



NAAN

MUDHALVAN

**Project Based Experiential
Learning**

**ANALYSIS OF HOUSING PRICES IN METROPOLITAN
AREA IN INDIA**

Under the Guidance of

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Analysis of housing prices in metropolitan area in India

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PROJECT REPORT

Analysis of Housing Prices in Metropolitan Areas in India using Tableau

1.INTRODUCTION

1.1.OVERVIEW:

- Analyzing housing prices in metropolitan areas in India is a complex and multifaceted task. This analysis is essential for various stakeholders, including potential homebuyers, real estate developers, investors, and policymakers, as it offers valuable insights into the dynamics of the real estate market. In this analysis, we will delve into key factors influencing housing prices, trends in metropolitan areas, and the implications of these findings.
- Analyzing housing prices in metropolitan areas of India is a critical endeavor, as it provides insights into the dynamic real estate market in one of the world's fastest-growing economies. The metropolitan regions are hubs of economic activity, attracting a steady influx of people in search of better opportunities. Consequently, housing prices are influenced by a multitude of factors, including location, property type, amenities, and the overall economic climate.
- This analysis helps individuals make informed decisions about property investments, real estate developers plan strategically, and policymakers design housing policies that address the diverse needs of urban populations. The challenges of affordability and the implications for inclusive urban development make the analysis of housing prices in metropolitan India an essential lens through which we understand the evolving landscape of the nation's cities.

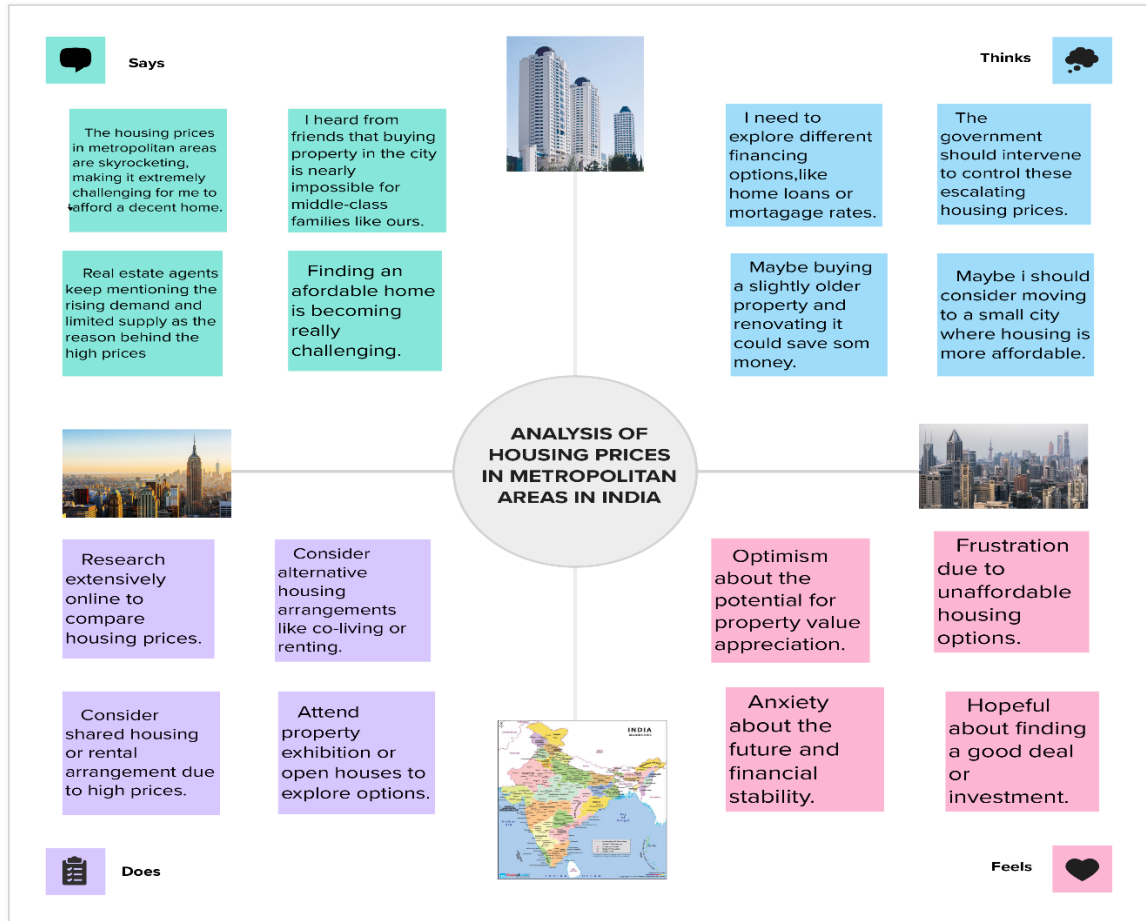
1.2.PURPOSE:

