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

Data Preprocessing Steps

Before visualization, the dataset was cleaned and prepared using the following preprocessing steps:

Data Cleaning

- Removed duplicate records from the dataset
- Handled missing values in important columns such as Sale Price and Area

Data Transformation

- Converted sale dates into Year and Month format for trend analysis
- Standardized numerical values like price and square footage

Feature Selection

- Selected key attributes such as location, price, bedrooms, bathrooms, and area
- Removed irrelevant columns that did not contribute to analysis

Data Formatting

- Ensured proper data types (numeric, categorical, date)
- Renamed columns for better readability in Tableau

Business Questions and Visualizations:

Q1. What is the total number of housing records available in the dataset?

Q2. What is the average sale price of houses in the dataset?

Q3. What is the total basement area (in square feet) covered in the housing data?

Data Overview

Count of Transformed_Housing_Data2

Avg. Sale Price: 511,619

Avg. Sale Price

511,619

Area of the House from Basement (in Sqft)

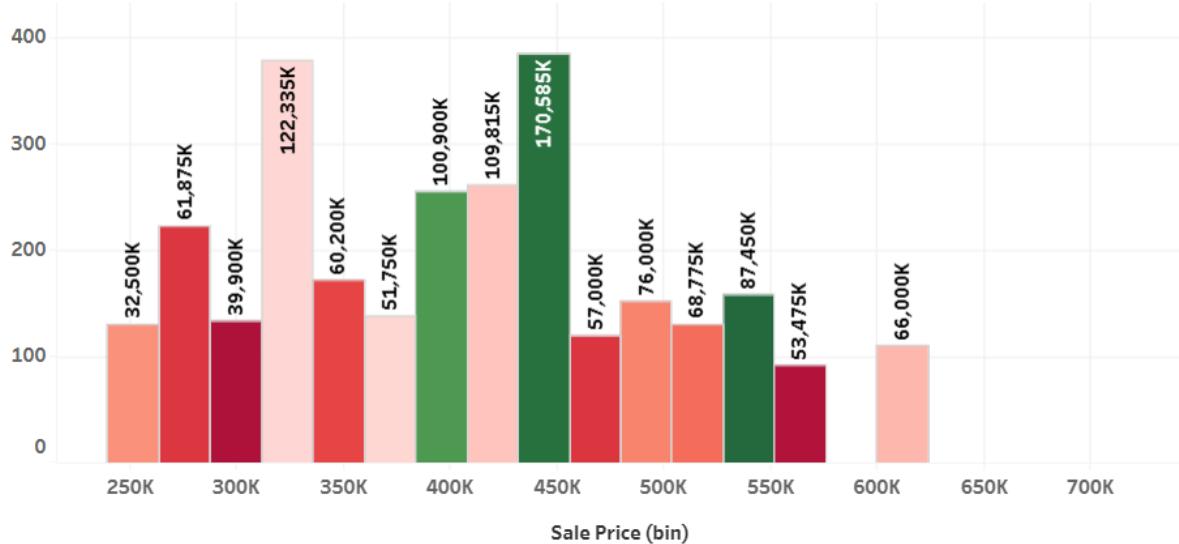
38,643,798

Q4. How does the sale price vary with the number of years since renovation?

Q5. Do recently renovated houses have higher sale prices compared to older renovations?

Q6. Which sale price range has the highest number of house sales after renovation?

Total Sales By Years Since Renovation

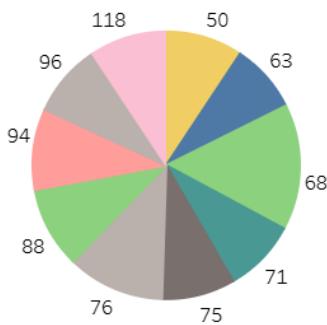


Q7. What is the distribution of house ages based on renovation status?

Q8. Which house age group contributes the most to the overall housing sales?

Q9. Are older houses being renovated more frequently than newer houses?

