

VISU PROJECT

Praveen Kumar

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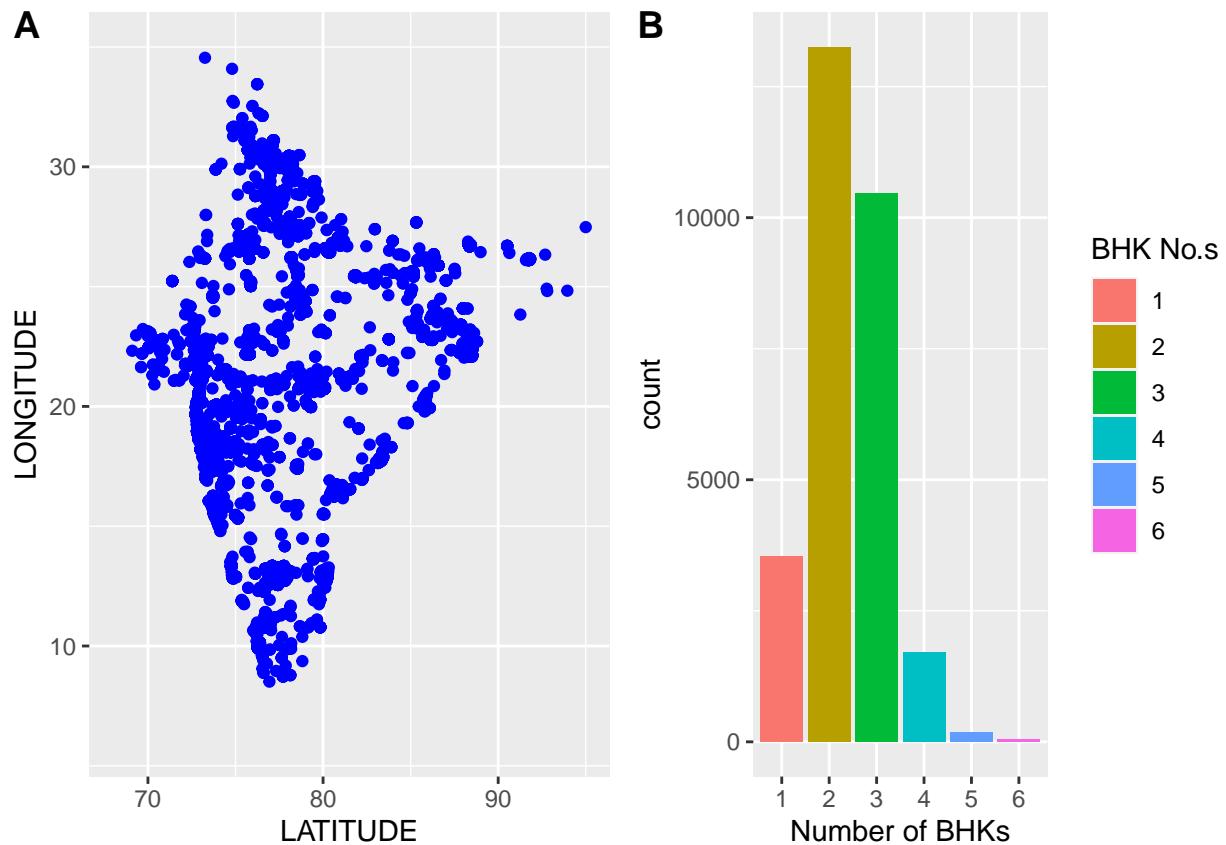
Introduction

Here we have taken this data of around 30,000 houses across india from kaggle. Some of the important attributes of this data are : BHK No. , Longitude & Latitude, Price , Area in sq ft. , Area per 1 lakh Rs., etc.

After some cleaning of the data, when the data was plotted on a scatterplot as longitude and latitude, it almost created the map of india, showing that the data was really from most part of india and not just a few cluster of only north or only south india.

However, as we will see, a lot of the data is from cities. so this data cannot really be used to conclude facts about whole india but mostly urban part.

Since it is mostly a cluster of Important cities, we'll study this data of some important cities as well:



Data Description: LEFT: Just throwing all the data on a scatterplot with xaxis as latitude and yaxis as longitude, traces Indian peninsula, depicting that the data was from all across India and not just north or south part of India. Right: It shows count of BHK No. in the data, as we can see, most of the houses are 2 or 3 BHKs, and 5-6 BHKs are very less comparatively.

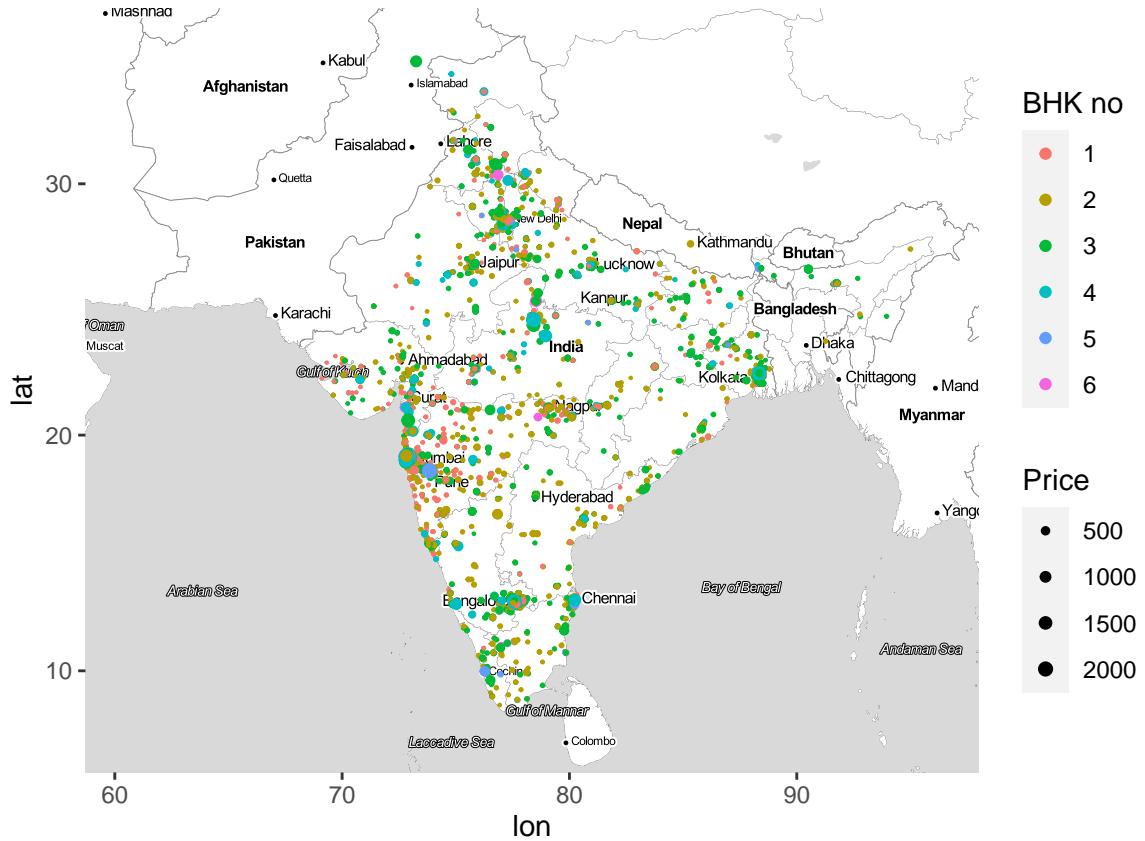
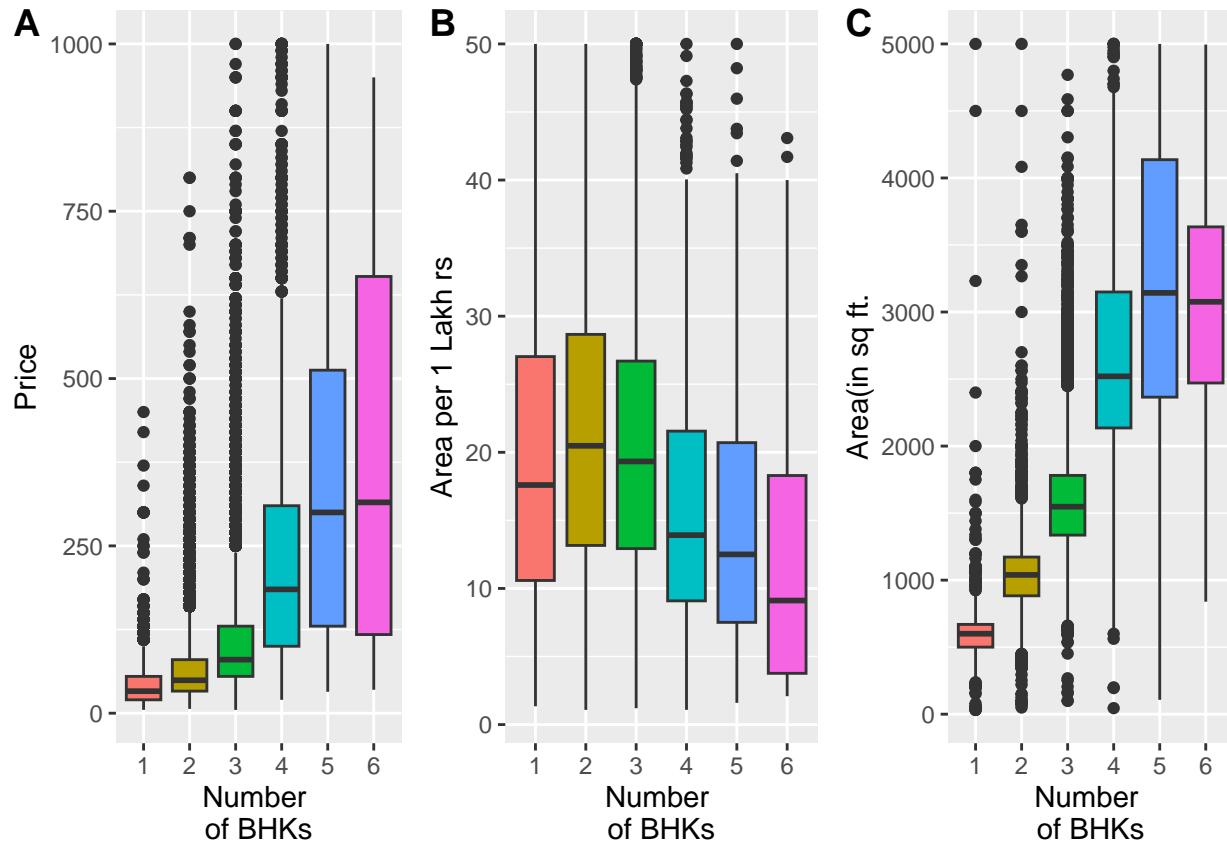