The purpose of conducting an analysis of housing prices in metropolitan areas in India is twofold. Firstly, it aims to provide valuable insights to various stakeholders, including potential homebuyers, real estate developers, investors, and government policymakers. By examining the dynamics of the housing market, this analysis empowers individuals to make informed decisions about their real estate investments, whether it involves buying a home or investing in properties.

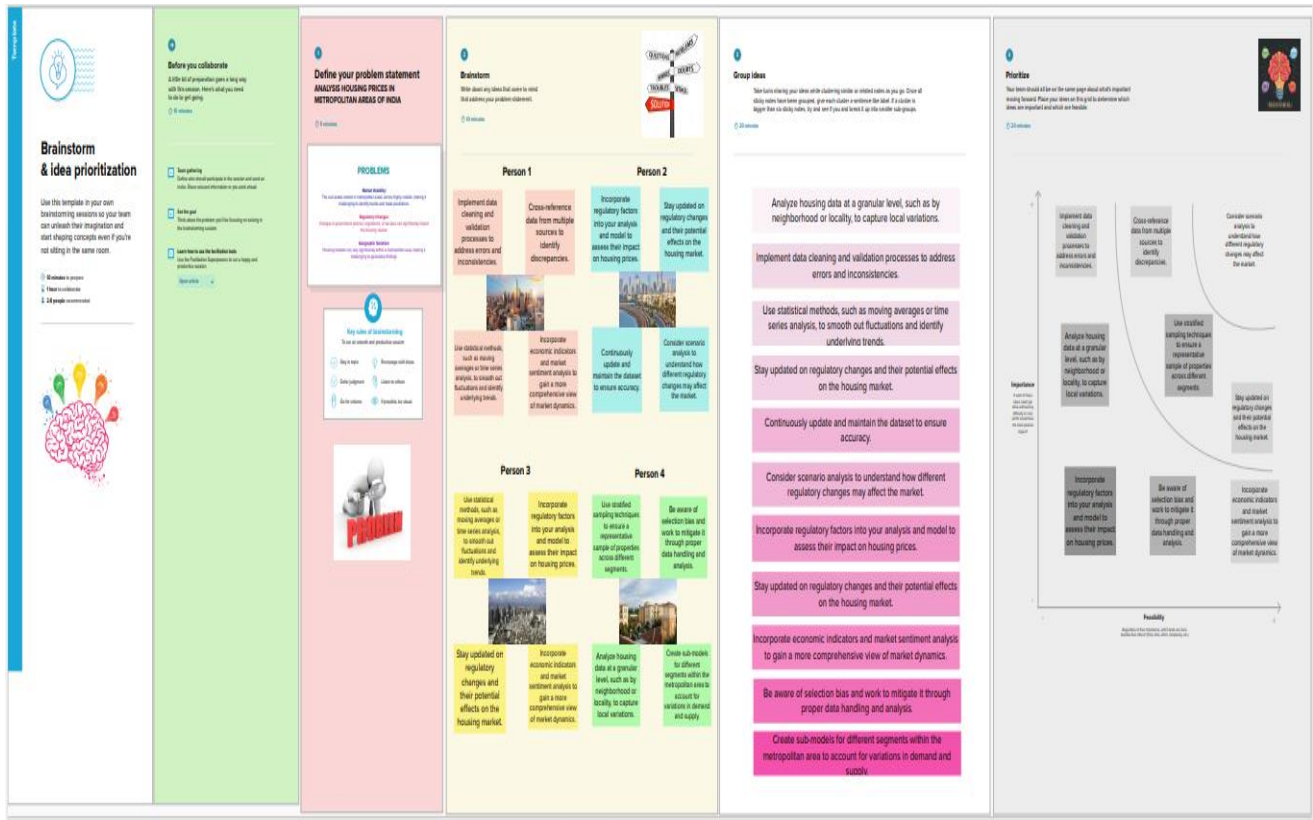
2.PROBLEM DEFINITION AND DESIGN THINKING:

2.1.EMPATHY MAP

Empathy map is to gain a deeper understanding of the people on housing prices in a metropolitan area of the people on holding prices in metropolitan area in india



2.2.BRAINSTROMING:



3. PROJECT BACKGROUND:

Understanding the dynamics of housing prices in metropolitan areas is crucial given the rapidly evolving real estate market in India's urban centers. Our objective was to provide a comprehensive and data-driven analysis of housing prices, aiming to offer valuable insights for potential buyers, investors, and policymakers.

4.METHODOLOGY:

Our project spanned several phases, beginning with brainstorming sessions to formulate the most relevant and intriguing questions to address. Once we defined the scope of our analysis, we embarked on data collection. This involved the aggregation, cleaning, and preparation of datasets from multiple sources. The heart of our project lay in data visualization, which we executed through Tableau. Our final product comprised nine sheets, four dashboards, and a compelling story.

5.DATA VISUALISATION:

Our visualizations took the form of nine distinct sheets, each focusing on different facets of housing prices:

Sheet 1: We started with a map visualization displaying the distribution of houses in various metropolitan cities. This provided an initial geographical context for our analysis.

Sheet 2: The second sheet featured a bar graph that illustrated price disparities across different locations, shedding light on variations within the metropolitan areas.

Sheet 3: Our third sheet was a combined line and location graph, meticulously showing prices under the influence of rainwater harvesting facilities. It aimed to explore the eco-friendliness and price trends.

Sheet 4: A tree map in the fourth sheet showcased our houses in various locations, providing a visual perspective on the quantity and distribution of properties.

Sheet 5: The fifth sheet offered a bar graph presenting location-based pricing, now segmented by the number of bedrooms. This gave insights into the cost variations concerning the housing types.

Sheet 6: Sheet six presented pricing data driven by the availability of best-in-class facilities. This analysis allowed for a closer look at how certain features influence prices.

Sheet 7: We followed this with a graphical representation of the facilities present in the best locations.

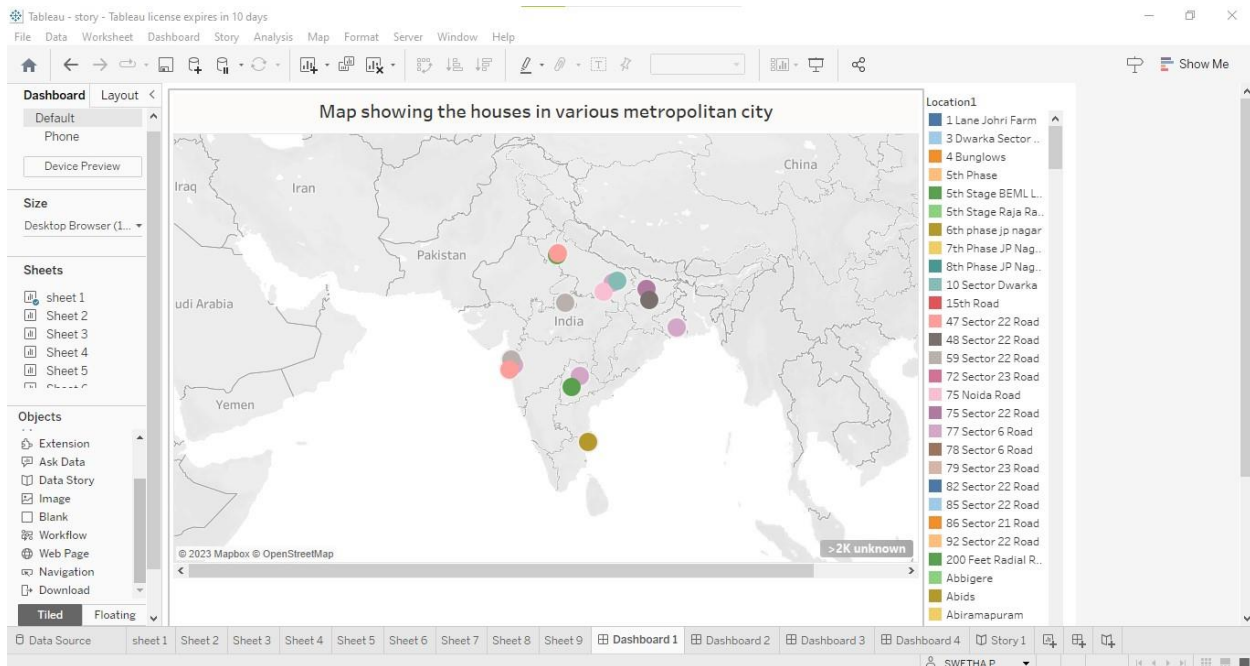
Sheet 8: The eighth sheet featured a bar comparison chart, facilitating a visual comparison of vessel prices and intercom facilities.

