



A PROJECT REPORT

Housing Prices In Metropolitan Areas

**Fundamentals of Data Analytics with Tableau – Smartbridge Project
Based Experiment Learning Program-Naan Mudhalvan**



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PROJECT GUIDE

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ASSISTANT PROFESSOR

1.INTRODUCTION

1.1 Over view:

The subject of housing prices transcends the mere exchange of bricks and mortar; it lies at the heart of our economic, social, and personal narratives. Housing, as a basic human necessity and a significant component of personal wealth, carries profound implications for individuals, communities, and nations alike. Its prices, subject to an intricate interplay of market forces, government policies, and societal trends, form a tapestry as diverse as the landscapes they adorn.

Understanding the dynamics of housing prices is paramount in comprehending the nuances of real estate markets and their far-reaching consequences. Whether you are a prospective homeowner aspiring to plant roots in a particular neighborhood, a real estate investor navigating the turbulent waters of asset management, a policymaker shaping housing affordability strategies, or simply a curious observer of economic trends, the labyrinthine world of housing prices beckons exploration

Location:

Urban areas and major cities often have higher housing prices compared to rural or less densely populated areas. Desirable neighborhoods, proximity to amenities, and good schools can also drive up prices.

Economic Conditions:

Economic factors, including interest rates, inflation, and employment rates, can impact housing prices. Low-interest rates, for example, can stimulate demand and lead to higher prices.

Demand and Supply:

The fundamental law of supply and demand plays a crucial role in housing prices. If demand for housing in a particular area exceeds the supply, prices tend to rise.

Real Estate Market Cycles:

Housing markets go through cycles of boom and bust. During a housing boom, prices increase rapidly, while in a bust, prices can drop. These cycles are influenced by economic conditions and speculation.

Government Policies:

Government policies, such as tax incentives, subsidies, or regulations, can impact housing prices. Policies like first-time homebuyer programs can influence demand and prices.

Housing Type:

The type of housing, such as single-family homes, condos, or apartments, can also affect prices. Larger and more luxurious properties often come with higher price tags.

Demographics:

Population growth, migration patterns, and the age of the population can influence housing demand and subsequently prices.

External Factors:

Natural disasters, geopolitical events, and unforeseen circumstances can also affect housing markets and prices.

1.2 Purpose:

Allocation of Resources: Housing prices help allocate resources efficiently. When prices rise in a particular area, it signals that there is high demand for housing in that location, encouraging builders and developers to invest in new construction or renovation projects to meet that demand. Conversely, when prices fall, it can signal oversupply and lead to adjustments in construction and investment decisions.

