

ANALYSING HOUSING PRICES IN METROPOLITAN AREAS OF INDIA

PROJECT REPORT

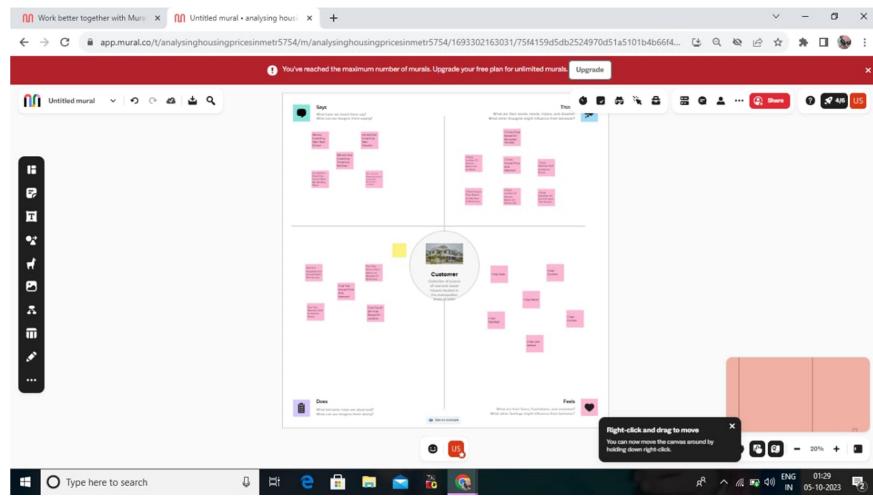
1) INTRODUCTION

PROJECT DESCRIPTION

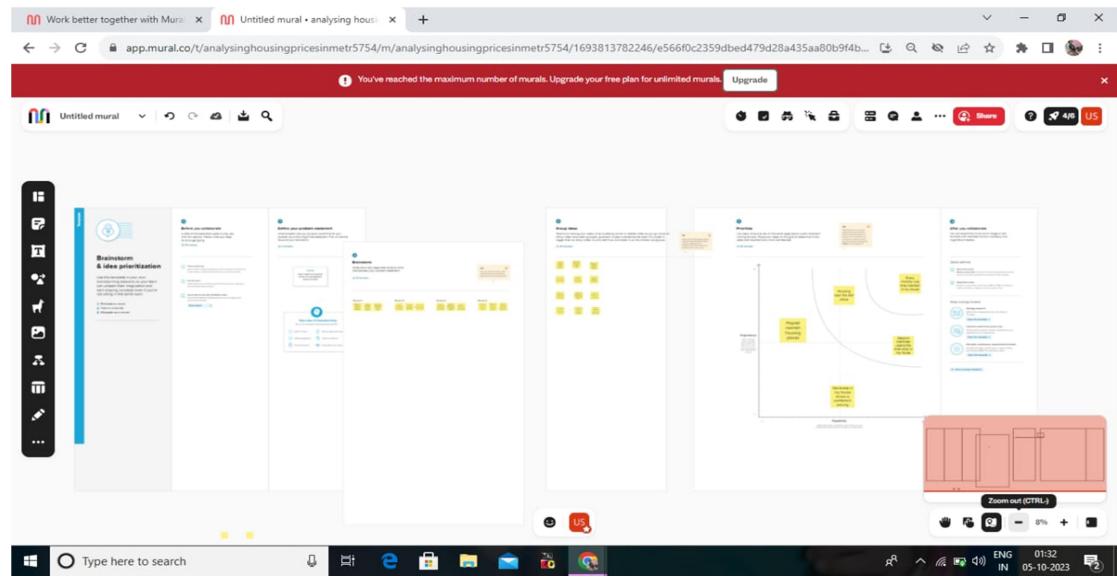
House price prediction in a metropolitan city in India is a valuable solution for potential home Buyers, real estate agents, and investors. By leveraging historical sales data, property details, and location – specific information, a predictive model can accurately estimate house prices. The model's scalability, real – time updated, 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 decision in the fast – paced real estate market.

2) PROBLEM DEFINITION & DESIGN THINKING:

2.1) EMPATHY MAP:



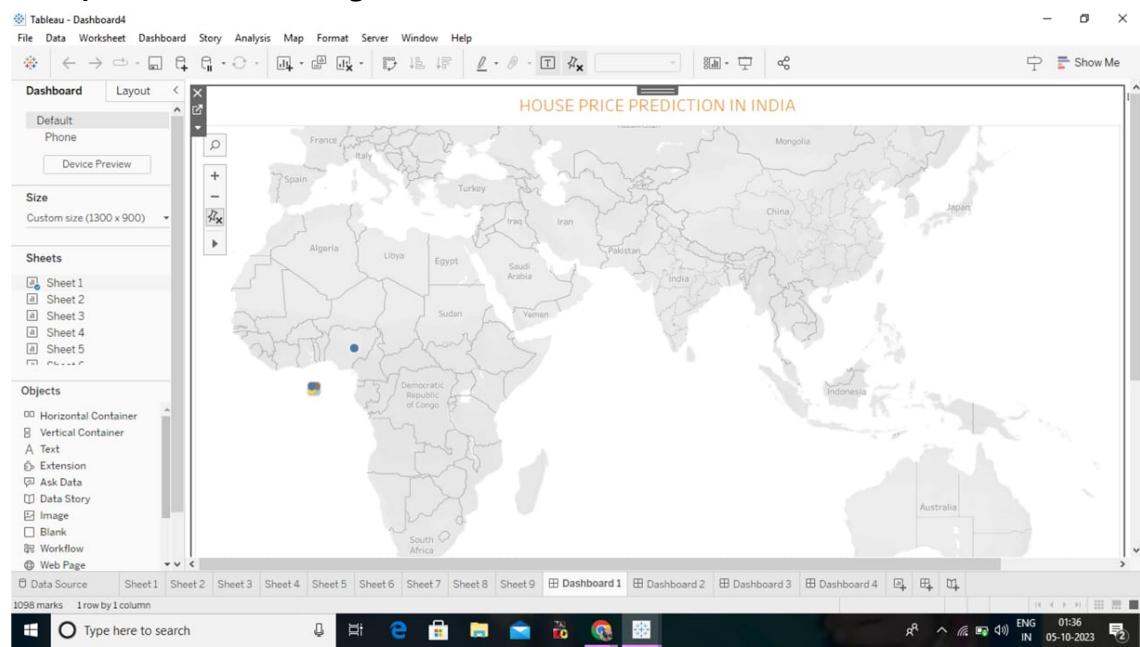
2.2) BRAINSTORMING MAP:



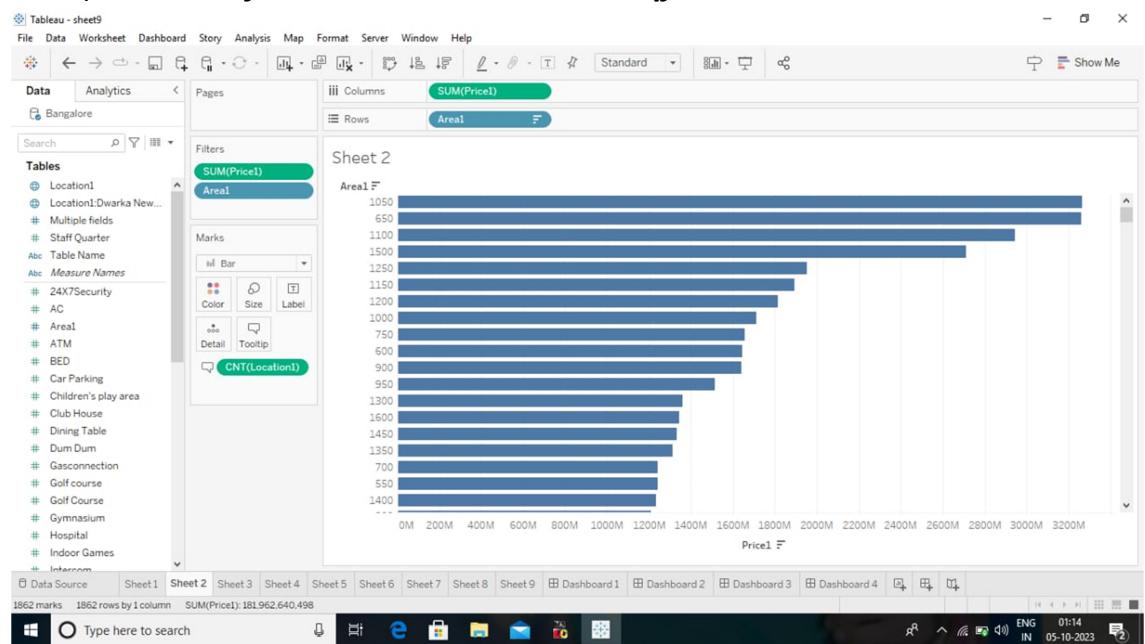
3) **RESULT:**

3.1) **SHEETS:**

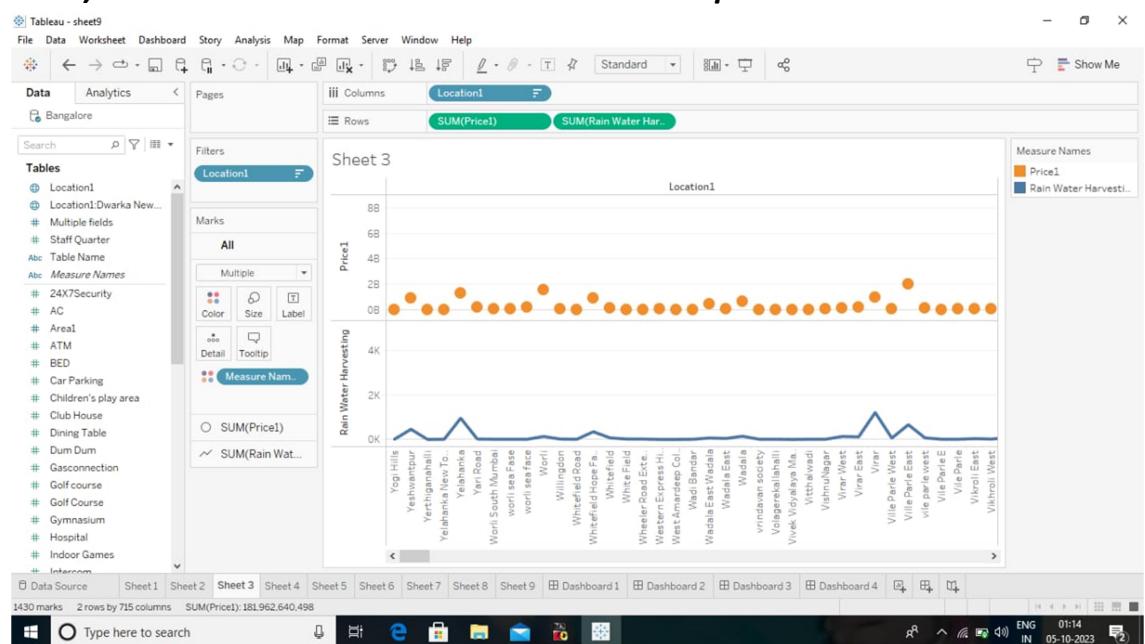
3.1.1) ***Latitude And Longitude Based on Location***



