

# Analysing Housing Prices in Metropolitan Area of India

Project submission by :

S.Savitha

V.Sharmi

E.Shyamala

N.Sivakala

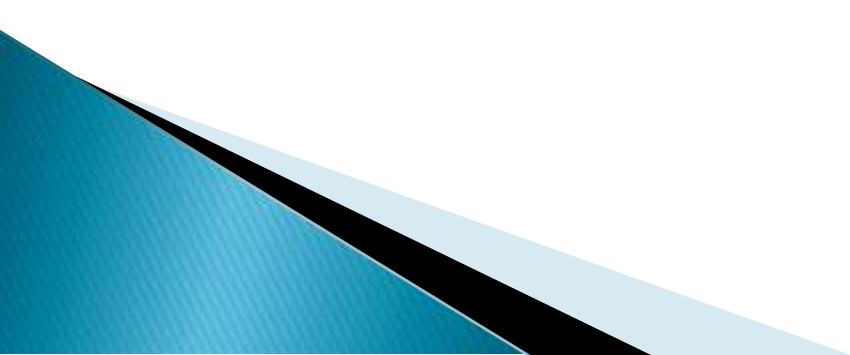


## Introduction

The housing market in metropolitan areas of India has experienced significant growth and fluctuations in recent years. As urbanization continues to increase, the demand for housing in these areas has also risen. This analysis aims to examine the factors influencing housing prices in metropolitan areas of India and understand the trends and patterns in this market.

### Factors Influencing Housing Prices:

1. **Economic Growth:** The overall economic growth of a metropolitan area plays a crucial role in determining housing prices. Higher economic growth leads to increased job opportunities and higher disposable incomes, which in turn drives up the demand for housing.
2. **Population Growth:** Rapid population growth in metropolitan areas puts pressure on the housing market, leading to an increase in prices. As more people migrate to cities in search of better job prospects and amenities, the demand for housing rises, leading to higher prices.
3. **Infrastructure Development:** The quality and availability of infrastructure facilities such as roads, public transportation, healthcare, and educational institutions significantly impact housing prices. Areas with well-developed infrastructure tend to have higher housing prices due to the convenience and amenities they offer.



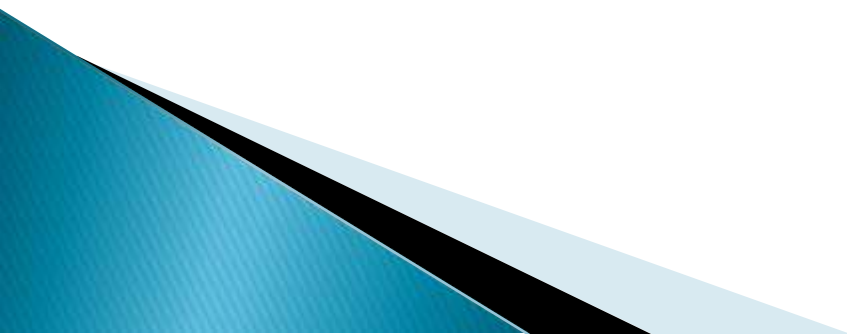
4. **Government Policies:** Government policies related to land acquisition, taxation, and regulations can have a significant impact on housing prices. For example, relaxation of regulations or tax incentives can lead to an increase in housing prices, while stricter regulations may have the opposite effect.

5. **Interest Rates:** Fluctuations in interest rates directly affect the affordability of housing loans. Lower interest rates make it easier for individuals to purchase homes, leading to increased demand and potentially higher prices.

### Trends and Patterns:

1. **Price Appreciation:** Housing prices in metropolitan areas of India have generally witnessed a steady appreciation over the years. However, there have been periods of volatility due to economic downturns or policy changes.

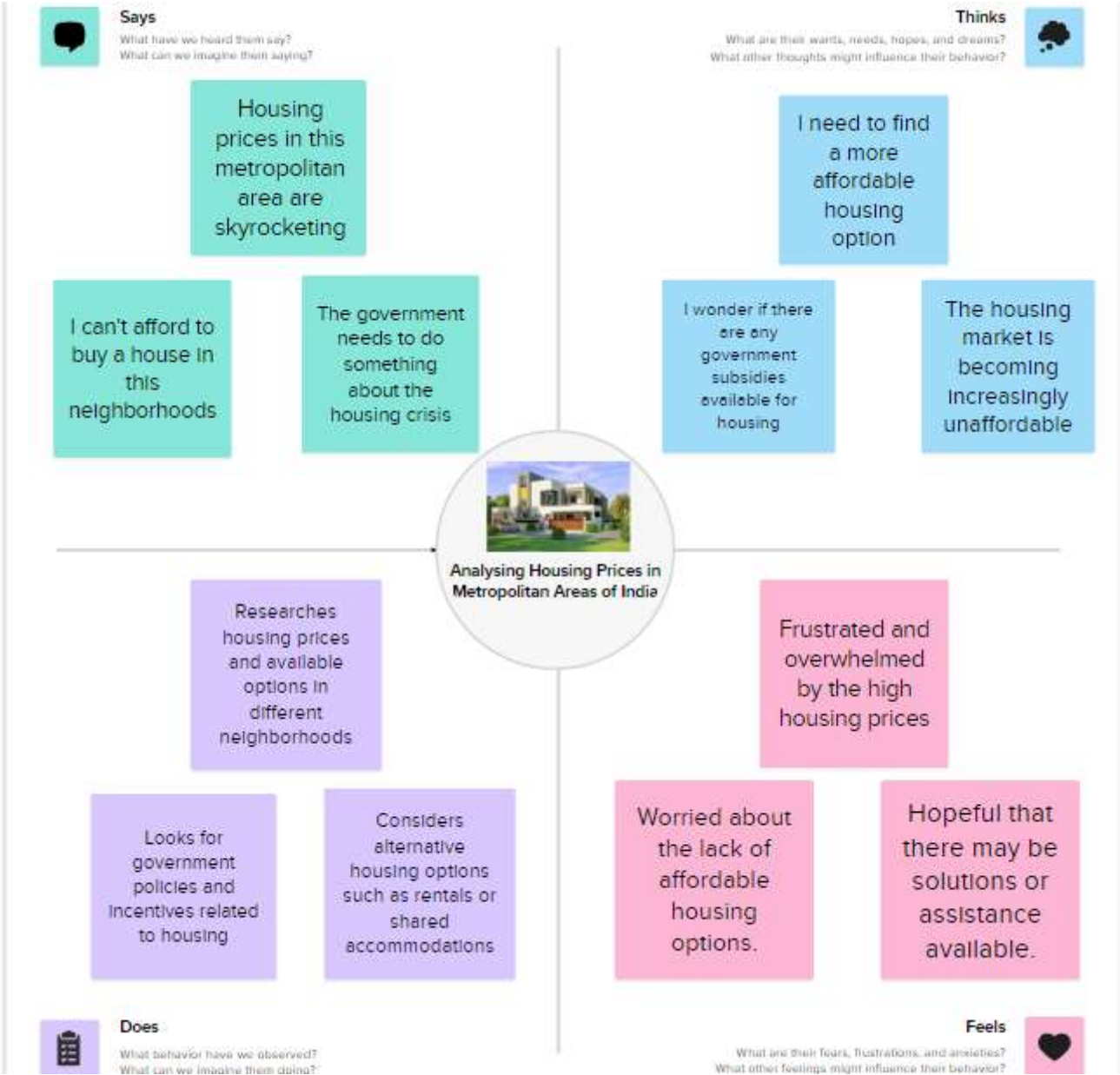
2. **Regional Variations:** Housing prices vary significantly across different metropolitan areas in India. Cities like Mumbai, Delhi, and Bangalore are known for their high property prices, while smaller cities may have more affordable housing options.



# Milestone 1: Define Problem/Problem Understanding

The problem is finding affordable housing options that fit within a limited budget

## 2.1 Empathy Map



[illegible]

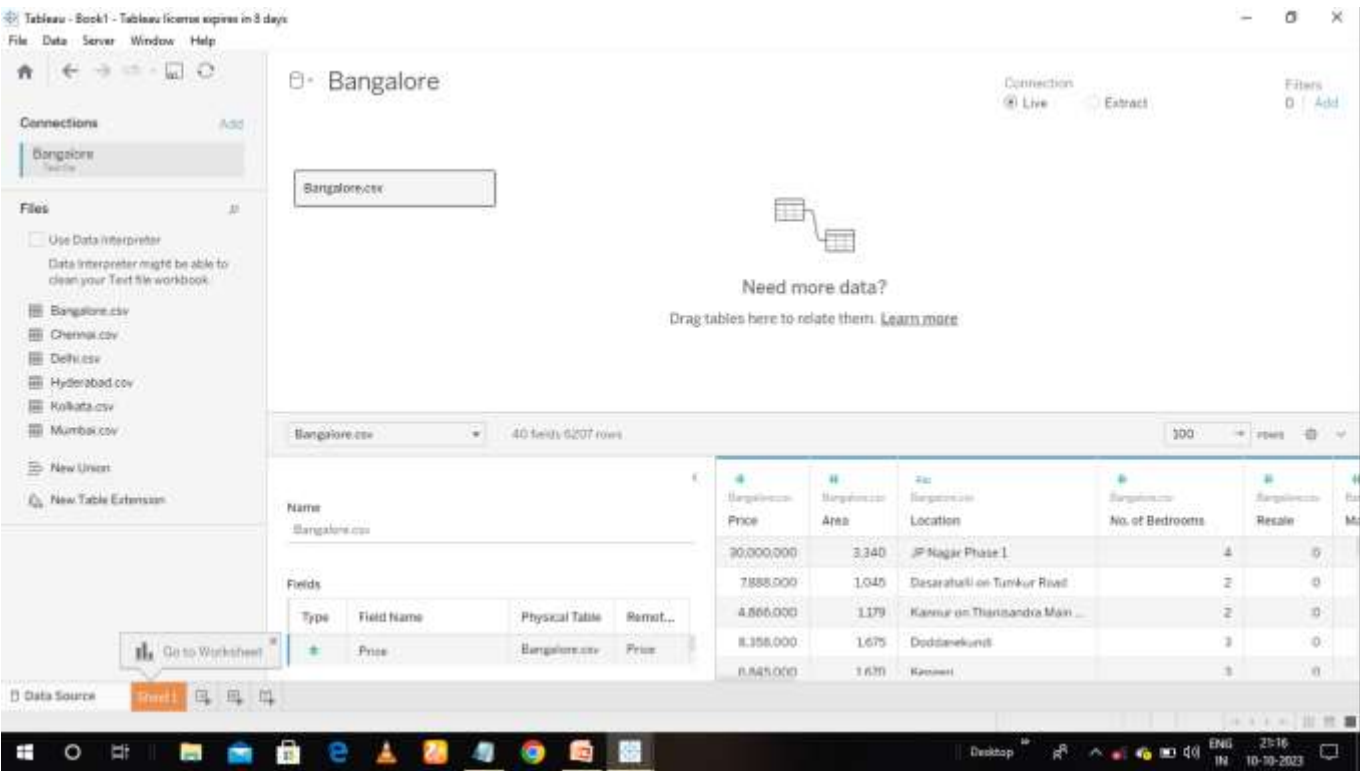
# Milestone 2: Data Collection & Extraction

## Activity 1 : Downloading the dataset

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	Price	Area	Location	No. of Beds	Resale	Maintenance	Gymnasium	Swimming	Landscaping	Jogging/Tn	Rain Water	Indoor Bar	Shopping	Intercom	Sports Fac	ATM	Club/House	School	24x7 Security	Power Back	Car Park
1	30000000	3340	JP Nagar 2	4	0	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1
2	7888000	1045	Dasarahal	2	0	0	1	1	1	1	1	1	1	0	0	1	0	1	0	1	1
3	4866000	1179	Kannur on	2	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	1	0
4	8358000	1675	Doddanek	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5	6845000	1670	Kengeri	3	0	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1
6	6797000	1220	Horamavu	2	0	0	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1
7	20000000	2502	Thansand	4	0	0	1	1	1	1	1	0	0	0	1	0	0	1	0	1	1
8	7105000	1438	Ramamur	3	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	1	1
9	8405000	1405	Whitefiel	3	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	1	1
10	3506000	660	Electronic	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1
11	7700000	1362	Yelahanka	2	0	0	1	1	1	1	1	1	1	0	0	0	0	1	0	1	1
12	9369000	1735	Anjanapuz	3	0	0	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1
13	8716000	1575	Jalahalli	3	0	0	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0
14	5394000	1120	Kasavanal	2	0	0	1	1	0	0	0	0	1	0	0	0	0	1	0	0	1
15	6367000	1415	Whitefiel	3	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1
16	5080000	1270	Bommasa	2	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1
17	7209999	1311	Bellandur	3	0	0	1	1	1	1	1	1	1	0	1	0	0	1	0	1	1
18	5700000	1210	RR Nagar	2	0	0	1	1	1	1	1	1	0	0	0	0	1	1	0	0	1
19	30000000	3340	JP Nagar 2	4	0	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1
20	7888000	1045	Dasarahal	2	0	0	1	1	1	1	1	1	1	0	0	1	0	1	0	1	1
21	4866000	1179	Kannur on	2	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	1	0
22	8358000	1675	Doddanek	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
23	6845000	1670	Kengeri	3	0	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1
24	6797000	1220	Horamavu	2	0	0	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1

