

PROJECT REPORT

1.INTRODUCTION

1.1 Overview

Metropolises in India have caught a glimpse of an insurrection of people from across numerous cities in the country. A substantial fraction of this population migrates for a job and some for education, too.

This is the project on topic Analyzing Housing prices in metropolitan areas of India. Purchasing a new house is always a big decision. Moreover, economic growth plays an important role as housing demand is often seen as elastic in terms of income, leading to an increase in revenues for households. Undoubtedly it is a tough call to consider which features should be of most importance.

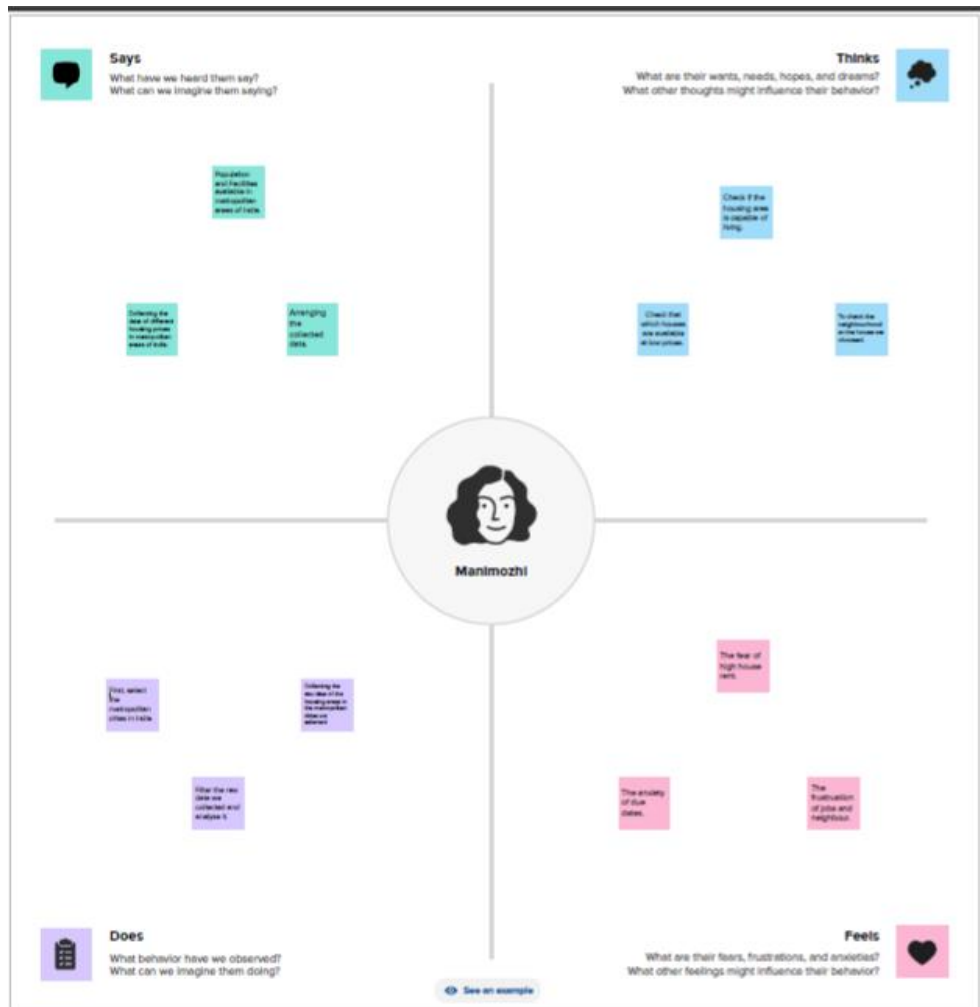
The project aims to predict house prices in a metropolitan city in India by leveraging historical sales data, property details, and location-specific information. The project uses Tableau's data visualization capabilities to create a dashboard and story that can help potential home buyers, real estate agents, and investors make informed decisions. The project also focuses on examining and analyzing the important attributes that influence house prices and explores data mining techniques for predicting house prices.