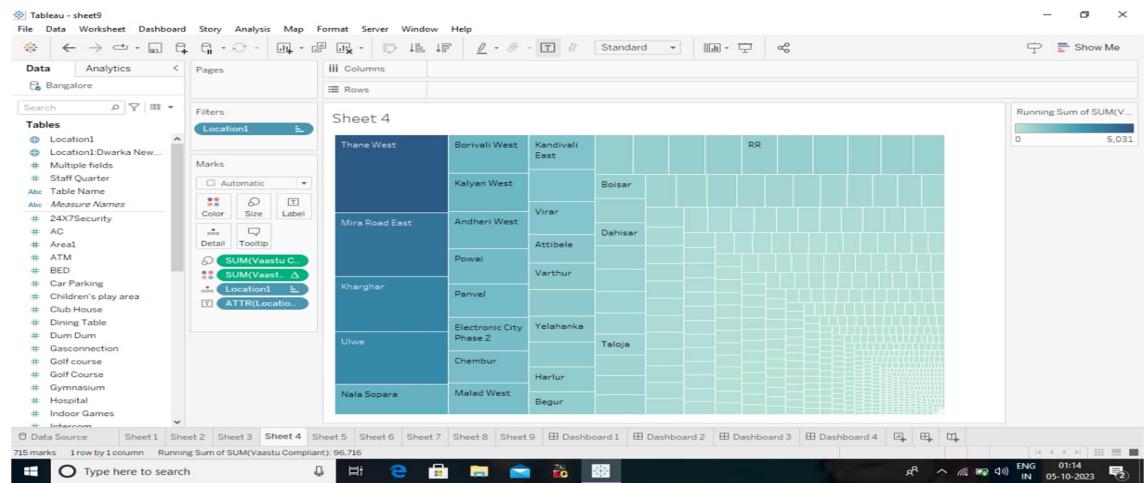
3.1.2) Number of Houses Based on Area in sqf



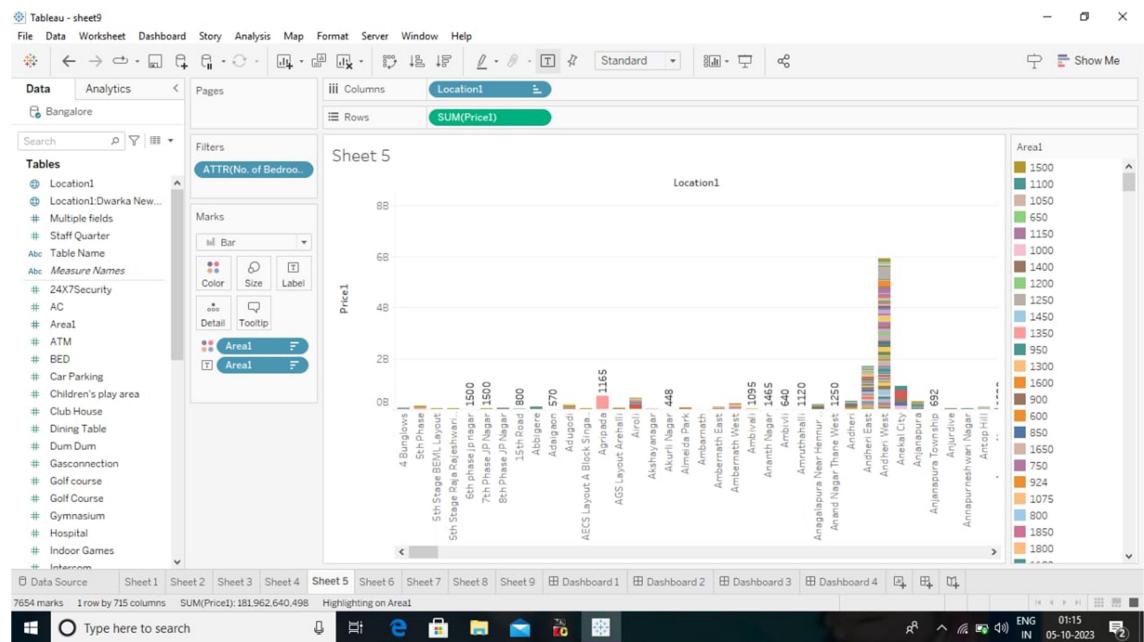
3.1.3) Houses Price Based on Rainwater Harvest pits



