

# Analysing Housing Prices in Metropolitan Areas of India

## \* 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 costeffectiveness 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.

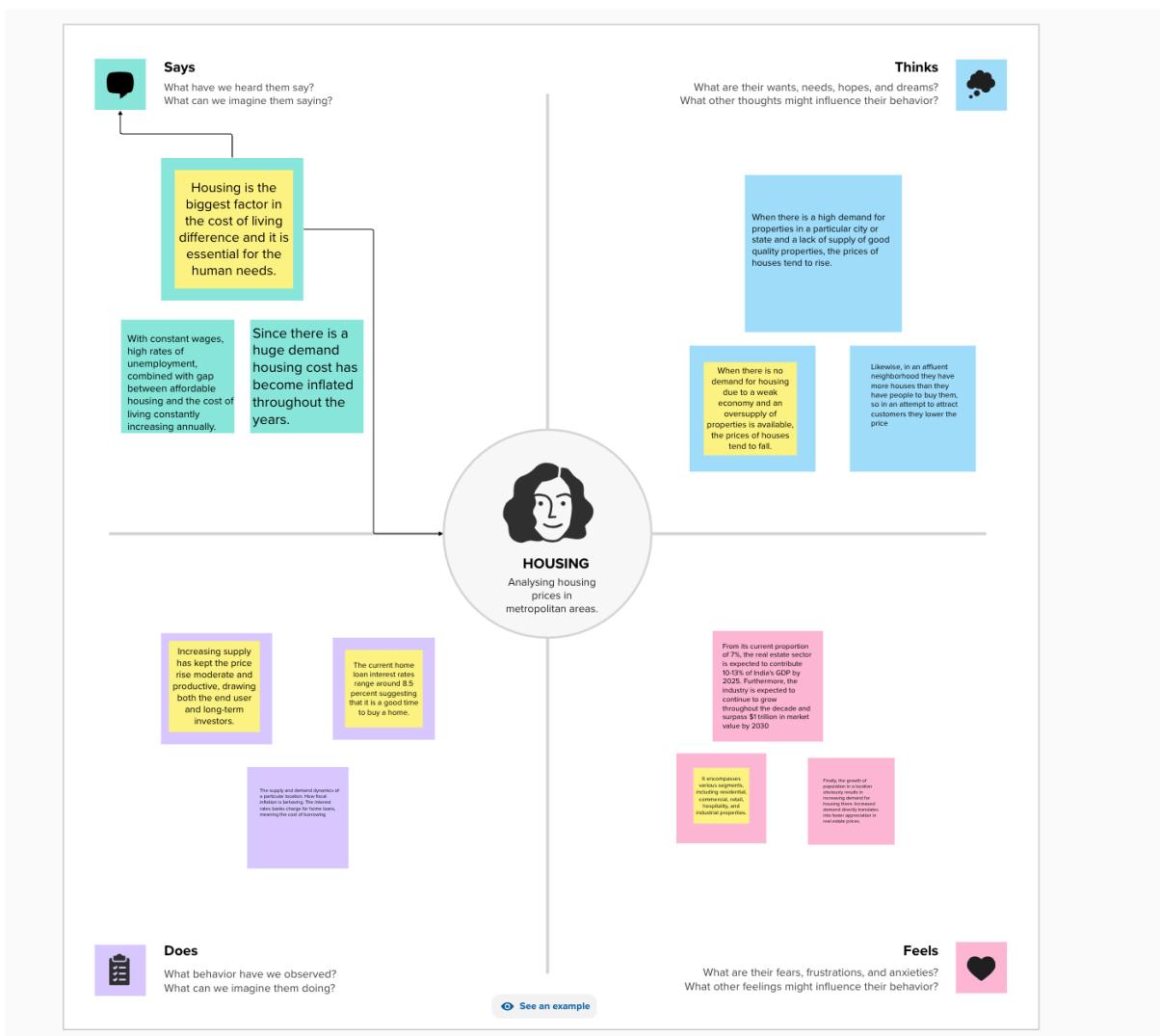
## • PURPOSE

1. **Real Estate Evaluation:** Real estate professionals and potential buyers or sellers analyze houses to determine their market value. This involves assessing the location, condition, size, and amenities of the house to determine its fair market price.
2. **Home Inspection:** Before purchasing a house, a home inspection is often conducted to identify any structural, electrical, plumbing, or other issues. This helps buyers make informed decisions and negotiate repairs or price adjustments.
3. **Appraisal:** Appraisers evaluate houses to determine their value for mortgage lending purposes. This is typically done by comparing the property to similar homes in the area and considering various factors affecting value.
4. **Energy Efficiency Analysis:** An analysis of a house's energy efficiency can be performed to identify areas where improvements can be made to reduce energy consumption and lower utility bills.
5. **Environmental Impact Assessment:** Some analyses of houses focus on their environmental impact, such as assessing their carbon footprint, energy usage, and sustainability features.
6. **Home Improvement Planning:** Homeowners may analyze their houses to plan renovations or improvements. This can involve assessing the structural integrity, layout, and available space for potential changes.

7. **Insurance Assessment:** Insurance companies may analyze houses to determine insurance premiums. Factors such as location, construction materials, and risk assessments are considered.
8. **Safety and Security Analysis:** A safety and security analysis is crucial for homeowners to identify vulnerabilities and take steps to protect their property from potential risks and hazards.
9. **Zoning and Regulatory Compliance:** When building or renovating a house, it's essential to analyze its compliance with local zoning and building regulations to ensure it meets legal requirements.
10. **Historical Preservation Analysis:** For historic homes, analysis may focus on preserving and maintaining architectural and historical features while making necessary updates.
11. **Market Research:** Real estate professionals and developers may analyze houses to gather data for market research, helping them understand trends, demand, and opportunities in the housing market.
12. **Financial Planning:** Homeowners may analyze their houses as part of their overall financial planning. This can include assessing the potential for home equity, tax implications, and investment value.

## PROBLEM DEFINITION AND DESIGN THINKING

### EMPATHY MAP



# IDEATION AND BRAINSTORMING MAP

**Brainstorm & idea prioritization**

Use this template for your own brainstorming sessions so your team can unleash their imagination and generate ideas even if they're not sitting in the same room.

**Before you collaborate**

A lot of ideation goes a long way to get great ideas. Here's how to do it:

- 10 minutes
- 2 people
- 1 room required

**Define your problem statement**

What problem are you trying to solve? For your problem statement to work, it must be the focus of your brainstorm.

**15 minutes**

**Brainstorm**

Write down any ideas that come to mind that relate to your problem statement.

**30 minutes**

**Group ideas**

Take turns sharing your ideas while clustering similar or related notes as you go. Once all ideas have been shared, group them into categories and then break them into sub-groups.

**30 minutes**

**Prioritize**

Your team should sit on the same page about which important ideas to prioritize. Use this chart to determine which ideas are important and which are feasible.

**30 minutes**

**After you collaborate**

You can export the notes as an image or PDF for review and discussion with your team.