Sheet 9: Finally, the ninth sheet displayed services offered in specific locations, which was vital for those considering residential choices.

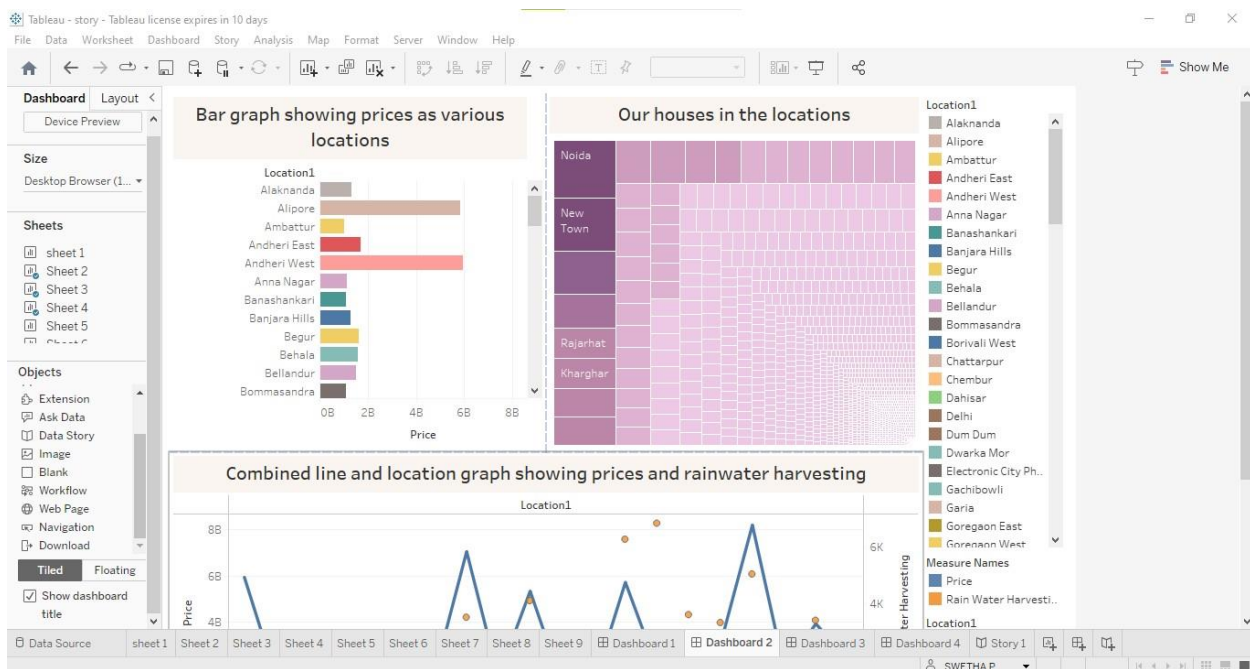
6.DASHBOARD CREATION AND STORYTELLING :

We combined these sheets into four dashboards to offer a comprehensive view of the data. The first dashboard integrated the first sheet, with the second, third, and fourth sheets in the second dashboard. The third dashboard contained the fifth and ninth sheets, while the fourth dashboard was dedicated to the sixth, seventh, and eighth sheets. To tell a cohesive story, we connected all the dashboards to create a structured narrative. This allowed us to effectively convey the insights we gained from our analysis, ensuring our video presentation would flow seamlessly.