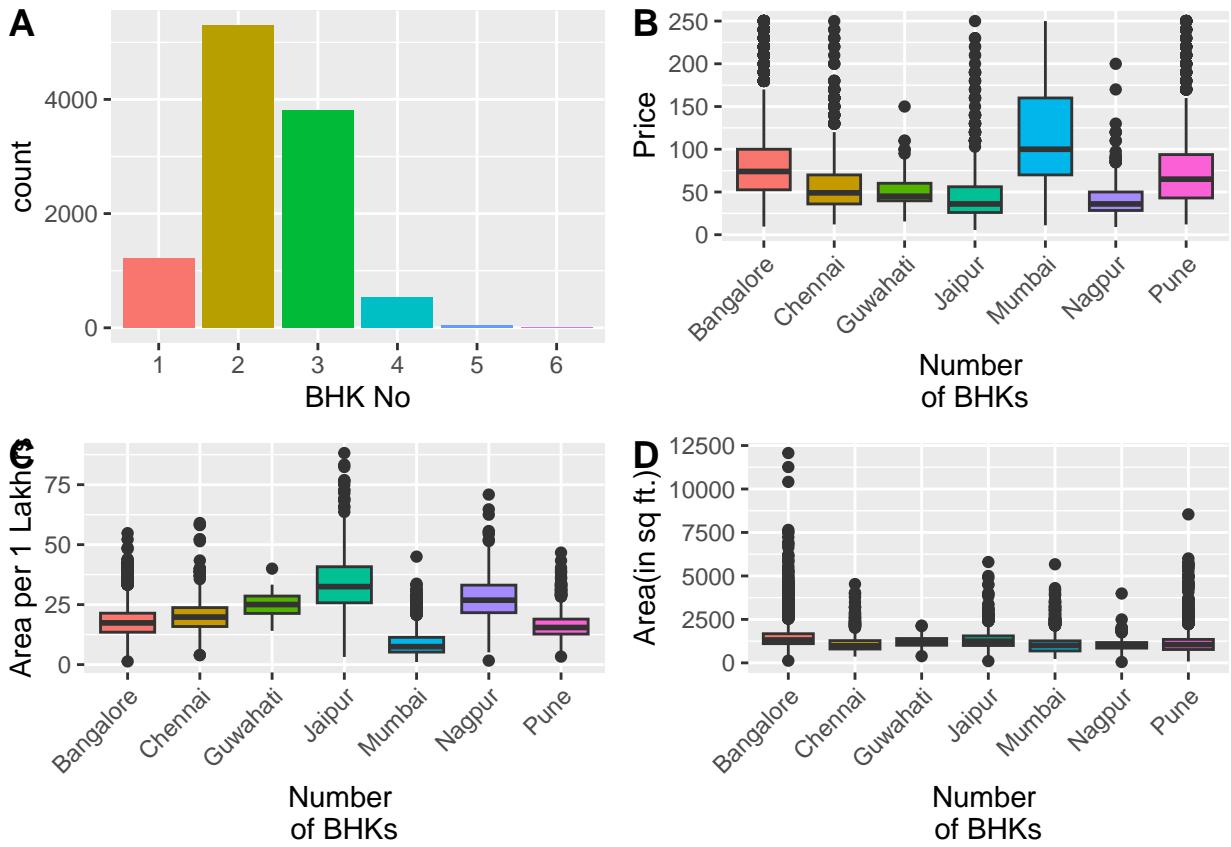
Figure 1: Data plotted on Map Here, we've tried to describe the data on the full Indian map, each point is a house, the bigger the size the more costly it is. The color is for different BHK No. Since the data is quite large and clustered, lot of points just overlap onto each other which makes it hard to conclude facts about the data from here. Hence, we'll see most of the clusters(which are cities) separately.



A : Quite an obvious trend, with BHK No. Price Increases. Same for **C**. **B** : Area is the maximum at 2 BHK, then it rapidly decreases for each Lakh rs spent.

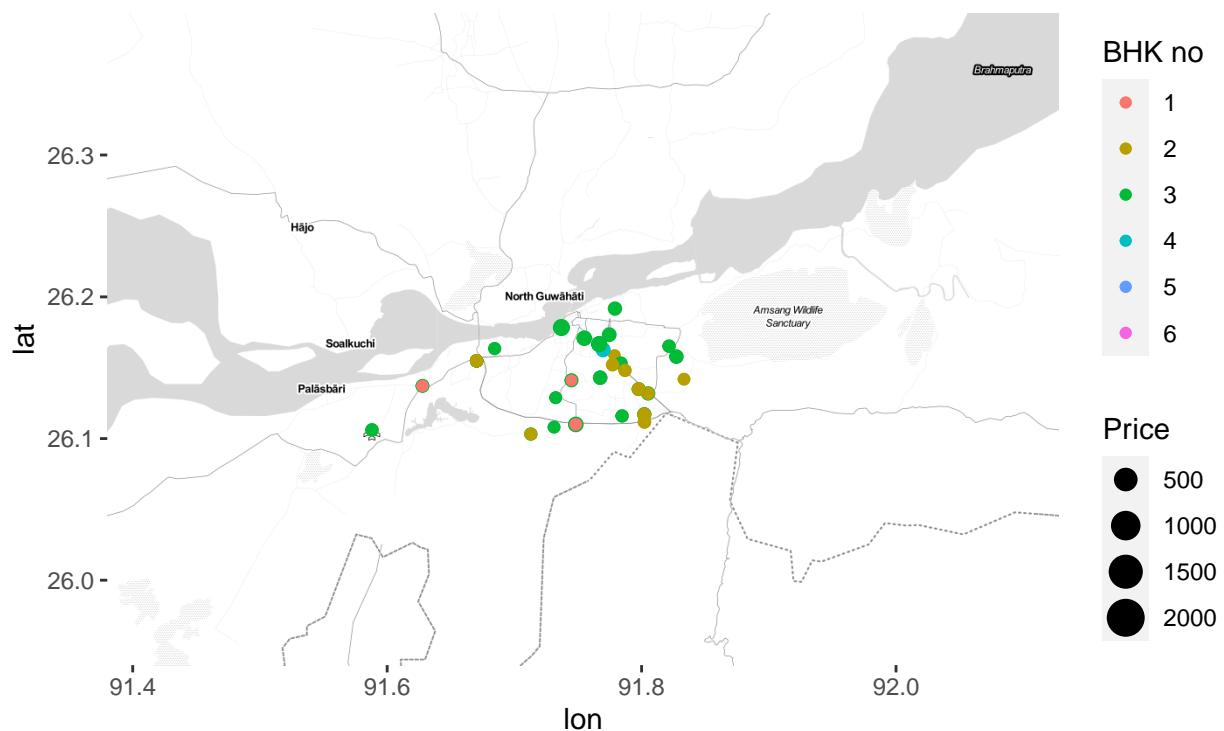
City data combined:

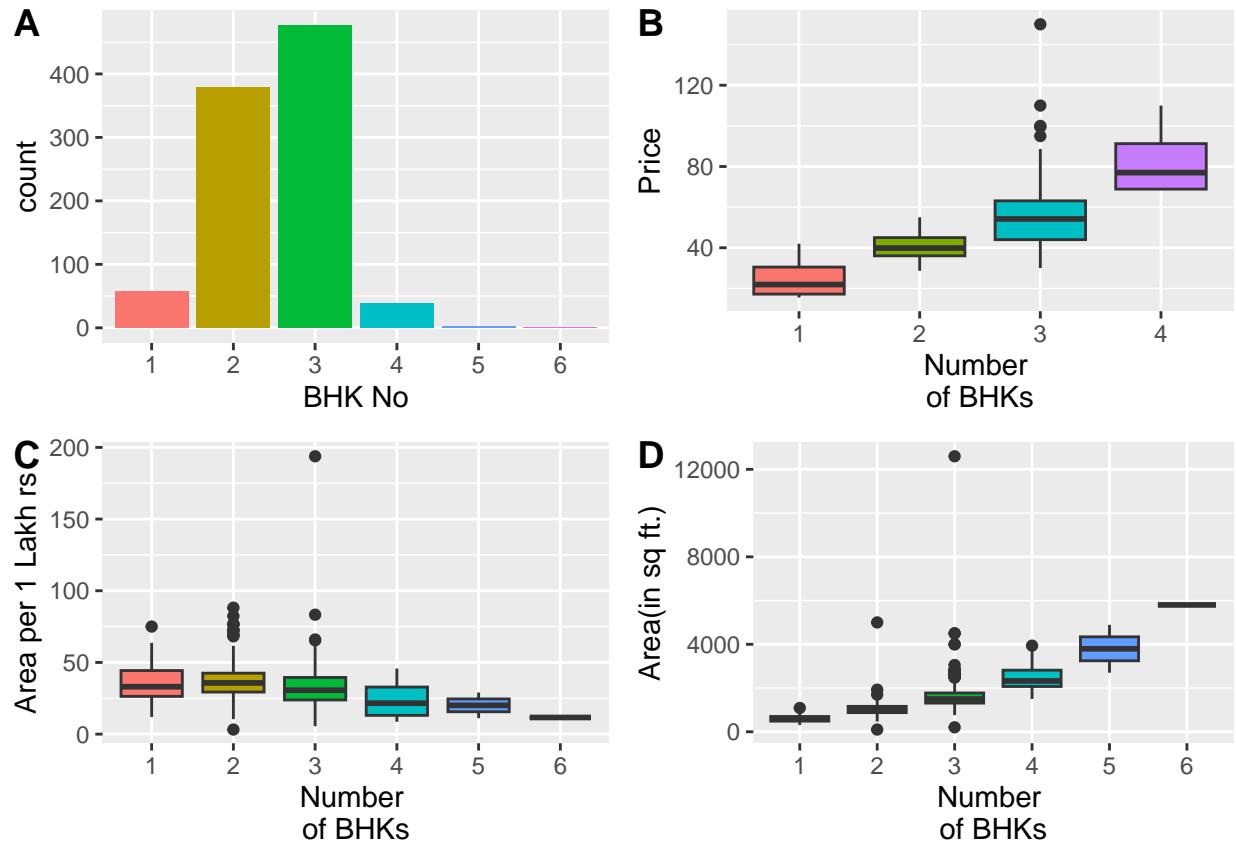
Here only those data is filtered which are in some city. So as to make conclusion about cities of india, and also to compare them.



A : Most houses which are for sale in Cities are 2BHK followed by 3, 5-6BHK are very rare. **B** : Price for house is highest in Mumbai and lowest in Jaipur. **C** : Area per 1 lakh spend is very high in Jaipur, compared to Mumbai which is the Lowest. **D** : How spacious a house is doesn't seem to depend on its location.

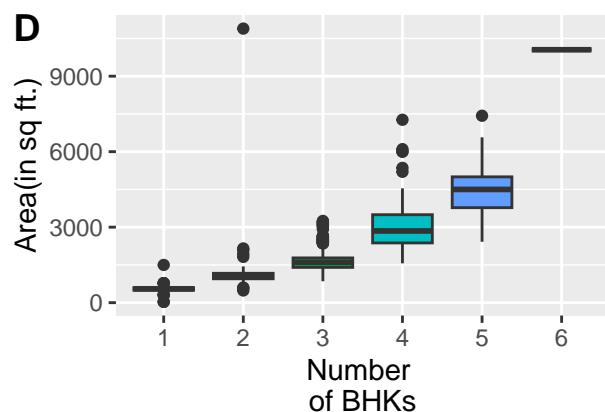
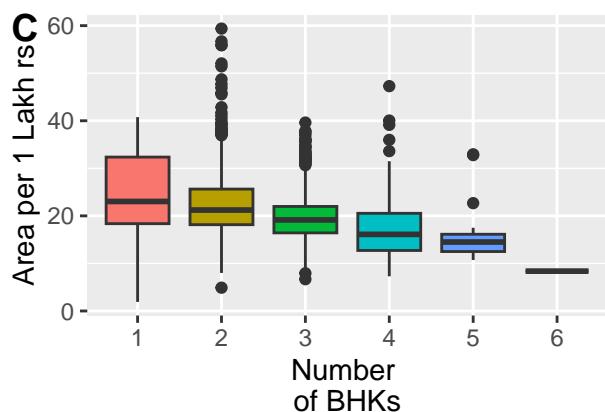
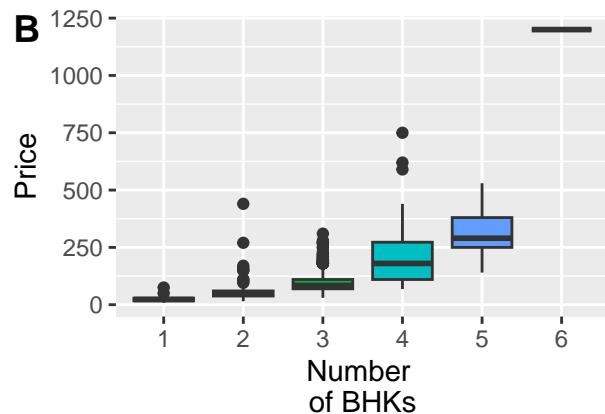
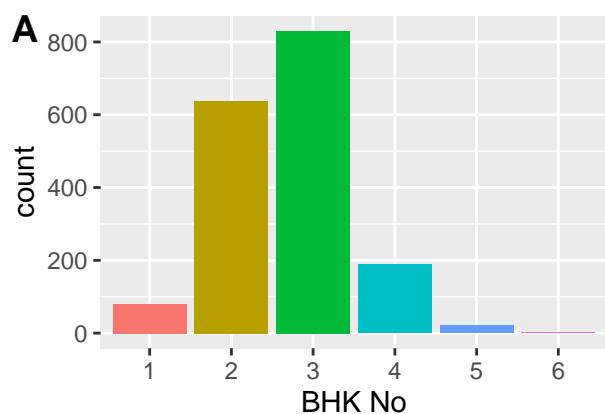
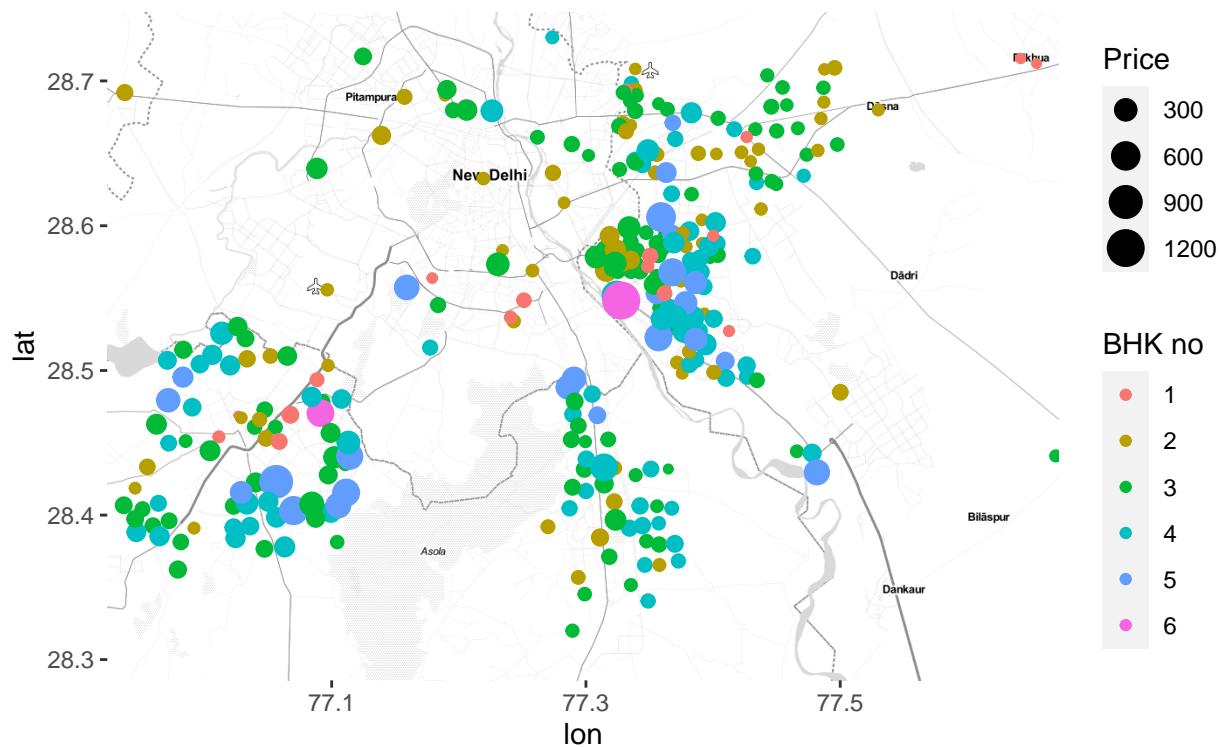
GUWAHATI:





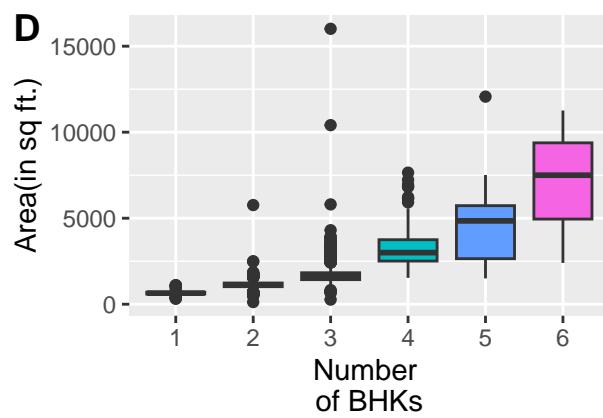
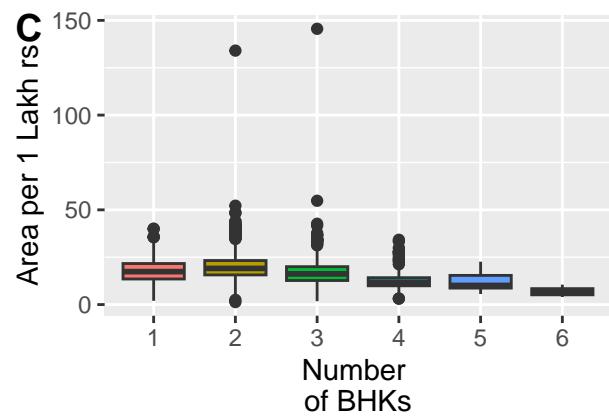
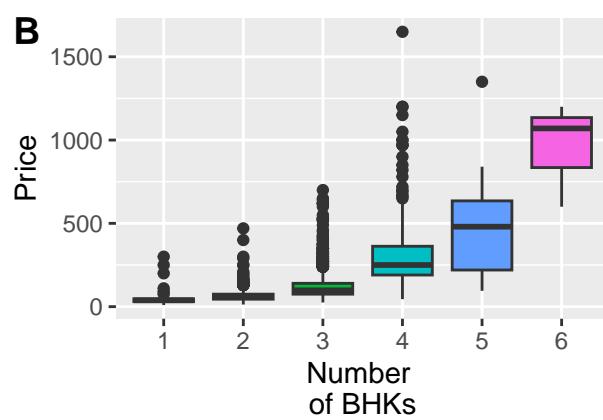
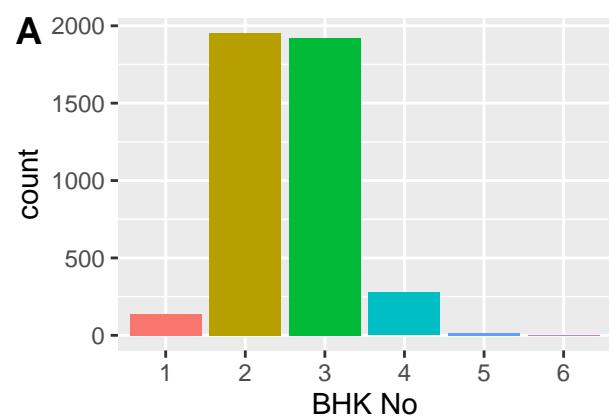
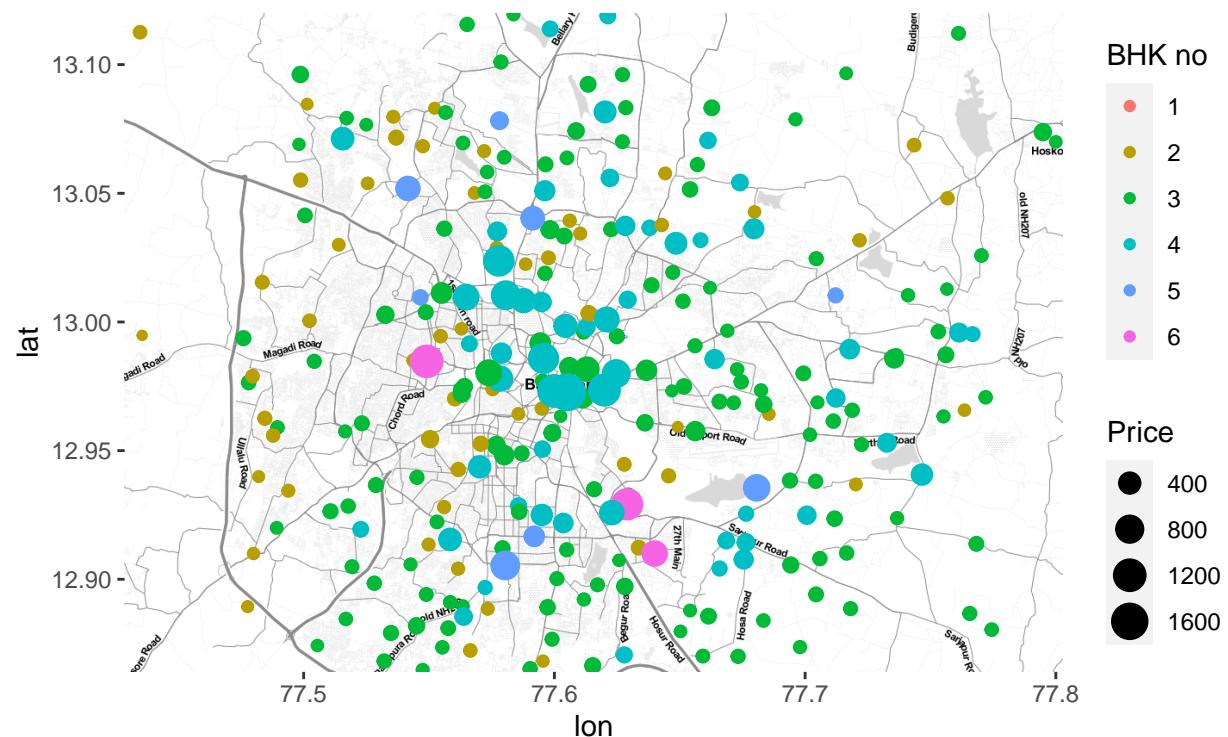
A : 2-3BHK are the ones the most for Sale. **B** : Price unsurprisingly increases the more bedrooms you have. Same for **D**. **C** : Area per lakh rs decreases gradually with BHK No.

