

# **PROJECT REPORT**

## **HOUSING PRICES IN METROPOLITAN AREAS OF INDIA**

### **TEAM MEMBERS:**

1. KALAIVANI. M
2. KAVITHA. T
3. KEERTHANA. M
4. KEERTHIKA. S

### **MENTOR:**

**C. RAMACHANDRAN**

**This project was all about how to use tableau software, which involved the following Steps:**

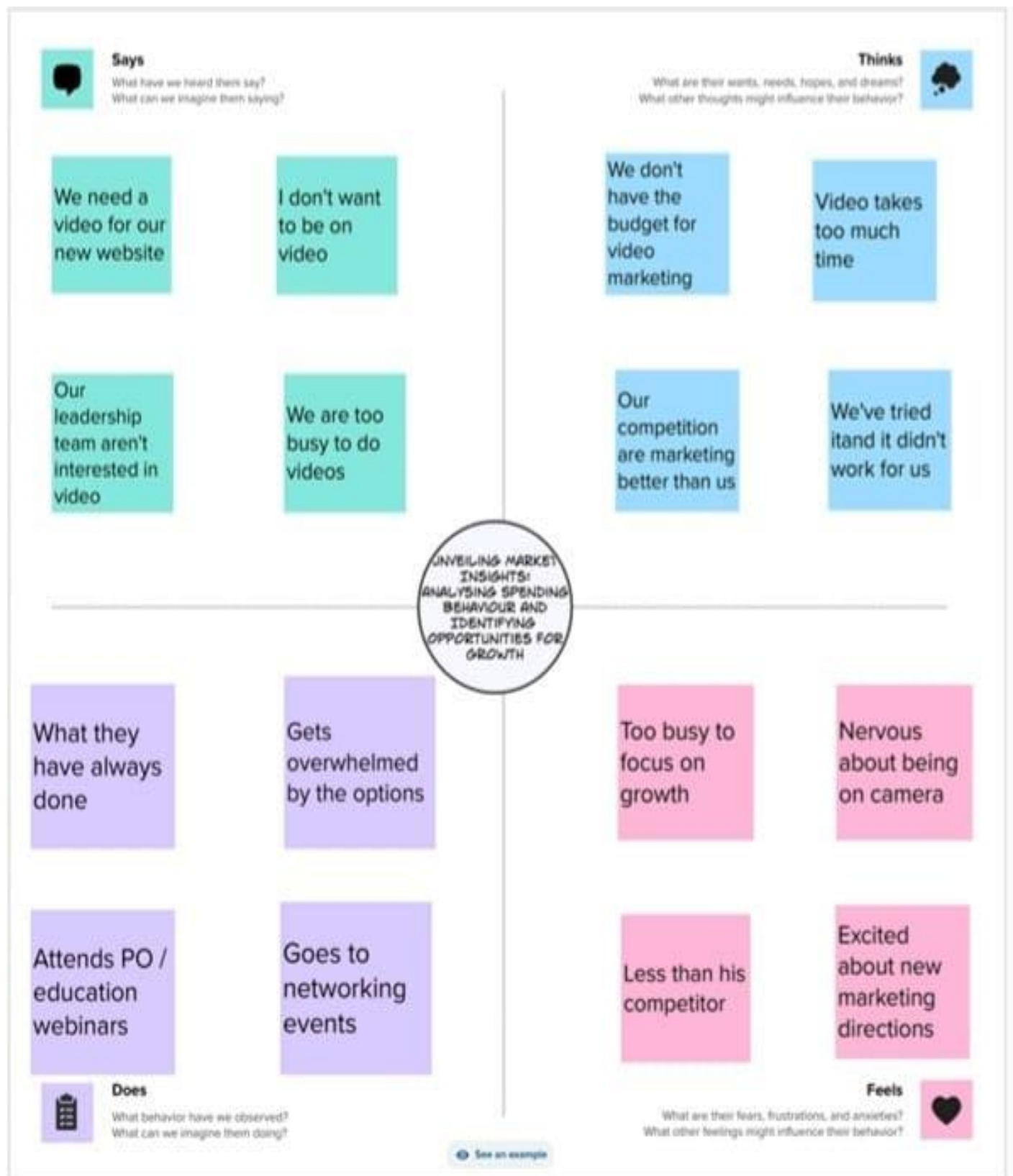
- Empathy map
- Brainstorming map
- Collection and Connection of data set
- Preparation of Visualization sheets
- Dashboard
- Story
- Publishing in Tableau

### **INTRODUCTION:**

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.

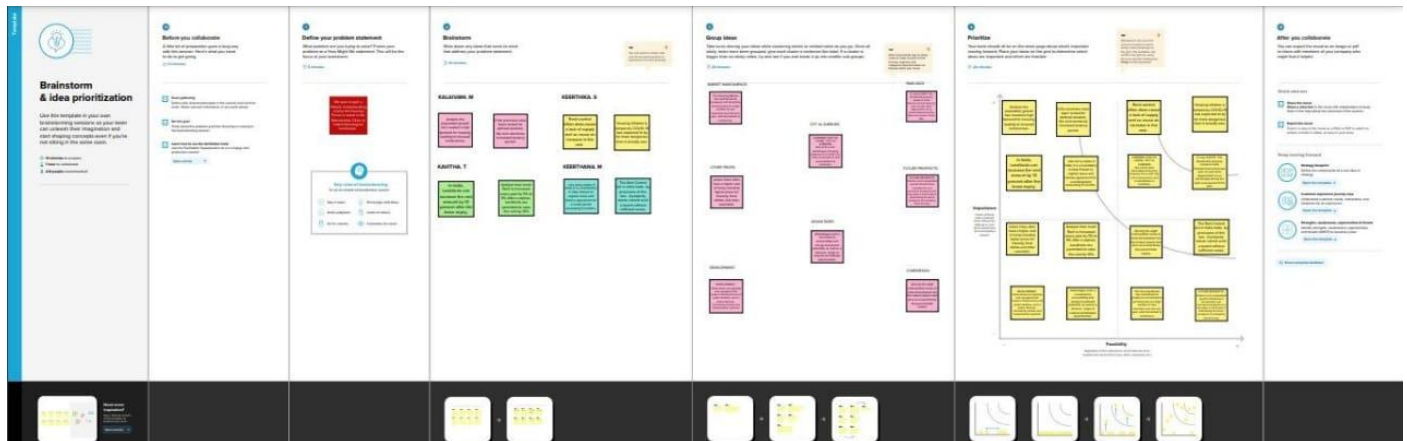
## EMPATHY MAP:

Our team started our project with the creation of Empathy map. Firstly we collected the points about Housing prices in metropolitan Areas of India, We grouped the points under says, thinks does and feels.