Distribution of House Age by Renovation Status



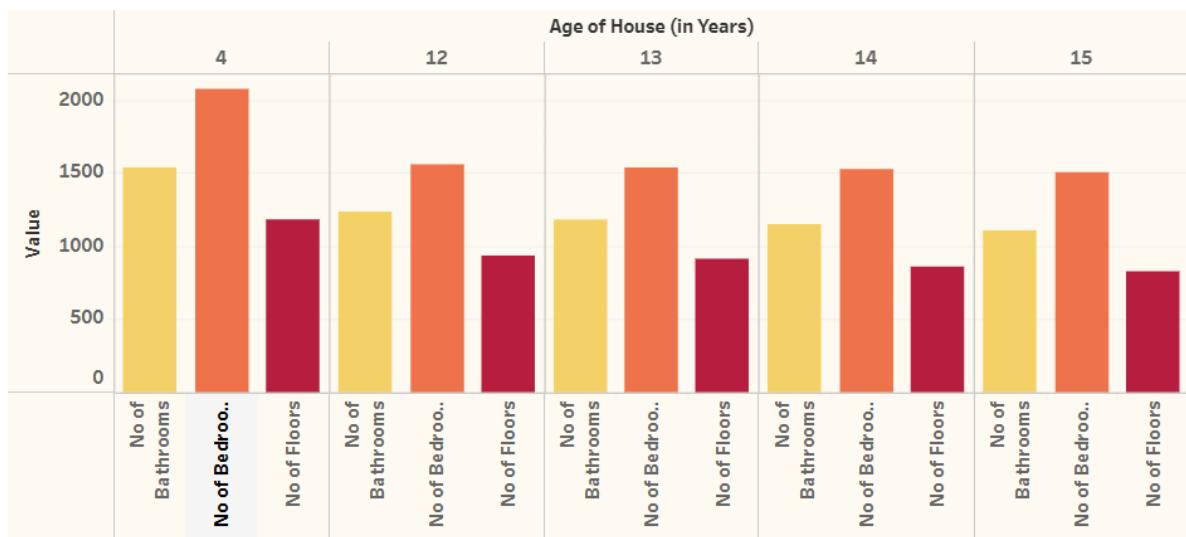
Q10. How does the number of bedrooms relate to the age of houses?

Q11. How does the number of bathrooms vary across different house age groups?

Q12. Do multi-floor houses tend to be older or newer compared to single-floor houses?

Q13. Which combination of bedrooms, bathrooms, and floors is most common in specific house age categories?

House Age Distribution by Number of Bathrooms, Bedrooms and Floors

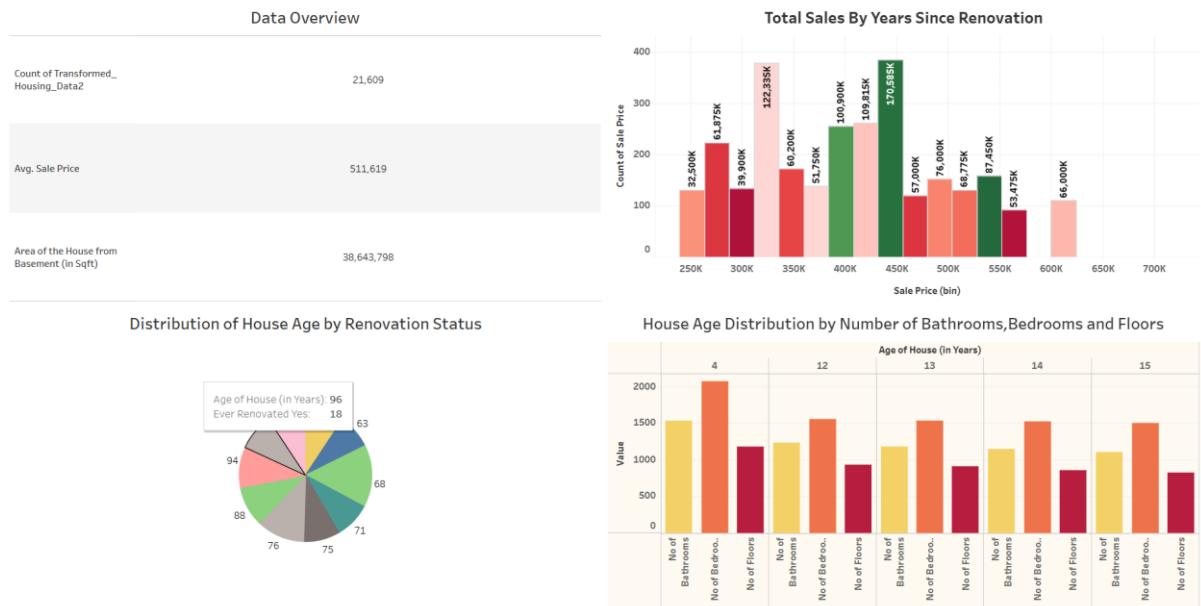


Q14. What key housing features influence the sale price trends in the market?

Q15. How does renovation impact housing prices and buyer demand?

Q16. What insights can be drawn about house age and its relationship with property features?

Dashboard 1



Q17. What major housing market trends can be identified using the Tableau story?

Q18. How do property features and renovation status together influence housing market behavior?

Q19. What conclusions can be drawn about house age, renovation, and feature distribution?

House distribution is more influenced by the number of bedrooms compared to bathrooms and floors.

The age of houses varies based on their renovation status, providing a comprehensive overview.

The importance of recent renovation in boosting property sales.

