



ANALYSING HOUSING PRICES IN METROPOLITAN AREAS OF INDIA



TEAM ID - NM2023TMID36736

K SAITHANI BEGUM

S SANGEERANI

A SANGEETHA

M SARMILA

ANALYSING HOUSING PRICES IN METROPOLITAN AREAS OF INDIA

1.INTRODUCTION

1.1 OVERVIEW

House price prediction in a metropolitan city in India is a valuable solution for potential home buyers, real estate agents, and investors. By leveraging historical sales data, property details, and location-specific information, a predictive model can accurately estimate house prices. The model's scalability, real-time updates, user-friendly interface, and transparency ensure it meets the needs of stakeholders. Integration capability, data privacy, and cost effectiveness are also important considerations. By addressing these requirements, the prediction model provides reliable insights, empowering stakeholders to make informed decisions in the fast-paced real estate market.

In a project analysing housing prices in metropolitan areas of India, visualizations could include charts showing price trends over time, comparisons of prices across different cities, heat maps indicating price variations, and scatter plots displaying the relationship between housing prices and factors like location or amenities. Visualizations can help in understanding patterns and making data-driven decisions. In my project, I utilized Tableau as a powerful tool for data visualization and analysis

1.2 PURPOSE

The purpose of analysing housing prices in metropolitan areas of India project is to gain insights into the housing market trends, understand the factors influencing housing prices, and provide valuable information for buyers, sellers, and investors. It helps in making informed decisions regarding real estate investments and understanding the affordability and availability of housing in different cities. This data exploration and visualization help us gather a useful insights about analyse of housing prices in metropolitan city in India.

2. PROBLEM DEFINITION AND DESIGN THINKING

2.1 EMPATHY MAP

The business problem at hand is the prediction of house prices in a metropolitan city in India. The real estate market in such cities is Complex and dynamic, making it challenging for potential home Buyers, real estate agents, and investors to accurately estimate Property values. By developing a predictive model using relevant Datasets and features, stakeholders can gain insights into the Factors influencing house prices and make informed decisions Regarding property investments.