**Quick wins**

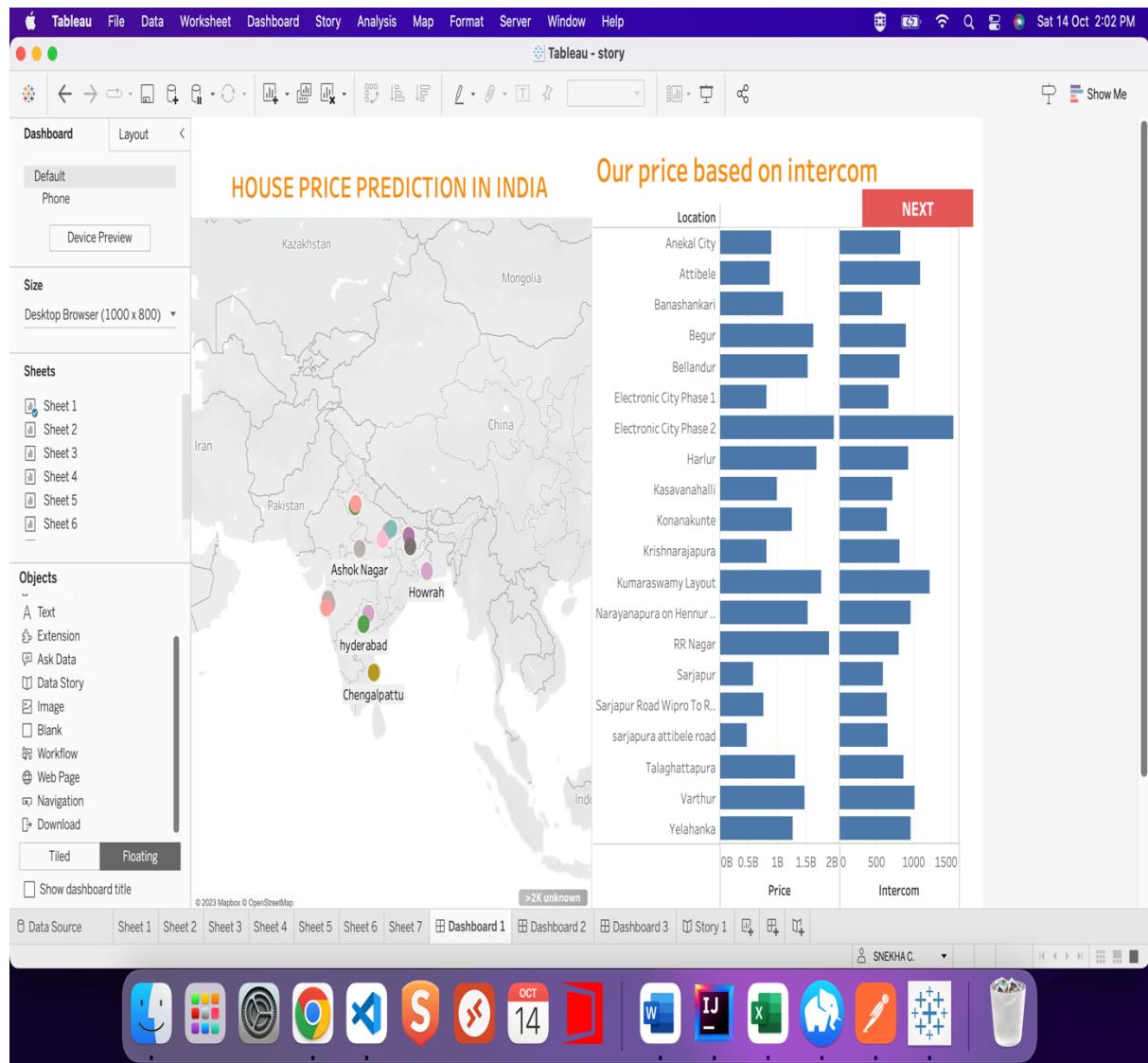
- Brainstorm
- Brainstorm in pairs or small groups to keep the session moving.
- Report the results
- Share copy of the notes as a PDF or image to keep the discussion moving.

**Keep moving forward**

- Bridge insights
- Bridge insights from one idea to another.
- Customize journey map
- Open discussions
- Brainstorm feedback

