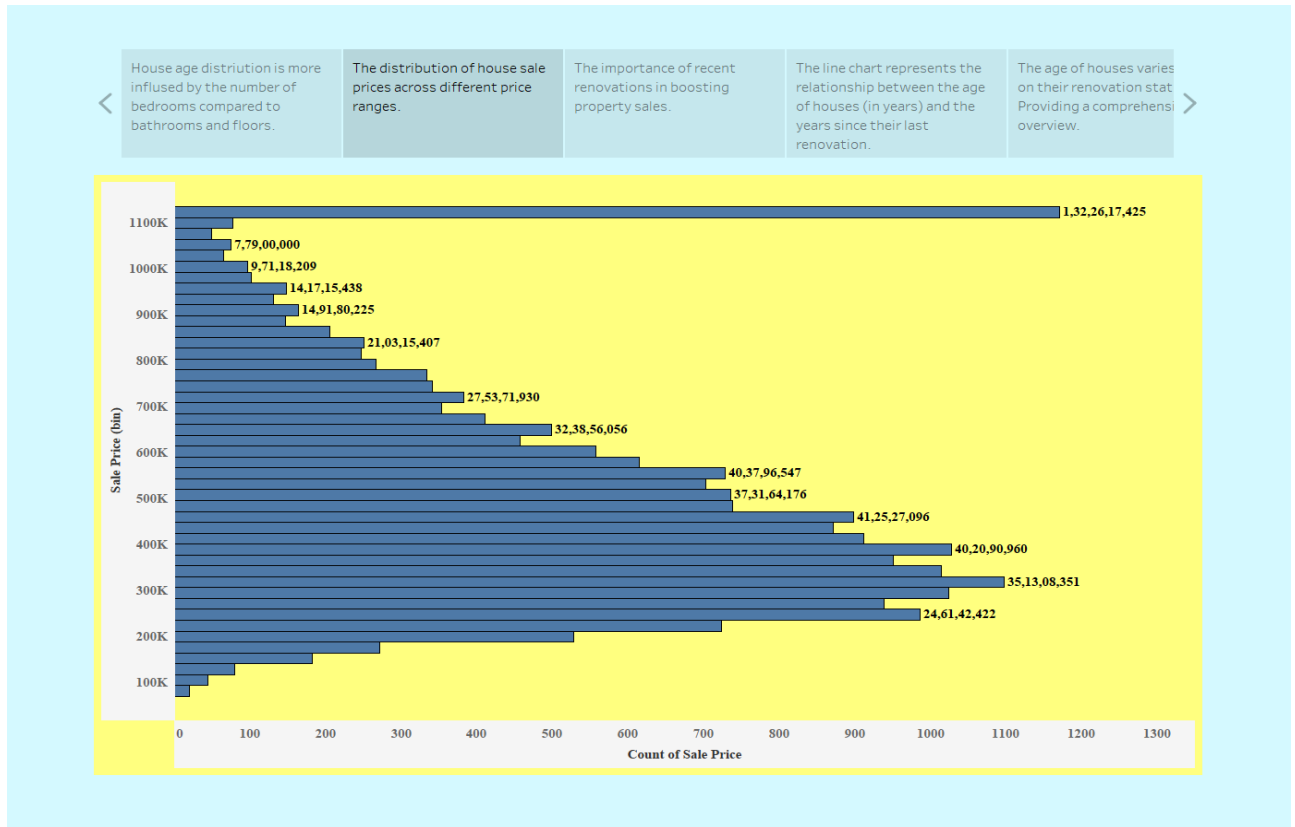


Observations:

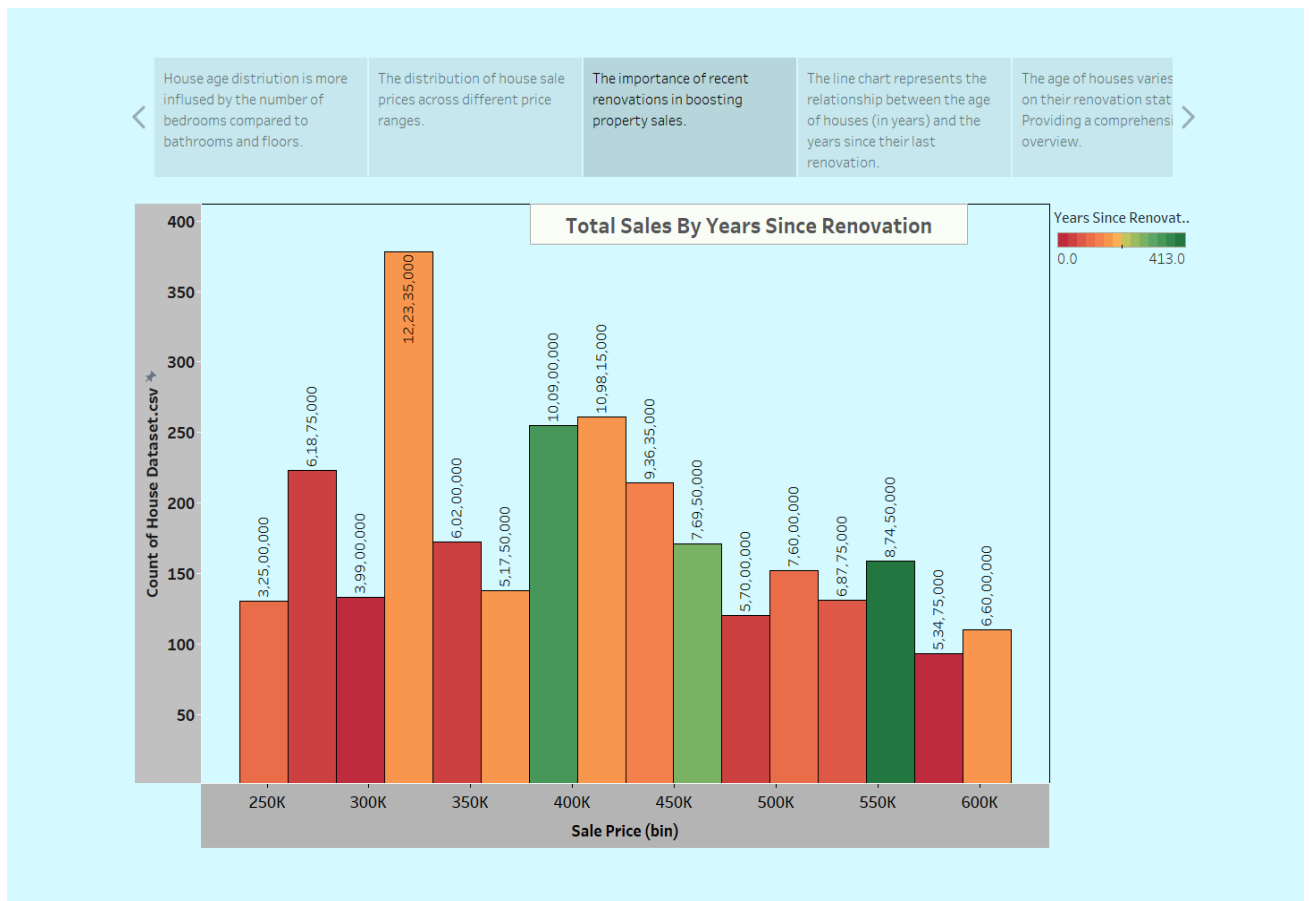
- **Bedroom Count Dominates** – The number of bedrooms (red bars) has a higher distribution than bathrooms (orange) and floors (green) across all house ages. This suggests that house age distribution is more influenced by bedroom count.
- **Consistent Pattern Across Ages** – The pattern remains relatively stable for different house ages (4, 12, 13, 14, 15 years), indicating no sudden shifts in bedroom, bathroom, or floor counts over time.

- **Potential Influence of Renovations** – Since the chart mentions renovation trends, it's possible that houses with higher bedroom counts have undergone more modifications over time.



