

# King County Housing Analysis



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# Agenda

- ❖ Business Understanding
- ❖ Data Understanding
- ❖ Our Research
- ❖ Research Results
- ❖ Conclusion





# Business Understanding



**Our team was hiring to explore King County in Seattle & what factors contribute to the price?**

## **What we see?**

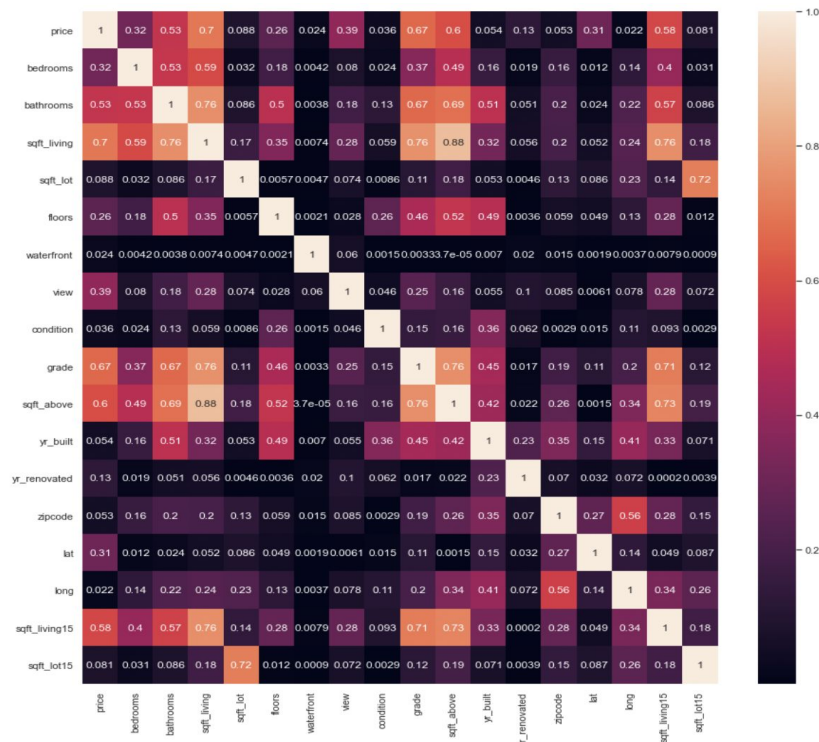
- ~ 24,000 homes on the market with a median home price of \$450,000.
- The mean home price is around \$360,000.

## **What we want to see?**

- We want to determine what are the most important features that correlate to home price.

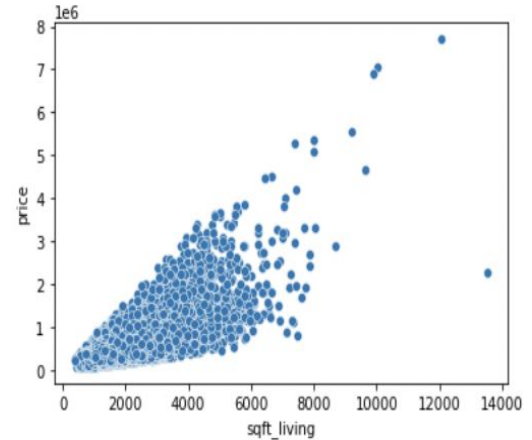
# Important Real Estate Features:

- Price
- Bedrooms
- Bathrooms
- Square foot living
- Square ft lot
- Floors
- Waterfront
- View
- Grade