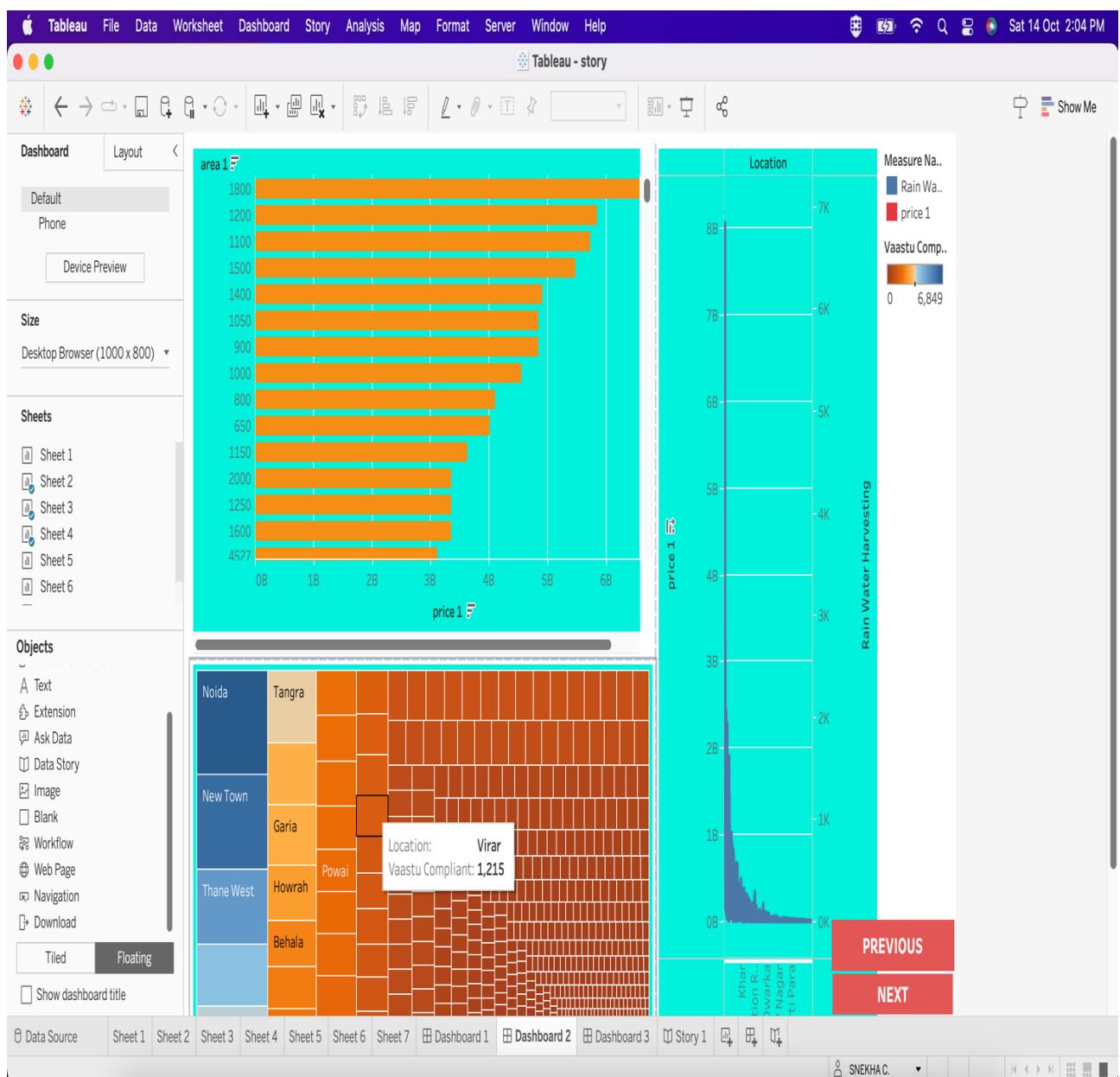
## RESULT

### # DASHBOARD 1



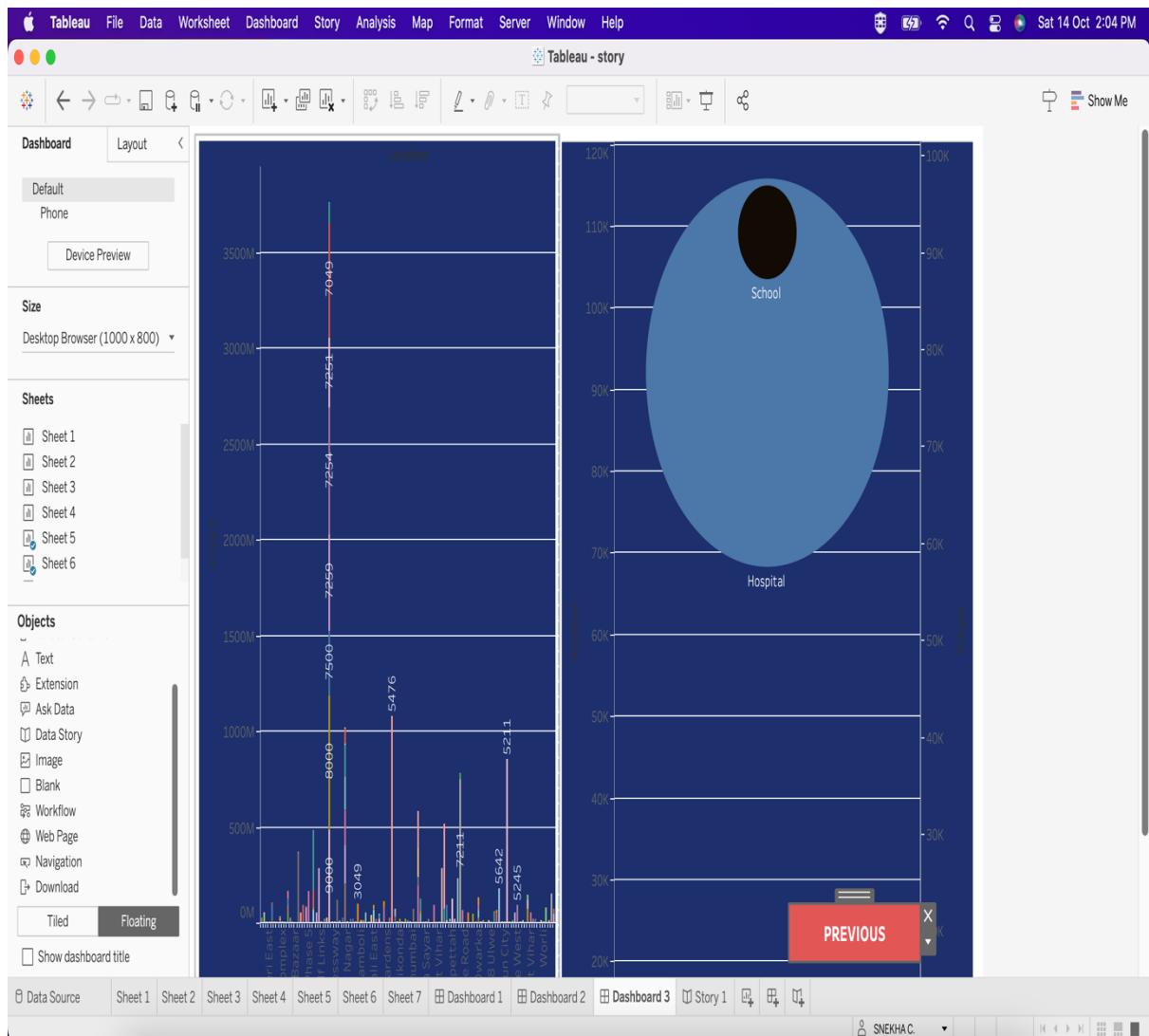
A dashboard for house price analysis provides a visual and interactive way to explore and understand various factors affecting housing prices. Below are some key components and features that can be included in a dashboard for house price analysis

## # DASHBOARD 2



Developing a house price analysis dashboard often involves data integration, data visualization tools, and web development expertise. The goal is to provide users with an intuitive and informative interface for exploring and understanding housing market dynamics.