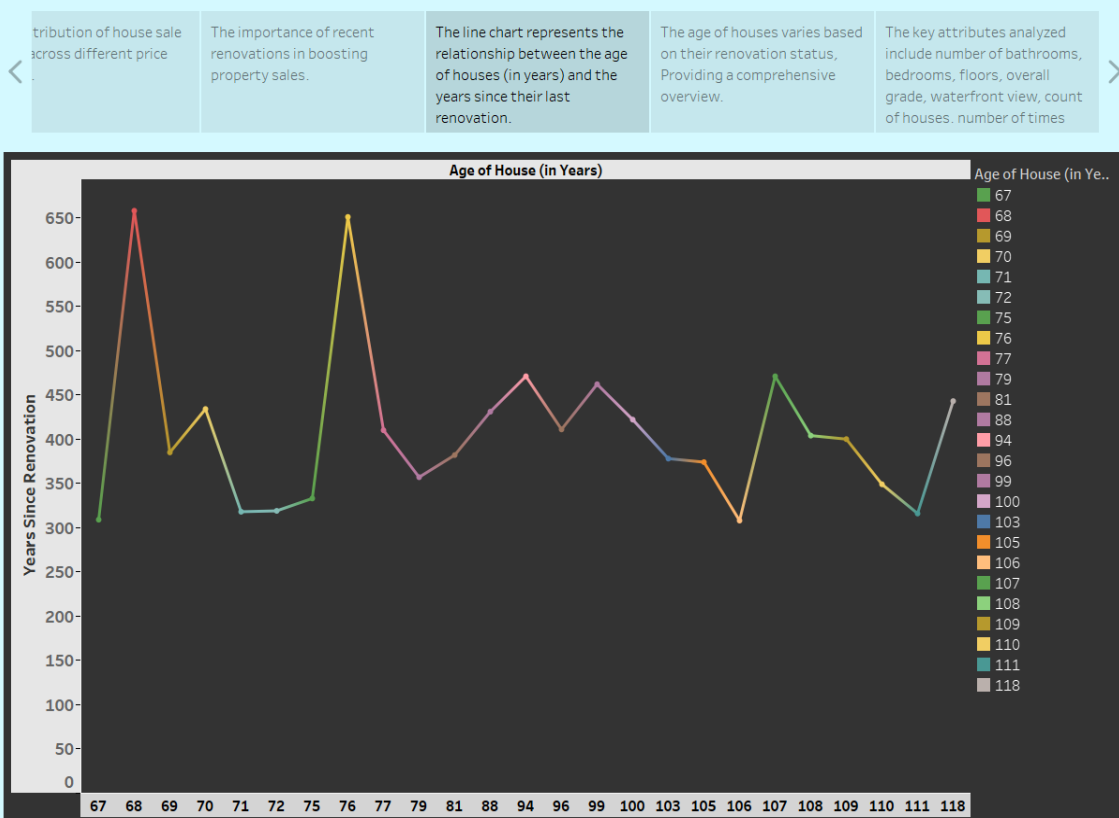
Observations:

- **Most Common Sale Prices** – The highest concentration of house sales falls in the range of 300K to 500K, with 500K being the most frequent sale price range.
- **Right-Skewed Distribution** – The chart exhibits a right-skewed trend, meaning that lower-priced homes are more commonly sold, while high-priced homes are rarer.
- **Extreme High-Value Outlier** – There is a significant outlier at 1.32 million, which suggests the presence of a few ultra-expensive properties.