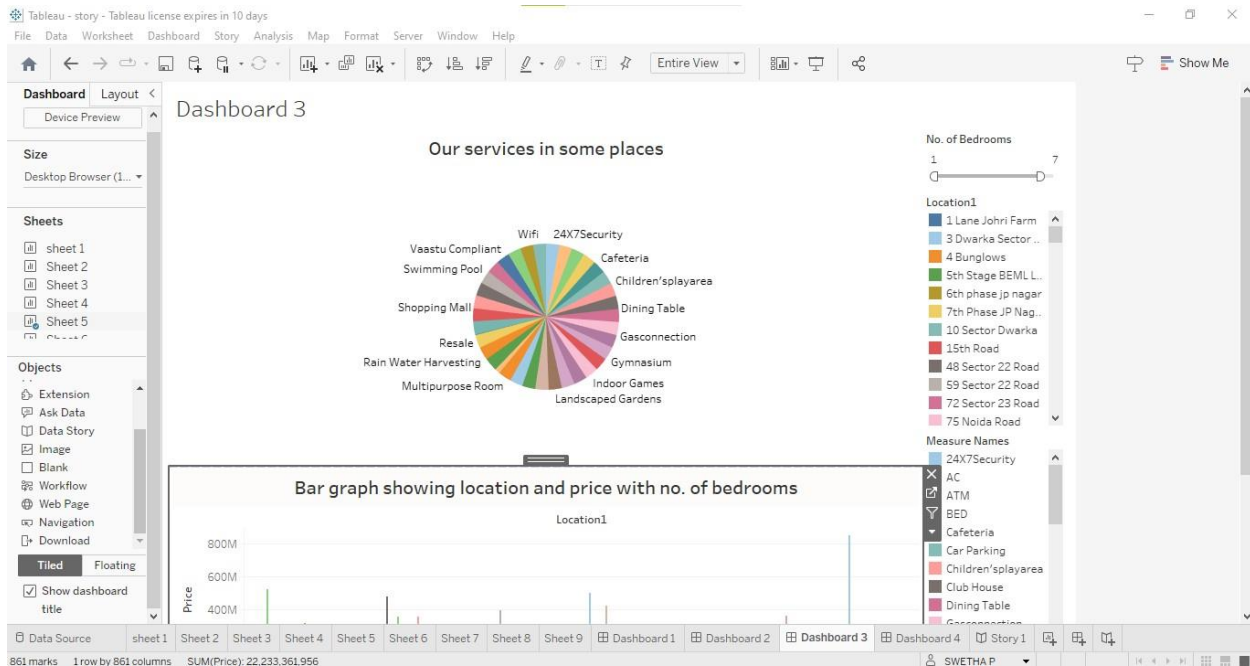
6.1DASHBOARD 1:



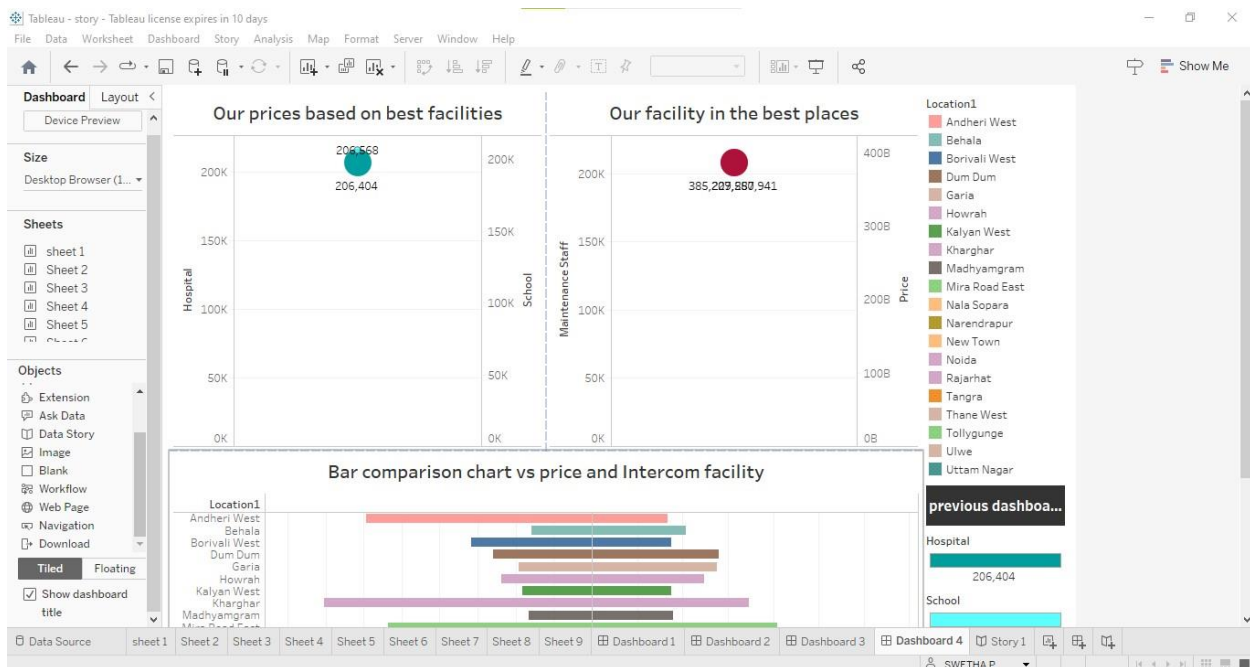
6.2 DASHBOARD 2:



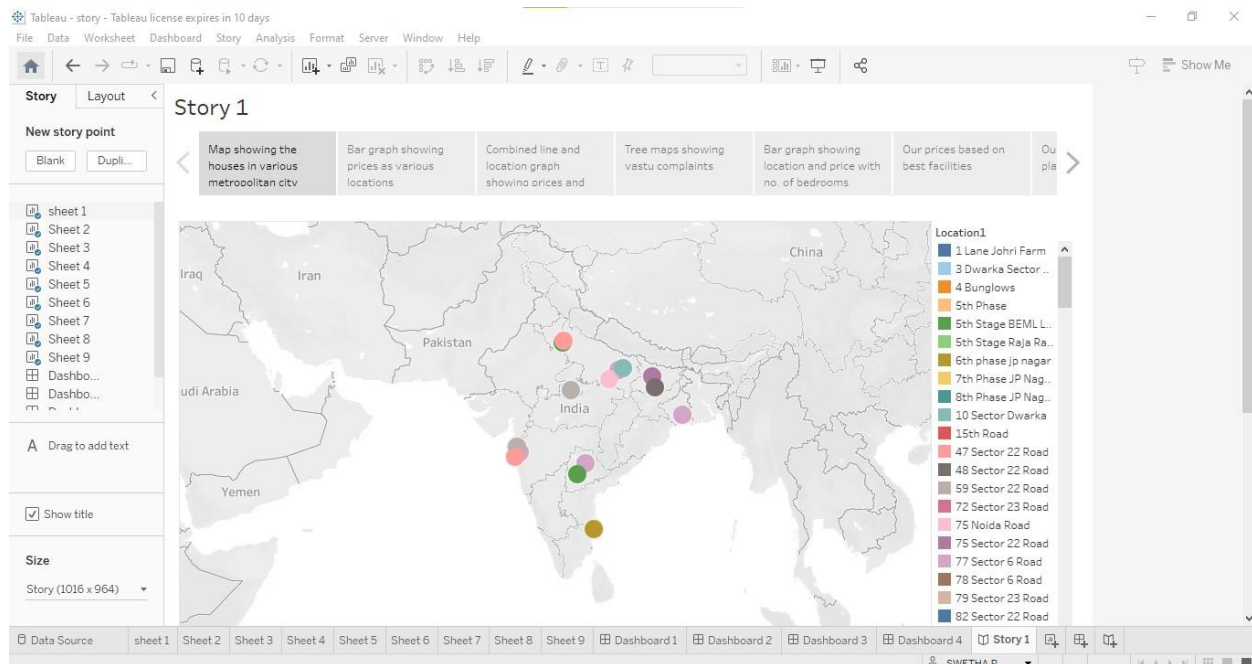
6.3 DASHBOARD 3:



6.4 DASHBOARD 4:



7.STORY 1:



8.ADVANTAGES:

- **Informed Decision-Making:** Understanding housing prices helps potential homebuyers and investors make well-informed decisions. They can assess the market and choose properties that align with their financial capabilities and goals.
- **Real Estate Planning:** For real estate developers, this analysis guides project planning. They can tailor their offerings to match the prevailing market demands and maximize their returns on investment.
- **Economic Indicator:** Housing prices are often considered an economic indicator. Rising prices can indicate economic growth and consumer confidence, which can be valuable for policymakers and economists.
- **Investment Opportunities:** A thriving real estate market offers investment opportunities, and analyzing housing prices can help investors identify potentially profitable ventures.
- **Urban Development:** Policymakers can use the insights gained from housing price analysis to plan urban development effectively. This includes addressing affordability challenges, improving infrastructure, and promoting sustainable growth.

9.DISADVANTAGES:

- **Affordability Concerns:** Rising housing prices in metropolitan areas can lead to affordability issues. Many individuals and families find it increasingly challenging to afford homes in such areas, potentially leading to housing inequality.
- **Real Estate Bubbles:** The housing market can be susceptible to bubbles where prices rise rapidly and then crash. Investors may face significant financial losses in such scenarios.
- **Economic Vulnerability:** A real estate market heavily reliant on price appreciation can become vulnerable to economic downturns, affecting both homeowners and investors.
- **Market Manipulation:** Housing price analysis may also reveal instances of market manipulation and speculation, which can distort prices and make it difficult for genuine buyers to secure properties.
- **Inequality in Urban Areas:** As housing prices soar, the gap between the economically advantaged and disadvantaged can widen, leading to social and economic disparities within metropolitan areas.

10.APPLICATION :

- **Informed Real Estate Investment:** Potential homebuyers and property investors can use this analysis to make well-informed decisions. They can assess property values and trends to choose the right time and location for their investments.
- **Property Valuation:** Property owners can use this analysis to understand the current value of their real estate holdings. This is valuable for those considering selling or refinancing their properties.
- **Market Research for Developers:** Real estate developers can utilize housing price data to conduct market research and feasibility studies. This helps them make strategic decisions on where and what type of properties to build.

- **Risk Management:** Financial institutions, such as banks and mortgage lenders, use housing price analysis to assess the risk associated with real estate loans. This information helps in setting interest rates and loan terms.
- **Economic Indicators:** Rising housing prices can be a sign of economic growth and consumer confidence. Economists and policymakers use housing data as an economic indicator to monitor overall economic health.

11. CONCLUSION:

In conclusion, while the analysis of housing prices in metropolitan areas provides invaluable insights for various stakeholders and can positively influence urban development, it also carries the risk of affordability challenges, market vulnerabilities, and increased inequality. Balancing these advantages and disadvantages is a complex task for both individuals and policymakers working to create thriving, inclusive, and sustainable metropolitan areas.

The culmination of our project revealed intriguing insights into the dynamics of housing prices in metropolitan areas in India. This analysis can significantly benefit buyers, investors, and policymakers as they make informed decisions. Our project recommended the necessity of a comprehensive strategy for urban development that incorporates environmental and facility factors in housing pricing.

ACKNOWLEDGMENTS :

We extend our gratitude to our team members and our invaluable staff support, Gayathri, who played a pivotal role in guiding our project. We also acknowledge the data sources that contributed to our analysis.

FUTURE SCOPE:

The future will see more sophisticated data analytics techniques and tools being used to analyze housing prices. Machine learning and artificial intelligence will play a significant role in predicting future price trends, helping investors and developers make data-driven decisions.

The integration of big data from various sources, including social media, satellite imagery, and IoT devices, will provide a more comprehensive view of housing markets. This will help in understanding not just prices but also factors like urban development, traffic patterns, and environmental impacts.

