PROJECT DOCUMENTATION

ANALYSING HOUSING PRICES IN METROPOLITAN AREAS OF INDIA

INTRODUCTION:

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:

The goal is to provide a reliable and accurate prediction tool that assists users in navigating the competitive real estate market and maximizing their returns.

PROBLEM DEFINITION AND DESIGN THINKING

Empathy Map:

Creating empathy with your users is one of the most important things you can do from both a business and a user experience perspective. Understanding the motivations, frustrations, and actions of your principal user is critical to targeting them effectively and providing sustainable solutions for their problems. Creating empathy, while not a trivial task, is easiest to accomplish via creating an empathy map. An empathy map is a template that organizes a user's behaviours and feelings to create a sense of empathy between the user and your team. The empathy map represents a principal user and helps teams better understand their motivations, concerns, and user experience. There are four quadrants to a traditional empathy map. These are: Does, Thinks, Says, and Feels. These quadrants will all ask unique questions about how you can analyse the perspective of the user and what they accomplish in their daily use. These can be completed in any order as long as they all take each other into consideration and are not chronological.

# Empathy map for Analyzing Housing Prices in Metropolitan Areas of India:
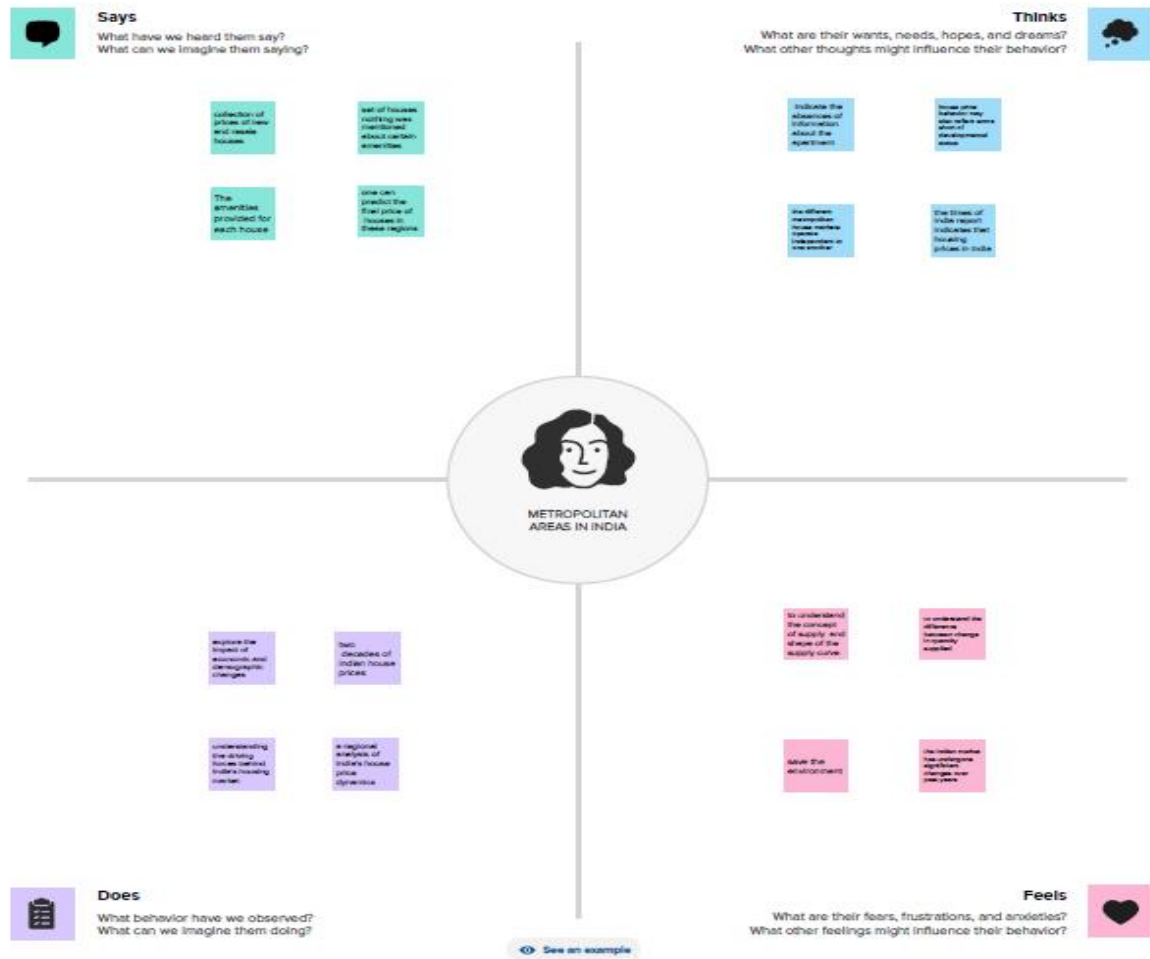
Ideation and Brainstorming Map:

Ideation is the process of forming ideas from conception to implementation, most often in a business setting. Ideation is expressed via graphical, written, or verbal methods, and arises from past or present knowledge, influences, opinions, experiences, and personal convictions. Brainstorming is a group problem-solving method that involves the spontaneous contribution of creative ideas and solutions. This technique requires intensive, freewheeling discussion in which every member of the group is encouraged to think aloud and suggest as many ideas as possible based on their diverse knowledge. Brainstorming combines an informal approach to problem-solving with lateral thinking, which is a method for developing new concepts to solve problems by looking at them in innovative ways. Some of these ideas can be built into original, creative solutions to a problem, while others can generate additional ideas. Common methods of brainstorming include mind mapping, which involves creating a diagram with a goal or key concept in the centre with branches showing subtopics and related ideas; writing down the steps

needed to get from Point A to Point B; "teleporting" yourself to a different time and place; putting yourself in other people's shoes to imagine how they might solve a problem; and "super storming," or using a hypothetical superpower such as X-ray vision to solve a problem.

## Ideation and Brainstorming Map for Analyzing Housing Prices in Metropolitan Areas of India :
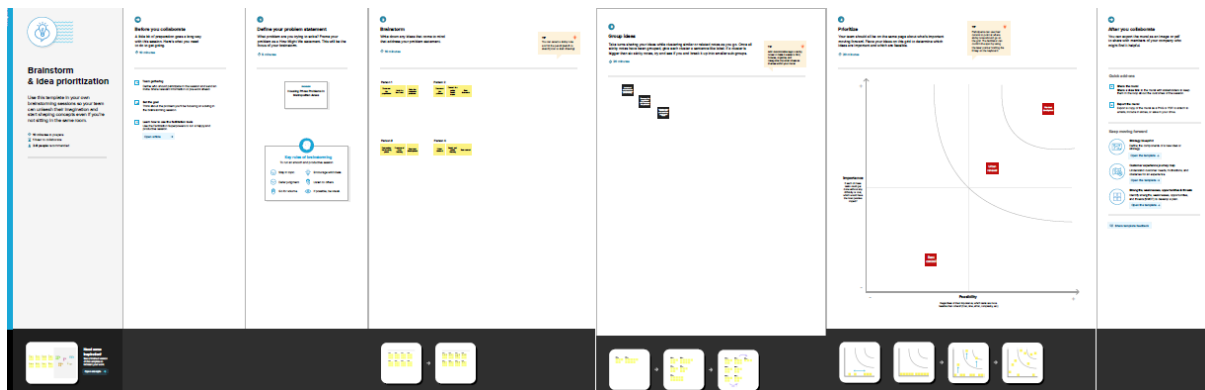
RESULT BY VISUALIZATIONS:

Data visualization is the process of creating graphical representations of data to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data

