



EDA Project

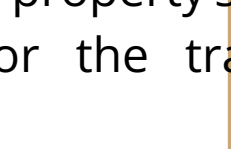
Sales in King County (USA)

Prepared by: Anas Altahir



A Brief about the Project



- This project aims at helping Mr. Charles Christensen, as the principal stakeholder, to make better financial decisions regarding selling and renovating houses with the potential for big investment returns, a particular attention paid to the property's geographically neighborhood ,and the time needed for the transaction to be profitably concluded.
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Major Questions and Hypotheses

1-Question: Does year or month or days has great impact for sales ?

Hypothesis : there more sale in month more than another month , there are specific day days has more sale than another

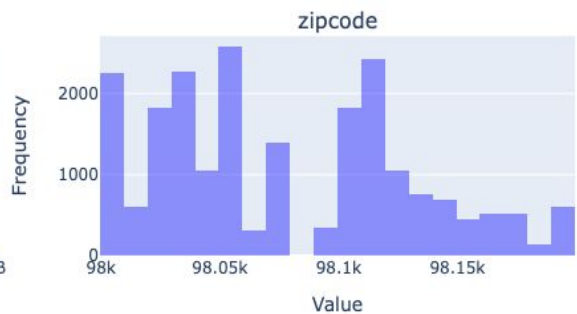
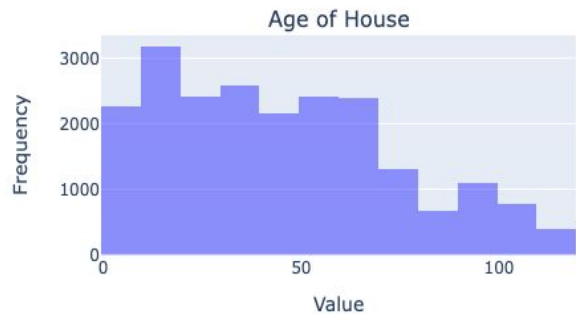
2-Question :Dose renovation of house impact average price of sales ?

Hypothesis: renovated house has price more , while non renovated house has lower price

Question 3: Does the property's location or geographical latitude influence its price?

Hypothesis: the prices of house near center and river has higher prices , while house located in south or north has lower prices