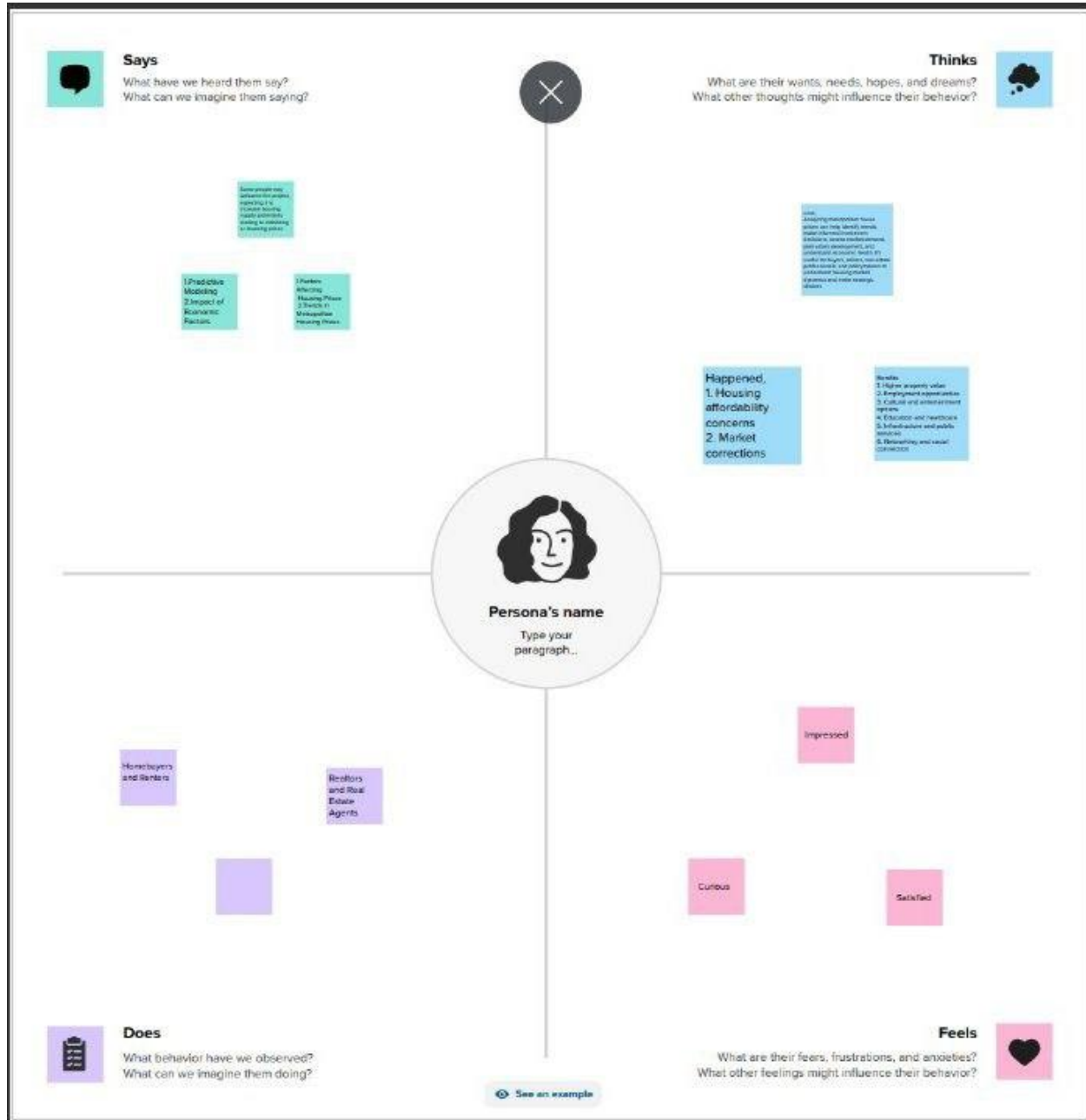
Investment and Wealth Building: For many individuals, their primary residence is a significant portion of their wealth. Rising housing prices can increase homeowners' net worth, providing a form of wealth accumulation and financial security. People also invest in real estate for rental income or capital appreciation.

Economic Indicator: Housing prices can serve as an economic indicator. A sustained increase in housing prices may reflect a growing economy and consumer confidence, while a decline in prices can be an early sign of economic trouble or a housing market correction.

Financing and Lending: Banks and lenders use housing prices to determine the value of collateral when providing mortgages and loans. The value of the property affects the amount borrowers can access and the terms of their loans.

2.PROBLM DEFINITION & DESIGN THINKING:

2.1 Empathy Map:



2.2 Ideation & Brainstorming Map:

The image displays a comprehensive ideation and brainstorming map, organized into several interconnected panels. The process begins with a 'Brainstorm & idea prioritization' section, which includes instructions on how to conduct a brainstorming session and a list of brainstorming techniques. This is followed by a 'Define your problem statement' panel, which provides a template for formulating a clear problem statement. The next stage is 'Brainstorm', which features a grid for generating ideas across different categories. This is followed by a 'Group ideas' panel, which shows a flowchart for organizing ideas into themes. The final stage is 'Priorities', which includes a graph for plotting ideas based on their feasibility and desirability. The map concludes with an 'After you evaluate' section, which provides a checklist for evaluating the ideas and a list of resources for further exploration. The entire process is supported by a series of icons and a navigation bar at the bottom.