Houses price based on rainwater harvest pits

Vastu-complains based on location
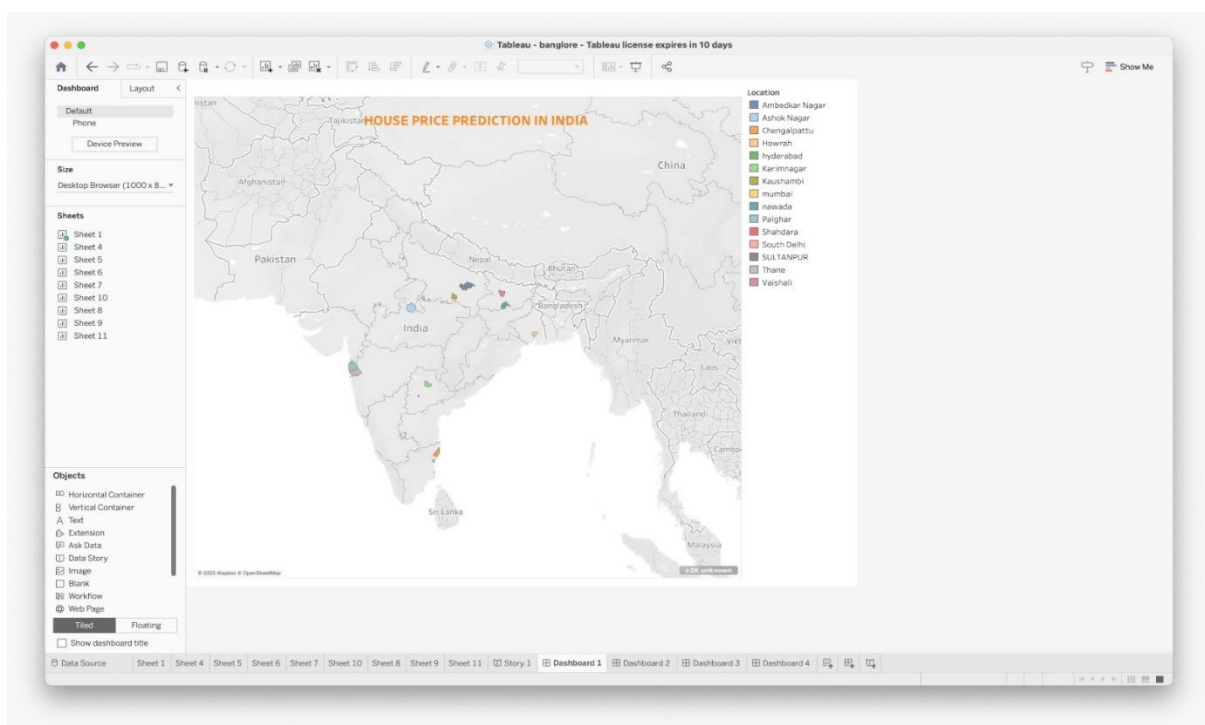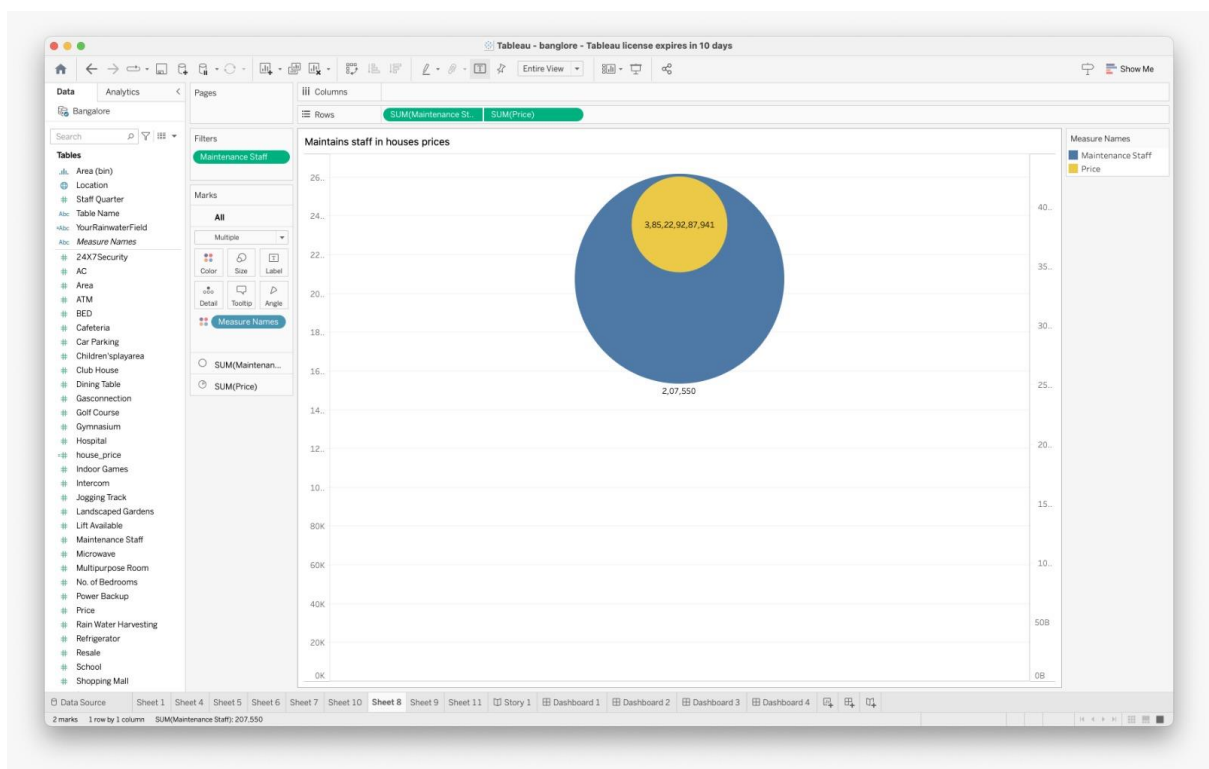