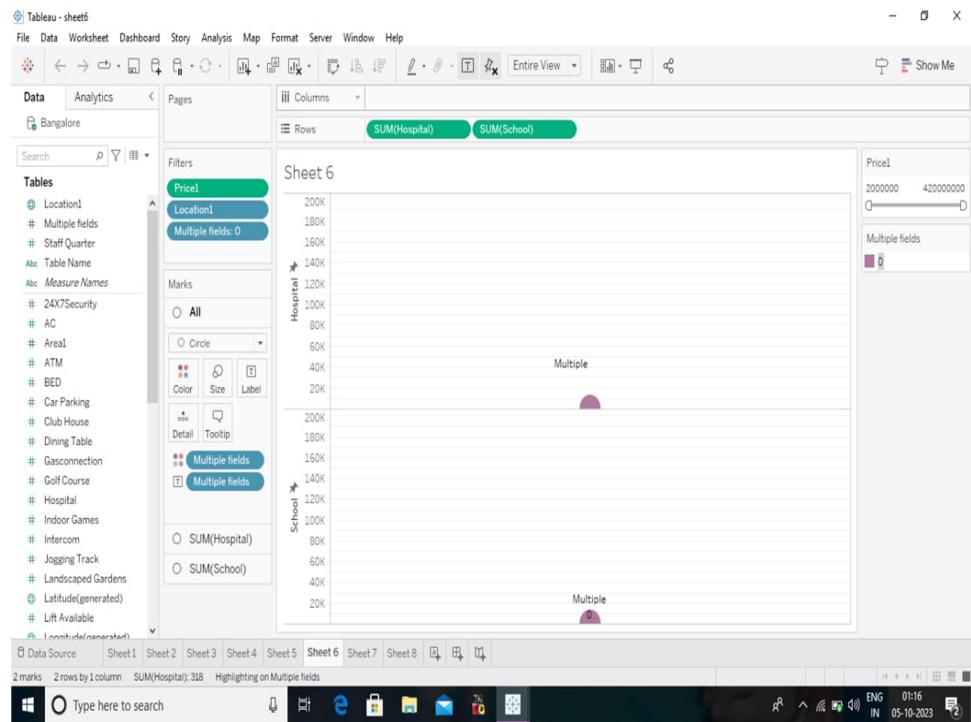
3.1.4) Vastu – Complaints Based on Location



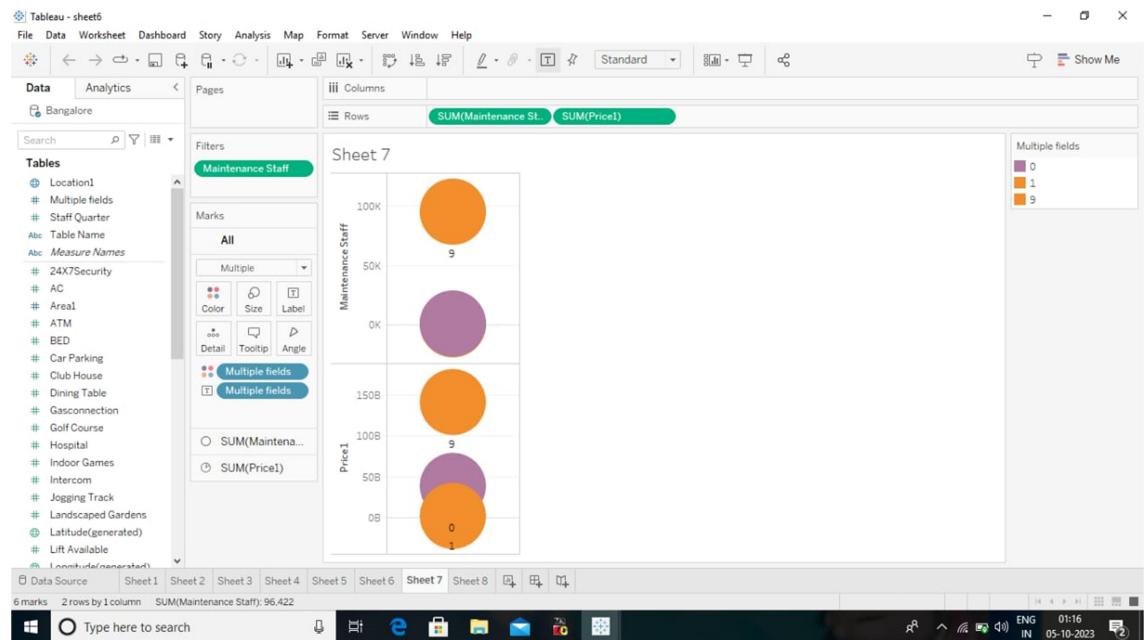
3.1.5) House Price Based on Number of Bedrooms



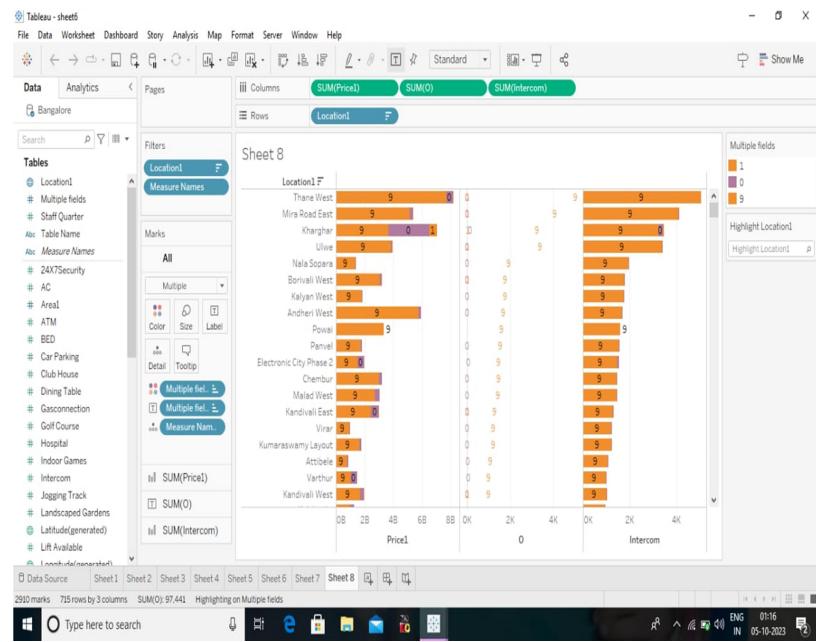
3.1.6) Hospitals And Schools Near The Houses