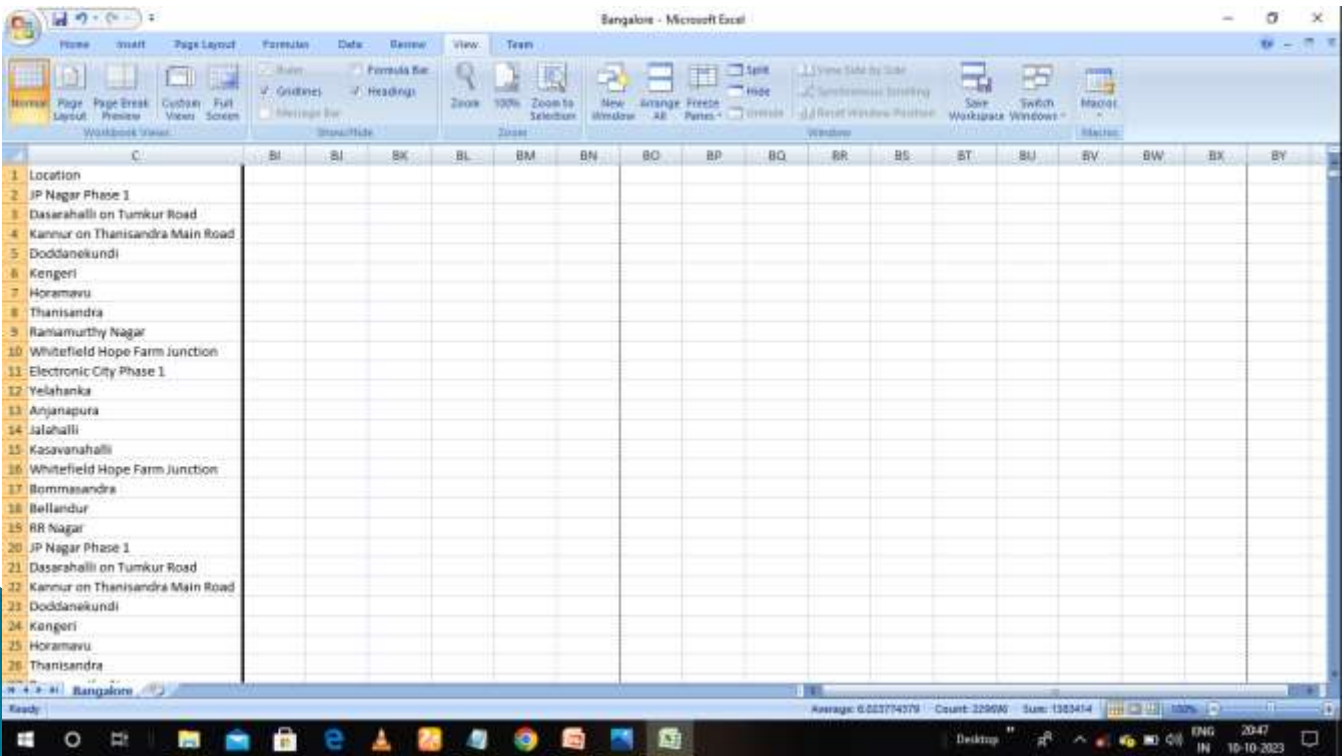


# Activity 3 : Connect Dataset with Tableau



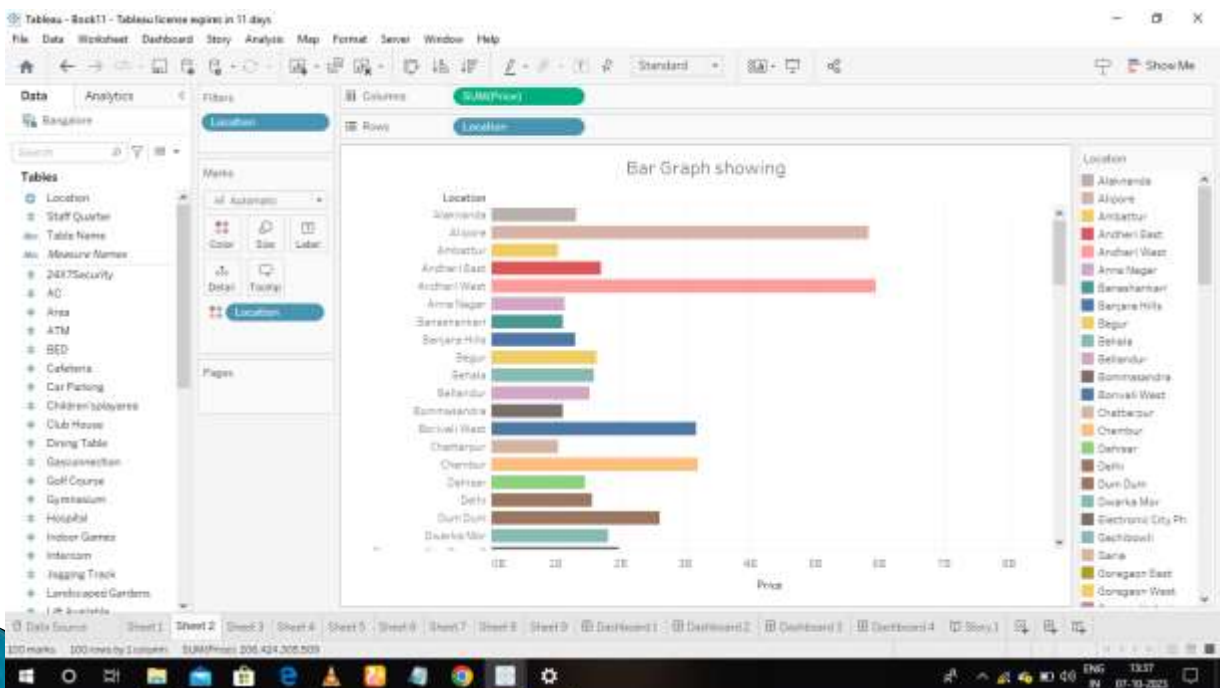
## Milestone 3: Data Preparation

### Activity 1: Prepare the Data for Visualization



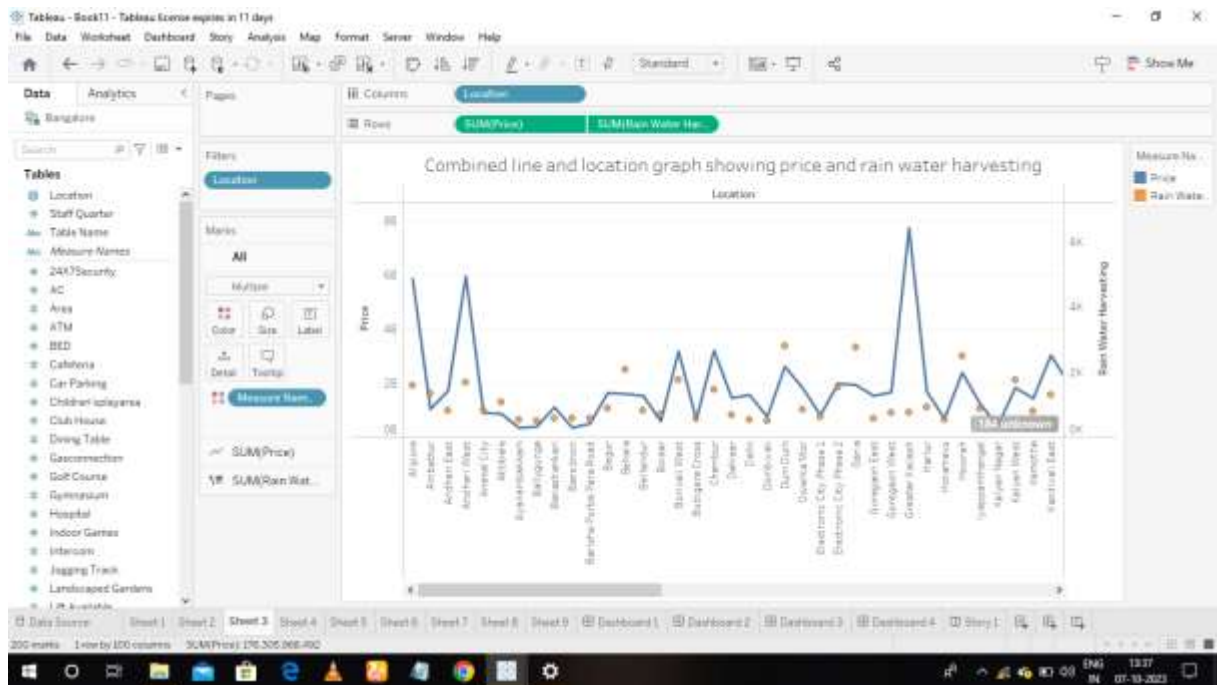
## Activity 1: No of Unique Visualizations

## Activity 1.1: Latitude and Longitude based on Location

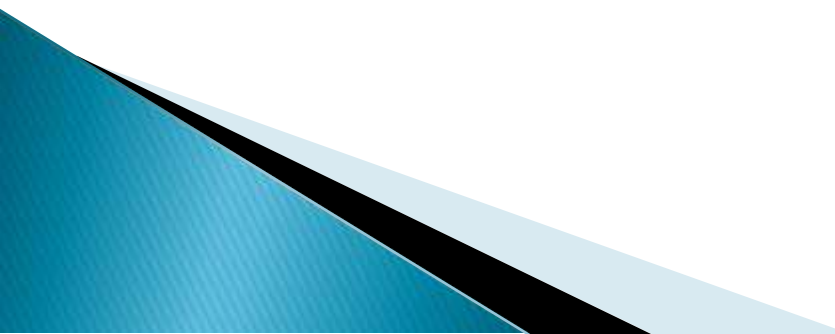
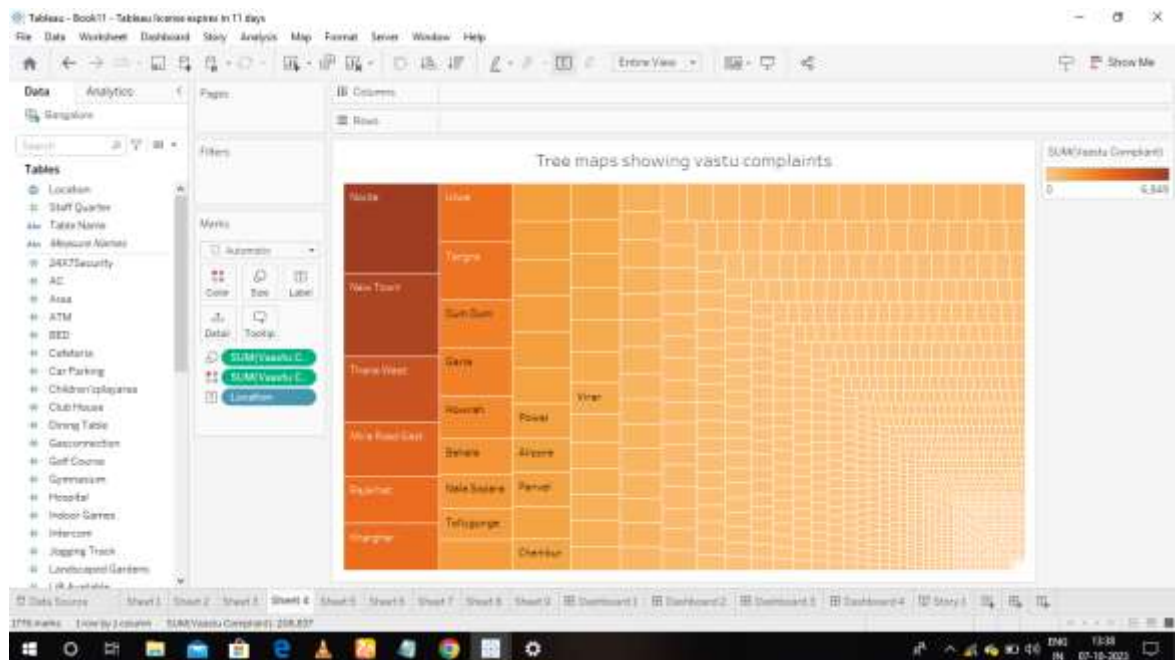