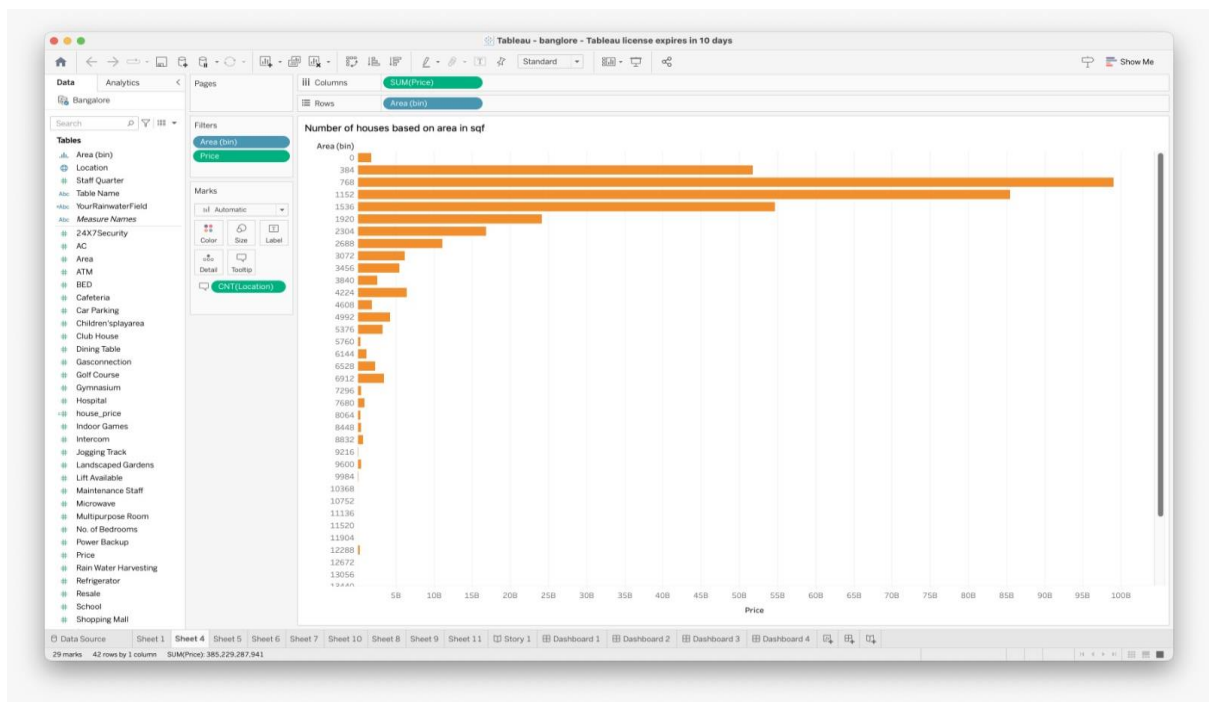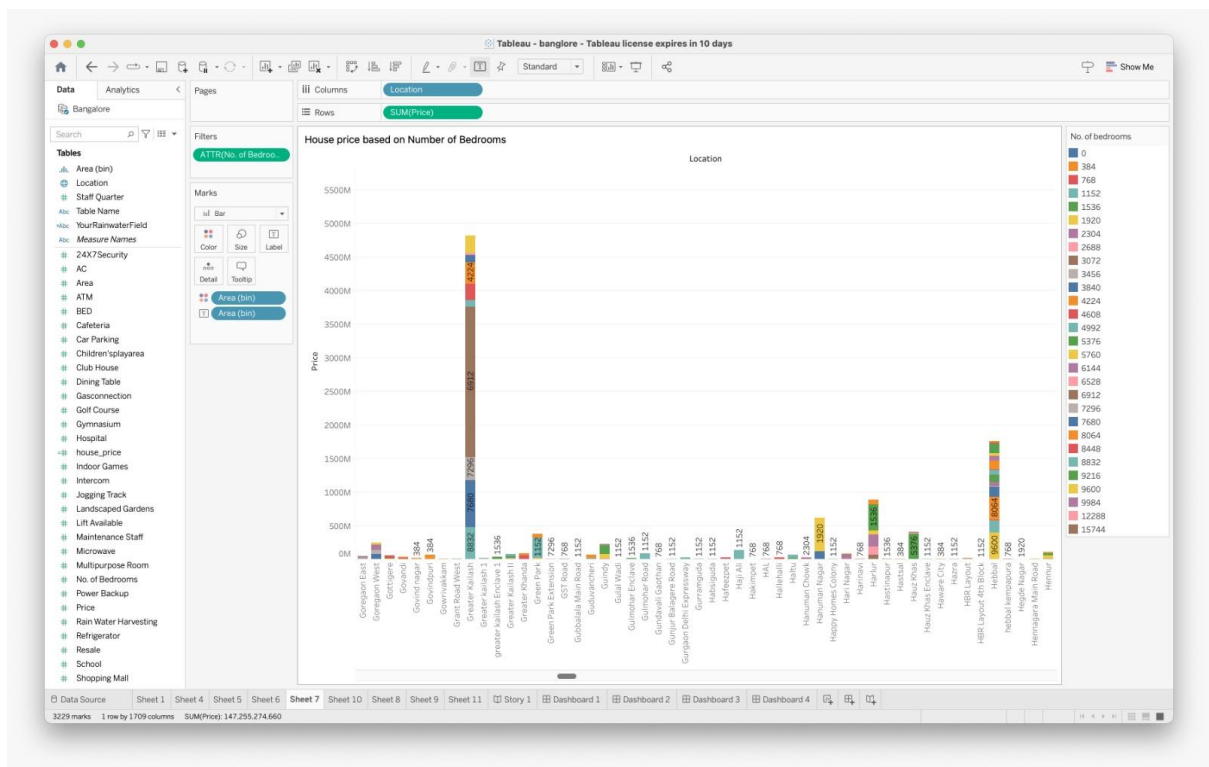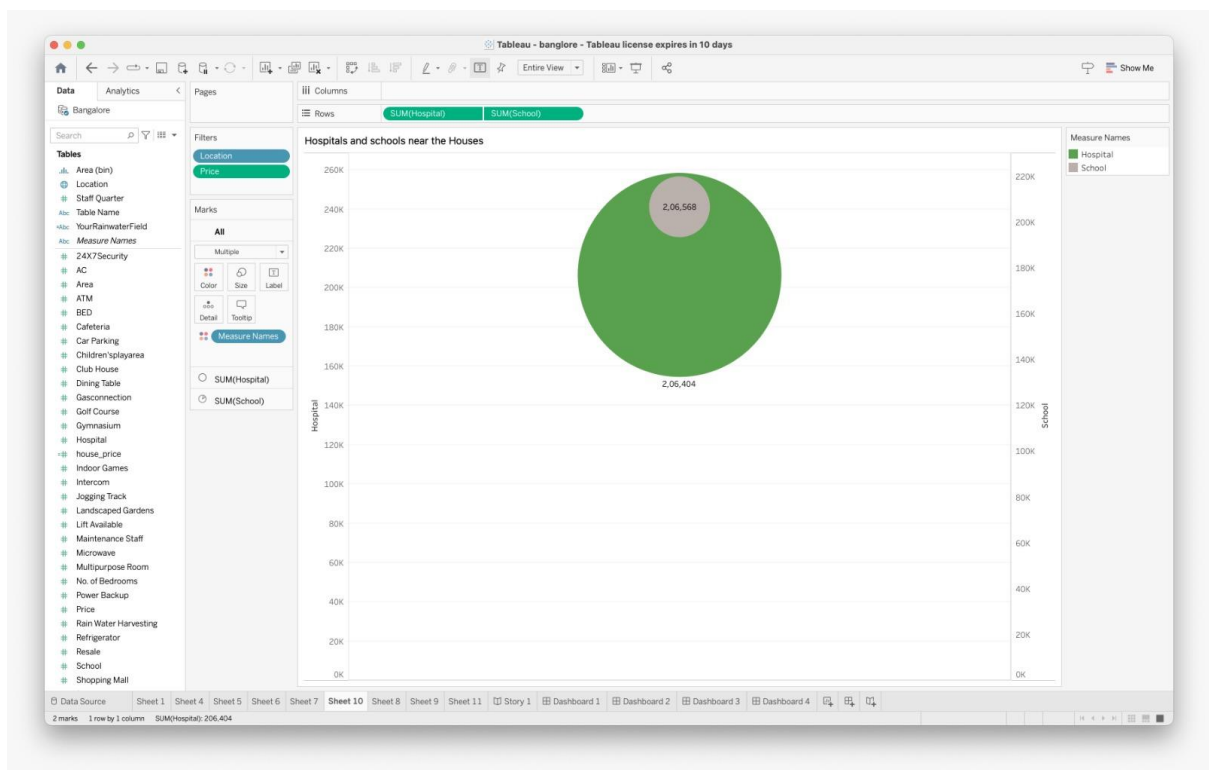