

# Phase 2 Project

King County Housing Dataset

# Business Problem

Stakeholder is the **owner** of a local real estate agency.

The agency **focuses on** home improvement **recommendations** to homeowners that will optimize the buying and selling of their homes.

Ways to **differentiate** from competition (use data to consult clients)



# Recommendations

*"How much do houses usually sell for in King County?"*

**\$475k** Median Home value in King County

*"What features of my home, can I address to increase the overall value?"*

**\$101** Value added per square foot (living area)

**\$21k** Value added per quarter bath



# Data & Methods

Houses Built during **1990** and after

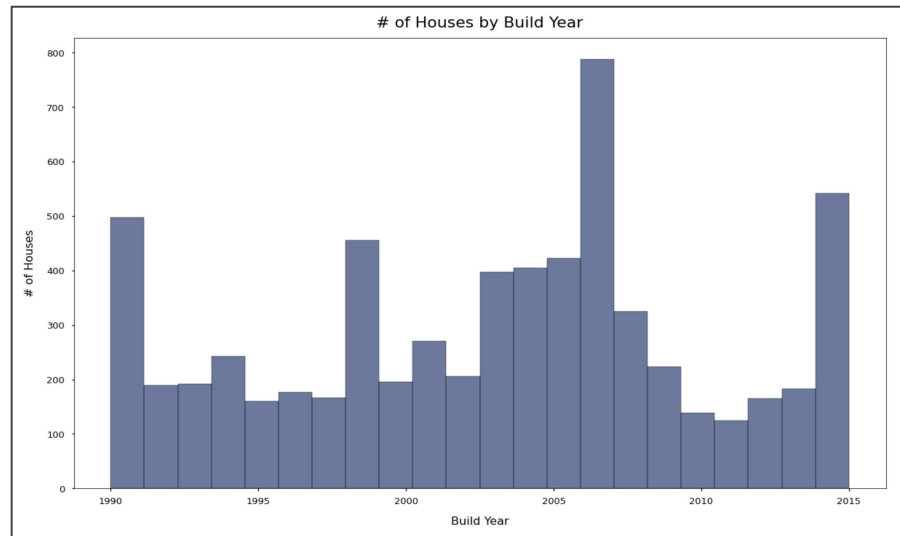
**6,463** Observations

Houses located in King County, **WA**

**Removed Outliers &**

**Retained  $p$ -values  $< 0.05$**

**Linear Regression** model for  
inference

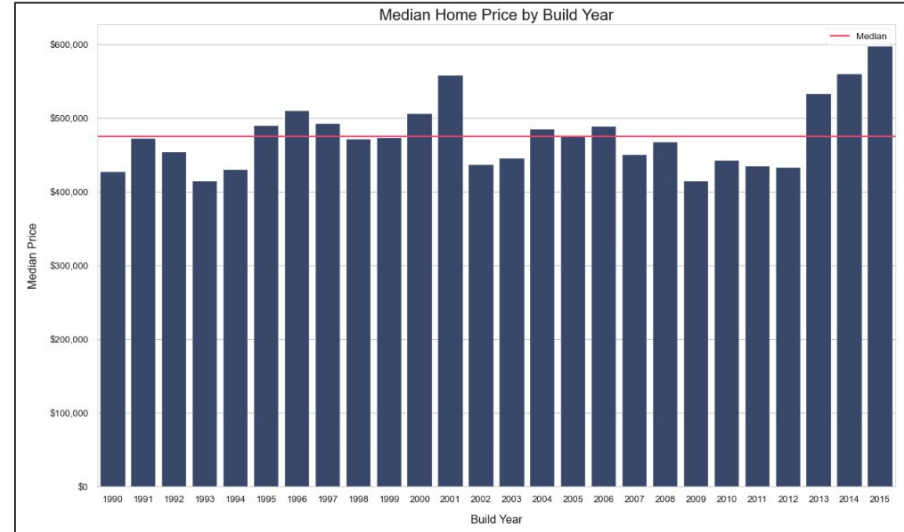


# Current Market Results

Median home value is **\$475k**

Median grade of these homes is a **7**  
**on scale of 13**

Price from \$415k to \$600k



# Linear Regression Modeling

Helps us **infer and compare** feature importance

**Less than average** performance at predicting Price ( $r^2 = 0.616$ )

*Model Performance*

