King County House Sales

Dependencies on Price
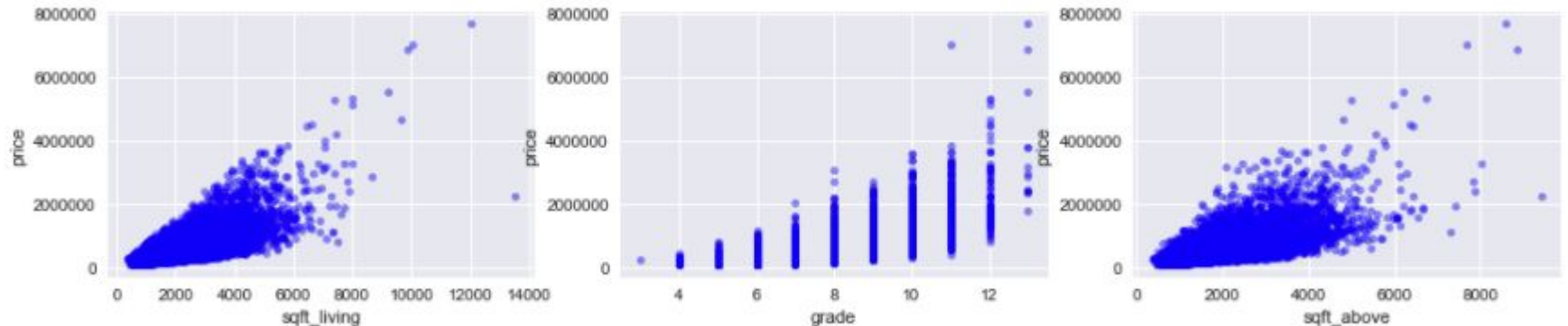
Table of content:

- Features that affect the price variable
- Correlation and OLS
- Connection between location and price
- Difference between houses with and without basement

Identify house features that affect the price variable

- sqft_living: Square footage of the apartments interior space
- grade: An index from 3 to 13, where 3-6 falls short of building construction and design, 7 has an average level of construction and design, and 11-13 have a high quality level of construction and design
- sqft_above: The square footage of the interior housing space that is above ground level
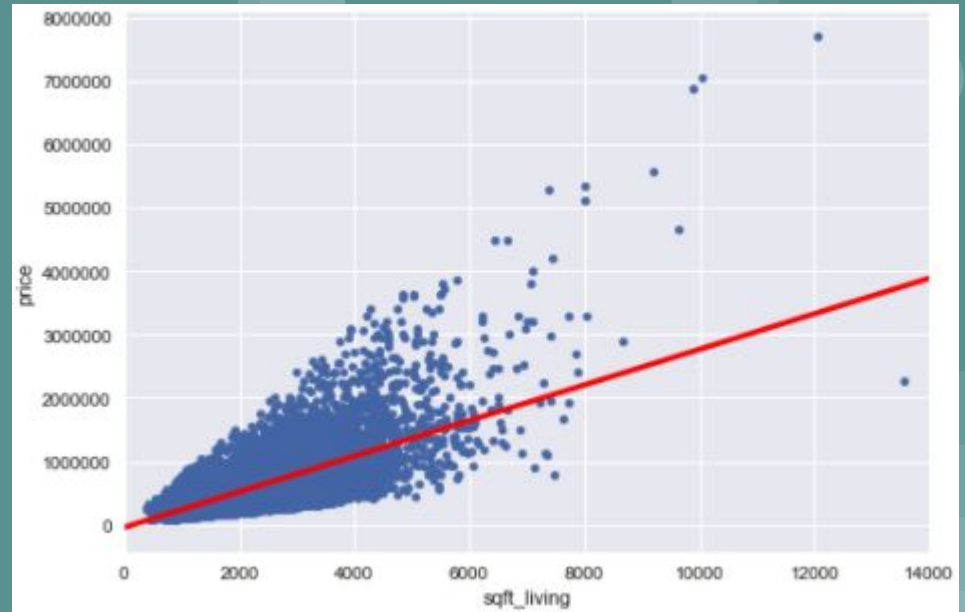
Correlation and ordinary least square