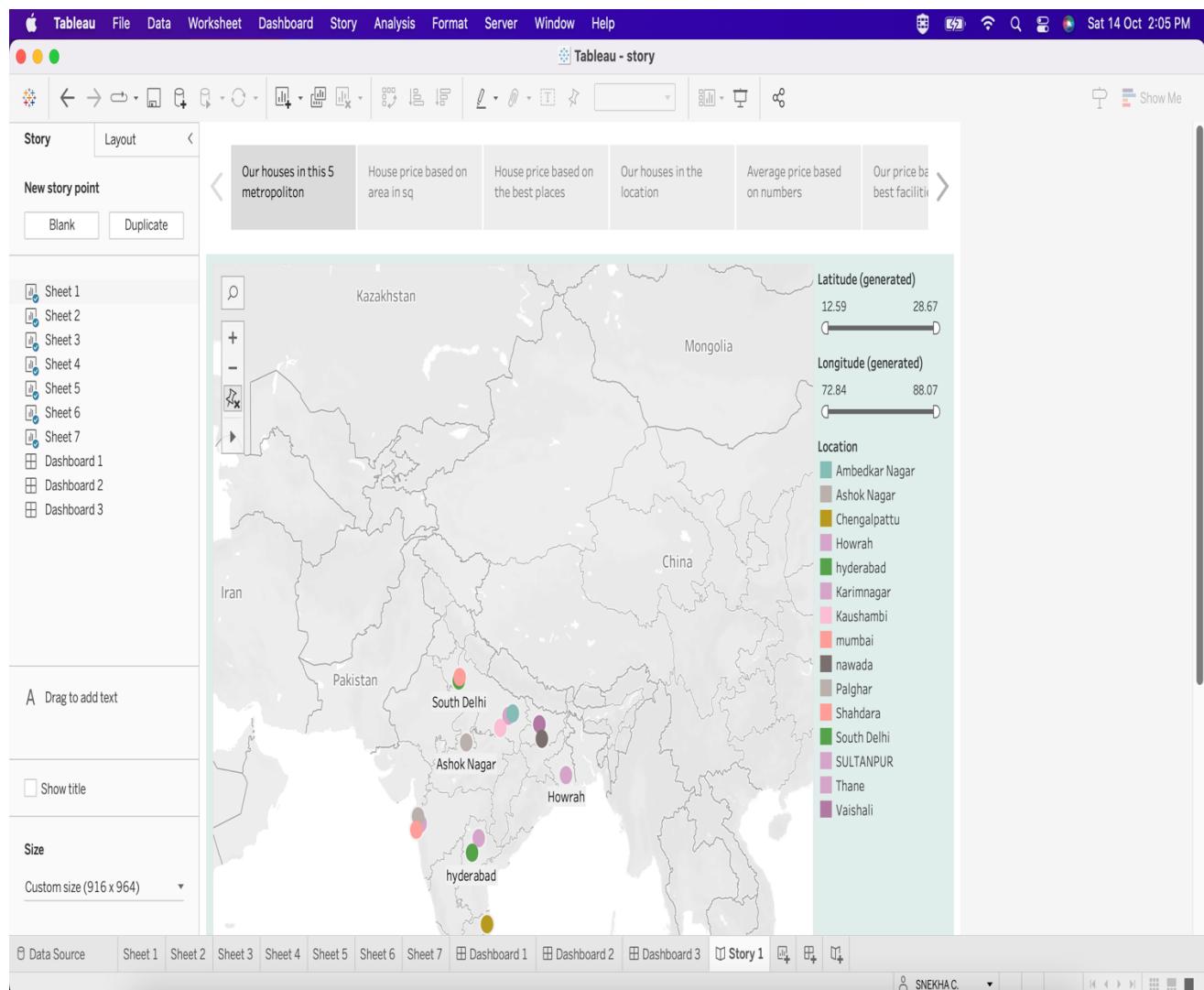
## # DASHBOARD 3



- User-friendly filters to refine property search based on criteria like price range, location, property type, and features.
- Sorting options for sorting properties by price, size, or other factors

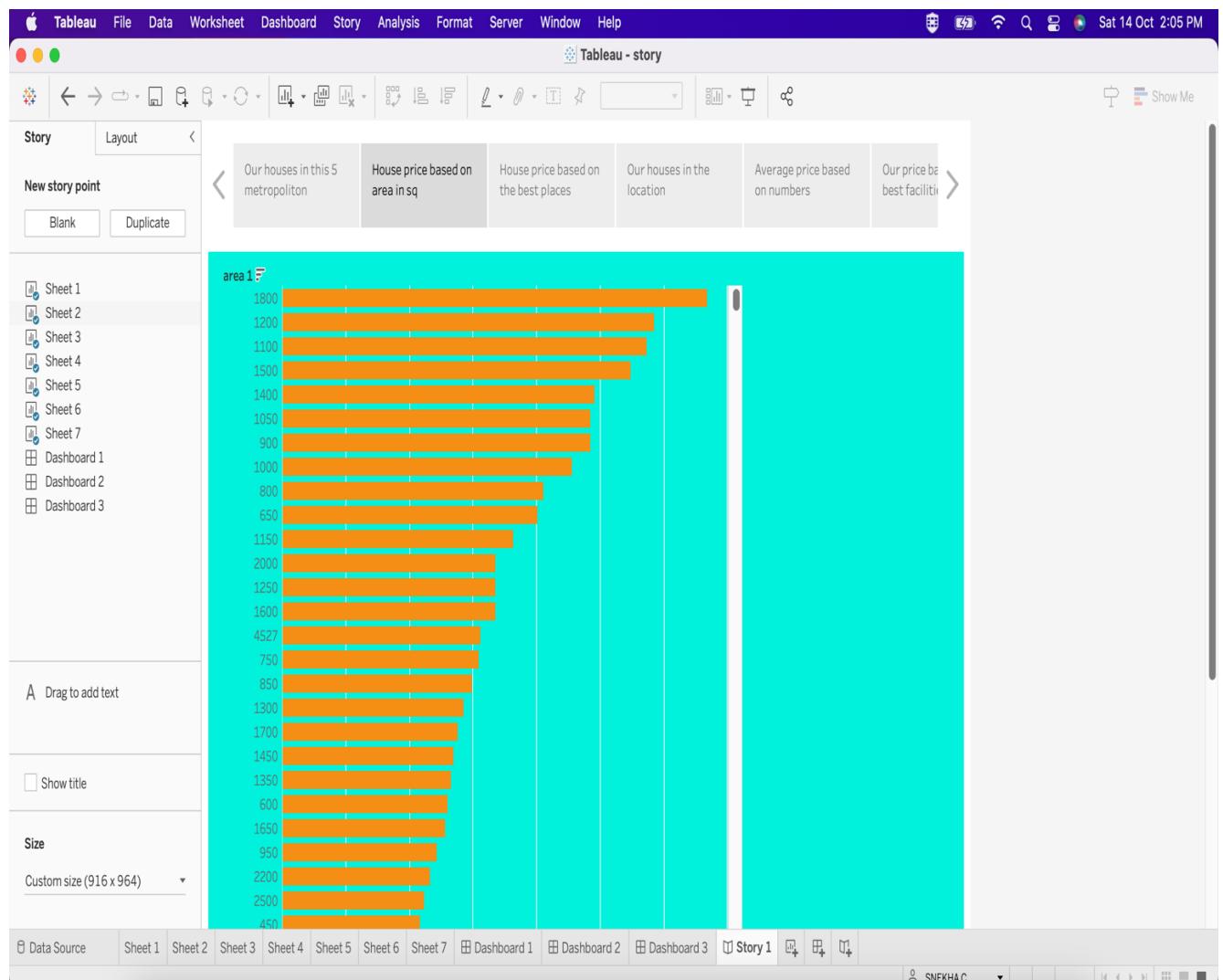
# STORY

## # OUR HOUSES IN THE METROPLITANT



Metropolitan areas, often referred to as cities or urban areas, are characterized by high population density, various economic activities, and a concentration of infrastructure and services. Houses in metropolitan areas can vary significantly in terms of size, style, price, and location. Here are some key points to consider about houses in metropolitan areas:

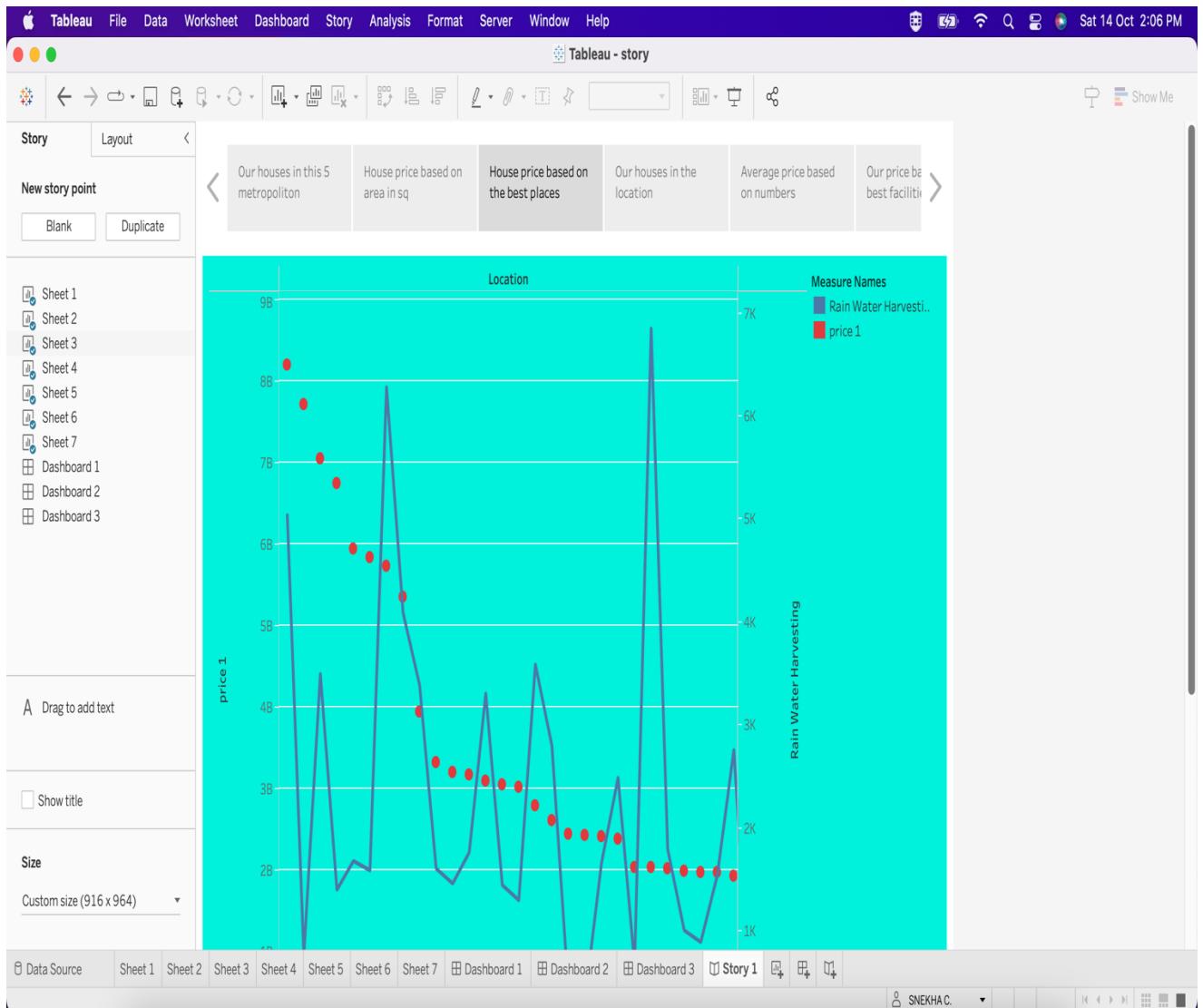
## #HOUSE PRICE BASED ON AREAS



House prices in India can vary significantly based on the area or location within the country. India is a diverse nation with varying levels of economic development, infrastructure, and demand for housing. Here are some key factors that influence house prices in different areas of India:

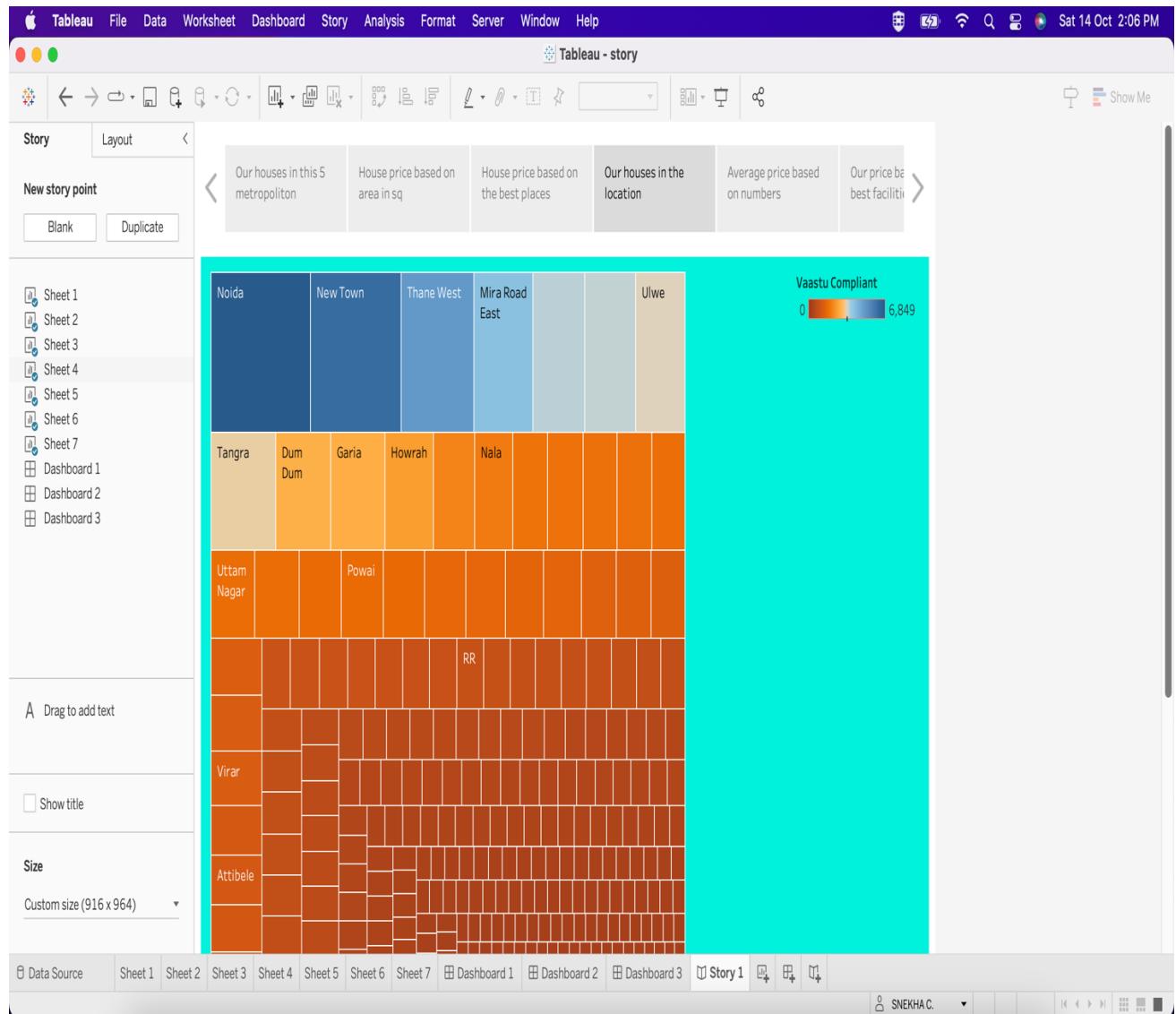
It's essential to research and understand these factors when considering buying or investing in property in India. House prices can vary greatly, so it's crucial to evaluate your budget, needs, and long-term goals when making a decision. Additionally, working with a local real estate agent who has knowledge of the specific area you are interested in can be beneficial in navigating the Indian real estate market.