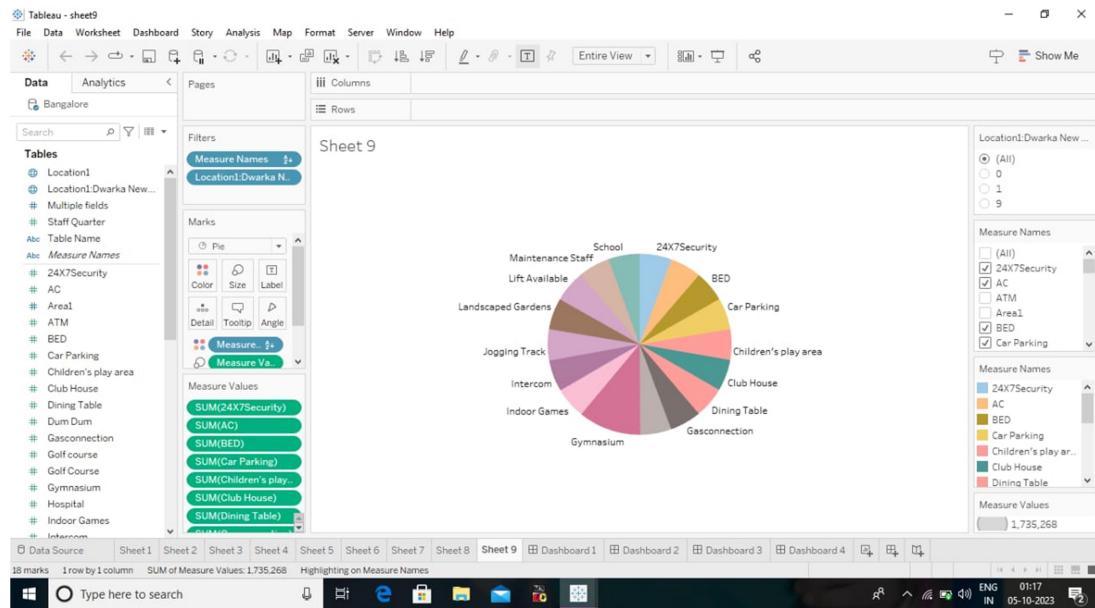
3.1.7) Maintains Staff in Houses Prices



3.1.8) House Price And Intercom

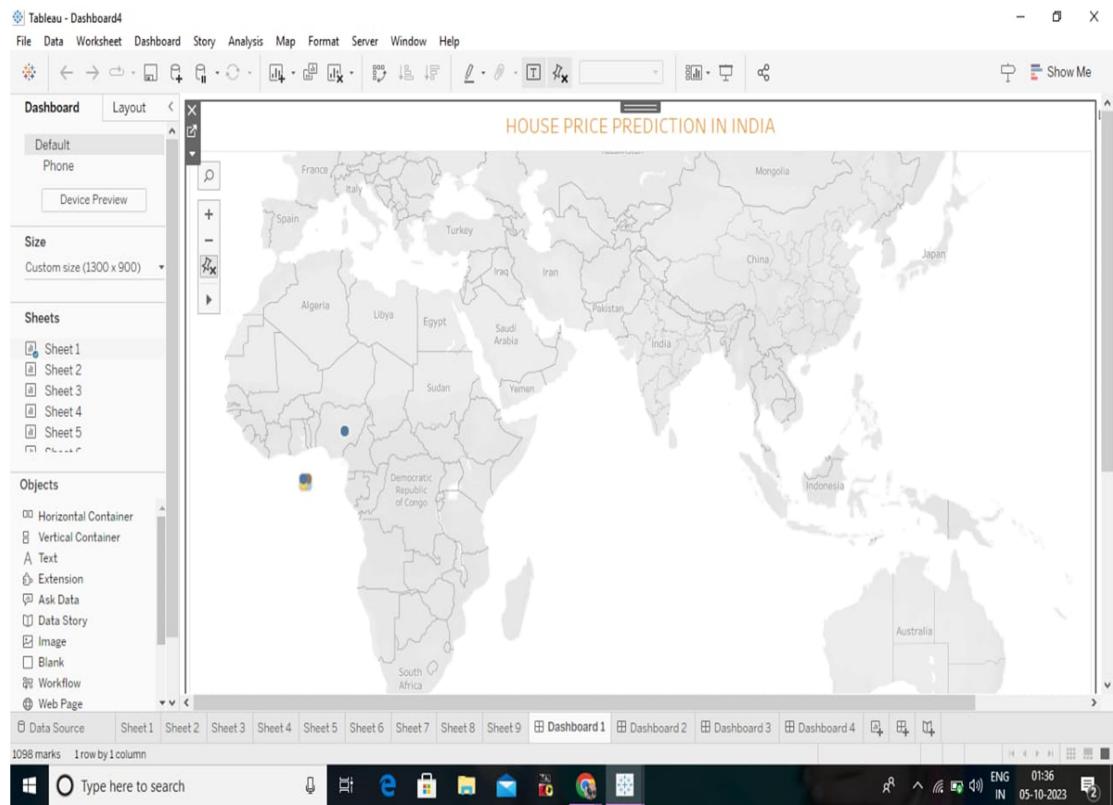


3.1.9) All Services Based on Location

