King County Housing Analysis Project

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Facts and Figures

King County is a great place to invest!

- Population: 2,233,163 (United States Census, 2018).
- Average household income: **$73,035** per year
- One of the highest economic growth in the country in recent years
  (source: https://www.bestplaces.net/economy/county/washington/king, 2019)

Total Area: **5,975 km²**

Total housing units: **902, 107**

200 public parks

72 schools

More than 20 shopping malls
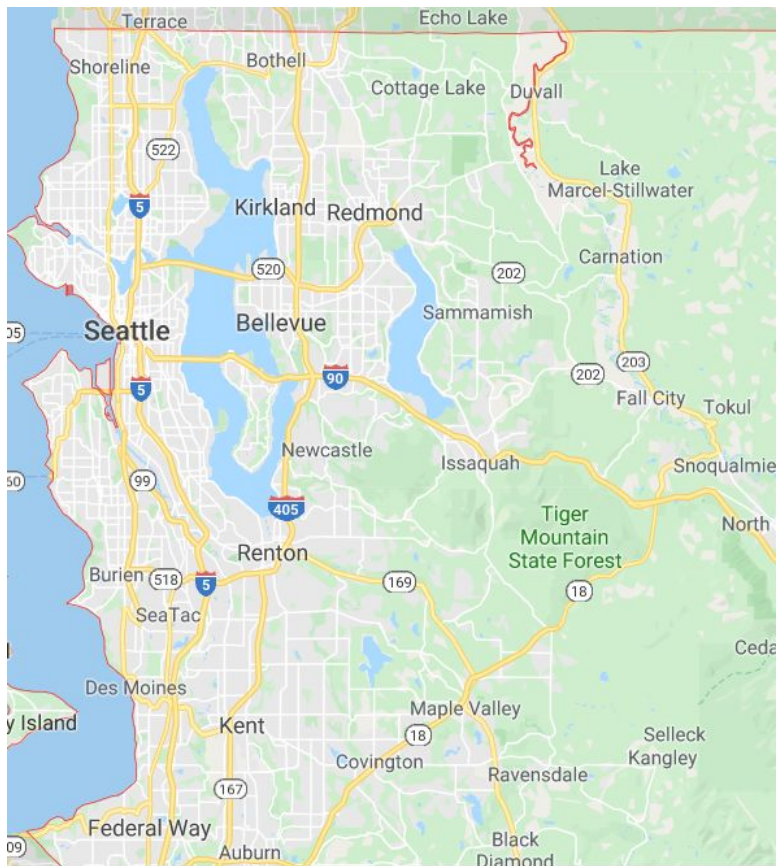(source: http://www.seattlebusinessmag.com/)

Lake Washington, King County - Seattle

Geographical Features Affecting Price

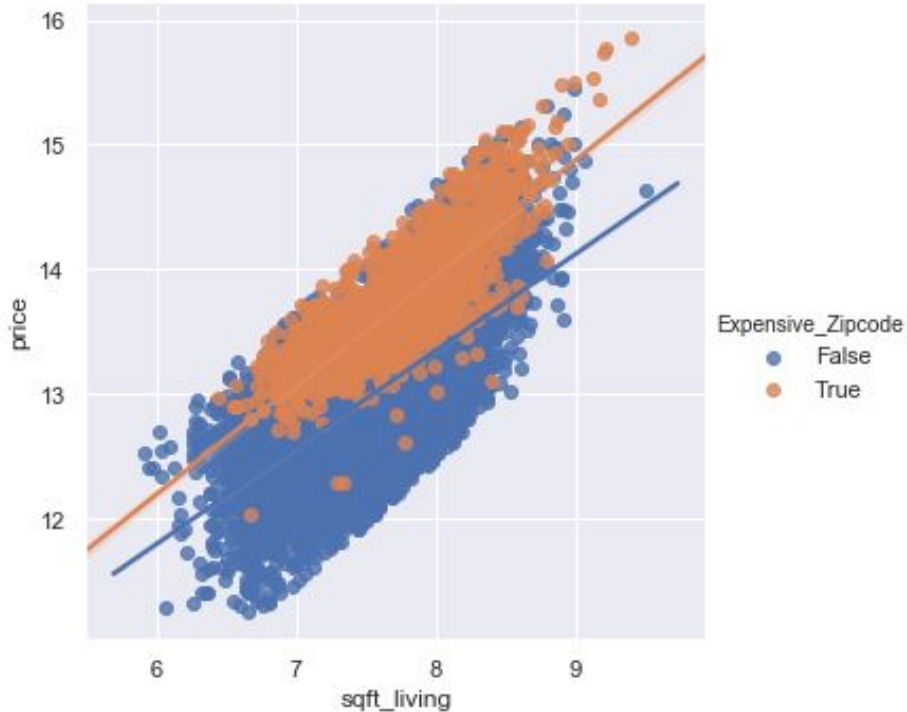Heat map showing the distribution of square footage of living area according to their price.

