

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

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➤ 3.3 Data Flow Diagram

Visualizing housing market trends in Tableau involves transforming raw property data into actionable insights, such as identifying price drivers (bedrooms, location, amenities) and geographic trends. A typical data flow includes importing, cleaning, analysing, and visualizing data to create interactive, stakeholder-focused dashboards that highlight market velocity and valuation.

Data Flow Diagram Components

- **Data Source:** Raw, unstructured, or semi-structured data (e.g., CSV, SQL databases) containing, for example, property type, price, bedrooms, bathrooms, location, and sales date.
- **Data Cleaning (ETL):** Processing data to handle missing values, formatting, and filtering (e.g., in Python/SQL or Tableau Prep) to ensure accuracy.
- **Data Loading:** Importing the cleaned dataset into Tableau.
- **Data Analysis & Visualization:** Using Tableau to create, for example, bar charts for price distribution, maps for location analysis, and scatter plots to analyse relationships between features (e.g., size vs. price).
- **Interactive Dashboard:** A single view combining multiple charts with filters (e.g., year, city, property type) to allow users to drill down into specific, detailed insights.
- **Actionable Insights:** Providing, for example, investors or agents with data-driven, actionable recommendations regarding, for example, pricing strategies and market demand.

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➤ Key Data Features and Visualizations

- **Geographic Analysis:** Mapping, for example, property locations, for example, using latitude/longitude data to identify, for example, high-value areas.
- **Price Trends:** Line charts showing, for example, average price changes over time.
- **Property Features:** Bar charts, for example, comparing, for example, average prices based on, for example, the number of bedrooms, bathrooms, or amenities.
- **Market Segmentation:** Tree maps or pie charts, for example, visualizing, for example, the distribution of, for example, property types or sales volume by region.

Typical Data Flow Visualization Steps

1. **Preparation:** Cleaning, for example, and structuring, for example, data in, for example, Excel/SQL.
2. **Mapping:** Plotting, for example, geospatial data, for example, in Tableau.
3. **Metrics:** Calculating, for example, key performance indicators (KPIs), for example, (e.g., median price, average days on market).
4. **Dashboarding:** Organizing, for example, charts, for example, for, for example, actionable interpretation.

