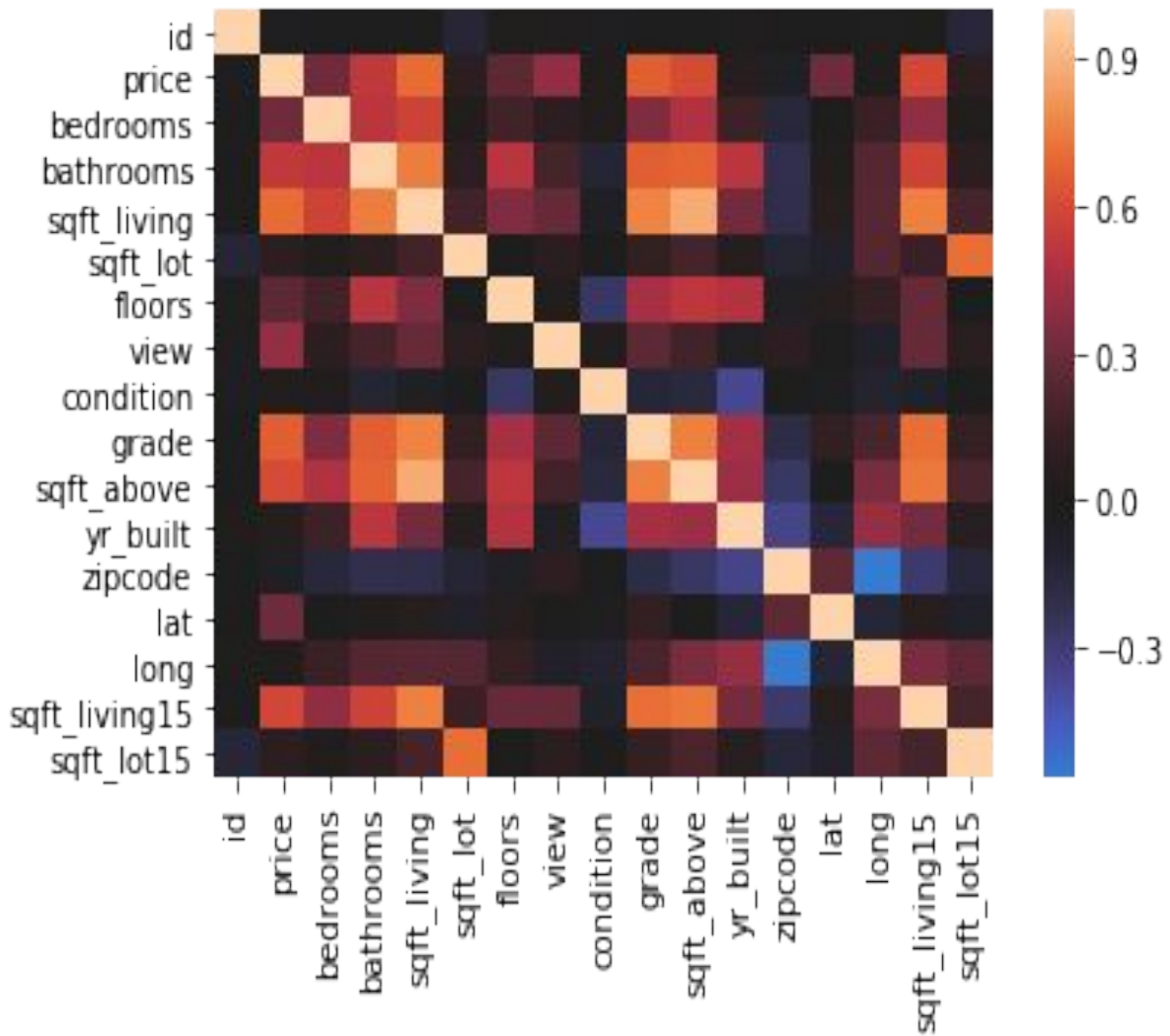# House Prices

- What is the effect of living area on price?

- What are the other variables have effect on the price?

- Can we formalize it to predict house prices?

A heatmap shows us the relationship between our target value Price and other variables.

