PHASE 2 PROJECT

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SUMMARY

Analysis of expected housing prices in King County based on square footage, grade, and zipcode to provide insightful information to a new real estate firm's intended goals:

- Maximize profitability

- Identify what variables are the most important

- Provide expected price of houses

OUTLINE

Business Problem

Data & Methods

Results

Conclusions

BUSINESS PROBLEM

New firm founders have strong anecdotal knowledge of King County real estate but lack the hard data to validate their beliefs.

Provide guidelines for a viable business model.

Provide predictive pricing models for new house listings and the expected profitability for them.

DATA & METHODS

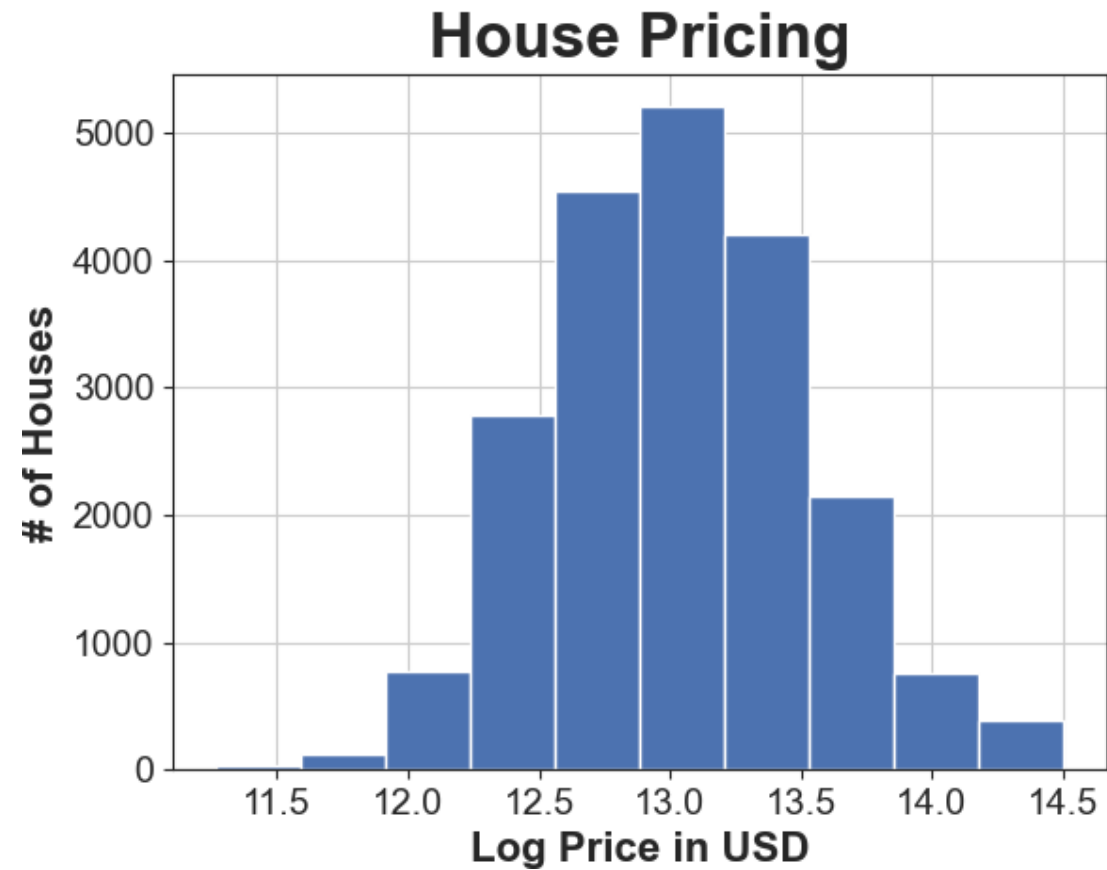Data obtained from King County House Sales dataset.

Analysis conducted on over 45 unique variables.

