

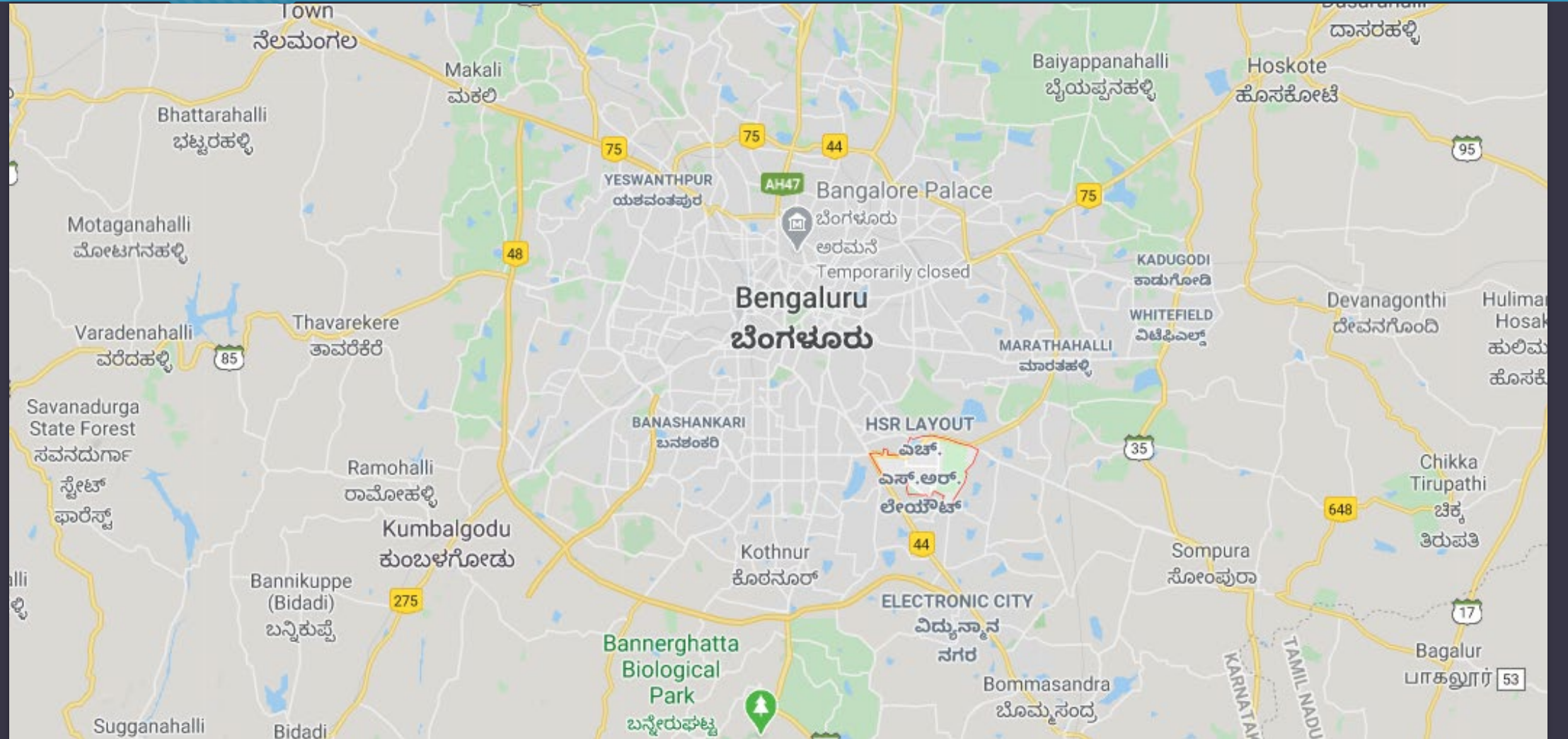
# South to North Bengaluru

Identifying similar neighbourhoods

# Grouping Bengaluru neighbourhoods

- Bengaluru is a large multi-cultural city that is ever expanding with a huge working population
- Proximity to office and other amenities like restaurants, pubs, parks, etc. are important factors when it comes to identifying the perfect neighbourhood for:
  - Working class members moving from one part of the country to another
  - Small business owners who want to expand by setting up outlets in other parts of the city
  - Real estate investors
- HSR Layout is a popular neighbourhood in South Bengaluru that is considered to be a specific case for deep dive