1.2 Purpose

Predicting house prices is expected to help people who plan to buy a house so they can know the price range in the future, then they can plan their finances well. In addition, house price predictions are also beneficial for property investors to know the trend of housing prices in a certain location. The purpose of this project is to make the task easy for those who are wanting to rent the house in metropolitan cities of India. A metropolitan area occasionally pertained to be a metro area or commuter belt, is a region comprising of a densely inhabited urban body and its less-populated surrounding provinces, rationing industry, infrastructure, and housing. So, this project's purpose is to give a clear and analyzed report of housing prices according to different features which are available in the areas or houses to those who need it.

2.PROBLEMS DEFINITION & DESIGN THINKING

2.1 Empathy Map



2.2 Ideation & Brainstorming Map



3.DATASET

3.1 Mumbai

Mumbai

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A1 Price

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T			
1	Price	Area	Location	No. of Bed	Resale	Maintenar	Gymnasium	Swimming	Landscape	Jogging	Traffic	Water	Indoor	Golf	Shopping	Intercom	Sports	Golf	ATM	Cubhouse	School	24x7 Security	Power Back Up
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3.2 Bangalore

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Bangalore

Price

Area	Location	No. of Bed	Realte	Maintenar	Gymnasu	Swimming	Landscape	Jogging	Tra	RainWater	Indoor	Gar	Shopping	Intercom	Sports	Faci	ATM	Clubhouse	School	24X7Secu	Power	Back	Car
3000000	3340 JP Nagar P	4	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
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22	30000000	3340 JP Nagar P	4	0	1	1	1	1	1	1	1	0	0	1	1	0	1	0	1	0	1	1	

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3.4 Kolkata

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A1 [Checkmark] [X] Price

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Price	Area	Location	No. of Beds	Resale	Maintain	Gymnas	Swimming	Landscape	Jogging	RainWater	IndoorG	Shopping	Intercom	SportsFac	ATM	Clubhouse	School	24x7Secu
2	2213000	1016	Bansot	3	0	0	1	1	0	1	1	0	0	0	0	0	0	1	1
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11	4629000	1342	Madhyam	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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Hyderabad

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Price

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1	Price	Area	Location	No. of Bed	Resale	Maintenar	Gymnaasu	Swimming	Landscape	Jogging	Tra	RainWater	IndoorGar	Shopping	Intercom	Sports	Faci	ATM	Clubhouse	School
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Workbook Statistics

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Delhi

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Price

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
1	Price	Area	Location	No. of Bed	Resale	Maintenan	Gymnasiu	Swimming	Landscape	Jogging	Tra	RainWater	IndoorGar	Shopping	Intercom	SportsFac	ATM	ClubHouse	School	24X7Secur	PowerBac
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12	11000000	1000	Sector 24	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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17	1.1E+08	2500	West End	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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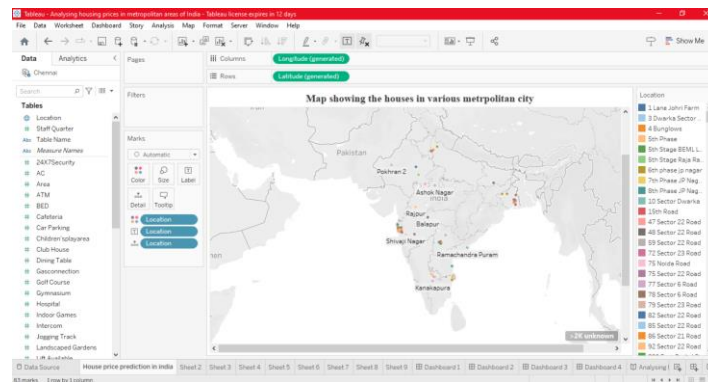
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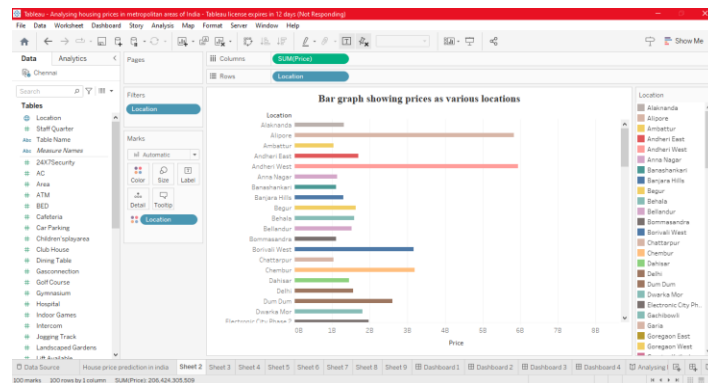
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4.VISUALIZATIONS