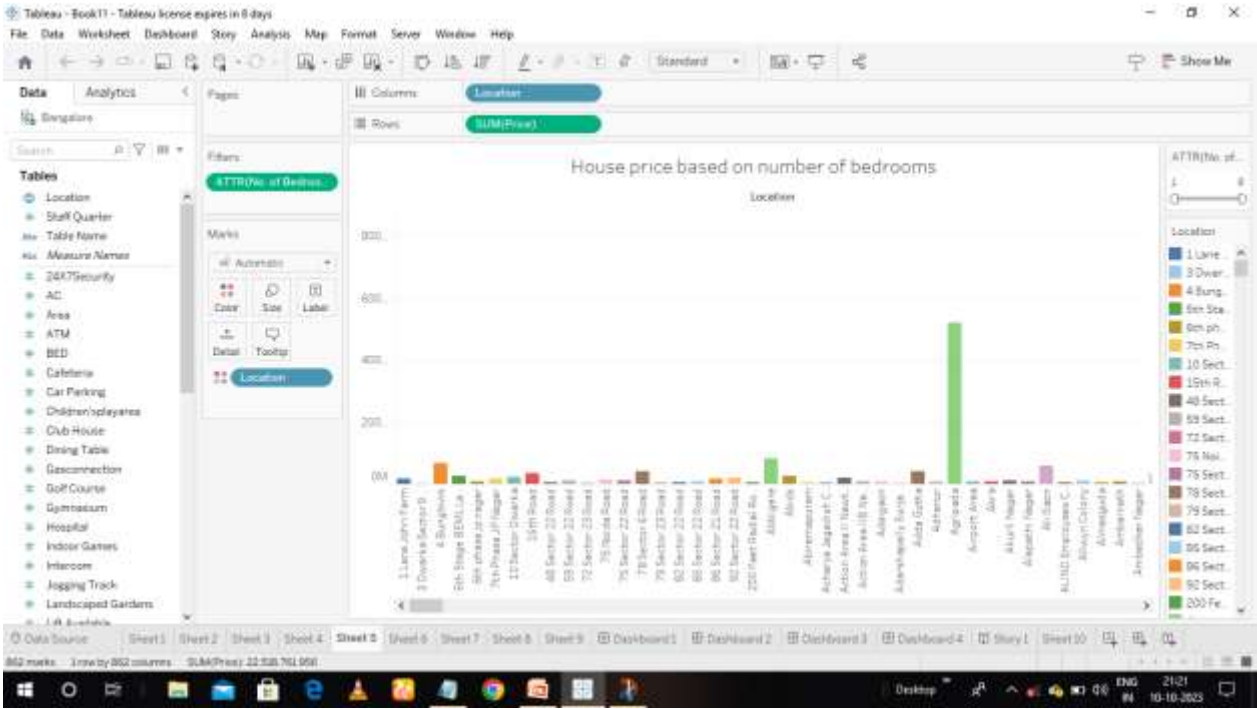
### Activity 1.3: Houses price based on rainwater harvest pits



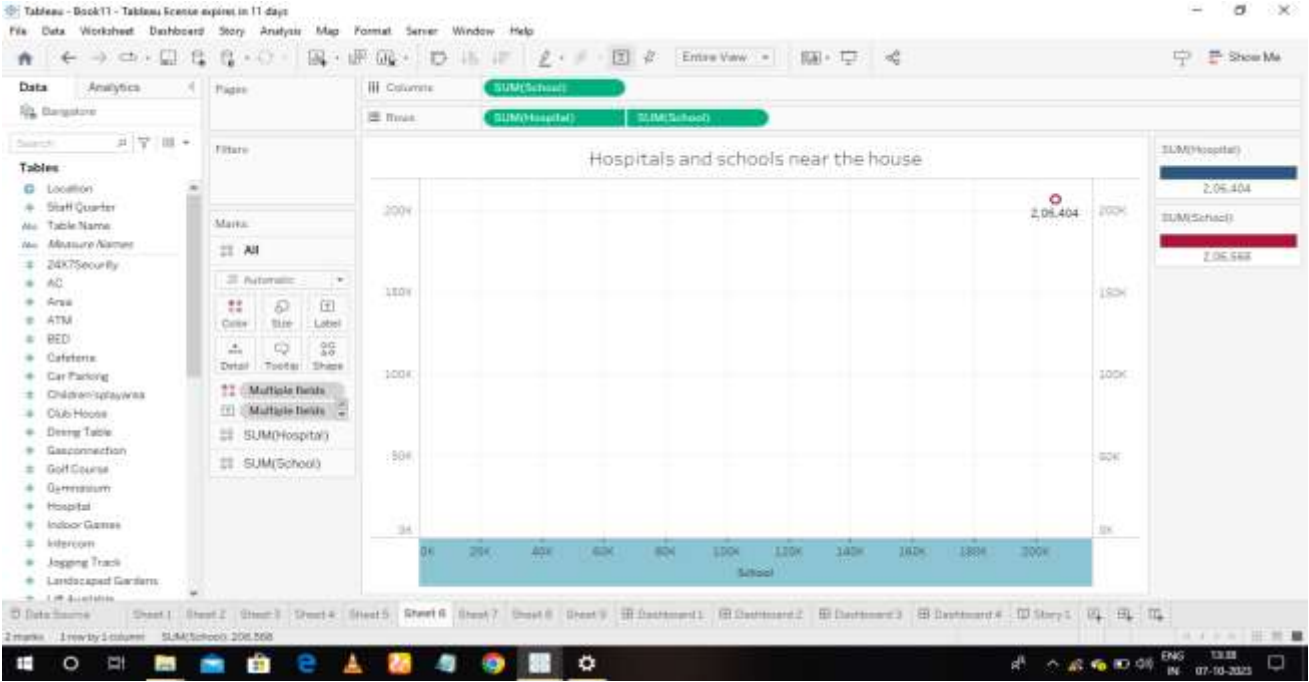
### Activity 1.4: Vastu-complains based on location



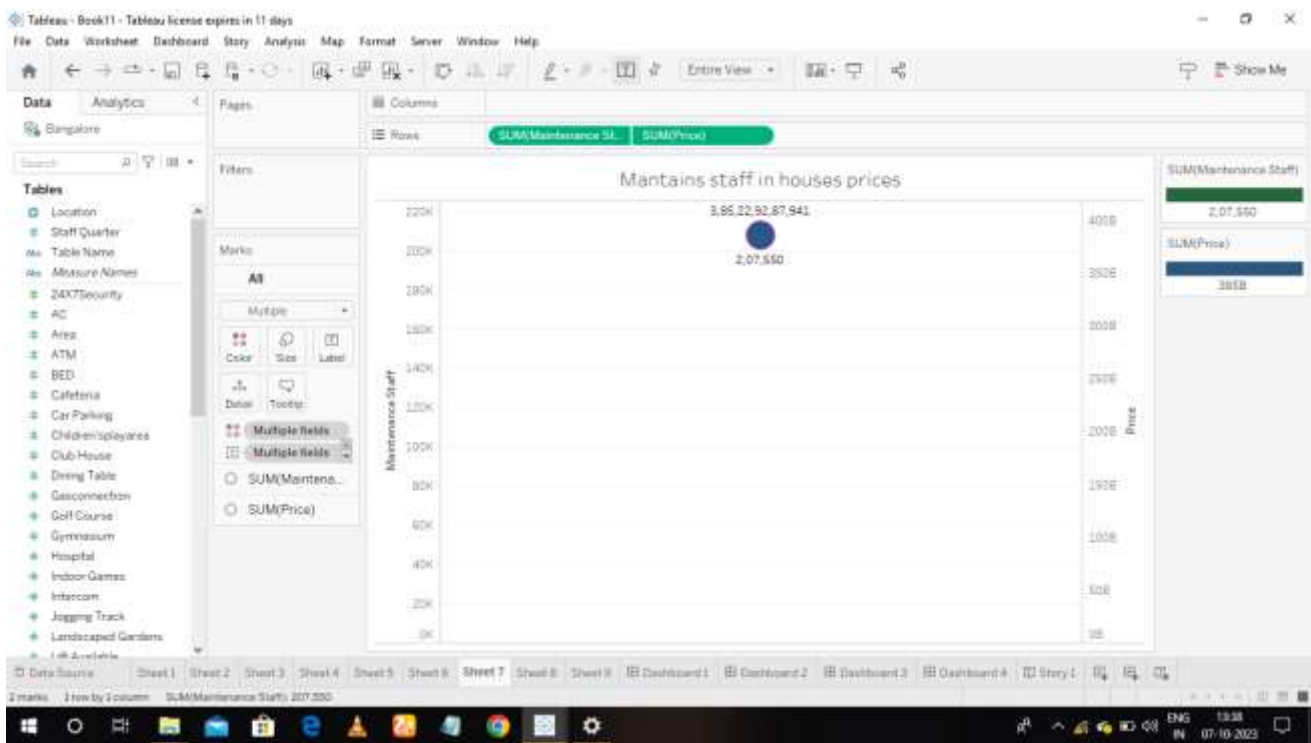
### Activity 1.5: House price based on Number of Bedrooms



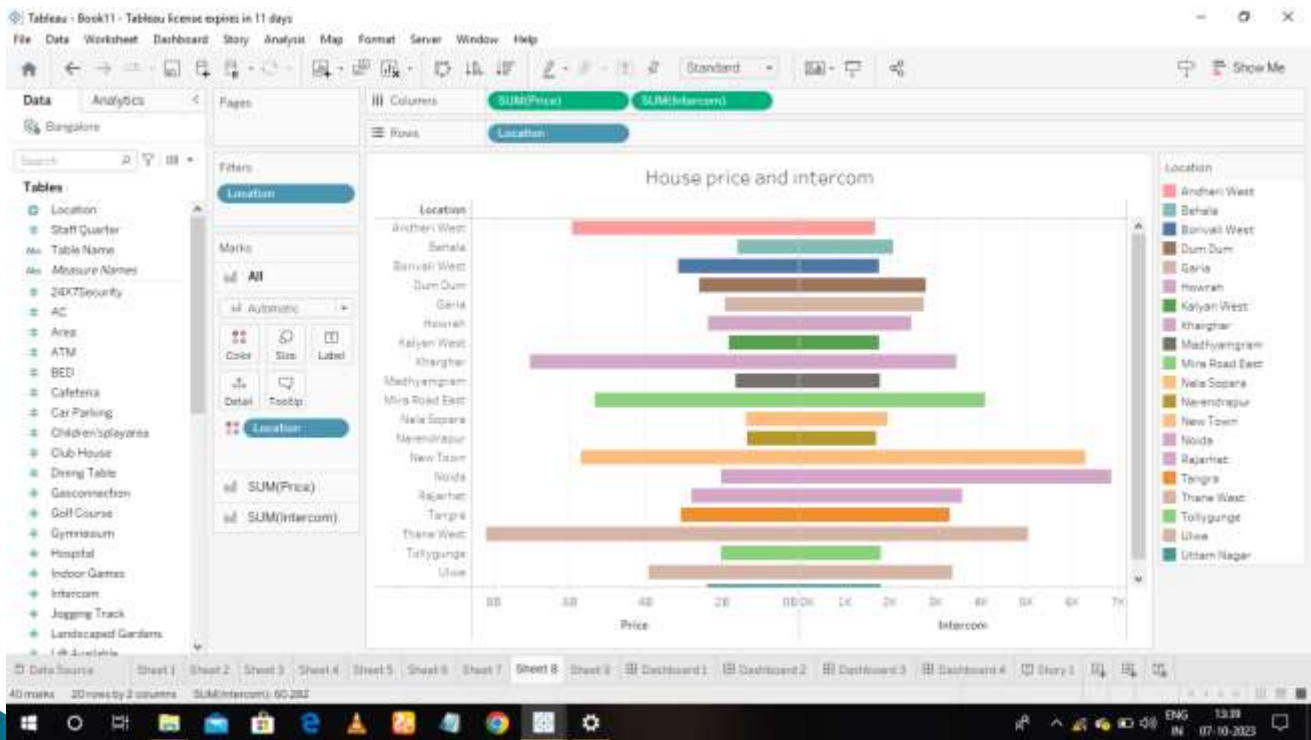
## Activity 1.6: Hospitals and schools near the Houses