Brainstorm & idea prioritization

Use this template to guide your brainstorming session. It will help you generate ideas and prioritize them based on their feasibility and desirability.

Define your problem statement

Before you can brainstorm ideas, you need to define the problem you are trying to solve. This panel provides a template for formulating a clear problem statement.

Brainstorm

Use this grid to generate ideas across different categories. The grid is organized into four rows and four columns, with each cell containing a set of prompts to guide your brainstorming.

Group ideas

Use this flowchart to organize your ideas into themes. The flowchart starts with a central box labeled 'Ideas' and branches out into four categories: 'Market', 'Business', 'Policy', and 'Technology'.

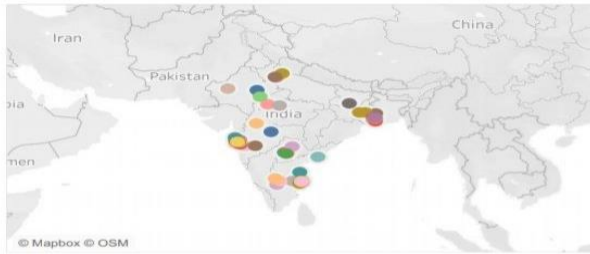
Priorities

Use this graph to plot your ideas based on their feasibility and desirability. The graph has 'Feasibility' on the x-axis and 'Desirability' on the y-axis. It includes a curve that separates the 'Feasible' region from the 'Desirable' region.

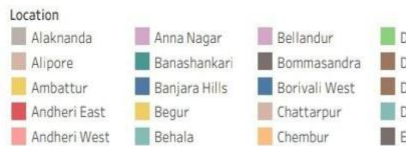
After you evaluate

Use this checklist to evaluate your ideas and determine which ones are worth pursuing. The checklist includes criteria such as 'Feasibility', 'Desirability', 'Impact', and 'Effort'.

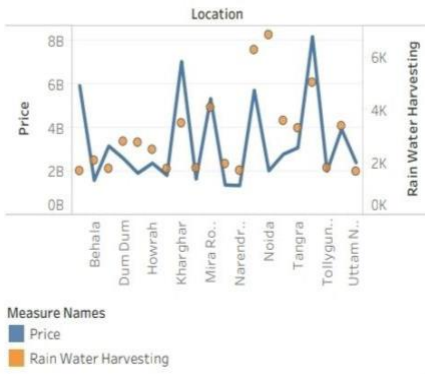
3.RESULT: DASHBOARD IN TABLEAU:



Sheet 2



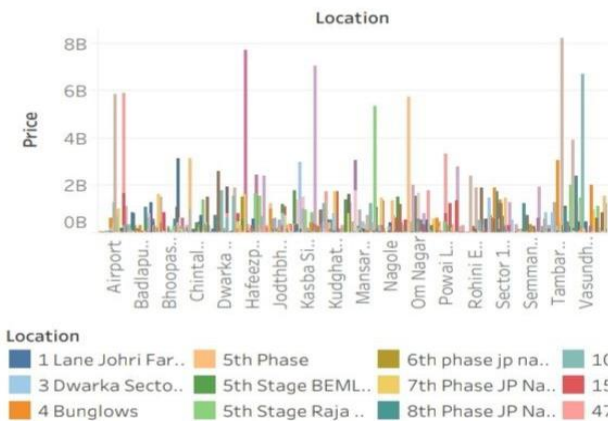
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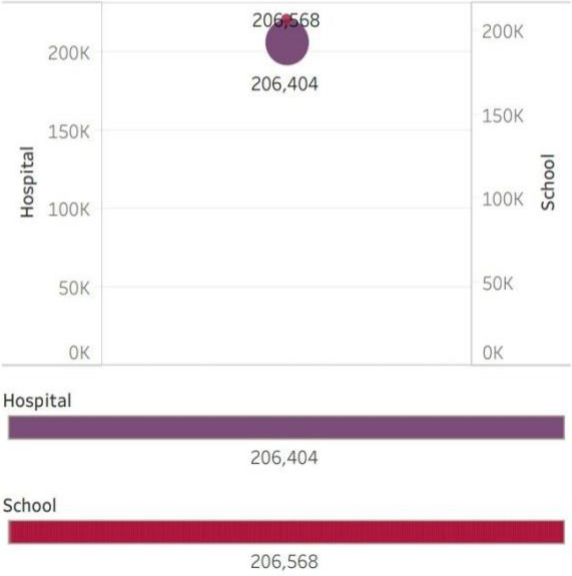
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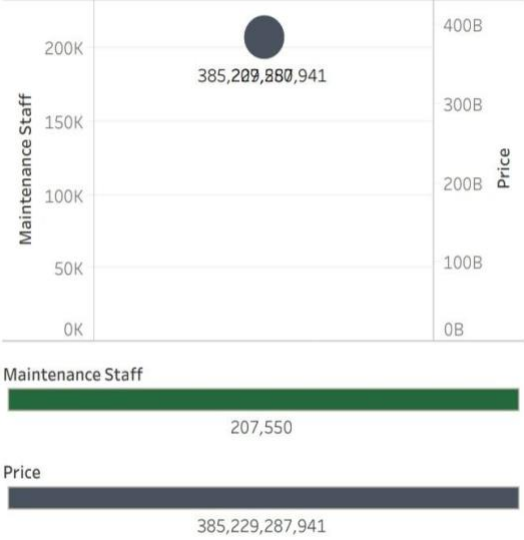
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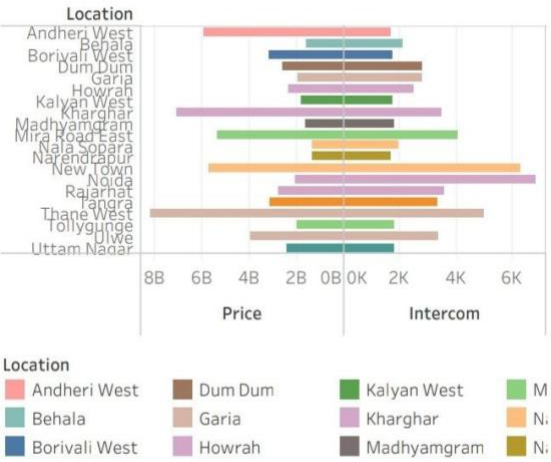