It also indicates the possible multicollinearity between variables that we need to avoid.
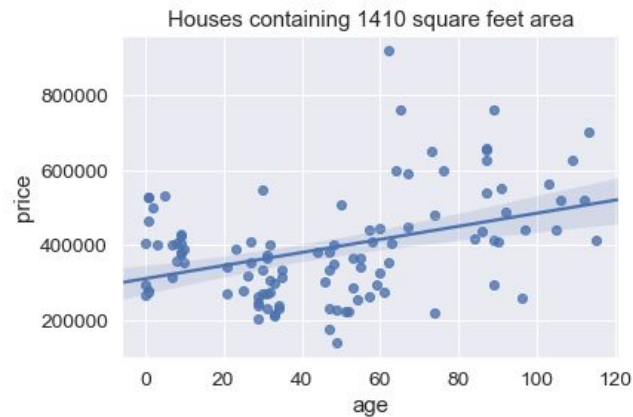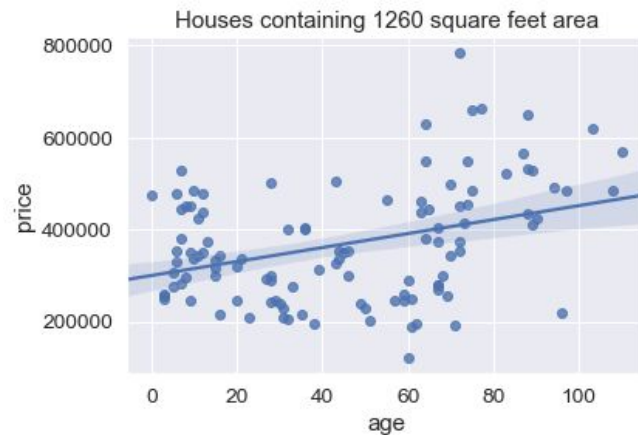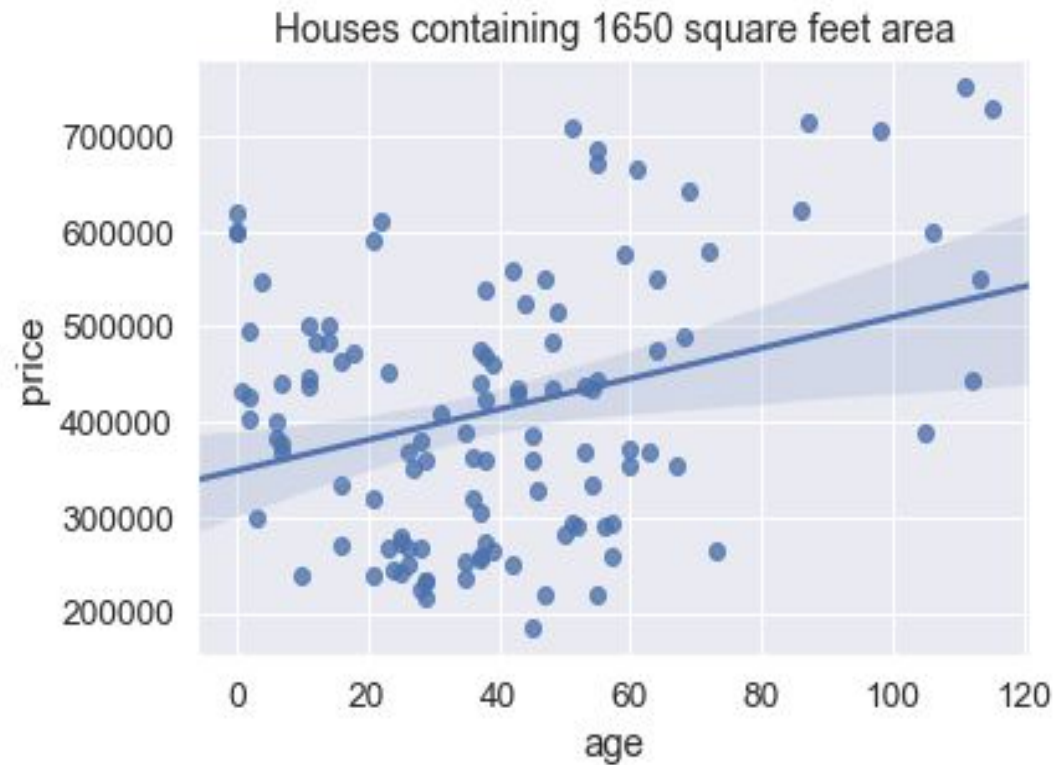
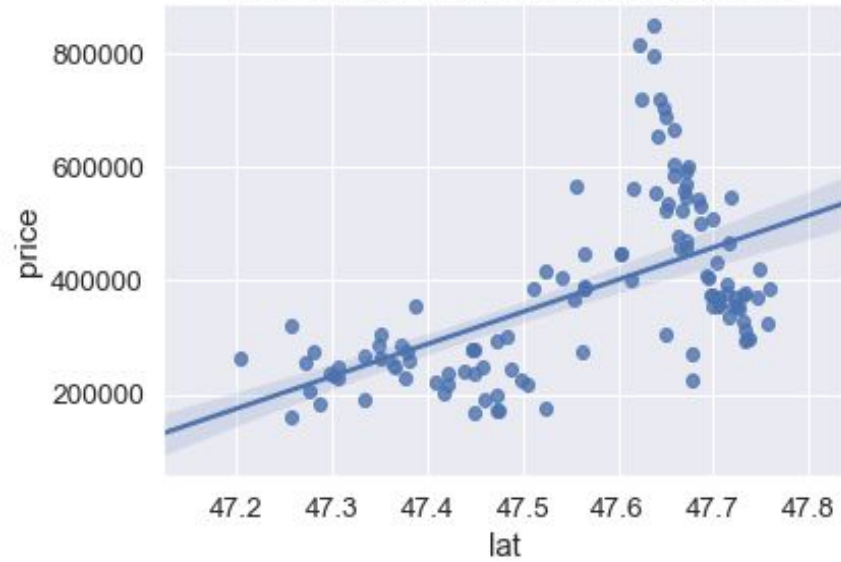# Positive Linear