New Delhi :



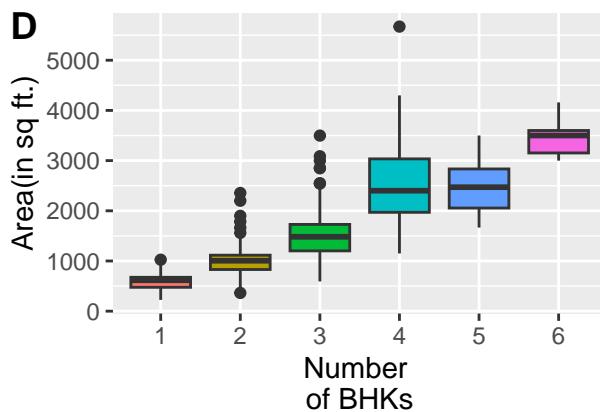
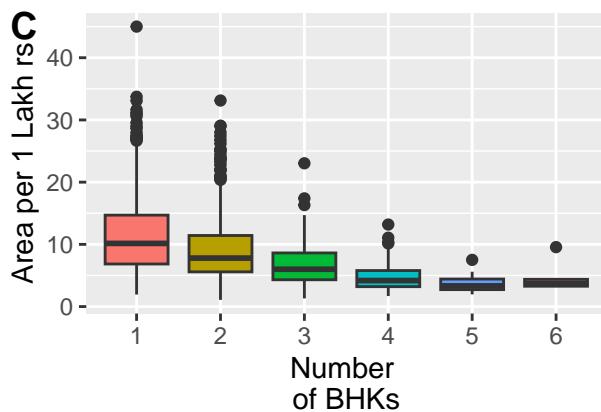
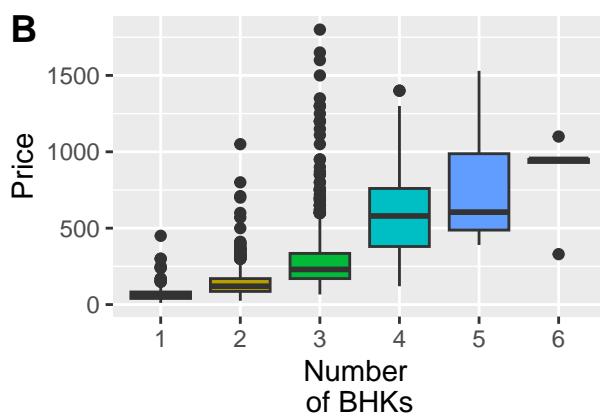
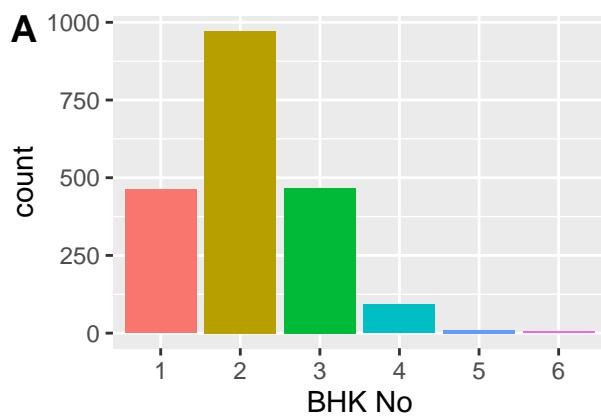
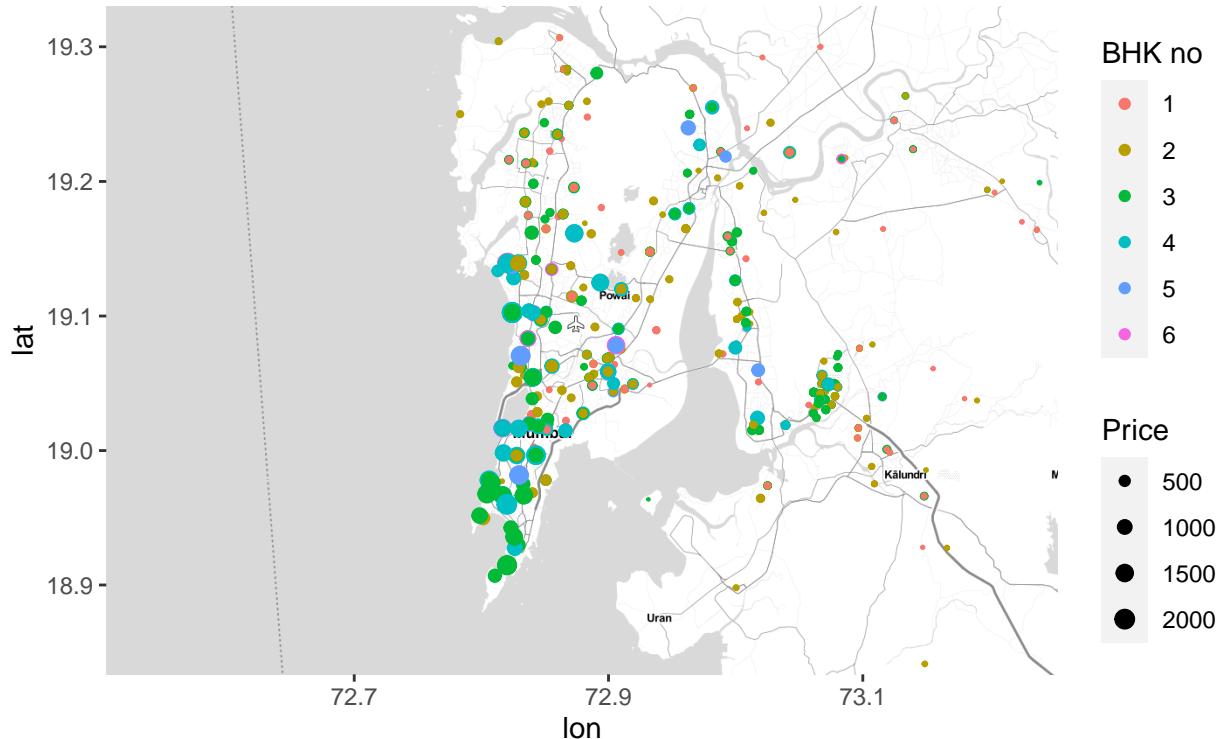
A : 2-3BHK are the ones the most for Sale. **B** : Price unsurprisingly increases the more bedrooms you have. Same for **D**. **C** : Area per lakh rs decreases gradually with BHK No.

