



KING COUNTY

Housing Ananlysis

For this project we wanted to take data from housing market of King county to assist seller to sell his/her expensive properties

As the stake holder was not available to answer all question we made certain assumptions.

Assumptions :

1. Houses are at the water front
2. **Kept in good condition**
3. **Houses are in the city centre**
4. **Have good grade from the county**
5. **The term "expensive" applies to today's value perhaps**

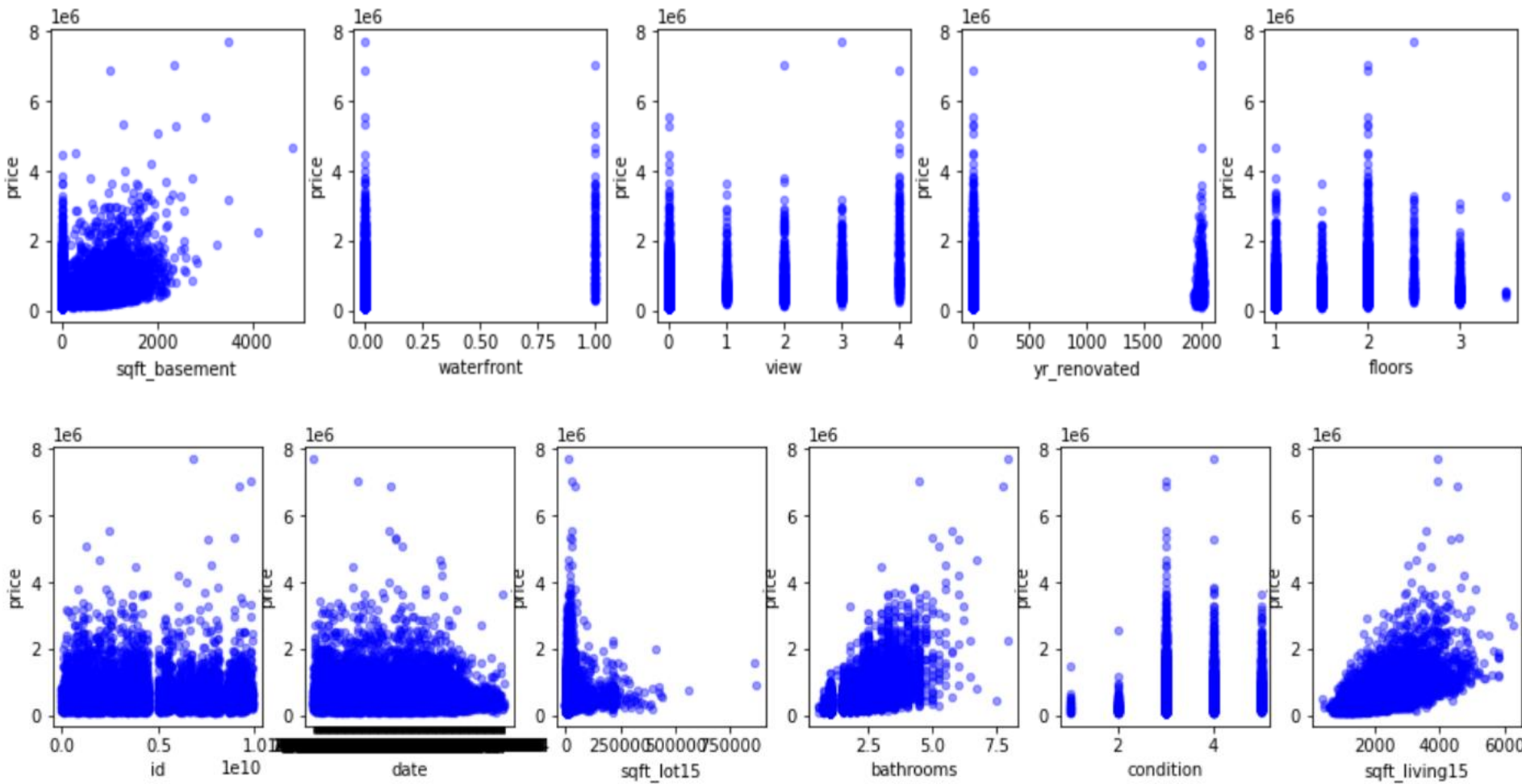
Little insight to the data

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1. The average price of the house is \$540000
2. The average bedroom per house is around 3
3. The most expensive house cost is \$7,700,000
4. 40 % of the houses fall under expensive category assuming the price above the avg. price of the house

