ANALYSING HOUSING PRICES IN METROPOLITAN AREAS OF INDIA

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NM2023TMID37151

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Project Title:

Analysing housing prices in metropolitan areas of India.

Details:

3rd year,

B.SC Physics,

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1. INTRODUCTION

1.1 OVERVIEW

Our project "ANALYSING HOUSING PRICES IN METROPOLITIAN AREAS IN INDIA". In this topic we have learnt the housing prices for the cities like Bangalore, Chennai, Delhi, Hyderabad, Kolkata. And the housing prices across 8 major Indian cities increased by 7% in Q2 2023 report.
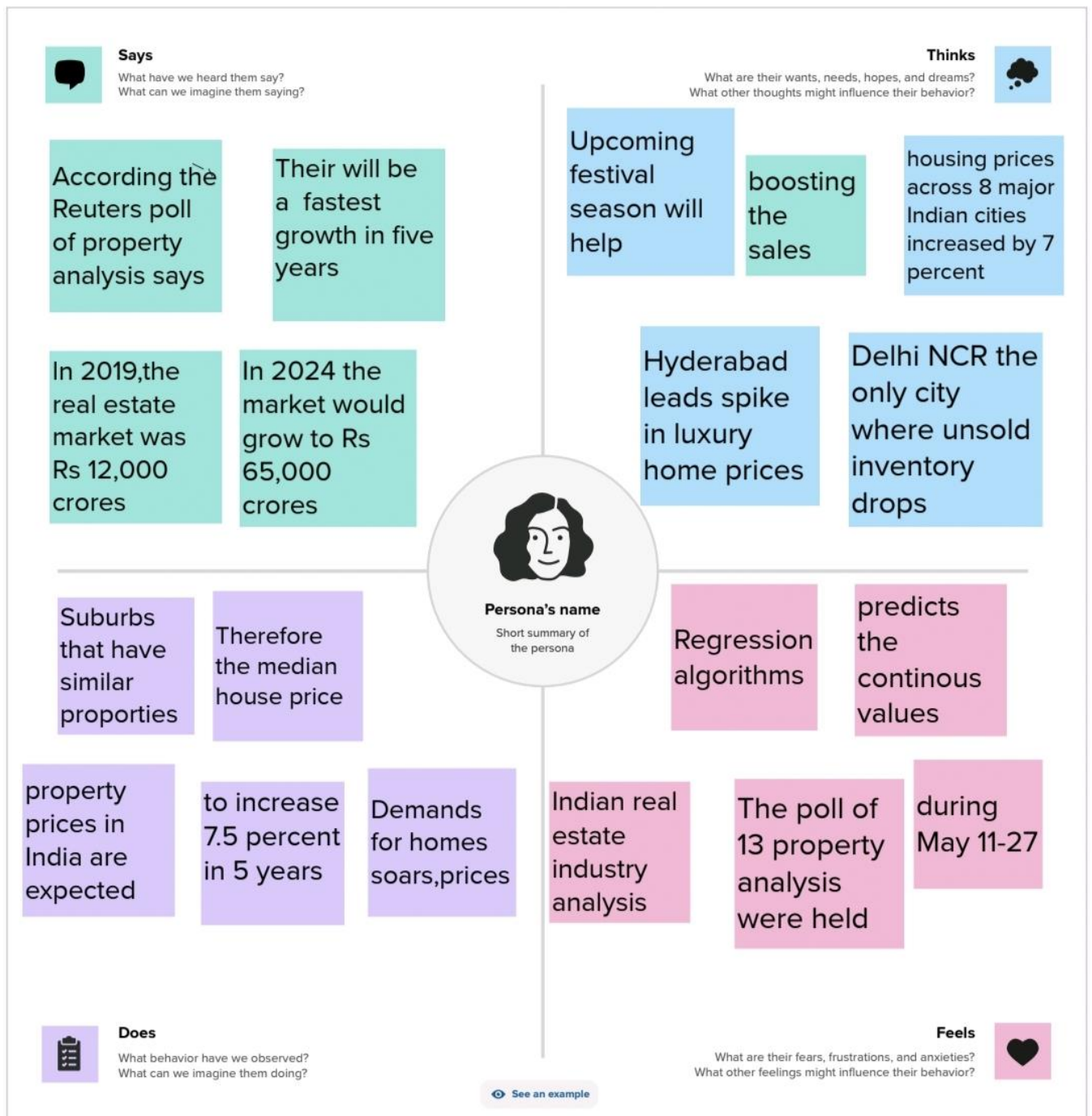
1.2 PURPOSE

By using this project we have understand the housing prices in various cities. The HPI is one of many economic indicators that investors use to keep a pulse on broader economic trends and potential shifts in the stock market. The rise and fall of house prices can have big implications for the economy.