## BRAINSTORMING MAP:

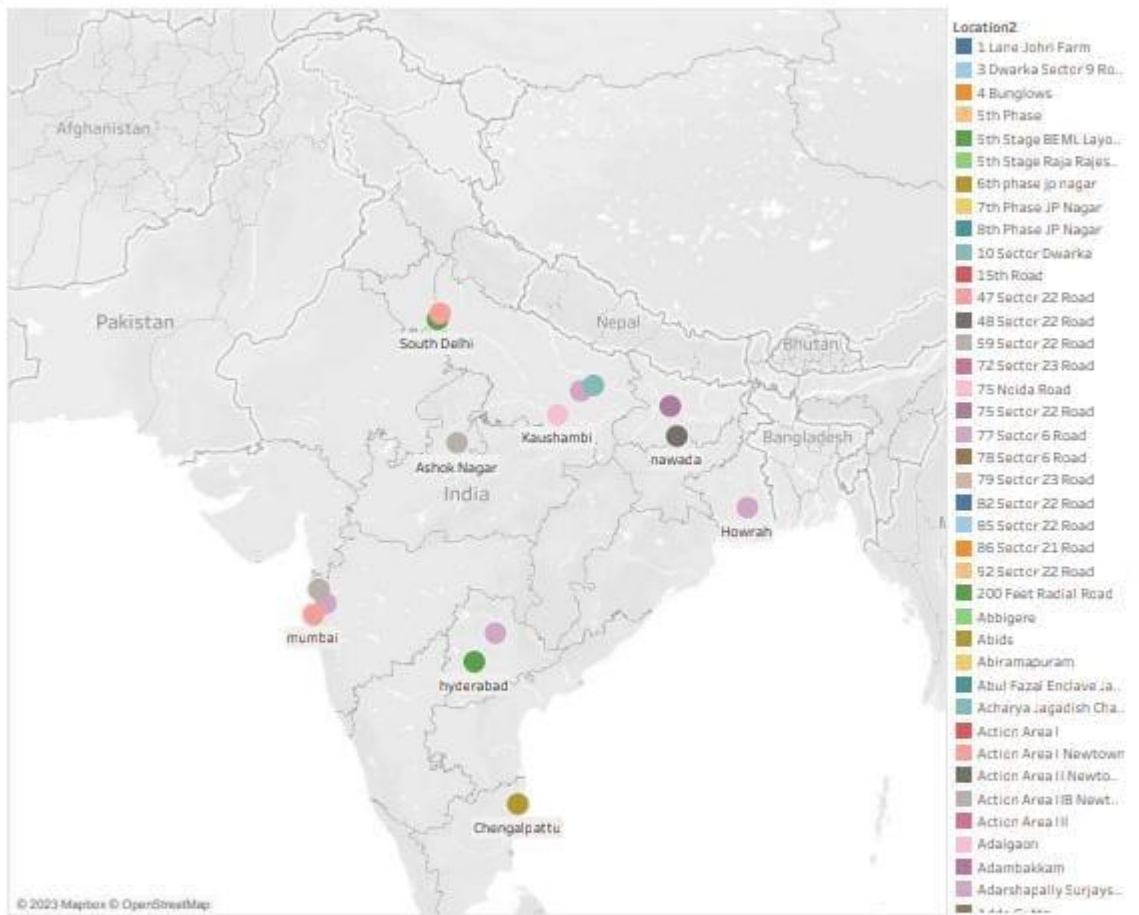
In the brainstorming map, Each contributed 3 points regarding the Housing prices in metropolitan Areas of India, and grouped in



RESULT:

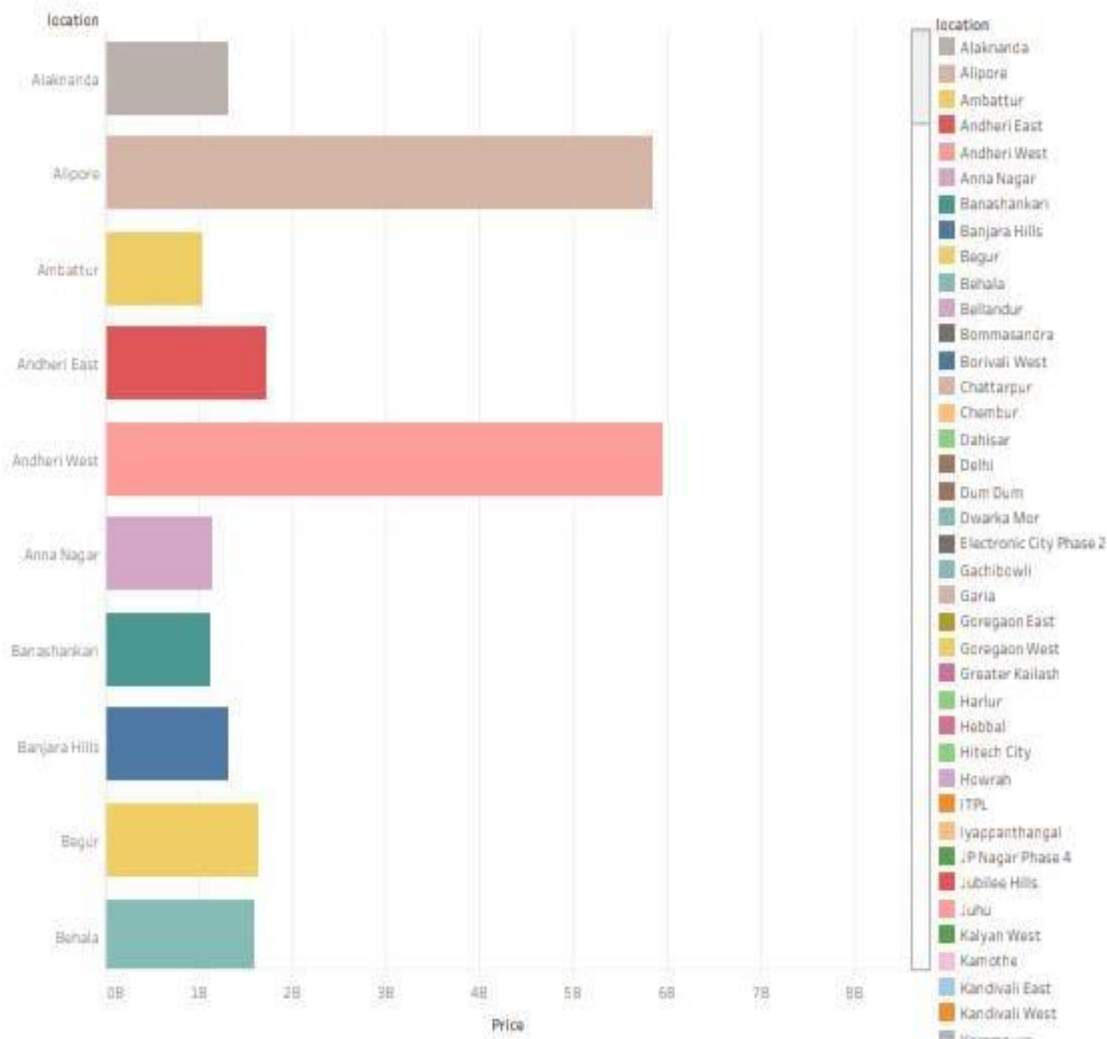
Story 1

Maps showing the houses in metropolita...	Bar graph showing prices as various loca...	combined line and location graph showi...	Tree maps showing vastu complaints	Bar Graph showing location and price wi...	Hospitals and Schools near the houses	Maintains staff in hous...
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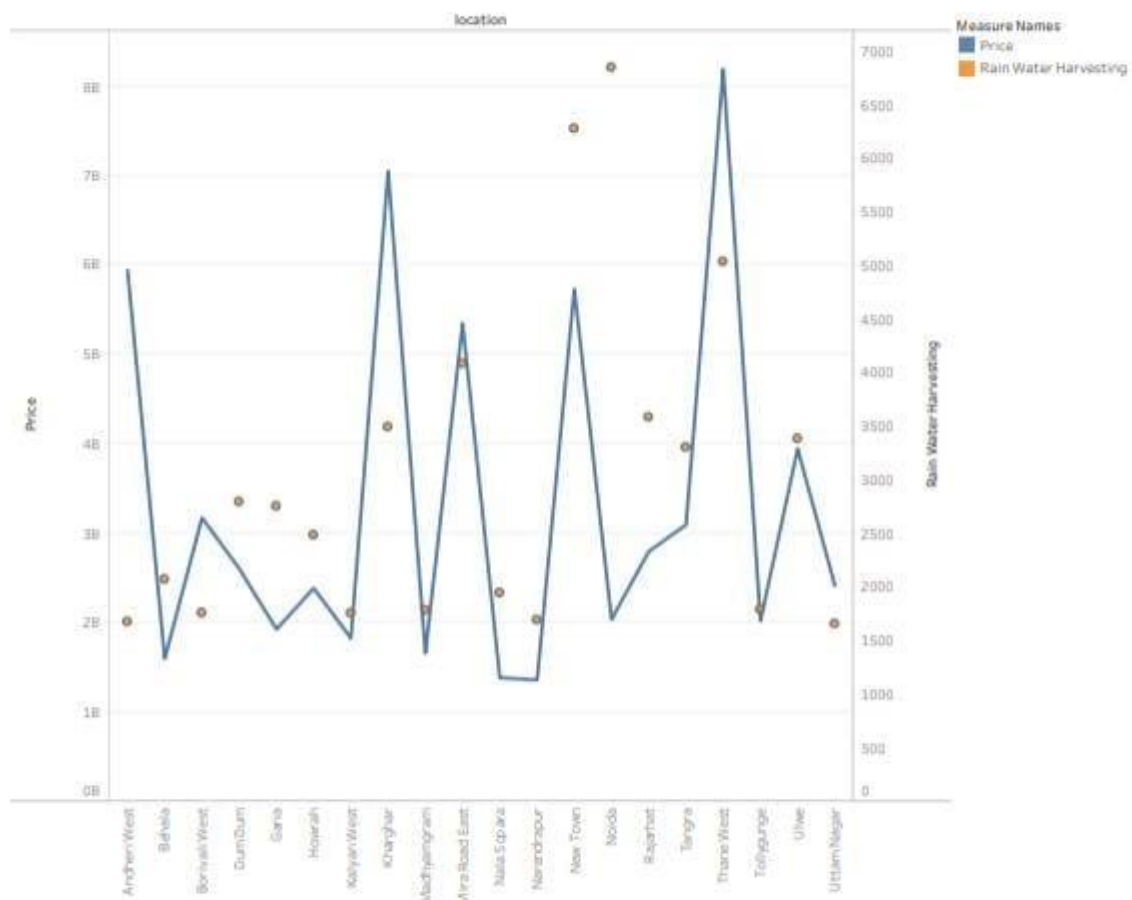
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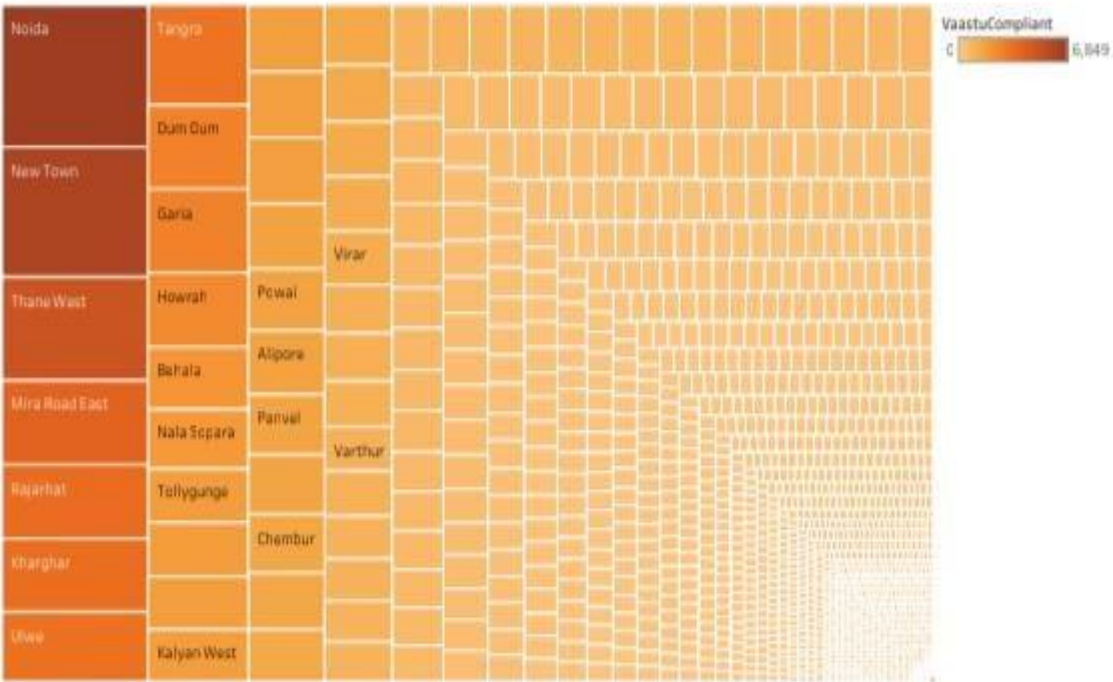
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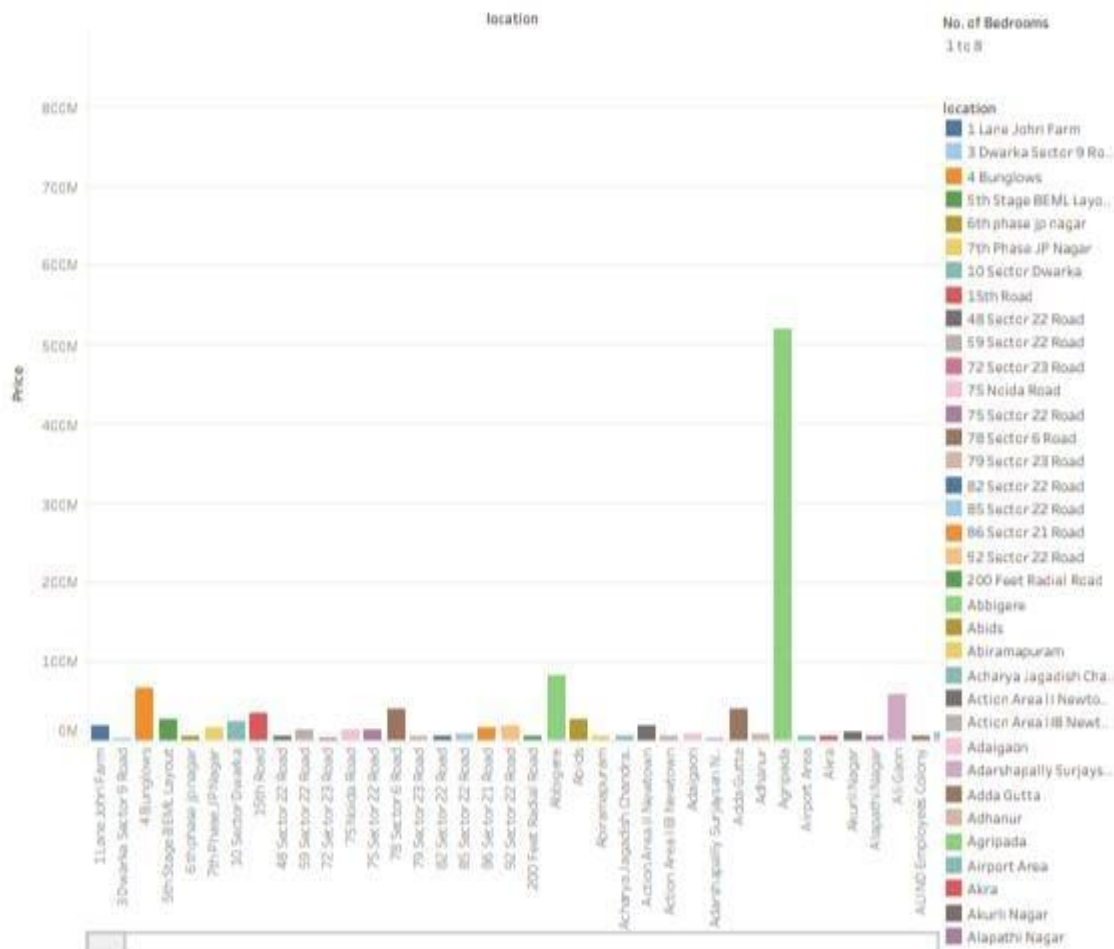
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- Bar Graph showing location and price wi...
- Hospitals and Schools near the houses
- Maintains staff in house prices