## #HOUSE PRICE BASED ON THE BEST PLACES



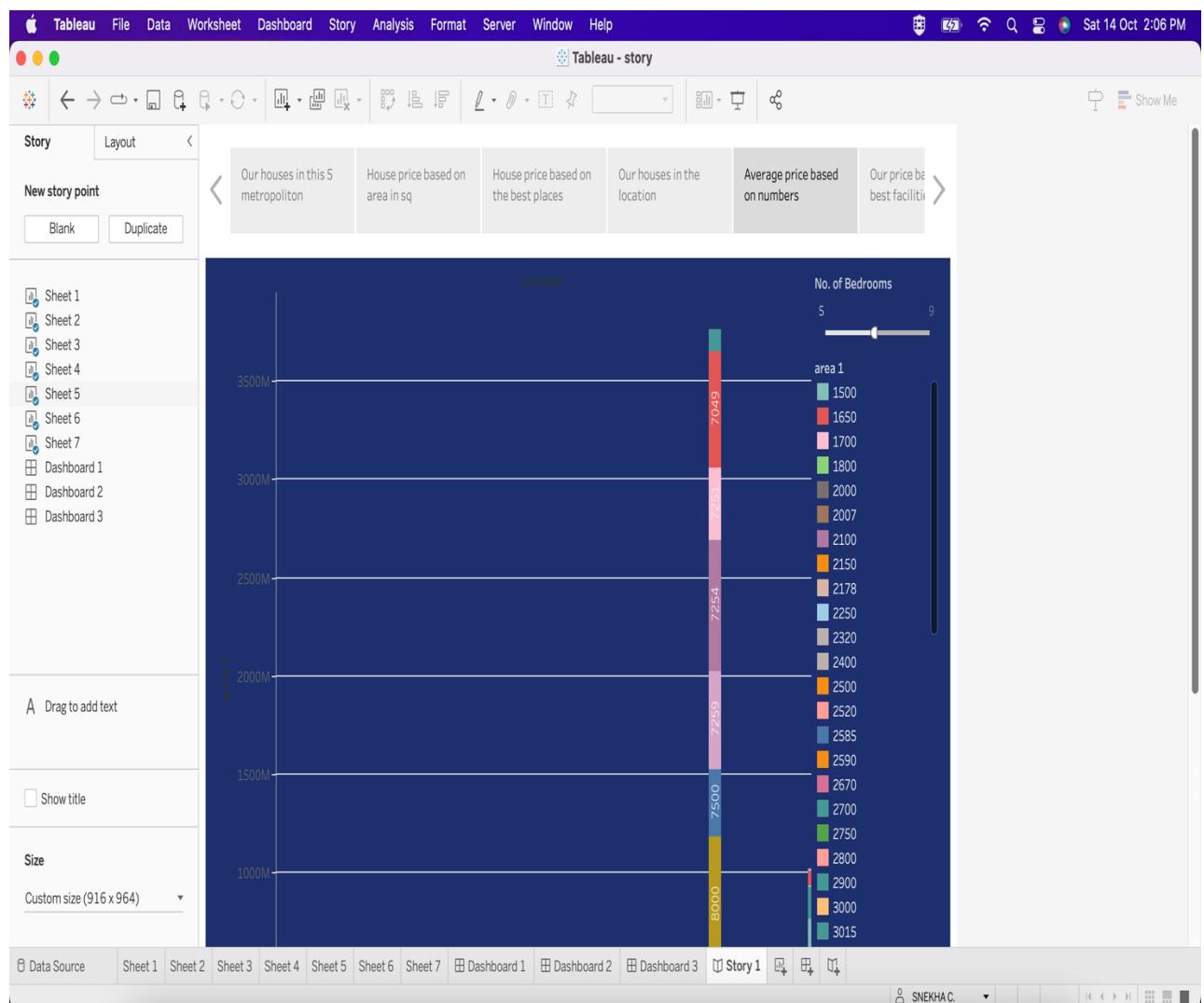
Keep in mind that what constitutes the "best place" can vary based on individual preferences, needs, and budget. It's essential to consider your own priorities and research specific areas that align with your criteria when looking for a property. Additionally, consulting with a local real estate agent who understands the local market and can provide guidance on your specific needs can be helpful in your search for the "best" place to buy a house.

## #OUR HOUSES IN THE LOCATION



When choosing the location of a house in India, it's essential to consider factors such as your employment or business opportunities, lifestyle preferences, climate, and budget. Each location has its own unique characteristics and advantages, so it's important to research and visit the area to determine if it meets your specific needs and expectations. Additionally, consulting with local real estate agents can provide valuable insights into the housing options available in a particular location.

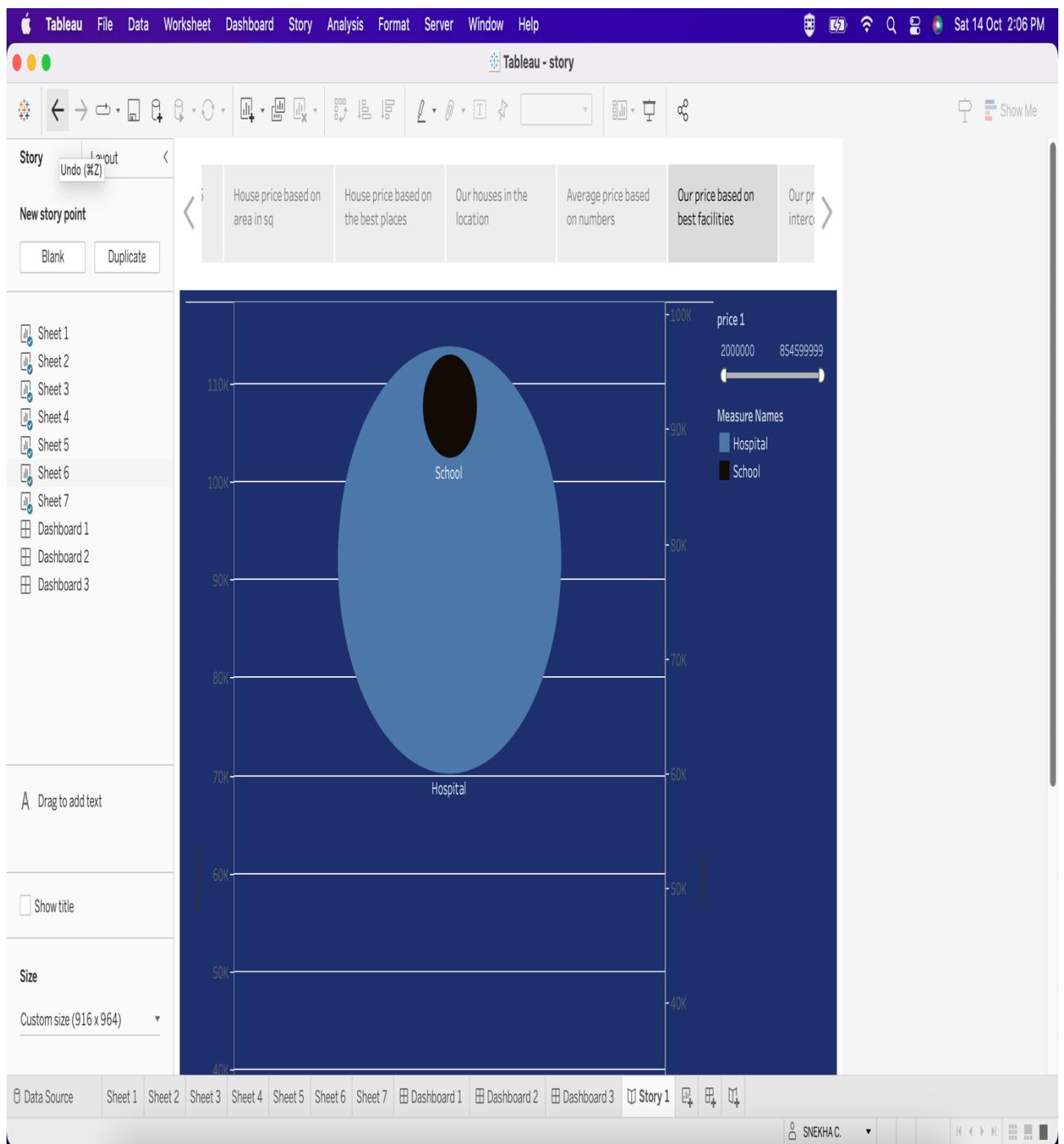
## #AVERAGE PRICE BASED ON NUMBERS



It's important to note that these are approximate figures, and property prices can change over time due to market dynamics, economic conditions, and other factors. Moreover, these prices are just averages, and there can be significant variations within each city, depending on factors like location, property type, and amenities.