Average house prices in the top seven cities – National Capital Region, Kolkata, Mumbai Metropolitan Region, Pune, Hyderabad, Chennai and Bangalore – increased 4% - 7% between October and December, according to Anarock. That was mainly due to rise in both input costs and posts – COVID demand

2. PROBLEM DEFINITION & DESIGN THINKING

2.1 EMPATHY MAP

In this empathy map we have done the thinks, says, does and feels of our topic "ANALYSING THE HOUSING PRICES IN METROPOLITIAN CITIES IN INDIA".

Says
What have we heard them say?
What can we imagine them saying?

According the Reuters poll of property analysis says

Their will be a fastest growth in five years

In 2019,the real estate market was Rs 12,000 crores

In 2024 the market would grow to Rs 65,000 crores

Thinks
What are their wants, needs, hopes, and dreams?
What other thoughts might influence their behavior?

Upcoming festival season will help

boosting the sales

housing prices across 8 major Indian cities increased by 7 percent

Hyderabad leads spike in luxury home prices

Delhi NCR the only city where unsold inventory drops

Persona's name
Short summary of the persona

Suburbs that have similar proporties

Therefore the median house price

Regression algorithms

predicts the continous values

property prices in India are expected

to increase 7.5 percent in 5 years

Demands for homes soars,prices

Indian real estate industry analysis

The poll of 13 property analysis were held

during May 11-27

Does
What behavior have we observed?
What can we imagine them doing?

Feels
What are their fears, frustrations, and anxieties?
What other feelings might influence their behavior?

See an example

We have given the screenshot of our empathy map.