## Story 1

Bar graph showing prices a...	combined line and location graph showi...	Tree maps showing vastu complaints	Bar Graph showing Location and price wi...	Hospitals and Schools near the houses	Maintains staff in house prices	Bar comparison chart Vs price and l...
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## Story 1

combined line and  
location graph s...

Tree maps showing  
wastu complaints

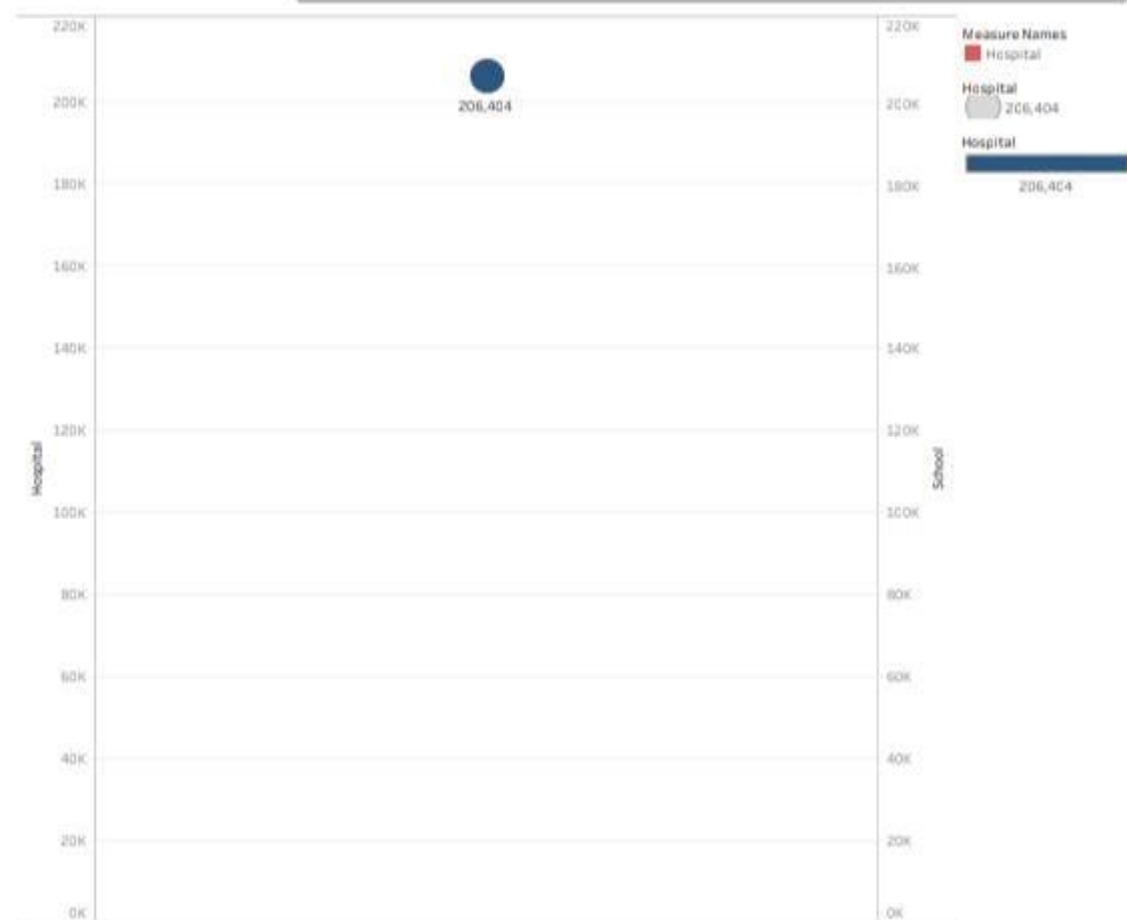
Bar Graph showing  
Location and price wi...