For the most up-to-date and specific information on house prices in India, I recommend consulting real estate websites, local real estate agents, or official government sources. Keep in mind that property prices can vary considerably not only between cities but also within neighborhoods in the same city.

## #OUR PRICE BASED ON BEST FACILITIES



## **Building a School:**

1. **Educational Needs:** Assess the educational needs of your community. Consider factors like the number of students, the availability and quality of existing schools, and the demand for education.
2. **Budget:** Determine your budget for constructing a school. The size, facilities, and location of the school will impact the construction costs.
3. **Location:** Choose an appropriate location for the school. It should be easily accessible to the target student population and compliant with local zoning regulations.
4. **Facilities:** Decide on the facilities and resources the school will offer. This may include classrooms, libraries, labs, sports facilities, and administrative offices.
5. **Educational Goals:** Define the educational goals and mission of the school. Will it be a primary school, high school, or specialized institution?

## **Building a Hospital:**

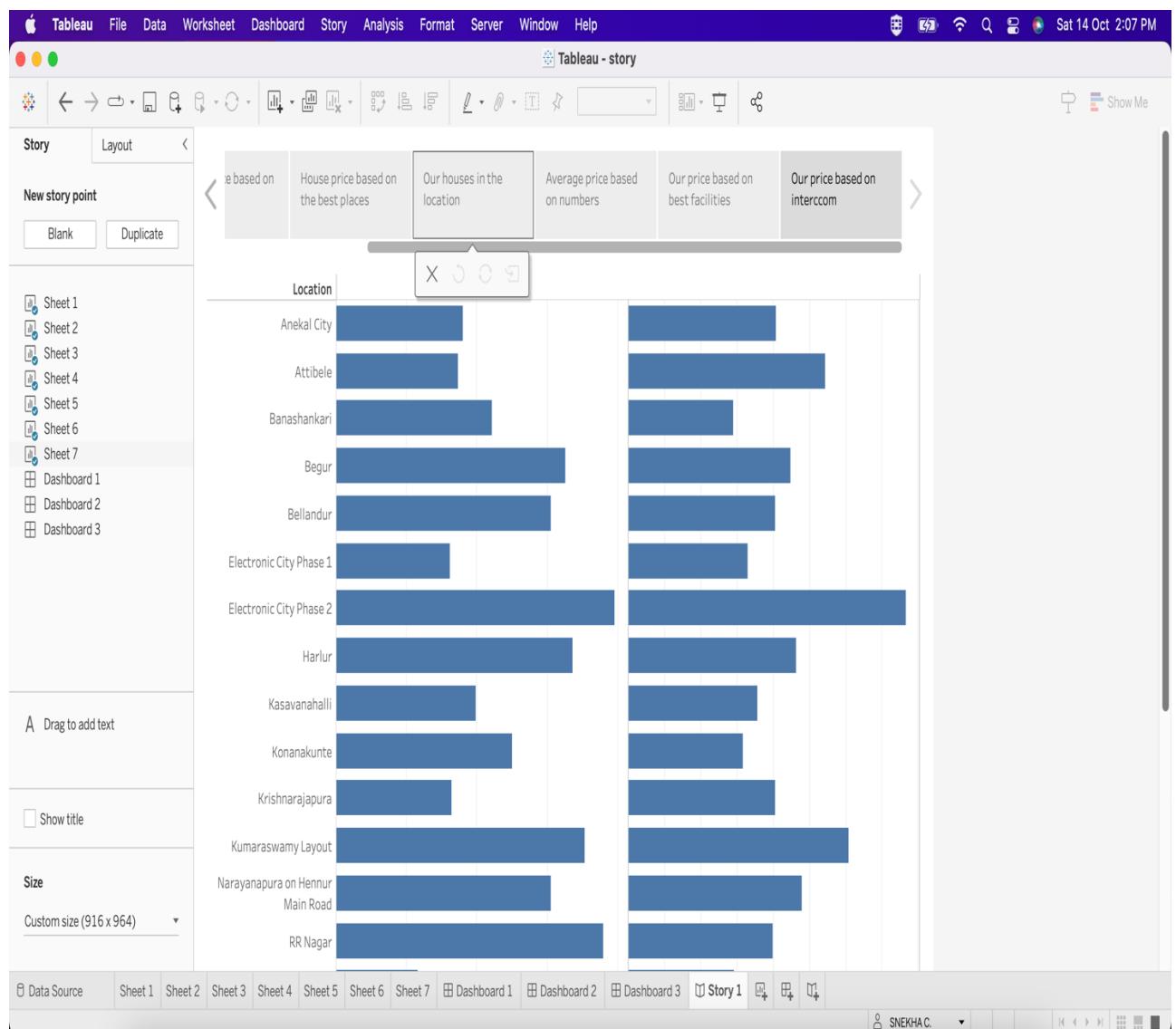
1. **Healthcare Needs:** Assess the healthcare needs of your community. Consider factors like population size, the availability of existing healthcare facilities, and the demand for medical services.
2. **Budget:** Determine your budget for constructing a hospital. Hospital construction is typically more complex and expensive than school construction due to medical equipment and specialized infrastructure.
3. **Location:** Choose a strategic location for the hospital. It should be easily accessible to the target patient population and comply with healthcare regulations.
4. **Specialties and Services:** Decide on the medical specialties and services the hospital will offer, such as general healthcare, specialized clinics, or emergency care.
5. **Regulations and Accreditation:** Be aware of healthcare regulations and the need for accreditation. Compliance with medical standards is crucial for a hospital.

### **Factors to Consider:**

1. **Community Priorities:** Consider the immediate priorities of your community. Are there pressing educational needs or a lack of healthcare services?
2. **Funding:** Secure the necessary funding for your project. Grants, donations, government support, and private investments may be sources of funding.
3. **Long-Term Sustainability:** Consider the long-term sustainability of your project. Both schools and hospitals have operational and maintenance costs that should be factored into your budget.
4. **Partnerships:** Explore potential partnerships with government agencies, non-profit organizations, or private sector entities that may support your project.
5. **Impact Assessment:** Perform an impact assessment to understand the social, economic, and health outcomes of your project. This can help justify your choice to build a school or hospital.

Ultimately, the choice between building a school or a hospital should be based on a careful evaluation of your community's needs and available resources. In some cases, it may be more beneficial to prioritize both education and healthcare by constructing a school and a hospital to address the diverse needs of the community

## #OUR PRICE BAED ON INTERCOM



The presence of an intercom system in a house typically doesn't have a direct impact on the house price. House prices are primarily influenced by a wide range of factors related to the property itself, its location, and the local real estate market. While an intercom system can add convenience and security to a home, it is considered a relatively minor feature in the context of house pricing.