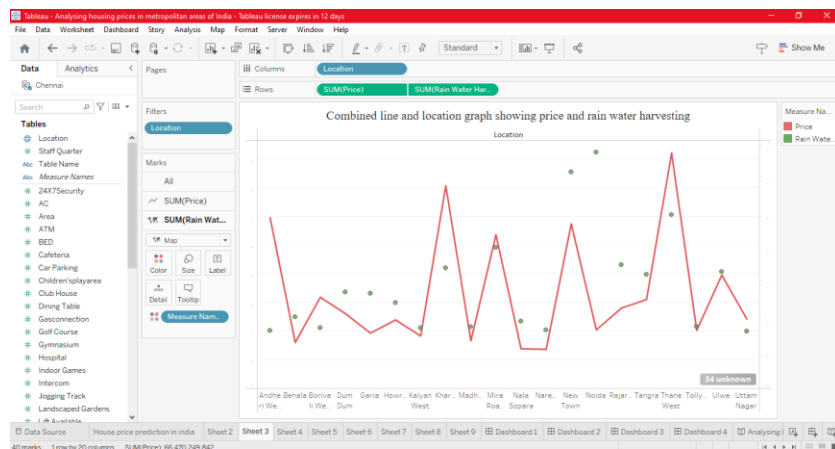
4.1 Map showing the houses in various metropolitan cities



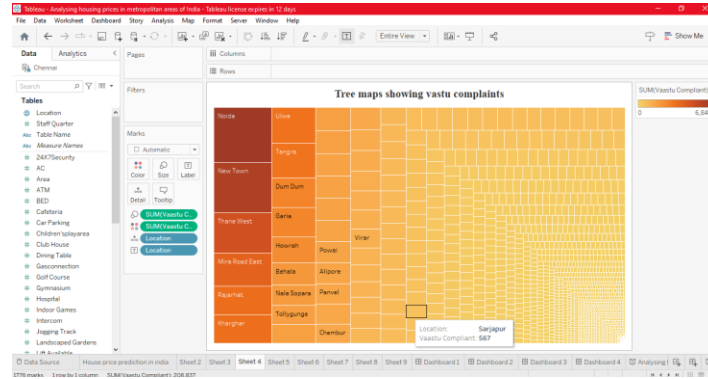
4.2 Bar graphs showing prices as various locations



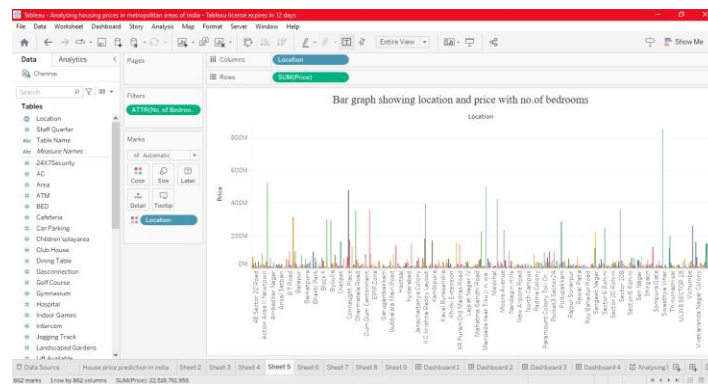
4.3 Combined line and locations graph showing price and rainwater harvesting