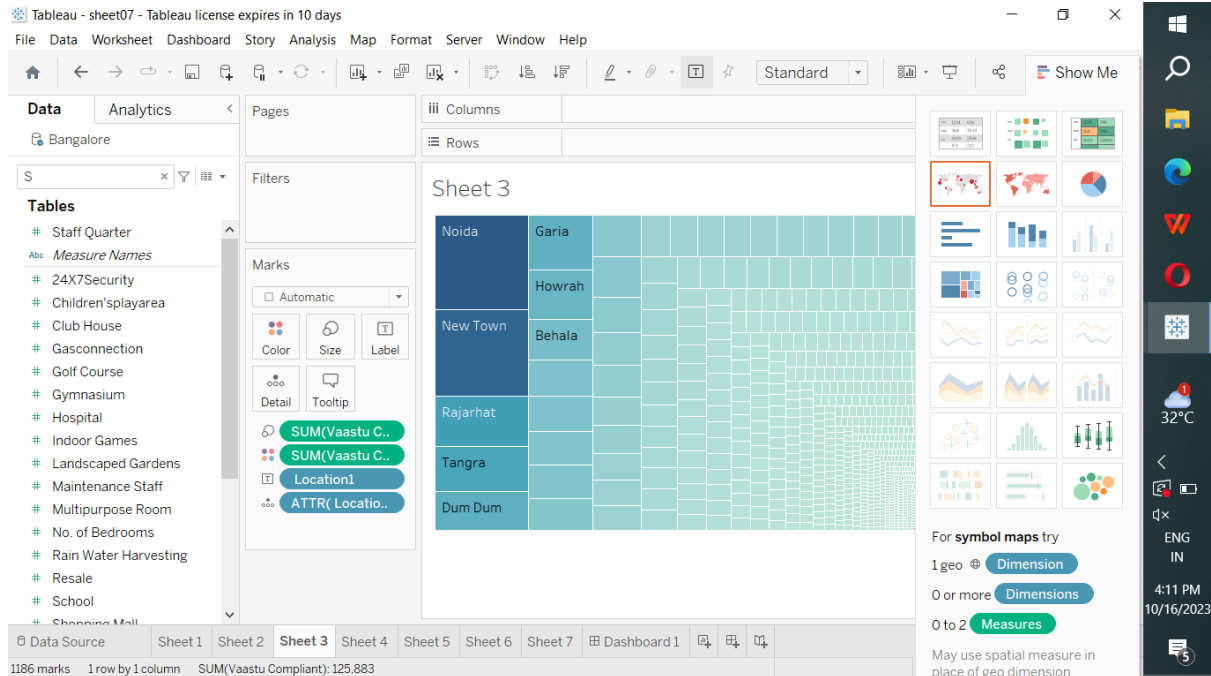## 2.2 BRAINSTORMING MAP

In this map brainstorming and idea prioritization map we have mentioned