## #. ADVANTAGES

Analyzing houses in India, just like in any other country, offers various advantages. In the Indian context, house analysis can be particularly beneficial due to the country's diverse real estate market and unique challenges. Here are some advantages of house analysis in India:

1. **Informed Decision-Making:** House analysis provides potential homebuyers and investors with critical information to make informed decisions about purchasing property. This includes assessing property values, condition, and investment potential.
2. **Price Transparency:** Analyzing houses helps establish fair market values, which can contribute to price transparency and prevent overpricing or underpricing of properties.
3. **Market Trends:** House analysis allows individuals to understand current market trends and dynamics. This is crucial for both buyers and sellers to make strategic choices.
4. **Investment Opportunities:** It helps investors identify potential opportunities, such as areas with high growth potential, emerging markets, or distressed properties that can be purchased at a discount.
5. **Risk Assessment:** For real estate developers and investors, house analysis enables them to assess the risks associated with property development or investment, including regulatory compliance, market saturation, and economic conditions.
6. **Legal Compliance:** It ensures that properties meet legal requirements and regulatory standards, helping avoid legal issues in the future.
7. **Energy Efficiency:** In an energy-conscious world, house analysis can evaluate a property's energy efficiency, helping homeowners save on utility bills and reduce their environmental footprint.
8. **Home Inspection:** A comprehensive house analysis, including a home inspection, can reveal any structural, electrical, plumbing, or other issues that

- need attention, ensuring that buyers are aware of necessary repairs or renovations.
9. **Valuation for Financing:** Financial institutions and lenders require property valuation for mortgage loans. House analysis provides the basis for this valuation, enabling individuals to secure financing.
  10. **Property Improvement:** Homeowners can use house analysis to plan home improvement projects, increase the property's value, and enhance their living environment.

## # DISADVANTAGES

While house analysis in India offers numerous benefits, it also comes with its share of disadvantages and challenges. Here are some of the potential disadvantages of house analysis in India:

1. **Limited Data Availability:** Comprehensive and reliable real estate data may be limited in certain regions, making it challenging to conduct thorough analysis, especially in smaller towns or rural areas.
2. **Variability in Regulations:** Real estate regulations and documentation requirements can vary widely across different states and cities in India, leading to complexities and inconsistencies in the analysis process.
3. **Rapid Market Changes:** The Indian real estate market can experience rapid fluctuations in property prices, making it difficult to predict long-term trends accurately.
4. **Non-Standardized Valuations:** There is a lack of standardized valuation methods, which can lead to differing property valuations and potential disputes during transactions.
5. **Bureaucratic Processes:** Property transactions in India can involve bureaucratic and administrative complexities, which may slow down the analysis and purchasing process.
6. **Unorganized Sector:** The Indian real estate sector has many unorganized and informal players, making it challenging to obtain reliable information on property values, ownership, and legal documentation.
7. **Title and Ownership Issues:** India's property market has been known to have issues with unclear property titles, encroachments, and ownership disputes, which can complicate the analysis and transaction process.
8. **Hidden Costs:** There may be hidden costs and fees associated with property transactions, such as stamp duties, registration fees, and legal fees, which can impact the overall cost.
9. **Property Fraud:** The real estate sector in India is susceptible to property fraud, including fraudulent land titles, making due diligence and property analysis critical to avoid falling victim to scams.

10. **Environmental and Regulatory Compliance:** India's real estate market faces challenges related to environmental compliance, such as illegal constructions, and regulatory compliance, which can affect the value of properties.

## CONCLUSION

In conclusion, house analysis is a crucial process in the real estate industry that involves evaluating various factors related to a property to make informed decisions. Whether you are a prospective buyer, seller, investor, or developer, analyzing houses is essential for several reasons. Here are some key takeaways:

1. **Informed Decision-Making:** House analysis provides the necessary data and insights to make informed decisions about buying, selling, or investing in real estate.
2. **Property Valuation:** It helps determine the fair market value of a property, considering factors like location, condition, amenities, and market trends.
3. **Risk Mitigation:** It identifies potential risks and issues with a property, such as structural problems or legal complications, allowing for informed risk mitigation.
4. **Market Trends and Insights:** House analysis offers a deeper understanding of local real estate market trends, which can guide your investment strategies.
5. **Financial Planning:** Property analysis helps with financial planning, including budgeting, obtaining mortgages, and understanding property taxation.
6. **Regulatory Compliance:** Ensures that properties meet legal and regulatory requirements, minimizing the risk of legal issues in the future.
7. **Energy Efficiency and Sustainability:** It assesses a property's energy efficiency and sustainability features, which can lead to cost savings and reduced environmental impact.
8. **Negotiation Leverage:** Buyers and sellers can use the results of house analysis to negotiate better terms and prices in real estate transactions.

9. **Long-Term Investment:** For investors, it supports long-term investment strategies and helps identify growth opportunities.
10. **Due Diligence:** House analysis is a vital part of due diligence when engaging in real estate transactions, helping avoid costly mistakes

## FUTURE SCOPE

The future scope of house analysis, also known as real estate analysis or property analysis, is expected to continue evolving and expanding due to technological advancements, changing market dynamics, and shifting consumer preferences. Here are some key areas where the future of house analysis is likely to develop:

1. **Data Analytics and AI:** The use of advanced data analytics and artificial intelligence (AI) is expected to play a significant role in predicting property values, market trends, and investment opportunities. AI-driven platforms can analyze vast amounts of data to provide more accurate property valuations and investment recommendations.
2. **Virtual Reality (VR) and Augmented Reality (AR):** VR and AR technologies are already being used for virtual property tours and visualization. In the future, these technologies may become more immersive, allowing buyers to experience properties in more detail, which can significantly impact the buying process.
3. **Blockchain for Property Transactions:** Blockchain technology is expected to revolutionize the property transaction process by ensuring transparency and security in real estate transactions. Smart contracts could simplify and expedite the buying and selling of properties.
4. **Green and Sustainable Property Analysis:** With growing environmental awareness, there will be an increased focus on analyzing the sustainability and green features of properties. Assessing a property's energy efficiency, eco-friendliness, and carbon footprint will become more commonplace.
5. **Crowdsourced Data and Reviews:** Property analysis will increasingly incorporate crowdsourced data and reviews from homeowners, tenants, and local communities. This can provide valuable insights into the livability and desirability of a neighborhood or property.

6. **Predictive Analytics:** Property analysis will become more predictive, helping buyers and investors anticipate future property values and market trends. This can aid in making more strategic investment decisions.
7. **Real-Time Market Data:** Access to real-time market data will be crucial for property analysis. This includes up-to-the-minute information on property listings, sales, and market conditions.
8. **AI Property Management:** Property management will benefit from AI-driven solutions that can automate maintenance requests, optimize rental income, and predict equipment failures in a property.
9. **Customized Property Recommendations:** AI-driven platforms will offer personalized property recommendations based on an individual's lifestyle, preferences, and financial situation.
10. **Regulatory Compliance and Risk Assessment:** Property analysis tools will incorporate advanced capabilities to assess regulatory compliance and potential risks associated with a property transaction. This can help streamline the due diligence process.
11. **Ecosystem Integration:** Property analysis platforms will be more integrated with various other systems, such as financial tools, mortgage providers, and insurance companies, creating a seamless end-to-end real estate experience.
12. **Mobile Accessibility:** As mobile usage continues to grow, property analysis tools and platforms will be increasingly mobile-friendly, allowing users to access information and conduct property analysis on their smartphones and tablets.
13. **Globalization of Real Estate:** With more international investors and buyers in the real estate market, property analysis tools will need to accommodate cross-border transactions and provide information on properties in various countries.
14. **Government Initiatives:** Government initiatives related to smart cities, affordable housing, and infrastructure development will influence property analysis, creating new opportunities and challenges.