Bangalore :



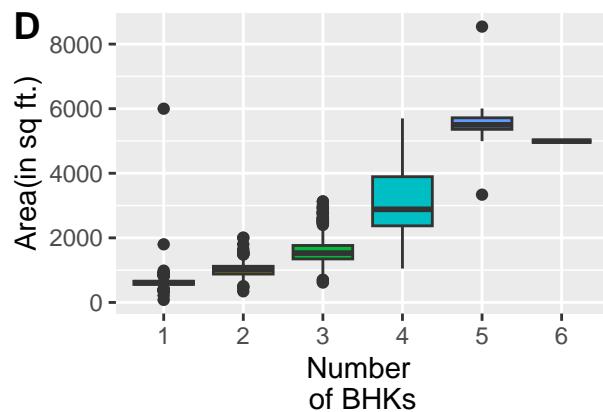
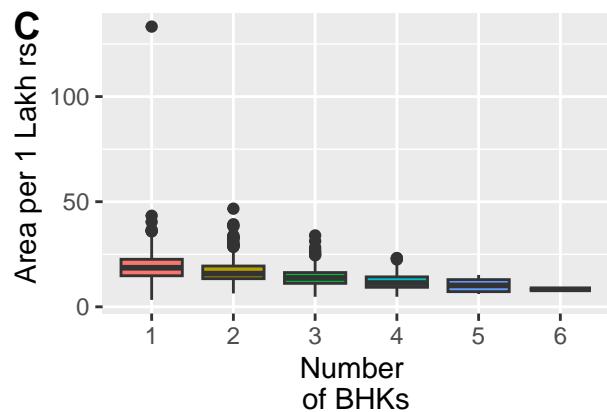
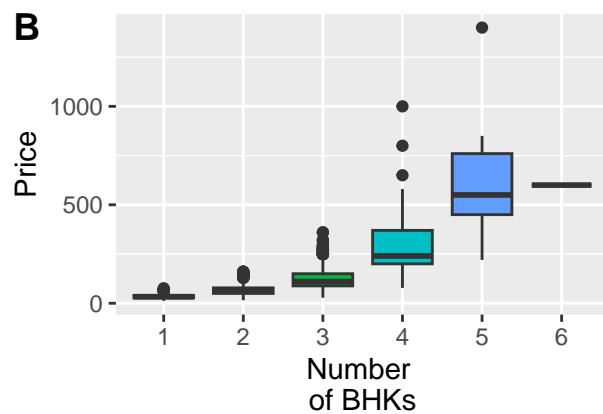
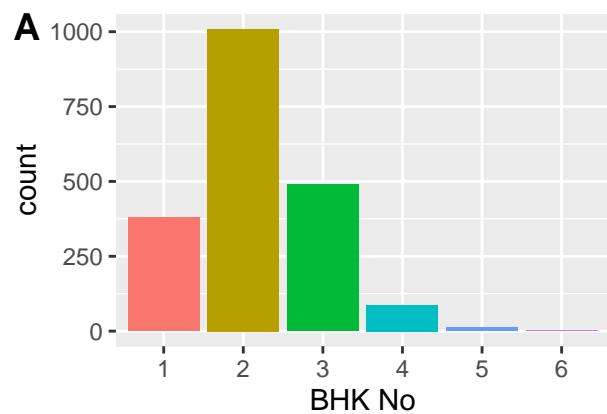
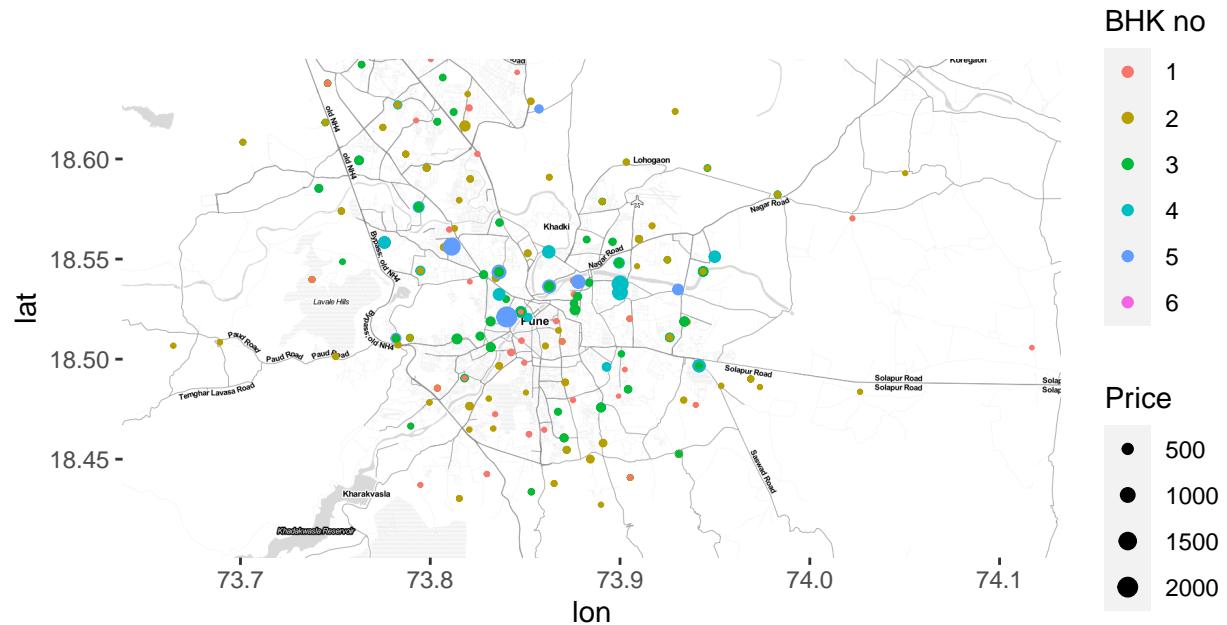
A : 2-3BHK are the ones the most for Sale. **B** : Price unsurprisingly increases the more bedrooms you have. Same for **D**. **C** : Area per lakh rs increases till 2BHK then decreases gradually with BHK No.

Mumbai :



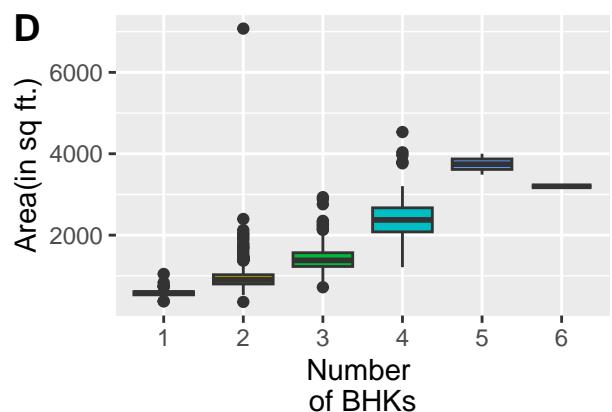
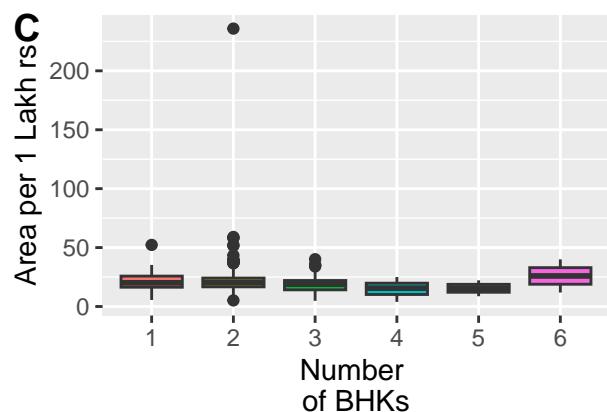
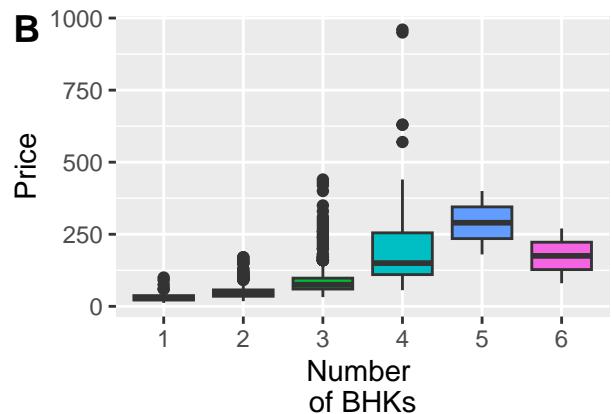
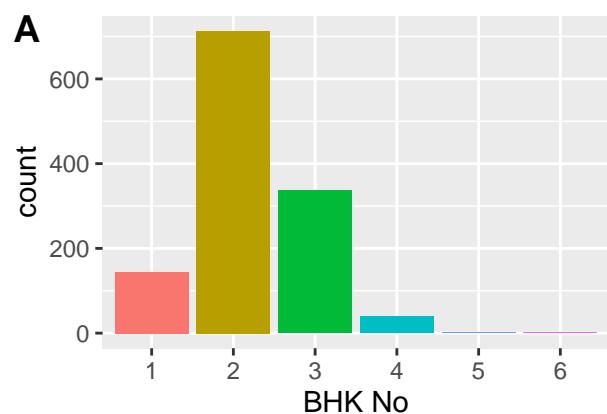
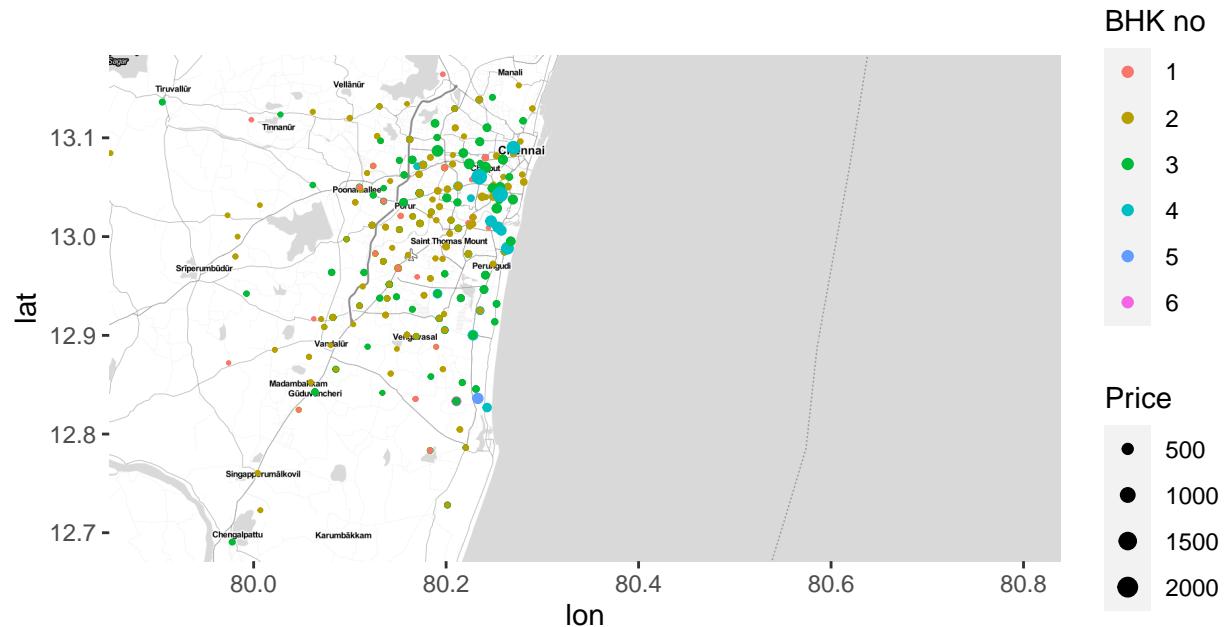
A : 2-3BHK are the ones the most for Sale. **B** : Price unsurprisingly increases the more bedrooms you have. Same for **D**. **C** : Area per lakh rs decreases Sharply with BHK No.