# Activity 1.7: Maintains staff in houses prices

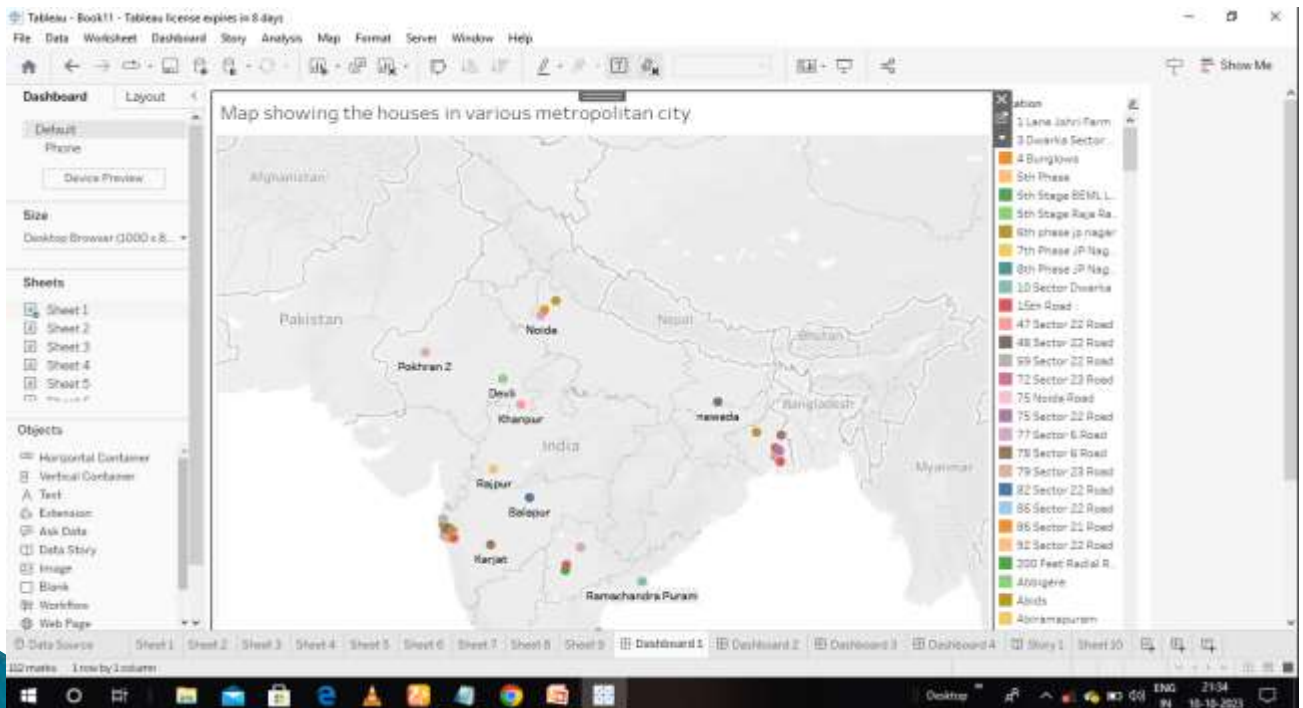


# Activity 1.8 : House Price and Intercom



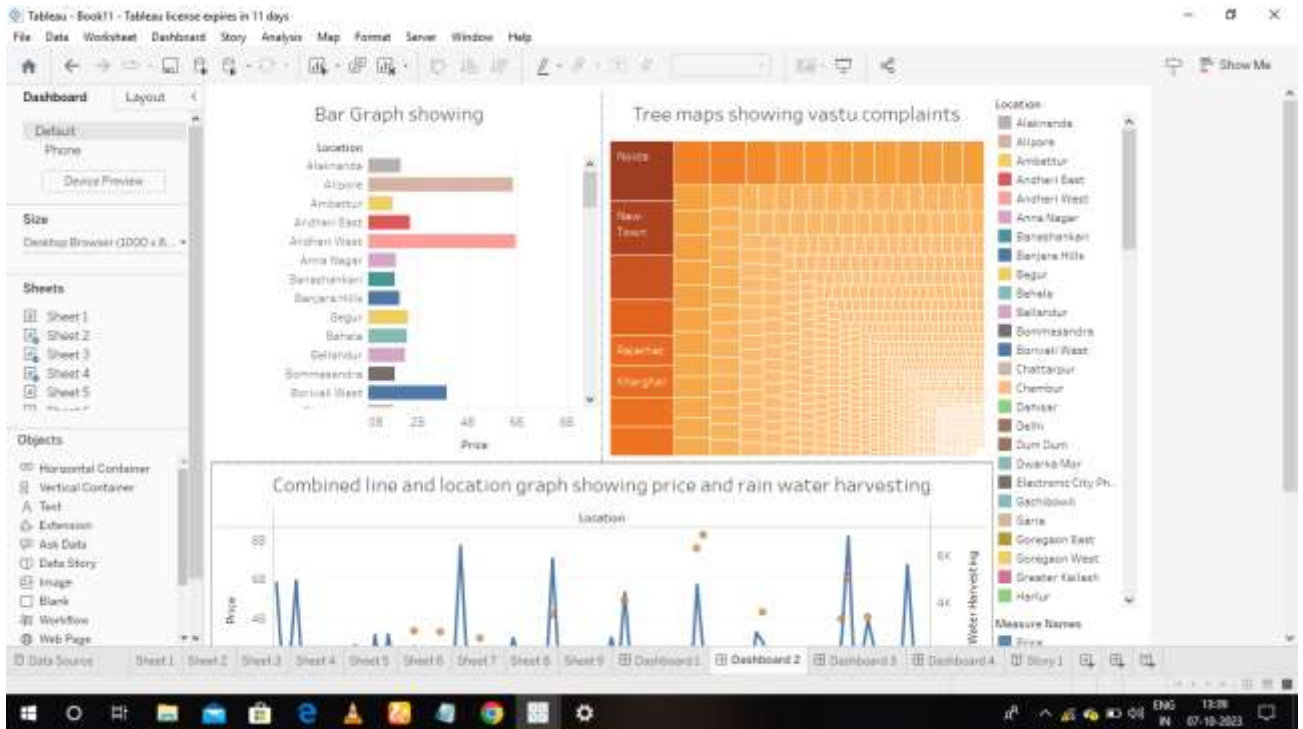
[illegible]