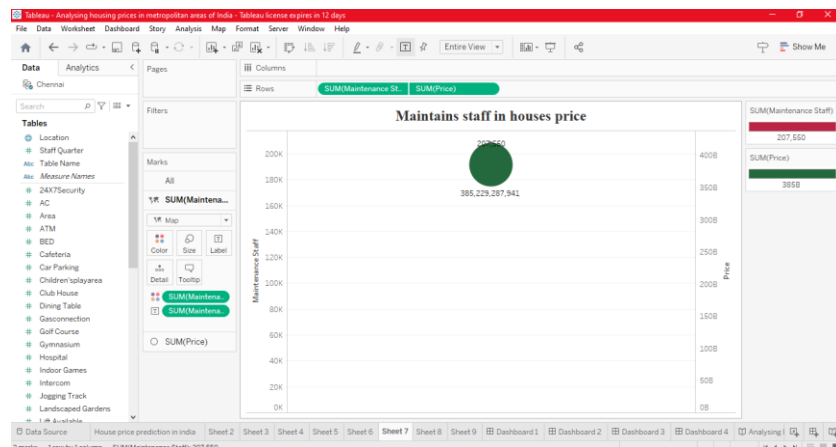
4.4 Tree maps showing vastu complaints



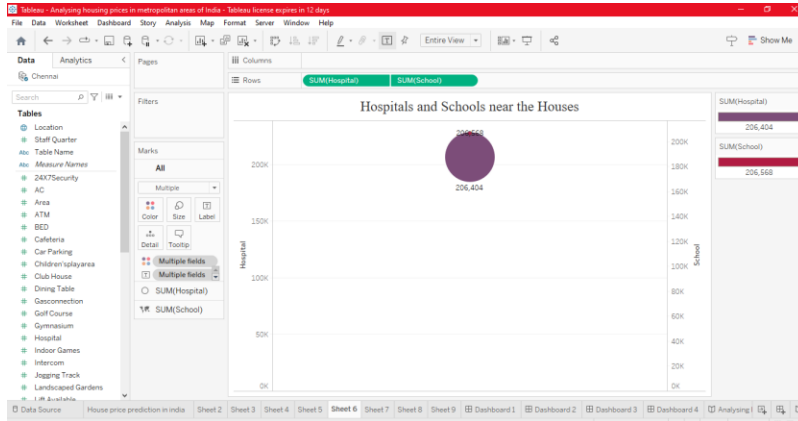
4.5 Bar graph showing locations and price with no. of bedrooms



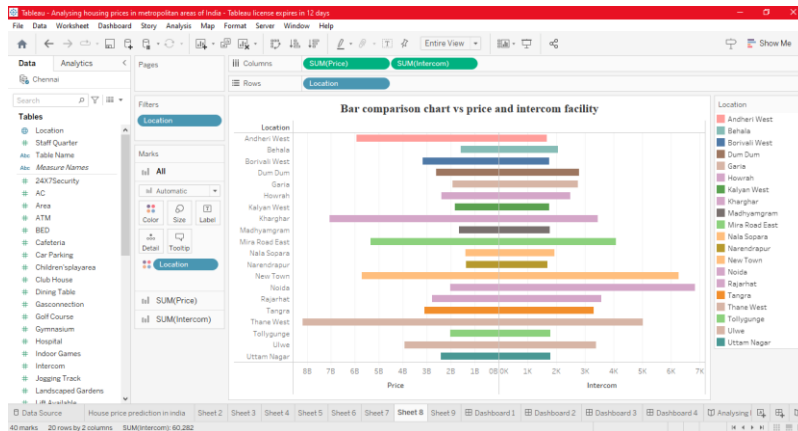
4.6 Maintains staff in houses price



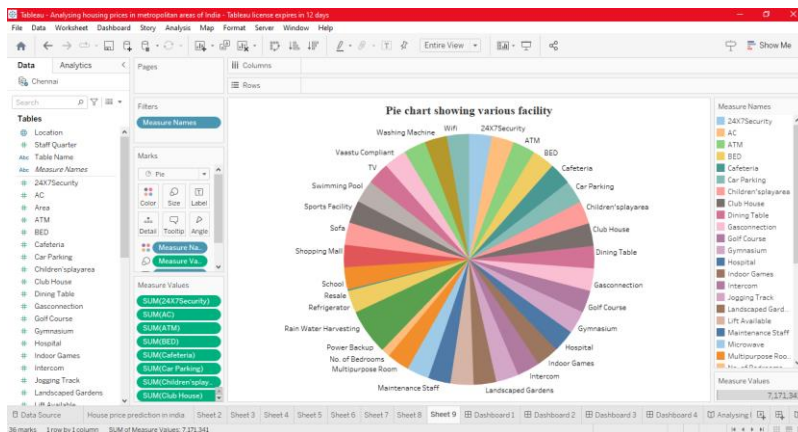
4.7 Hospitals and schools near the houses



