

A detailed topographic map of a region in King County, Washington. The map features contour lines indicating elevation, with labels such as '7 LEVEL', '10', '11', '12', '19', '20', '27', and '28'. A prominent blue lake is labeled 'WALSH LAKE'. A winding river is labeled 'TIMBER RIVER'. Other geographical features include 'BURNED', 'ROYAL', and 'HARVESTON'. The map is overlaid with a grid of red and black lines.

PREDICTING HOME PRICES IN KING COUNTY, WA

Module I Presentation

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OBJECTIVE:

CREATE A PREDICTIVE MODEL FOR HOME PRICES IN KING COUNTY, WA

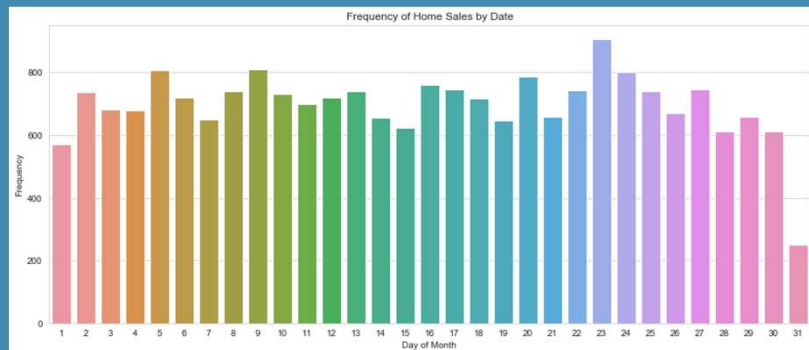
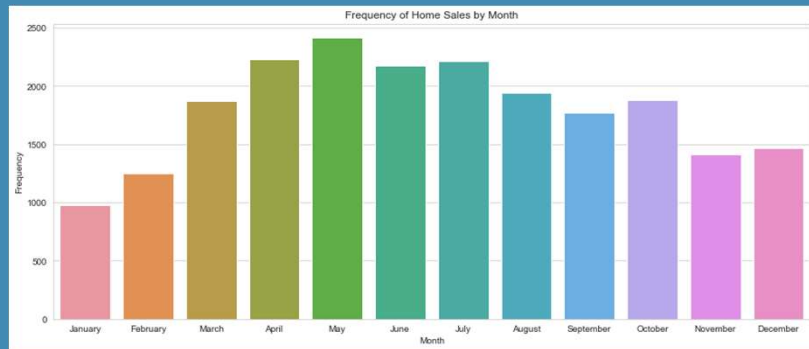
Original Data contained over 21,000 home sale records with 20 categories of home details including:

- Square Footage of Home and Lot
- Number of Bedrooms and Baths
- Waterfront Location
- Latitude/Longitude and Zipcode
- King County Grade and Condition
- Year Built and Renovated (if applicable)

CLEANING THE DATA

- Removed placeholder values (?) and null values
- Removed outlier values
- Binned categorical (non-numeric) data into groups to identify potential relationships
- Scaled data to capture full magnitude of changes

The revised, clean data set has 19,468 home records and 15 predictor variables to estimate the target (price).

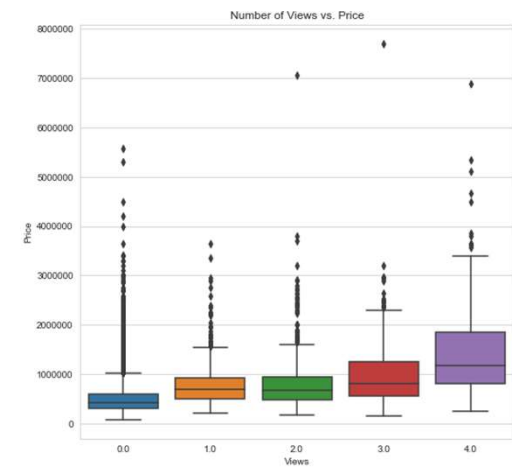
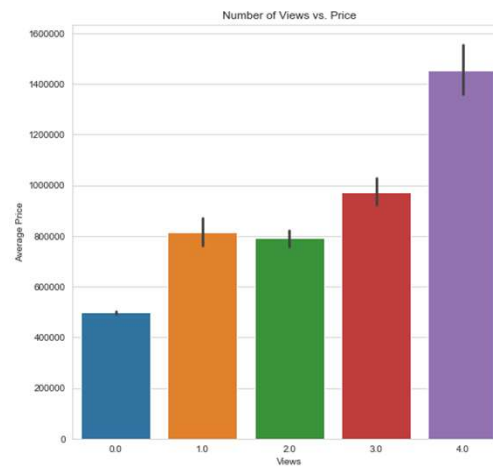


BEST TIME TO SELL A HOUSE

- 23rd day of the month saw the most frequent home sales
- May is the most popular month to sell

MORE VIEWS
= HIGHER
SALE PRICE

Visibility matters!





INITIAL MODEL

- R-Squared: 0.88
 - Ranges from 0.0 – 1.0
 - Closer to 1.0 means better fit
- Accuracy: -9.42
 - Should be between 0.0 and 1.0

Good estimations, but inconsistent
across full dataset.



REVISED MODEL

- Eliminated less significant features to reflect price more accurately
- R-Squared: 0.88
- Accuracy: 0.87

MOST INFLUENTIAL FACTORS



SQUARE FOOTAGE



LOCATION (ZIP
CODE)