## Activity 1.1: Dashboard 1

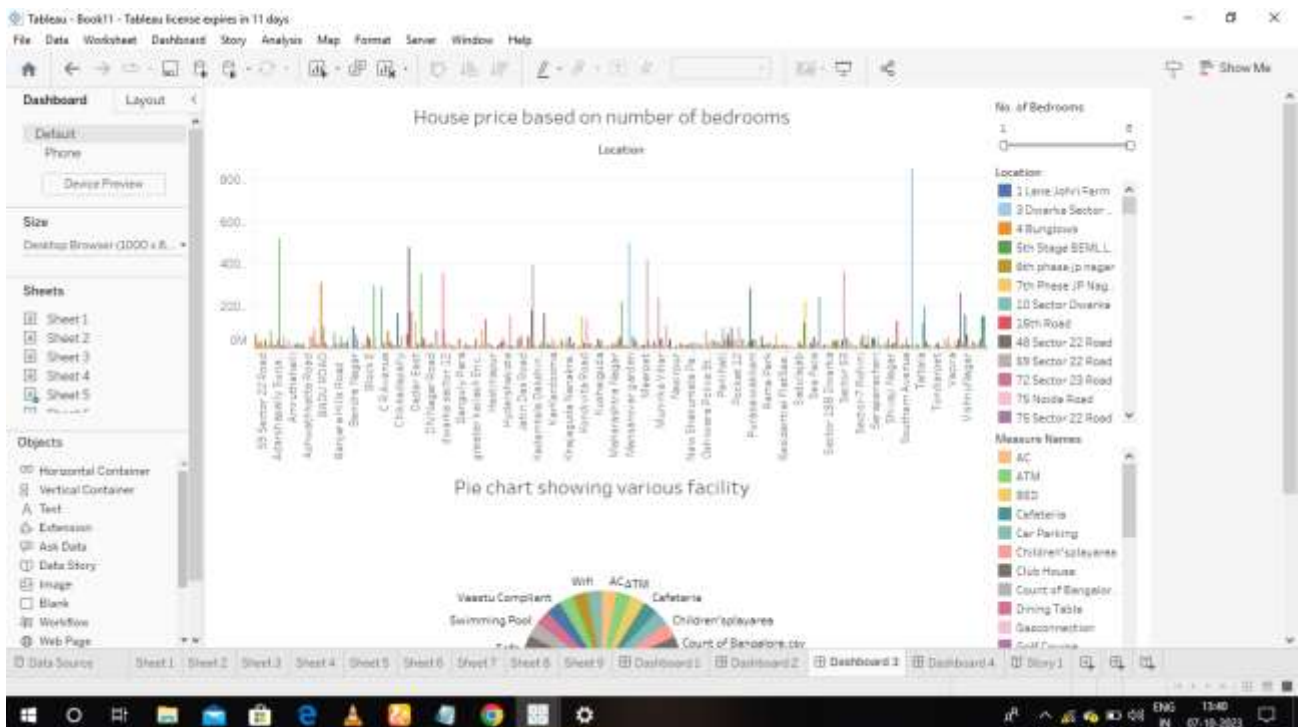




## Activity 1.2: Dashboard 2

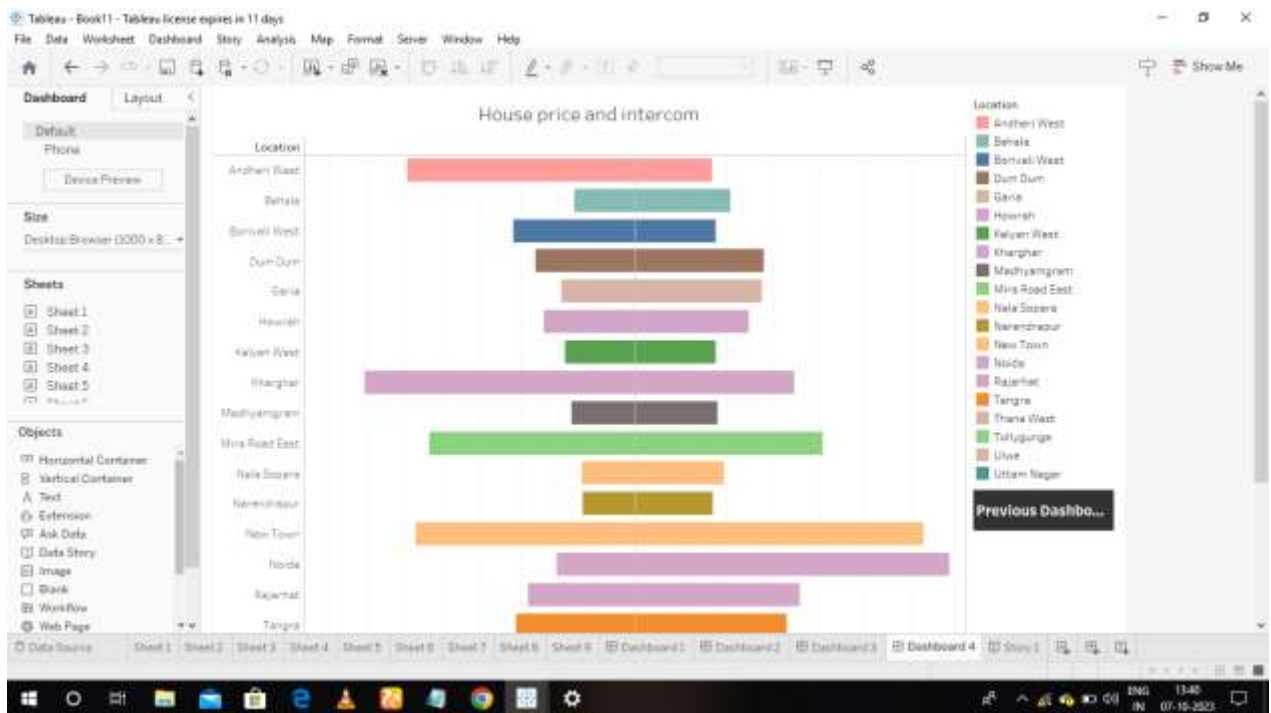


### Activity 1.3: Dashboard 3





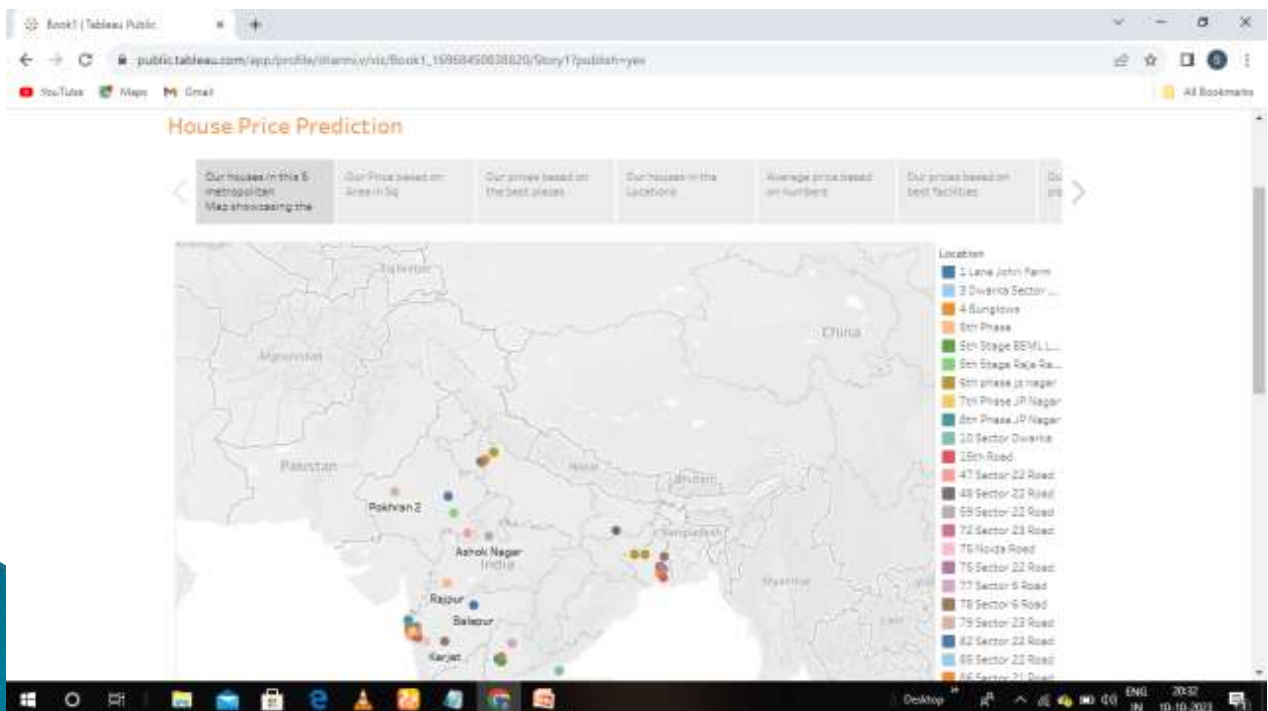
## Activity 1.4: Dashboard 4

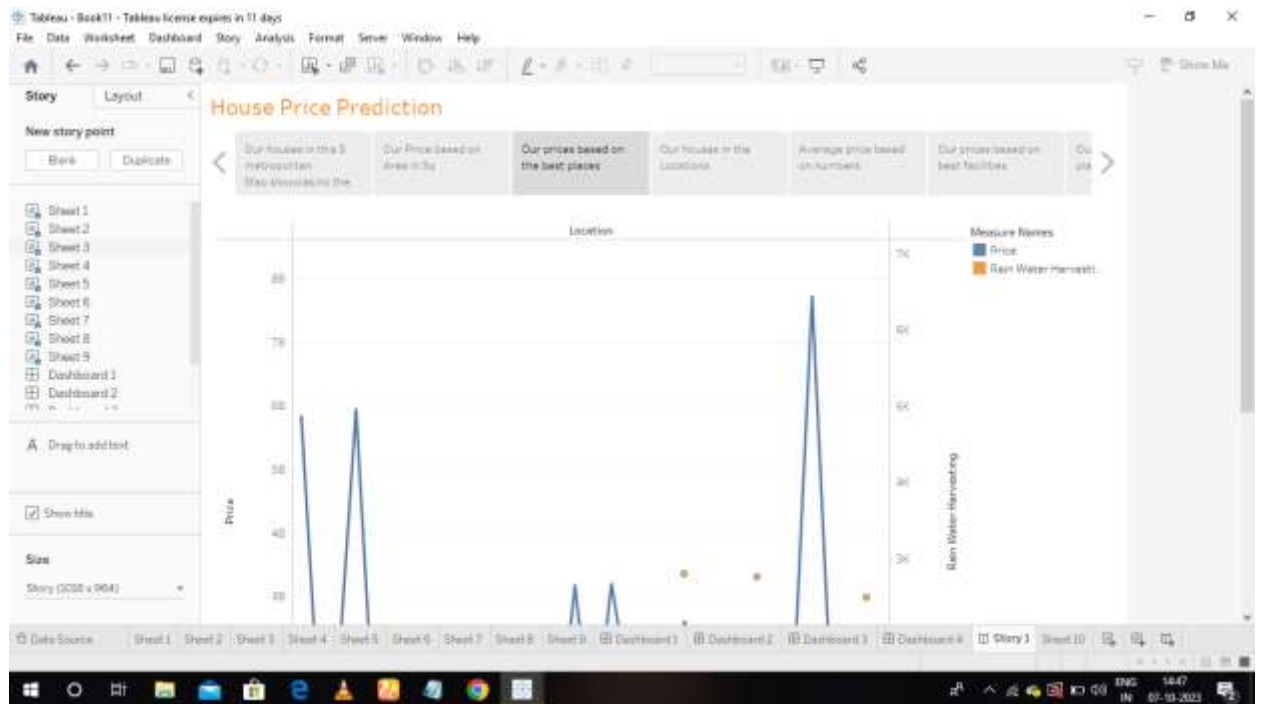
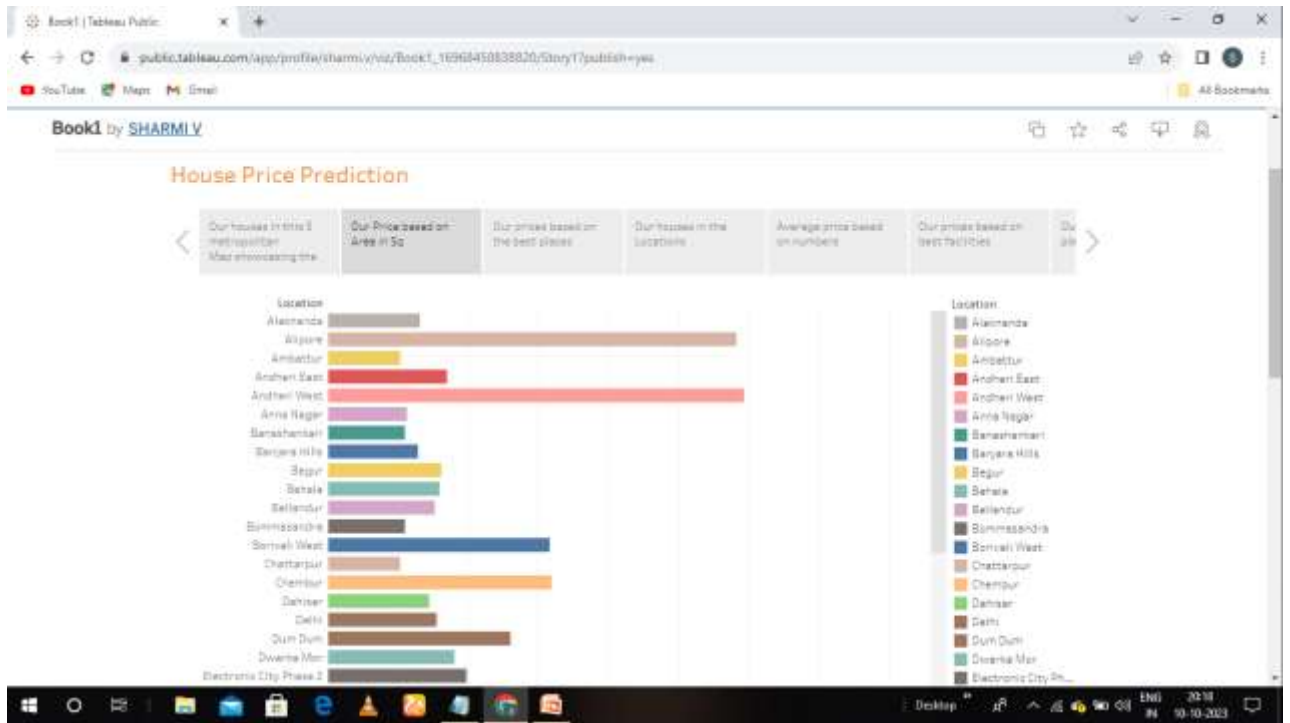


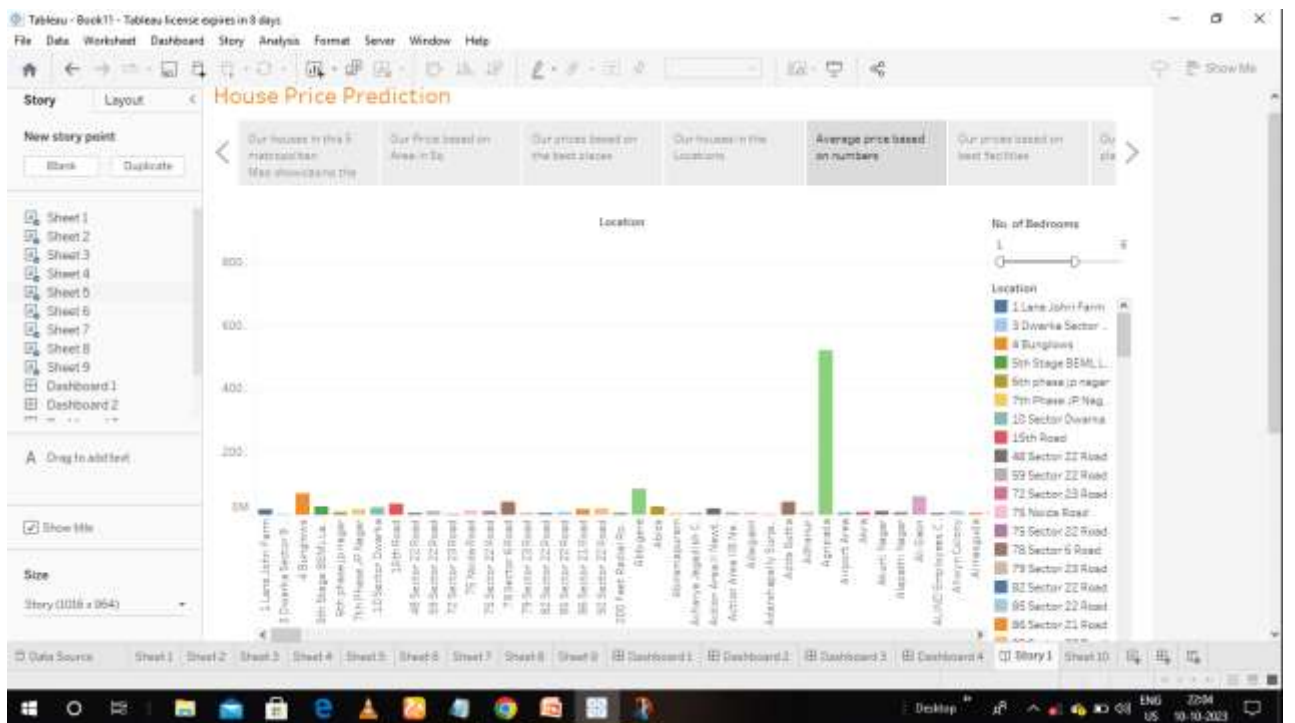
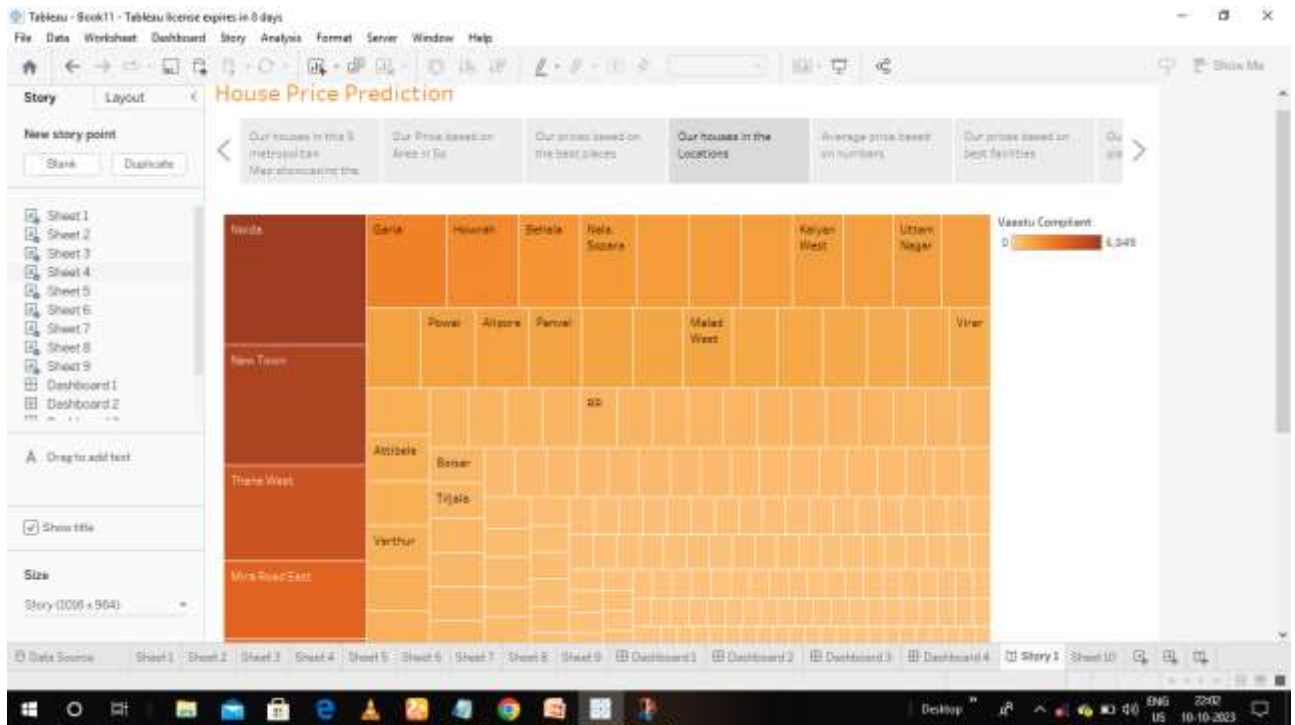
## Milestone 6: Story