Observations:

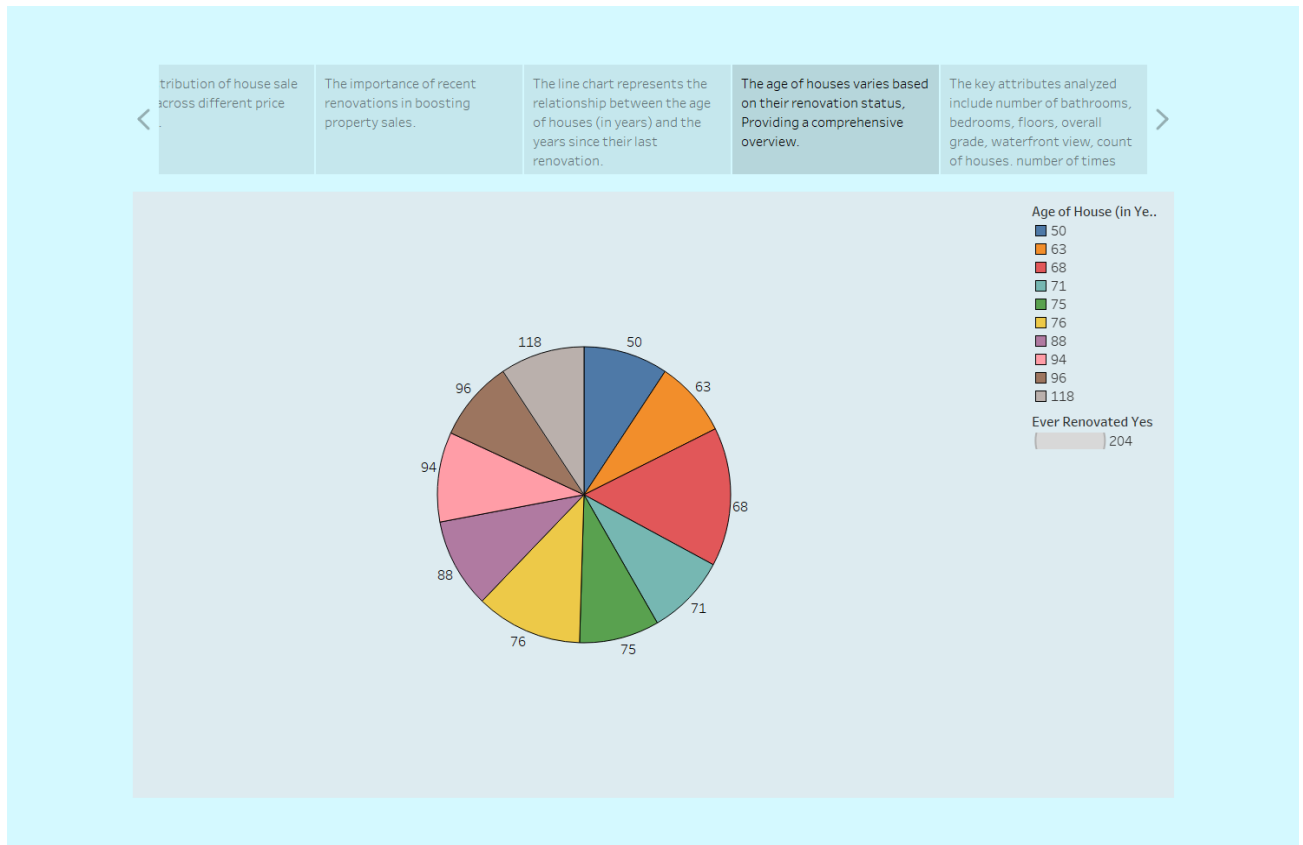
- **Peak Sales at 300K** – The highest number of sales occurs at the 300K price range, indicating strong demand for affordable houses.
- **Renovated Houses Sell More in Certain Price Ranges** – The 350K and 400K price bins show a high number of sales where houses have been renovated recently (represented by lighter colors).
- **Sales Decline as Prices Increase** – Similar to previous charts, the number of sales gradually decreases beyond 450K, indicating that fewer people purchase expensive homes.



Observations:

- **Older Houses Have Longer Time Since Renovation** – Houses that are older tend to have a higher number of years since their last renovation. Some points in the dataset indicate houses that haven't been renovated for over 600 years, which may be a data anomaly or an extreme case.
- **Clusters of Recently Renovated Houses** – Some houses, even with significant ages, show lower years since renovation, meaning they have been maintained or upgraded more recently.