Association between Price and Square ft.
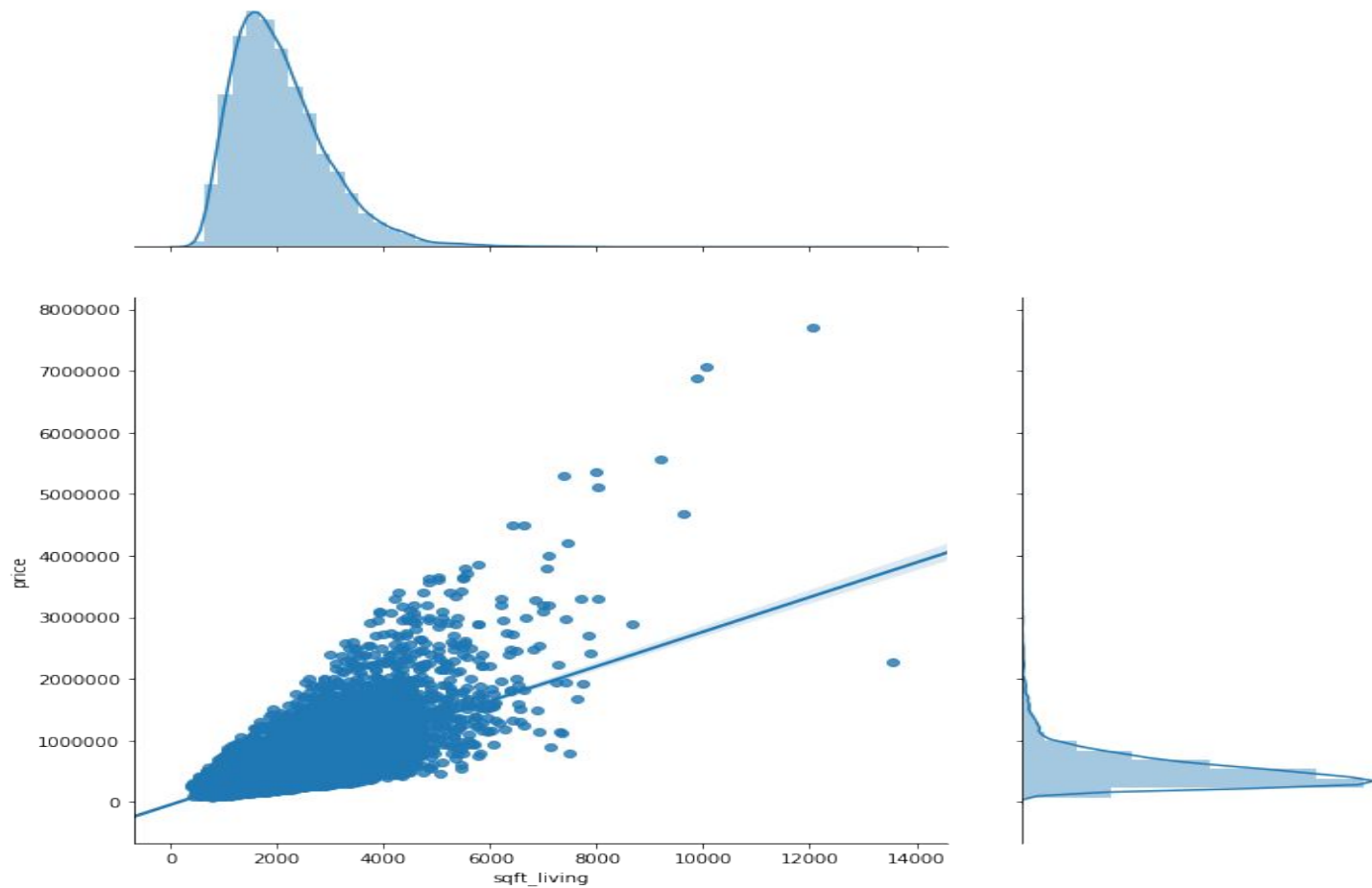
Transforming non-normal variable distribution by applying