

# ANALYSING HOUSING PRICES IN METROPOLITAN AREAS OF INDIA

#### A PROJECT REPORT

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in partial fulfilment for the award of the degree of

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**PHYSICS** 



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#### 1.INTRODUCTION:

The housing market in metropolitan areas of India has experienced Significant growth and transformation in recent years. Metropolitan areas, which include major cities like Mumbai, Delhi, Bangalore and Chennai, have become focal points of economic activity, cultural activity and urban development. This



transformation has had both positive and negative Implications for housing prices and the real estate sector.

In this context, understanding the dynamics of housing prices in metropolitan areas of India is crucial for both prospective home owners and investors. This analysis will explore the factors contributing to these price trends, their impact on the urban landscape, and the implication for individuals broader economy.

#### 1.1 OVERVIEW:

Metropolitan areas in India have witnessed rabid urbanization, job opportunities and lifestyle aspirations. This urban influx has significantly increased the demand for housing. Housing prices in these generally shown an upward trend, making real estate investments in metropolitan areas attractive. Prices often appreciate due to high demand, limited supply, and factors like infrastructure development.

Housing price trends can vary greatly from one metropolitan areas to another. for example, Mumbai and Delhi tend to have some of the highest property prices while cities like Bangalore and Hyderabad have also seen substantial increases. The high cost of housing in metropolitan areas has raised concerns about affordability, with many residents and potential buyers finding it challenging to own property in these regions.

The real estate market in metropolitan areas can be susceptible to fluctuations influenced by factors like government policies, economic conditions, and global events. Speculation in the market can also contribute to volatility. In response to high property prices, the rental market in metropolitan areas has also grown significantly. Many individuals opt to rent instead of buying, given the flexibility and lower initial financial burden.



Various government initiatives, such as affordable housing schemes and tax benefits for homebuyers, have been introduced to address housing affordability issues in metropolitan areas. Improvements in transportation, healthcare, education, and other infrastructure in these cities often play a role in driving up housing prices. Proximity to these amenities is a major factor in property valuation.

Real estate continues to be a popular choice for investment, with many investors looking at metropolitan areas for potential returns.

#### 1.2 PURPOSE:

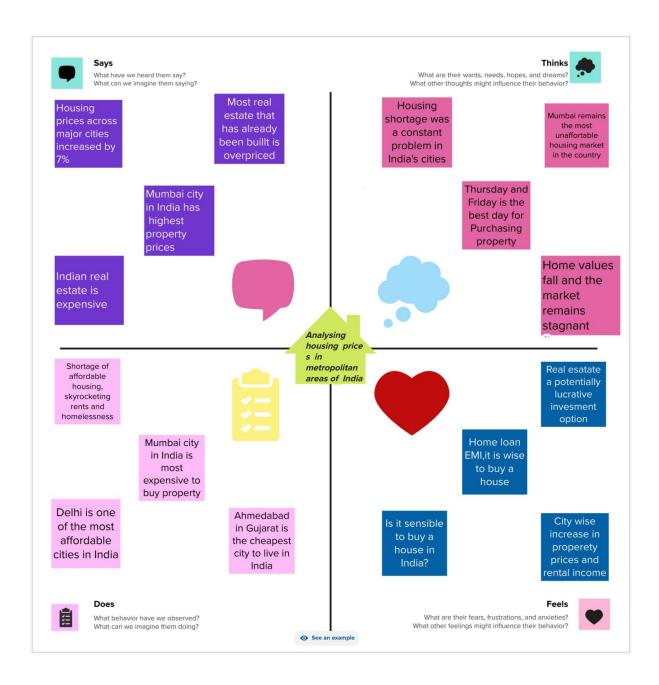
Individuals and investors use housing price data to make informed decisions about buying, selling or investing in real estate. Understanding price trends helps in identifying for capital appreciation. Prospective home buyers use housing price information to plan their budgets and assess affordability this data is crucial for financial planning, as it helps individual determine whether they can afford to purchase a home in a metropolitan area.

#### 2.PROBLEM DEFINITION & DESIGN THINKING

#### 2.1 EMPATHY MAP:

An empathy map is a collaborative visualization used to articulate what we know about a particular type of user.