# Visualization of Bengaluru city

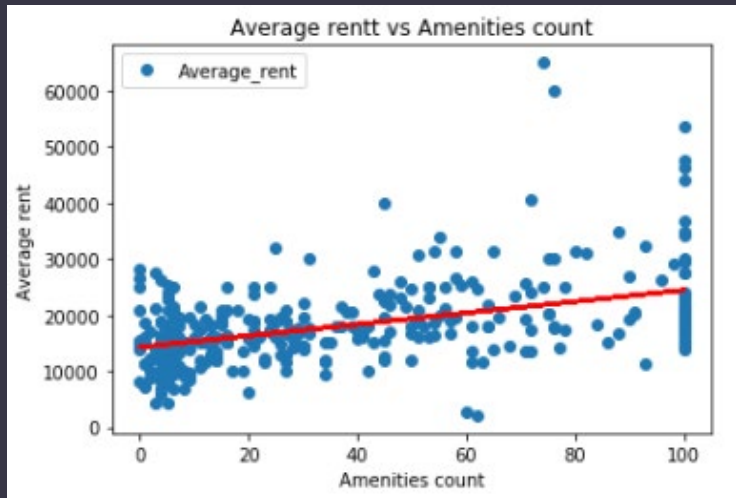
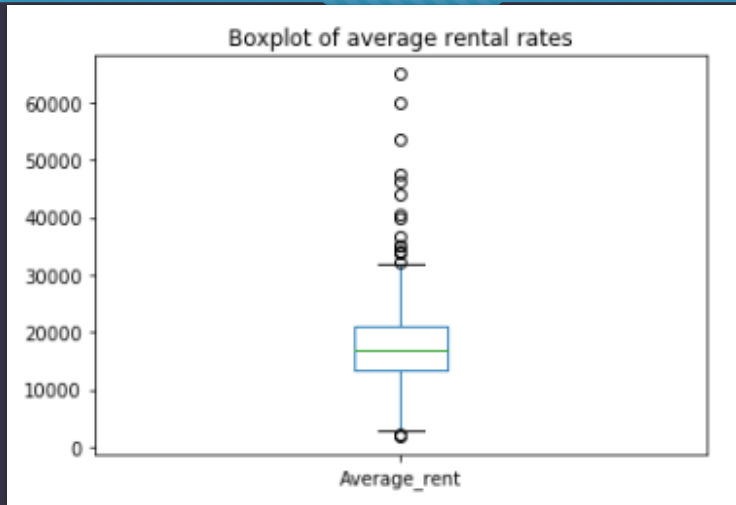


# Data acquisition and cleaning

- Details of Bengaluru neighbourhoods and their rental rates are obtained from Makaan.com
  - 2BHKs rates are considered for analysis
- Geographical coordinates of the neighbourhoods are fetched using Geocoder
- The cleaned dataset consists of 340 neighbourhoods
- Details of 150 popular venues within a 1.75km radius are fetched for each neighbourhood using Foursquare API including
  - Venue coordinates
  - Venue categories