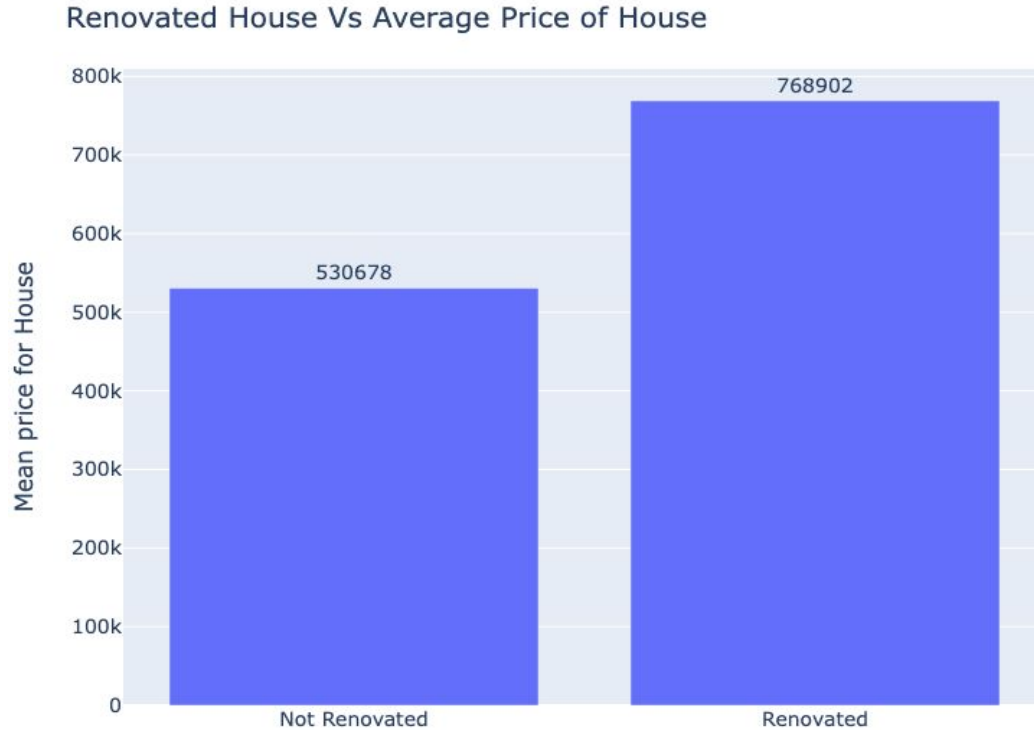
General Overview concern some factors



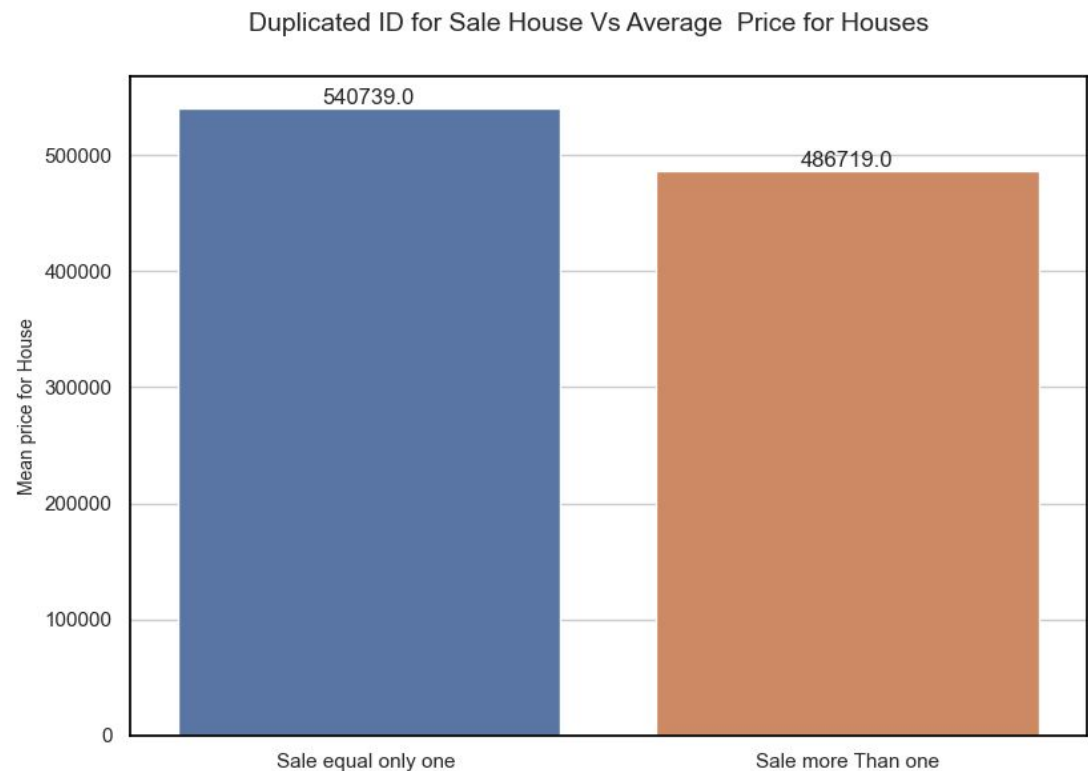
Interpretation of the above Graphs

- The most frequent price of the distribute houses is less than \$80 k.
- The higher frequent volume space of the house interior living is around 2000 sq. ft.
- Most of the houses in the market are built during the past 15 years.
- The common number of bedrooms per house is 3 to 4 rooms.

