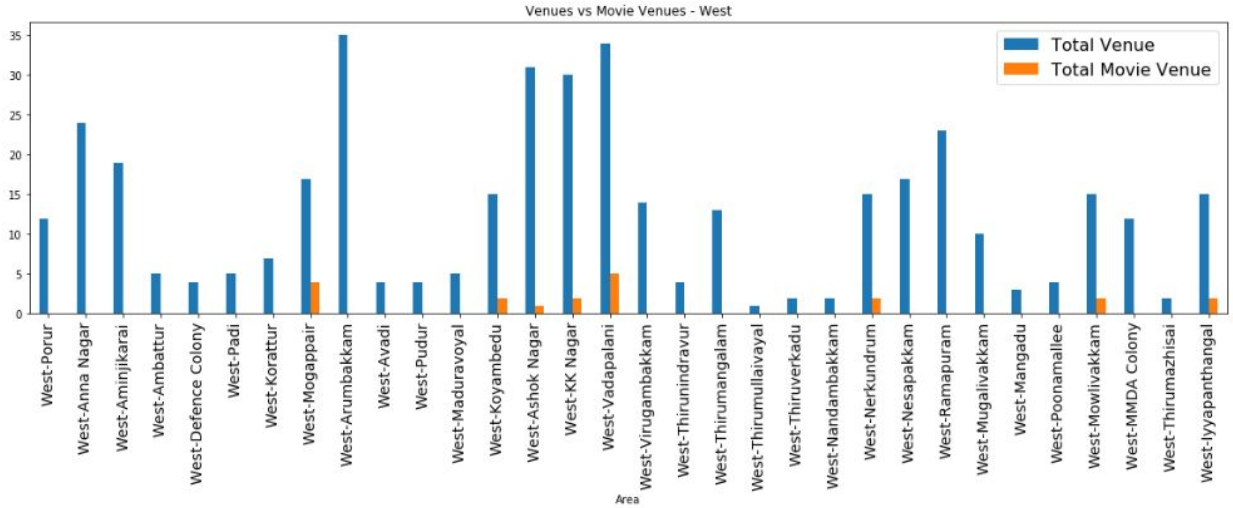
1. Neighbourhood data from Wikipedia [https://en.wikipedia.org/wiki/List_of_neighbourhoods_of_Chennai]
2. Latitude and longitude from Geocoder.
3. FourSquare API for venue details

Data Analysis with different regions- North



The number of theaters is very less and there are more regions without any theaters

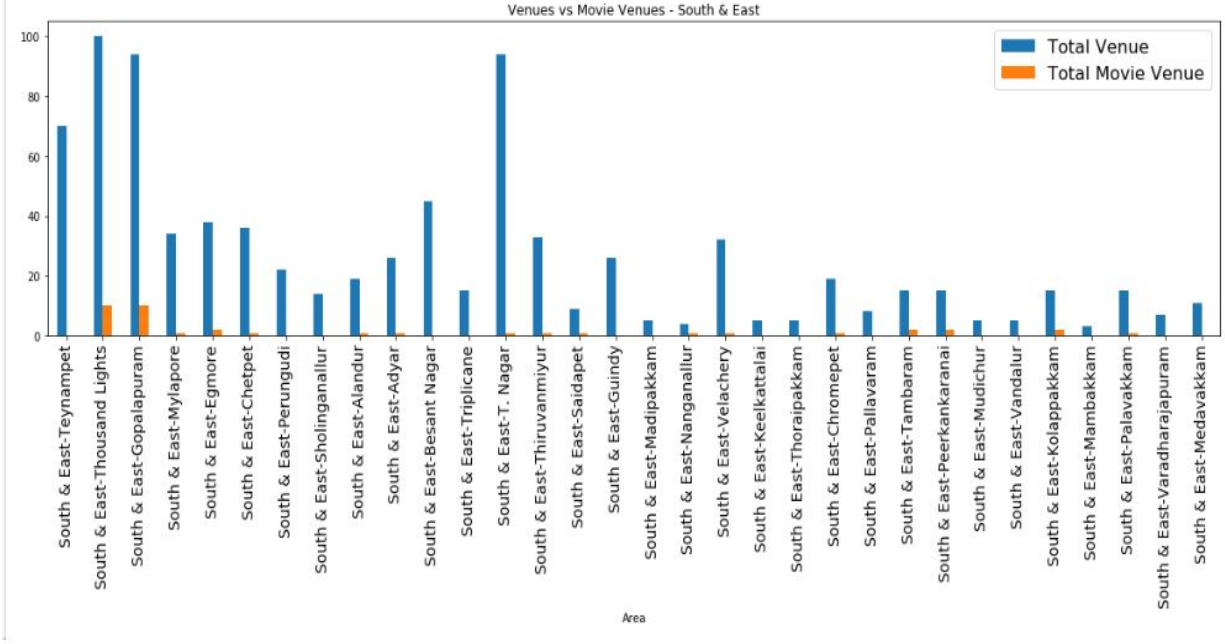
Data Analysis with different regions - West



We could find more number of theaters, but they are confined to single locations.