**Hospitals and Schools  
near the houses**

Maintains staff in  
house prices

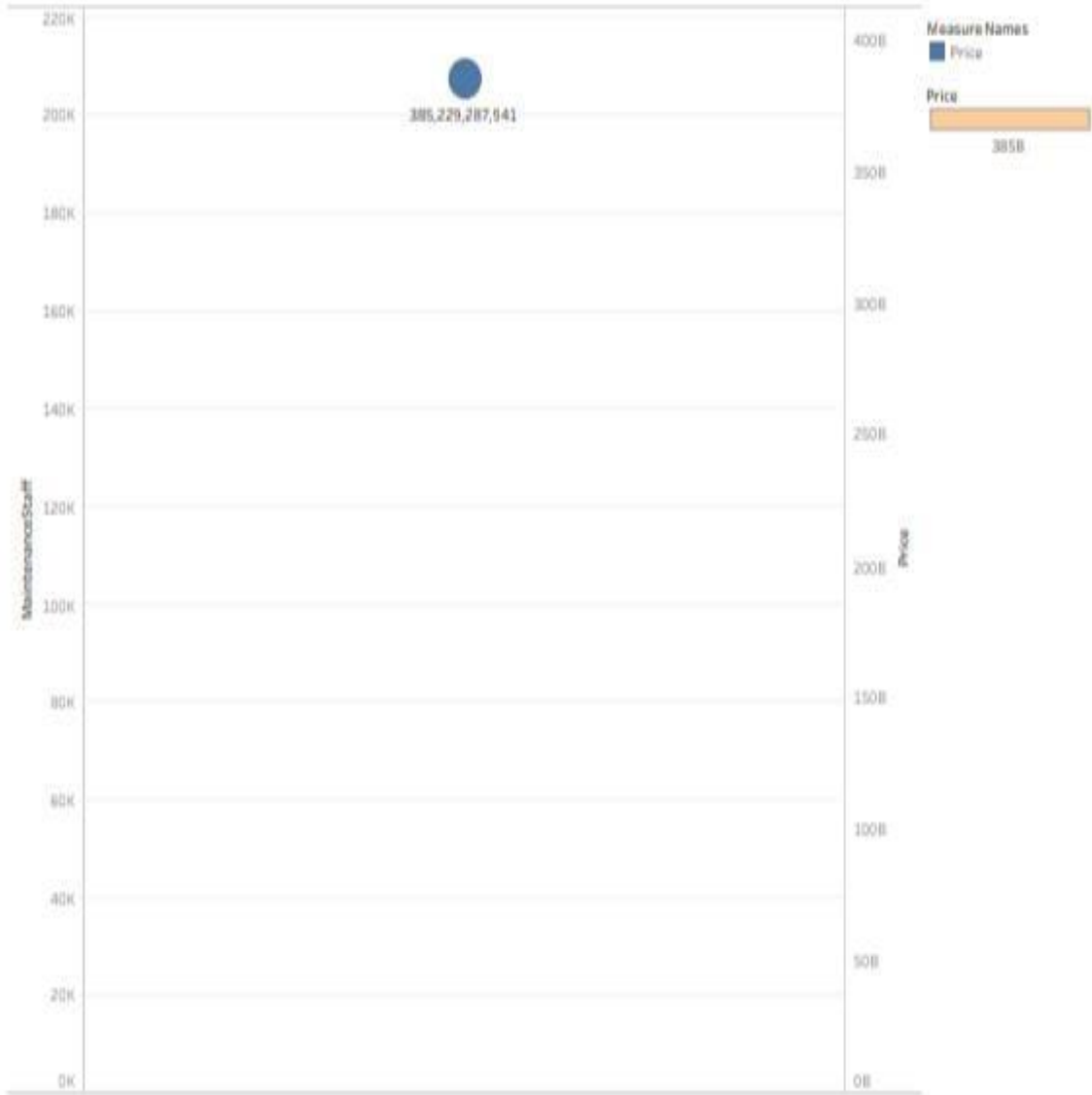
Bar comparison chart  
Vs price and intercom...

Pie chart showing  
Various facility



Story 1

combined line and location	Tree maps showing waste complaints	Bar Graph showing location and price w...	Hospitals and Schools near the houses	Maintains staff in house prices	Bar comparison chart Vs price and intercom	Pie chart showing Various facility
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## Story 1

combined line and location ...

Tree maps showing vastu complaints

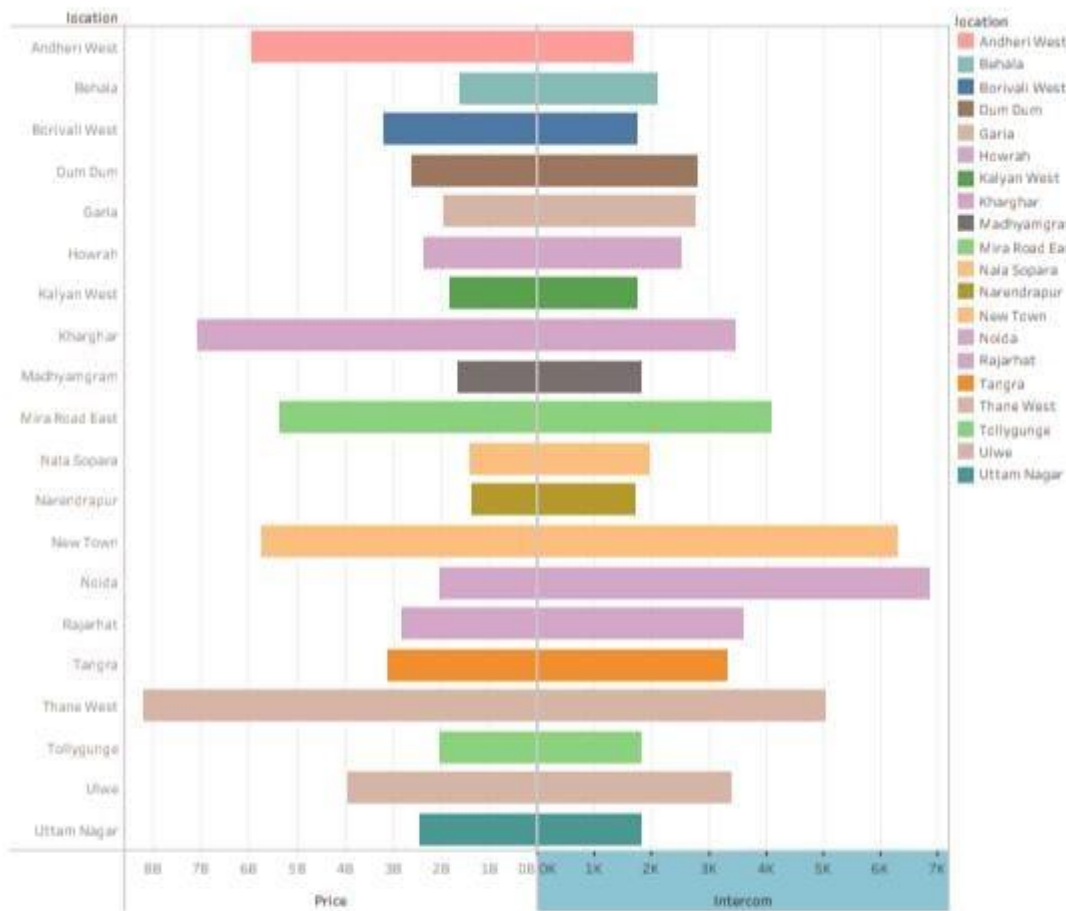
Bar Graph showing location and price wi...