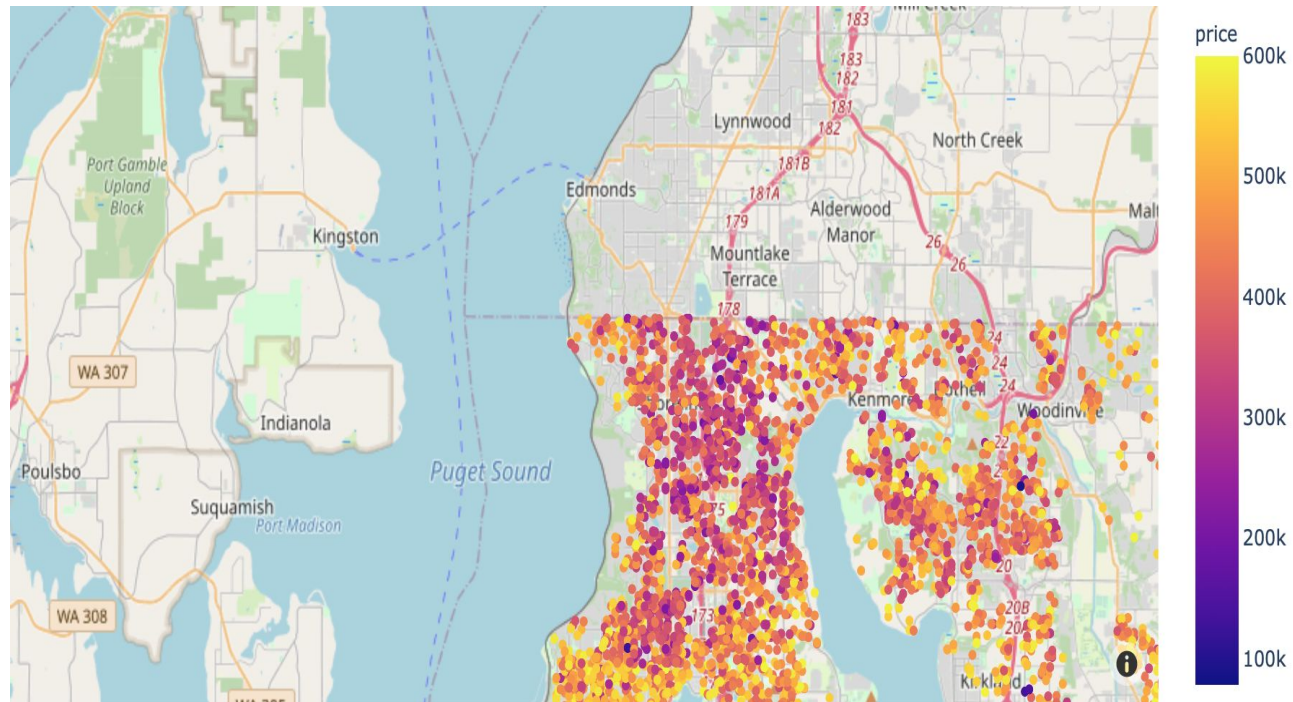


# What Our Data Can Answer?

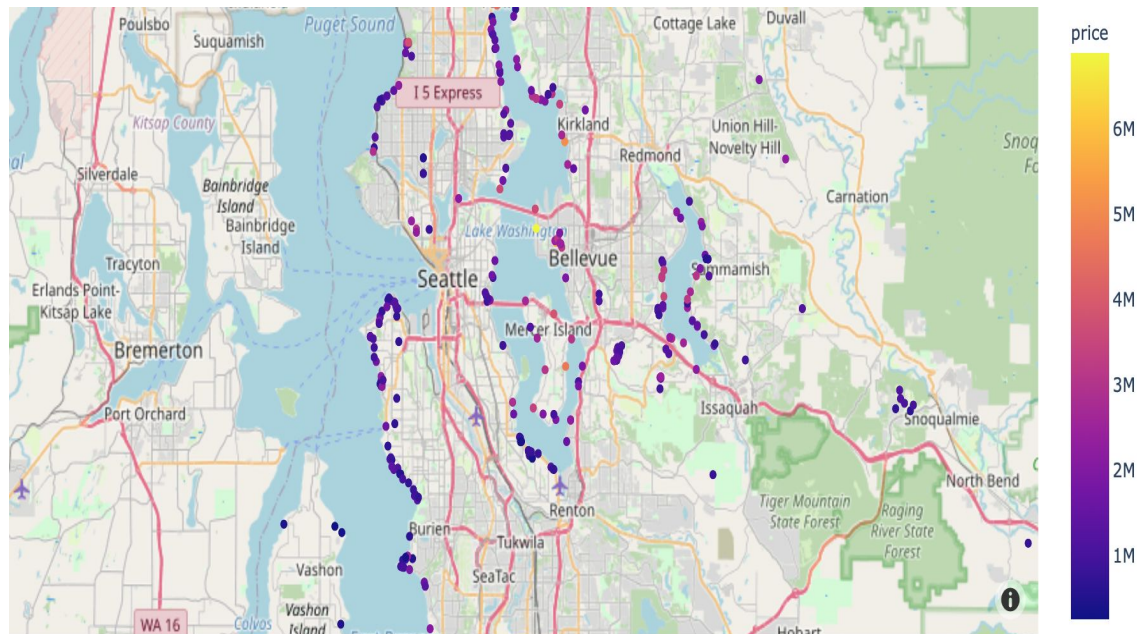
- How house prices related to square foot living?
- Does number of bedrooms & bathrooms affect the price?
- How does factors such as grade, condition of a house, and view make a house price vary?
- Do people care about the year in which house was built in? Does it affects the cost?



