



# What do houses cost in King County?

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# Background

People around the area of King County have frequently complained that they have been misled by estate agents

Unfortunately given the complexity of the housing market it has been difficult for things to change as a result many people loose out on what tends to be the biggest purchase they make in their life

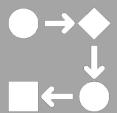
I have been tasked to come up with a model that predicts the price of houses given certain details about them

This should help residents in the area to know around how much they should pay for houses

# Project outline



I have been presented with a data set which includes details on houses sold in King County in 2014 and 2015



I had to clean the data, decide how to treat variables and whether to modify them, create a model test it and iteratively repeat the process again until I arrived at a final model

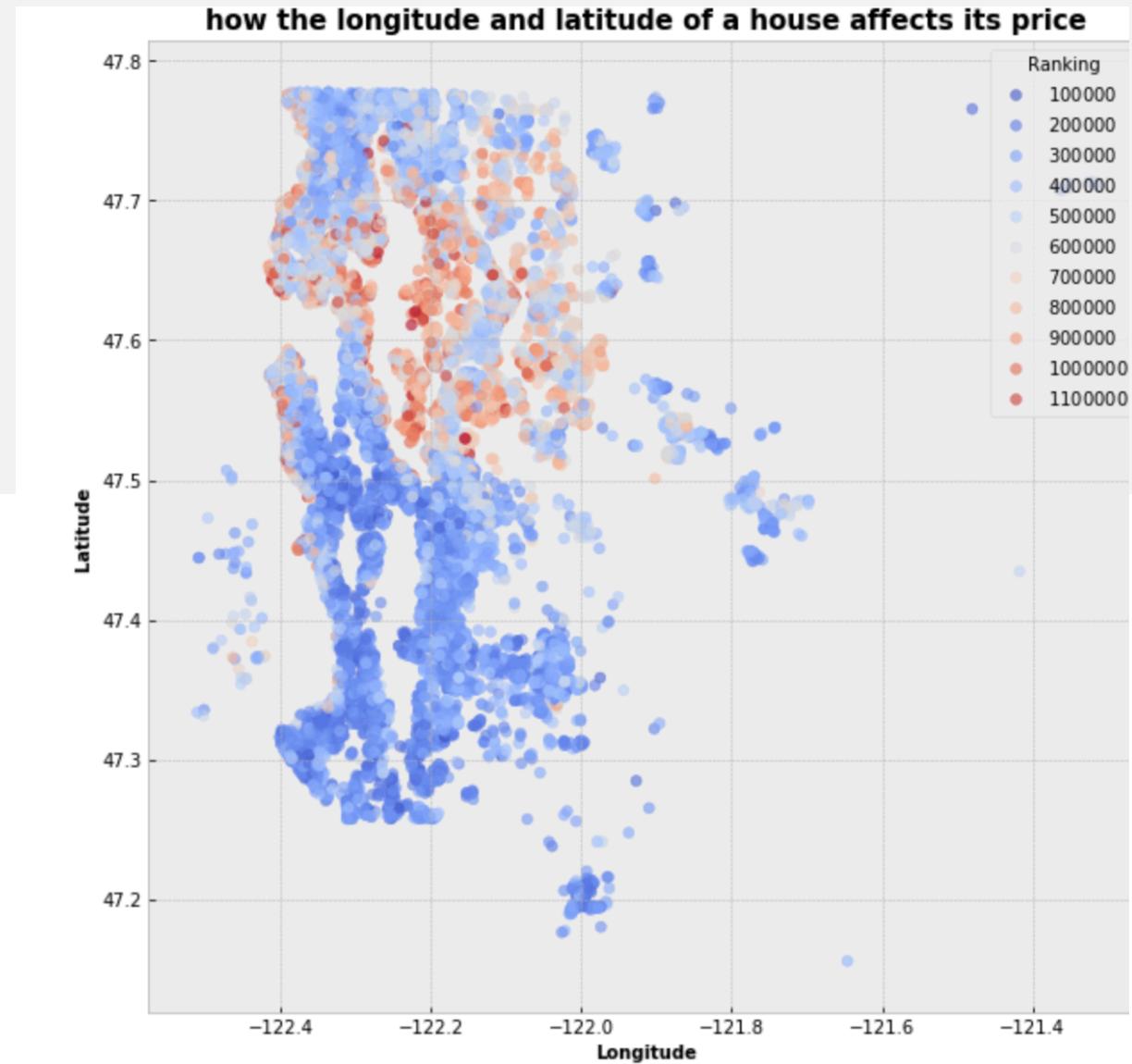


I had to then test my model on houses currently in the market

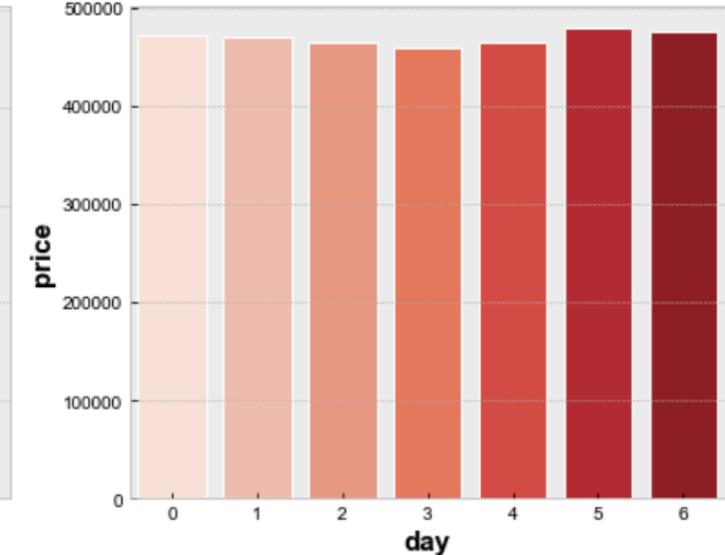
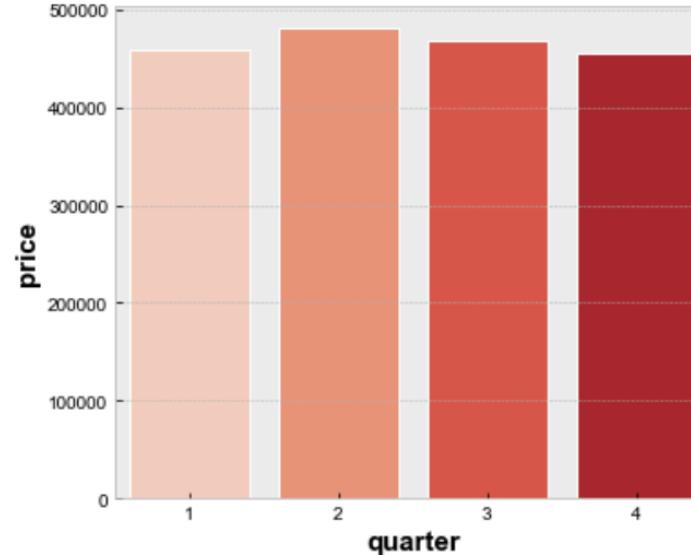
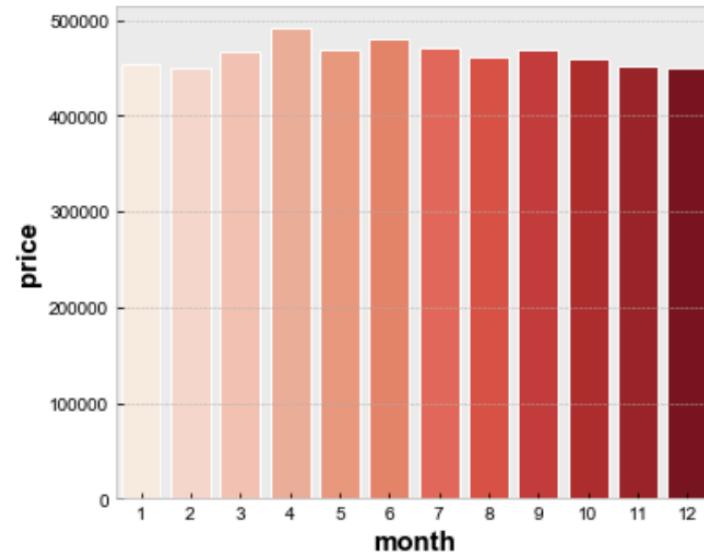


# Does Zip code affect the price of your house?

- It is clear that there is a trend between latitude, longitude and price
- Houses in the north seem to be more expensive
- Houses in the west seem to be more expensive
- It is clear the the location of you house makes a big difference to the price of it