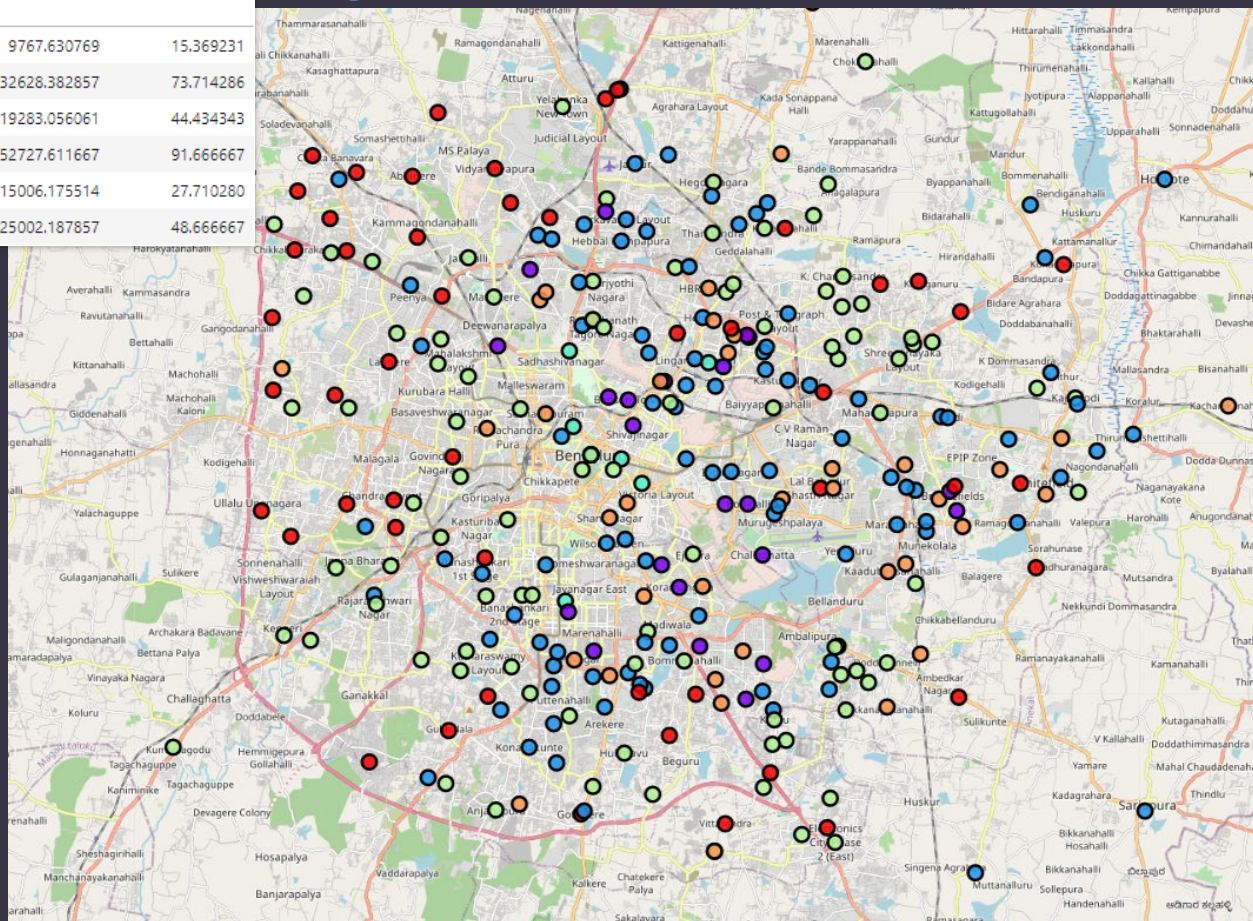
# Average rental rates trends



- Mean rental rate – Rs. 18000
- Standard deviation – Rs. 7800
- 50% of neighbourhoods within Rs. 13500-21000
- HSR Layout in 4<sup>th</sup> quartile – Rs. 26750 on higher end of the spectrum
- Several outliers corresponding to affluent, posh neighbourhoods
- Linear relationship between number of amenities and rental rates

# Bengaluru neighbourhood clusters

Cluster_labels	Average_rent	Amenities_count
0	9767.630769	15.369231
1	32628.382857	73.714286
2	19283.056061	44.434343
3	52727.611667	91.666667
4	15006.175514	27.710280
5	25002.187857	48.666667



- More number of amenities, higher the average rental rate
- Cheaper neighbourhoods with fewer amenities located on the outside
- More desirable neighbourhoods towards interior Bengaluru
- Posh, affluent outliers in the dataset grouped in the heart of the city
- Clusters 2 & 5 – similar in amenities with the former Rs. 6000 cheaper on average, grouped in NE Bengaluru, can yield good RoI



# Neighbourhood like HSR Layout

- Sanjaynagar in North Bengaluru is a neighbourhood that is similar to HSR Layout in the south
- The average rental rates of the neighbourhoods are comparable as are the number of amenities

Cluster_labels	Neighbourhood	Average_rent	Amenities_count
5	HSR Layout	26750.0	58
5	Sanjaynagar	25250.0	59