Data distribution and overview

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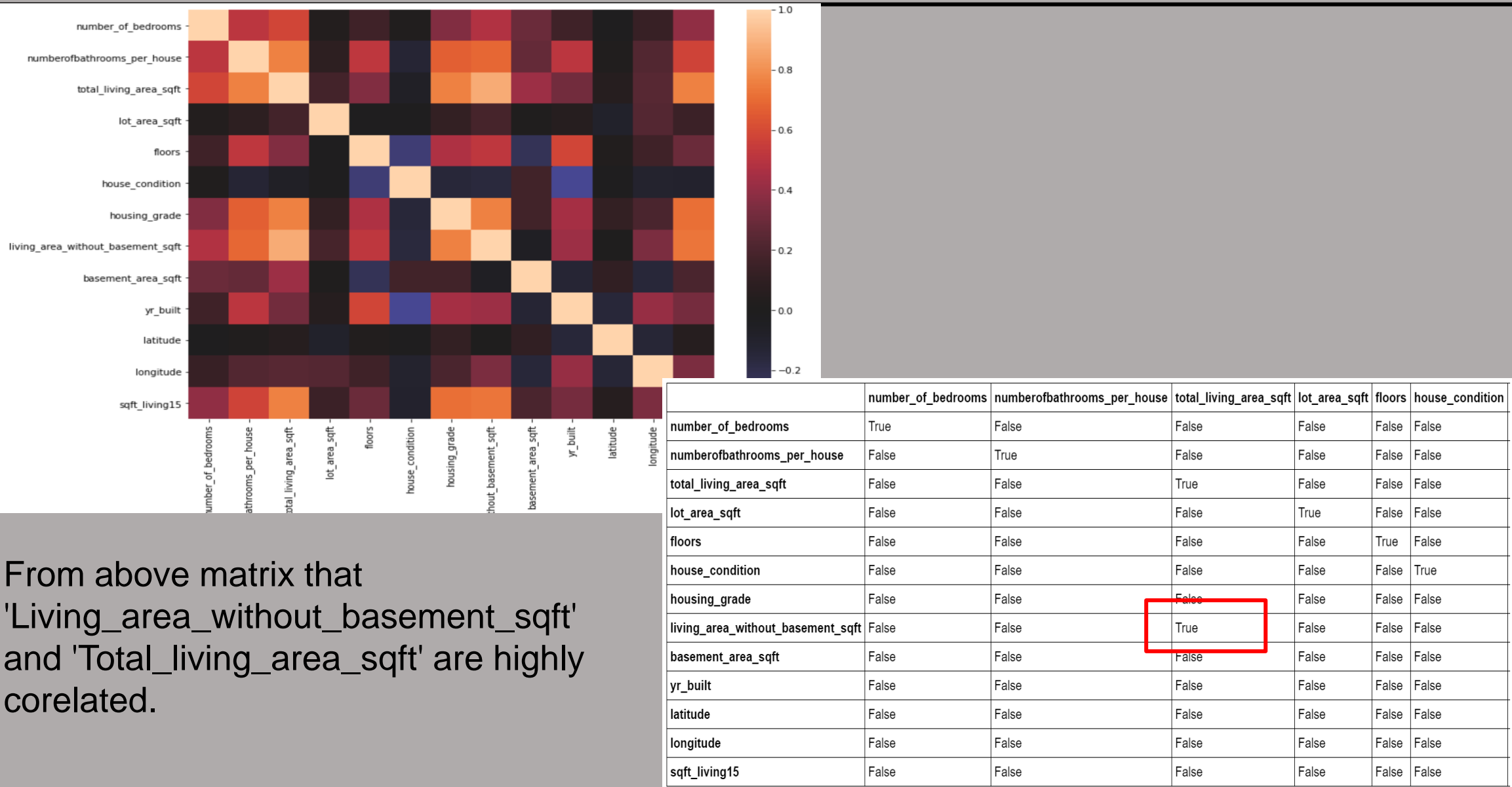
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long	0.022036
condition	0.036056
yr_built	0.053953
sqft_lot15	0.082845
sqft_lot	0.089876
yr_renovated	0.117855
floors	0.256804
waterfront	0.264306
lat	0.306692
bedrooms	0.308787
sqft_basement	0.325008
view	0.393497
bathrooms	0.525906
sqft_living15	0.585241
sqft_above	0.605368
grade	0.667951
sqft_living	0.701917
price	1.000000