Final predictive analysis conducted on 15 unique variables in 4 categories:
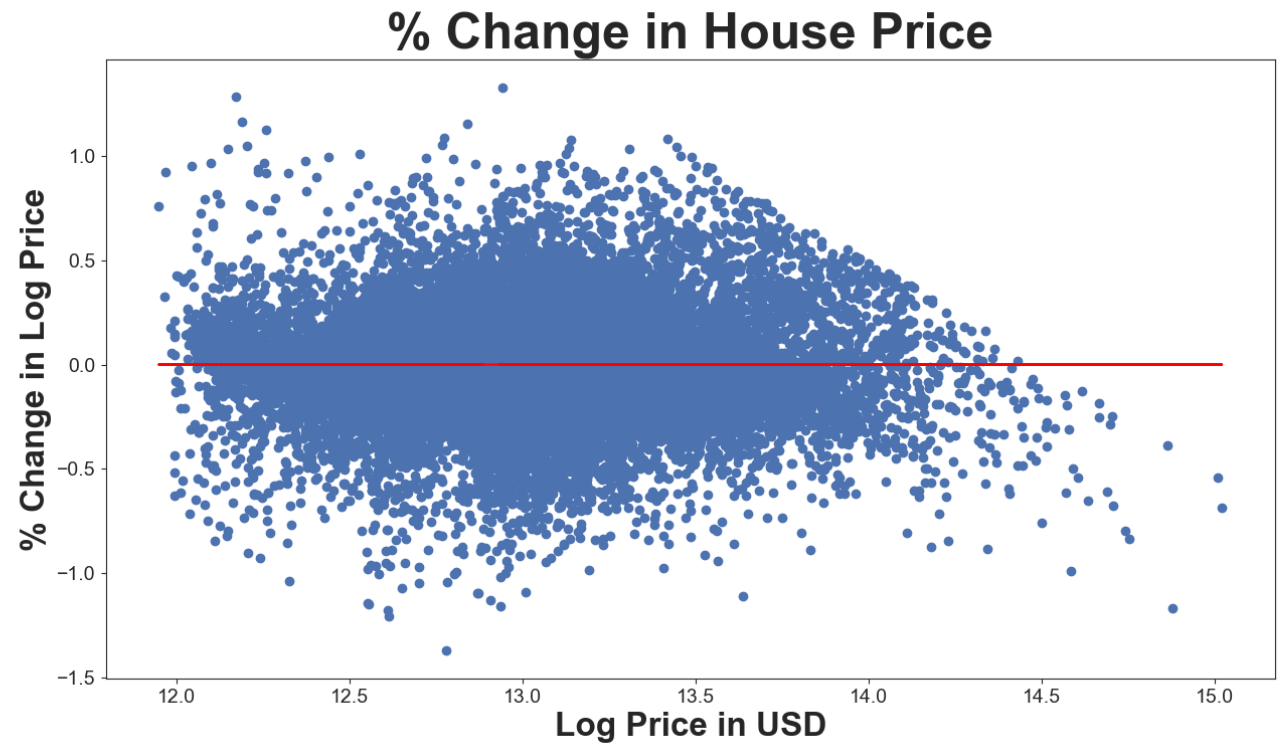
- Price

- Square Footage

- Grade

- Zipcode

RESULTS

The average house price is $519,063.82

RESULTS

The mean squared error is $166,301.08.

For any expected price value, the real value can be +/- $166,301.08.

% Change in House Price

RESULTS

The predicted price of a house according to changes to the three key variables are outlined as followed:

Key Variables	Coefficient	Percentage Change	Dollar Change	Total
Square Foot Living	0.0003	0.03	155.72	519219.54
Grade 2: Average	0.2013	20.13	104487.55	623551.37
Grade 3: Above Average	0.4200	42.00	218006.80	737070.62
Grade 4: Excellent	0.4512	45.12	234201.60	753265.42
Zipcode: Quad 2	-0.0778	-7.78	-40383.17	478680.65
Zipcode: Quad 3	-0.3378	-33.78	-175339.76	343724.06
Zipcode: Quad 4	-0.0377	-3.77	-19568.71	499495.11
Zipcode: Quad 5	-0.0355	-3.55	-18426.77	500637.05
Zipcode: Quad 6	-0.2265	-22.65	-117567.96	401495.86
Zipcode: Quad 7	-0.4331	-43.31	-224806.54	294257.28
Zipcode: Quad 8	-0.5408	-54.08	-280709.71	238354.11
Zipcode: Quad 9	-0.3321	-33.21	-172381.09	346682.73
Zipcode: Quad 10	-0.6747	-67.47	-350212.36	168851.46
Zipcode: Quad 11	-0.6297	-62.97	-326854.49	192209.33
Zipcode: Quad 12	-0.5376	-53.76	-279048.71	240015.11

CONCLUSION

The most significant variables when assessing the value of a home are square footage, grade, and zipcode.

The average price of a home in King County is $519,063.82.

The mean squared error is $166,301.08.