Correlation coefficient:
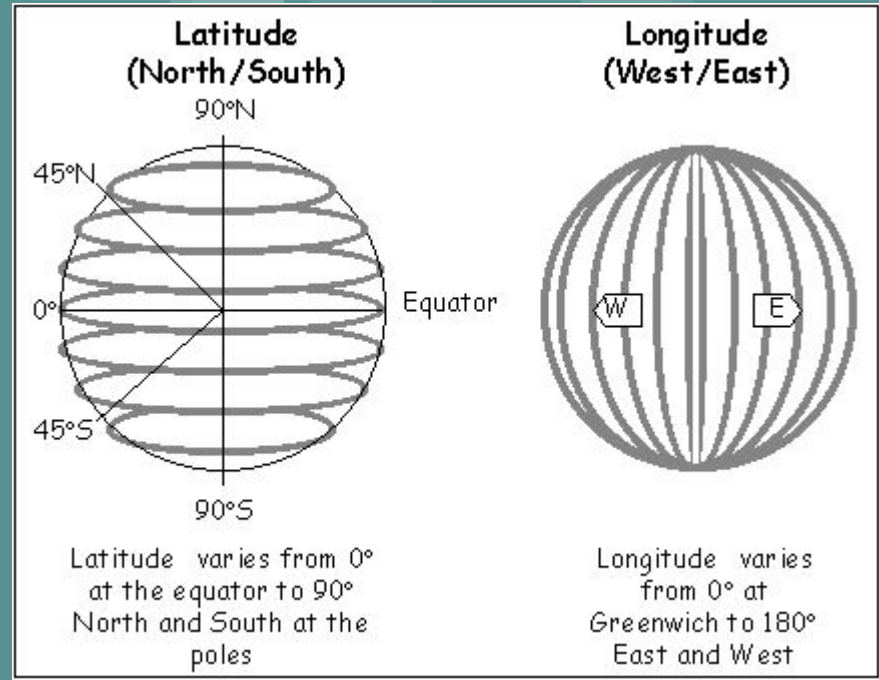
price | sqft_lving: 0,70

price | sqft_above: 0,61

price | grade: 0,67

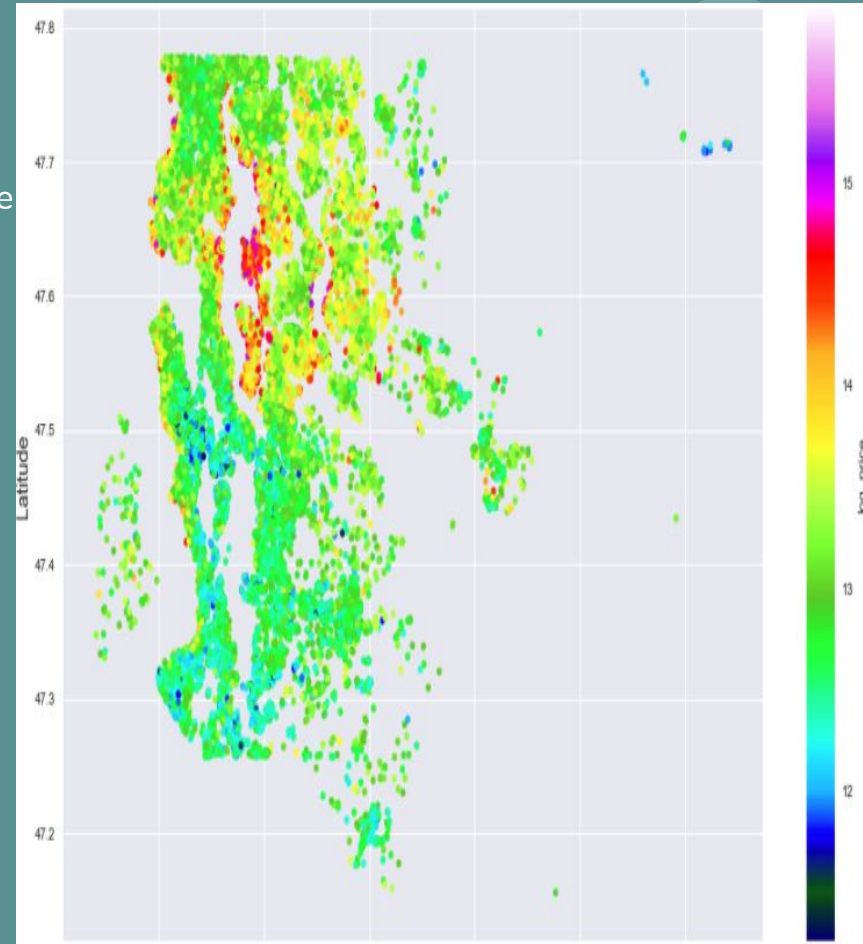sqft_living = sqft_above + sqft_basement

Do have longitude and latitude impact on price?

- Location is everything in house sales

- Latitude direction north and south

- Longitude direction west and east

Latitude
(North/South)

90°N

45°N

0° Equator

45°S

90°S

Latitude varies from 0° at the equator to 90° North and South at the poles

Longitude
(West/East)

W E

Longitude varies from 0° at Greenwich to 180° East and West

Yes they have!

- Connection between latitude, longitude and price

- Scatter plot for visualization

- This shows how location in King County is

  reflected in price

- Houses in northeastern tend to have a higher

  price

- Latitude has a stronger impact then longitude

House with basement or without?

Mean price of a house with basement:
623.046,88 $
Mean price of a house without basement:
488.471,70 $

Median price of a house with basement:
515.000,00 $
Median price of a house without basement:
415.000,00 $
there is a difference of about 100.000 $

Recommendation for home sellers and/or buyers

For investors: Look for cheap houses in northeast King County with need of renovation and renovate them to sell them with a profit

For Family: Look around for houses without basements, as they cost $ 100,000 less on average

For Sellers: It is worth renovating your home before you sell it, if the home has a low 'grade' value

Thank you for your attention!

Future Work:

Feature Engineering:
Create or discover more features
for the price variable

Predictive Modeling:
Put the new features in our multilinear regression
model