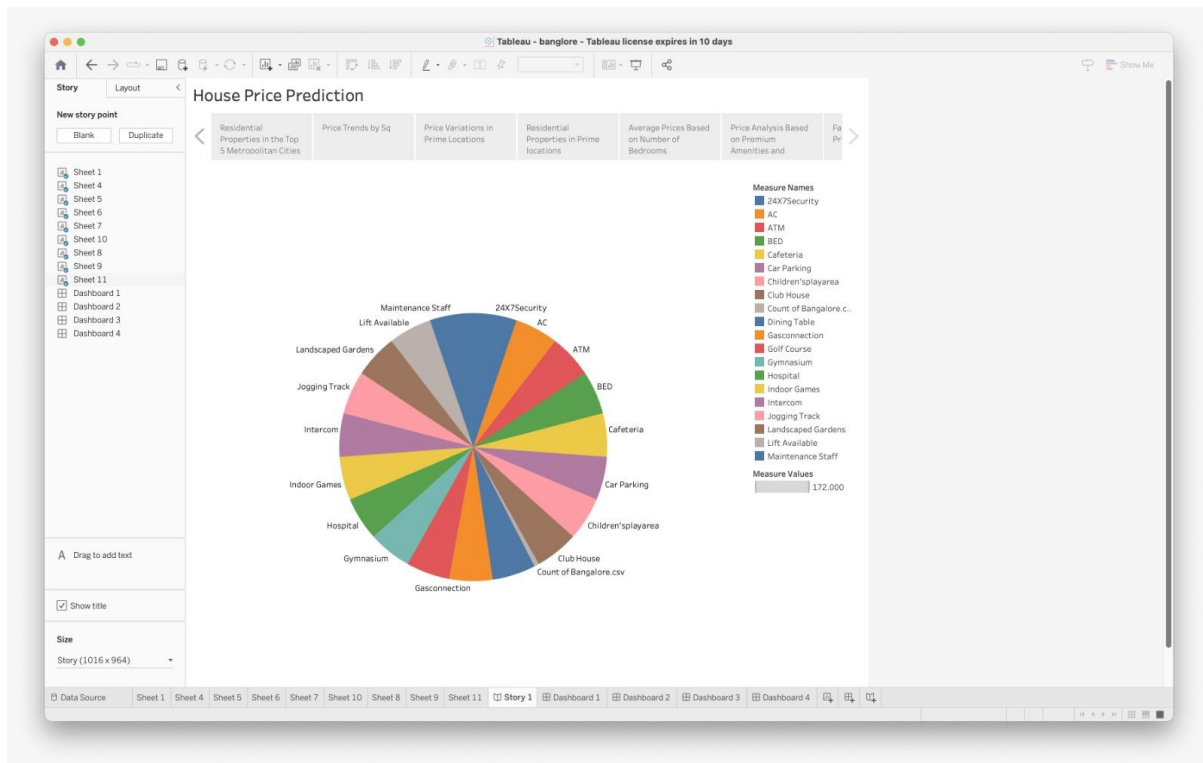
ADVANTAGES AND DISADVANTAGES :