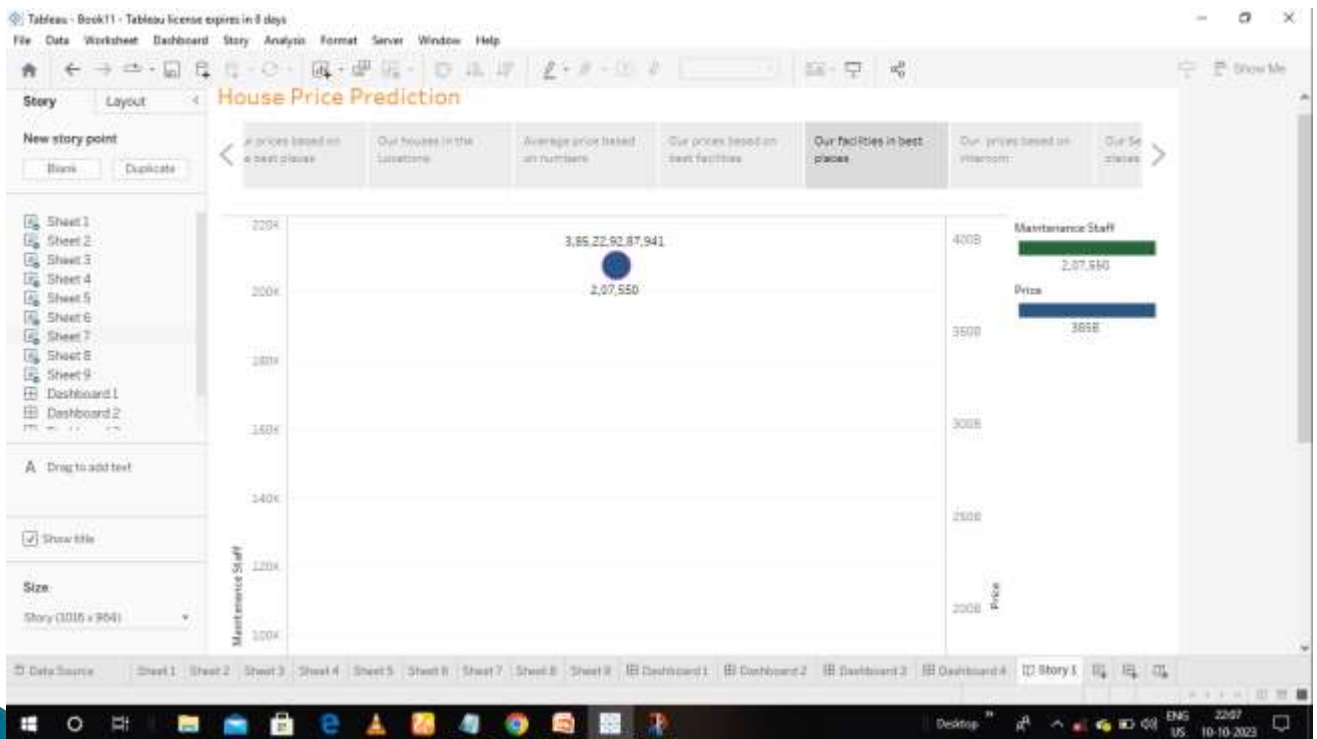
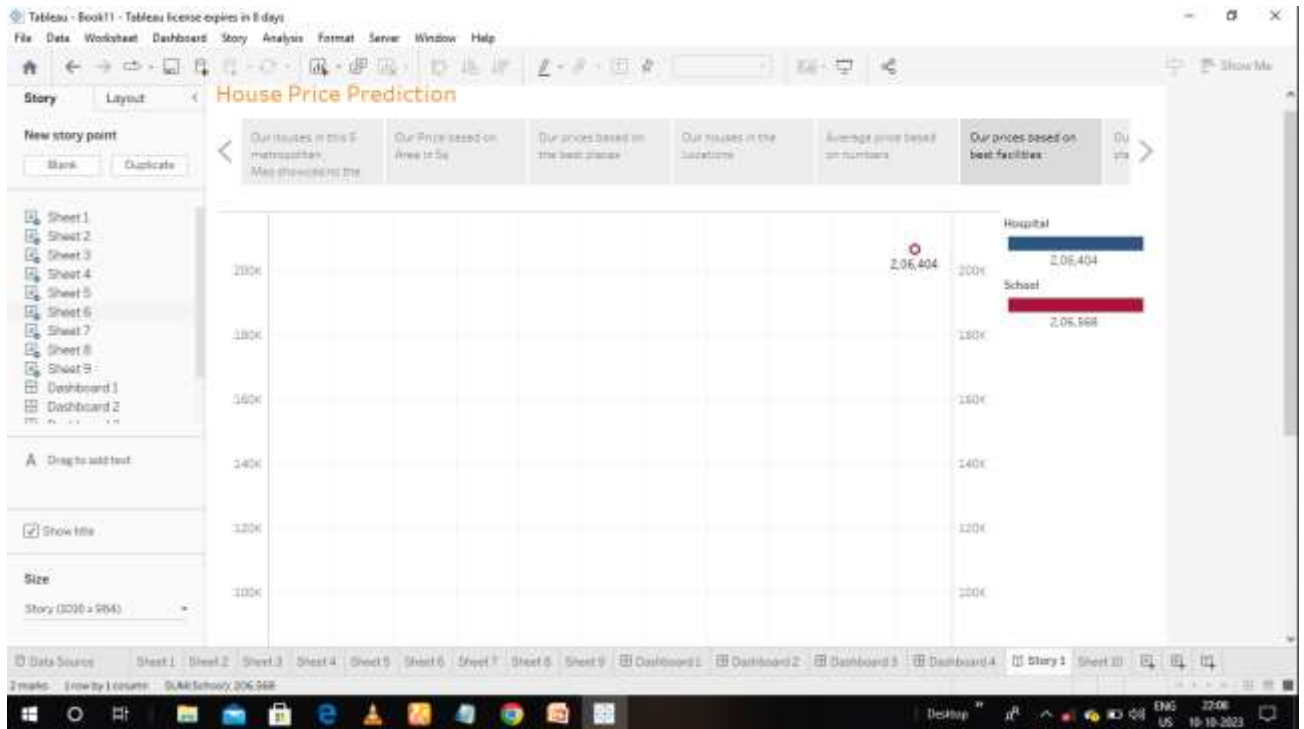
### Activity 1.1 : Number of scenes in a Story

A Storyboard is a visual representation of the data analysis process and it breaks down the analysis into a series of steps or scenes







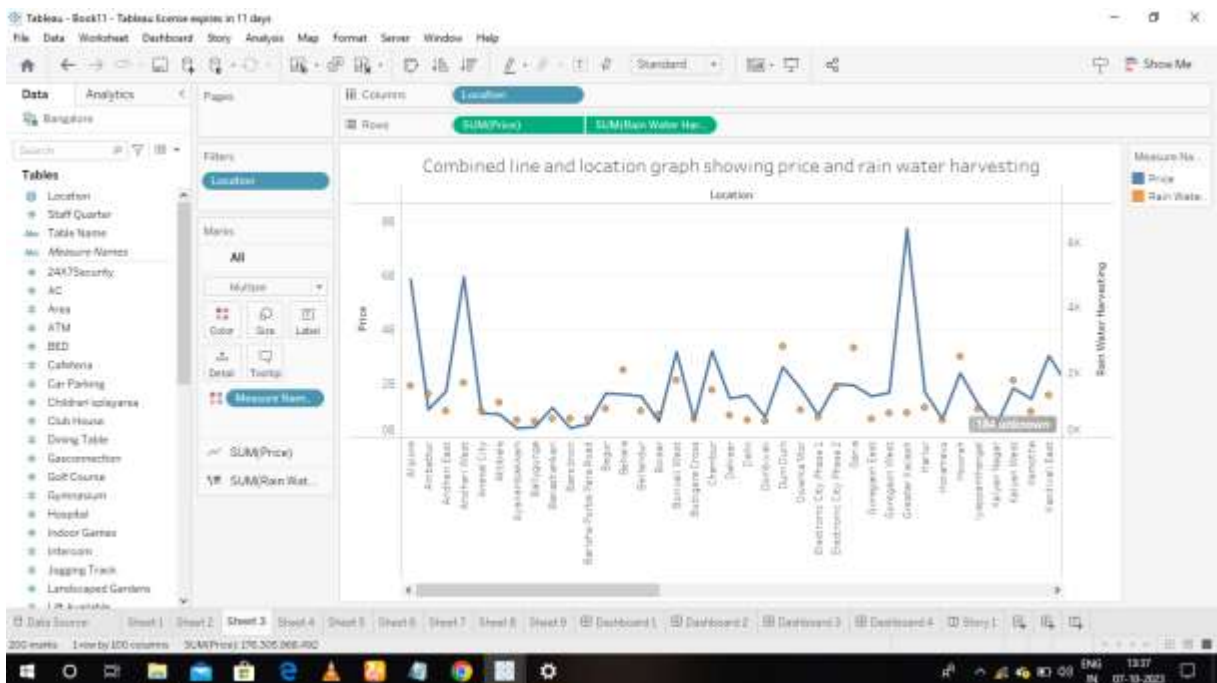
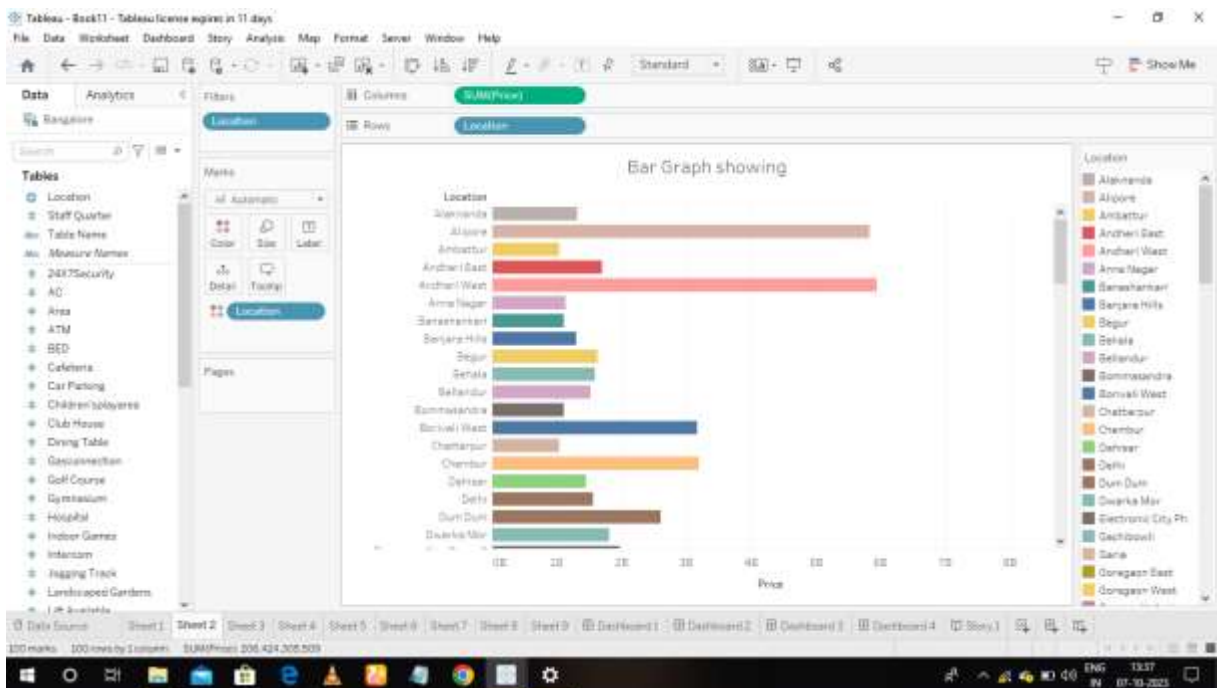