some of the important points about our topic.
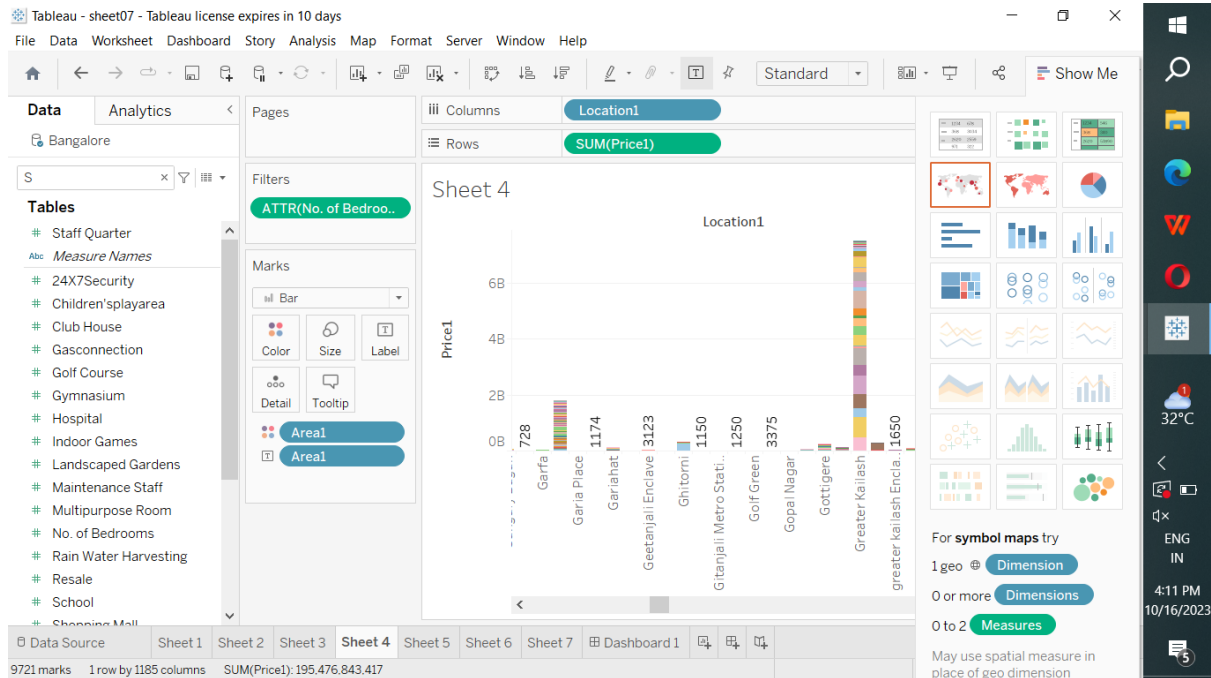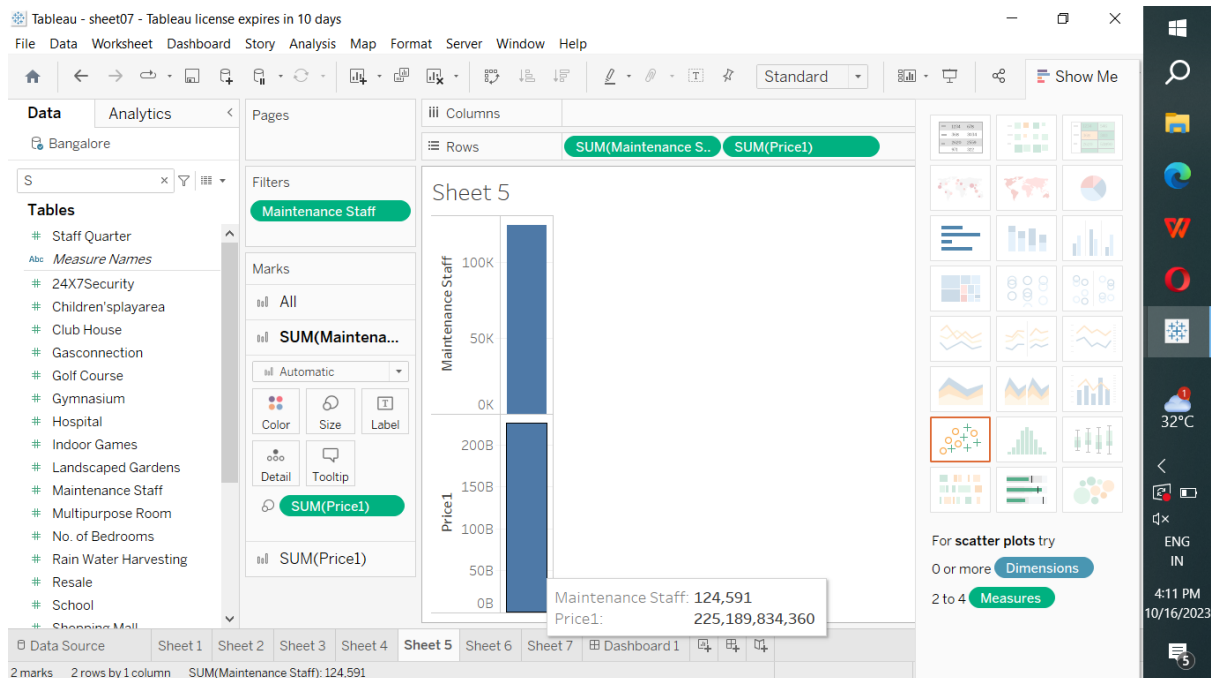