

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

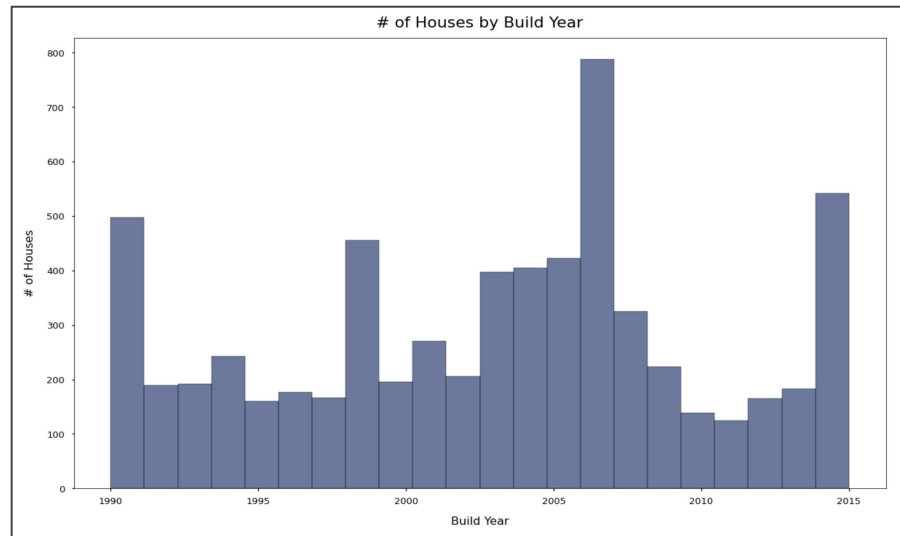
6,463 Observations

Houses located in King County, **WA**

Removed Outliers &

Retained p -values < 0.05

Linear Regression model for
inference

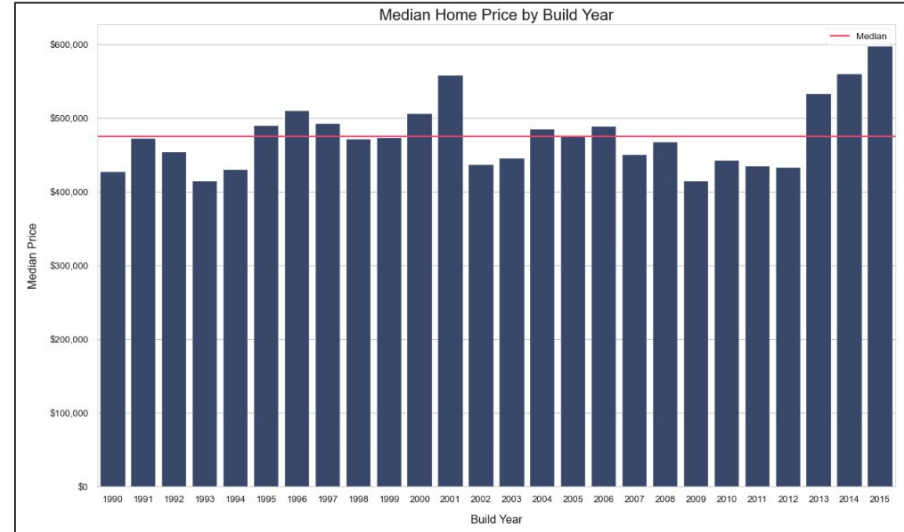


Current Market Results

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 ($r^2 = 0.616$)

62%

Explainable Variation

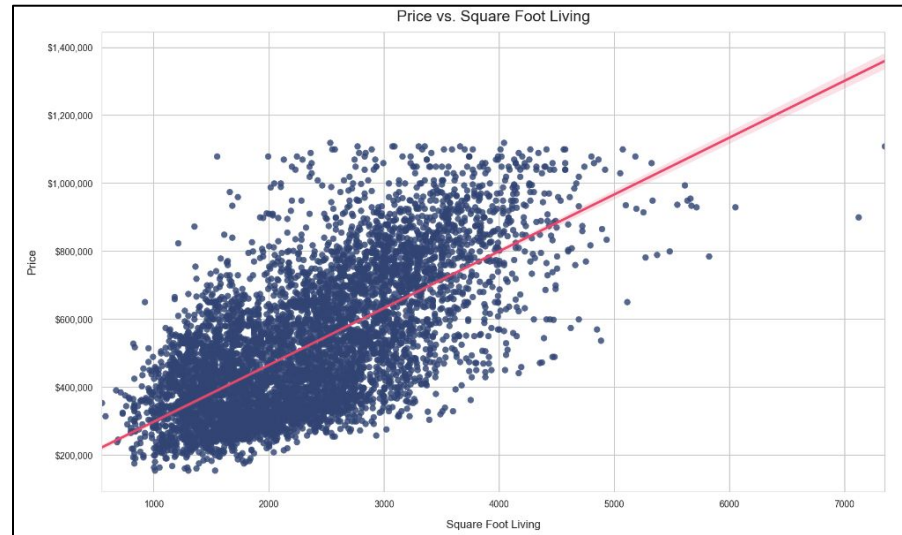


Impactable Feature #1 - Square Footage (Living)

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)

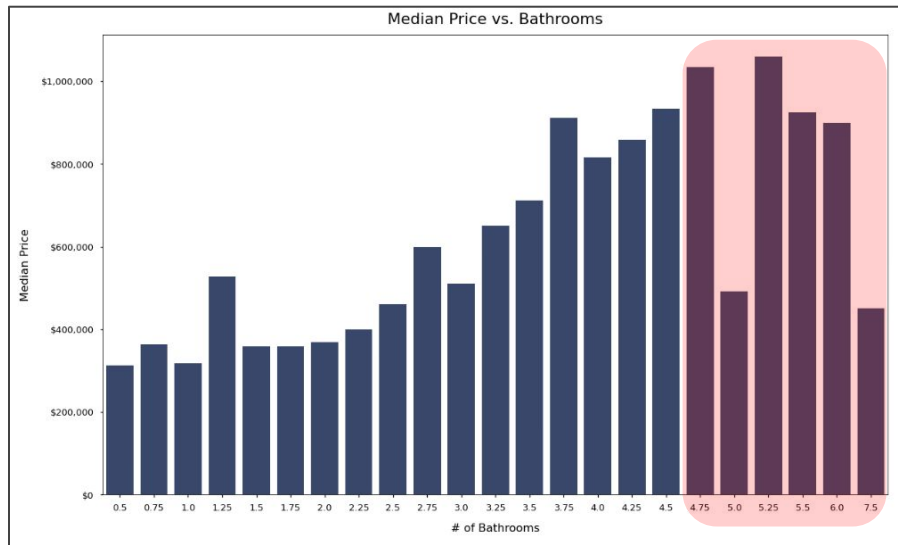


Impactable Feature #2 - # of Bathrooms

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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