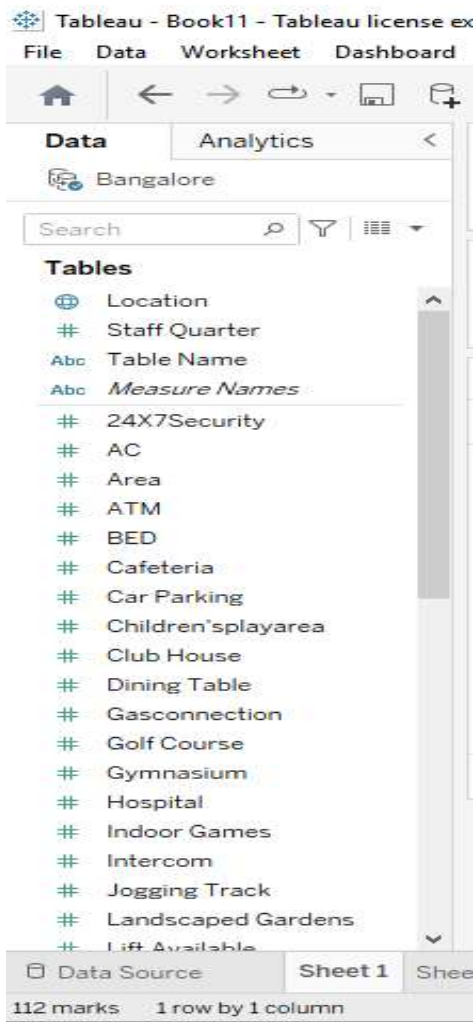




# Milestone 7 : Performance Testing

## Activity 1 : Utilization of Filters

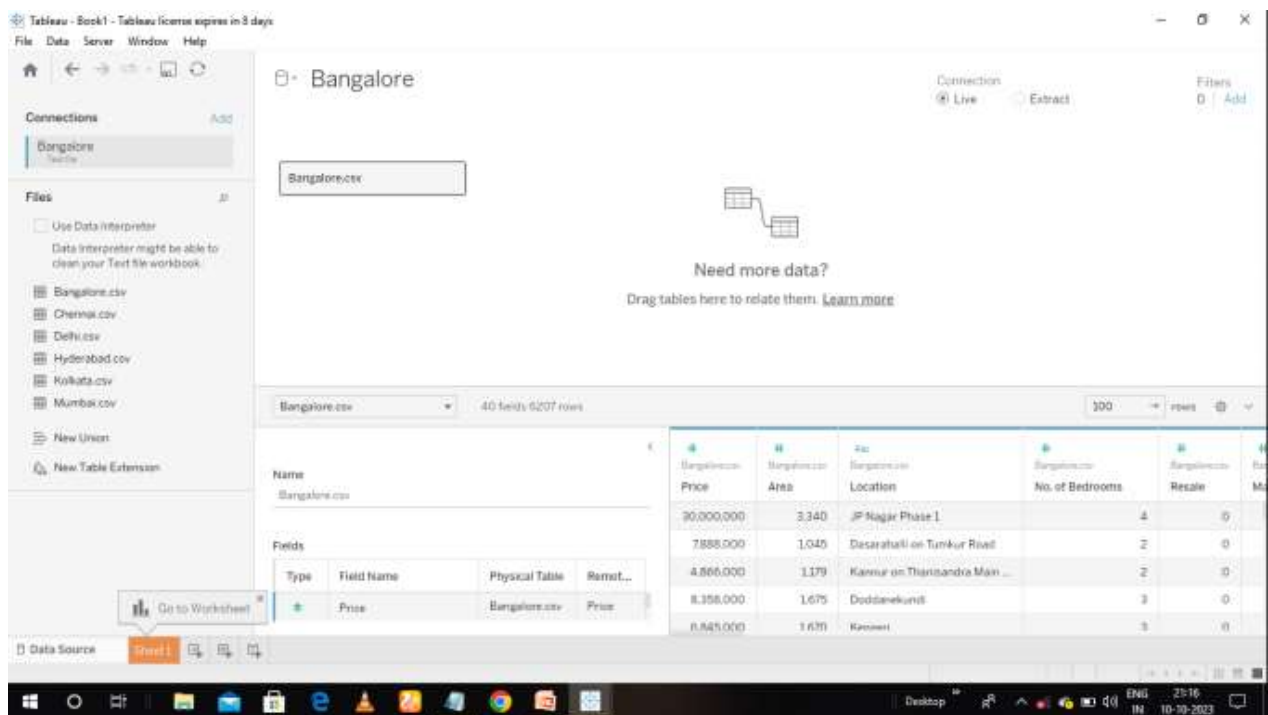




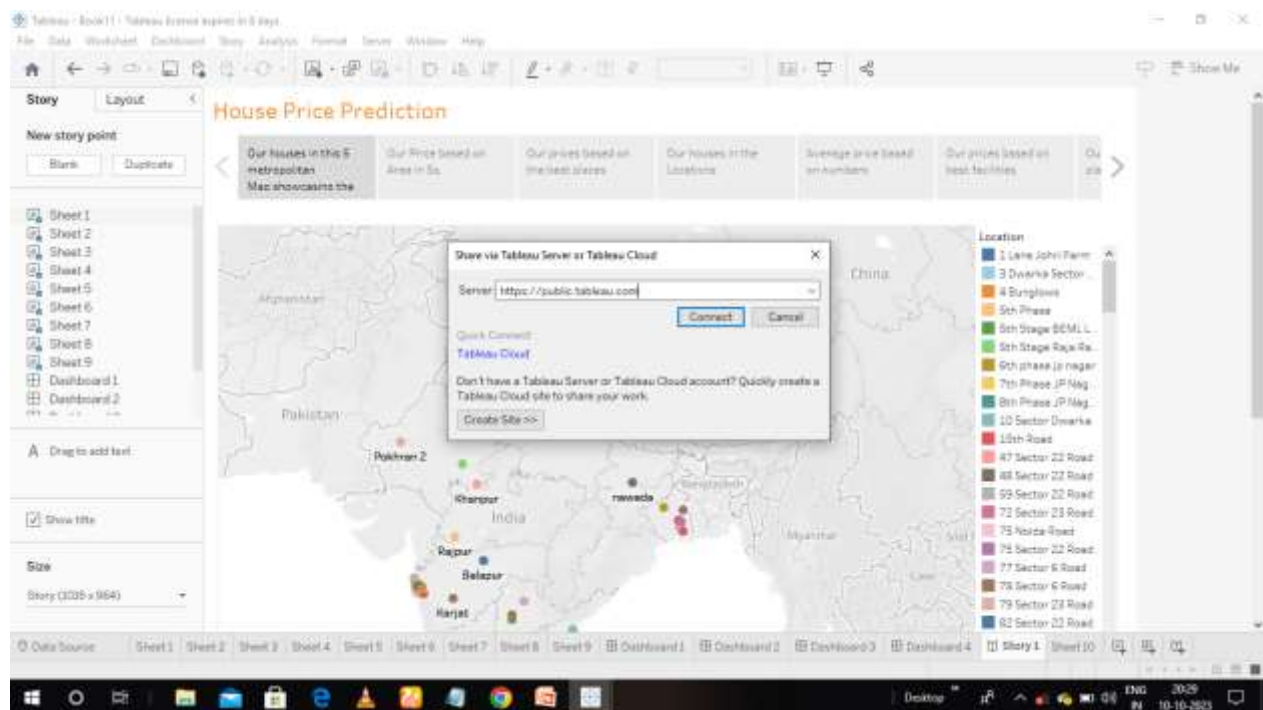
## Milestone 8 : Publishing

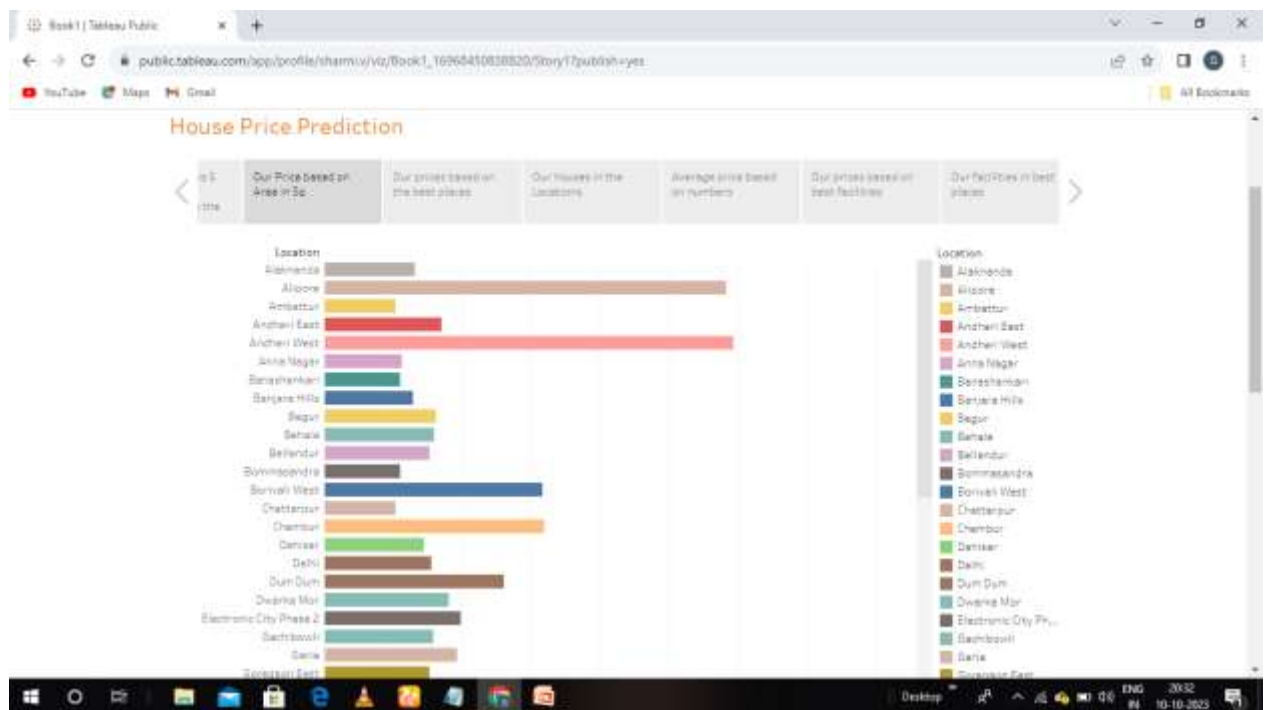
Publishing dashboard and reports to tableau public

Step 1 : Go to data source and select extract so that hyper extension files are created and save it at your desktop



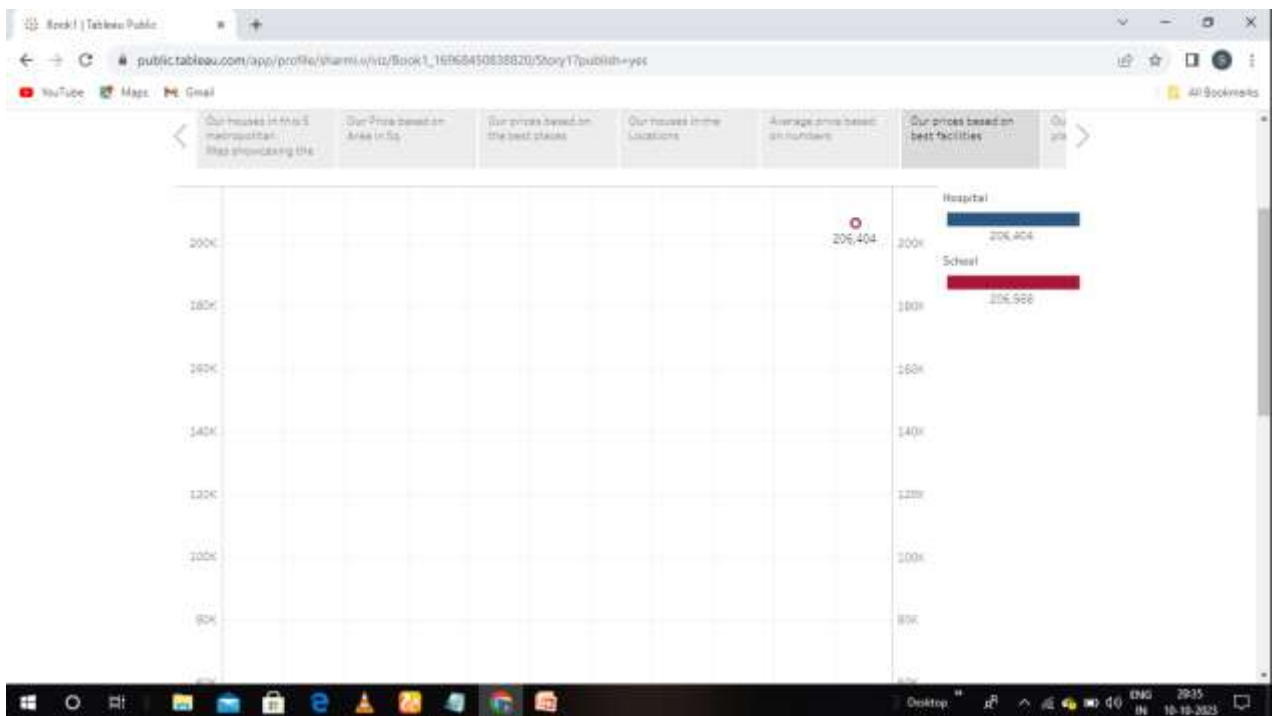
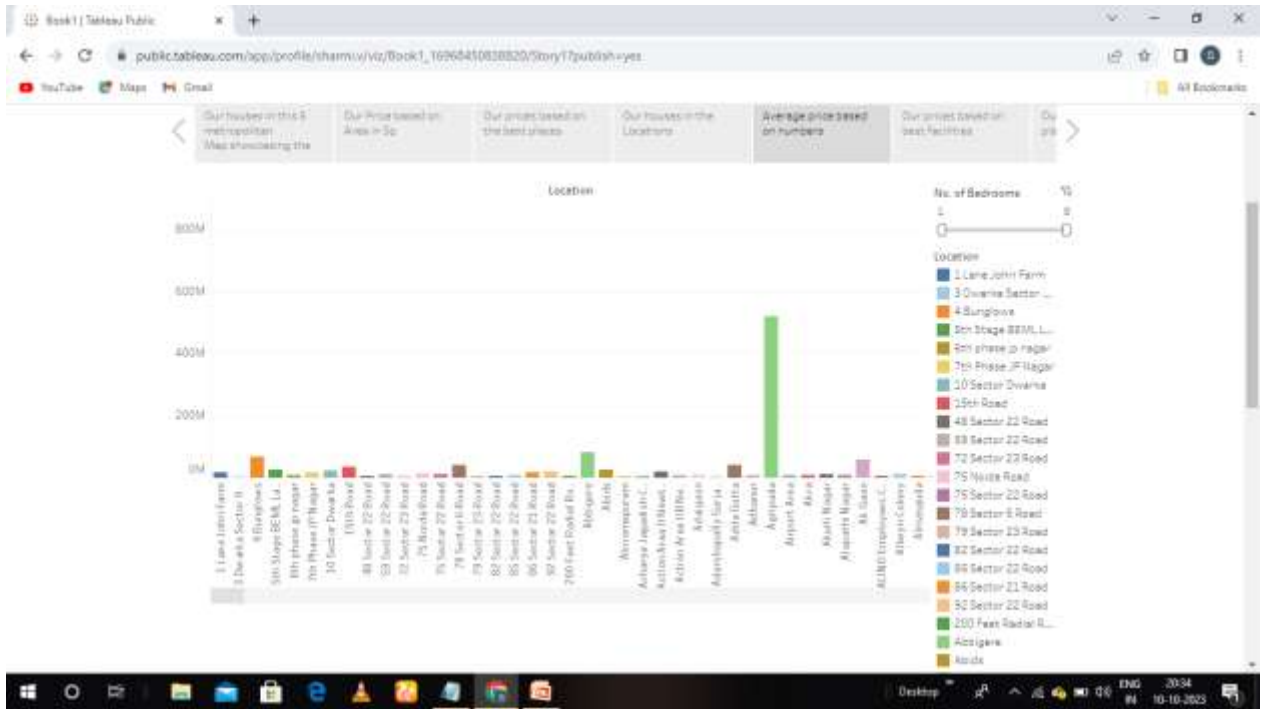
## Publishing Story and Reports to tableau public