Hospitals and Schools near the houses

Maintains staff in house prices

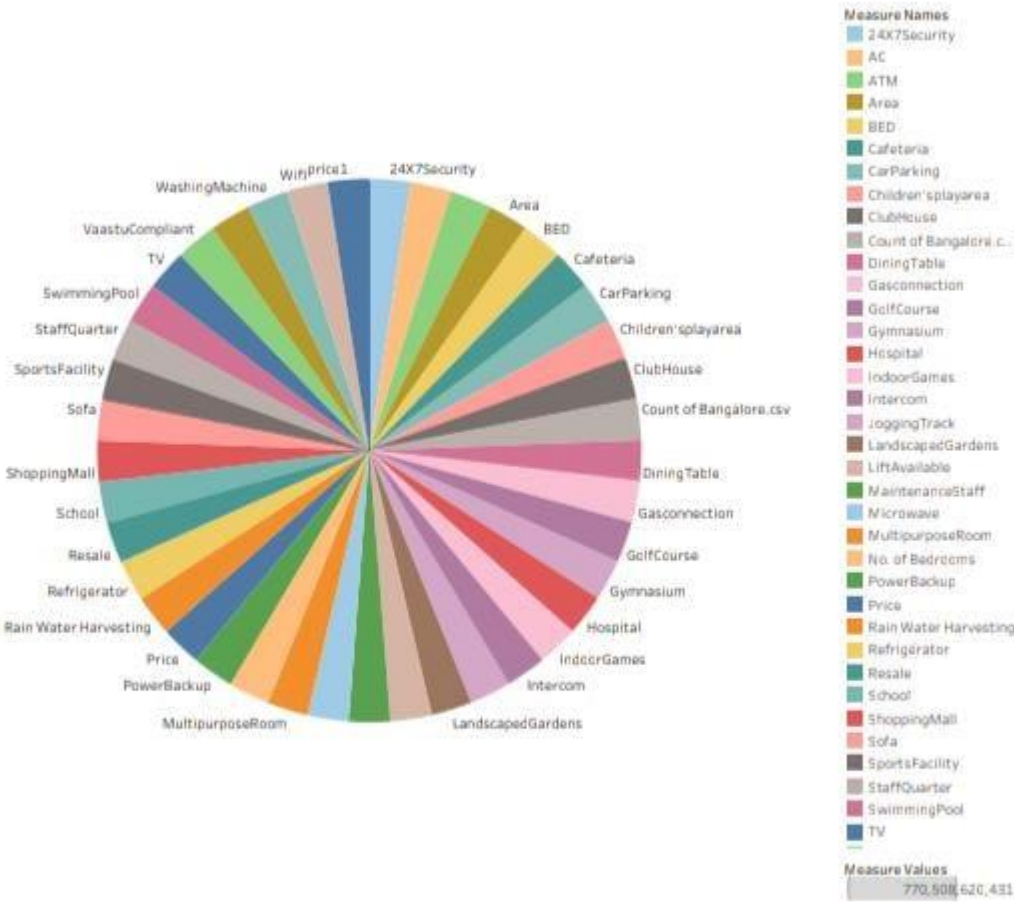
Bar comparison chart Vs price and intercom...