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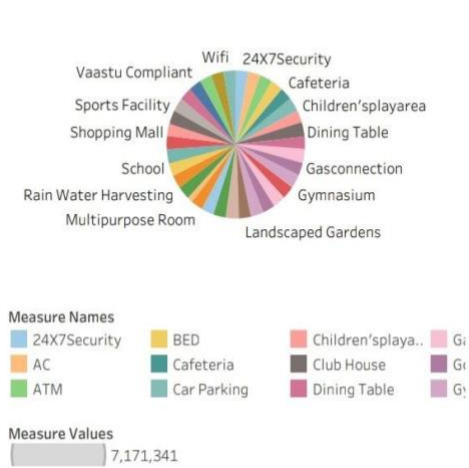
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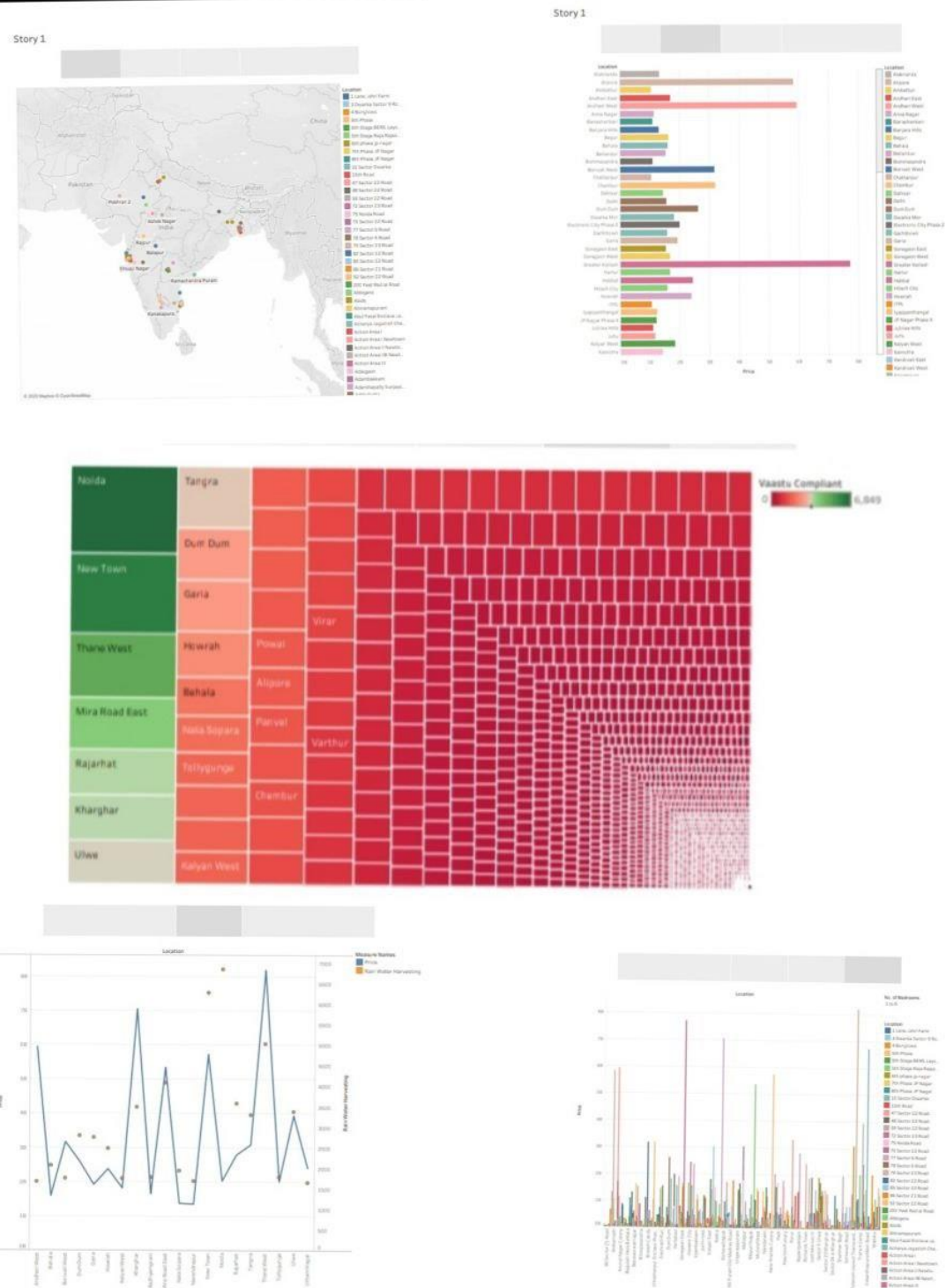
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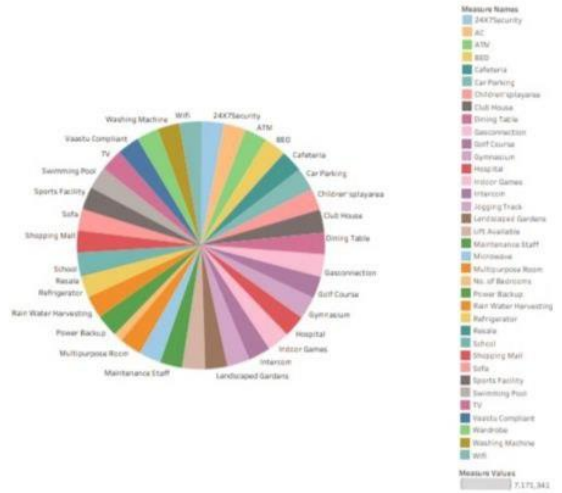
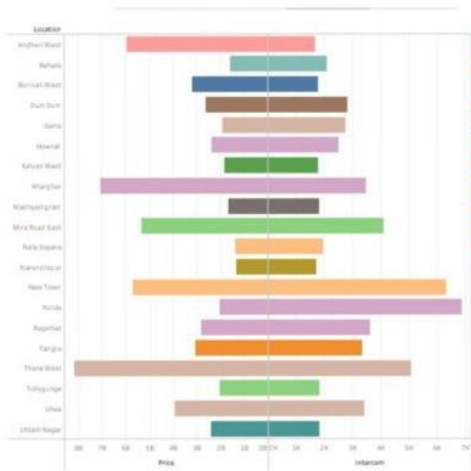
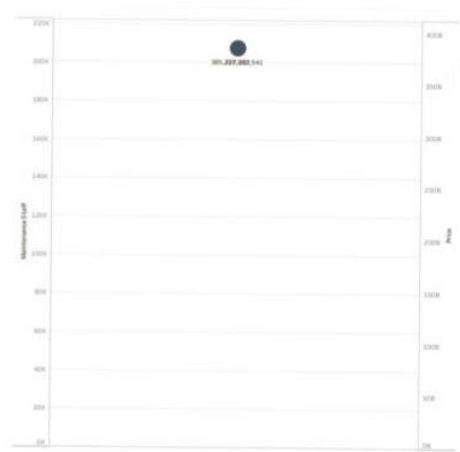
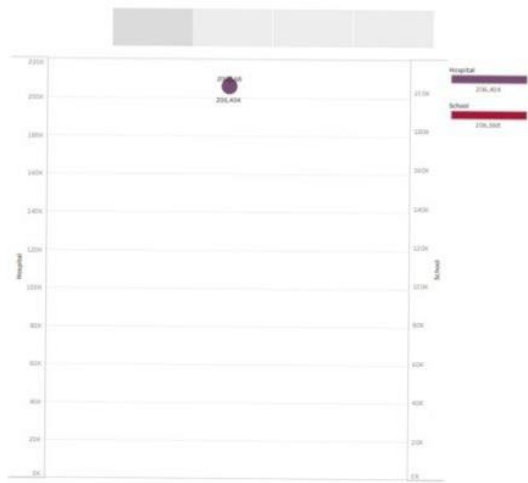