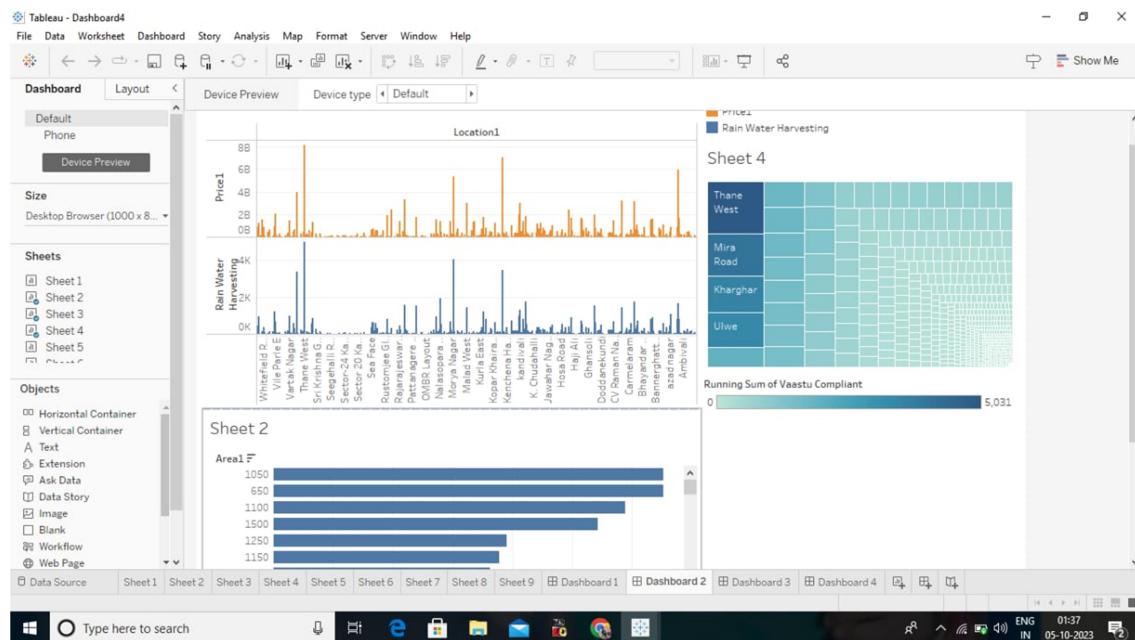


3.2) DASHBOARDS:

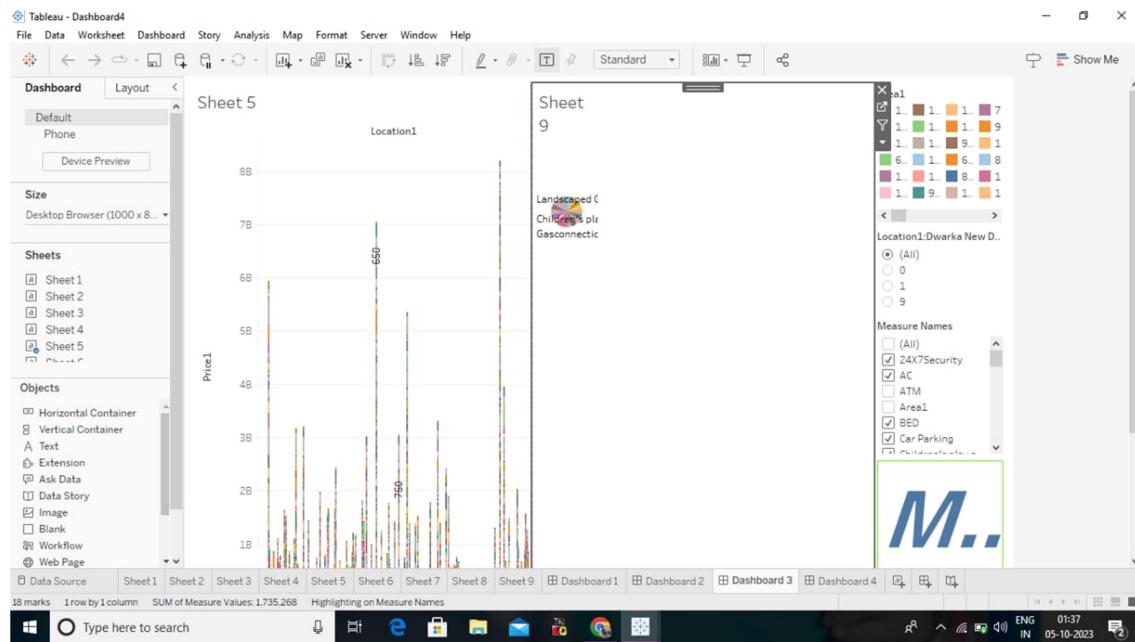
3.2.1) House Price Prediction in India



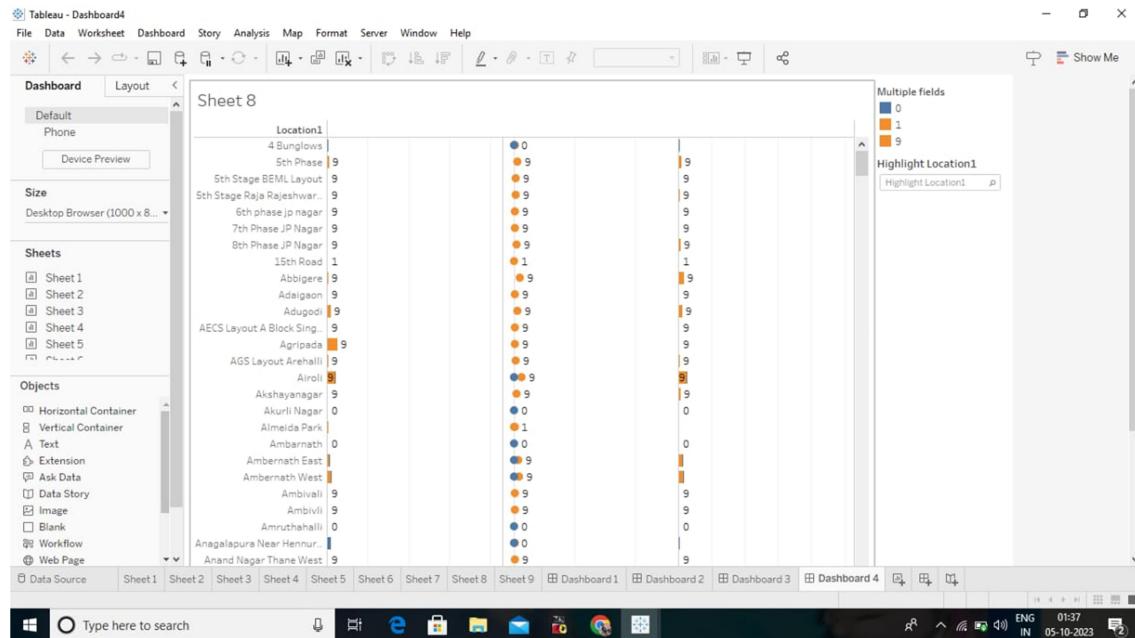
3.2.2)