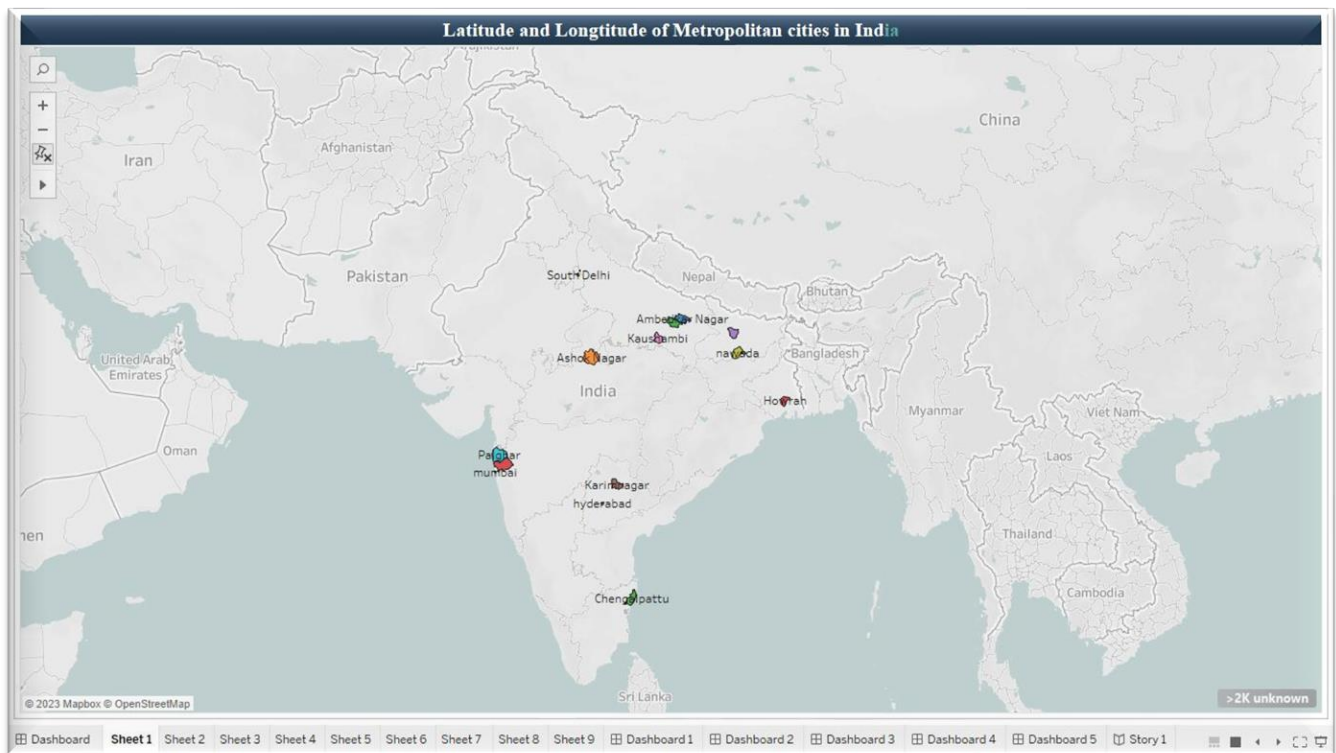


2.2 IDEATION & BRAINSTORMING MAP

The business requirements for house price prediction in a metropolitan city in India include developing an accurate prediction model that can estimate property prices. The model should identify the key features impacting house prices and provide insights to aid decision-making. It should be scalable to handle a large volume of data and incorporate real-time updates to reflect the latest market conditions. The solution should have a user-friendly interface, ensure transparency and explain the ability of predictions, prioritize data privacy and security, and define performance metrics for evaluation. Integration capability and cost-effectiveness are also important considerations to deliver a valuable and efficient solution.

3.1 Latitude and longitude of metropolitan cities in India

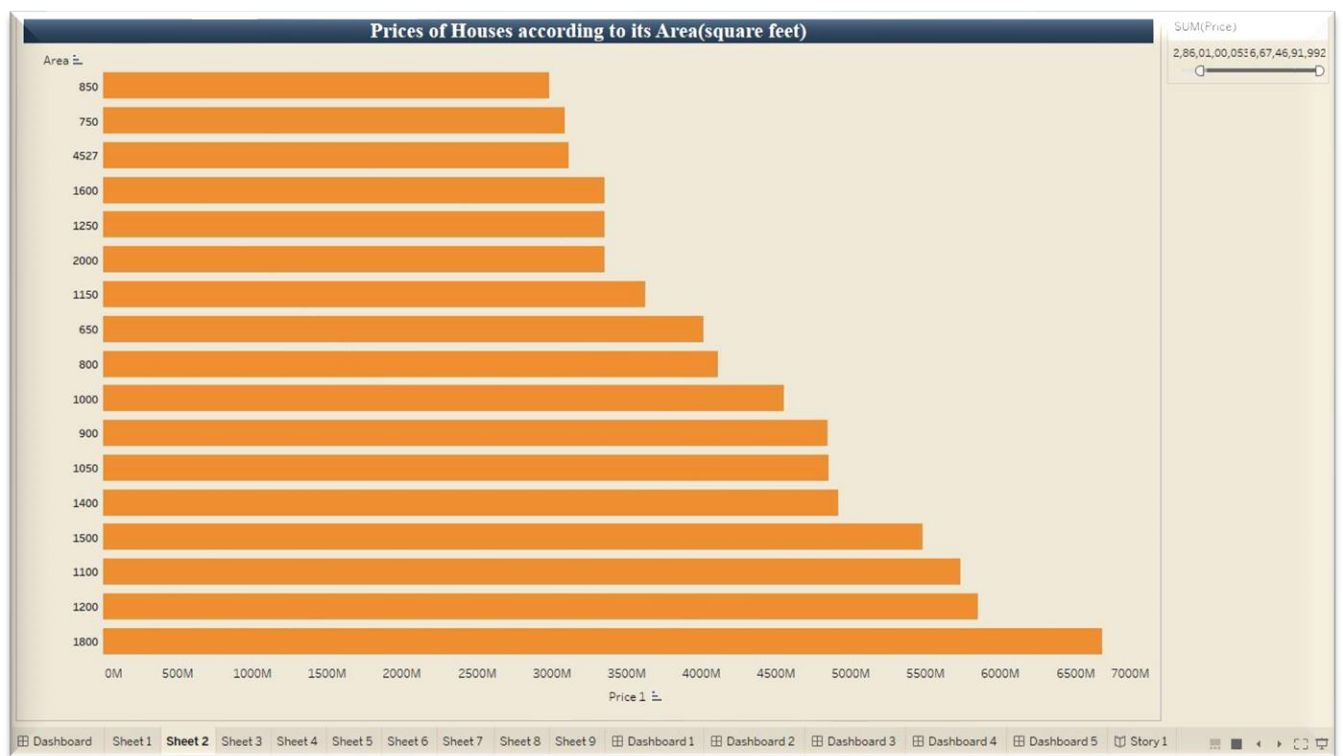
- ❖ The Major metropolitan cities in the India