- **Extreme Peaks Indicate Outliers** – The highest spikes may suggest that some very old houses have never been renovated, or the data might have inconsistencies in renovation records.



Observation:

- **Even Distribution of House Ages** – The chart shows a relatively balanced distribution of houses across different age ranges, with no single age group overwhelmingly dominating.
- **Older Houses (100+ Years) Have a Noticeable Presence** – Houses aged 96 and 118 years occupy significant portions of the pie, suggesting a notable number of older homes in the dataset.
- **Majority of Houses are 50-100 Years Old** – Most houses fall within the 50 to 96-year range, implying that mid-aged homes make up a significant part of the dataset.
- **Renovated House Count is Highlighted** – The 204 houses that have been renovated suggest that a substantial portion of homes in the dataset have undergone upgrades or maintenance at some point.

| Distribution of house sale across different price | | The importance of recent renovations in boosting property sales. | | The line chart represents the relationship between the age of houses (in years) and the years since their last renovation. | | The age of houses varies based on their renovation status, Providing a comprehensive overview. | | The key attributes analyzed include number of bathrooms, bedrooms, floors, overall grade, waterfront view, count of houses. number of times | |
|---|-----------------|--|--------------|--|-----------------|--|---------------------|---|-------------------------|
| Age of House (in Years) | No of Bathrooms | No of Bedrooms | No of Floors | Overall Grade | Waterfront View | Count of House Dataset.csv | No of Times Visited | Years Since Renovation | Age of House (in Years) |
| 4 | 1,531 | 2,076 | 1,187 | 4,769 | 2 | 558 | 61 | 0 | (All) |
| 10 | 973 | 1,200 | 804 | 3,028 | 0 | 366 | 76 | 0 | 3 |
| | | | | | | | | | 4 |
| | | | | | | | | | 5 |
| | | | | | | | | | 6 |
| 11 | 1,099 | 1,365 | 886 | 3,453 | 3 | 417 | 68 | 0 | 7 |
| | | | | | | | | | 8 |
| | | | | | | | | | 9 |
| | | | | | | | | | 10 |
| 12 | 1,230 | 1,561 | 929 | 3,819 | 3 | 454 | 86 | 0 | 11 |
| | | | | | | | | | 12 |
| | | | | | | | | | 13 |
| | | | | | | | | | 14 |
| 13 | 1,182 | 1,532 | 910 | 3,698 | 1 | 450 | 75 | 0 | 15 |
| | | | | | | | | | 16 |
| | | | | | | | | | 17 |
| | | | | | | | | | 18 |
| 14 | 1,154 | 1,520 | 855 | 3,534 | 2 | 433 | 84 | 0 | 19 |
| | | | | | | | | | 20 |
| | | | | | | | | | 21 |
| | | | | | | | | | 22 |
| 15 | 1,102 | 1,501 | 829 | 3,377 | 0 | 422 | 40 | 8 | 23 |
| | | | | | | | | | 24 |
| | | | | | | | | | 25 |
| | | | | | | | | | Limit |
| 40 | 851 | 1,361 | 493 | 2,999 | 2 | 387 | 64 | 62 | Top 10 by |
| | | | | | | | | | COUNT([House |
| | | | | | | | | | Dataset.csv]) |
| | | | | | | | | | |
| 41 | 900 | 1,494 | 517 | 3,200 | 2 | 417 | 82 | 99 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 50 | 724 | 1,344 | 420 | 2,820 | 2 | 381 | 62 | 285 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Observations:

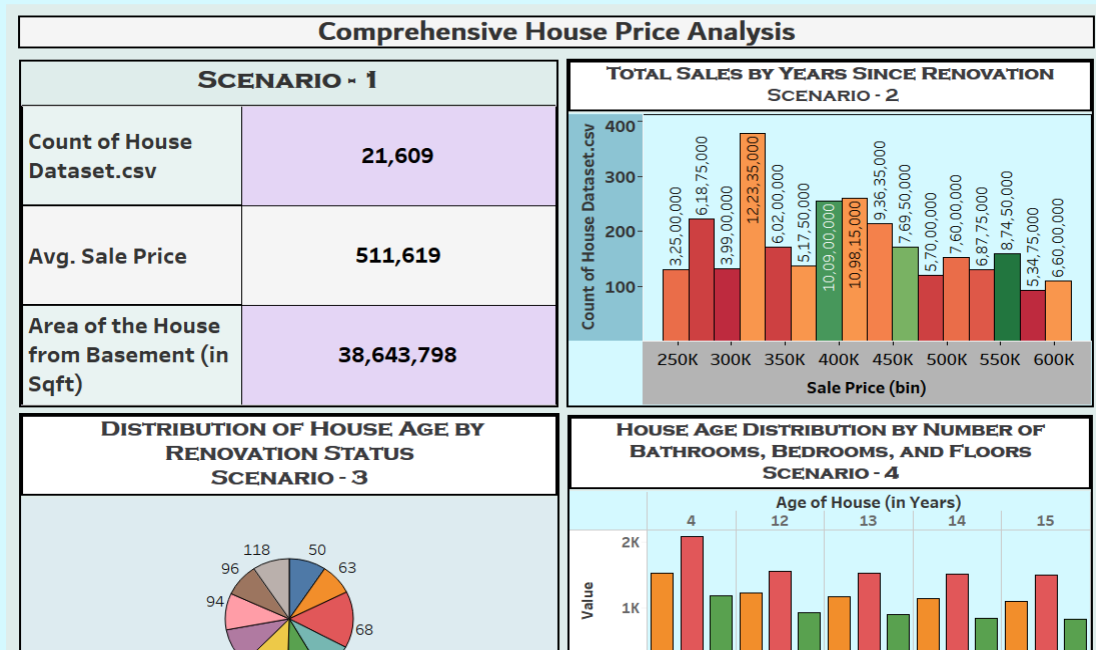
- **Newer Houses are More Frequent in the Dataset** – The table lists house ages from 4 to 50 years, indicating that newer homes (under 50 years old) are well-represented in the dataset.
- **Overall Grade Decreases with Age** – The overall grade of houses tends to decline as the house age increases (e.g., 4-year-old houses have a grade of 4,769, while 50-year-old houses have 2,820), suggesting that older houses may have lower quality or fewer modern upgrades.
- **Waterfront Views are Limited** – Very few houses have a waterfront view (values range from 0-3 per house age group), suggesting that such properties are rare in the dataset.
- **Count of Houses Decreases with Age** – The number of houses recorded in the dataset reduces as the house age increases. For example, there are 558 houses aged 4 years, but only 381 houses aged 50 years.

The line chart represents the relationship between the age of houses (in years) and the years since their last renovation.

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

The key attributes analyzed include number of bathrooms, bedrooms, floors, overall grade, waterfront view, count of houses, number of times

>



Observation:

Scenario 1 - Dataset Overview

- The dataset contains 21,609 houses.
- The average sale price is \$511,619.
- The total house area (including basements) is 38,643,798 sqft.

Scenario 2 - Total Sales by Years Since Renovation

- The highest number of sales occurs in the \$350K price range, indicating this price bracket is the most preferred.
- The \$250K and \$600K price bins have the least number of sales, suggesting lower demand for both cheaper and premium-priced houses.
- The \$400K and \$450K price ranges show moderate sales, indicating a balanced market in this segment.

Scenario 3 - Distribution of House Age by Renovation Status

- The pie chart shows that houses have varying renovation statuses.
- Different age groups of houses exist, with no single age dominating the dataset.
- Some houses are older but still renovated, which could imply that renovations boost house value and marketability.

Scenario 4 - House Age Distribution by Bathrooms, Bedrooms, and Floors

- Houses around 4 years old have the highest count in terms of the number of bathrooms, bedrooms, and floors.
- The number of bathrooms appears to have a significant impact on house distribution.
- Houses aged 12 to 15 years have a more balanced distribution across different parameters, suggesting these are still competitive in the market.