

Data Science Phase 2 Project

March 2023

PROJECT OBJECTIVE/PURPOSE

1. To enlighten potential property buyers about the characteristics that influence pricing of homes in King County.
2. To provide recommendations to assist determine property value & maximize returns.

Target Variable: Price

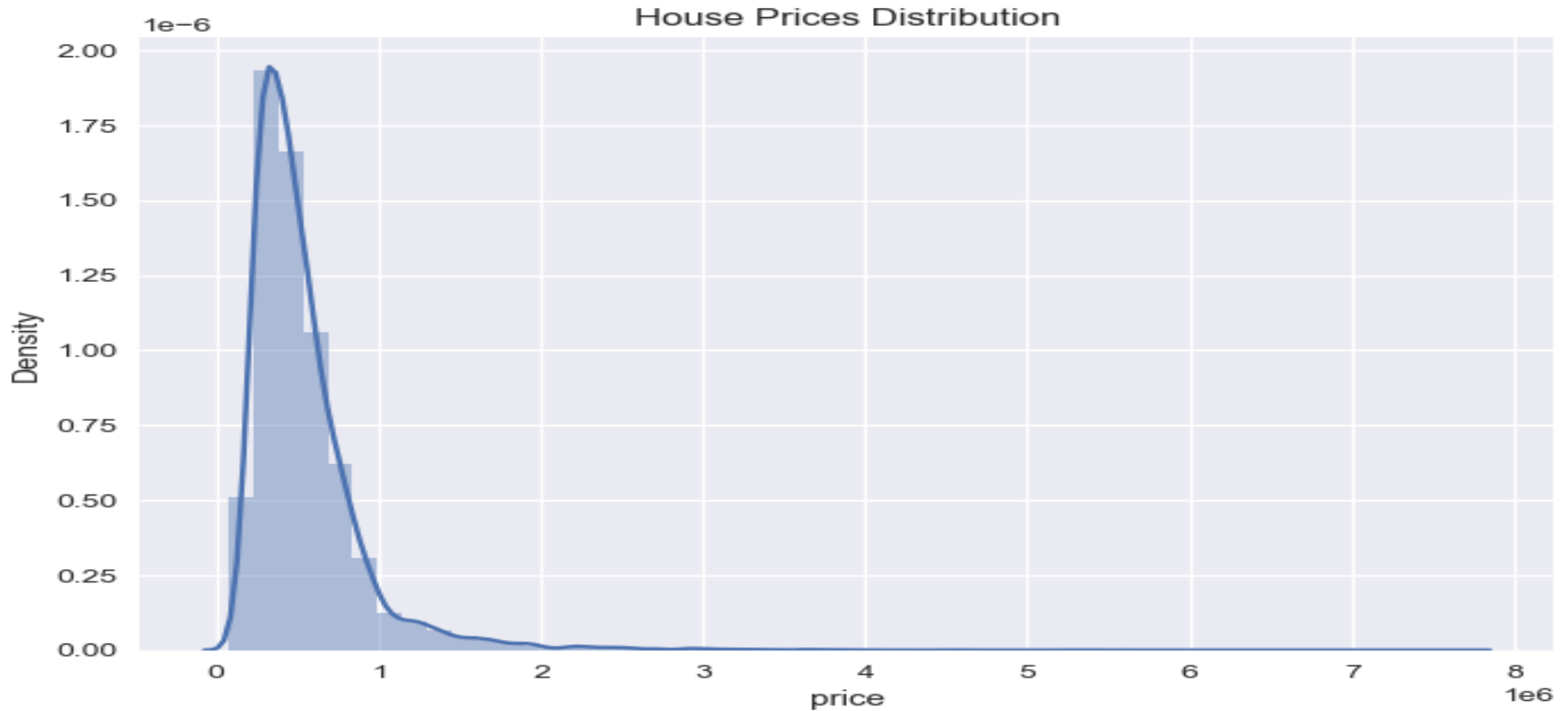
Predictor Variables: To Be Determined

King County Property Pricing



Presentation By: Marvin O. Agumba

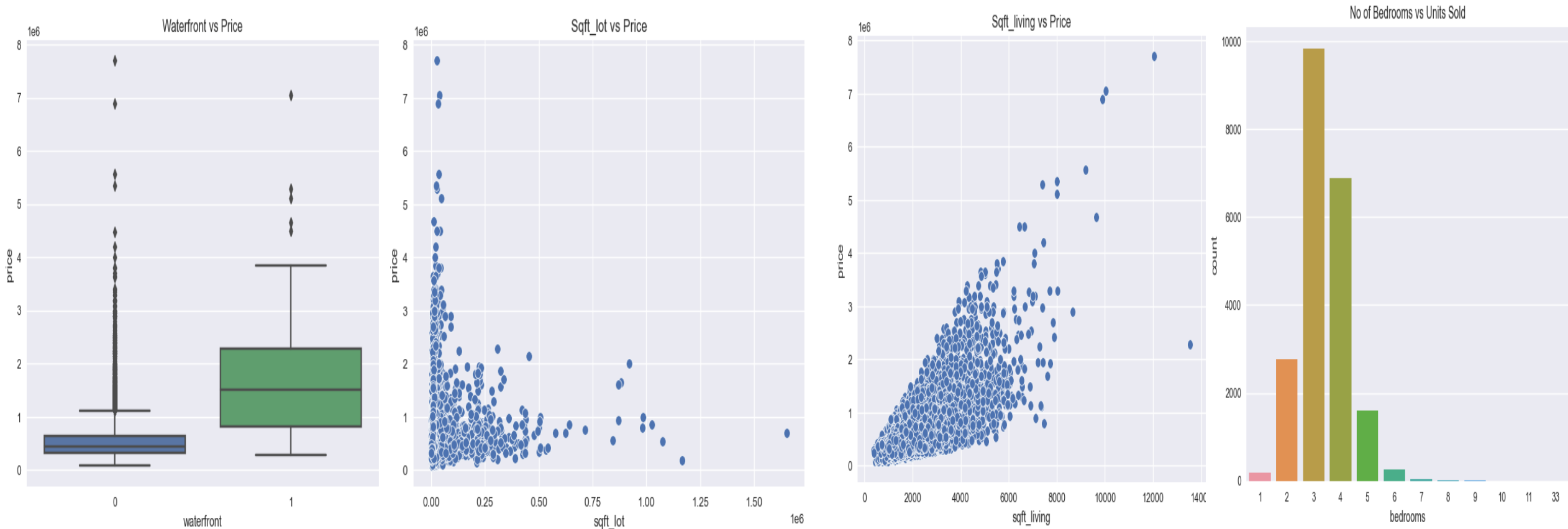
Distribution of House Prices in King County