Advantages:

- High speed public transit system in the form of Metro.
- High speed internet access in the form of fiber and 5G.
- One day delivery of products including essentials like medicines and groceries.
- Presence of an international Airport.
- Wide varieties of restaurants to order from.

Disadvantage:

- High cost of rent and food.
- Overpopulation and population.
- Increased competition and societal callousness.

APPLICATION:

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.By analysing the number of bed rooms and Services provided , may somebody with the dilemma to buy or not buy his/her own houses based on price and best facilities. Can make this visualization application available for people, for more insights and ideas can ask for payment and also can give these insights to make the understand and help in the sense of buying house.

CONCLUSIONS:

Our project title is "Analysing Housing Prices In Metropolitan Areas Of India'. I am Shijo. S (team leader) and my team members are Mershin Rajan SS,Inba Jeba C,Shani ,AB.Our

first task is Empathy map.We done this with the help of Mural App and with the ideas of myself and my team members.Our next task is Brainstorm,we done this with the help of Mural App .It is a group solving method and as a group we have done this by providing solutions to the problem. Third task is Data set. We are provided with certain datasets of India analysis on Metropolitan Areas Of India.Next we have uploaded this dataset into tableau. With the help of this data sets we created Dashboard and Story,that is our next task. First we have created a tableau account and connect the data with tableau. The next step is Data Visualization. The number of unique visualizations that we created with a given data set are House price prediction in India,Number of houses based area in sq ft,Houses price based on rainwater harvest pits,Maintains Staff in houses prices,Vastu-complains based on location,House price and intercom Hospitals and schools near the houses, House price based on number of bedrooms.Once we created views on different sheets in tableau we pull them into a dashboard.Likewise we done story too. After creating story and dashboard we published it into a tableau public and downloaded it as pdf.

FUTURE SCOPE:

The goal of our project is to increase earning potential,a need for a better standard of living and growing base of aspirational consumers and their lifestyle changes have led to substantial growth in the sector. Also, focus on affordable housing initiatives aims to cater to the housing needs of the growing middle-class and lower-income segments.

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