3.2.3)

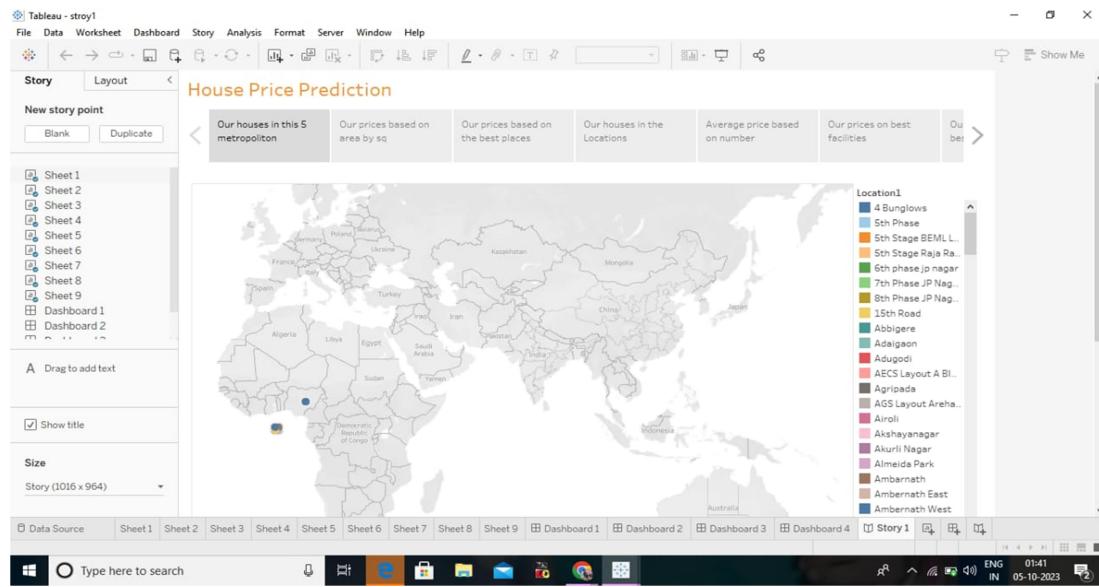


3.2.4)

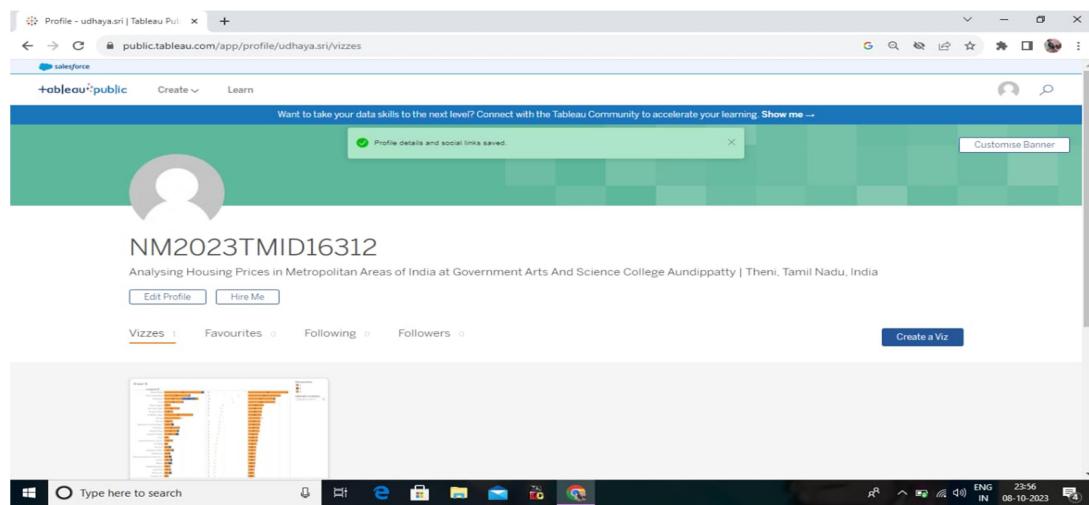


3.3) STORY

3.3.1)



3.4) TABLEAU ACCOUNT



4) ADVANTAGES AND DISADVANTAGES:

4.1) Advantages:

1) Investment Opportunities: It helps potential investors identify area with the potential for high returns on real estate investments.

2) Informed Buying/Selling: Homebuyers and sellers can make informed decisions based on market trends, ensuring they get a fair deal.

