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 interspace and transparency ensure it meets the needs of stakeholders.

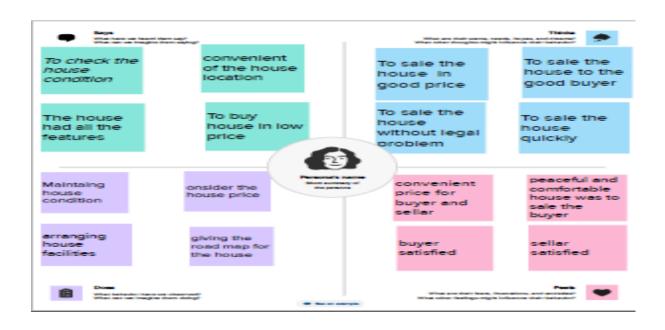
1.2.PURPOSE:

Integration capability , data privacy , and cost effectiveness are also important consideration . By addressing this requirements , the prediction model provides reliable insights, empowering stakeholders to make informed decision in the fast paced real estate market.

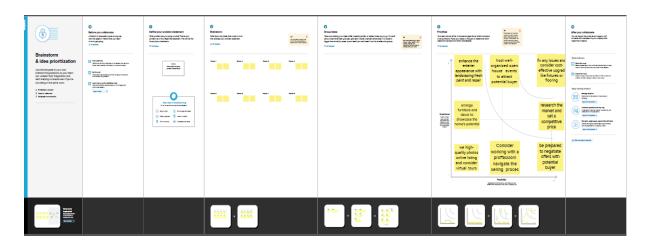
2. PROBLEM STATEMENT AND DESIGN THINKING

Problem understanding, also known as problem definition or problem identification, is the initial and critical phase of any data analysis or problem solving process. It involves gaining a clear and comprehensive understanding of the problem are hand, its context, scope, and objectives.

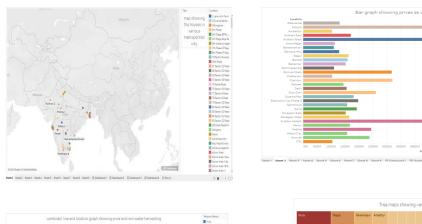
2.1.EMPATHY MAP:

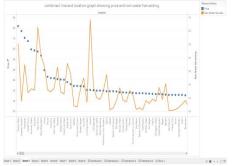


2. 2.IDEATION AND BRAINSTORMING MAP:

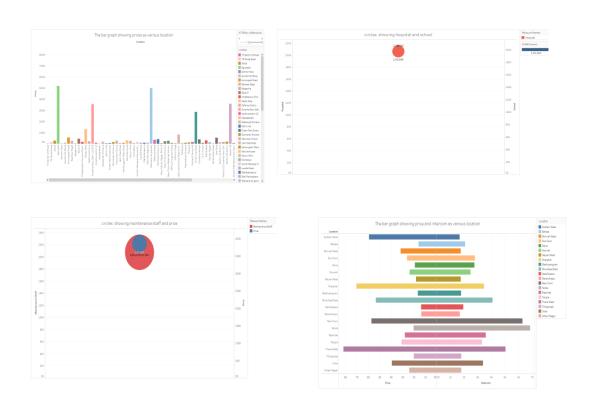


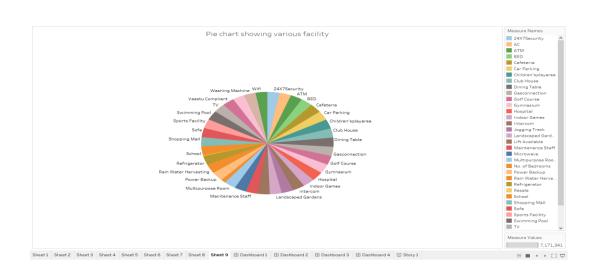
3.RESULT











4.ADVANTAGES & DISADVANTAGES

ADVANTAGES:

- 1.Informed decision- making: Buyers, investors, and policymakers can make more informed decisions about real estate investments and housing policies.
- 2.Market transparency: It increases transparency in the real estate market, reducing information asymmetry.
- 3.Property valuation: Homeowners can determine the value of their property accurately , which is useful for sales or refinancing.
- 4. Urban planning: Local governments can plan urban development and infrastructure based on data, improving city planning.
- 5.Affordable housing: Helps in identifying areas where affordable housing in needed, guiding policymakers in addressing housing shortages.
- 6.Investments opportunities: Investors can identify areas with potential for high returns, leading to more strategic investments.
- 7.Market trends: Developers and real estate agencies can track market trends and forecast future price movements.

Disadvantage

- 1.Speculation: Overreliance on housing prices data can lead to speculative behaviour in the real estate market, causing price bubbles.
- 2.Data accuracy: Data quality and accuracy may vary, leading to potential errors in analysis and decision –making.
- 3. Exclusionary policies: It may inadvertently support policies that exclude low-income groups from housing markets.
- 4. Overpricing: Overemphasis on market analysis lead to overpricing, making housing less affordable.
- 5.Privacy concerns: Collecting extensive data on housing can raise privacy concerns for home owners.
- 6. Regulatory challenges: Governments may struggle to enact effective policies based on housing prices analysis, and regulations can be slow to adapt

5.APPLICATIONS

- 1.Real estate investment: investors can use this analysis to identify areas with potential for high returns, helping them make informed decisions about where to invest in properties.
- 2.Affordability studies: In can be used to assess the affordability of housing for the local population, aiding policymakers in developing strategies for affordable housing
- 3. Housing policy: governments can design housing policies based on the analysis to address issues like housing shortages, slum redevelopment, and incentives for developers.
- 4.Property valuation: Homeowners can benefit by getting a more accurate estimate of the value of their property, helping them in sales or refinancing decisions.
- 5.Risk assessment: Financial institution can use this data to assess the risk associated with providing mortgages in specific areas.
- 6.Demographic insights: The analysis can reveal patterns in housing prices related to demographics, such as income levels, which can be valuable for businesses and retailers.

6.CONCLUTION

The analysing may reveal significant variation in housing prices between cities, the influence of property types, historical trends, economic and demographic factors, as well as the impact of local regulation. The conclusion may provide insights for potential investors, homebuyers, or developers and could suggest areas of interest or concern within the real estate market.

7.FUTURE SCOPE

- 1.Techlogical advancements: condition advancements in data analytics, machine learning, and artificial intelligence will enable more sophisticated and accurate analyses of housing prices, allowing for better predictions and insights.
- 2.Data availability: With the increasing digitization of real estate transactions and government initiative like digital India, more data on housing prices will become accessible enhancing the scope for analysis.
- 3. Real estate technology: The adoption of real estate technology, such as prop tech, will further expand the scope for analysing housing data, making it more accessible and user-friendly

4.Smart cities initiatives: the Indian government's smart cities mission aims to improve infrastructure and urban living analysing housing prices will play a crucial role in these initiatives to ensure sustainable and affordable housing.

5.Economic growth: as India's economic continues to growth, real estate markets will evolve, and analysing housing prices will remain vital for investors and developers.

6. Policy development: Governments will rely on housing prices analysis to formulate effective policies that to

In summary, the future scope of analysing housing prices in metropolitan areas of india is bright, with technology, data availability, urbanization, and sustainability all contributing to the continued importance of this field. it will play a urban living and real estate investments in India.