Majority of House prices sub \$1M

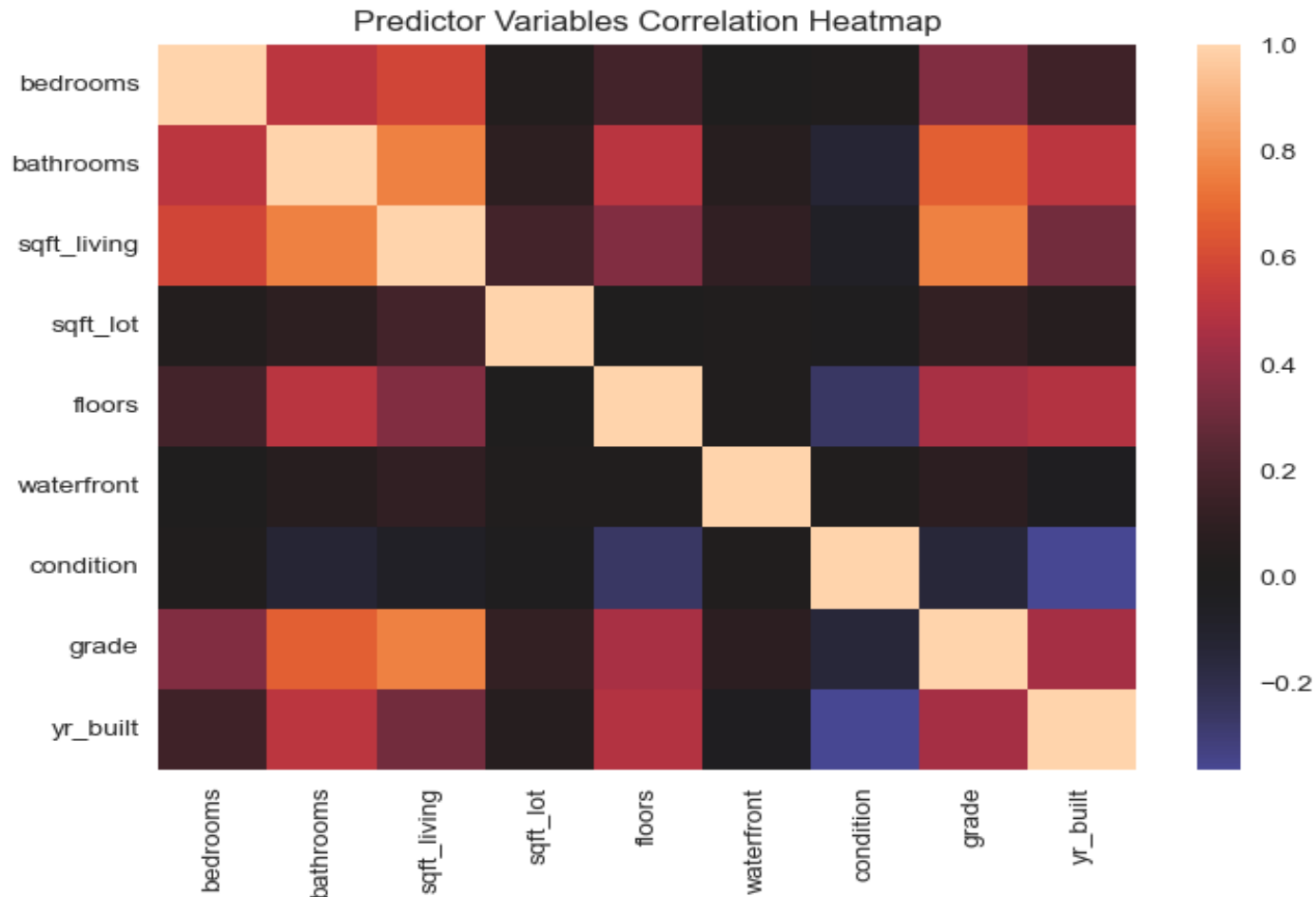
Factors Influencing Pricing

(Bedrooms, Bathrooms, Sqft_living, Sqft_lot, waterfront, Floors, Condition, Grade, Yr_Built)



- **Linear correlation between Price & Sqft_lot & sqft_living**
- **Categorical Variables: Bedrooms, Bathrooms, Floors, Waterfront, Condition, Grade**
- **Waterfront properties highly priced & most units sold had 3 bedrooms**

