

A yellow L-shaped line consisting of a horizontal segment at the top and a vertical segment on the left, framing the top-left corner of the word.

Bellevue

A short blue horizontal line centered between the two words.

Estates

A yellow L-shaped line consisting of a horizontal segment at the bottom and a vertical segment on the right, framing the bottom-right corner of the word.

Our focus

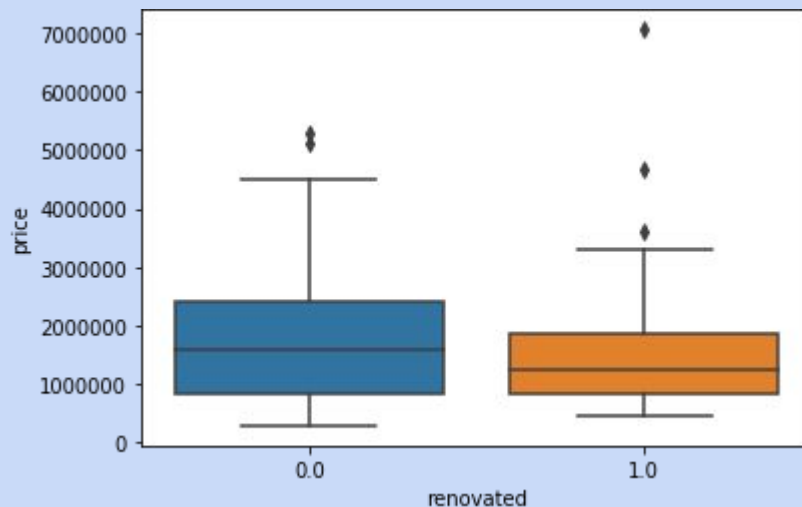
1. Selling waterfront properties - higher end of property market
2. Selling grade 7 properties - lower end of the property market

Possible recommendations

- Renovation
- Building an extension
- Adding additional features

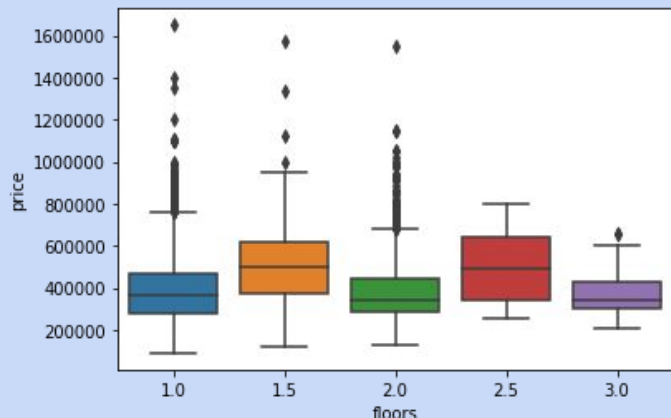
Possible recommendations: waterfront houses

Renovation vs price

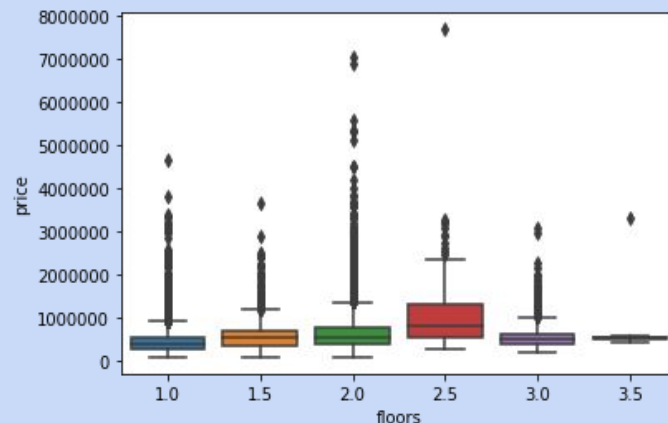


Possible recommendations: grade 7 houses

Grade 7 houses: number of floors vs price



Houses of all grades: number of floors vs price



The housing market as a whole

Factors which **best predict the sale price** of houses

- focus: high correlation
- avoidance: predictors which reinforce each other

Possible predictors

- 1) Grade
- 2) Square foot living area
- 3) Square foot living of 15 nearest neighbours

(Tentative!) results

Square foot living

$$R^2 = 0.45$$

Square foot living and square foot living 15

$$R^2 = 0.47$$

Technical notes

Regression results
for model using
sqft living and
sqft living 15

OLS Regression Results

Dep. Variable:	price	R-squared:	0.479			
Model:	OLS	Adj. R-squared:	0.479			
Method:	Least Squares	F-statistic:	9945.			
Date:	Wed, 23 Oct 2019	Prob (F-statistic):	0.00			
Time:	14:36:20	Log-Likelihood:	-9741.3			
No. Observations:	21596	AIC:	1.949e+04			
Df Residuals:	21593	BIC:	1.951e+04			
Df Model:	2					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
Intercept	5.5274	0.060	92.700	0.000	5.410	5.644
sqft_living	0.6213	0.009	67.790	0.000	0.603	0.639
sqft_living15	0.3753	0.012	31.614	0.000	0.352	0.399
Omnibus:	149.987	Durbin-Watson:	1.976			
Prob(Omnibus):	0.000	Jarque-Bera (JB):	126.886			
Skew:	0.128	Prob(JB):	2.80e-28			
Kurtosis:	2.726	Cond. No.	249.			

Improving our model

1. Research the King's County grading system
2. Scaling