

Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau

DATE	28-02-2026
TEAM ID	LTVIP2026TMID90693
PROJECT NAME	Visualizing Housing market Trends: An Analysis of Sales Prices and Features Using tableau
MAXIMUM MARKS	4 MARKS

Project Design Chapter 4

4.1 Problem Solution Fit

Visualizing housing market trends in Tableau provides a direct problem-solution fit by transforming raw property data into actionable insights for buyers, sellers, and agents. It solves the challenge of analysing complex, multi-dimensional real estate data (price, location, features) by using interactive dashboards to instantly identify trends, outliers, and key value drivers like square footage, grade, and location.

Key Problem-Solution Fit Components:

- **Problem:** Difficulty in identifying true property value and trends among vast, chaotic data.
- **Tableau Solution:** Interactive dashboards with scatter plots and heatmaps, allowing users to analyse price per square foot by zip code and visualize price trends.
- **Problem:** Understanding which specific features (e.g., bedrooms, bathrooms, AC) drive higher sales prices.
- **Tableau Solution:** Visualization of feature relationships, showing that more bathrooms, better overall quality, and specific amenities (waterfront) significantly boost sale prices.
- **Problem:** Inefficient decision-making for stakeholders due to lack of timely market trends.

Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau

- **Tableau Solution:** Real-time, shareable, and filterable dashboards (filtering by date, location, price) that provide instant, data-driven insights to optimize pricing strategies.
- **Problem:** Data skewness and complexity hindering analysis.
- **Tableau Solution:** Use of data transformation and calculated fields (e.g., Log transformations) to normalize data, improving the accuracy of price predictions.

Key Analytical Findings for Visualization:

- **Seasonality:** Most home sales occur during spring and summer months.
- **Feature Importance:** High-quality, renovated homes with more bathrooms show stronger price growth.
- **Market Segmentation:** Different areas show varying price behaviours, requiring localized analysis.

1. Lack of Clear Market Trends

- Hard to understand price movement over time
- No easy way to track yearly growth

2. Feature Impact Uncertainty

- Unsure how bedrooms, bathrooms, or size affect price
- Difficult to compare property features

3. Location-Based Confusion

- Which neighbourhood is expensive?
- Which area is growing fastest?

4. Information Overload

- Too many listings
- Scattered data across platforms

5. Investment Risk

Visualizing Housing Market Trends: An Analysis of Sale Prices and Features using Tableau

Uncertainty about ROI

No forecasting insight

○ Project Relevance

The **Project Relevance** section explains why this project is important, timely, and valuable in real-world and academic contexts.

○ Real-World Relevance

The housing market is one of the most significant economic sectors globally. Buyers, investors, and agents constantly need:

- Accurate price trends
- Feature-based comparisons
- Location insights
- Investment risk analysis

However, raw housing data is often:

- Complex
- Scattered
- Difficult to interpret

This project transforms raw data into **clear, interactive insights**, making it highly relevant to real-world decision-making.