Project Design Phase
Problem – Solution Fit

Date	26 june 2025
Team ID	LTVIP2025TMID47396
Project Name	Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau
Maximum Marks	2 Marks

Problem – Solution Fit:

What is the customer problem you are trying to solve?
Customers face difficulty in understanding real estate trends such as average housing prices, property availability, furnishing status, and resale vs new property insights across different regions. This lack of clarity makes it hard to make informed housing decisions.

Why is this a problem?
Due to the unstructured and overwhelming amount of housing data, buyers and sellers are unable to gain insights like which cities are more affordable, whether furnished homes cost more, or how area affects pricing. This leads to inefficient decision-making and missed opportunities.

What is your solution?
We built a Tableau-based interactive dashboard using the Transformed Housing dataset to visually showcase:
- Average price per location
- Distribution of house prices
- Price vs area relationships
- Furnishing status impact
- Proportion of new vs resale transactions
This helps users quickly understand trends and compare options visually.
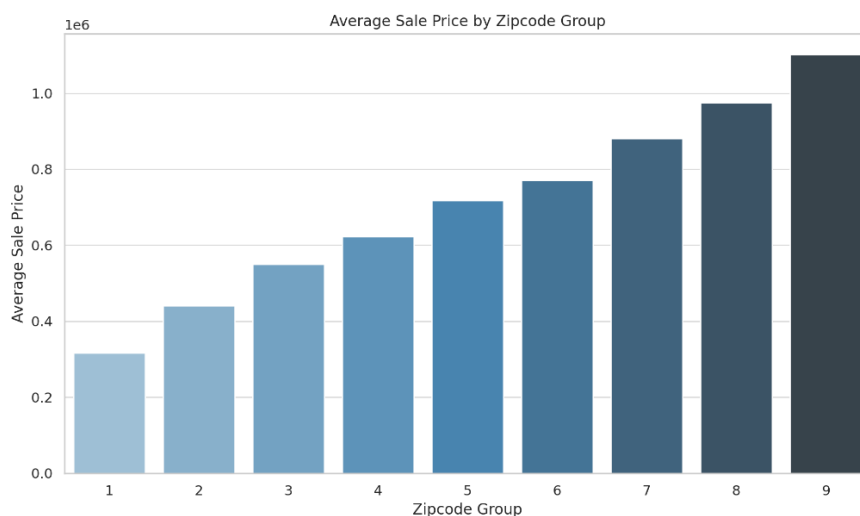
What are the existing alternatives?
People often use static websites or property portals that do not offer deep analytics. Some rely on brokers or agents, who may provide biased or incomplete data. Excel sheets are used by analysts but lack intuitive visualization.

Why is your solution better than existing alternatives?
Our Tableau dashboard is:
- Interactive and dynamic, unlike static websites.
- Based on real data insights, unlike brokers' opinions.
- Easy to use for non-technical users.
- Helps both buyers and sellers make informed decisions using filters and charts.

What are your key assumptions about your customers?
- They want to understand real estate data visually.
- They are not comfortable with raw spreadsheets or code.
- They are likely comparing properties by price, location, and furnishing.
- They value real-time or easy-to-update visual tools.

What is the one thing that must be true for this idea to work?
Users must be willing to use interactive dashboards to explore housing data before making decisions. If they do, they will realize the value of visualized insights for faster, data-driven decisions.

Template:

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1. CUSTOMER SEGMENT(S) CS Homebuyers, Real estate agents and property investors, Government planners and market analysts	**6. CUSTOMER CONSTRAINTS** CC Difficulty interpreting raw data, Limited access to visual tools	**5. AVAILABLE SOLUTIONS** AS Government portals (non-visual), Manual Excel reports, Real estate portals (with limited analytics)
2. JOBS-TO-BE-DONE / PROBLEMS J&P Too much raw data to handle and No way to easily compare renovated vs. non-renovated homes	**9. PROBLEM ROOT CAUSE** RC Static, fragmented data, Lack of analytical skills/tools	**7. BEHAVIOUR** BE Spend time building charts in Excel manually, Rely on agents or trial-and-error for pricing, Guess which features impact sale prices
3. TRIGGERS TR Planning to buy or sell a home, Preparing a market report **4. EMOTIONS: BEFORE / AFTER** EM Before: Confused After: Confident	**10. YOUR SOLUTION** SL Interactive Tableau dashboard with 14–15 visualizations, Filters by zip code, condition, renovation, etc. User-friendly layout with visual clarity	**8. CHANNELS of BEHAVIOUR** CH OFFLINE Tableau Public or shared reports, University or research portals ONLINE Project showcases and job interviews

Left margin labels: Define CS, fit into CC | Focus on J&P, tap into BE, understand RC | Identify strong TR & EM

Right margin labels: Explore AS, differentiate | Focus on J&P, tap into BE, understand RC | Extract online & offline CH of BE