logarithmic function.
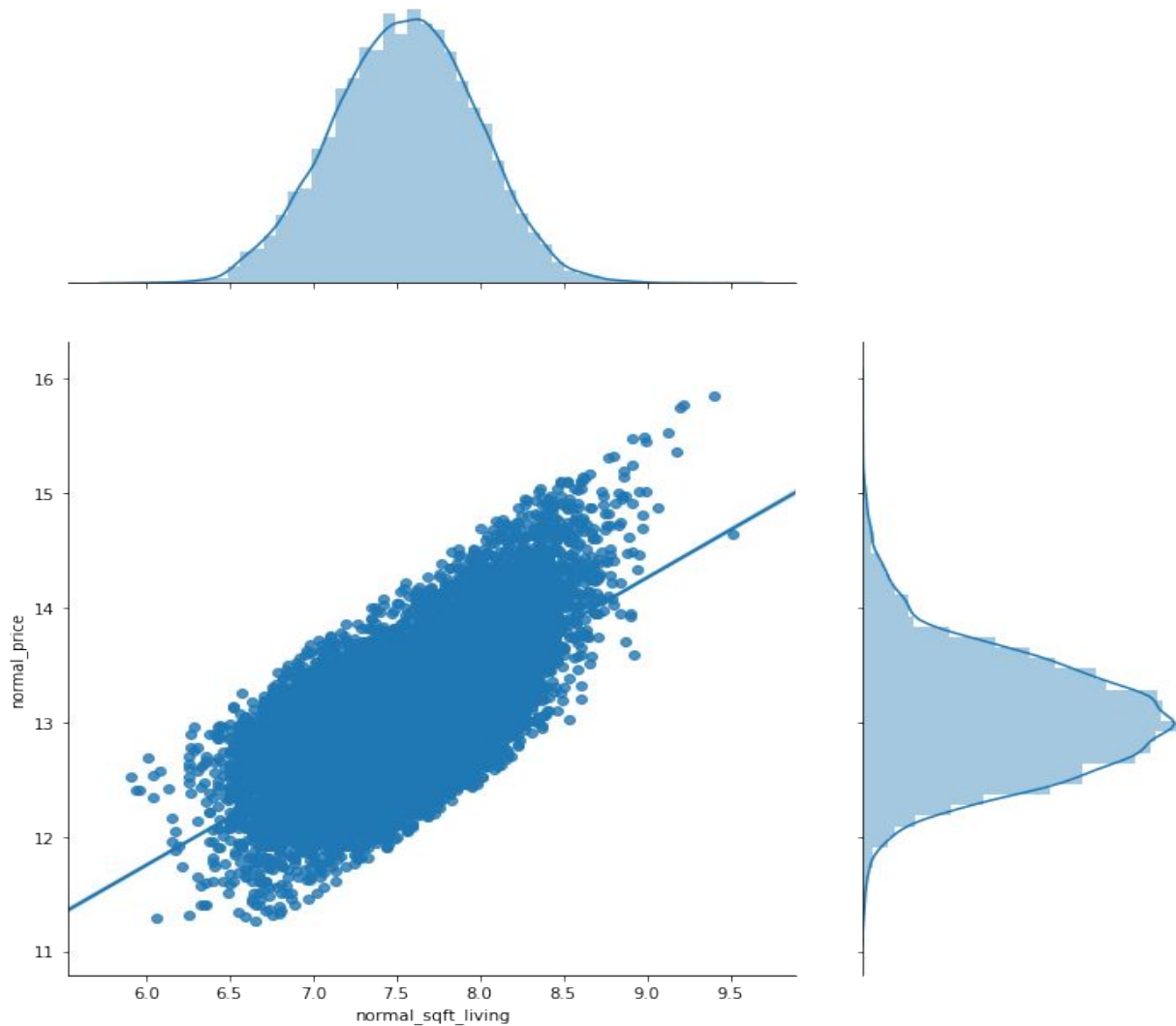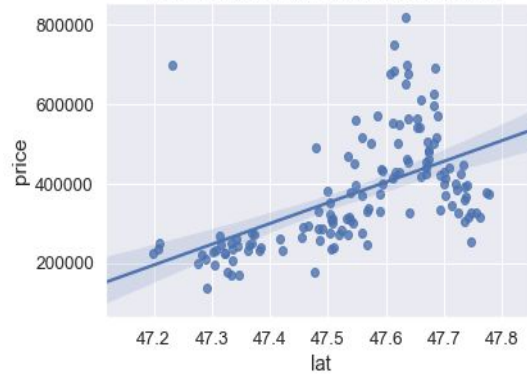
Older houses fetch more money.

