Analysis of Real Estate Data from King County, WA

12. June 2023

Agenda:
- The Data
- The Client
- Hypotheses and findings
- Recommendations for the client

The Data

- House sales in King County from May 2014 to May 2015
- House details of the houses Sold, including ZIP codes and house sizes of the surrounding houses
- circa 21 500 entries, some duplicate due to houses being sold multiple times in the timeframe

The Client

- Timothy Stevens
- Owns expensive houses in the center and wants to sell
- is looking for the best time to sell houses
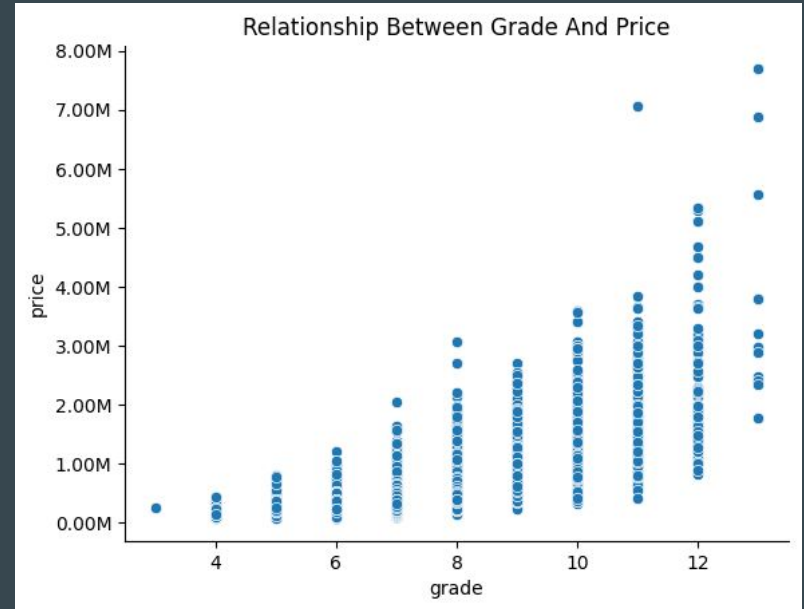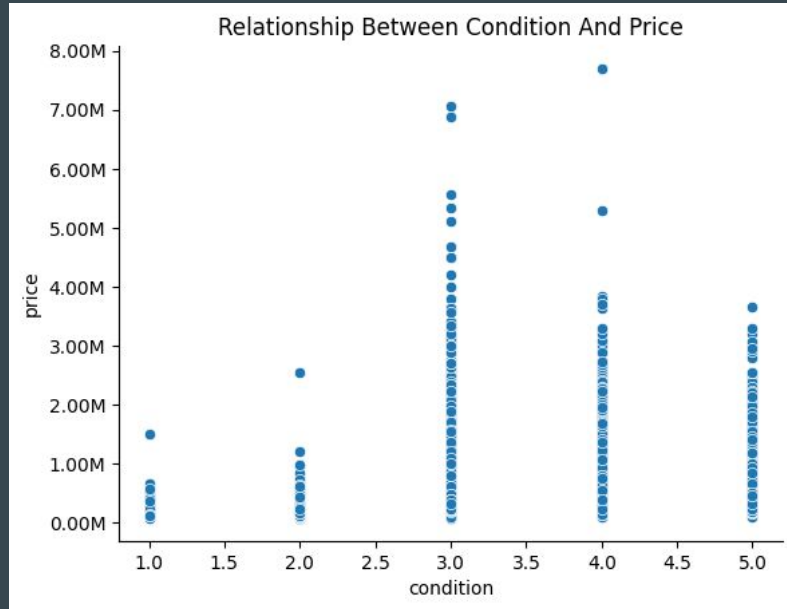- would renovate if it increases revenue from sales