Price per sqft living on location

Location, Location, Location!

Premium Regions:

- **Kirkland**
- **Newcastle**
- **Sammamish area**
- **Mercer Island**

# Are internal factors more important in the higher priced Zipcodes?

- Average house price for Zipcode and Sqft_living showed the closest relationship with Price
- Sqft_living's relationship with price increased when just looking at the high priced zipcodes
- The graph shows that the high priced zipcode houses are much less dispersed that the rest of that data
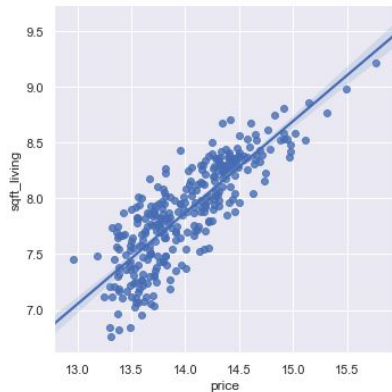
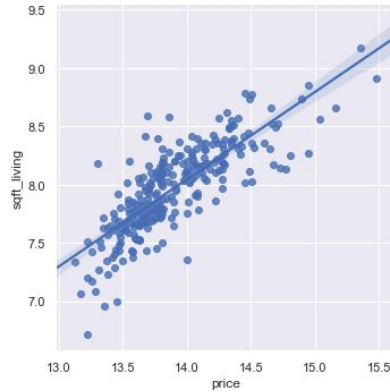# Are internal factors more important in the higher priced Zipcodes?
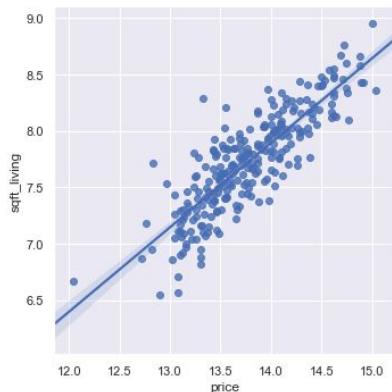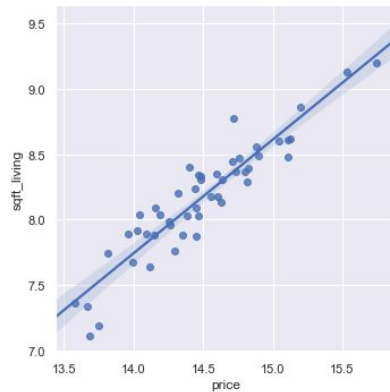
- These are 5 of the high priced zipcodes
- There is an positive correlation with price and sqft_living
- This suggests that as you increase the size of your house the value increases proportionally more than other priced houses
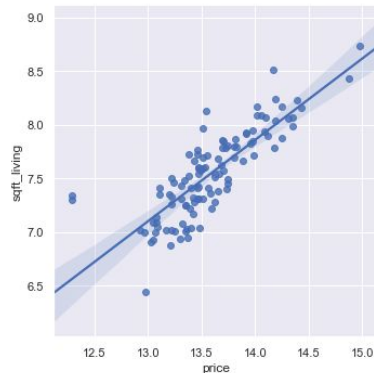
How do property internal features affect housing price?
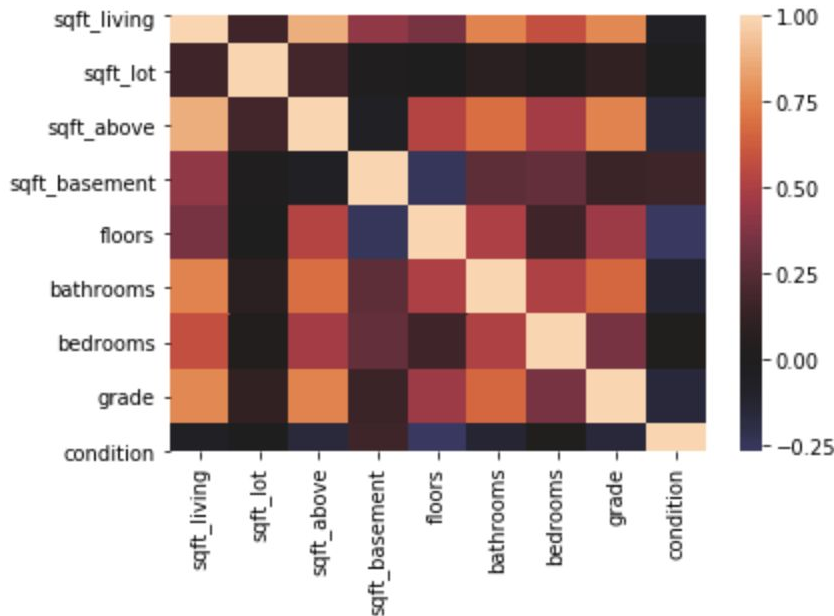
Correlation between each internal features