Sheet 9



STORY IN TABLEAU:





4. ADVANTAGES & DISADVANTAGES:

Advantages of housing prices:

Wealth Accumulation: Rising housing prices can benefit homeowners by increasing the value of their assets. This can serve as a form of wealth accumulation, allowing homeowners to build equity over time.

Investment Opportunities: Housing prices create investment opportunities for those looking to buy properties and generate rental income or profit through appreciation in value.

Economic Growth: A healthy real estate market with increasing housing prices can be a sign of economic growth, as it often reflects consumer confidence and spending in the economy.

Job Creation: The real estate sector, closely tied to housing prices, is a significant source of employment. Construction, real estate services, and related industries generate jobs when the housing market is active.

Property Taxes: Local governments rely on property taxes, which are often tied to assessed property values. Rising housing prices can contribute to increased tax revenue, funding public services and infrastructure.

Improved Housing Stock: Higher prices can incentivize property owners to invest in home improvements and maintenance, resulting in an overall improvement in the quality of housing stock.

Mortgage Opportunities: For those looking to refinance or access home equity, rising housing prices can provide opportunities to secure favorable mortgage terms and access additional capital.

Consumer Confidence: When homeowners see their properties appreciating in value, it can boost consumer confidence, potentially leading to increased spending in the broader economy.

Real Estate Industry Growth: A strong housing market with increasing prices can drive growth in the real estate and related industries, creating business opportunities and jobs.

Long-Term Financial Security: Housing can provide long-term financial security for individuals and families, as property ownership can serve as a retirement asset or a means to pass on wealth to future generations.

Disadvantages of housing prices:

Housing Affordability: Rapidly increasing housing prices can make it challenging for many individuals and families to afford suitable housing, particularly in high-demand urban areas. This can lead to housing affordability crises.

Exclusion of Lower-Income Groups: High housing prices can result in the exclusion of lower-income individuals and families from homeownership, perpetuating income inequality.

