

# REAL ESTATE DATA ANALYSIS PROJECT



# PROJECT SUMMARY

Employing multiple linear regression, our project delved into house sales dynamics in Northwestern County. Recognizing homeowners' struggles in comprehending pricing determinants, we aimed to create a user-friendly tool. Our analysis uncovered a positive correlation between house prices and specific factors: living room square footage, house grade, and bathroom count. These findings elucidate key influences on property values, empowering homeowners with strategic insights in this

# OUTL

1) Business P

2) Data

3) Methods

4) Results

5) Conclusion

# **BUSINESS PROBLEM**

Homeowners in Northwestern County are faced with the complex task of understanding the various elements that impact the pricing of their homes. There is a need for a user-friendly tool that simplifies this complexity, offering homeowners clear insights into the factors influencing house prices and how they can strategically make changes in their properties in order sell them at higher prices or rather reasonable prices in the market.

# DATA

This project uses the King County House Sales dataset, which can be found in `kc_house_data.csv` in the `data` folder in the GitHub repository. The description of the column names can be found in `column_names.md` in the same folder.

# METHOD

The project followed a standard machine learning workflow:

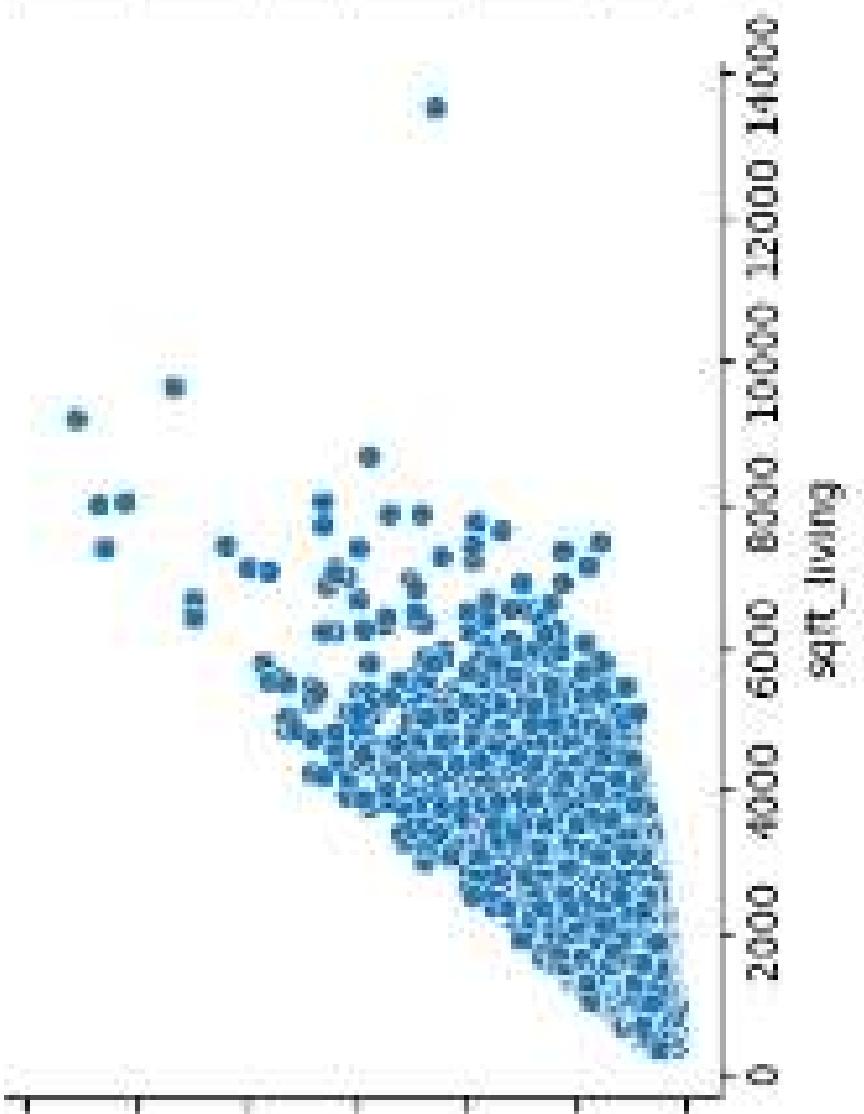
1. Data Loading & Cleaning
2. Exploratory Data Analysis
3. Preprocessing & Feature Engineering
4. Model Development & Evaluation
5. Model Optimization

# RESUL



## Scatter Plot 01

Scatter plot showing correlation between price variable and Square foot of living room

