

## WHEN PEOPLE WANT TO READ A GOOD BOOK..

### Data

The data of geographical coordinates is needed to carry out the analysis. Queries will be submitted to Foursquare to retrieve locations of Colleges, Institutes, Bookstores and Libraries. The result of queries will be attached together and scanned to check if any duplicate names are present. Folium maps will be useful to visualize locations on map of Pune city. Using latitudes and longitudes and K Means Clustering technique, clusters will be formed and the optimum number of clusters will be the one which has minimum Sum of Squares of Errors, which gives the sum of the squared differences between each observation and its cluster's mean. It will ensure that the clusters are close knit, which in turn, will reduce the geographical distances within the cluster members and their centers.

The data will be filtered to get the following columns in use :

	name	categories	labeledLatLngs	lat	lng
0	S. P. College	General College & University	[{"label": "display", "lat": 18.50730817151161...	18.507308	73.849743
1	Fergusson College Road	Road	[{"label": "display", "lat": 18.52032787237845...	18.520328	73.841421
2	Fergusson College	General College & University	[{"label": "display", "lat": 18.5228330531064,...	18.522833	73.839503
3	P.E.S. Modern College of Engineering	College Engineering Building	[{"label": "display", "lat": 18.52562811414942...	18.525628	73.846090
4	Modern College Of Science	College Science Building	[{"label": "display", "lat": 18.52631498125122...	18.526315	73.845694
5	Fergusson College Gate 1	College Administrative Building	[{"label": "display", "lat": 18.52178555873184...	18.521786	73.840789