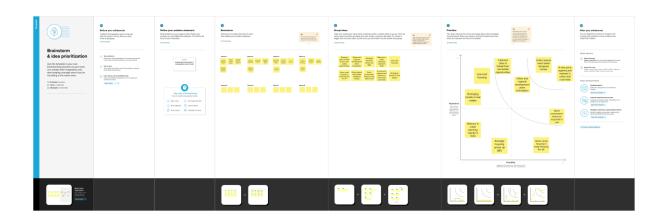




# **2.2 IDEATION & BRAINSTORMING MAP:**

Brainstorming is a group problem sloving method that involves the spontaneous contribution of creative ideas and solutions.





# **3.RESULT:**



Fig (1):Our houses in the 5 metropolitan cities



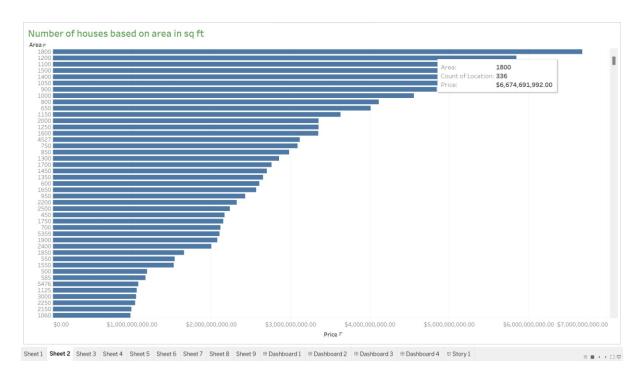


Fig (2): Our prices based on area in sq

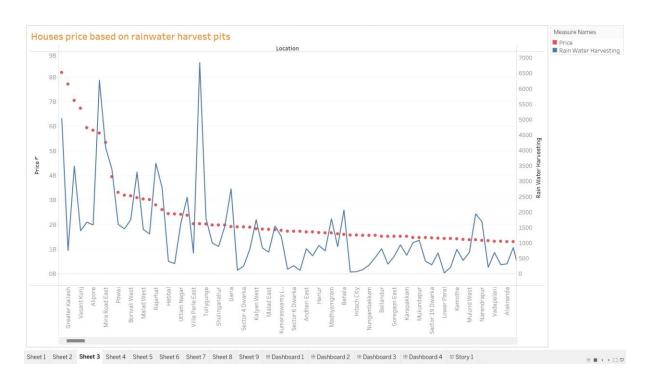


Fig (3): Our prices based on the best places





Fig (4): Our houses in the Locations

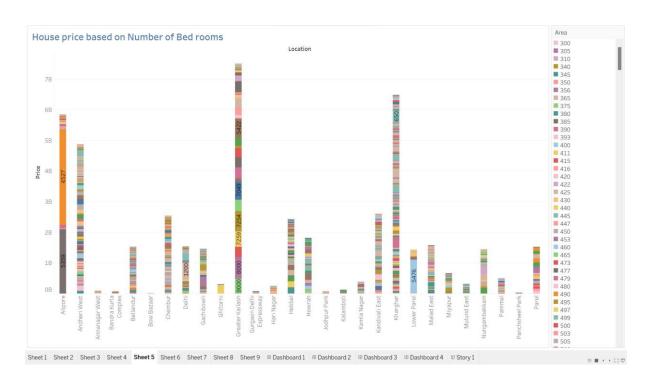


Fig (5): Average price based on number



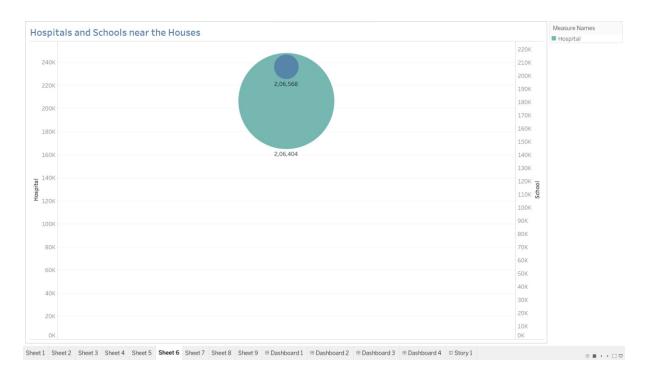


Fig (6): Our prices based on best facilities