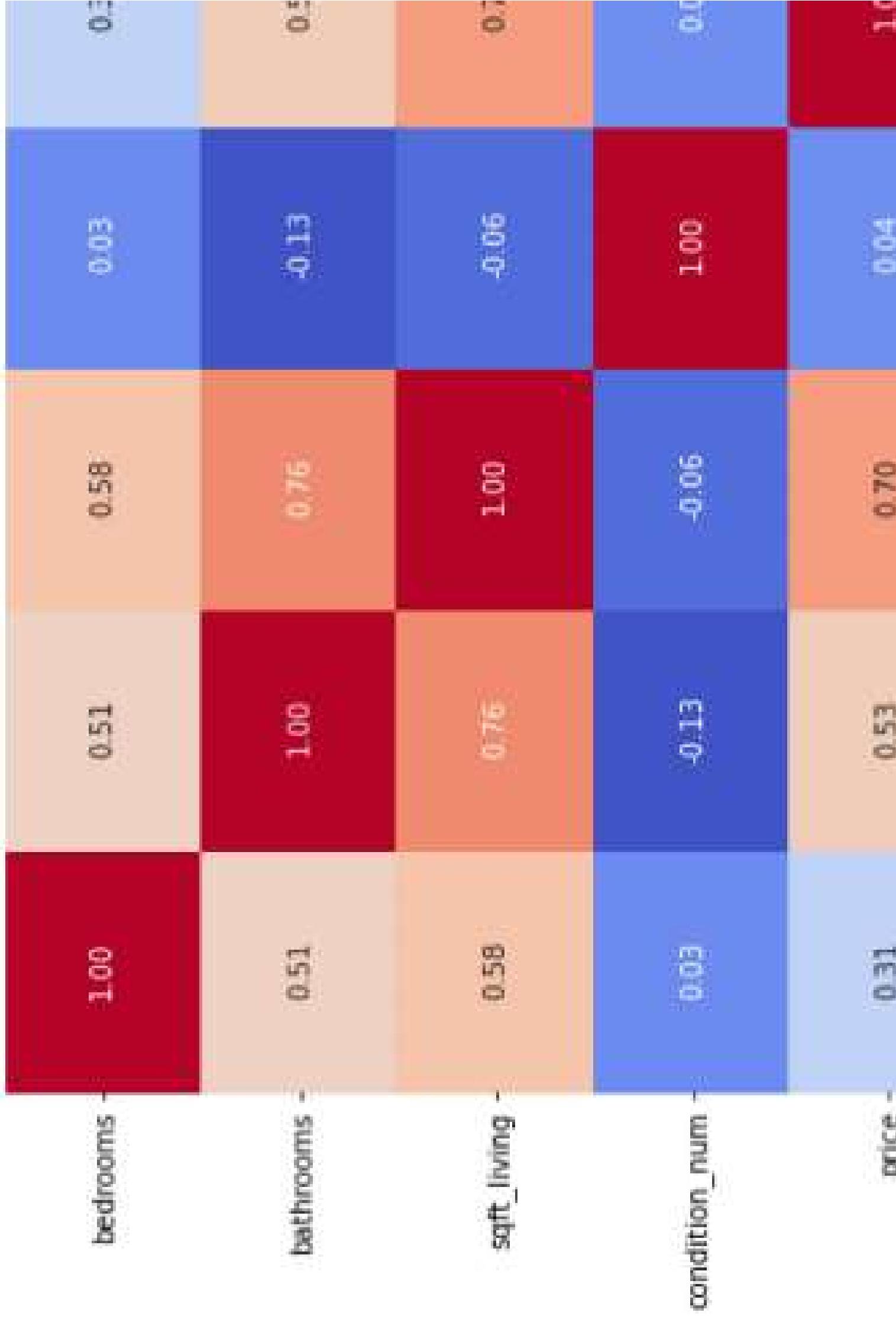


## Scatter Plot 02

Scatter plot showing correlation between price variable and number of bathrooms Variable.



Correlation Matrix



# RECOMMENDED









# NEXT STEPS

Based on the analysis which was conducted, these are the next steps which we recommend

- 1) Doing further analysis on Data linked to the average costs for increasing living room size, increasing number of bedrooms and improving the grade of the property.
- 2) Then an analysis should be done on data that clearly indicates the price difference once these factors are improved. Once this is done we will be able to advice whether making the

# MEET THE



# MEET THE TEAM



**WALK  
THROUGH**