Houses containing 1650 square feet area

Houses containing 1260 square feet area

Houses containing 1410 square feet area

Latitude has greater effect on price.
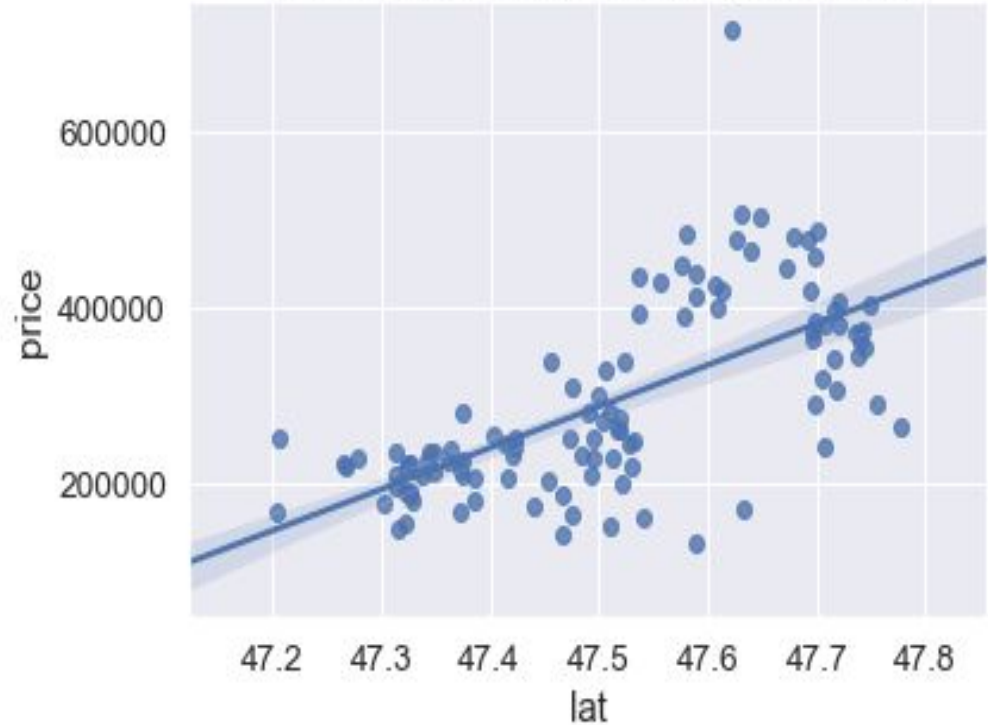
Houses compared to latitude and age
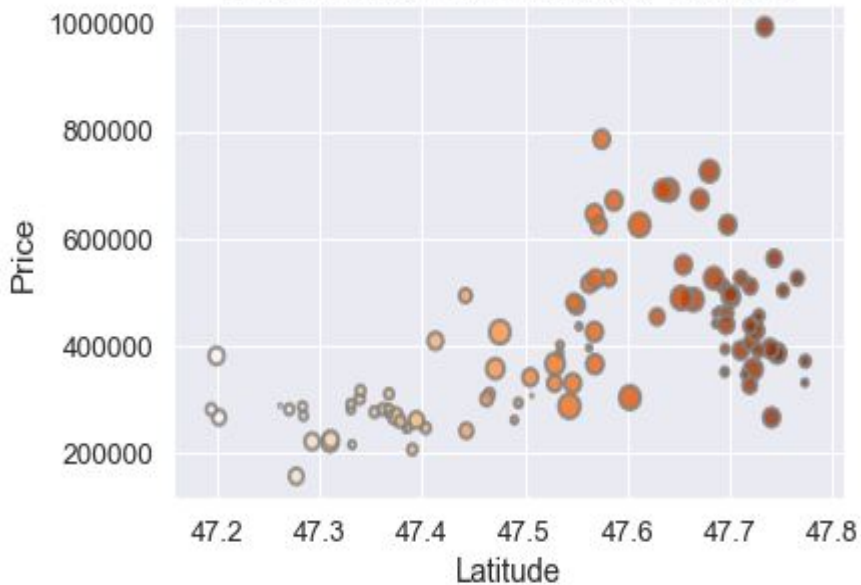
Size : Age

