Vyasa Arts & Science Women's College

Subramaniapuram.

DEPARTMENT OF MATHEMATICS

2023 – 2024

Analysing Hosing Prices in Metropolitan areas of India

TEAM LEADER

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TEAM MEMBERS

1. Fathima S
2. Noorul Hasana A
3. Sneha V

ANALYSING HOUSING PRICES IN METROPOLITAN AREAS OF INDIA

1. **INTRODUCTION:**

1.1. OVERVIEW:

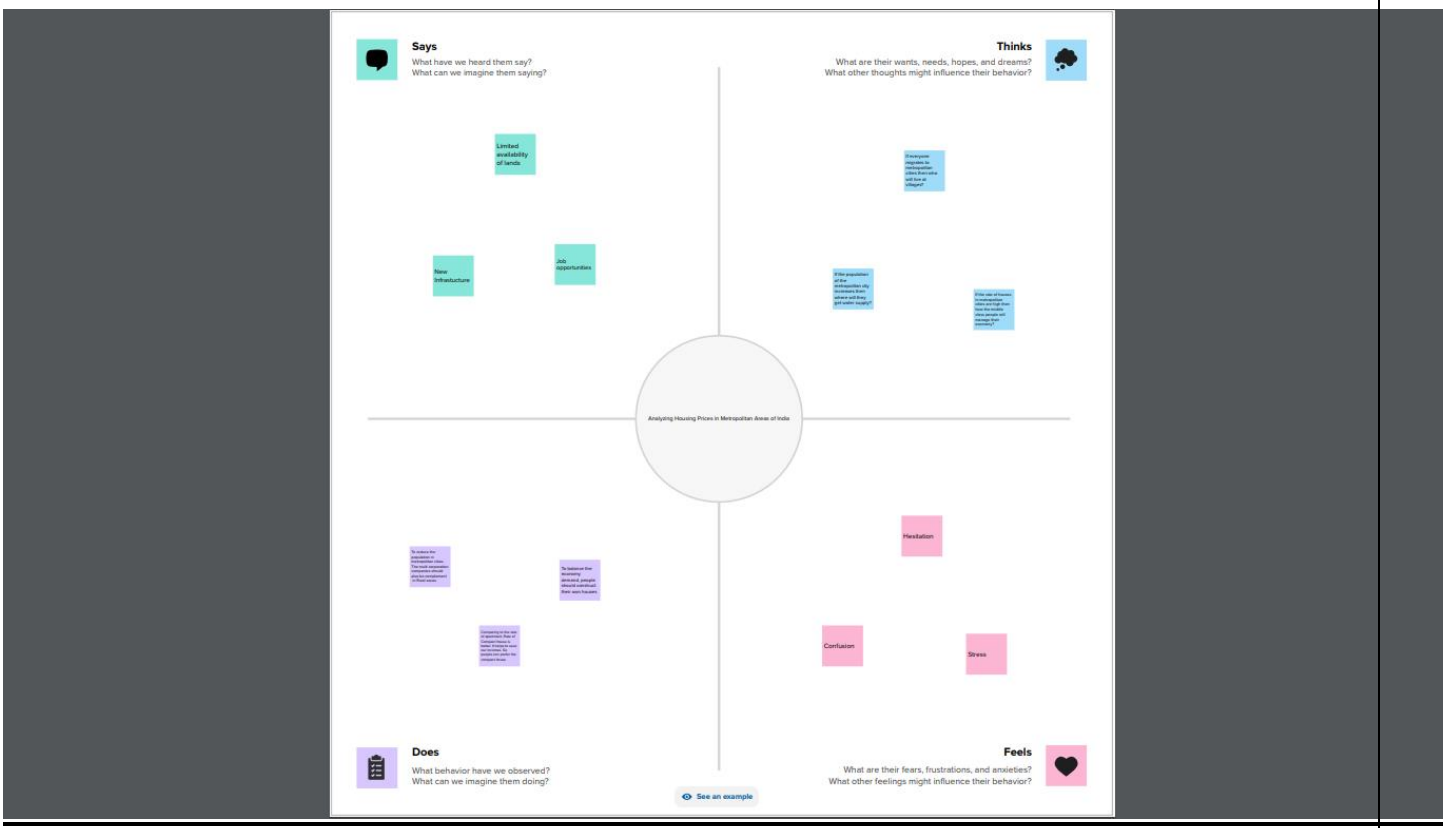
House price prediction in a metropolitan city in India is a valuable solution for potential home buyers, real estate agents, and investors. By leveraging historical sales data, property details, and location-specific information, a predicative model can accurately estimate house prices. The model's scalability,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

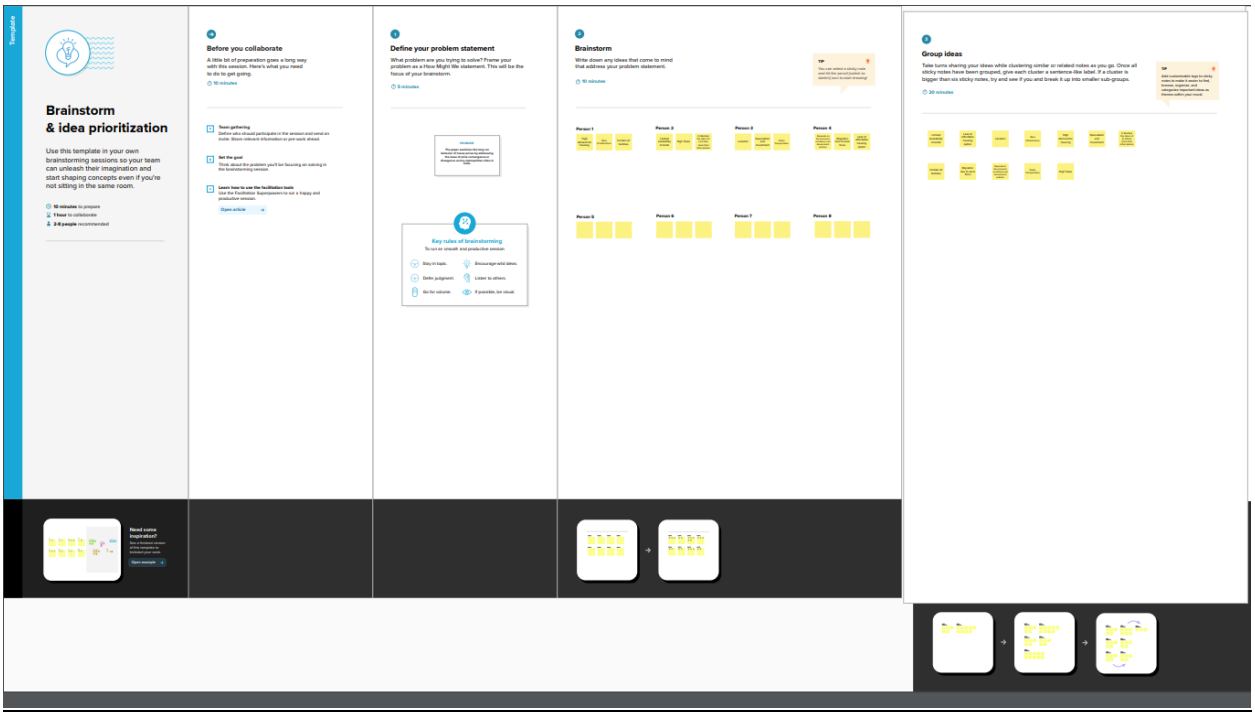
- Housing price analysis is essential for academic research on urban economics, sociology, and public policy.
- Home buyers and renters use this information to make informed choices about where to live based on their budget and preferences.

2. PROBLEM DEFINITION AND DESIGN THINKING:

2.1 EMPATHY MAP:



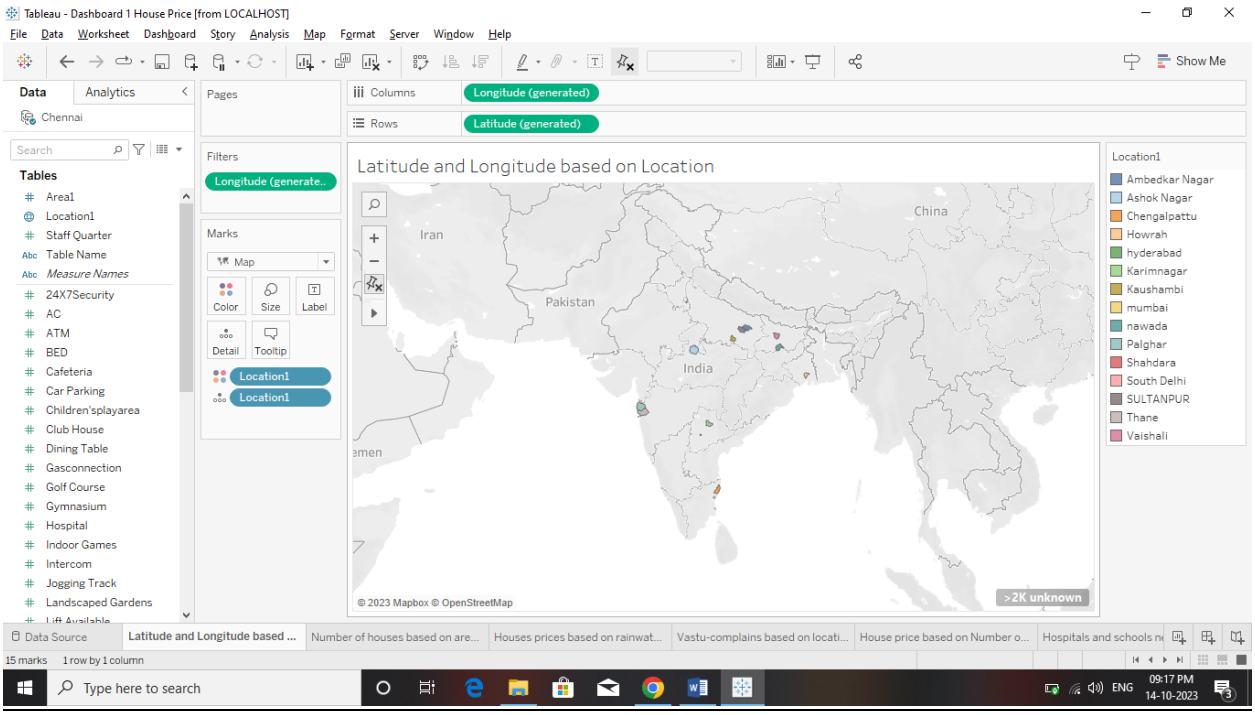
2.2. BRAIN STORMING:



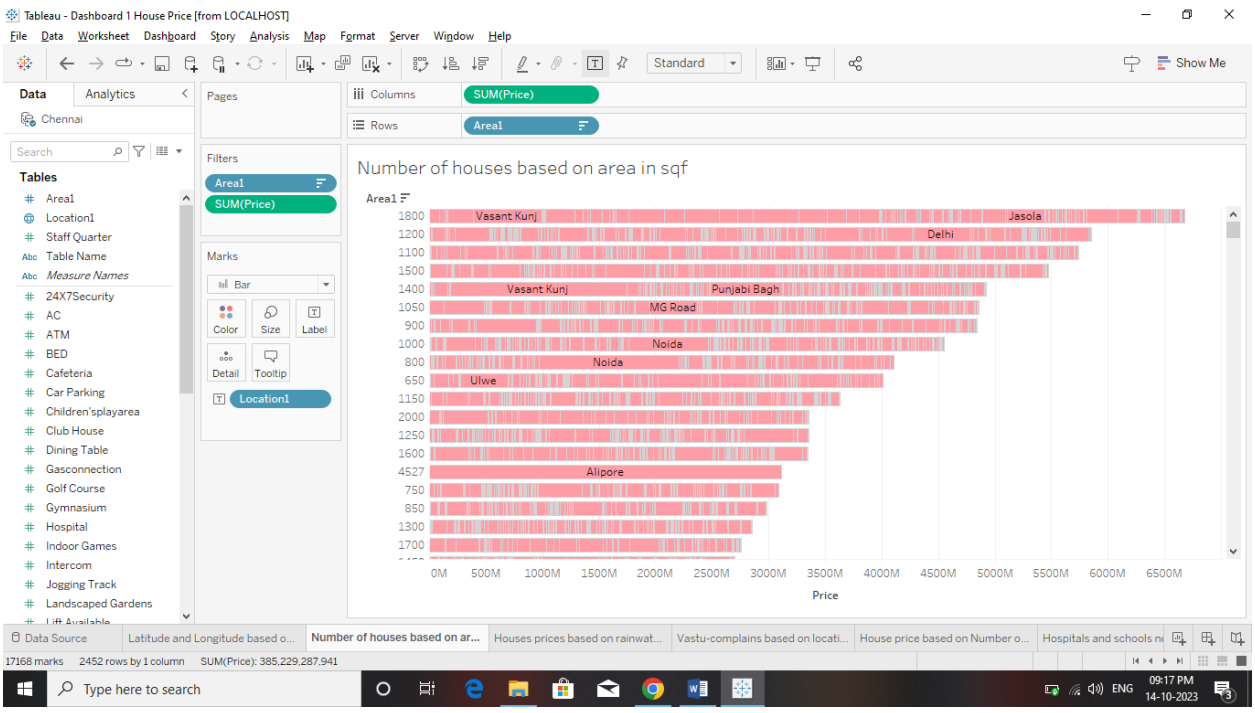
3. RESULT:

3.1. Charts:

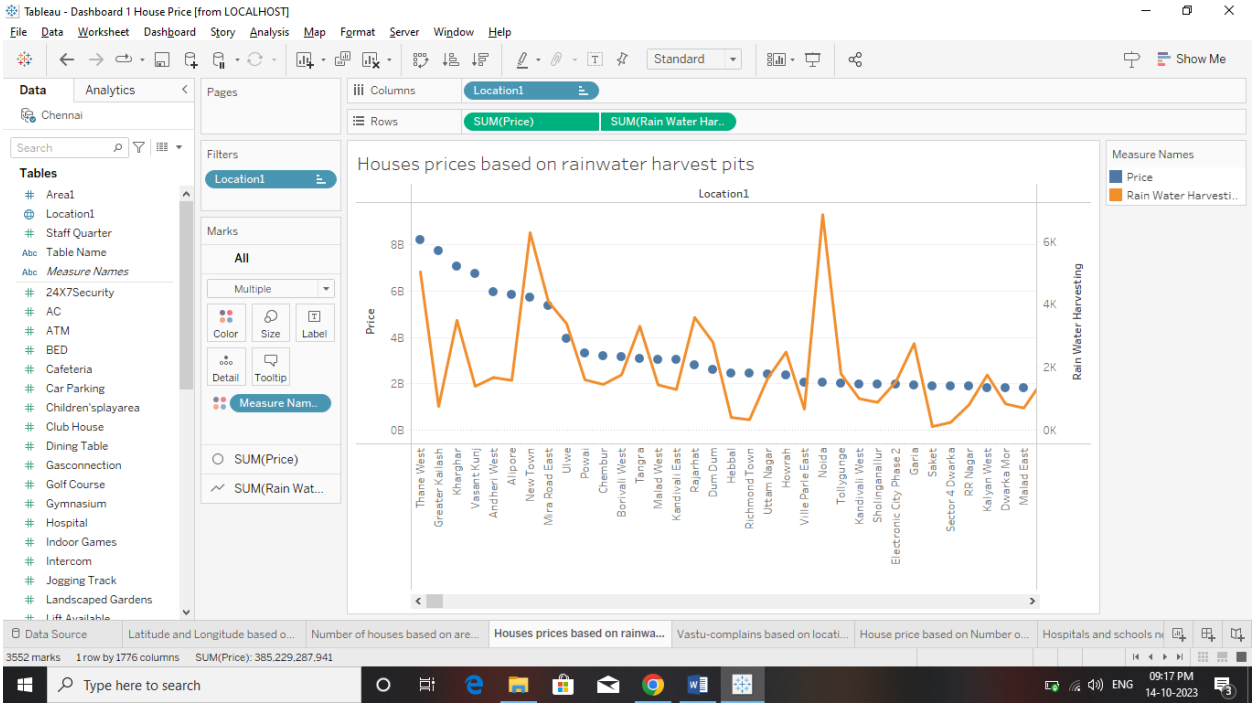
a) Latitude and Longitude based on Location:



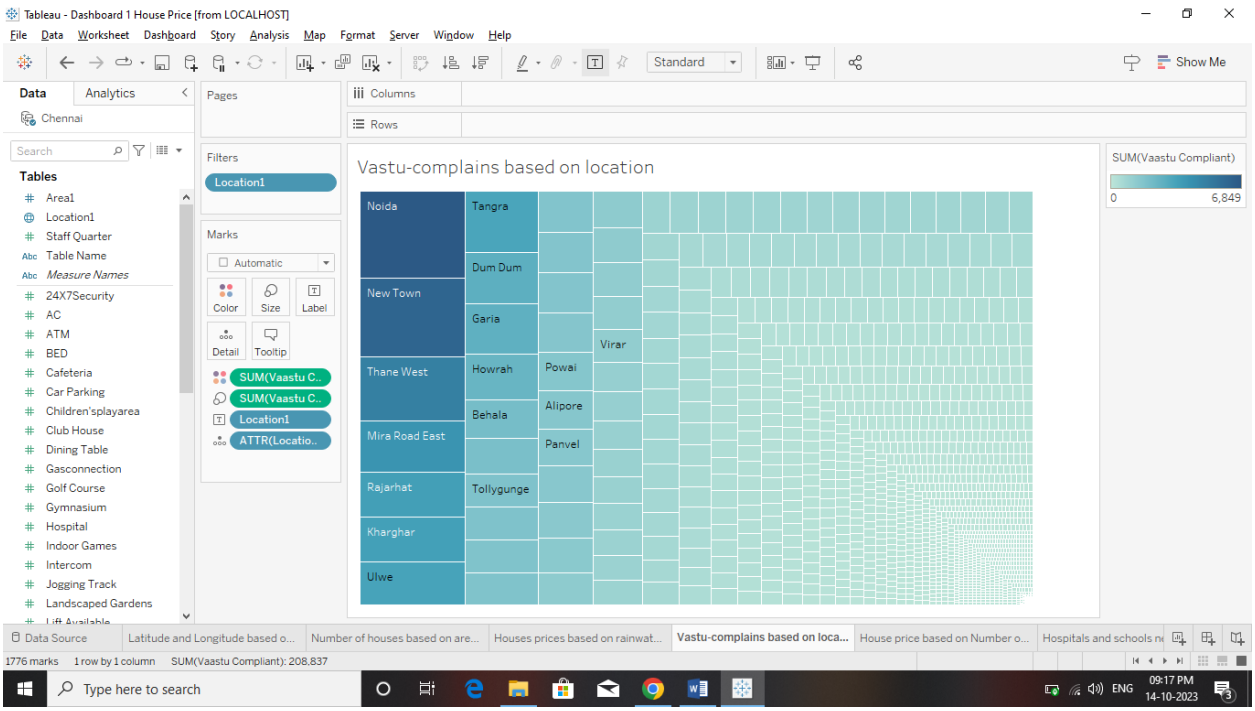
b) Number of houses based on area in square feet:



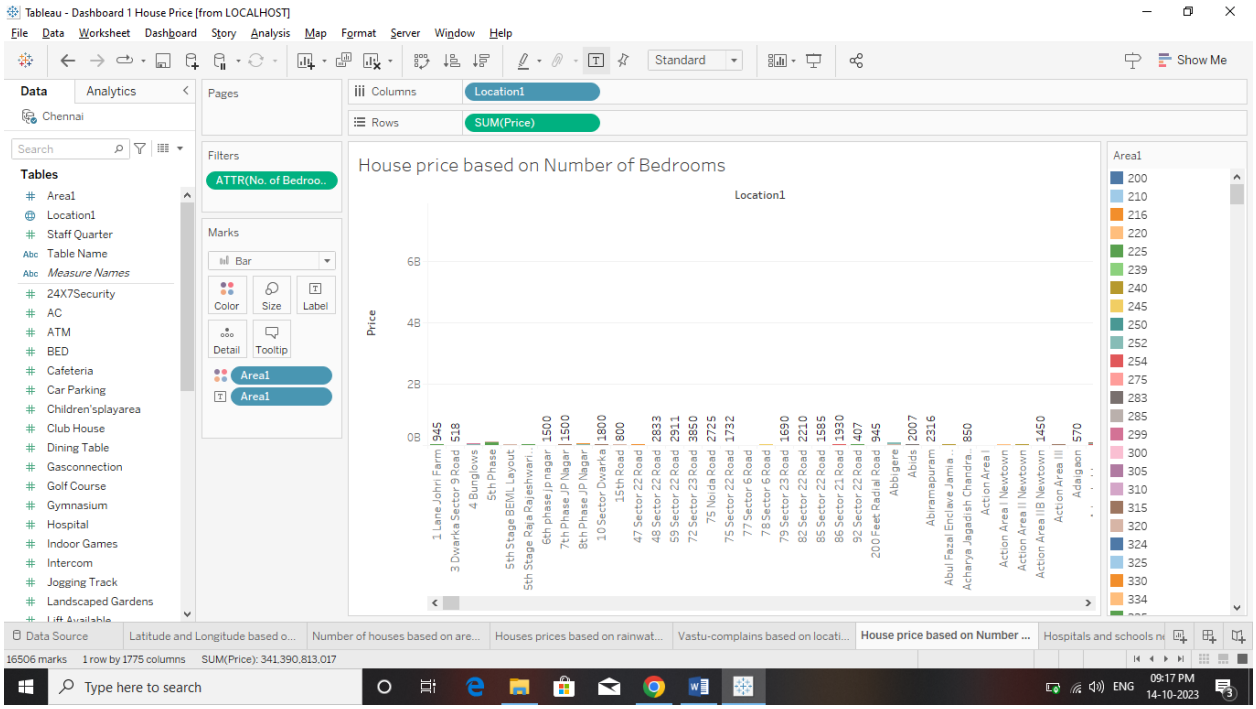
c) Houses price based on rainwater harvest pits:



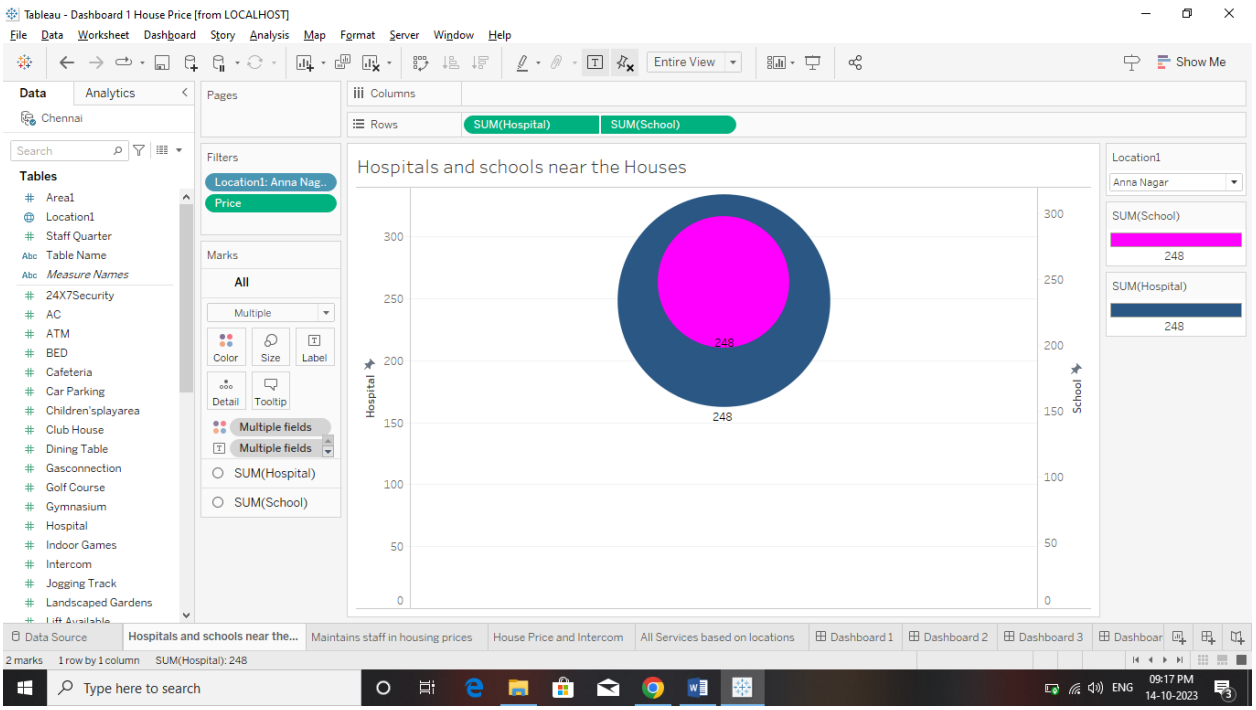
d) Vastu-complains based on location



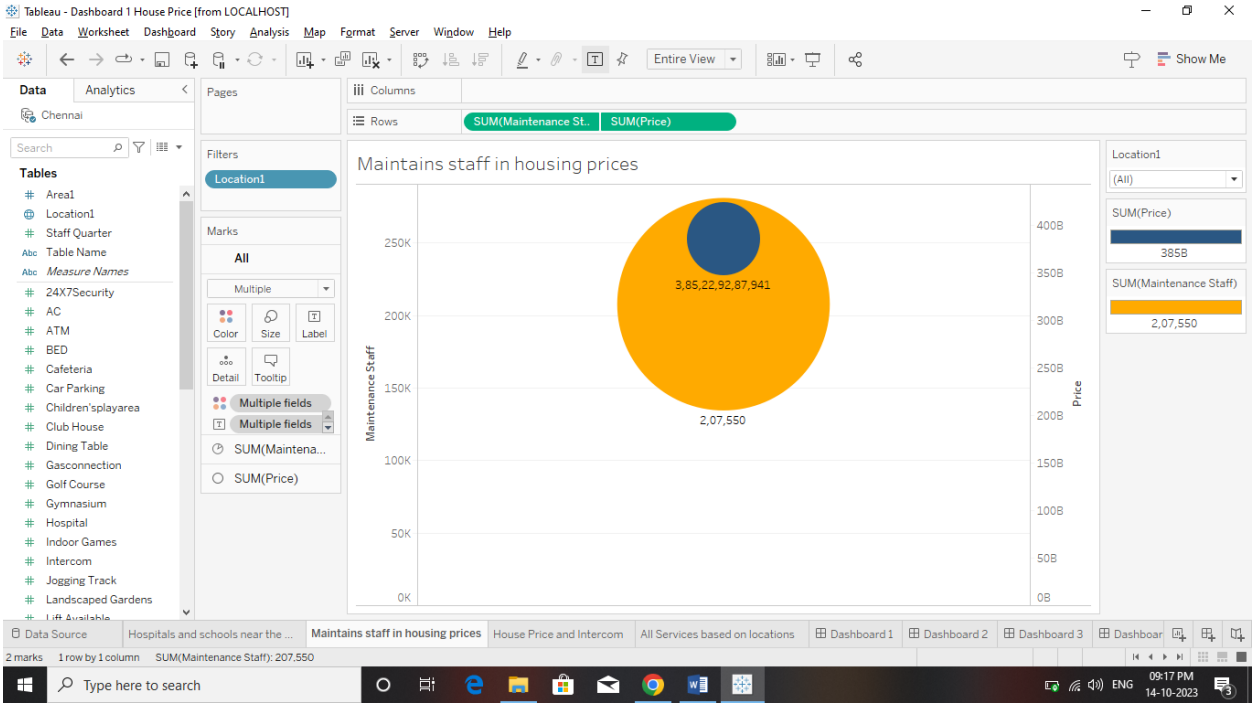
e) House price based on Number of Bedrooms:



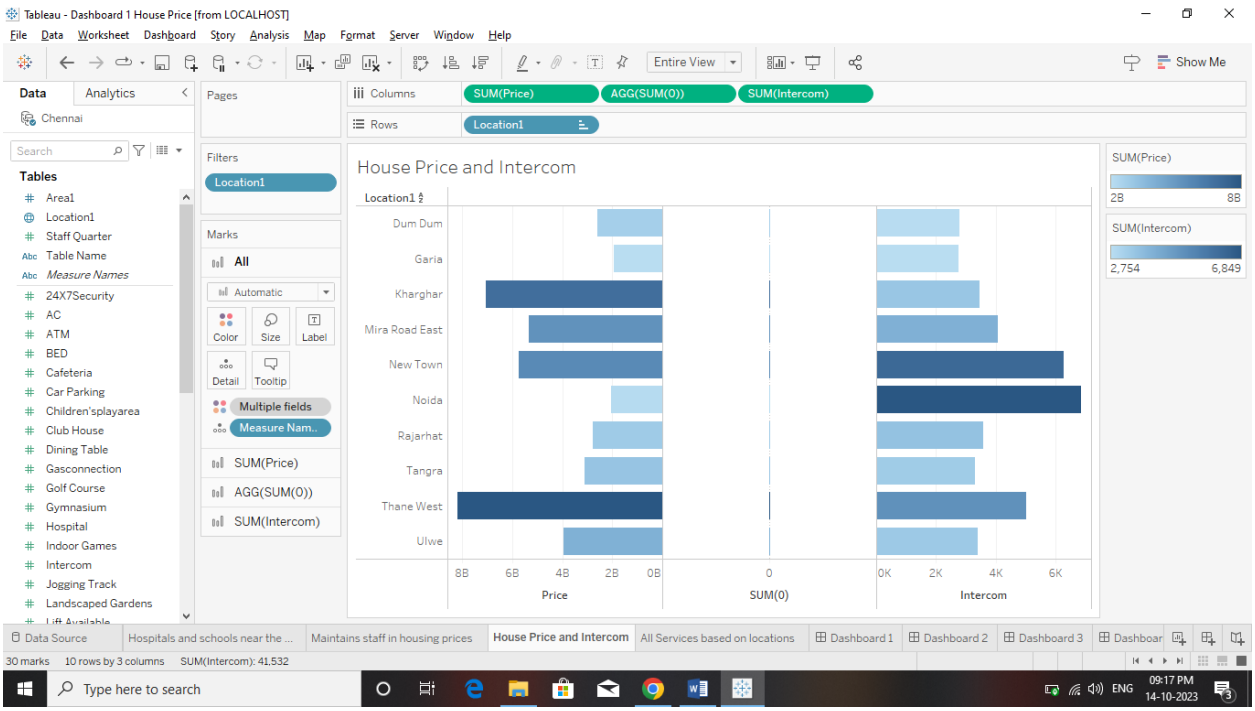
f) Hospitals and schools near the Houses:



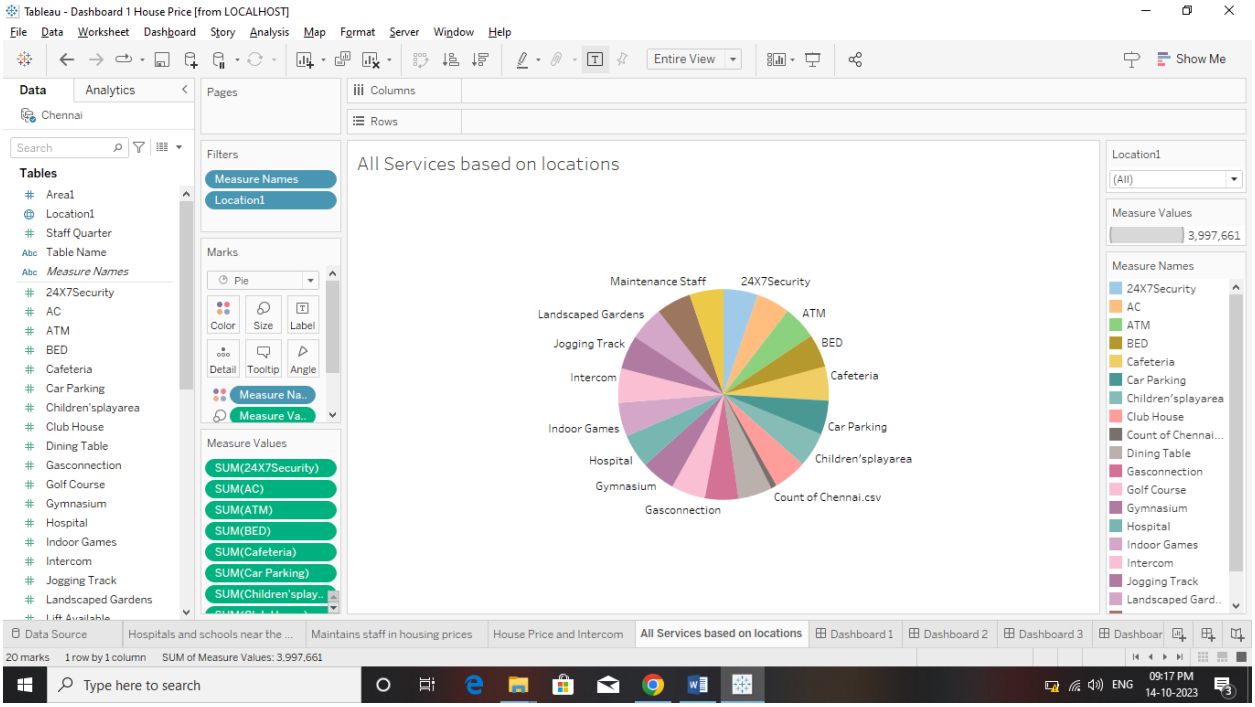
g) Maintains staff in housing prices:



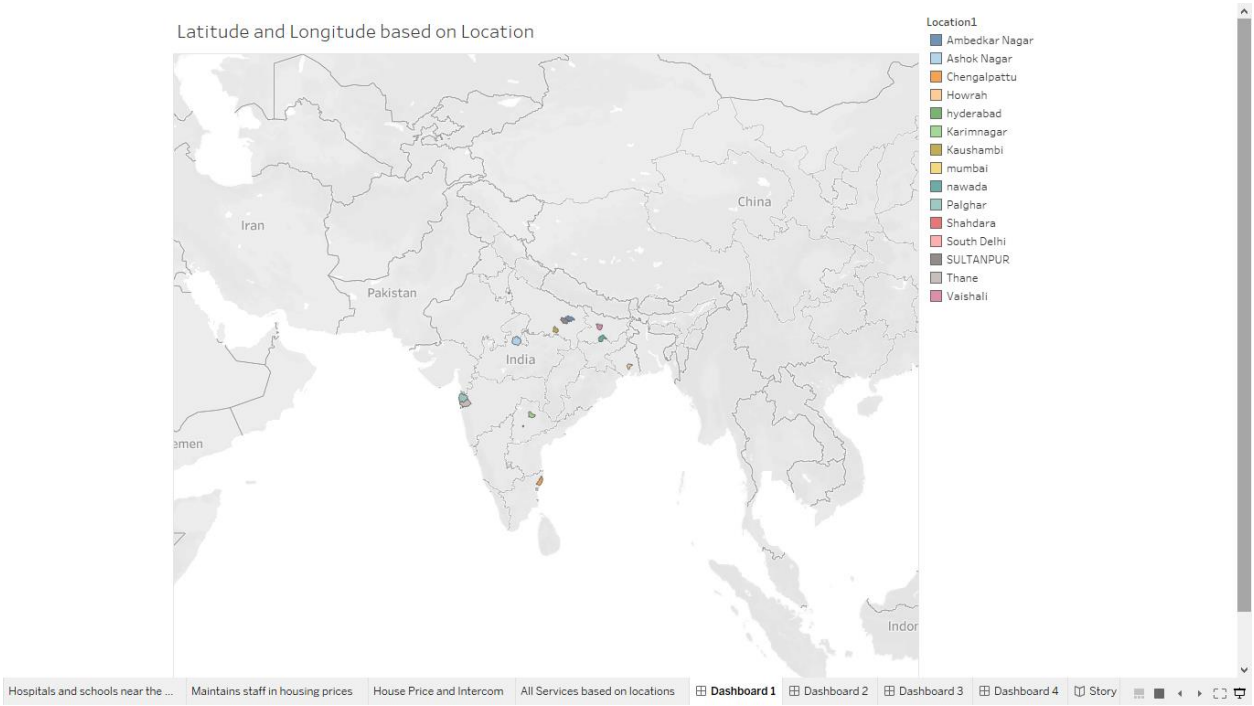
h) House Price and Intercom



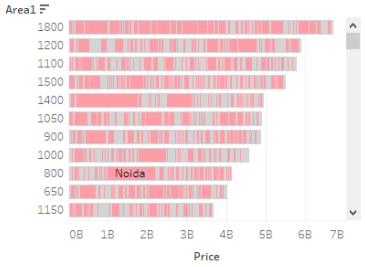
i) All Services based on locations:



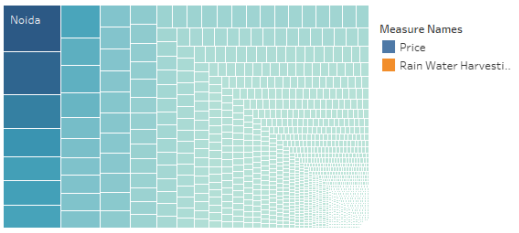
3.2. Dashboard:



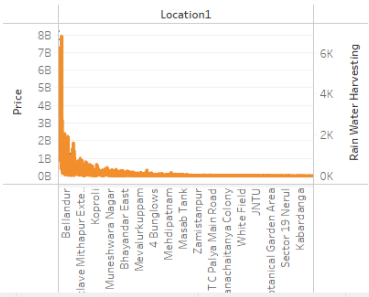
Number of houses based on area in sqf



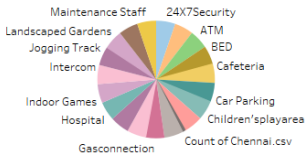
Vastu-complains based on location

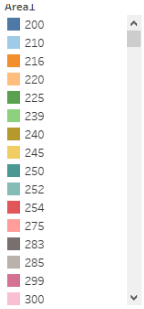


Houses prices based on rainwater harvest pits

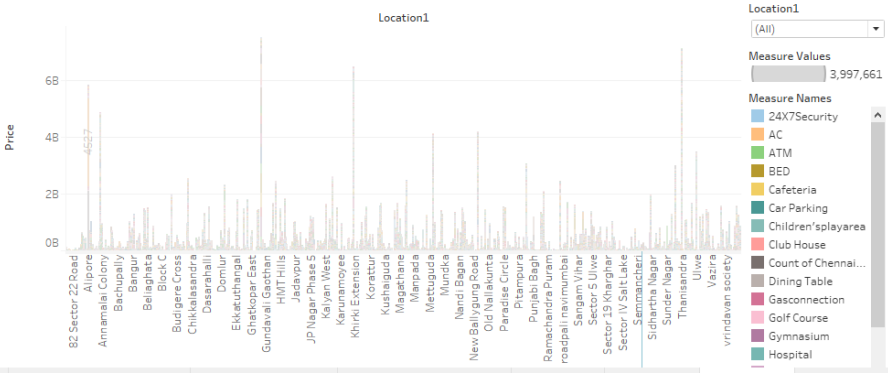


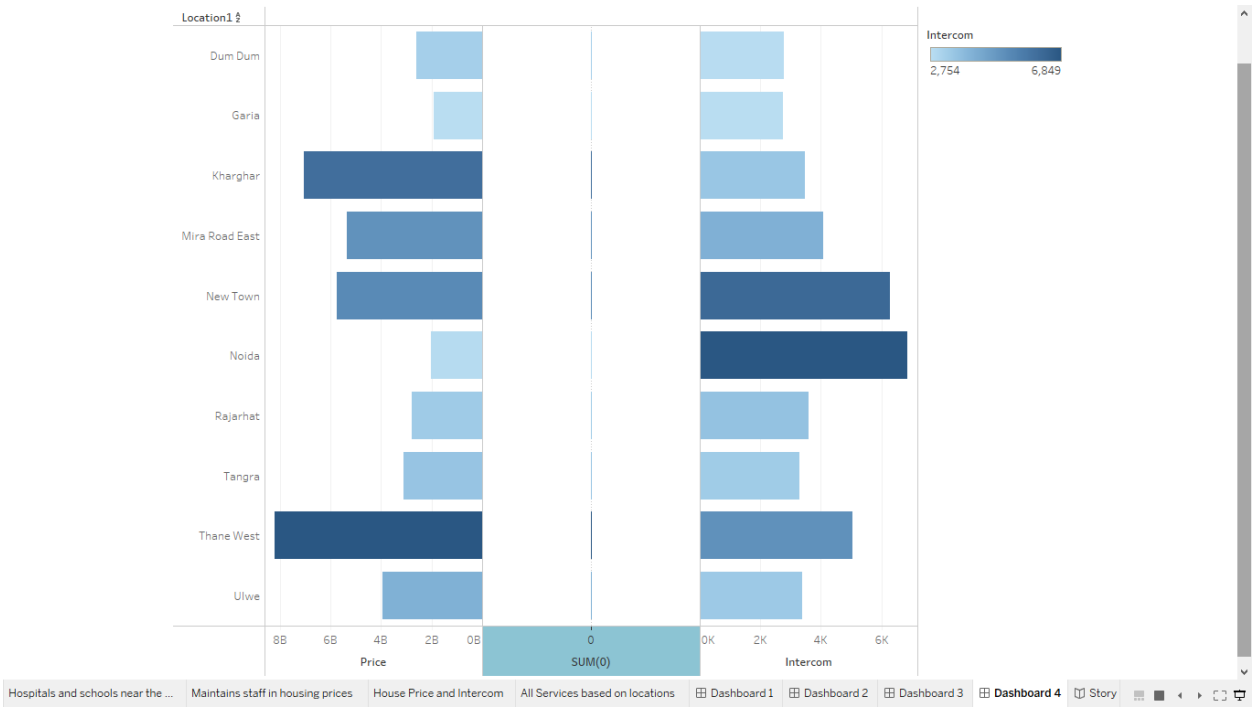
All Services based on locations



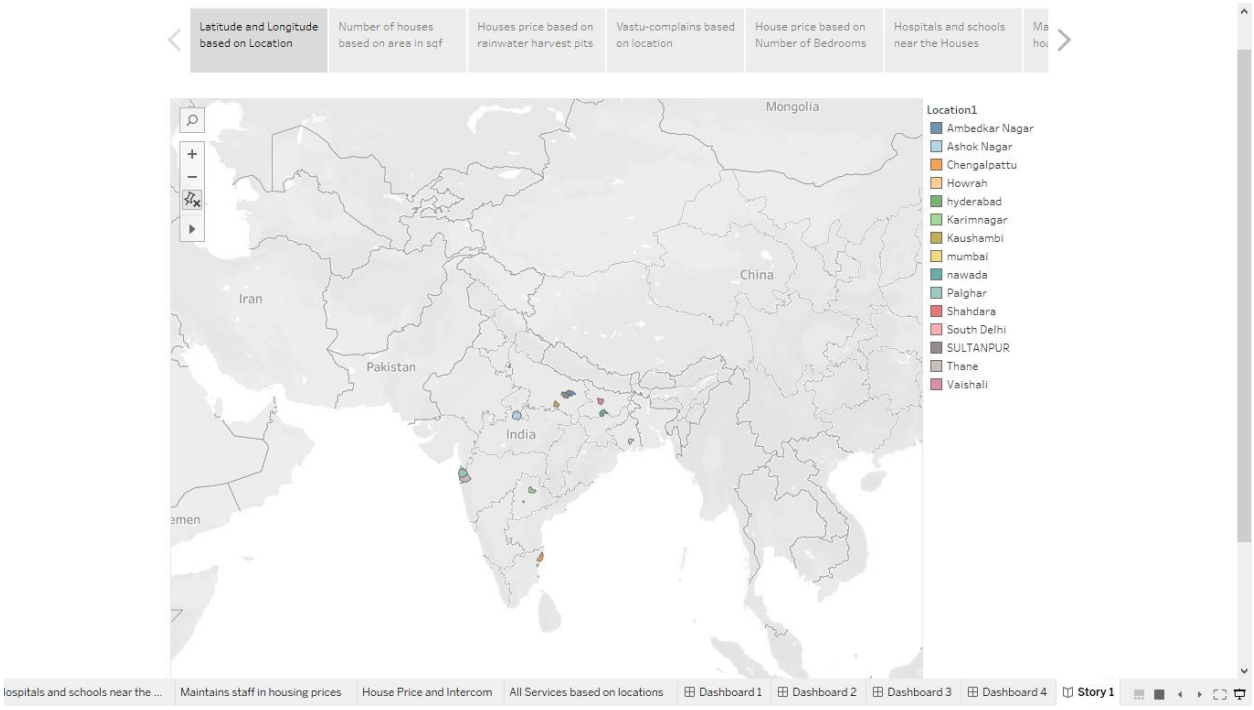


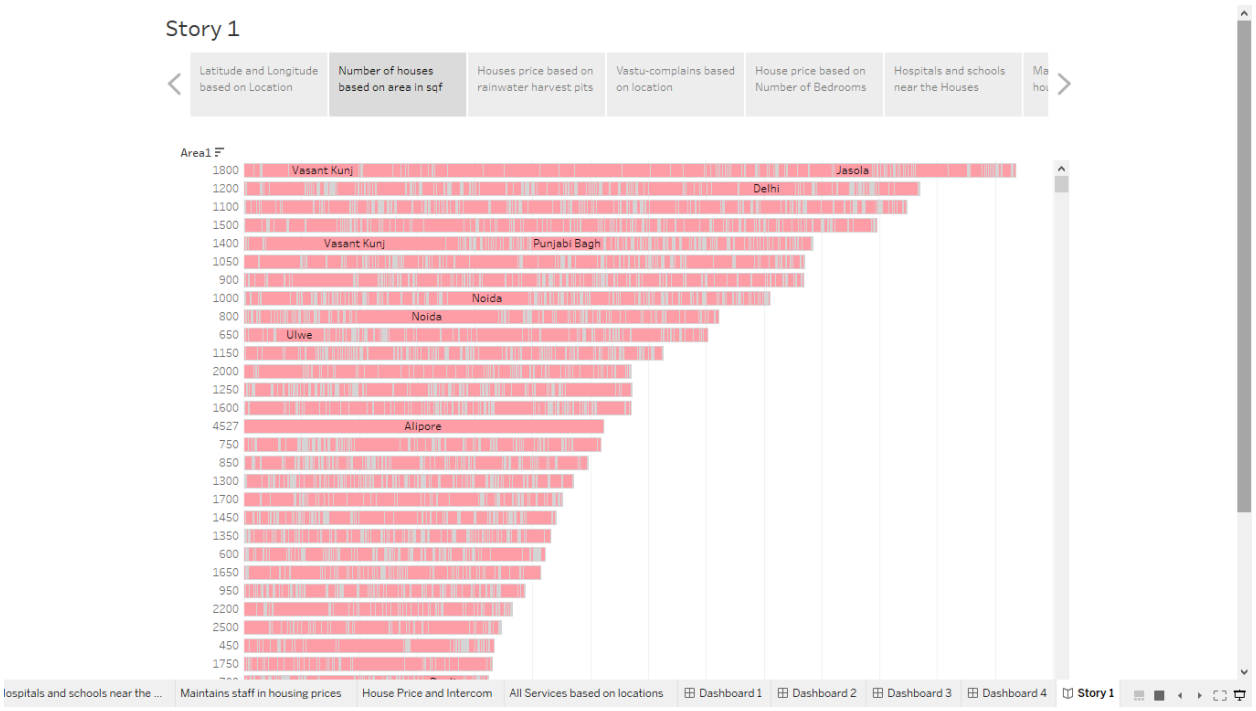
House price based on Number of Bedrooms




Location1
Dum Dum
Garia
Kharghar
Mira Road East
New Town
Noida
Rajarhat
Tangra
Thane West
Ulwe
Intercom
2,754
6,849
8B
6B
4B
2B
0B
0
0K
2K
4K
6K
Price
SUM(0)
Intercom
Hospitals and schools near the ...
Maintains staff in housing prices
House Price and Intercom
All Services based on locations
Dashboard 1
Dashboard 2
Dashboard 3
Dashboard 4
Story

3.3. STORY


Latitude and Longitude based on Location
Number of houses based on area in sqf
Houses price based on rainwater harvest pits
Vastu-complains based on location
House price based on Number of Bedrooms
Hospitals and schools near the Houses
Mongolia
China
Iran
Pakistan
India
Location1
Ambedkar Nagar
Ashok Nagar
Chengalpattu
Howrah
hyderabad
Karimnagar
Kaushambi
mumbai
nawada
Palghar
Shahdara
South Delhi
SULTANPUR
Thane
Vaishali
lospitals and schools near the ...
Maintains staff in housing prices
House Price and Intercom
All Services based on locations
Dashboard 1
Dashboard 2
Dashboard 3
Dashboard 4
Story 1