We conclude :

- we can drop certain columns having low correlation value to price

Which variable is has more multicollinearity

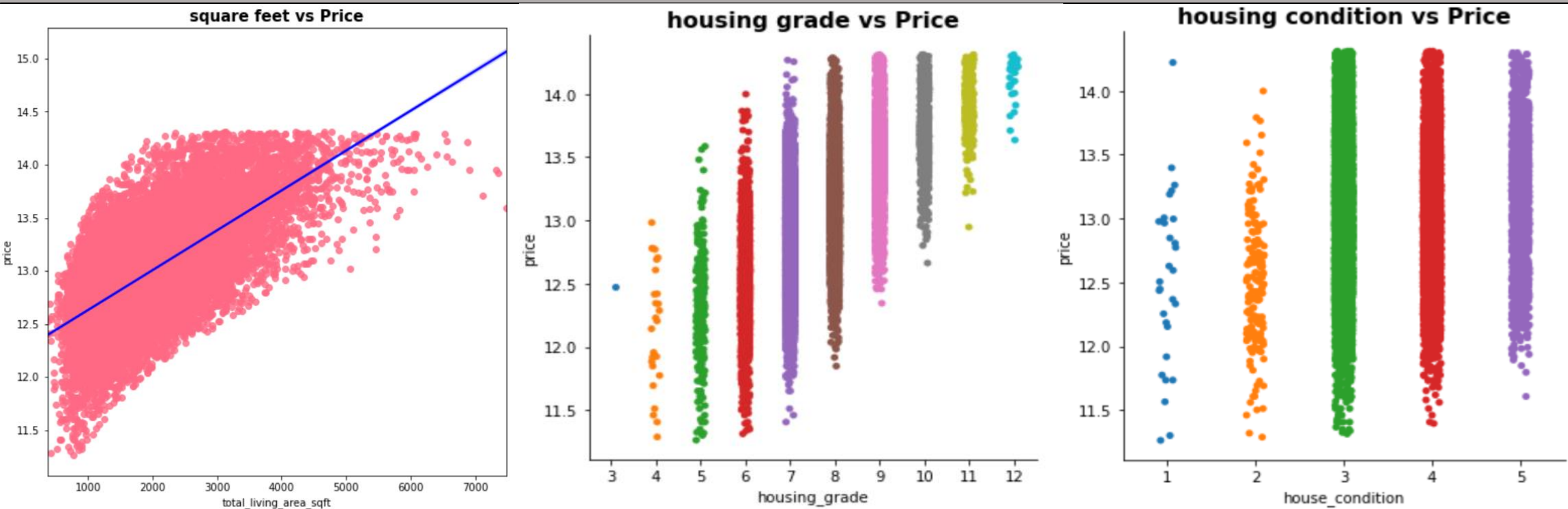
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From above matrix that 'Living_area_without_basement_sqft' and 'Total_living_area_sqft' are highly correlated.