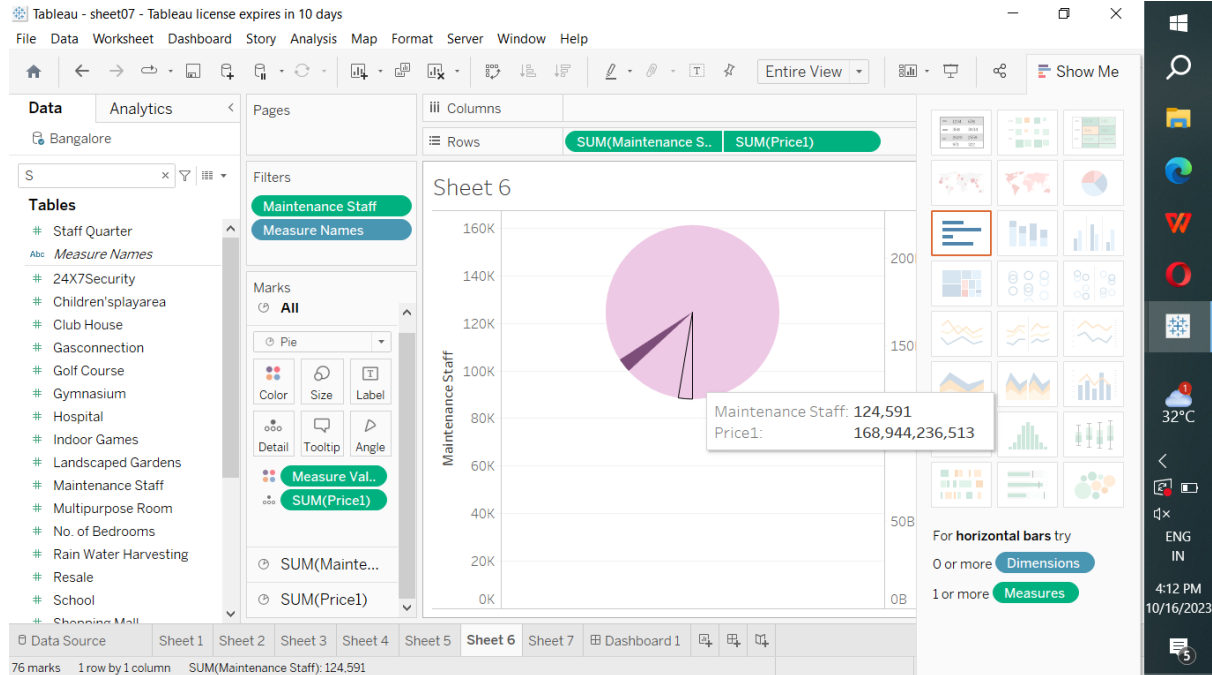
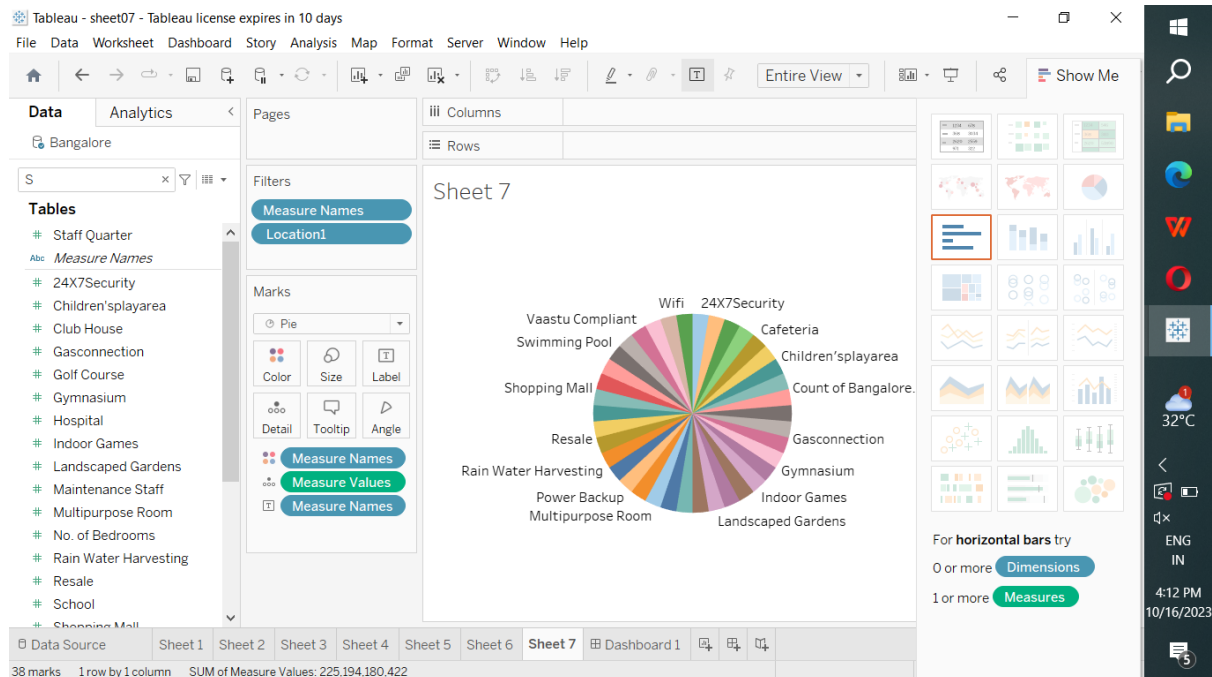The above given picture is our brainstorming and idea prioritization map.