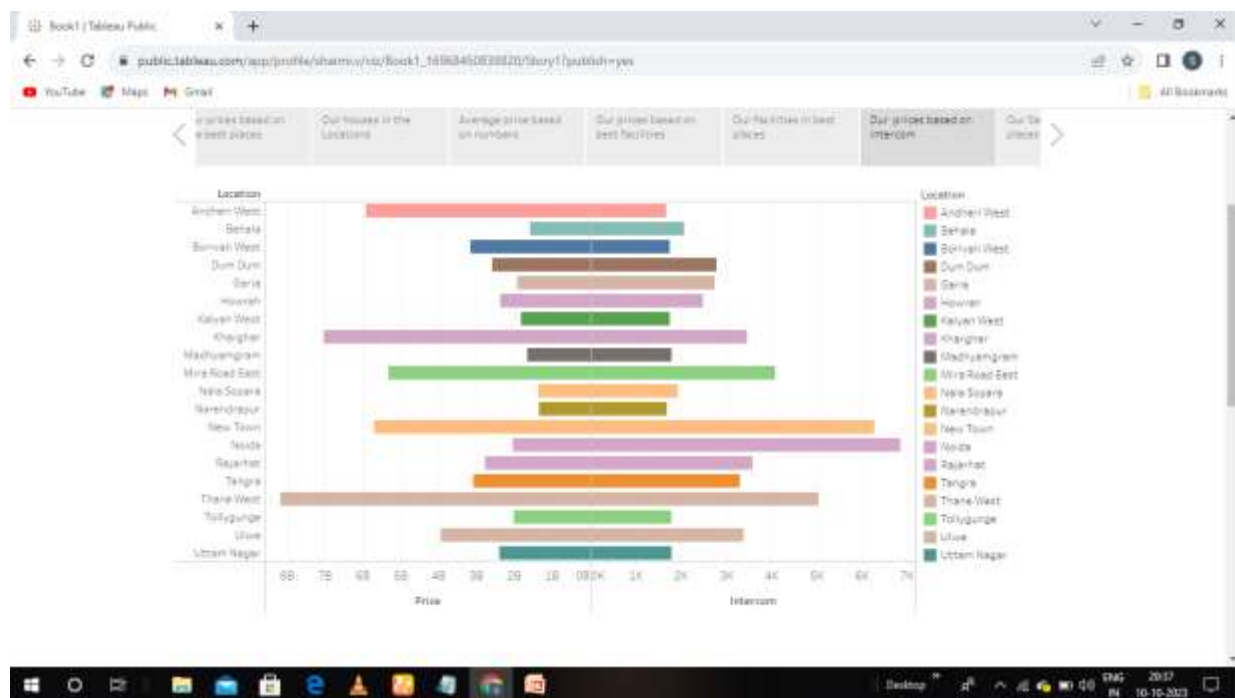
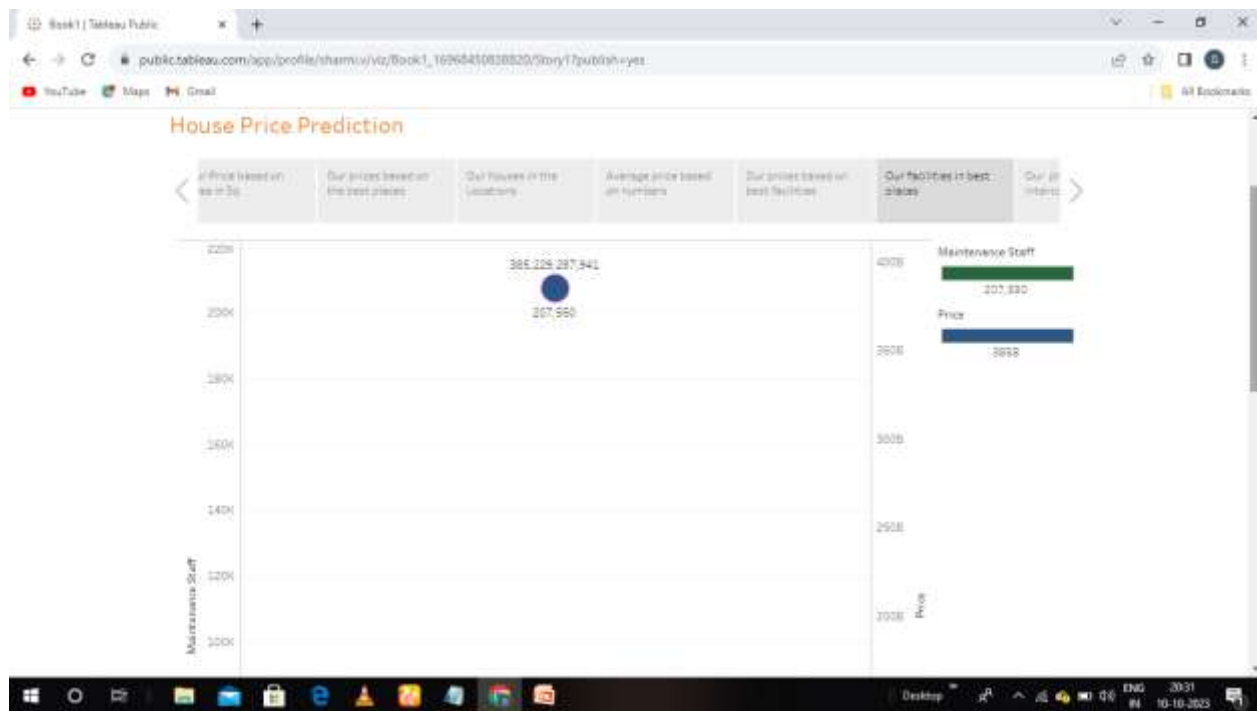


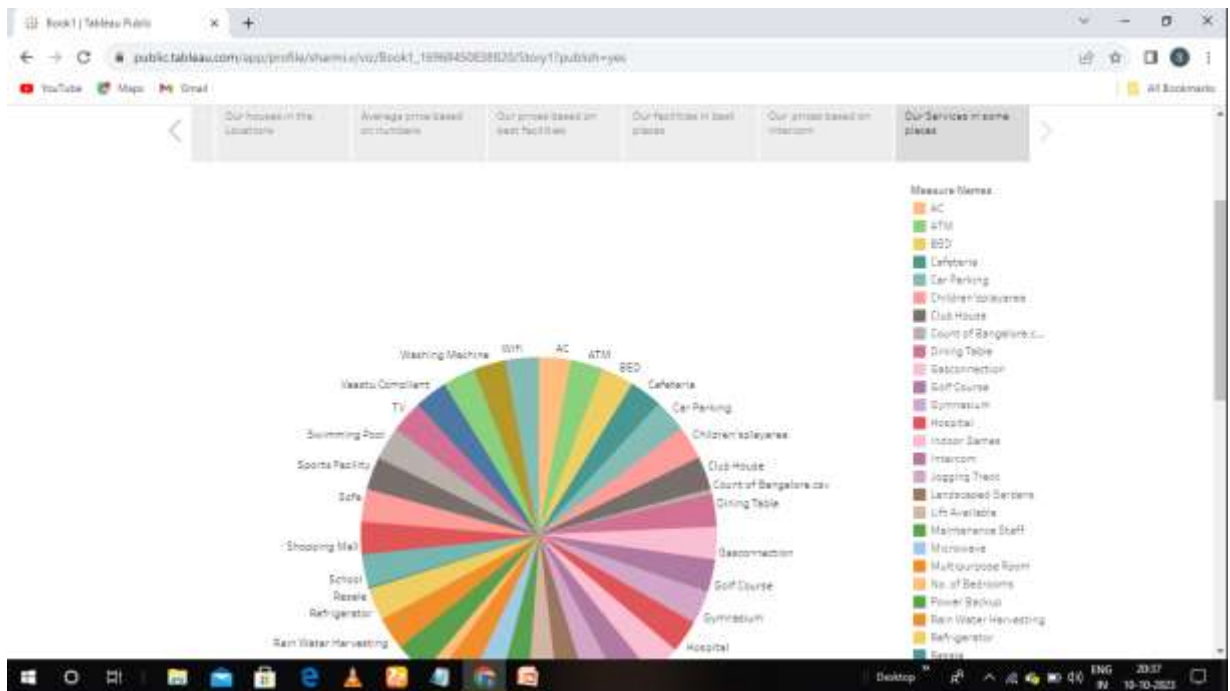












## ADVANTAGES & DISADVANTAGES

### Advantages :

1. **Investment Opportunities:** The housing market in metropolitan areas provides lucrative investment opportunities for individuals and investors looking to generate income through rental properties or capital appreciation.
2. **Economic Growth:** The growth of the housing market is often correlated with overall economic growth. A thriving housing market can contribute to job creation, stimulate economic activity, and attract investments in related sectors such as construction and real estate development.
3. **Infrastructure Development:** The demand for housing in metropolitan areas drives infrastructure development, leading to improved amenities and quality of life for residents.

4. **Wealth Creation:** Rising housing prices can create wealth for homeowners, allowing them to build equity and potentially sell their properties at a profit in the future.

#### Disadvantages :

1. **Affordability Issues:** High housing prices in metropolitan areas can make it difficult for individuals, especially those with low incomes, to afford suitable housing. This can lead to overcrowding, informal settlements, or a lack of access to basic amenities.

2. **Speculation and Volatility:** The housing market is susceptible to speculation and price volatility, which can create uncertainty for buyers, sellers, and investors. Sudden fluctuations in prices can result in financial losses for individuals and impact market stability.

3. **Housing Shortages:** Rapid population growth and urbanization can create a shortage of affordable housing in metropolitan areas. This can lead to an imbalance between supply and demand, further driving up prices and exacerbating affordability issues.

4. **Dependency on Government Policies:** The housing market is influenced by government policies and regulations, which can change over time. Changes in policies related to land acquisition, taxation, or regulations can impact housing prices and create uncertainty for buyers and investors.

Overall, while the housing market in metropolitan areas of India offers investment opportunities and contributes to economic growth, it also faces challenges related to affordability, speculation, volatility, and housing shortages



## FUTURE SCOPE

In the future, there are several areas of potential improvement and growth in the housing market in metropolitan areas of India:

1. **Affordable Housing Initiatives:** The government can implement policies and initiatives to promote the development of affordable housing options in metropolitan areas. This can help address the affordability issues and housing shortages faced by many individuals.
2. **Sustainable and Smart Housing:** There is a growing demand for sustainable and smart housing solutions in metropolitan areas. Developers can focus on incorporating energy-efficient technologies, green building practices, and smart home features to meet this demand and promote sustainable living.
3. **Real Estate Technology:** The use of technology in the real estate sector can streamline processes, improve transparency, and enhance customer experience. The adoption of digital platforms, online property listings, virtual property tours, and online property transactions can make the housing market more efficient and accessible.
4. **Mixed-Use Developments:** The development of mixed-use projects that combine residential, commercial, and recreational spaces can create vibrant and integrated communities in metropolitan areas. This can enhance the quality of life for residents and attract investments in these areas.
5. **Infrastructure Development:** Continued investment in infrastructure development, such as transportation networks, water supply systems, and public amenities, is crucial for the growth and sustainability of metropolitan areas. This can further attract investments in the housing market and improve the overall living conditions for residents.



Overall, by addressing affordability issues, embracing technology, promoting sustainability, and investing in infrastructure, the housing market in metropolitan areas of India has the potential to thrive and contribute to the overall development of these regions.

## **Conclusion:**

The housing market in metropolitan areas of India is influenced by various factors, including economic growth, population growth, infrastructure development, government policies, and interest rates. Understanding these factors and their impact can help individuals, investors, and policymakers make informed decisions in the housing market. Additionally, analyzing trends and patterns can provide insights into the future direction of housing prices in these areas.