Pie chart showing various facility

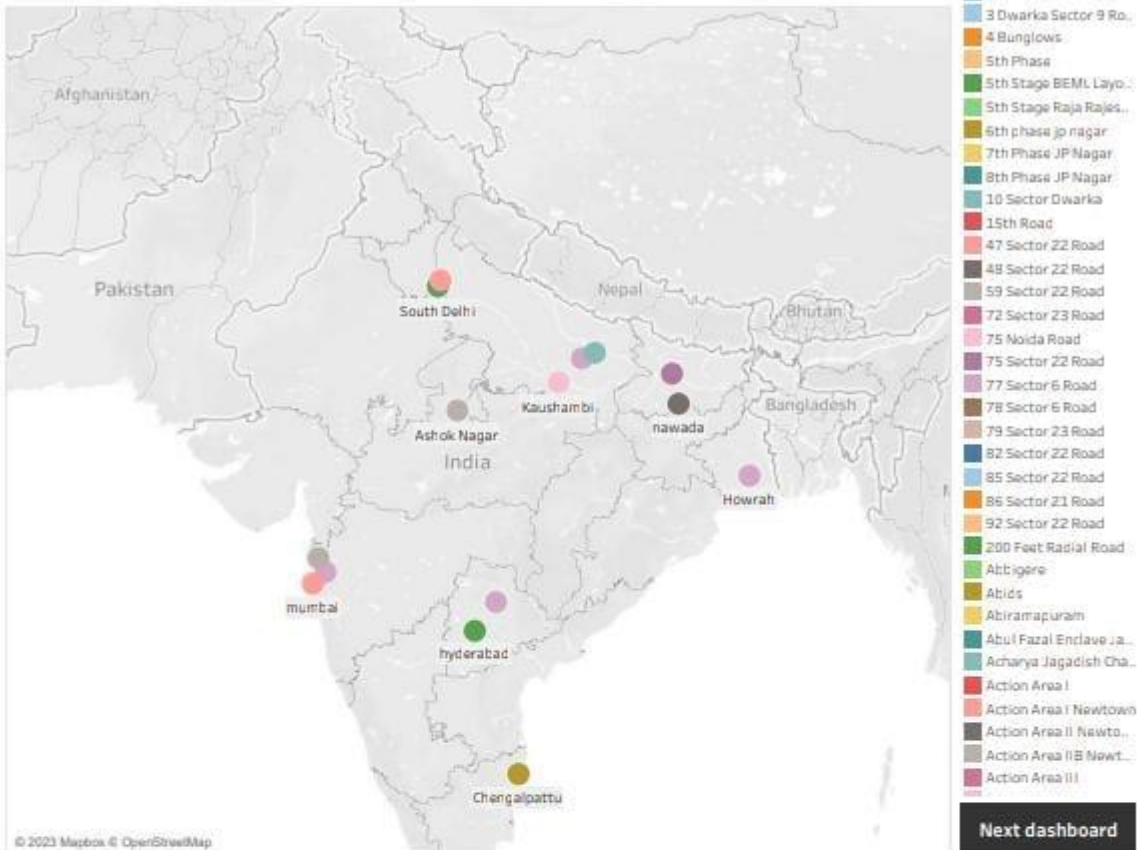


Story 1

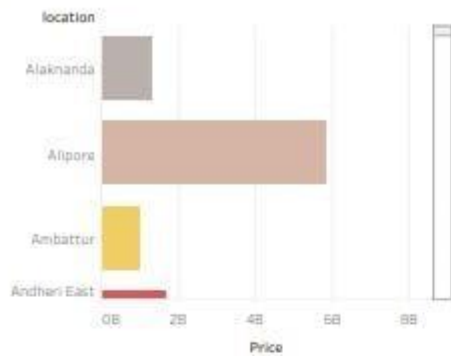
combined line and location ...	Tree maps showing vastu complaints	Bar Graph showing Location and price w...	Hospitals and Schools near the houses	Maintains staff in house prices	Bar comparison chart Vs price and intercom...	Pie chart showing Various facility
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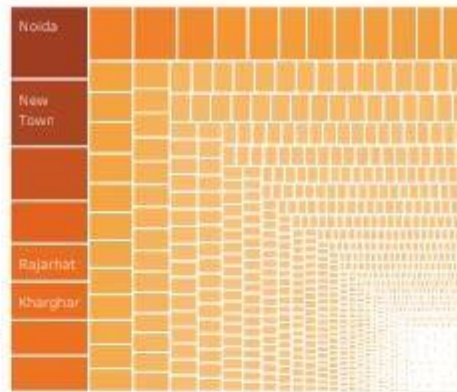
Map showing the house in verses metropolitan city



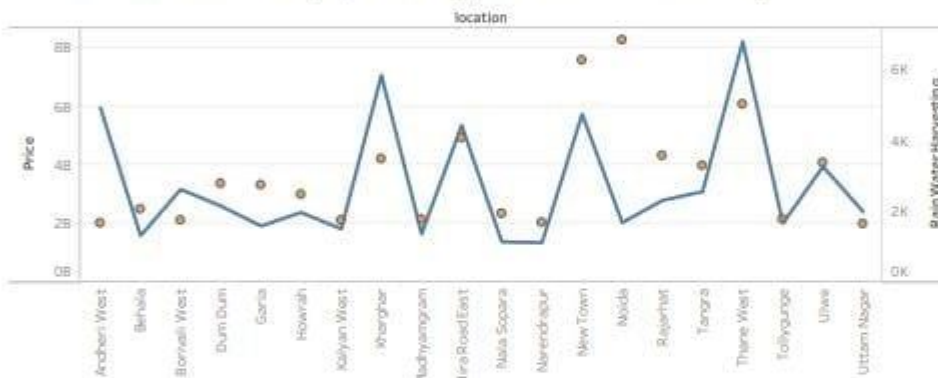
Bar graph showing prices as various locations



Tree maps showing vastu complaints



combined line and location graph showing price rain water harvesting



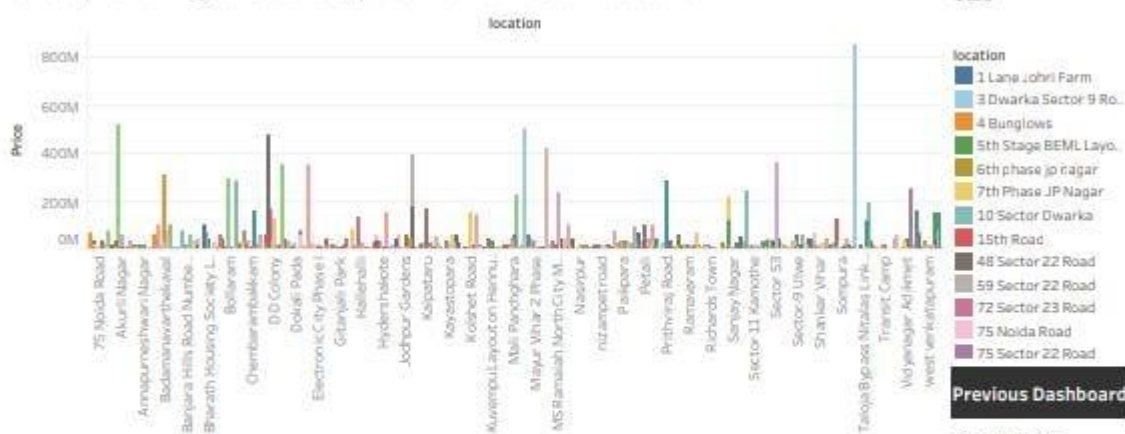
previous dashboard

Next Dashboard

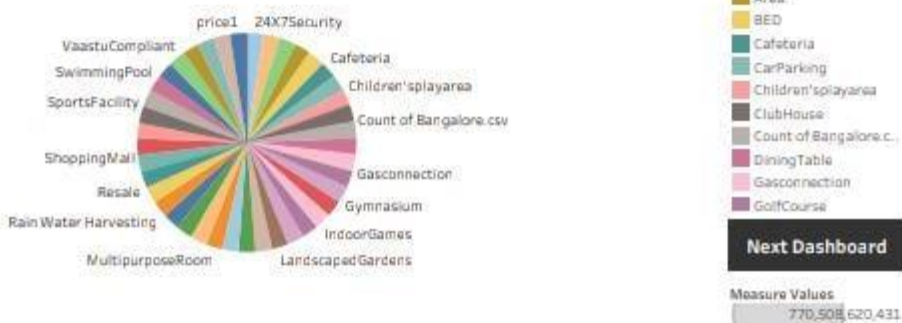
Measure Names  
Price  
Rain Water Harvesting