4.8 Bar comparison chart vs price and intercom facility

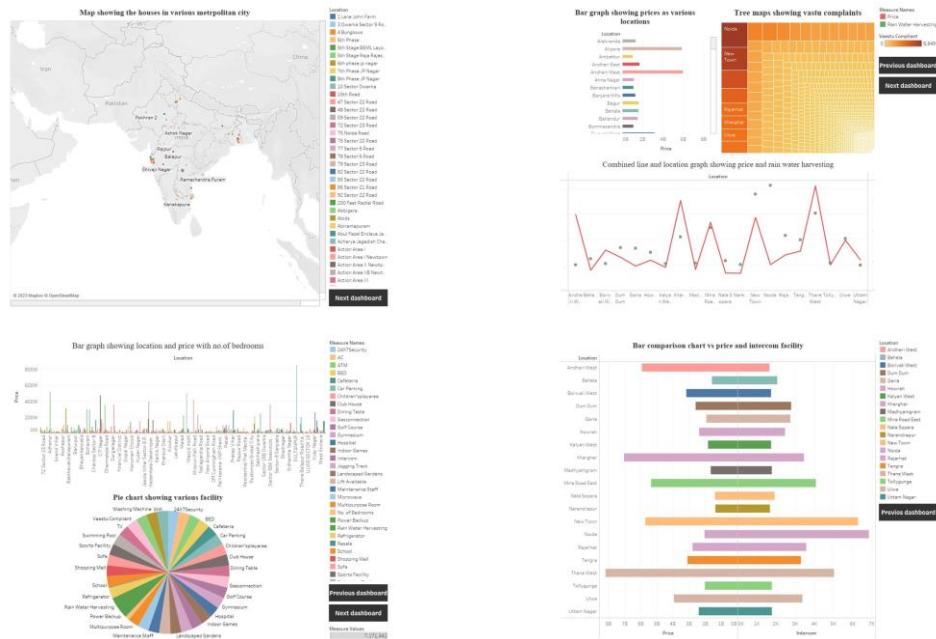


4.9 Pie chart showing various facility

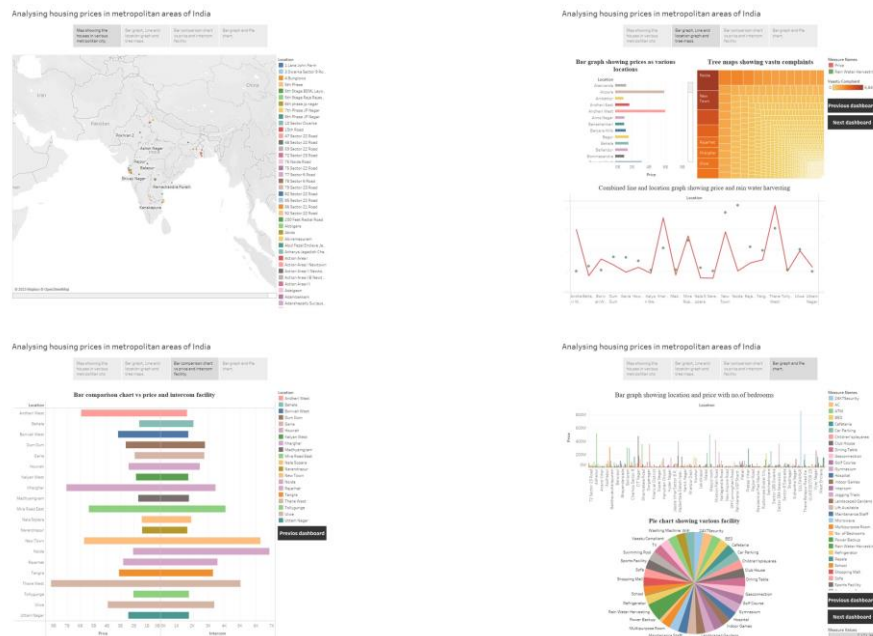


5.RESULT

5.1 Dashboard

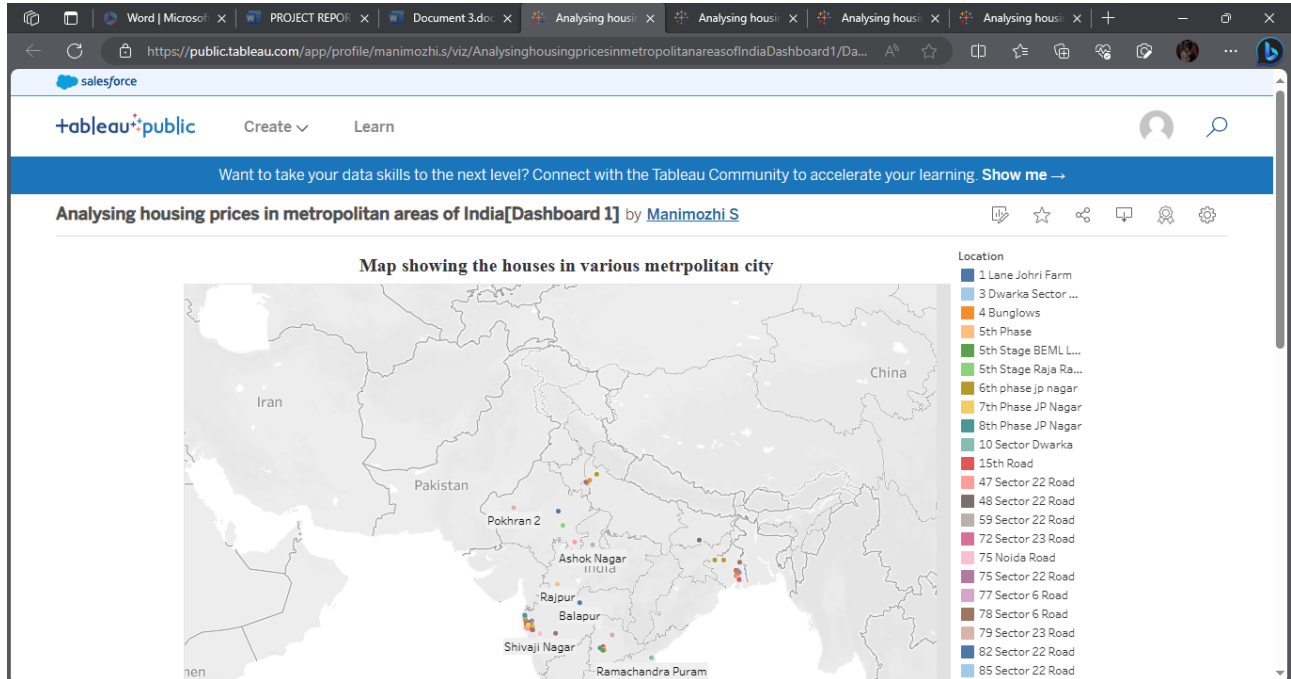


5.2 Story

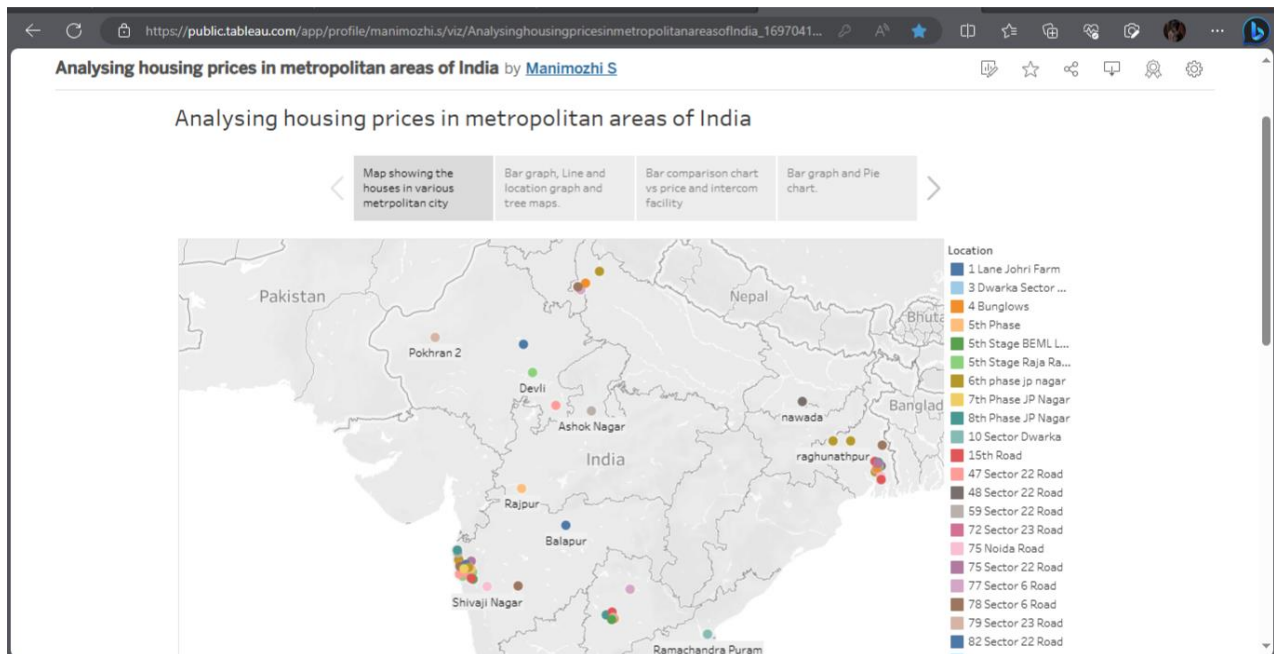


6.PUBLICATIONS IN TABLEAU PUBLIC

6.1 Publication of dashboard



6.2 publication of story



7.ADVANTAGES & DISADVANTAGES

7.1 Advantages

- There are often roads of better quality and well-built houses in urban areas.
- Transport facilities are highly developed and often receive regular funding for updates. It can be faster to get from place to place in a city or town.
- Due to better public transport, you can save money on a car
- Most amenities and entertainments are easy to reach. Clubs, restaurants and cinemas are more prolific in these busier areas and you often find new attractions will open in a city before anywhere else.
- Hospitals and clinics are close by for easy access to healthcare or aid in an emergency.
- Cities and towns tend to have a greater mix of cultures and ethnicities which can help when making new friends and meeting people.
- There are a greater number of jobs available in urban areas. Starting a new career could be far easier if you move to a town or city.

7.2 Disadvantages

- Busy towns or cities can feel crowded and may mean you feel more stress or pressure. You may also not be able to form such tight knit communities in urban areas.
