House Sales Data Analysis for Kings County

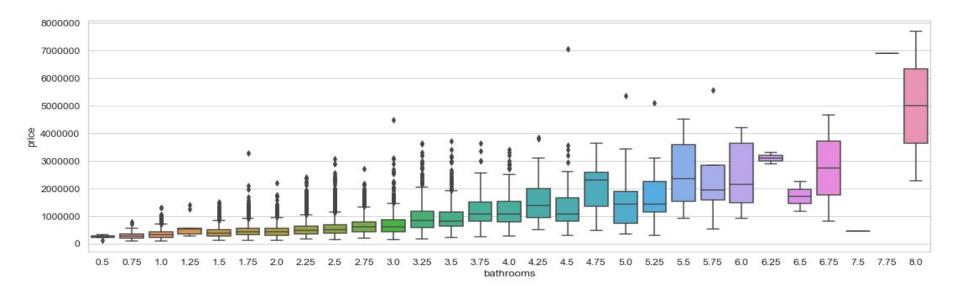
Which features best predict sale prices of homes in Kings County, WA?

Three Factors that Affect House Prices

- 1. Bathroom
- 2. Grade
- 3. Bedrooms

Affects Price: Size of the house

Price increases as you get to 2.5 bathrooms and up.

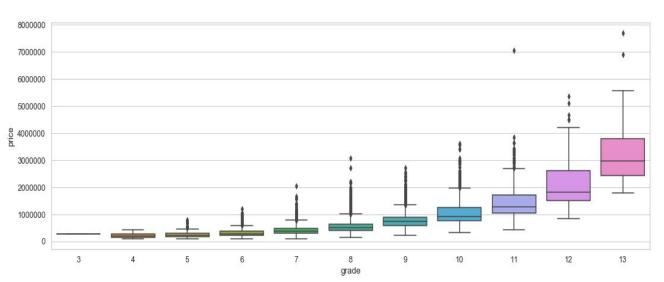


Grade

Improving grade to 6

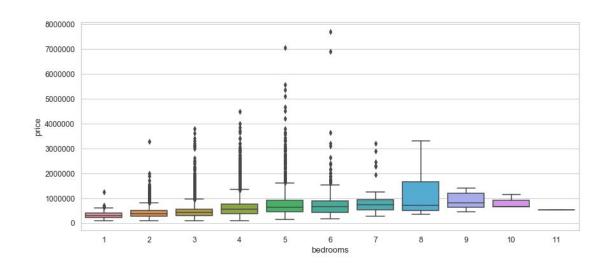
or more increases

house prices.



Bedrooms

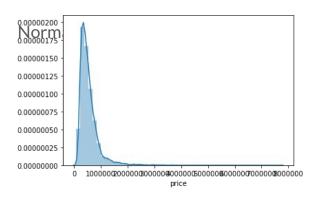
House prices increase with more number of bedrooms.

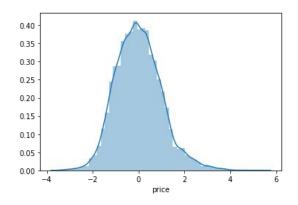


Data Cleaning

Checking for nulls

Dropped columns that were unnecessary



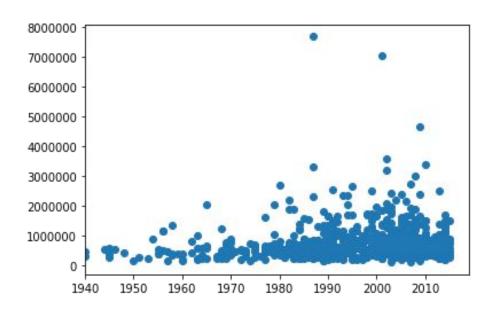


Dropped Features

Year Renovated

Lat & Long

Condition



Model

Created dummy variables

Stepwise Selection

85% of the variability of prices for the

properties are explained with the R-squared

| Dep. Variable: | price | R-squared: | 0.855 |
|-------------------|------------------|---------------------|-----------|
| Model: | OLS | Adj. R-squared: | 0.854 |
| Method: | Least Squares | F-statistic: | 1054. |
| Date: | Sun, 26 Jul 2020 | Prob (F-statistic): | 0.00 |
| Time: | 00:28:43 | Log-Likelihood: | -9744.6 |
| No. Observations: | 21533 | AIC: | 1.973e+04 |
| Df Residuals: | 21412 | BIC: | 2.070e+04 |
| Df Model: | 120 | | |
| Covariance Type: | nonrobust | | |

Recommendations

For seeing increase on house value:

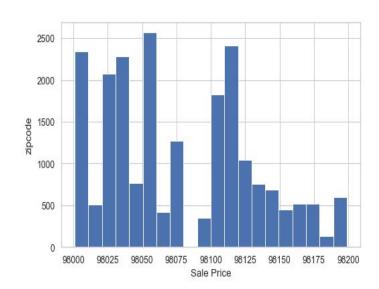
- Grade should be at least a 4
- At least 3 bedrooms
- Have at least 2.5 bathrooms

Future Work

Explaining house price variations per zip code (ex: 98025)

Look more at exterior features, such as waterfront

More in depth into specific neighborhoods.



Thank You