Pune :



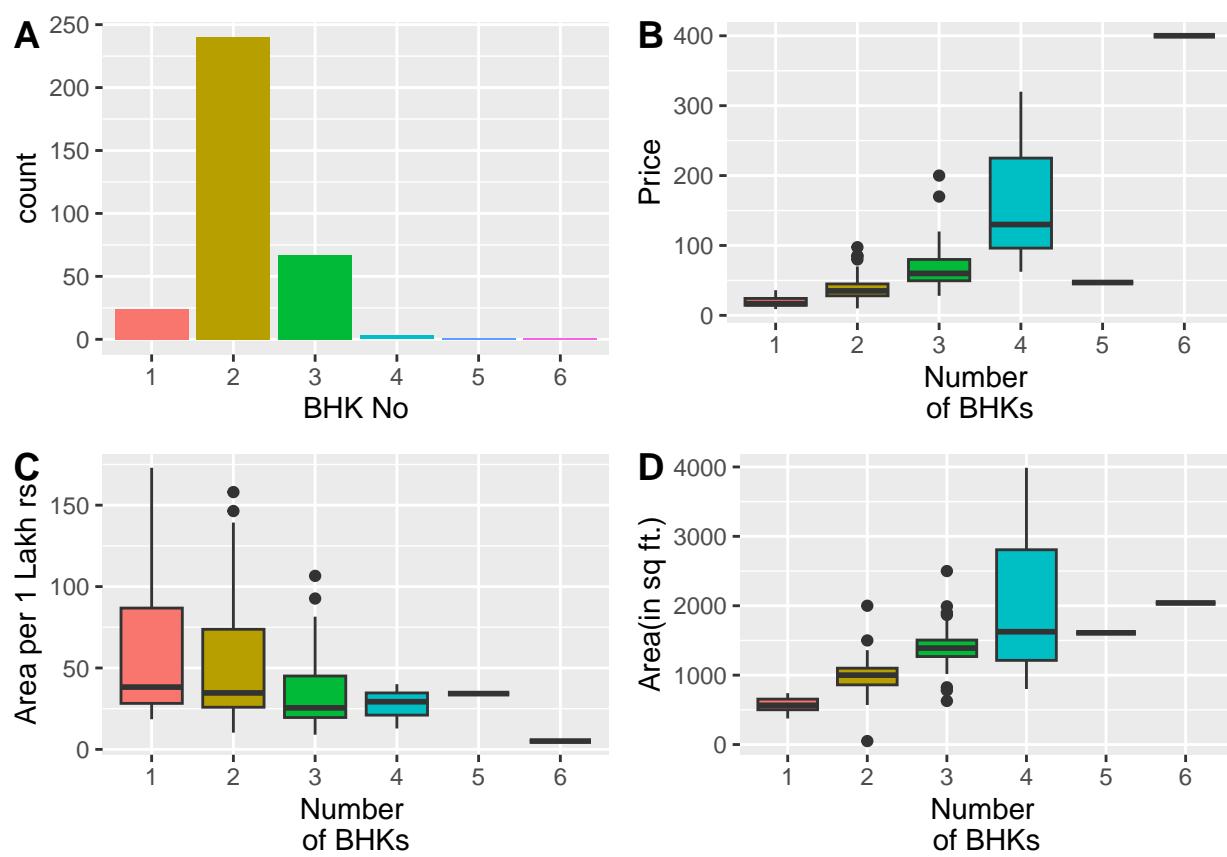
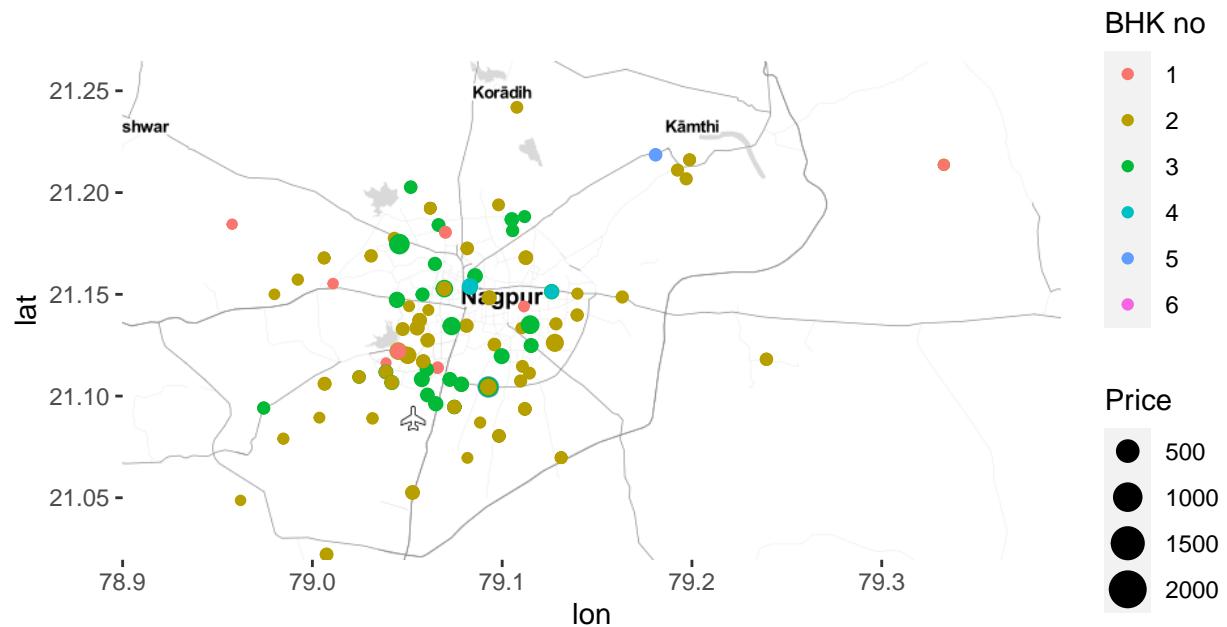
A : 2-3BHK are the ones the most for Sale. **B** : Price unsurprisingly increases the more bedrooms you have. Same for **D**. **C** : Area per lakh rs decreases gradually with BHK No.