Factors having more impact on the price

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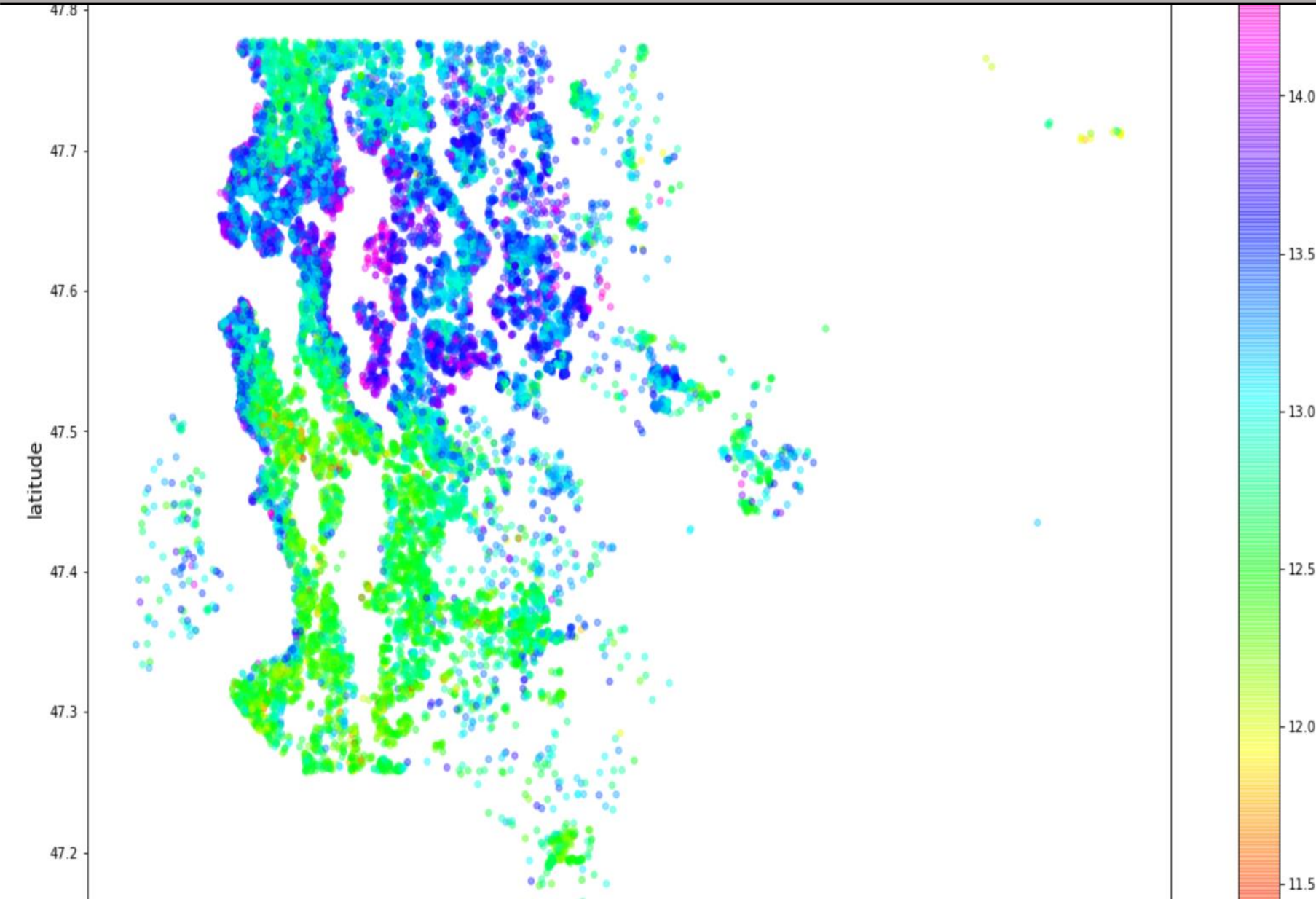


We conclude :

- The living area and the grade has greater impact on the price
- Housing condition has a meaningful impact on the price

Housing price distribution throughout King county

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The most expensive houses are in the north eastern area of the county and near city centre.

Conclusion

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- We can see that the houses located in north east of the king county have a higher sales price
- Very expensive houses with price above avg. price are around 40 % sold in 2 years
- Demand seems to be there, might take more time to sell depending on avg income of the population(No income data)
- Housing condition could fetch more profit after selling
- Housing grade does play an important role in selling
- Our assumption of waterfront is not necessarily correct