LATITUDE AND LONGITUDE OF METROPOLITAN CITIES IN INDIA

3.2 Prices of houses according to Area (square feet)

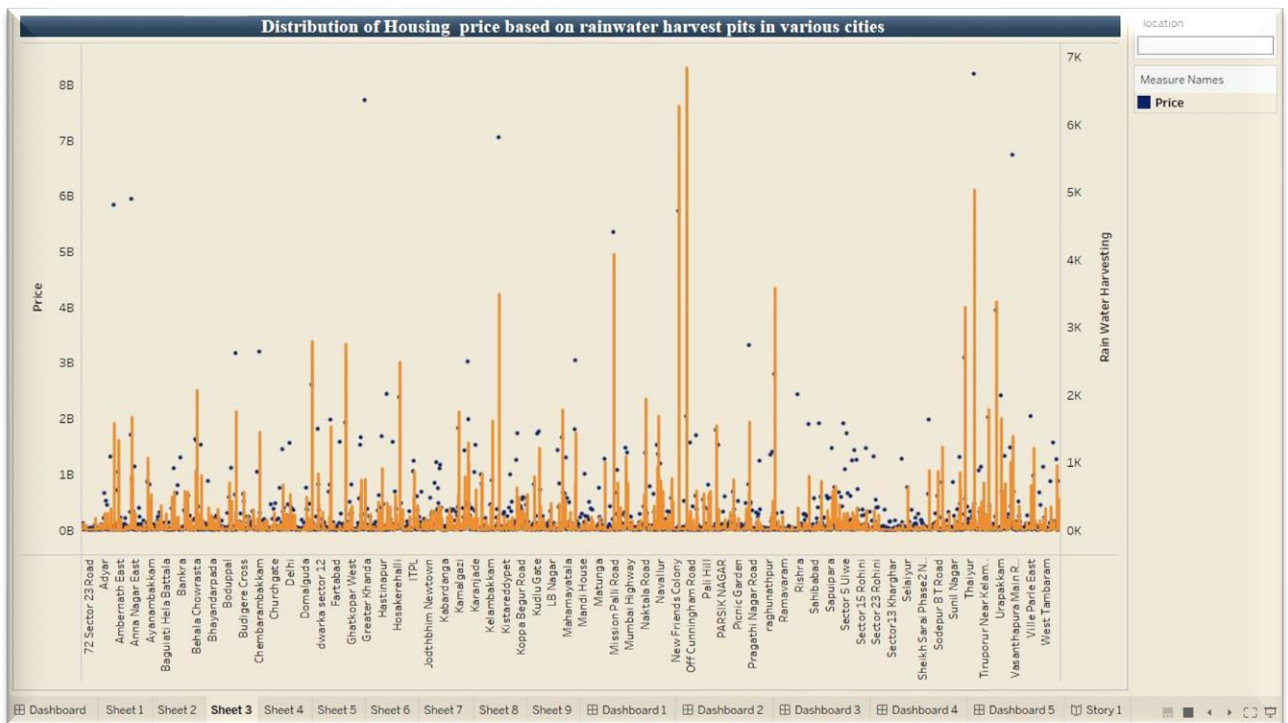
- ❖ This visualization explains that where the property values are higher and low cost of price in the areas based on require locations for specific square feet