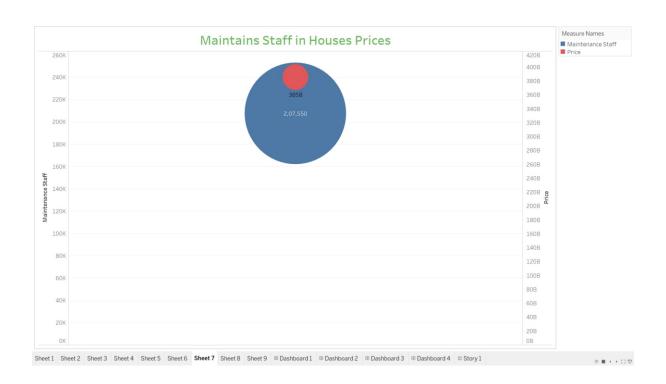


Fig (7): Our facilities in the best places



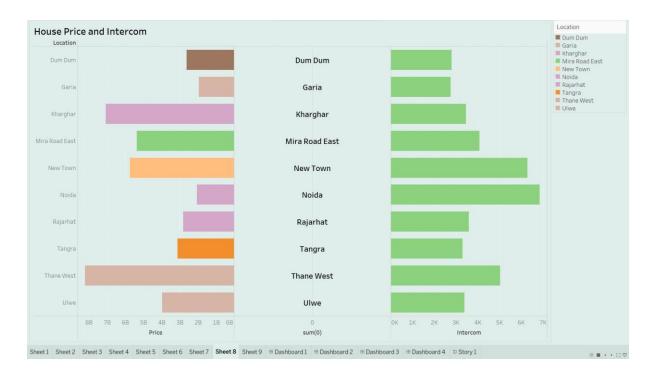


Fig (8): Our prices based on Intercom

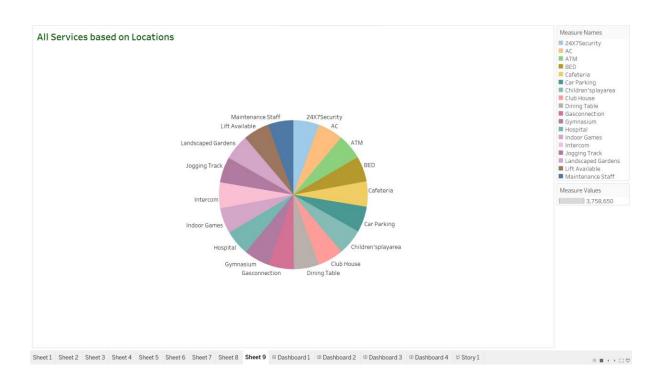


Fig (9): Our services in some places



**DASHBOARD:** A Data dashboard is a tool many businesses use to track, analyse, and display data.



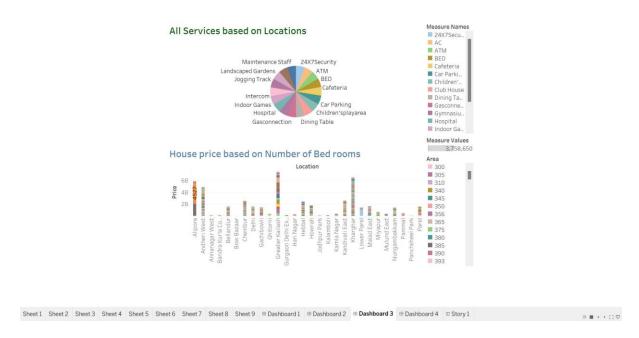


## Dashboard (1)



Dashboard (2)





# Dashboard (3)

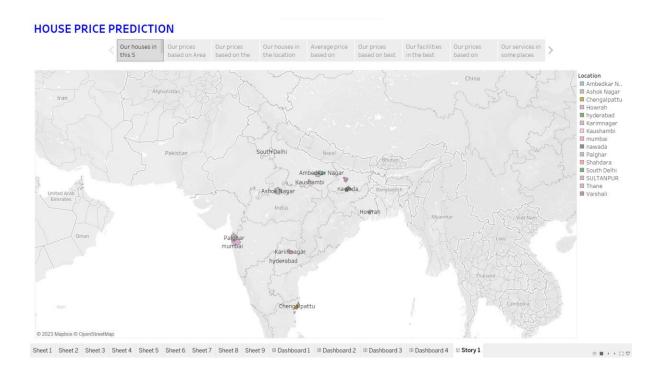


Sheet 1 Sheet 2 Sheet 3 Sheet 4 Sheet 5 Sheet 6 Sheet 7 Sheet 8 Sheet 9 🗏 Dashboard 1 🗒 Dashboard 2 🗒 Dashboard 3 🗒 Dashboard 4 🖾 Story 1