# When should you buy your house?



- As buyers we want to buy houses when they are cheapest
- House prices are lowest later on in the year during and earlier on in the year during the last few months of the year and the first few months
  - The winter market tends to be slower. Sellers who list at this time of year (instead of waiting for spring) tend to be highly motivated. Often, the seasonal lull also leads to price reductions.
  - Houses look nicer in spring and summer months

# What does our model tell us?

- How does every unit of \_\_\_\_\_ affect price?
- Bedrooms = - 4,308
- Bathrooms = 17,773
- Basement = -13,305
- Condition = 23,238
- Floors = -55,716
- Grade = 28,418
- Quarter 1 = 16,274
- Quarter 2 = 16,934
- SQFT Living = -14
- SQFT Lot = 0.82
- Waterfront = 327,949
- Year Built = -595
- SQFT living X grade = 12
- SQFT living X Floors = 26
- Zip code min = -49,222
- Zip code max = 626,741

# Should we buy the house?

- Our model predicts this property to be worth \$460,396
- The offer price is 27% more expensive than we predict this is quite a lot
- However this is just the asking price perhaps we can negotiate the price down
- If we can get to a lower value it may be a good purchase

19220 Burke Ave N  
Shoreline, WA 98133  
Status: Active

\$585,000 | 3  
Price Beds E  
Redfin Estimate: \$603

Overview Property Details Property History Schools Tour Insights F

LISTED BY REDFIN HOT HOME



# Conclusion

It is clear that the house prices advertised are above what you should be paying

- Homeowners should use this program to help them make more informed decisions.