PRICES OF HOUSES ACCORDING TO AREA (SQUARE FEET)

3.3 Distribution of housing price based on rainwater harvest pits in various cities

- ❖ In this visualization where the rain harvest pits are in good level in the locations and also prices are visualized the majority best places of rain harvesting covered areas are Chennai considerably



DISTRIBUTION OF HOUSING PRICE BASED ON RAINWATER HARVEST PITS IN VARIOUS CITIES

3.4 Vastu-complains based on location

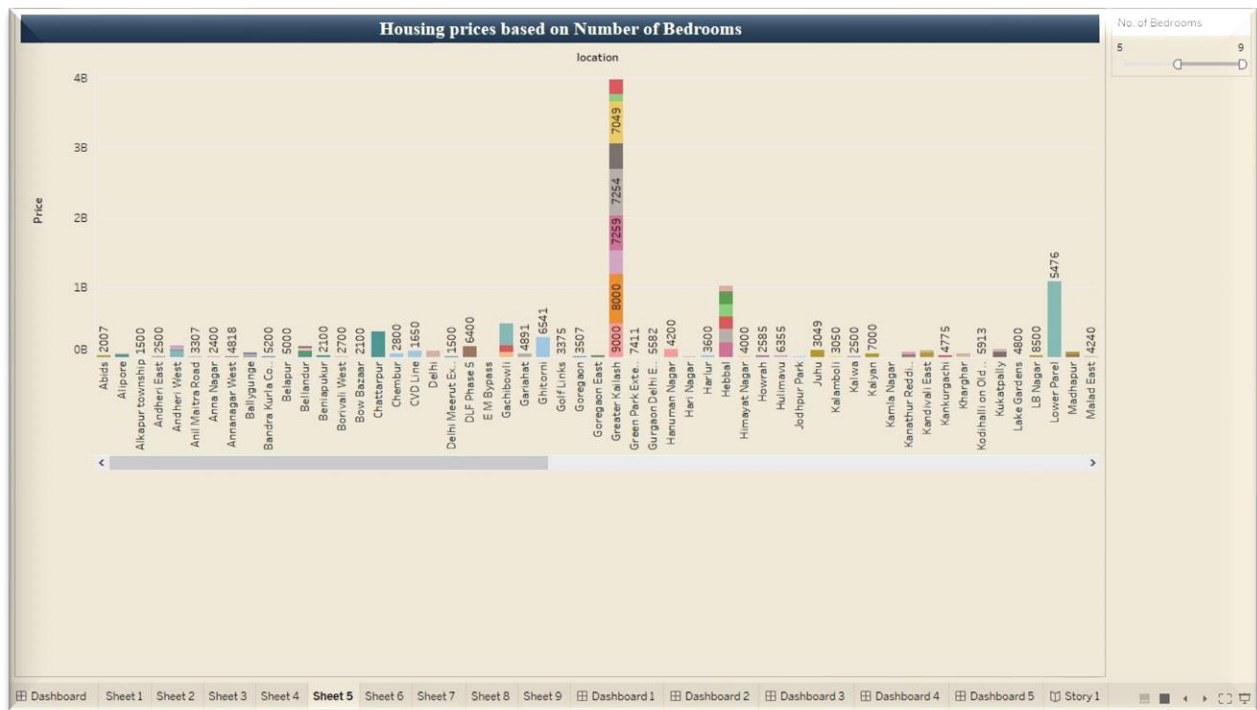
In metropolitan areas of India, there can be a vast number of complaints due to the high population density and various factors. These complaints can range from issues with infrastructure, traffic congestion, pollution, and more. The sheer of volume of people and the complexity of urban environments can contribute to the vast number of complains in these areas