Story 1
Latitude and Longitude based on Location
Number of houses based on area in sqf
Houses price based on rainwater harvest pits
Vastu-complains based on location
House price based on Number of Bedrooms
Hospitals and schools near the Houses
Area1
1800 Vasant Kunj Jasola
1200 Delhi
1100
1500
1400 Vasant Kunj Punjabi Bagh
1050
900
1000 Noida
800 Noida
650 Ulwe
1150
2000
1250
1600
4527 Alipore
750
850
1300
1700
1450
1350
600
1650
950
2200
2500
450
1750
lospitals and schools near the ...
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Dashboard 1
Dashboard 2
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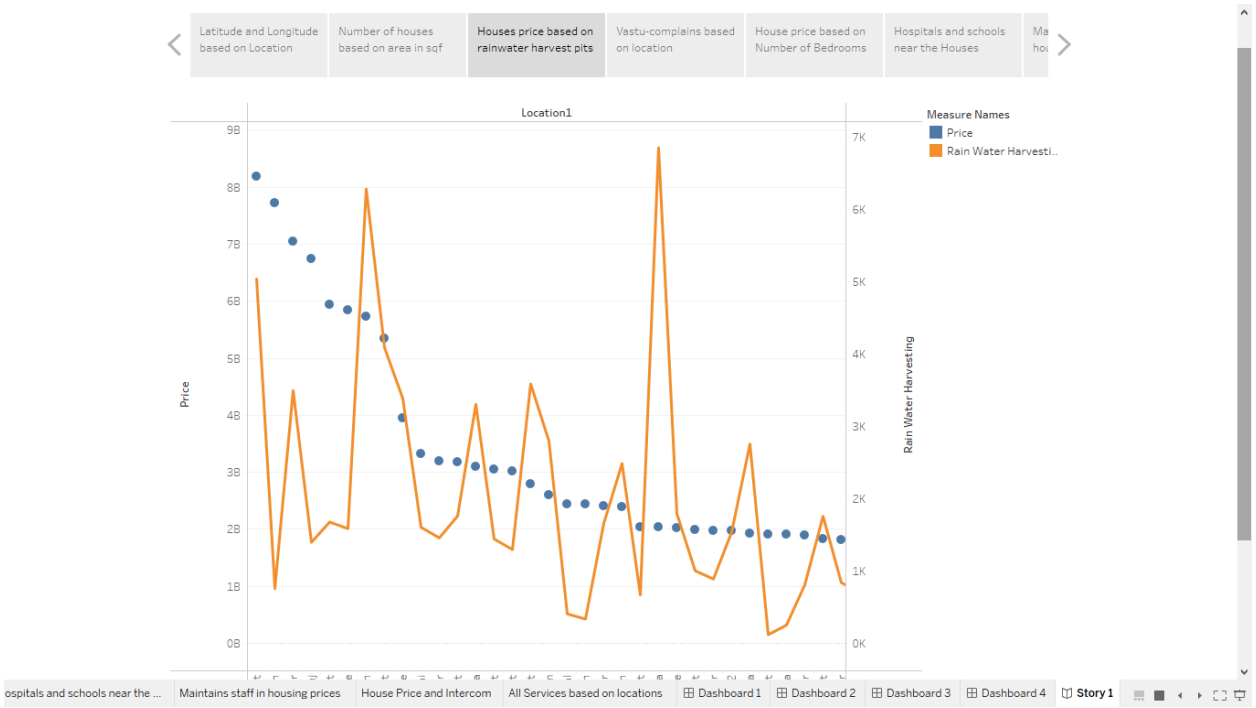
Dashboard 4
Story 1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Vastu-complains based on location
House price based on Number of Bedrooms
Hospitals and schools near the Houses
Location1
Measure Names
Price
Rain Water Harvesti..
Price
9B
8B
7B
6B
5B
4B
3B
2B
1B
0B
Rain Water Harvesting
7K
6K
5K
4K
3K
2K
1K
0K
ospitals and schools near the ...
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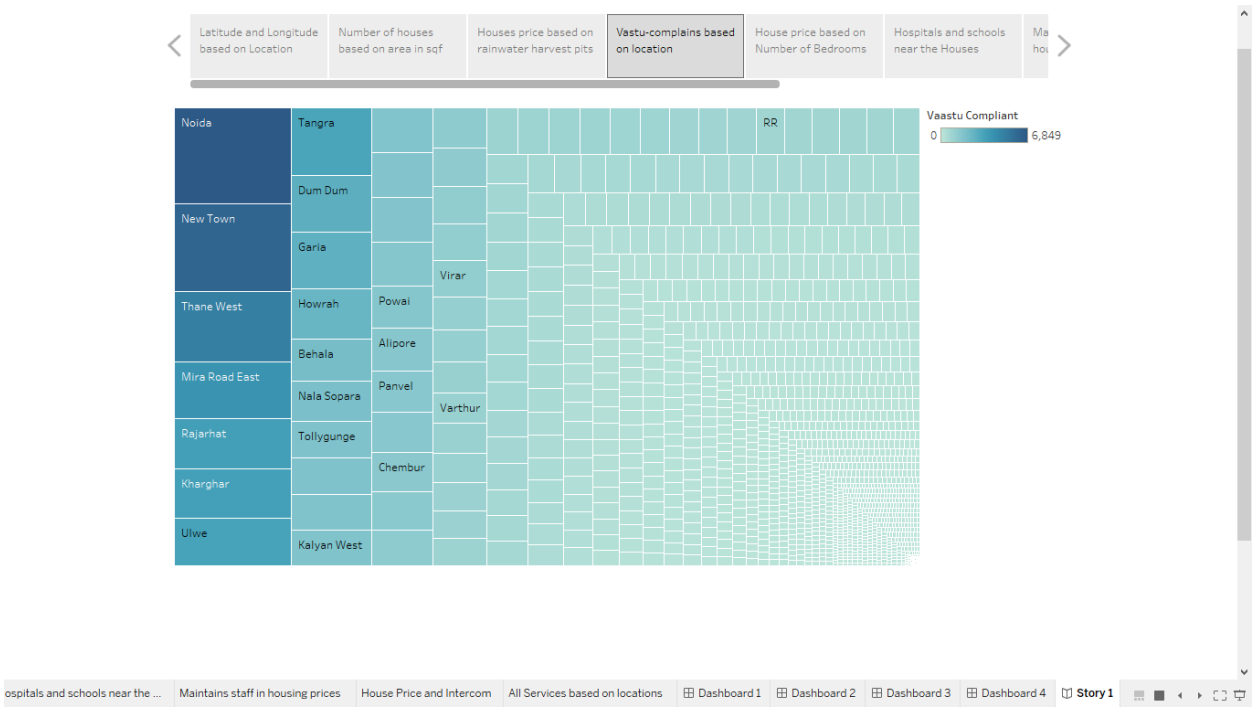
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House price based on Number of Bedrooms
Hospitals and schools near the Houses