3. RESULT
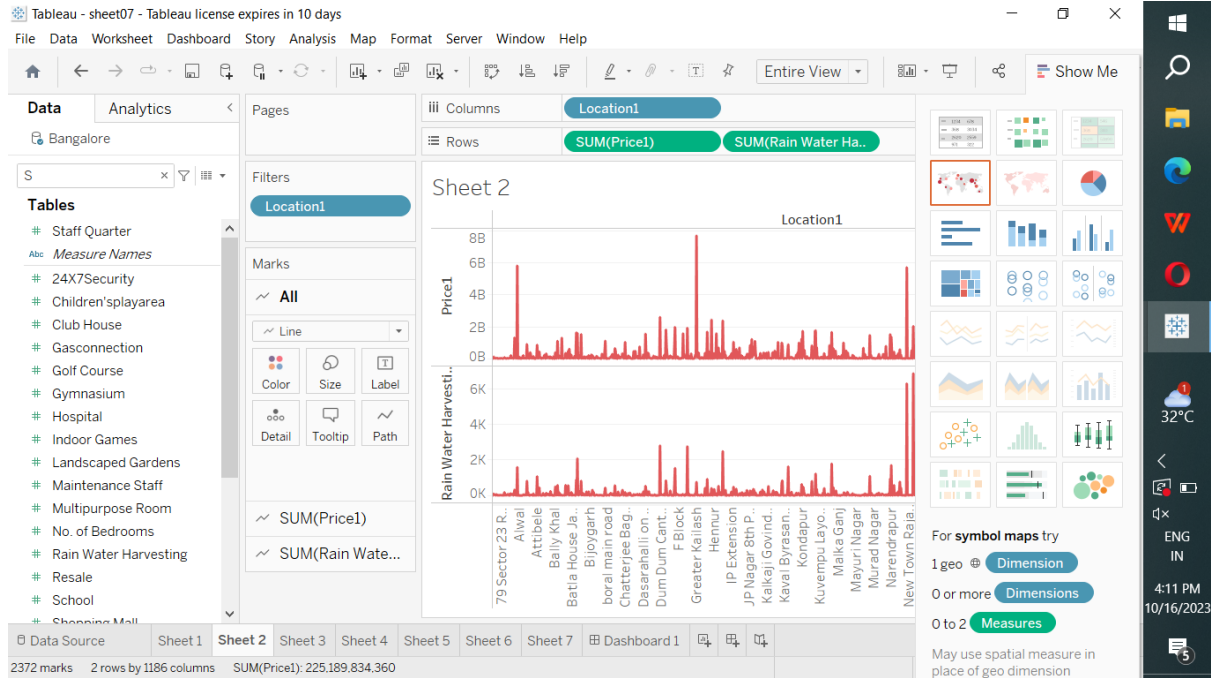
Sheet 1

Sheet 2

Sheet 3

Sheet 4
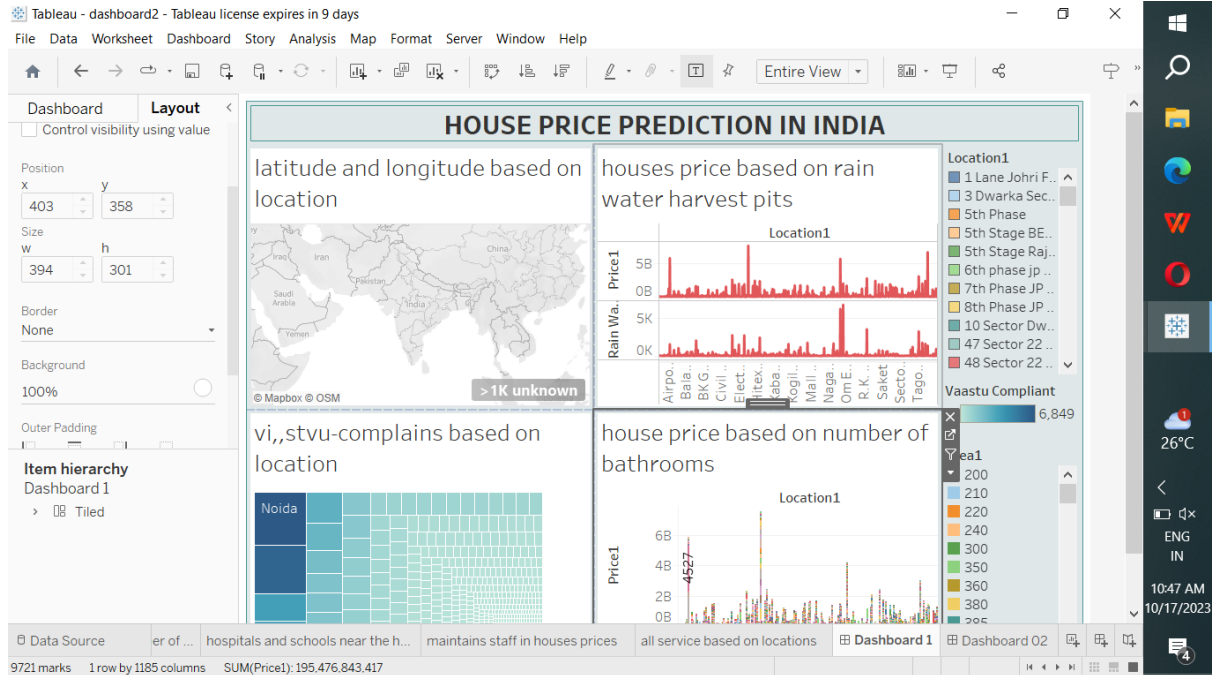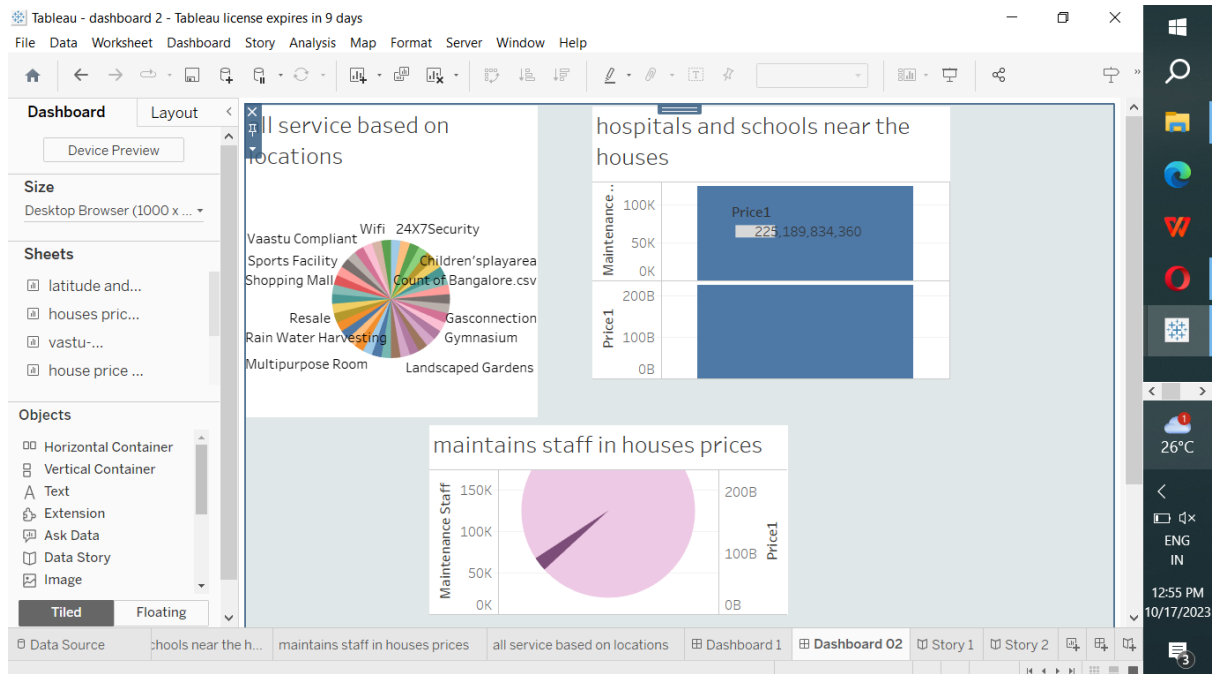

