



# PREDICTING HOUSE PRICES USING LINEAR REGRESSION

BRIAN KIGEN

## **BUSINESS UNDERSTANDING :**

Emerald City Realtors need to provide prospective home seller with guidance improve the values of their home through using machine learning to estimate the sale of their properties.

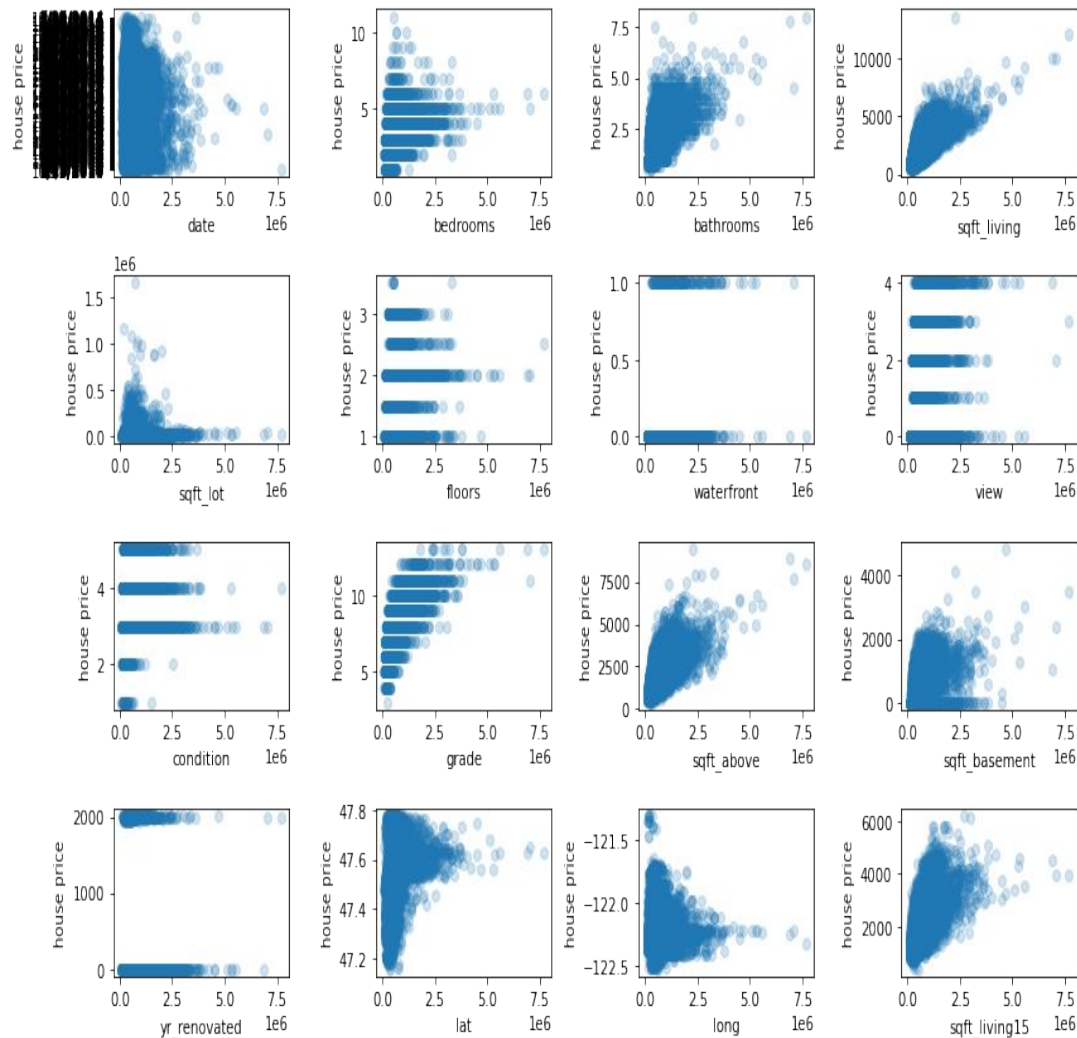
# PROBLEM STATEMENT:

- I will use house data set from king house dataset to build a linear regression model that predict Sale price of properties.

## MODELLING

- Linear regression allows us to convey a linear relationship – such that we can observe a one unit increase in  $X$  results in a one unit increase in  $Y$ .
- In this business case, using regression models allows for us to determine how sale price is impacted by different features and to what degree.
- Building complex models with multiple features allows for us to be able to make more accurate, data-driven predictions.

- **CORRELATION BETWEEN NUMERICAL FEATURE AND PRICE**



- In our final model, all features have a statistically significant linear
- Linear relation with sale price
- While holding all other variables constant:
- The addition of a bathroom increases sale price by \$30000
- The addition of one floor level increases sale price by \$ 10000

The background is a solid pink color. In the top right corner, there is a decorative arrangement of geometric shapes: a light pink triangle pointing down-right, a dark pink square, and another light pink triangle pointing up-right, all partially overlapping each other and the main pink background.

THANK YOU!