Chennai :



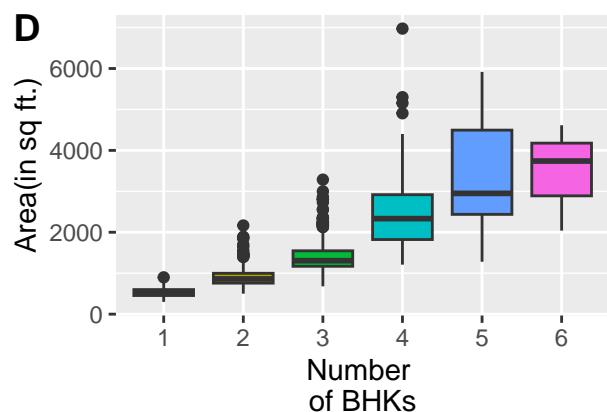
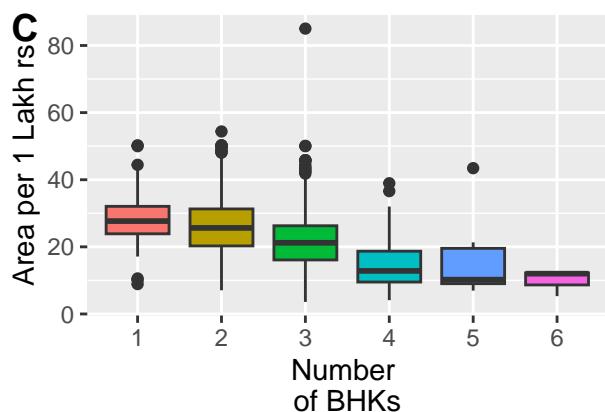
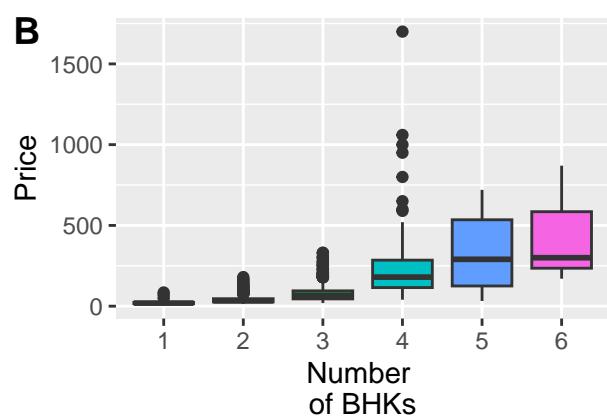
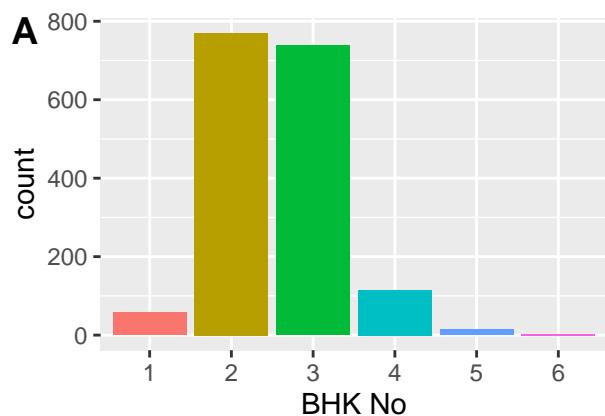
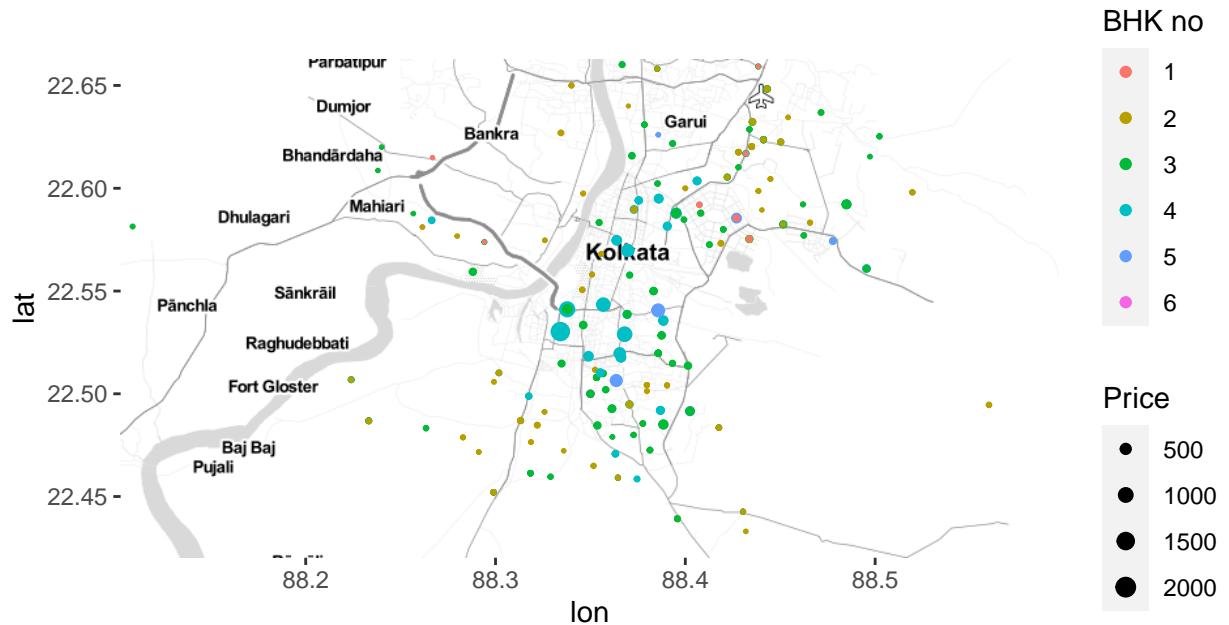
A : 2-3BHK are the ones the most for Sale. **B** : Price unsurprisingly increases the more bedrooms you have, Except after 5BHK,6BHKs cheaper . Same for **D**. **C** : Area per lakh rs its almost flat.

Nagpur :



A : 2-3BHK are the ones the most for Sale. **B** : Price unsurprisingly increases the more bedrooms you have. Same for **D**. **C** : Area per lakh rs increases till 2BHK then decreases gradually with BHK No.

Kolkata :



A : 2-3BHK are the ones the most for Sale. **B** : Price unsurprisingly increases the more bedrooms you have. Same for **D**. **C** : Area per lakh rs stable till 2BHK then decreases gradually with BHK No.

Conclusions

The houses for sale were mostly 2 or 3 BHKS, however different cities had different stories. For Guwahati and Jaipur, the houses for sale were mostly 3 BHKS, for Mumbai and Pune most of the houses were 1 BHKS, and for rest cities 2 and 3 BHKS were almost in same number.

Looking at the location of the houses in the map, they too tell a story. Houses(for sale) in for example, New Delhi, are in 3 major clusters. It is seen in most of the maps that, the closer the house to the water source(specially in case of mumbai and chennai), the costlier it gets. This cost also depends on how close the center of the city is.

While looking at different cities and comparing them, it was clear that Mumbai followed by Bangalore are expensive places to buy house from, and Jaipur followed by Nagpur has the cheapest house prices. The area of an avarage house was almost the same for every city.

The area per Lakh rs is an important factor one has to consider while buying a house. This number is Very less in Mumbai followed by Pune, and it is huge in Jaipur followed by Nagpur and Guwahati.

Links:

Link to the kaggle website with data: <https://www.kaggle.com/anmolkumar/house-price-prediction-challenge>

Link to Github with this project: <https://github.com/TheLiteRunner/VISU-PROJ-REPORT>

Link to shiny dashboard : <https://theliterunner.shinyapps.io/latest1/>

Youtube Link where I've explained the Shiny Dashboard : <https://youtu.be/UqIHhBl3pNY>