- Urban areas tend to be more expensive to live in. Property prices are higher and so are goods and services.
- Houses are more compact in urban areas. To maximise space, flats and smaller apartments are being built instead of houses with larger gardens.
- There are often fewer green spaces in a town or city. You may not always be able to enjoy natural spaces.
- Public transport might not always be as reliable as you'd like, and many towns or cities are restrictive with parking. If you prefer to drive, you may find it harder to keep a car close to where you live unless it is at great expense.
- Because of larger populations, cities can have higher levels of pollution, including noise pollution. This could be damaging to your health in the long term.
- If you have pets, you may find it harder to find a place to live that allows them. It may also be harder to find a place to walk a dog or enjoy outdoor space with them.

8.APPLICATIONS

- Metros are perceived to be the first cities to have latest-in-the-market luxuries. Adapting from free Wi-Fi to air-conditioned buses, and from a shopping complex to an ATM at every nook and corner. All these conveniences make occupancy comfortable in a metro. Metros also guarantee decent connectivity via several public transport systems comprising road and rail. For recreation, the city would have considerable shopping, eating out, fitness, and other agile activity centers. It also has well-provided healthcare centers, too. Though cities beyond metros have these installations, there are not too many and not even within a stone's throw.
- Metros are known to provide substantial job opportunities to the many and across varied categories. For those planning to seek new boulevards or study along with work, then definitely metros could be your preferred choice.

9.CONCLUSION

Metropolitan cities are large urban areas characterized by significant population density, improved economic activity, and social infrastructure. These cities serve as major hubs for commerce, culture, education, and administration. These cities provide ample job opportunities and have a high standard of living, thereby making them an ideal city for homebuyers. This guide provides comprehensive information about such cities, helping you make an informed decision about where to purchase your dream home.

10.FUTURE SCOPE

House price prediction can help the developer determine the selling price of a house and can help the customer to arrange the right time to purchase a house. Metros are known to provide substantial job opportunities to the many and across varied categories. For those planning to seek new boulevards or study along with work, then definitely metros could be your preferred choice. So, living in metropolitan cities is a good opportunity.