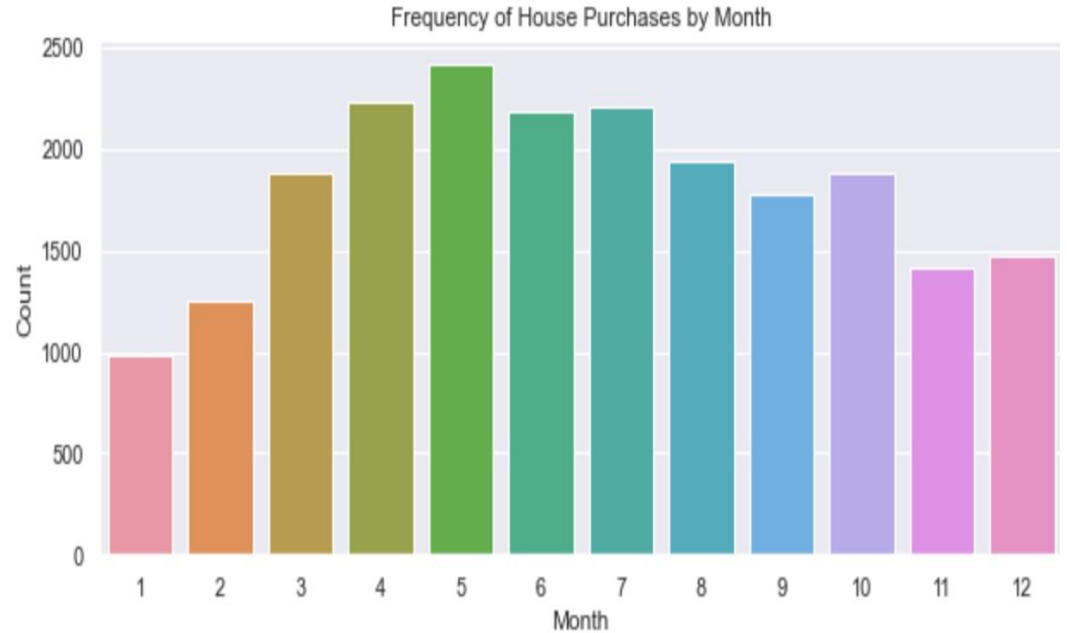
# Houses with Median prices:



Houses  
with  
Excellent  
views.



# House Purchases by Month.





# Modeling:

## Construction of Models:

- Model 1:
  - This model is our baseline model.
  - Factors like influence of sqft\_living, bedrooms, and/or bathrooms on price are evaluated.
- Model 2:
  - This model is be built on top of Model 1.
  - Assessed on how it performs compared to Model 1.

# Regression Results

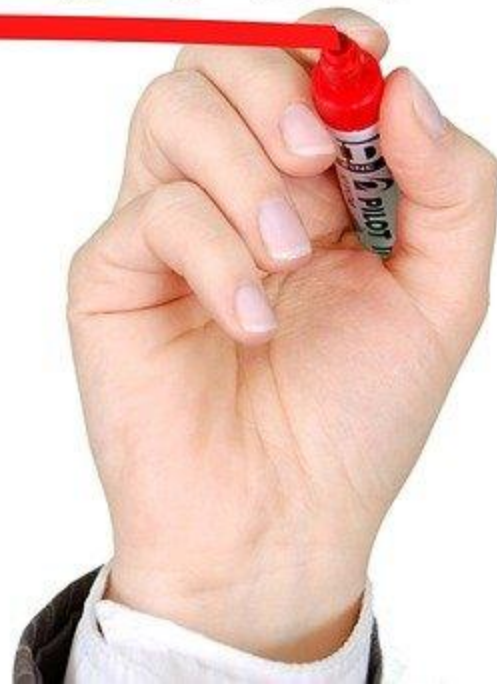
- Our regression results show significant improvement on our metrics.
- Model 1 concluded that sqft living is the most correlated factor when it comes to price.
- Model 2 performed better than Model 1.

- **Model 1:**
  - R2: 0.54
  - RMSE: 248717
- **Model 2:**
  - R2: 0.61
  - RMSE: 22716.2



# CONCLUSION

- Our model concludes bathrooms & bedrooms TOGETHER DO NOT contribute to housing price.
- The higher the grade of a house, the higher the **price**.
- Features like waterfront & view contribute to a higher price.





THANK  
YOU