

# PROJECT REPORT

## 1 INTRODUCTION

### 1.1 Overview

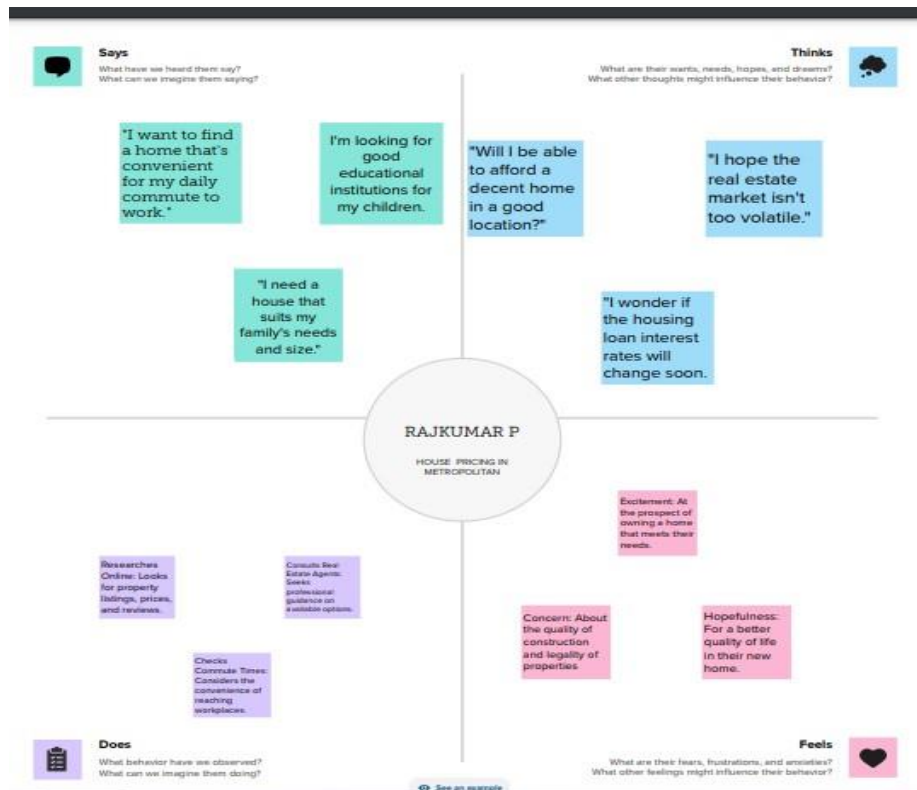
- House price prediction in a metropolitan city in India is a valuable solution for potential home buyers, real estate agents, and investors.
- By leveraging historical sales data, property details, and location-specific information, a predictive model can accurately estimate house prices. The model's 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

### 1.2 Purpose

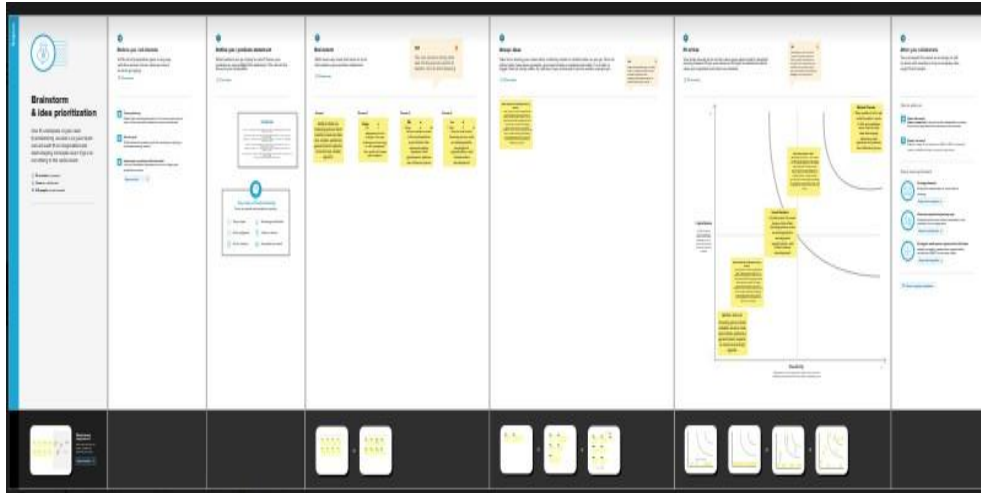
- Gather relevant data. This can include data on housing prices, property features, economic indicators, and other factors that may influence housing prices.
- You can get data from sources such as government agencies, real estate websites, and open data portals.
- Clean and preprocess the data. This involves handling missing values, outliers, and formatting the data in a way that's suitable for analysis.