Rental Market Pressures: Rising housing prices often translate into higher rents, further straining the budgets of renters and contributing to housing insecurity.

Speculation and Bubbles: Rapidly increasing prices can attract speculative behavior, where people purchase property solely with the expectation of future price appreciation, potentially leading to housing bubbles and market instability.

Financial Instability: A housing bubble followed by a sudden drop in prices can lead to financial instability, as homeowners may find themselves owing more on their mortgages than their homes are worth (negative equity).

Barriers to Entry: High housing prices can create barriers to entry for first-time homebuyers, making it difficult for young people and those with limited financial resources to enter the housing market.

Overdevelopment and Gentrification: In some cases, escalating housing prices can lead to overdevelopment and gentrification, which can displace existing communities and change the character of neighborhoods

5.APPLICATIONS

Real Estate Investment: Investors use housing price trends to identify opportunities for purchasing, holding, or selling real estate assets. Understanding price movements is crucial for making informed investment decisions.

Mortgage Financing: Lenders and borrowers rely on housing prices to determine loan-to-value ratios, interest rates, and terms for mortgage financing. Accurate property valuations are essential for the mortgage lending process.

Property Tax Assessment: Local governments assess property taxes based on the assessed value of real estate, which is closely linked to housing prices. Accurate valuations ensure that property taxes are fairly and consistently applied.

Economic Analysis: Housing prices can serve as an economic indicator. Rising prices may signal economic growth, while declining prices can be an early sign of economic troubles. Economists and policymakers use housing data to make informed economic decisions.

Urban Planning and Development: Municipal planners use housing price data to make decisions about zoning, infrastructure development, and land use policies. Understanding price trends helps guide urban development efforts.

Affordable Housing Initiatives: Policymakers and housing organizations use housing price data to identify areas with affordability challenges. This information helps design and target affordable housing initiatives.

Homeownership Decision-Making: Prospective homebuyers use housing price data to determine where and when to buy a home. It influences choices regarding neighborhoods, types of housing, and timing of purchases.

Rental Market Analysis: Landlords and property managers assess housing price trends to set rental rates and make decisions about purchasing or selling rental properties.

6. CONCLUSION:

In the labyrinthine world of housing prices, we find a subject of profound significance, touching the lives of individuals, shaping communities, and leaving an indelible mark on the broader canvas of economies. Our exploration has taken us through the intricate threads of this multifaceted domain, shedding light on the many facets that form the backdrop of housing prices.

From the perspective of homeowners, housing prices serve as both a beacon of wealth accumulation and, at times, a daunting hurdle to surmount. As assets appreciate, they hold the promise of financial security and future prosperity, yet, in their surge, they may also pose affordability challenges that beckon for innovative solutions.

Investors navigate the turbulent waters of real estate, strategically riding the waves of rising prices to generate income and wealth. But they are ever mindful of the thin line that separates opportunity from speculation, recognizing the risks associated with market volatility.

7. FUTURE SCOPE:

Technology Integration: Technology, such as artificial intelligence and blockchain, is likely to play a more significant role in property valuation and transaction processes. This could lead to more accurate and efficient pricing.

Sustainability and Energy Efficiency: The growing emphasis on sustainability and energy efficiency is likely to influence housing prices. Energy-efficient homes may command higher prices, while properties with outdated systems could see reduced demand.

Remote Work: The rise of remote work has led to increased flexibility in choosing where to live. This could impact housing prices in traditionally less expensive areas, as people seek more affordable housing outside of major urban centers.

Affordable Housing Initiatives: Governments and organizations are likely to continue efforts to address housing affordability challenges. Policies and programs to make housing more accessible will impact pricing dynamics.

Urbanization and Suburbanization: Trends in urbanization and suburbanization will shape housing markets. The balance between urban and suburban living may shift, impacting the demand and pricing of properties in different areas.

Demographic Changes: Demographic shifts, including aging populations and changes in family structures, will influence housing demand. Multigenerational living arrangements and preferences for different housing types may affect pricing.