Relationship between price and grade/sqft_above

- sqft_living havs high correlation with other features
- sqft_above and grade features have stronger impact
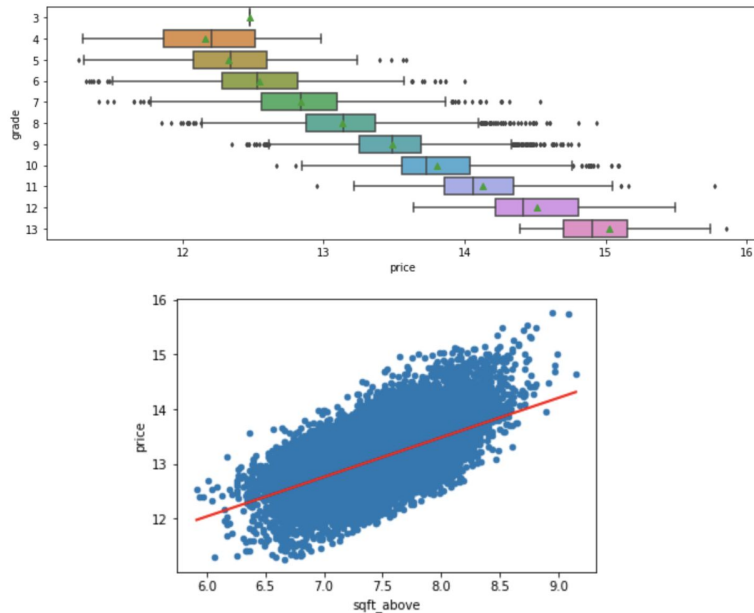
How do property internal features affect housing price?

Internal features that have strong impact on price:
sqft_lot, sqft_above, sqft_basement, floors, bedrooms, grade, condition.

OLS Regression Results

Dep. Variable:	price	**R-squared:**	0.600
Model:	OLS	**Adj. R-squared:**	0.599
Method:	Least Squares	**F-statistic:**	538.0
Date:	Wed, 04 Dec 2019	**Prob (F-statistic):**	0.00
Time:	10:24:53	**Log-Likelihood:**	-6888.1
No. Observations:	21595	**AIC:**	1.390e+04
Df Residuals:	21534	**BIC:**	1.438e+04
Df Model:	60		
Covariance Type:	nonrobust		

Suggestion:
- property agency just focus on few features
- ignore square foot per living, bathroom as the information has indirectly shown in other features)

Thank you
Q&A