Colour: Latitude
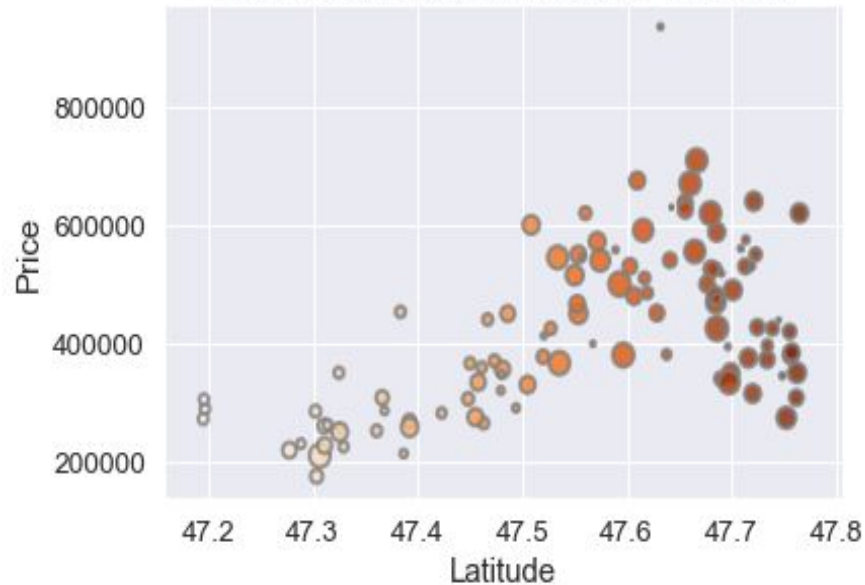
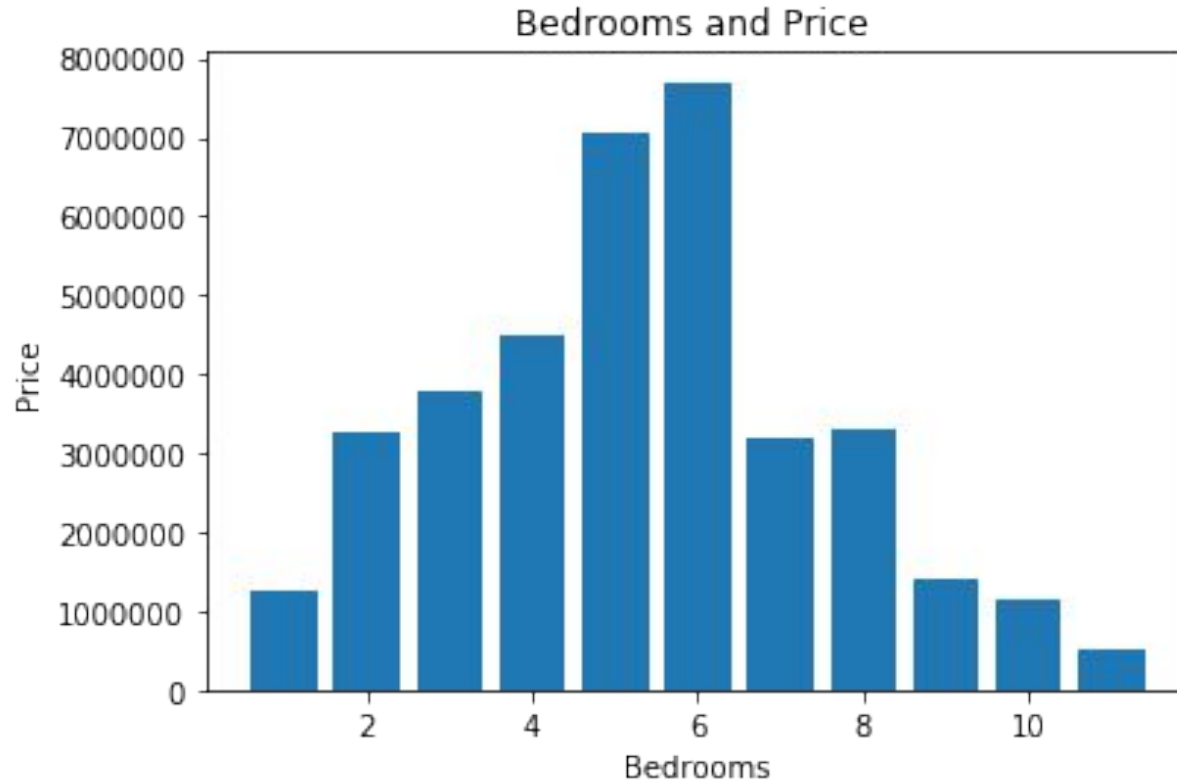And grade is another variable that has an impact on house prices.
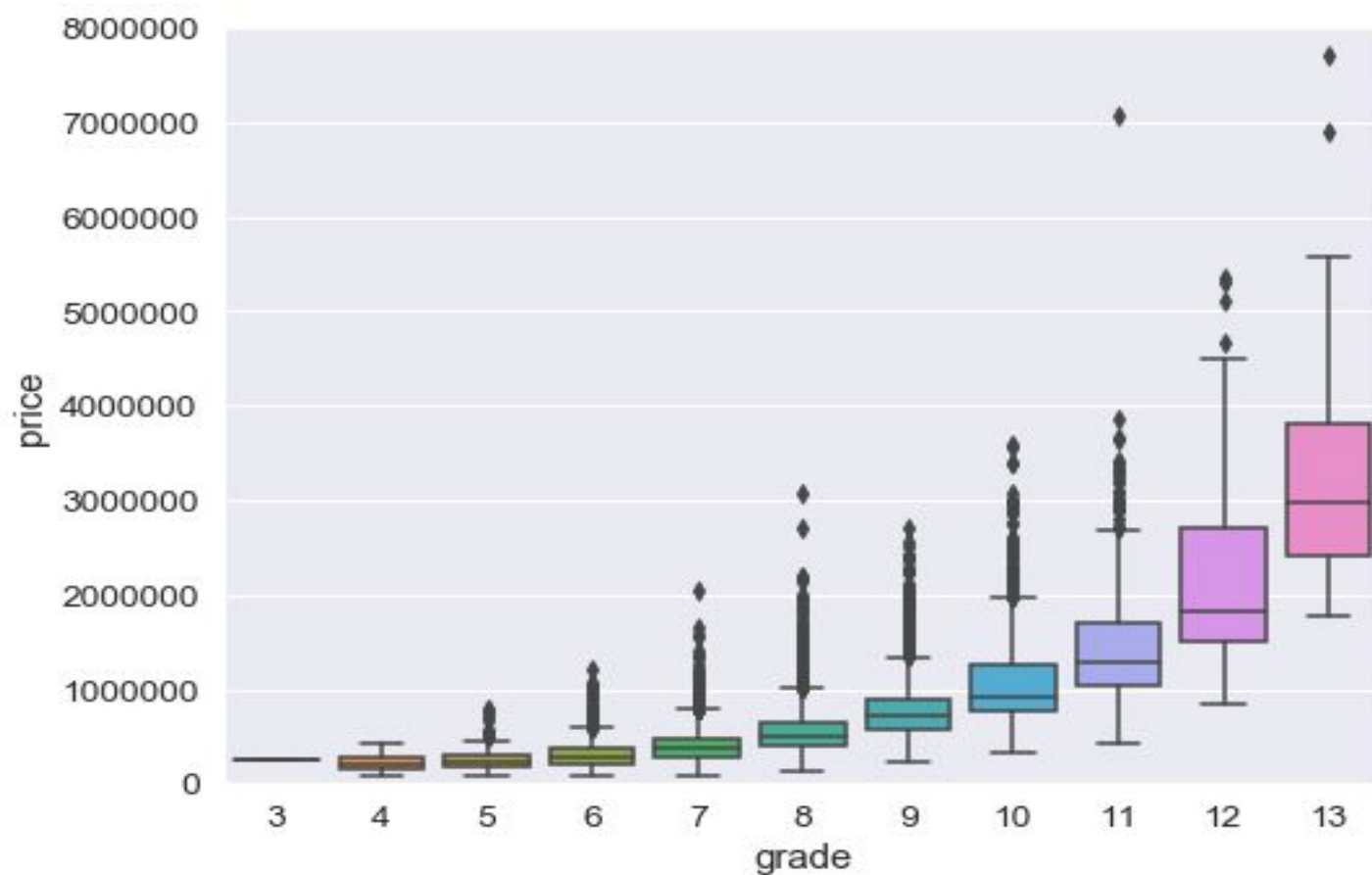
An example to a variable which doesn't have a strong effect on Price is number of Bedrooms.

Bedrooms and Price

Our stats model with

0.733 R-squared value.

OLS Regression Results

Dep. Variable:	logprice	R-squared:	0.733
Model:	OLS	Adj. R-squared:	0.733
Method:	Least Squares	F-statistic:	1.449e+04
Date:	Tue, 22 Oct 2019	Prob (F-statistic):	0.00
Time:	15:47:07	Log-Likelihood:	-2490.8
No. Observations:	21132	AIC:	4992.
Df Residuals:	21127	BIC:	5031.
Df Model:	4		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
const	-52.0804	0.661	-78.757	0.000	-53.377	-50.784
sqft_living	0.0002	3.17e-06	71.937	0.000	0.000	0.000
grade	0.2014	0.003	75.593	0.000	0.196	0.207
age	0.0035	7.35e-05	47.925	0.000	0.003	0.004
lat	1.3238	0.014	94.658	0.000	1.296	1.351

Omnibus:	469.835	Durbin-Watson:	1.975
Prob(Omnibus):	0.000	Jarque-Bera (JB):	1024.992
Skew:	0.078	Prob(JB):	2.67e-223
Kurtosis:	4.068	Cond. No.	8.04e+05

Thanks

Ashray

Sez