- 3) Economic Insights:** Housing market data can provide insights into the overall economic health of the region.
 - 4) Urban Planning:** Governments can use this data for urban planning and infrastructure development.
 - 5) Policy Formulation:** Policymakers can develop housing policies that address affordability and accessibility issues.
 - 6) Risk Assessment:** Banks and financial institutions use housing data to assess mortgage lending risks.
 - 7) Demographic Trends:** It can reveal population shifts and demographic changes that impact housing demand.
 - 8) Property Taxation:** Local governments use this data to determine property tax rates.
- 4.2) Disadvantages:**
- 1) Data Availability:** Comprehensive and up – to – date housing data may be difficult to obtain, making it challenging to conduct accurate analyses.
 - 2) Data Quality:** Inconsistent data quality and reporting standards across different sources can lead to unreliable results.
 - 3) Rapid changes:** Housing markets in metropolitan areas can be highly volatile, with prices changing rapidly, making it challenging to capture real – time trends accurately.
 - 4) Regional Variability:** Housing markets can vary significantly within a metropolitan area, and analyzing prices at a granular level may require extensive data resources.
 - 5) External Factors:** Factors like government policies, economic conditions, and infrastructure development can influence housing prices, making it hard to isolate specific variables.
 - 6) Data Bias:** Data may not fully represent all segments of the population, potentially leading to bias in the analysis.

7) Privacy Consists: Gathering detailed housing data analyse privacy information might be restricted.

8) Model Complexity: Creating accurate predictive models for housing prices involves complex factors and may require advanced statistical and machine learning techniques.

9) Interpretation challenges:

Interpreting the results of the analysis and translating them into actionable insights for policy or investment decisions can be a challenge.

10) Ethical Consideration: Ensuring that the analysis respects ethical standards and does not contribute to housing inequality or discrimination is essential.

5) APPLICATIONS:

1) Real Estate Investment: Investors can use housing price analysis to identify areas with potential for high returns on investment or to make informed decisions about buying, selling, or holding property.

2) Urban planning: City planners can use this data to understand the demand for housing in different neighborhoods, helping them make decisions about infrastructure development and zoning regulations.

3) Policy Formulation: Government agencies can use housing price analysis to create and adjust policies related to affordable housing, taxation, and property regulations.

4) Market Research: Businesses in the real estate and construction industries can benefit from understanding market trends to optimize their strategies and offerings.

5) Risk Assessment: Banks and financial institutions use housing price data to assess the risk associated with mortgage loans and to determine property valuations.

6) Housing Affordability Studies:

Researchers and nonprofits use this data to study housing affordability issues, identify areas with housing challenges, and advocate for solutions.

7) Predictive Modeling: *Data analysis can help create predictive models that forecast future housing price trends, aiding long – term planning and investment decisions.*

8) Consumer Decision – Making:

Individuals can use housing price data to make informed decisions about purchasing or renting homes, choosing neighborhoods, and negotiating prices.

9) Real Estate Valuations: *Property appraisers rely on housing price analysis to determine the value of homes for buyers, sellers, and lenders.*

10) Market Transparency: *Providing access to housing price data enhances market transparency, empowering all stakeholders to make better informed decisions.*

6) CONCLUSION:

In conclusion, analyzing housing prices in a metropolitan area of India is a complex but crucial endeavor with far – reaching implications. This analysis helps inform a variety of stakeholders, from investors and policymakers to urban planners and individuals looking for homes. However, it availability, quality, and ethical considerations.

Despite these challenges, the applications of housing price analysis are numerous and impactful. It aids in real estate investment decisions, urban planning, policy formulations, risk assessment, market research, and more. Furthermore, it contributes to market transparency and supports efforts to address housing affordability issues.

To conduct meaningful analyses in this context, it's essential to use robust data sources, advanced methodologies, and ethical guidelines. By doing so, stakeholders can harness the power of housing price analysis to make informed decisions, drive economic development, and ensure equitable access to housing in metropolitan areas of India.

7) FUTURE SCOPE:

- 1) Advanced Data Analytics:** *With the increasing availability of data and advancements in data analytics and machine learning, future analyses will become more accurate and insightful. Predictive models will, improve, providing better forecasts for housing market trends.*
- 2) Urbanization and Expansion:** *As India continues to urbanize, more metropolitan areas will emerge, expanding the scope for housing price analysis. This will require monitoring and analysis of housing markets in new regions.*
- 3) Sustainable and Smart Cities:** *The focus on sustainable and smart cities will impact housing trends. Analysis will impact housing trends. Analysis will incorporate factors like energy efficiency, green building practices, and technology integration.*
- 4) Affordable Housing Solutions:** *Given the ongoing need for affordable housing, future analyses will emphasize solutions to address affordability challenges and identify areas with the potential for affordable development.*
- 5) Government Initiatives:** *Housing policies and initiatives by the government will play a significant role. Analysis will assess the impact of these policies on housing prices and identify areas where government intervention is needed.*
- 6) Climate Change and Disaster Risk:** *Evaluating housing markets in the context of climate change and disaster risk will become increasingly important. This includes assessing vulnerability to natural disasters and climate – related factors.*
- 7) Digital Platforms and PropTech:** *Technology – driven platforms and PropTech (property technology) will facilitate analysis, facilitating real – time monitoring of the housing market.*
- 8) Housing Finance:**

Evolving financial instruments and mortgage markets will influence housing prices. Analysis will need to consider changing financing trends and their impact on demand.

9) Social and Demographic shifts:

Changing demographics, such as patterns, will influence housing demand. Future analyses will incorporate these demographic shifts.

10) Economic and Global Factors: The interconnectedness of economies and global events will continue to impact housing prices. Future analyses will need to consider international economic trends.

11) Ethical and inclusivity Considerations: Ethical considerations, such as housing equality and social inclusivity, will become more prominent. Analysis will focus on ensuring equitable access to housing.

12) Data Privacy and Security: As data privacy concerns grow, future analyses will need to address privacy issues while still extracting valuable insights from housing data.