VaastuCompliant  
0 6,549

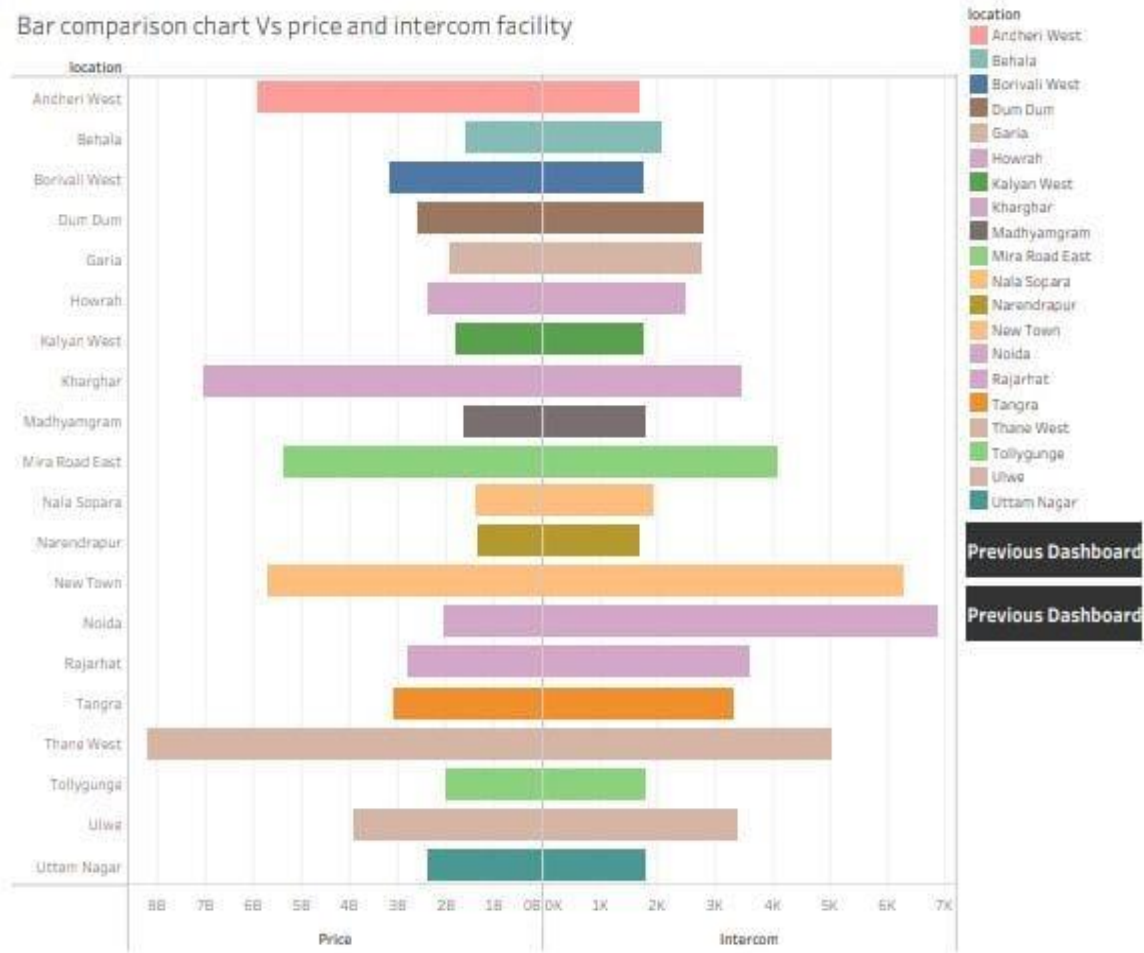
Bar Graph showing Location and price with number of Bedrooms



Pie chart showing Various facility



Bar comparison chart Vs price and intercom facility





## **ADVANTAGES:**

### **HIGH INVESTMENT POTENTIAL:**

Metropolitan areas are the economic and cultural centres of India, and they attract a large number of people from all over the country. This high demand for housing drives up property prices, making metropolitan areas a good investment for those looking to generate long-term returns.

### **BETTER INFRASTRUCTURE AND AMENITIES:**

Metropolitan areas have better infrastructure and amenities than other parts of the country. This includes things like better roads, public transportation, schools, hospitals, and shopping malls. This makes metropolitan areas more desirable places to live, which further drives up property prices.

### **MORE JOB OPPORTUNITIES:**

Metropolitan areas are home to a large number of businesses and industries, which means that there are more job opportunities available. This attracts people from all over the country, which further increases the demand for housing.

### **HIGHER SALARIES:**

Salaries are generally higher in metropolitan areas than in other parts of the country. This makes it easier for people to afford to buy homes in metropolitan areas.

## **DISADVANTAGES:**

### **HIGH COST OF LIVING:**

The cost of living in metropolitan areas is generally higher than in other parts of the country. This includes things like food, transportation, and housing.

### **OVERCROWDING AND POLLUTION:**

Metropolitan areas are often overcrowded and polluted. This can make them less desirable places to live, especially for families with young children.

### **TRAFFIC CONGESTION:**

Traffic congestion is a major problem in metropolitan areas. This can make it difficult and time-consuming to get around.

### **LIMITED AVAILABILITY OF AFFORDABLE HOUSING:**

The supply of affordable housing is often limited in metropolitan areas. This can make it difficult for people on low and middle incomes to afford to buy a home.

## **APPLICATIONS:**

### **MARKET ANALYSIS:**

Estimating housing prices helps in analysing market trends, such as demand-supply dynamics, preferences of homebuyers, and investment potential in metropolitan areas.

### **REAL ESTATE INVESTMENT:**

Investors use housing price data to identify lucrative opportunities, predict returns on investment, and make decisions about buying, selling or holding properties.

### **URBAN PLANNING:**

City planners and policymakers use housing price trends to assess the economic health of an area, plan infrastructure development, and make decisions regarding zoning and land use.

### **AFFORDABILITY STUDIES:**

Housing price analysis is crucial for understanding housing affordability for different income groups, helping policymakers design schemes for affordable housing.

### **HOMEBUYERS DECISION MAKING:**

Prospective homebuyers rely on housing price trends to assess if a property is fairly priced, enabling informed decision-making about purchasing homes in metropolitan areas.

### **BANKING AND MORTGAGE SECTOR:**

Banks and financial institutions use housing price data to determine loan eligibility, interest rates, and mortgage lending policies, ensuring responsible lending practices.

### **ECONOMIC INDICATORS:**

Housing prices serve as economic indicators, reflecting the overall economic growth and stability of a metropolitan area, influencing consumer confidence and spending patterns.

## **IMPACT ON LOCAL BUSINESSES:**

Fluctuations in housing prices affect local businesses, especially in sectors like construction, home improvement, and retail, as consumer spending patterns change with housing market conditions.

## **INFRASTRUCTURE DEVELOPMENT:**

Housing price trends guide authorities in prioritizing infrastructure in prioritizing infrastructure projects such as roads, public transportation, and utilities, supporting the growing needs of metropolitan areas.

## **SOCIAL IMPACT:**

Housing prices influence social demographics, migration patterns, and community development within metropolitan areas, shaping the overall social fabric and lifestyle choices of residents.

## **COLLECTION AND CONNECTION OF DATA SET:**

Regarding our project Title, A dataset is been collection from the Nan Mudhalvan, Smartinternz platform and connected the dataset to the Tableau.

## **PREPARTION OR VISUALIZATION SHEETS:**

We ourselves created 5 questions on consumer's point of view and tried to answer these questions through visualization sheets using Bar graphs, donut chat and histogram.

## **DASHBOARD:**

We created a dashboard placing all the visualization sheets in single dashboard.

## **STORY:**

After the completion our dashboard, we have created a story section in which we extracted the observation from the visualization sheets.

## **PUBLISHING IN TABLEAU:**

We have published our dashboard and story in our team leader's Tableau public ID.

## **CONCULSION:**

From this project we learned to analyse a dataset and the usage of Tableau software.