VASTU-COMPLAINS BASED ON LOCATION

3.5 Housing prices based on number of Bedrooms

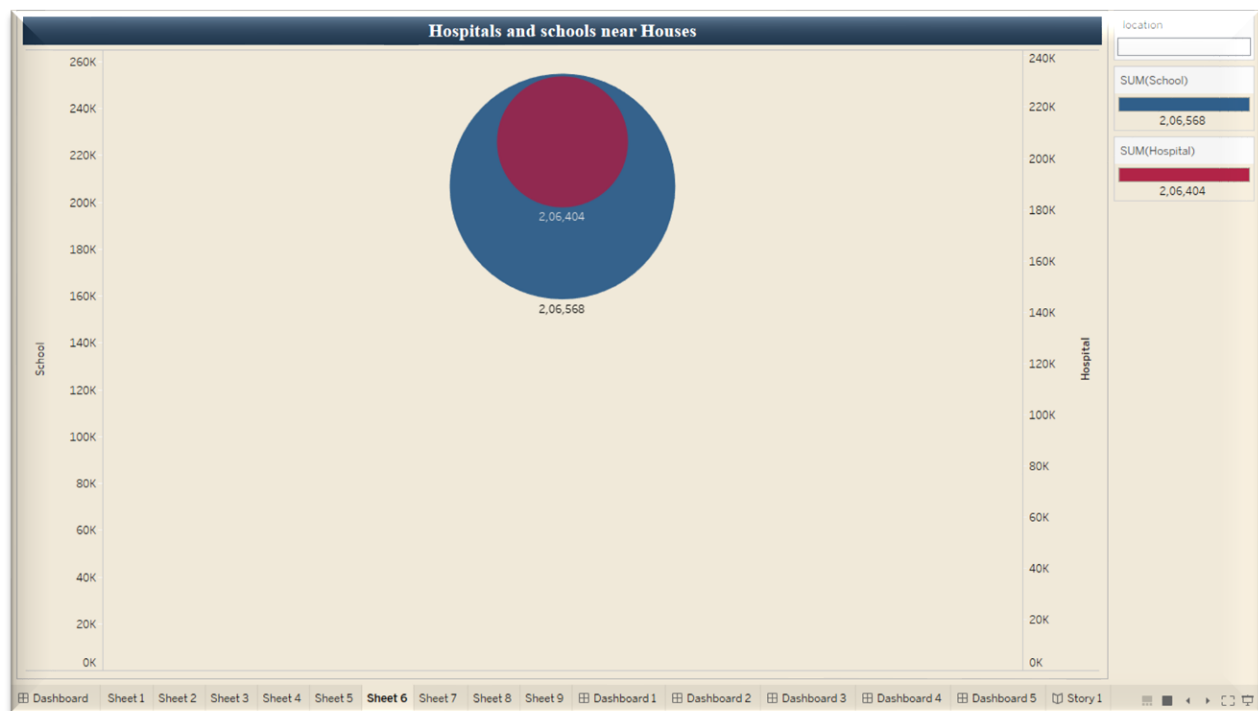
- ❖ The price of a house can vary based on the number of bedrooms it has. Generally, houses with more bedrooms tend to be more expensive than those with fewer bedrooms. However, the exact price will also depend on other factors like location, amenities, and overall condition of the house.



HOUSING PRICES BASED ON NUMBER OF BEDROOMS

3.6 Hospitals and schools near Houses based on location

- ❖ When hospitals and schools are located near houses, it can often increase the property prices. This is because having these amenities nearby is considered desirable for many homebuyers. Hospitals provide convenient access to healthcare services, while schools offer quality education for families with children. The proximity to these facilities can enhance the overall value and appeal of the neighborhood, leading to higher property prices.