Hypotheses

1. The condition and grade of a house have a correlation with the price
2. Expensive houses are all close to each other
3. The price for a house with a good view or near the waterfront are higher than the median
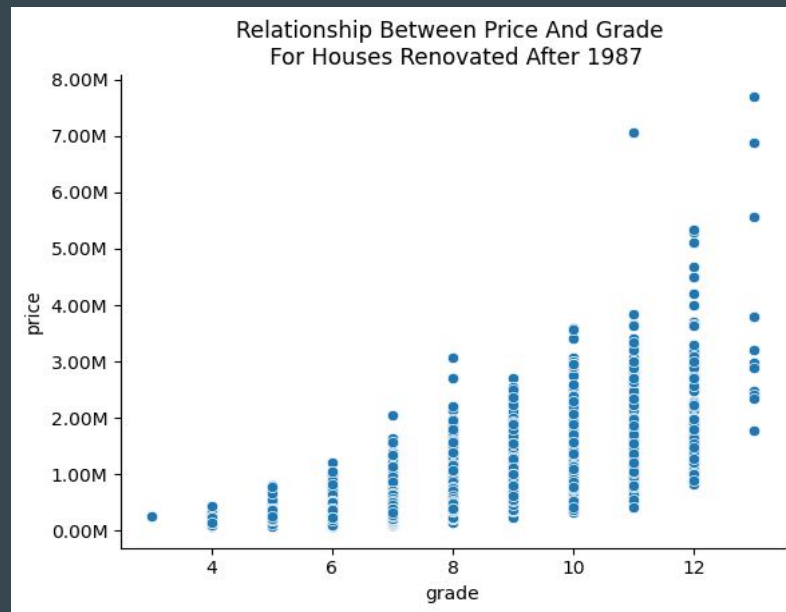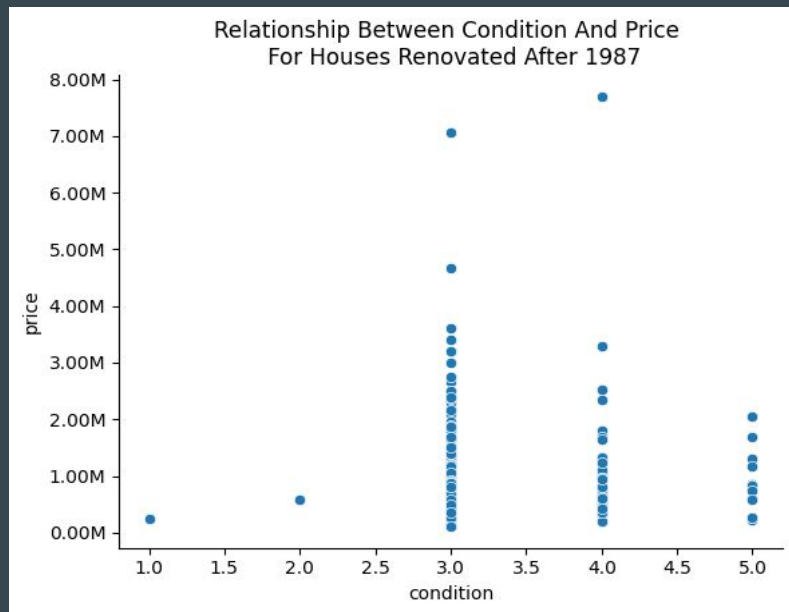4. Other findings

1: The condition and grade of a house have a correlation with the price

Relationship for all houses:

1: The condition and grade of a house have a correlation with the price

Relationship for houses renovated after 1987:

Relationship Between Condition And Price For Houses Renovated After 1987

Relationship Between Price And Grade For Houses Renovated After 1987

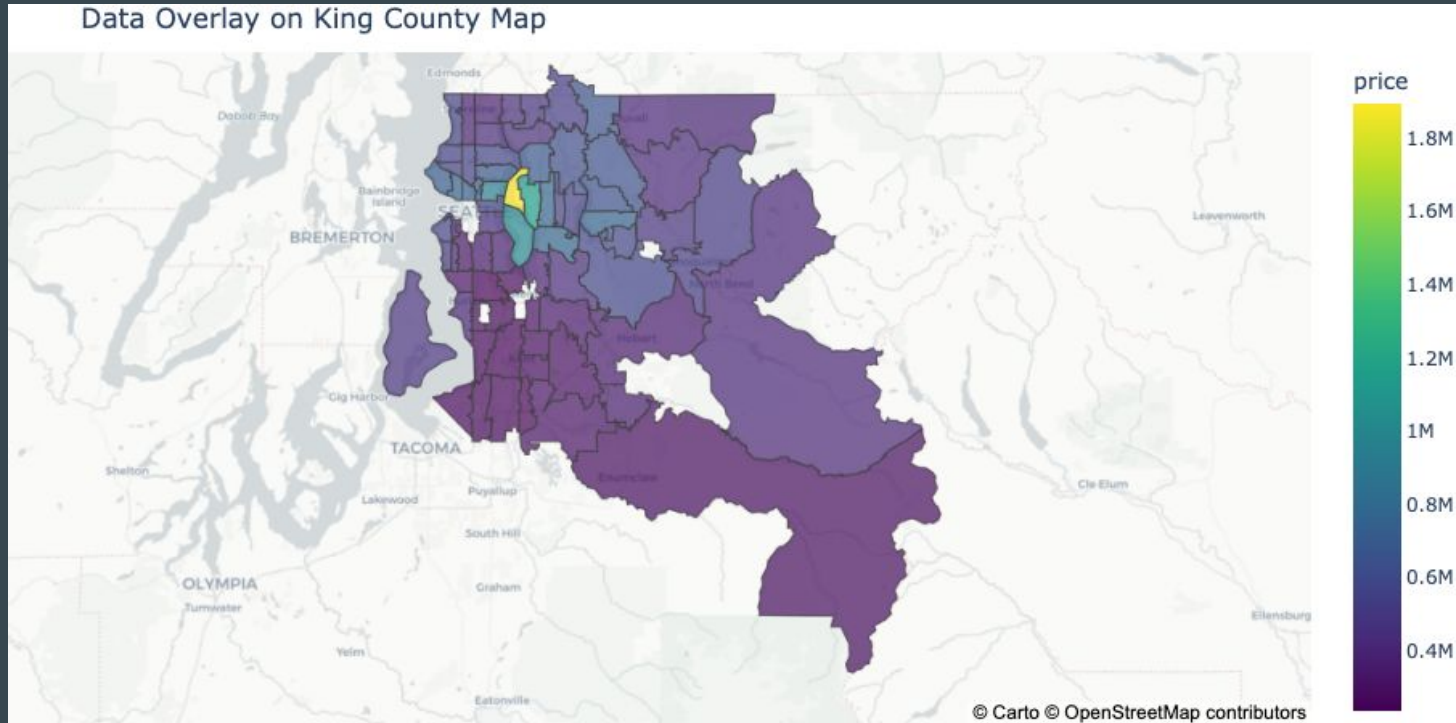# 1: The condition and grade of a house have a correlation with the price

Conclusion:

- No correlation between condition and price
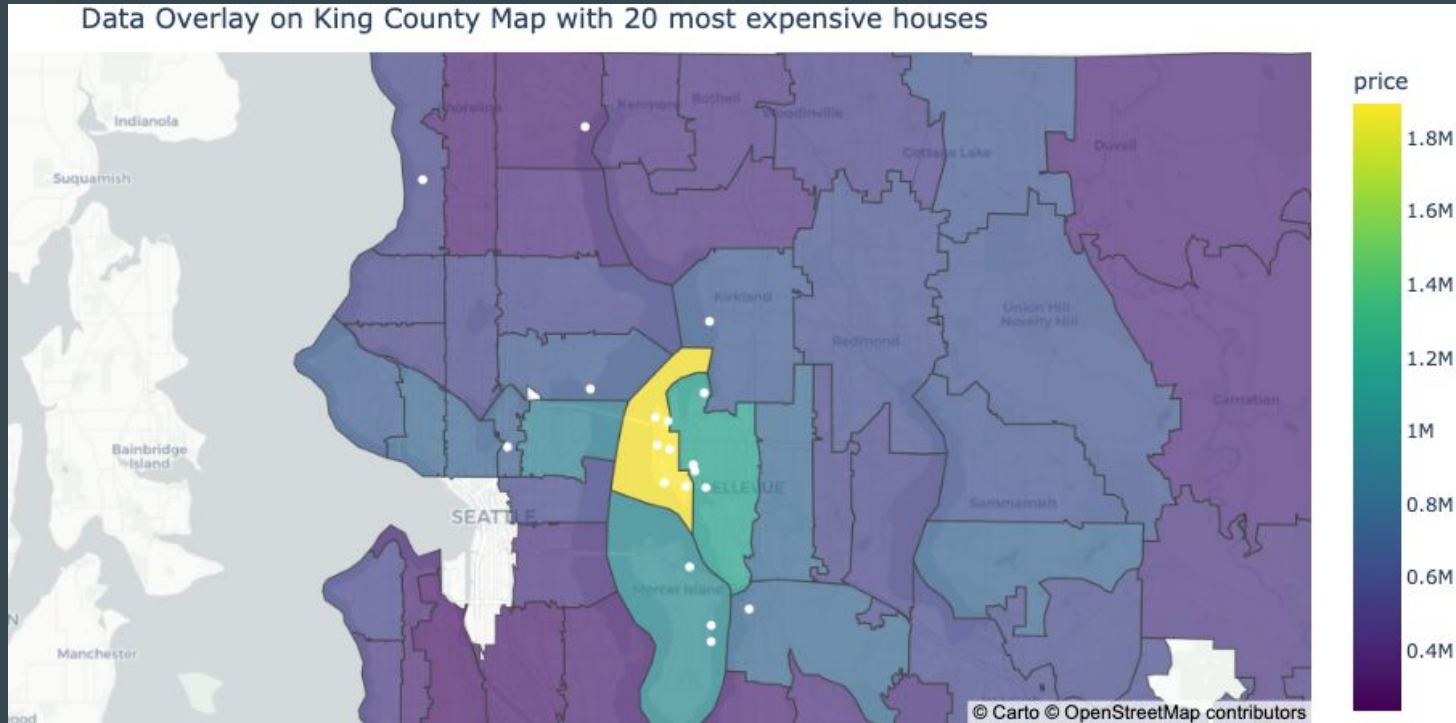- Correlation between and grade and price is visible

2: Expensive houses are all close to each other

Median house price per ZIP Code

Data Overlay on King County Map

price
1.8M
1.6M
1.4M
1.2M
1M
0.8M
0.6M
0.4M

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2: Expensive houses are all close to each other

20 Most expensive houses

Data Overlay on King County Map with 20 most expensive houses

2: Expensive houses are all close to each other

Conclusion:

- 7 ZIP Code areas have a median price higher than the 90th percentile
- 16 of the 20 most expensive houses are within the 7 ZIP Code areas identified above
- 14 houses are within 3 ZIP Code areas

3: The price for a house with a good view or near the waterfront are higher than the median

Median Price Difference Between Houses In Good Locations And All Houses

3: The price for a house with a good view or near the waterfront are higher than the median

Conclusion:

- View and being near the waterfront yield higher prices
- Median price difference is 1 216 350 $

3: Other findings

- Most houses aren't at the water, don't have an extraordinary view and haven't been renovated
- They have around 3 bedrooms and 2 bathrooms and a living area of 2080 sqft
- The mean age of the houses is 52 years
- The mean selling price is 540 000 $

Answers for my client:

- When is the best time to sell a house?
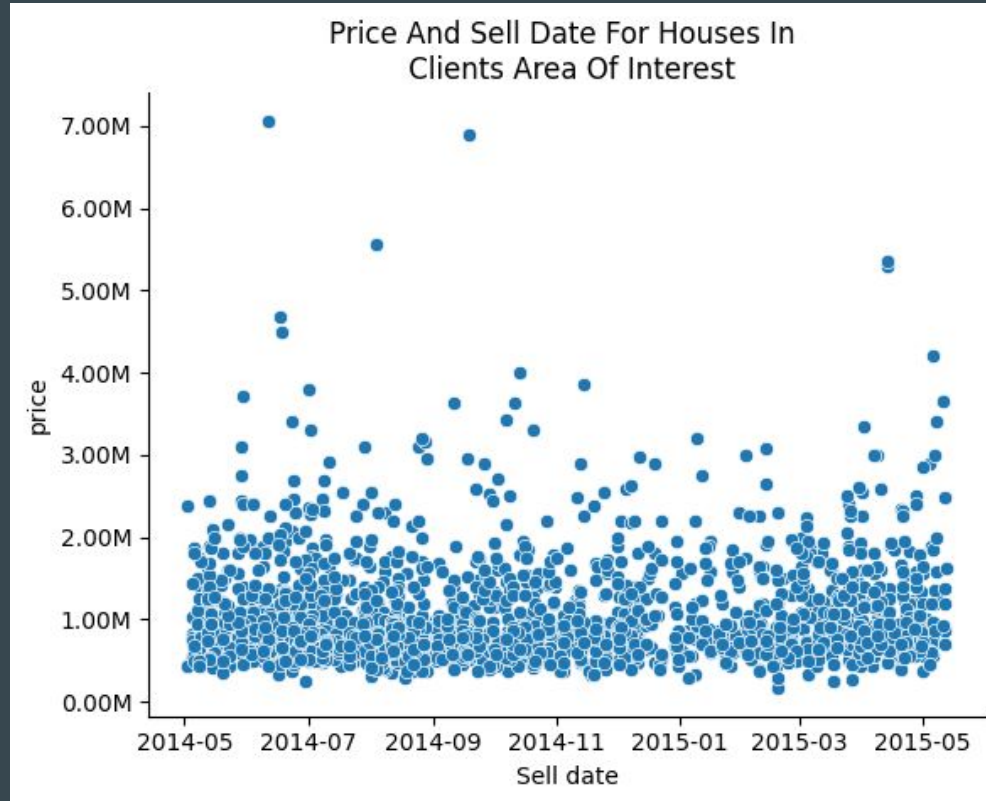- Is renovating a house worth it?

Assumption: His houses are located in the seven most expensive ZIP Code areas identified above
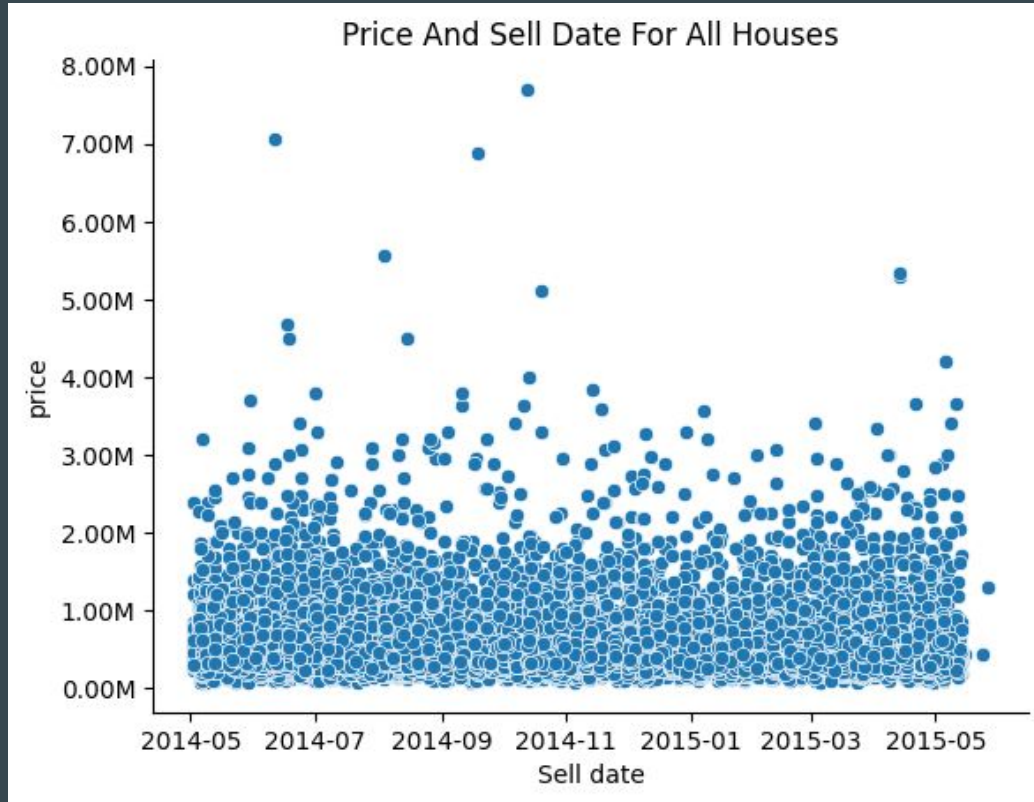
When is the best time to sell a house?