62%

**Explainable Variation**

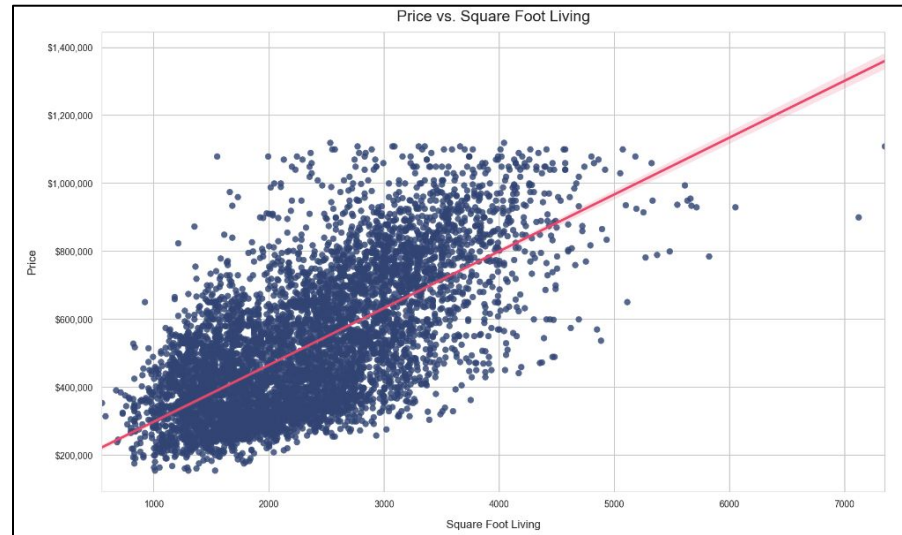


# Impactable Feature #1 - Square Footage (Living)

The median size of homes in King County is **2,240** sq ft (living)

Increase the value of their home by **\$101** per square foot (living)

**Living** space is **defined** as being heated or cooled/ having some temperature control (i.e. not an attic)

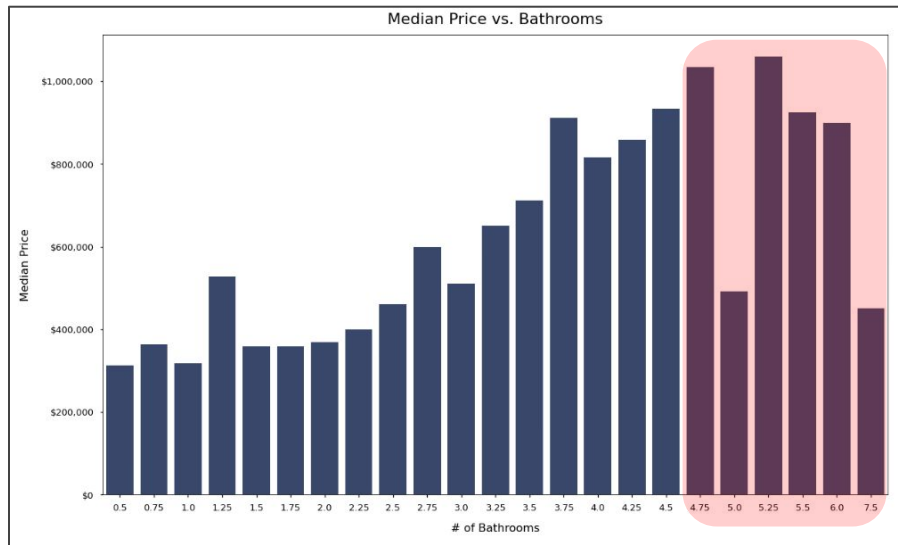


# Impactable Feature #2 - # of Bathrooms

Median bathroom size is **2.5**

Increase the value of their home by **\$21k** (or roughly 5% of the total value) per  $\frac{1}{4}$  bathroom added to a home

Once you get to **4.75** baths, value starts to even out





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# Next Steps

1. **Look at** additional **zip codes** to understand value more specifically (or not)
2. **Refresh the analysis** regularly with new data to understand how the market is evolving over time



# Limitations

- When the price was actually recorded?
- Dataset is based only on homes that have been built from 1990 to 2015.
  - Older homes can be referenced under separate models in the workbook.



# Thank you!

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