HOSPITALS AND SCHOOLS NEAR HOUSES BASED ON LOCATION

3.7 Maintenance staff and housing prices

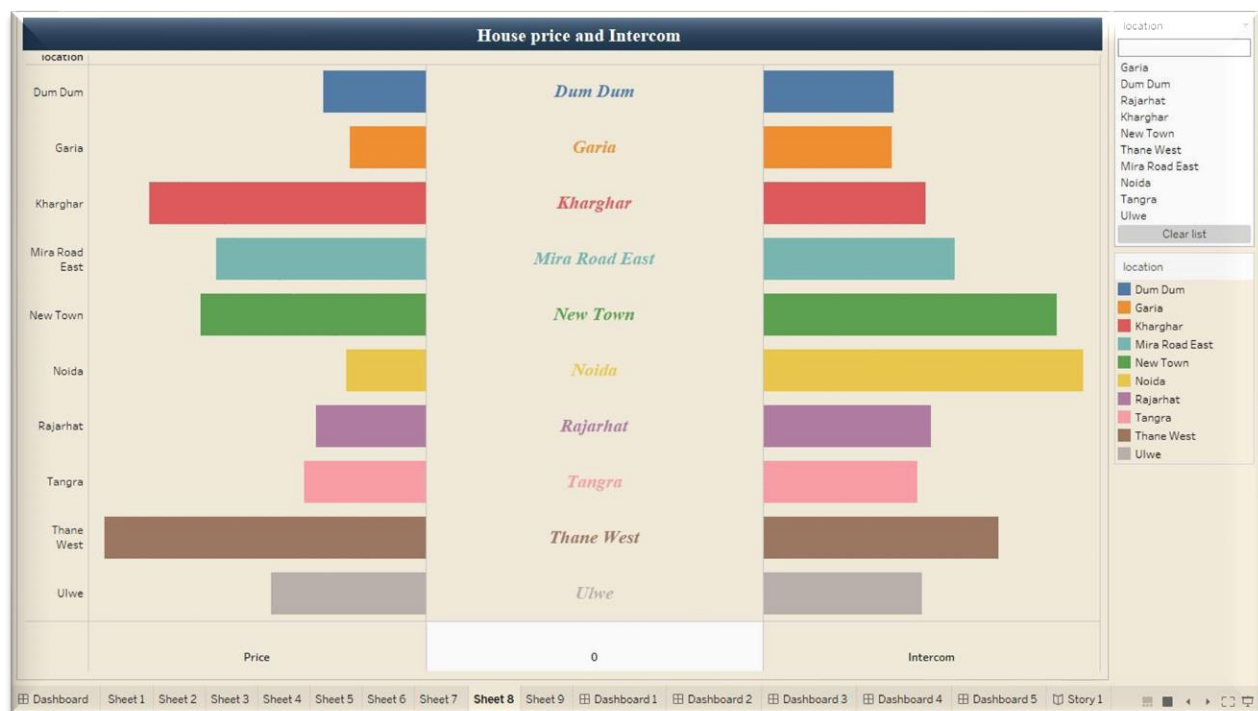
- ❖ When analyzing the prices of housing in metropolitan areas in India, we find that the presence of employees can have an impact on housing prices in those areas. This analysis helps us understand the relationship between housing maintenance and prices



MAINTENANCE STAFF AND HOUSING PRICES

3.8 House price and intercom

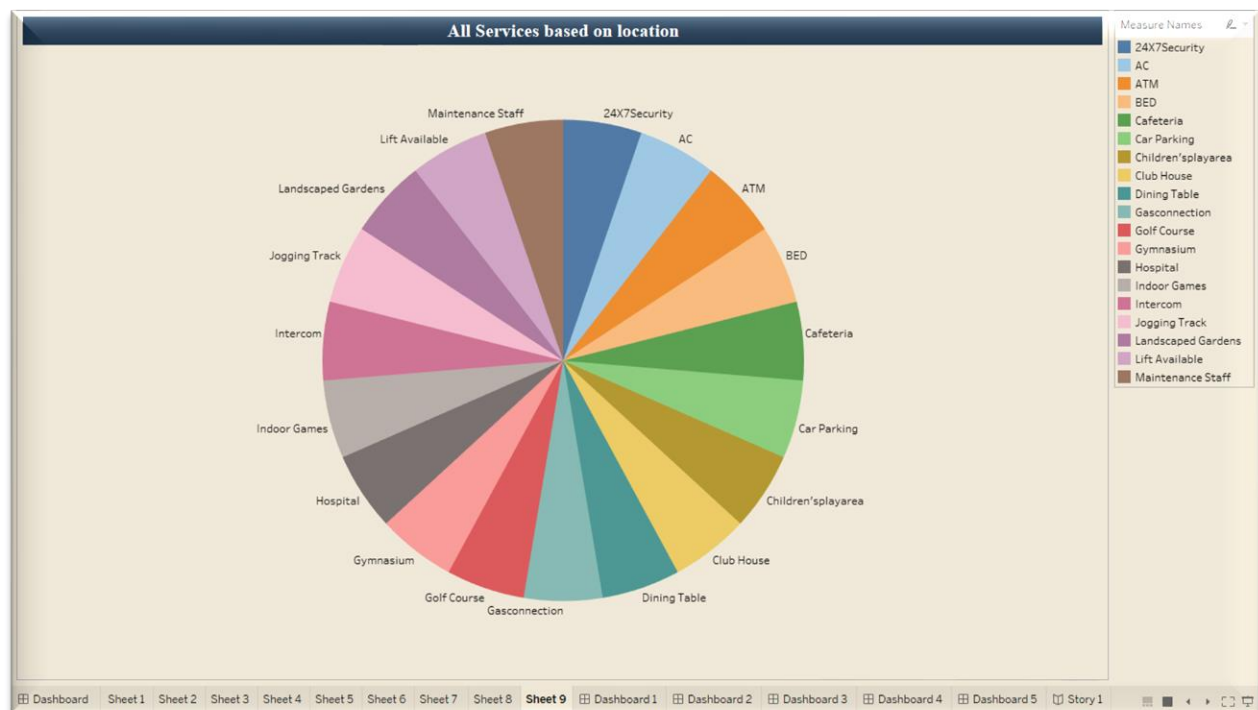
- ❖ An intercom system in a house can potentially increase its value in metropolitan cities, the price value and intercom price will comparatively increased and we definite the price through location.