Noida
New Town
Thane West
Mira Road East
Rajarhat
Kharghar
Ulwe
Tangra
Dum Dum
Garia
Howrah
Behala
Nala Sopara
Tollygunge
Kalyan West
Powai
Alipore
Panvel
Chembur
Virar
Varthur
RR
Vaastu Compliant
0
6,849
Maintains staff in housing prices
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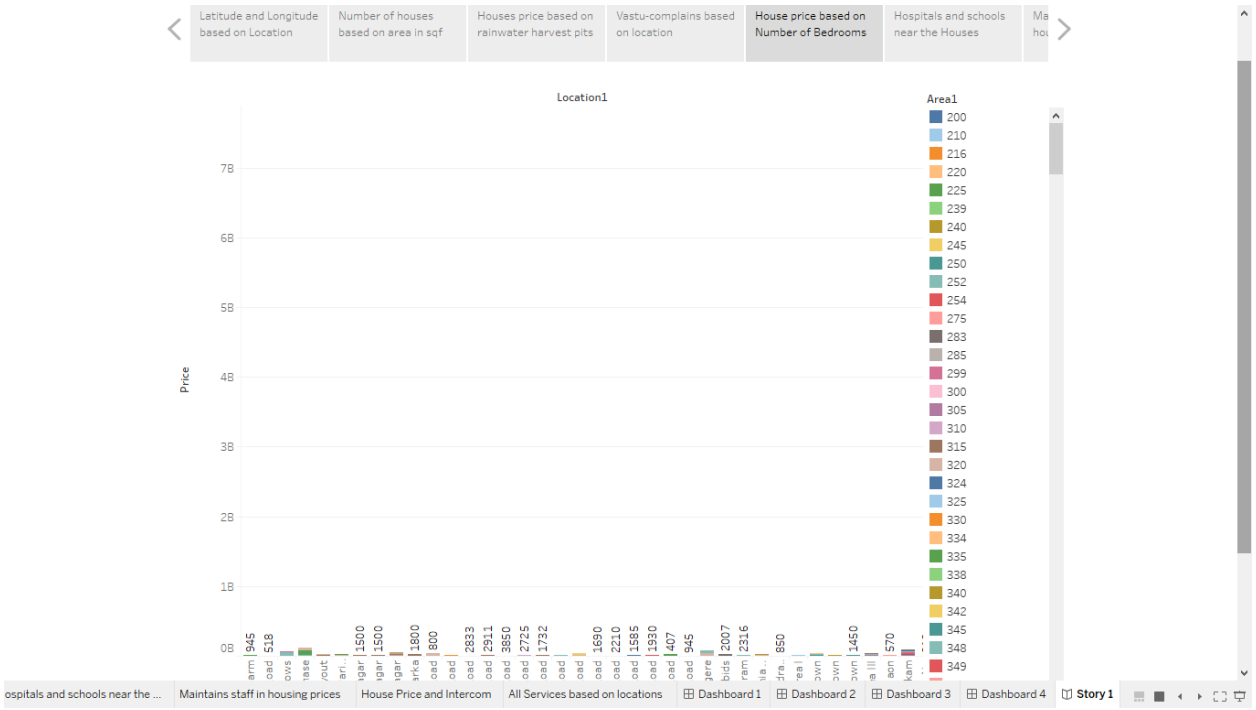
Dashboard 4
Story 1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House price based on Number of Bedrooms
Hospitals and schools near the Houses
Location1
Area1
Price
7B
6B
5B
4B
3B
2B
1B
0B
Maintains staff in housing prices
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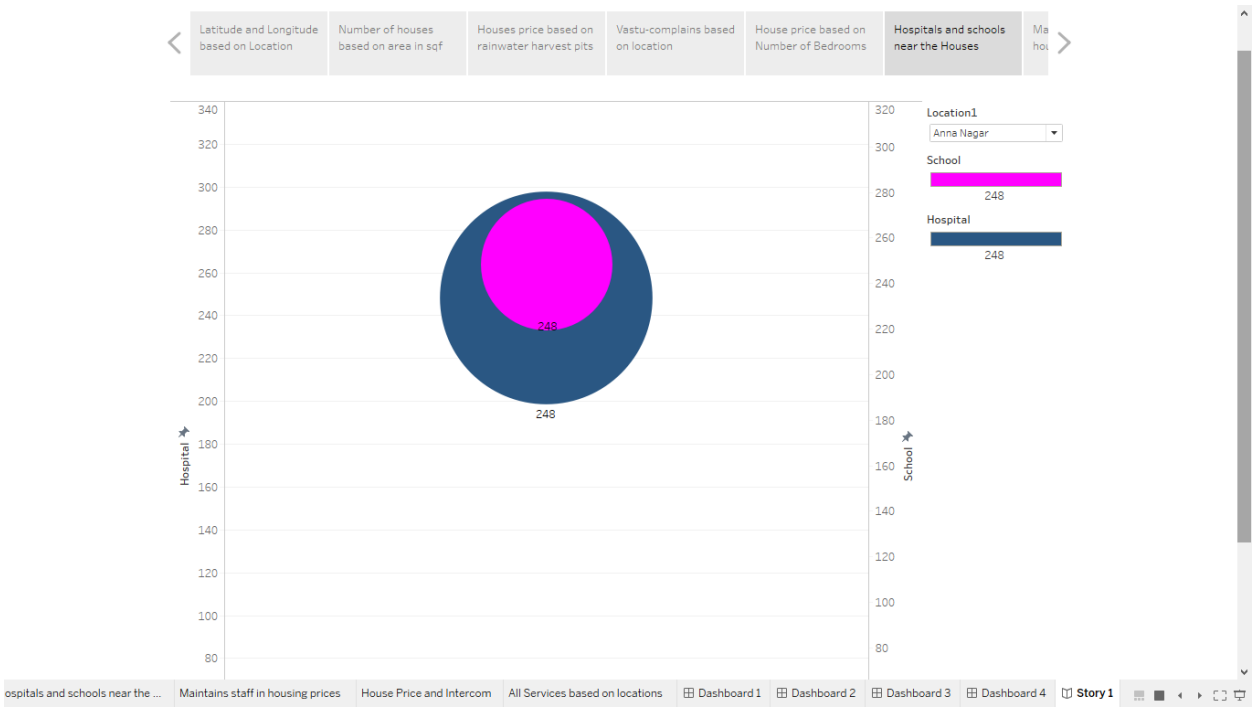
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Number of houses based on area in sqf
Houses price based on rainwater harvest pits
Vastu-complains based on location
House price based on Number of Bedrooms
Hospitals and schools near the Houses
Location1
Anna Nagar
School
248
Hospital
248
248
248
Hospital
School
ospitals and schools near the ...
Maintains staff in housing prices
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Dashboard 1
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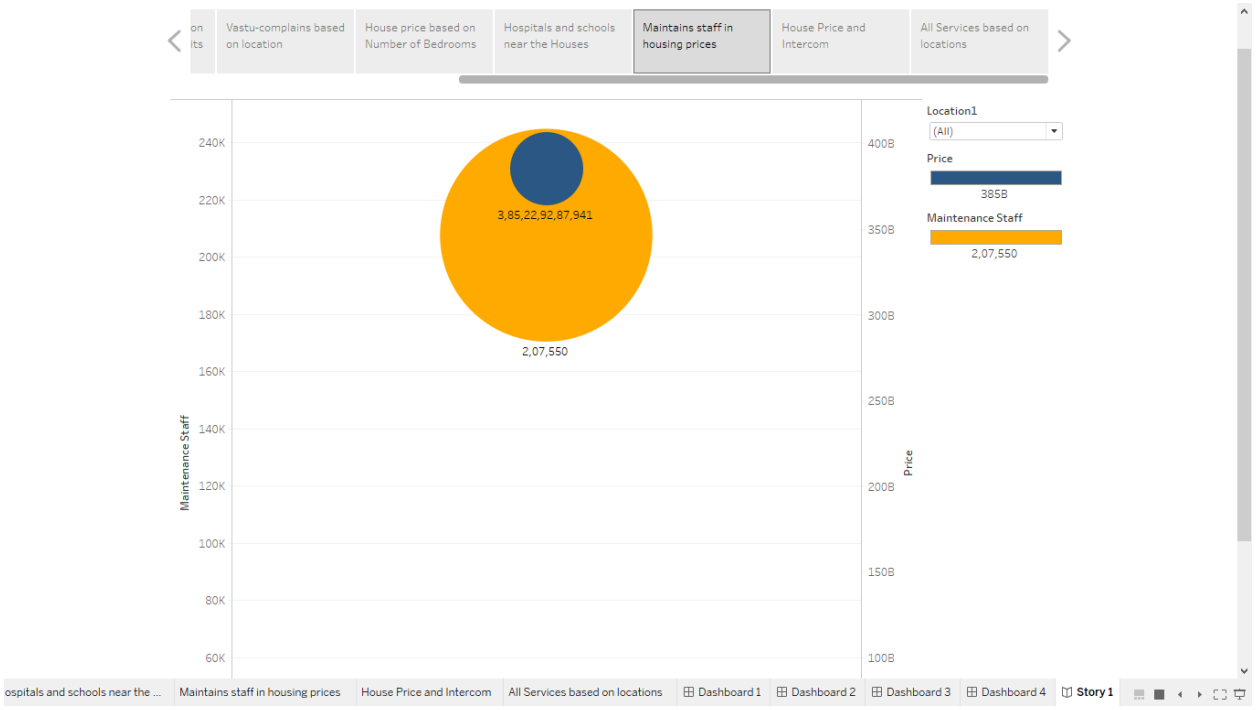
Dashboard 3
Dashboard 4
Story 1