When is the best time to sell a house?

Price And Sell Date For Houses In Clients Area Of Interest

When is the best time to sell a house?

Recommendation: There is no 'best' time to sell a house, therefore a house should be sold when the occasion arises

Is renovating a house worth it?

Price Difference Between Renovated And Unrenovated Houses
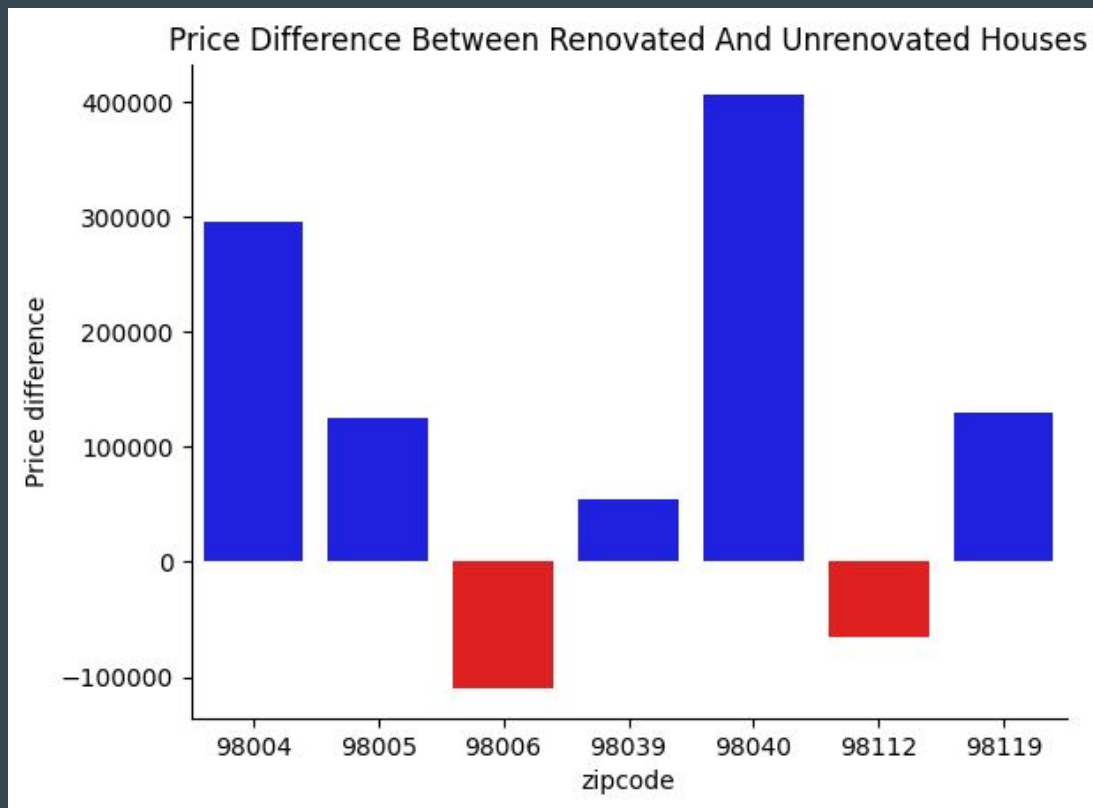
Is renovating a house worth it?

Recommendation: A renovation is a good way of increasing the value of a house, of course only if the renovation costs are not to high.

Also buying houses that are undervalued and then renovating and selling them might be a good option.