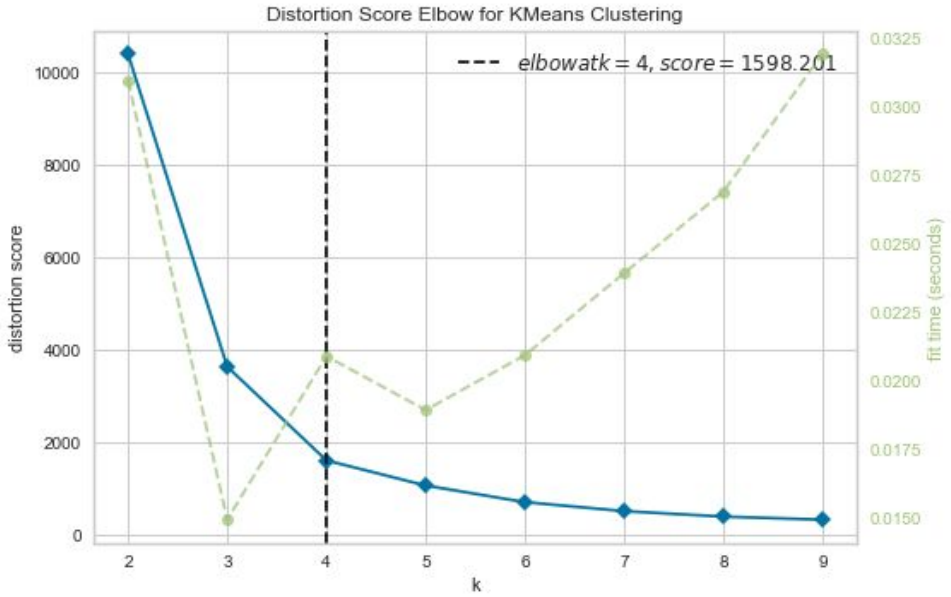
Ex: Vadapalani.

Data Analysis with different regions - South & East



We could see only low yellow bars, but they are spread across the regions. So even though the height of bar is less, this region has a reasonable share of theaters.

K-means Clustering (Elbow Method)

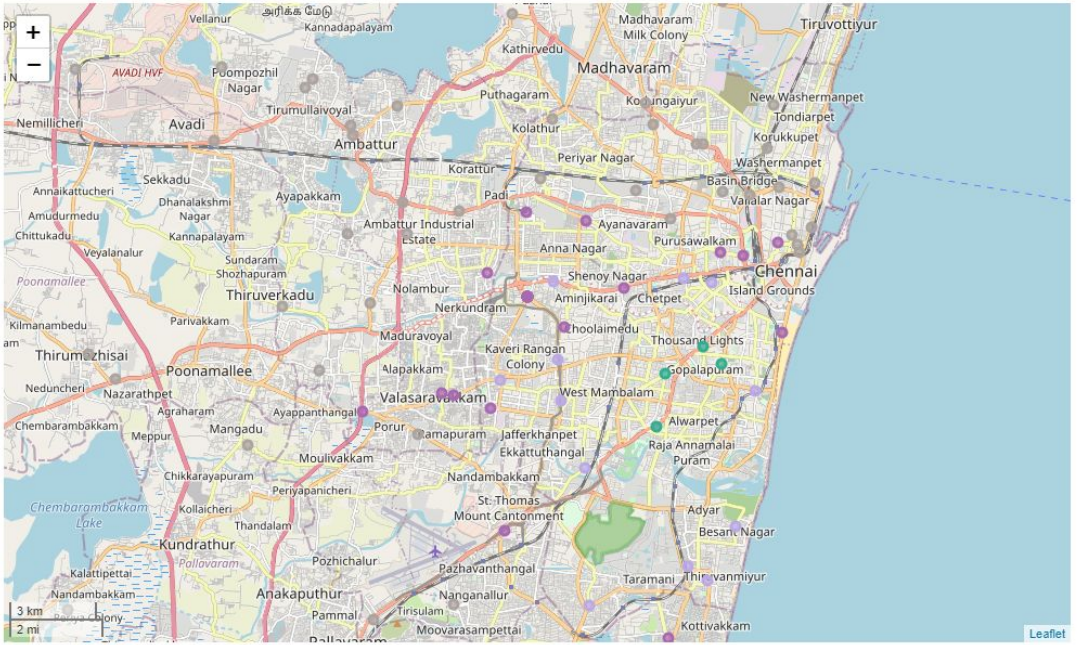


Based on the elbow curve, we obtained the optimum value for k as 4.

Therefore we partition the neighbours into 4 clusters

Cluster results

Out[52]:




```
Cluster Labels
0    31.0
1    21.0
2     7.0
3    15.0
Name: Total Movie Venue, dtype: float64
```

The grey shades are cluster 2 and they have very low move venues. They can be seen in North and West part of the map.

Conclusion and Future Directions

- Based on both the data analysis as well as cluster analysis the below points are concluded
  - The Northern and the Western parts of city have low theaters in some regions.
  - The Southern and Eastern parts of city have widespread theaters across regions.
- The future direction might be adding some extra datasets and exploring how it affects our concluded analysis.

Thank You!!