

A Guide for Homeowners on Home Renovation
Projects that Increase Home Value

Meet the Team



Paul Schulken

Technical Lead



Sean Conlon

Presentation Lead



Russell Blanchard

GitHub Lead

Agenda



Business Plan

2 Data Models

³ Model Results

- 4 Recommendations
- Next Steps



01.

The Business

Business Plan

- Most impactful feature on sales price
- Prioritizing renovations

The Business

Ensuring any renovation is worth it

Data Models

Model Results



Bottom Line

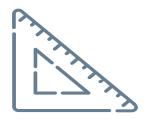
- Grade best indicator of price
 \$188,600 increase for every 1 Grade
- Bathrooms best indicator of grade
 \$105,000 increase for every 1 Bathroom













Data Models

Data Overview

- Source: King County, WA Government
- Features within homeowner's control
 Bed, Bath, Grade, Garage, Patio

Data Models

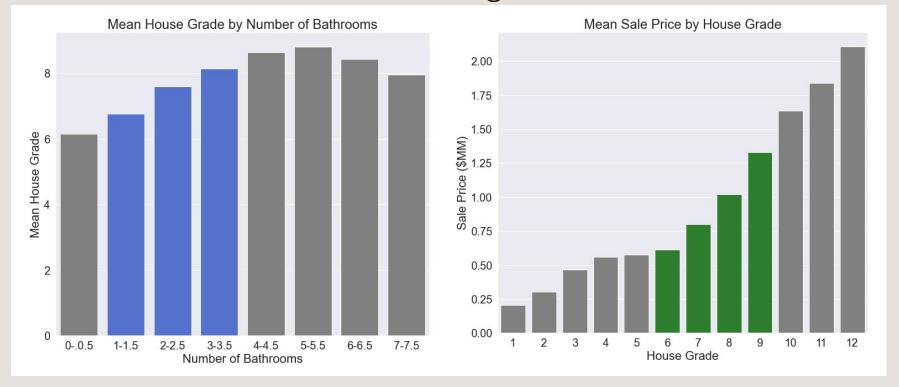
Model Results

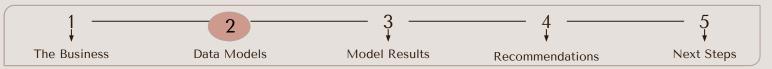
Limitations: contributing factors

The Business



More Bathrooms = Higher Grade, Price





Grade Most Impactful

- Target: Sale Price
- Grade accounts for 28% of Sale Price
- Model provided impact rankings of features
 1 Grade increase = \$188,600 Sale Price increase



2)



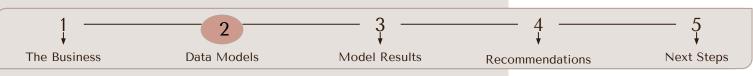


4)



5)













Model Results



Our Findings

"There's always room for improvement"

- Shannon Fritcher

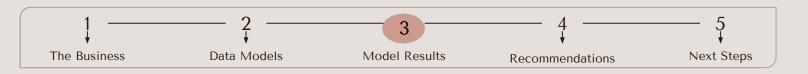


Bathrooms Most Impactful on Grade

Majority of homes include 2 or 2.5 bathrooms.

It's shown the number of bathrooms truly affects a homes sales price.







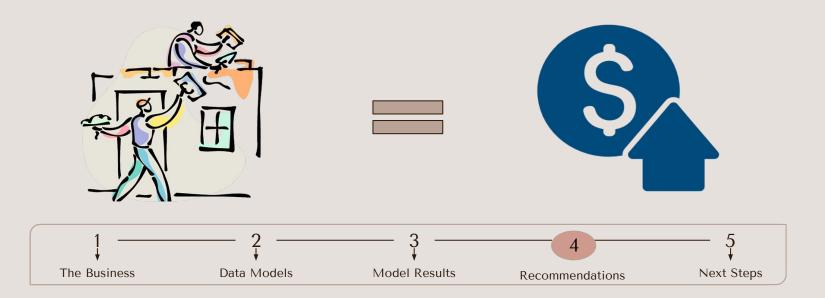


04.

Recommendations

Renovation Recommendations

- Consider upgrading half bath or adding full bathroom
- Alternatively, determine if a patio or garage is feasible





05.





Next Steps

What's Next

Research Which features add the highest value?

 $Seek\ Advice \quad \hbox{Talk to a professional appraiser}$

Plan Your enjoyment or for resale



The Business Data Models Model Results Recommendations



Appendix: Statistical Model Details

- Target: Sale Price
 - Grade most impactful feature
- Baseline RMSE = \$427,580
- Single RMSE = \$362,070 \downarrow R² = 0.28 \uparrow
- Multiple RMSE = \$352,720 R² = 0.32

- Target: Grade
 - Bathrooms most impactful feature
- Baseline RMSE = 0.99
- Single RMSE = $0.80 \, \text{J} \, \text{R}^2 = 0.34 \, \text{\uparrow}$