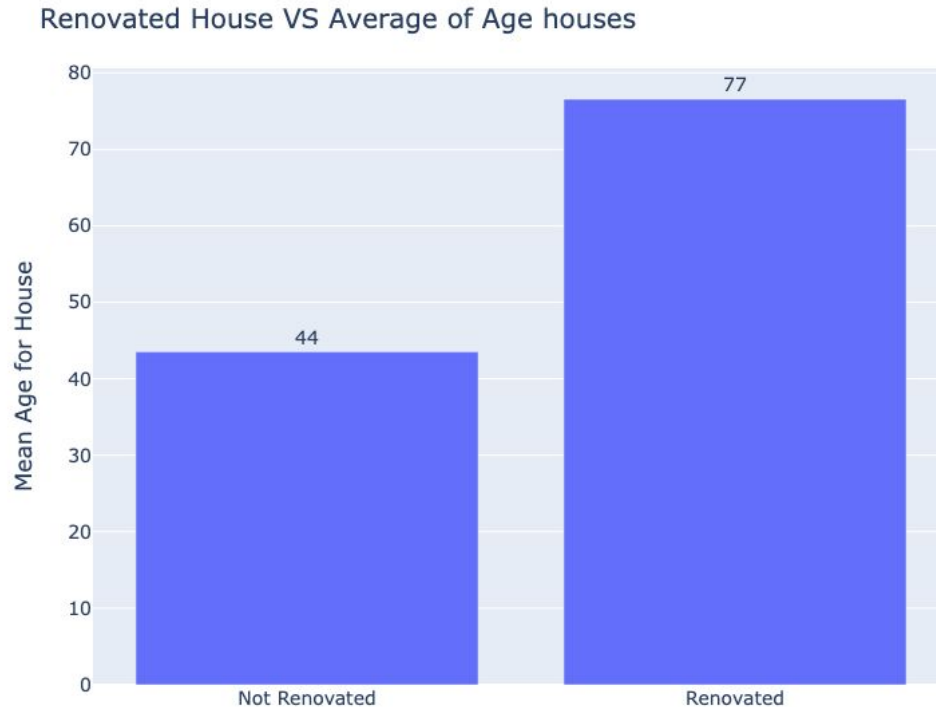
This chart shows us that a renovated house has an average price of around 768k while a non-renovated one has an average price of around 530k



The average price for a house which has been sold multiple times is about 486K, while the average price for that which has been sold only once is about 540k.

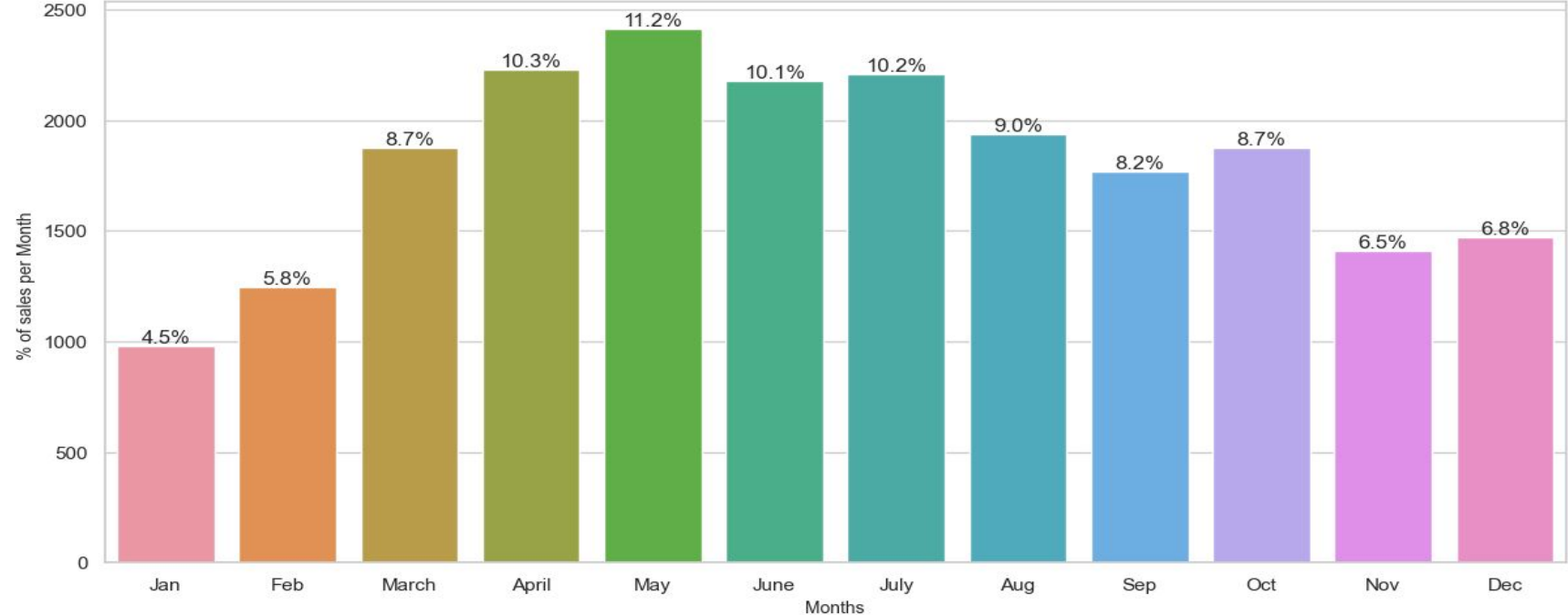


This chart shows us that the average age of a renovated house is almost 77 years, while that of a non-renovated house is almost 44 years.