Vastu-complains based on location
House price based on Number of Bedrooms
Hospitals and schools near the Houses
Maintains staff in housing prices
House Price and Intercom
All Services based on locations
Location1
(All)
Price
385B
Maintenance Staff
2,07,550
3,85,22,92,87,941
2,07,550
Maintenance Staff
Price
ospitals and schools near the ...
Maintains staff in housing prices
House Price and Intercom
All Services based on locations
Dashboard 1
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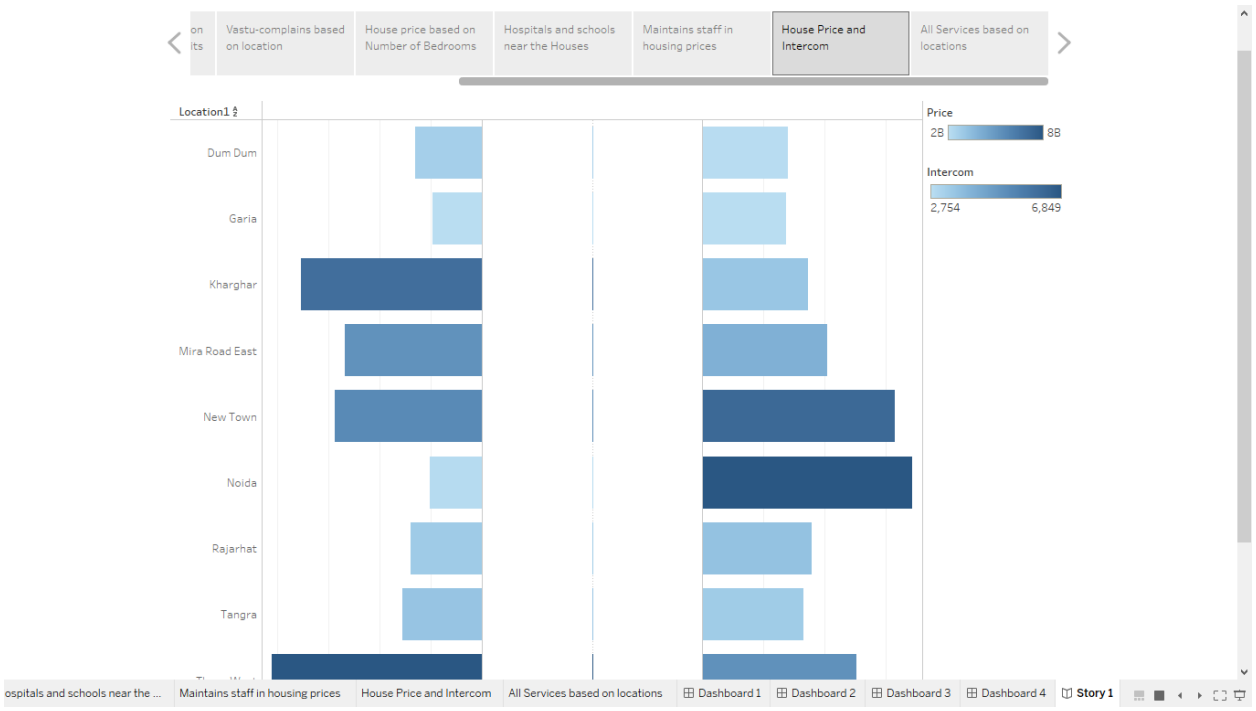
Dashboard 4
Story 1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Garia
Kharghar
Mira Road East
New Town
Noida
Rajarhat
Tangra
Price
2B
8B
Intercom
2,754
6,849
ospitals and schools near the ...
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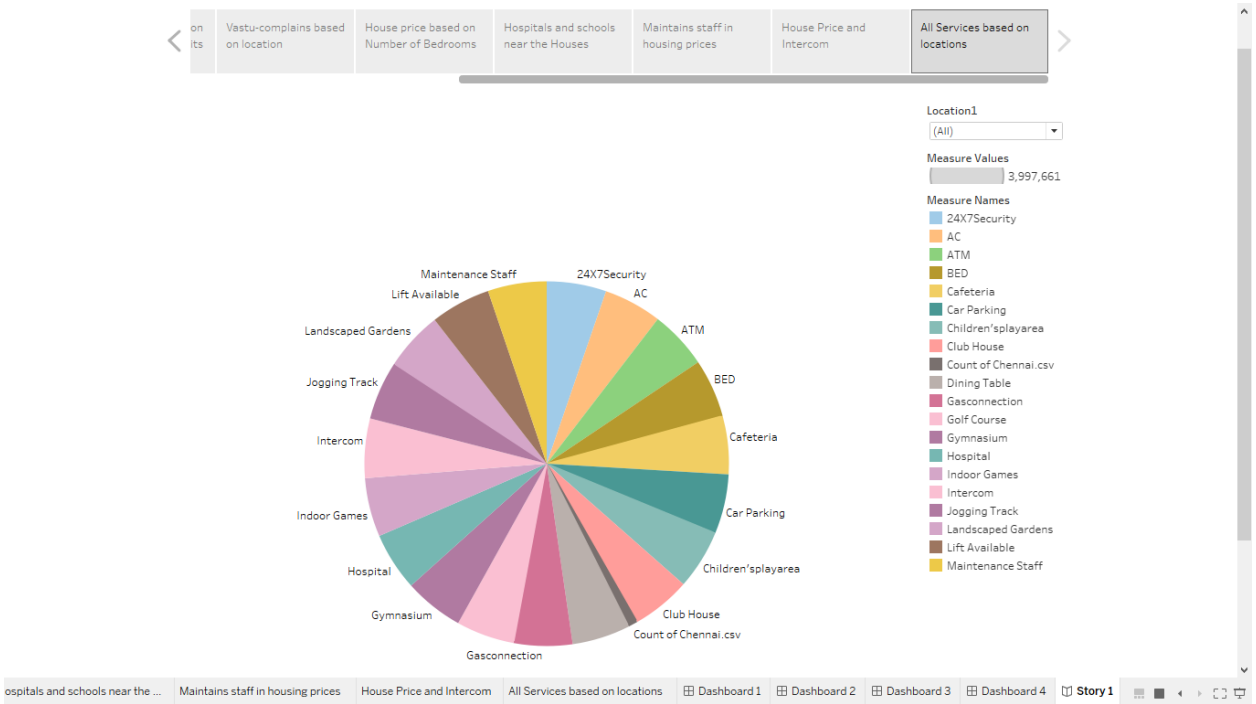
Story 1


Vastu-complains based on location
House price based on Number of Bedrooms
Hospitals and schools near the Houses
Maintains staff in housing prices
House Price and Intercom
All Services based on locations
Location1
(All)
Measure Values
3,997,661
Measure Names
24X7Security
AC
ATM
BED
Cafeteria
Car Parking
Children'splayarea
Club House
Count of Chennai.csv
Dining Table
Gasconnection
Golf Course
Gymnasium
Hospital
Indoor Games
Intercom
Jogging Track
Landscaped Gardens
Lift Available
Maintenance Staff
Maintenance Staff
24X7Security
AC
ATM
BED
Cafeteria
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Club House
Count of Chennai.csv
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Gymnasium
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ospitals and schools near the ...
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Dashboard 1
Dashboard 2
Dashboard 3
Dashboard 4
Story 1

ADVANTAGES:

- Analysing houses price can help identify potential investment opportunities is metropolitan cities.
- Studying house prices help in understanding the market trends such as demand supply, dynamics, price fluctuations and overall market condition.
- Analysing house prices aids in financial planning. It helps individuals and business estimate the affordability of properties plan for mortgage payments.

DISADVANTAGES:

- Volatility: Houses prices in metropolitan cities can be highly volatile.
- Sack of transparency: The real estate sector in after suffers from a lack of transparency especially when it comes to property transaction and pricing.
- External factors: House prices in metropolitan cities can be influenced by external factors that are beyond the control of individuals or investors.
- Timing and marker: Analysing house prices requires considering the timing of the analysis and the timing of the market.

APPLICATIONS:

- House price prediction can help the development the selling price of a house.
- Financial planning is helps to estimating the affordability of properties, assessing mortgage payment and evaluating the long perm financial implication of real estate transaction.
- Market research is helps to developers, builders, and real estate companies understand the demand and supply dynamics in specific areas.

CONCLUSION:

- In this project Housing prices in metropolitan areas of India is analysed with the help of Tableau. For this the data collected from various sources. At first, we define the problem in the form of Empathy map and Brain storming. Then the collected data set are connected to the Tableau and we created various charts like bar charts, pie chart, map charts. Finally we created

dashboard and story using these charts. Also from these charts we analysed the Housing prices in Metropolitan areas of India.

FUTURE SCOPE:

- House price analysis in metropolitan cities provides valuable insights for market research purpose.
- India’s real estate sector is expected to expand to USD 5.8 trillion or USD 5.33 billion by 2047.
- The next 25 years are going to witness a dramatic transformation in the Indian economy and the real estate sector.