As a guideline: Location is everything - try find a property in a good zip code these tend to be in the North Western areas and include zip codes such as 98040 and 98039

the grandeur of the house doesn't matter much

- you don't need too many rooms, many floors, a basement etc

what you should look for - newly built, good condition, good grade

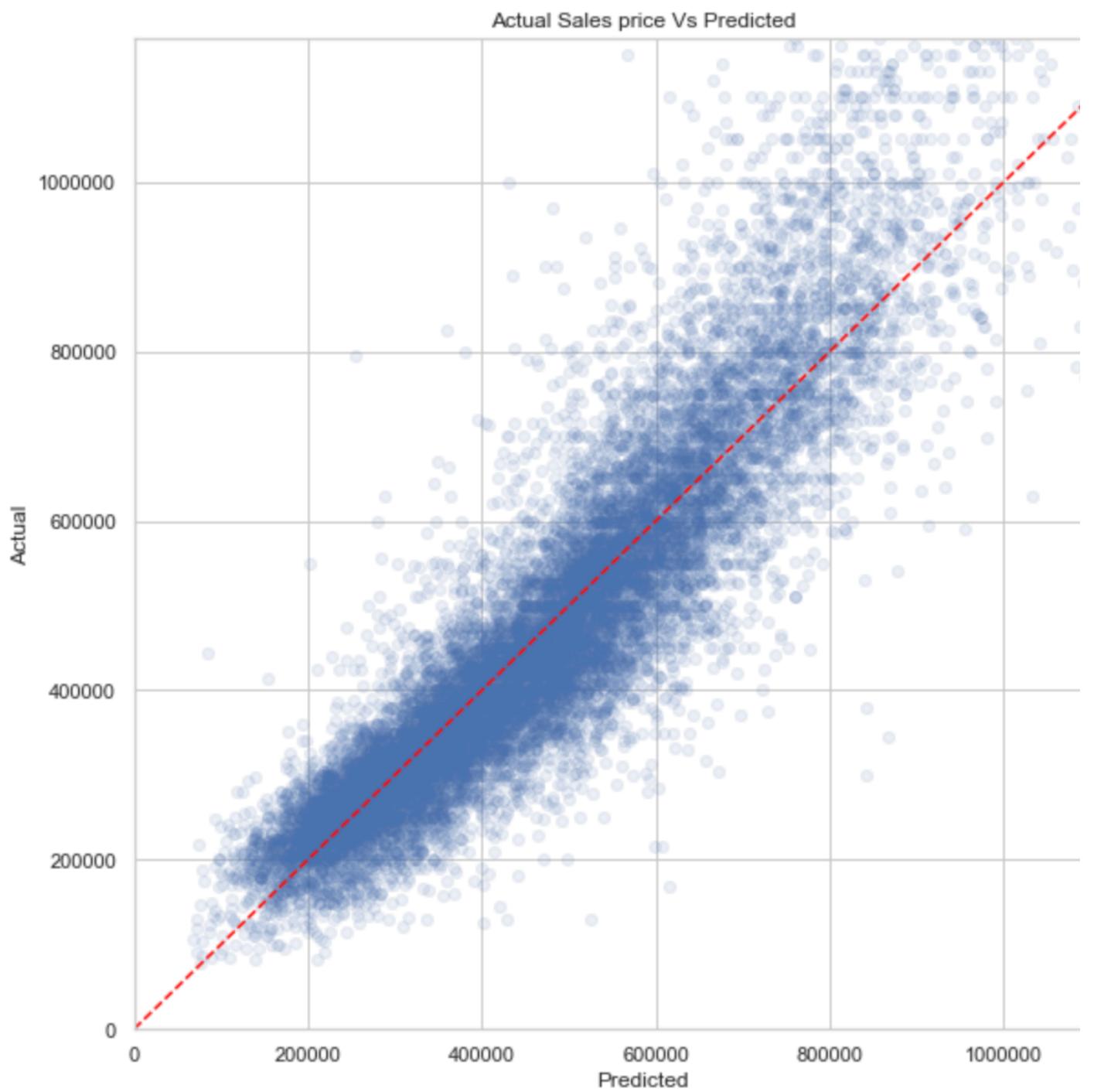
# What next?

- This model is a fixed regression analysis
- Home prices follow economic trends
- Further modeling could be done using time series data on house prices and thus seeing how the appetite for prices are for this specific years and other years moving forward

# Appendix

# All variable coefficients

```
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Actual Sales  
price Vs  
Predicted