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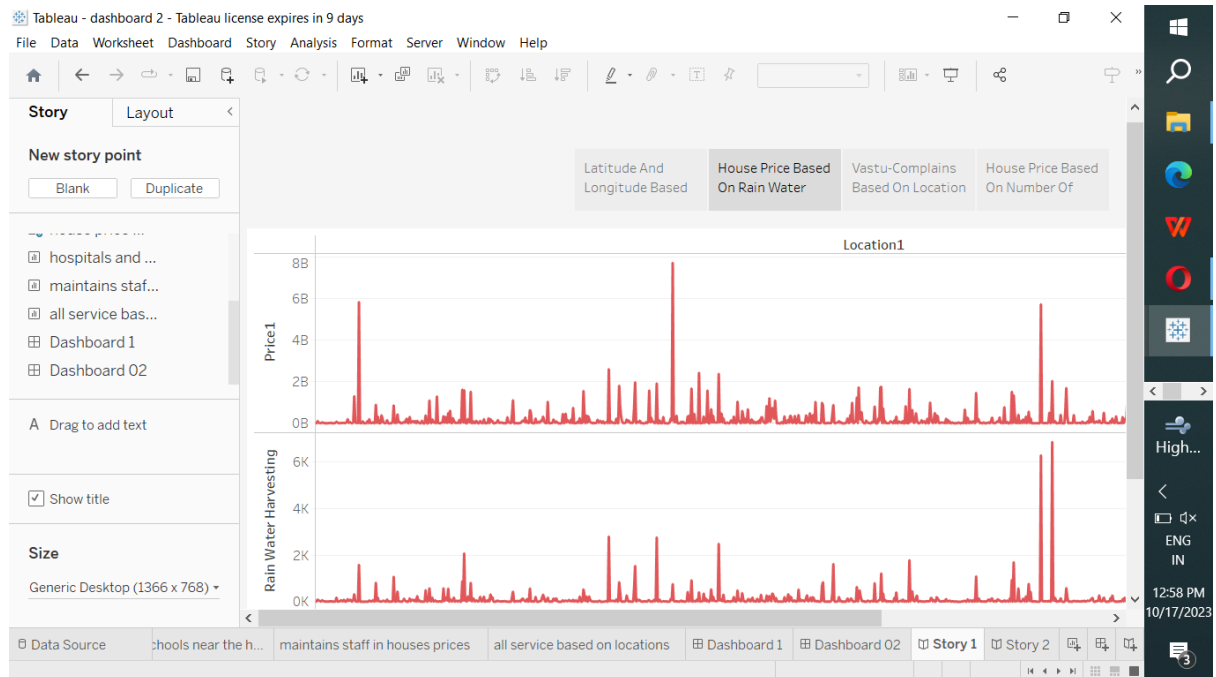
Sheet 6