This chart shows us that April and May are the months every year when houses are most frequently sold

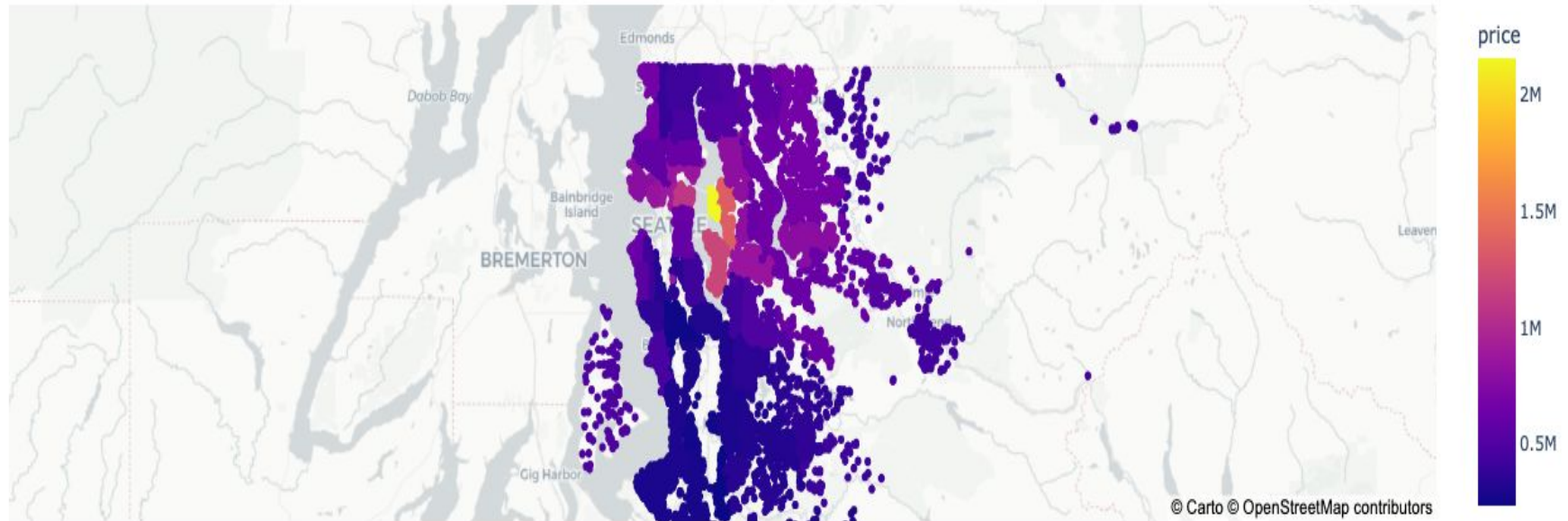
Percentage of Sales per Month



There is a dependent relationship between price of houses and their correspondent interior living areas. In other words, there is a positive correlation between a house's price and interior living area.



This geographical map shows us that most houses in the city's south have lower prices, while most house near the center and the lake have higher prices



Recommendations

We recommend Mr. Charles the following:

- First, to focus on houses that are less than 20-year old ,because the volume of frequent higher ,and also older houses may be required renovations with costs higher for him as an investor.
- Second, to invest in houses that have potentiality to sell more than once because of their higher profitability due to their shorter time span for Return on Investment.
- Third, to increase his promotions and marketing activities in the months of April and May because of the peak of the sale season.
- Fourth, to consider houses with an average interior living area around 2000 sq. ft. due to high frequent .
- Finally, to pay more attention to houses located in the south of Sealt city because of their reasonable prices (for his clients) compared to those located elsewhere in the city.