HOUSE PRICE AND INTERCOM IN LOCATIONS

3.9 All service based on location

- ❖ The services percentage in metropolitan areas of India can vary. it typically refers to the amount that residents contribute towards the maintenance and facilities in a housing society or apartment complex. it is determined by the expenses such as security, cleaning and the result gives equal prices in all best services in India



ALL SERVICE BASED ON LOCATION

ADVANTAGES

- ❖ Prediction of house prices are expected to help people who can plan with their dream home and land, so they can know the price range and property rises they can plan their finance well.
- ❖ In addition it can also be beneficial for property investors to know the trend of the market value in certain location
- ❖ It analyses the low cost affordable house where it's located and with the property value

DISADVANTAGES

- ❖ In the metropolitan cities house prices are more challenging in these commercial areas the property values are increasing
- ❖ It doesn't predict the future prices of the houses mentioned by the customer. Due to this risk in investment in an apartment or an area increases considerably
- ❖ House prices increase every year, so there is a need for a system to predict house prices in the future.

APPLICATION

The analysis of housing prices in metropolitan areas can be applied to various cities in India

- ❖ **Real estate investment:** Use the insights to identify areas with potential for growth and make informed investment decisions
- ❖ **Urban planning:** Provide valuable information to city planners and policymakers for sustainable urban development.
- ❖ **Housing affordability:** Assess the impact of price trends on housing affordability and explore strategies to address the issue
- ❖ **Market research:** Conduct market research for developers, builders, and real estate agencies to understand consumer preferences and demand.
- ❖ **Policy formulation:** Contribute to the formulation of housing policies that promote affordability and sustainable development.

CONCLUSION

- ❖ After analyzing housing prices in metropolitan areas of India, it can be concluded that there is significant variation in prices based on factors like location, amenities, and demand. Prices tend to be higher in major cities like Mumbai and Delhi compared to smaller cities. Additionally, factors like infrastructure development and economic growth also impact housing prices. Overall, it's important to consider multiple factors when analyzing housing prices in metropolitan areas of India.

FUTURE SCOPE

- ❖ People looking to buy a new home tend to be more conservative with their budgets and market strategies our findings are helpful to people.
- ❖ project aims to analyse various parameters like average income, average area etc. and predict the house price accordingly
- ❖ This application will help customers to invest in an estate without approaching an agent
- ❖ To provide a better and fast way of performing operations.
- ❖ To provide proper house price to the customers.
- ❖ To eliminate need of real estate agent to gain information regarding house prices.
- ❖ To provide best price to user without getting cheated.
- ❖ To enable user to search home as per the budget.
- ❖ The aim is to predict the efficient house pricing for real estate customers with respect to their budgets and priorities. By analysing previous market trends and price ranges, and also upcoming developments future prices will be predicted.