## 2 PROBLEM DEFINITION & DESIGN THINKING

### 2.1 Empathy Map

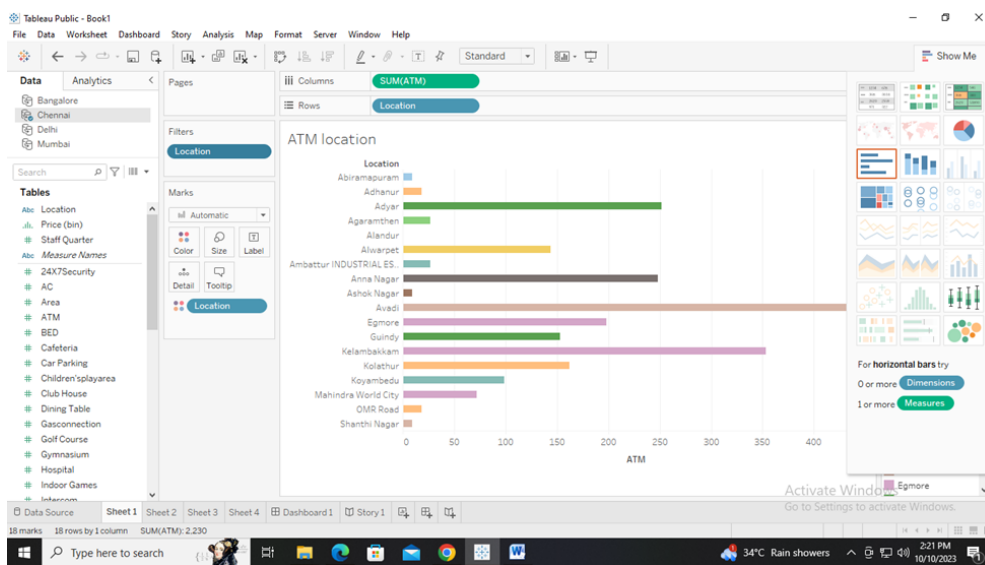


## 2.2 Ideation & Brainstorming Map

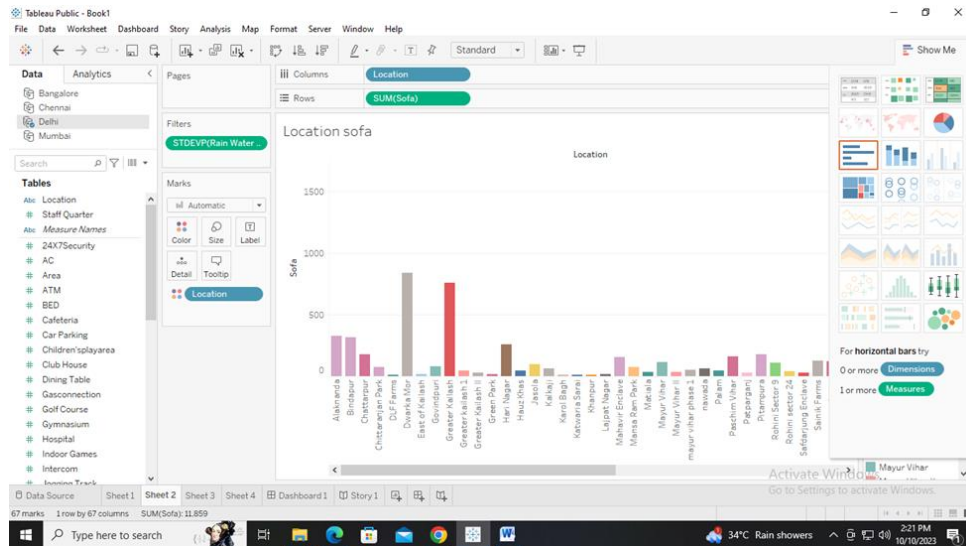


## 3 RESULT

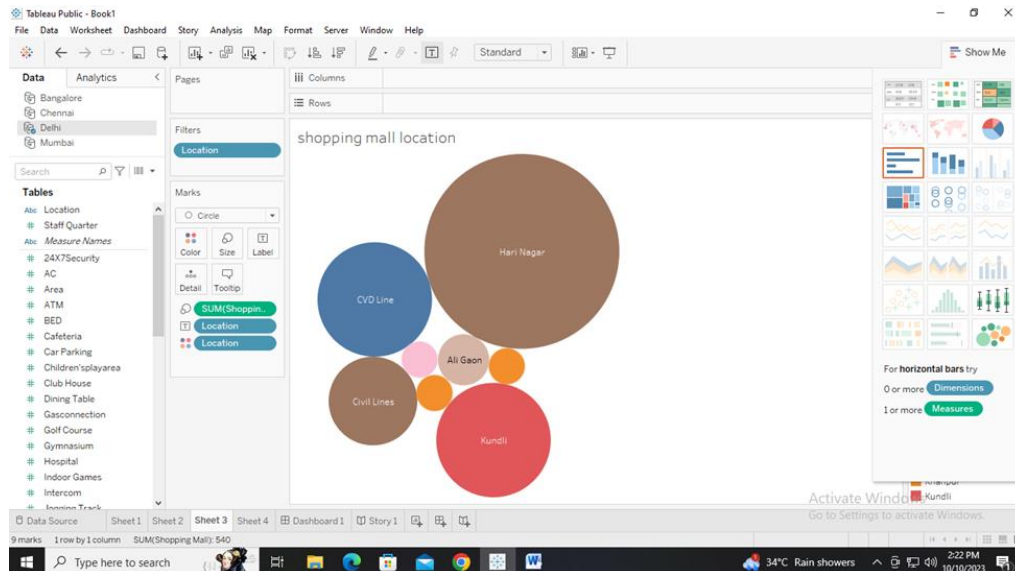
Sheet 1:



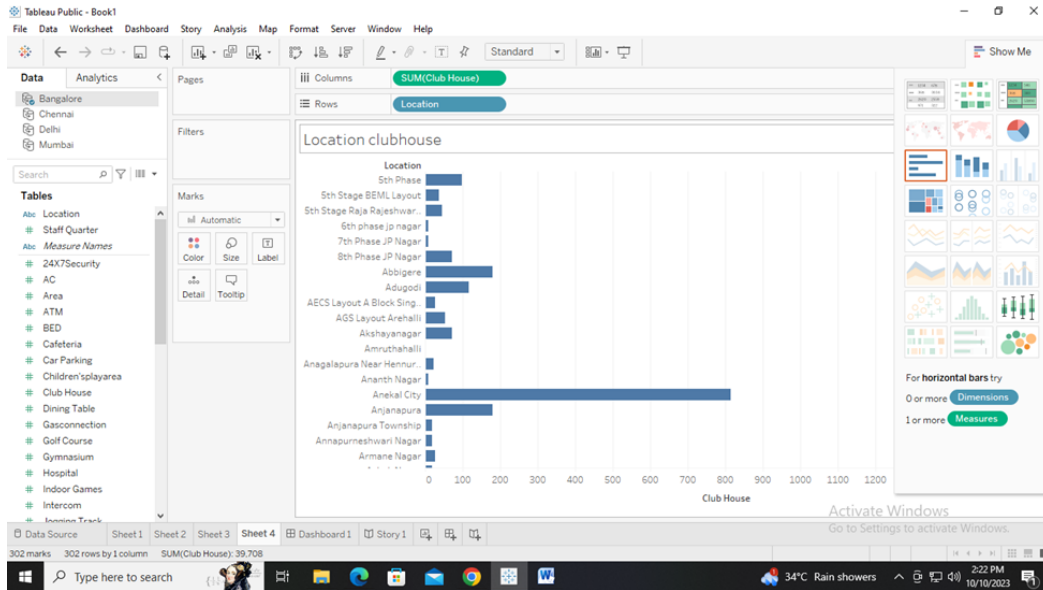
## Sheet 2:



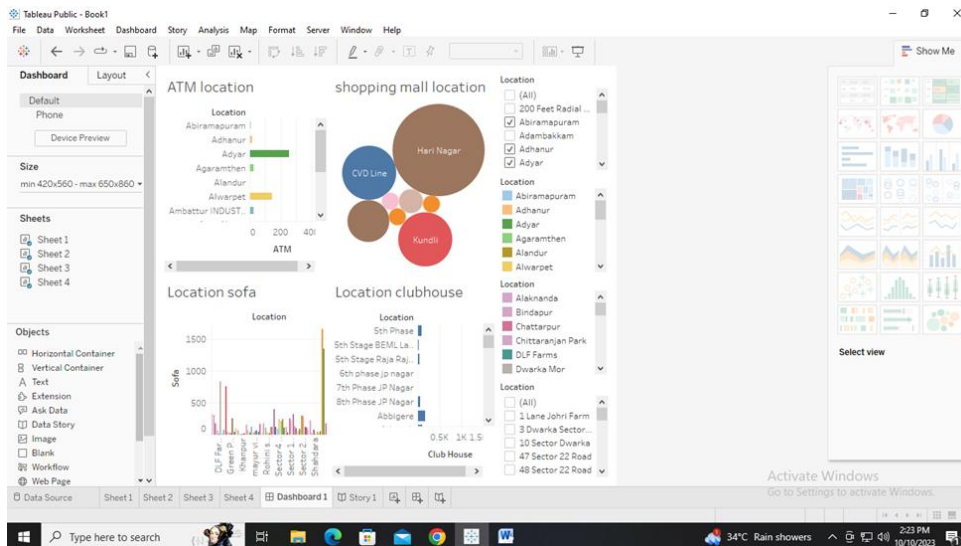
## Sheet 3:



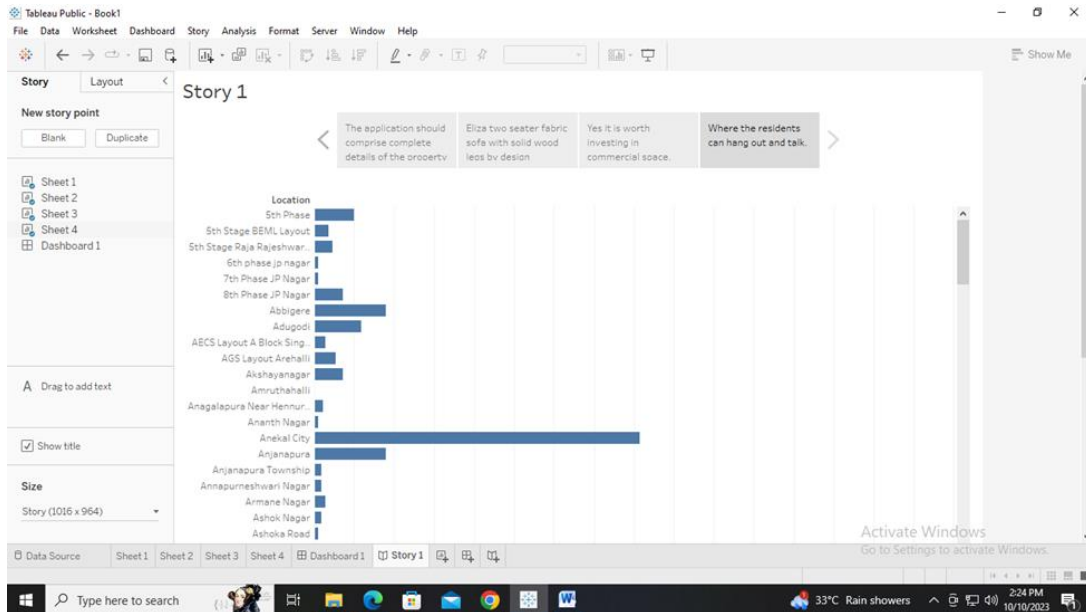
## Sheet 4:



## Dashboard 1:



## Story 1:



## 4 ADVANTAGES AND DISADVANTAGES

### Advantages:

- Analyzing housing prices can help individuals and businesses understand the current market trends.
- The analysis can assist in assessing the risk associated with investing in a particular metropolitan area.
- Analyzing these prices can provide insights into the economic health of a region. Rising housing prices may indicate economic growth, while declining prices could suggest economic.
- Making housing price data publicly available and transparent fosters trust and fairness in the real estate market. It enables potential buyers and sellers to make well-informed decisions.

### Disadvantages:

- housing price analyses can be resource-intensive, requiring Real estate markets can be highly volatile, making it challenging to predict future trends accurately. Economic and political factors can have a significant impact on housing prices.
- The use of machine learning models for prediction has limitations. These models may not account for sudden or unique events that can affect housing prices.
- Changes in government policies, zoning regulations, or tax laws can significantly impact housing prices and may not be captured by historical data used for analysis.
- Events like natural disasters, economic crises, or changes in global economic conditions.
- Focusing solely on housing prices may not address underlying economic disparities and inequalities that contribute to housing price variations.
- Conducting comprehensive access to a significant amount of data and skilled professionals.

## 5 APPLICATION

- housing access. Real estate developers and agencies can use housing price analysis to conduct market research, identify emerging trends, and understand the demand for specific property types.
- Homebuyers can use this information to evaluate whether they are making a wise investment, taking into account the historical and predicted trends of housing prices in the desired location.

- Property owners and managers can analyze housing prices to set rental rates that are both competitive and profitable.
- City planners and local governments can use housing price analysis to inform decisions about zoning, infrastructure development, and affordable housing initiatives.
- Banks and financial institutions can use housing price analysis to assess the risk associated with real estate loans and mortgages.
- Appraisers and assessors can use housing price analysis to determine the value of a property for various purposes, including taxation and insurance.
- Government authorities can use this analysis to develop housing policies that address affordability, urban development, and equitable.

## 6 CONCLUSION

- The type of property (apartments, houses, villas, etc.) also influences prices.
- Apartments are generally more affordable than standalone houses in densely populated urban areas.
- Government policies and regulations, such as the Real Estate Regulatory Authority (RERA) and Goods and Services Tax (GST), can significantly impact property prices.
- An understanding of these policies is crucial for analysis.



## 7 FUTURE SCOPE

- Proptech innovations, like blockchain for property transactions and virtual reality for property tours, will continue to influence the real estate market.
- Research should focus on regional variations in housing markets, as different metropolitan areas in India may experience distinct trends based on local economic, cultural, and geographical factors.