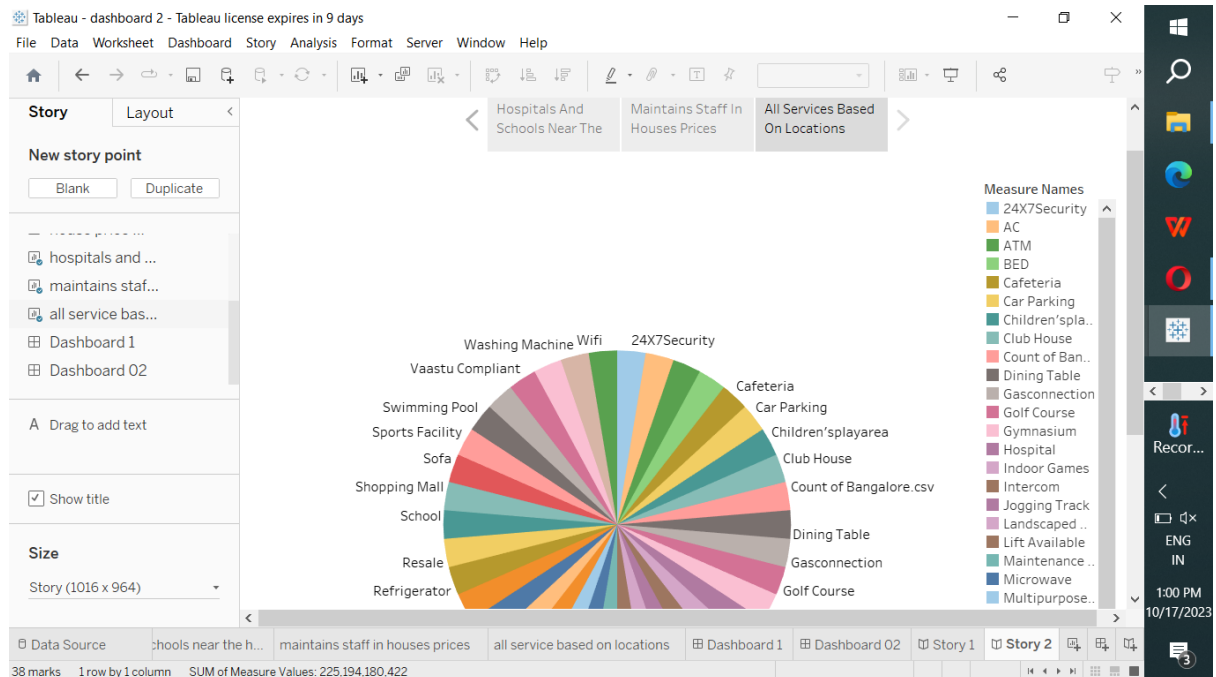

Sheet 7

Dashboard 1

Dashboard 2

Story 1

Story 2

4. ADVANTAGES AND DISADVANTAGES

ADVANTAGES

House price prediction can help the developer determine the selling prices of a house and can help the customer to arrange the right time to purchase a house. There are three factors that influences the prices of a house which includes physical conditions, concepts and location.

Property prices in India are expected to increase 7.5% on a pan-India basis this year, the fastest growth in five years, according to a Reuters poll of property analysts. Average house prices were forecast to rise 6% next year and in 2024. The 13 property analysts were held during May11 to May27.

The report cited the "225 bps repo rate hike and consequent increase in home loan rates along with higher residential prices" as reasons behind the decline in the EMI to income ratio."2022 also marks the first year since 2011 for affordability decline in year-on-year terms.

As India becomes the world's most populated country with 1.4 billion people housing, particularly for low-income urban households remains a longstanding challenge.

DISADVANTAGES

It doesn't predict future prices of the houses mentioned by the customer. Due to this, the risk in investment in an apartment or an area increases considerably. To minimize this error, customers tend to hire an agent which again increases the cost of the process.

When house prices are falling rapidly, there is a negative wealth effect. Consumers see a fall in their main asset. This decline in wealth causes lower spending and higher saving. Many households become trapped in 'negative equity'.

Lack of affordable housing, reduced land entitlements and accelerated housing for the privileged are being the crisis.

As a result, many of them can no longer afford to purchase homes due to increases EMIs. Meanwhile, real estate consultants Anarock said in a report last month that rising land prices and input costs have also contributed to the decline in demands for affordable housing in India.

5. APPLICATION

A property's value is important in real estate transactions. Housing prices trends are not only the concern of buyers and sellers, but it also indicates the current economic situation. Therefore, it is important to predict housing prices without bias to help both the buyers and sellers make their decisions.

Mapping the real world problem to a machine learning problem: This problem involves predicting the prices of the houses which are continuous and real valued outputs.

As the solution of the housing condition improve when people build high buildings, sometimes more than five storeys, to increase the number of houses.

6.CONCLUSION

Based on the criterion of price convergence, house prices in the 15 metropolitan cities do not converge to the LOOP.

This implies that the housing markets in the different areas operate as segmented independent local markets.

7. FUTURE SCOPE

In 2021, the size of the Indian property market was USD 200 billion. The projected growth by 2030 for the sector is USD 1 trillion.

While interest rates may come down in the future property prices will still rise. The increased value of the acquired property will compensate for a marginal percentage. Also, most Indians don't want to buy just any house. In most cases, they have already shortlisted the most desirable option.

To calculate real estate appreciation, you need to first find the annual rate of growth. This can be done by looking at historical data or by using a real estate calculator. Once you have annual rate of growth, you can multiply it by the current fair market value of your home.