Dashboard (4)



**STORY:** A story is a sequence of visualizations that work together to convey information.



#### 4. ADVANTAGES & DISADVANTAGES:

#### **ADVANTAGES:**

- ➤ Metropolitan areas often offer good returns on real estate investments due to high demand and urban development.
- ➤ Metropolitan areas tend to have better infrastructure, including schools, healthcare, and transportation.
- ➤ Residents have access to a wide range of entertainment, dining, and cultural amenities.
- ➤ These areas typically have a concentration of job opportunities, attracting a workforce and driving housing demand.



#### **DISADVANTAGES:**

- ➤ Housing prices are significantly higher in metropolitan areas, making it unaffordable for many.
- > Overcrowding and traffic congestion can lead to a lower quality of life.
- ➤ Metropolitan areas often have higher pollution levels, affecting resident`s health.
- ➤ There is limited land available, leading to smaller living spaces and higher prices.
- ➤ Housing prices in metropolitan areas can be driven by speculation, leading to price volatility.

#### **5.APPLICATIONS:**

Investors use housing price data to identify lucrative investment opportunities. By analysing trends and historical data, they can make informed decisions on buying, holding, or selling real estate assets.

Prospective homebuyers rely on this data to understand property values and assess affordability. It helps them plan their budgets and make well-informed decisions when purchasing a home.

Landlords and property managers use housing price information to determine appropriate rental rates. This data also helps renters assess whether renting or buying is a more cost-effective option.

Real estate professionals, including real estate agents and property developers, use housing price data to understand market dynamics, and develop pricing strategies.



Housing price data is used to analyse the socioeconomic impact of property prices on income inequality, housing accessibility, and wealth distribution within metropolitan areas.

In summary, housing price data is a valuable resource that serves multiple applications, from individual decision- making to urban planning and economic analysis. It is critical component of the real estate industry and urban development in metropolitan areas of India.

#### 6. CONCLUSION:

Housing prices have significant socioeconomic implications, influencing income inequality, access to affordable housing, and wealth distribution within metropolitan areas.

Understanding and analysing housing prices in these areas is crucial for individuals, and researchers. Local market conditions, government policies, and economic factors all contribute to the continually evolving landscape of housing prices in metropolitan areas. As these cities continue to grow and evolve, housing affordability and accessibility will remain critical concerns for residents and policy makers alike.

The rapid urbanization of metropolitan areas has led to a surge in housing demand, driven by factors such as employment opportunities, lifestyle aspirations, and economic growth

Housing prices have generally shown an upward trajectory, making real estate investment an attractive option for many. This appreciation is influenced by factors such as high demand, limited supply, infrastructure development.



# **7.FUTURE SCOPE:**

The future scope of housing prices in metropolitan areas of India will be shaped by a combination of demographic trends, economic conditions, government policies, and societal changes. Those interested in the real state market should stay informed about these factors stay informed decisions.

#### **8.APPENDIX**:

#### **SOURCE CODE:**

#### Dashboard 1:

https://public.tableau.com/views/MetropolitanAreasOfIndia/Dashboard1?:language=en-US&:display\_count=n&:origin=viz\_share\_link

#### Dashboard 2:

https://public.tableau.com/shared/9JKK9YHBX?:display\_count=n&:origin=viz\_share\_link

#### **Dashboard 3:**

https://public.tableau.com/views/LocationandNumberofBedRooms/Dashboard3 ?:language=en-US&:display\_count=n&:origin=viz\_share\_link

## **Dashboard 4:**

https://public.tableau.com/views/HousePriceandIntercom/Dashboard4?:languag e=en-US&:display\_count=n&:origin=viz\_share\_link

# **Story:**

https://public.tableau.com/views/Story1\_16966700596220/Story1?:language=en
-US&:display\_count=n&:origin=viz\_share\_link