Highly Correlated Predictors



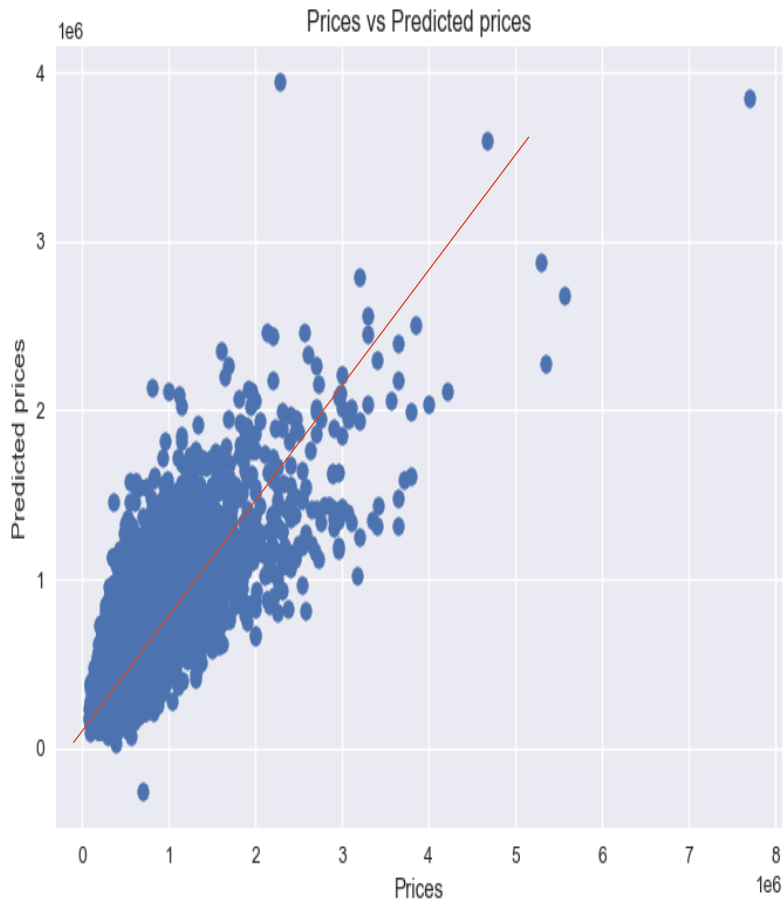
Pairs	Correlation
(sqft_living, grade)	0.762779
(grade, sqft_living)	0.762779
(bathrooms, sqft_living)	0.755758
(sqft_living, bathrooms)	0.755758

Sqft_living, Grade & Bathrooms are multicollinear

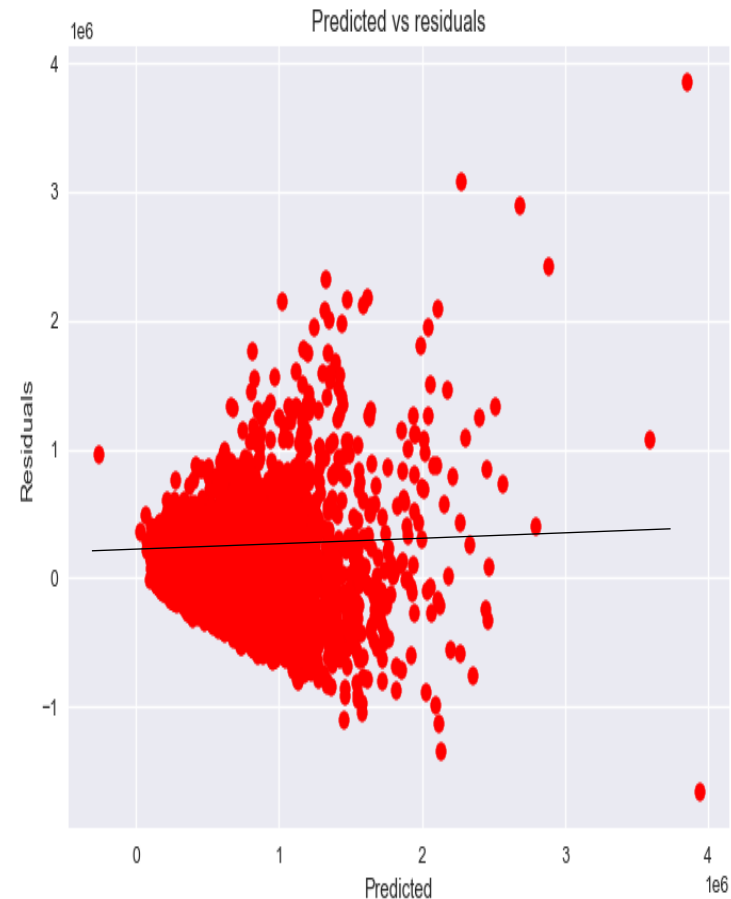
Consider removing 2/3 variables in order to remove collinear features

Our Model At Work

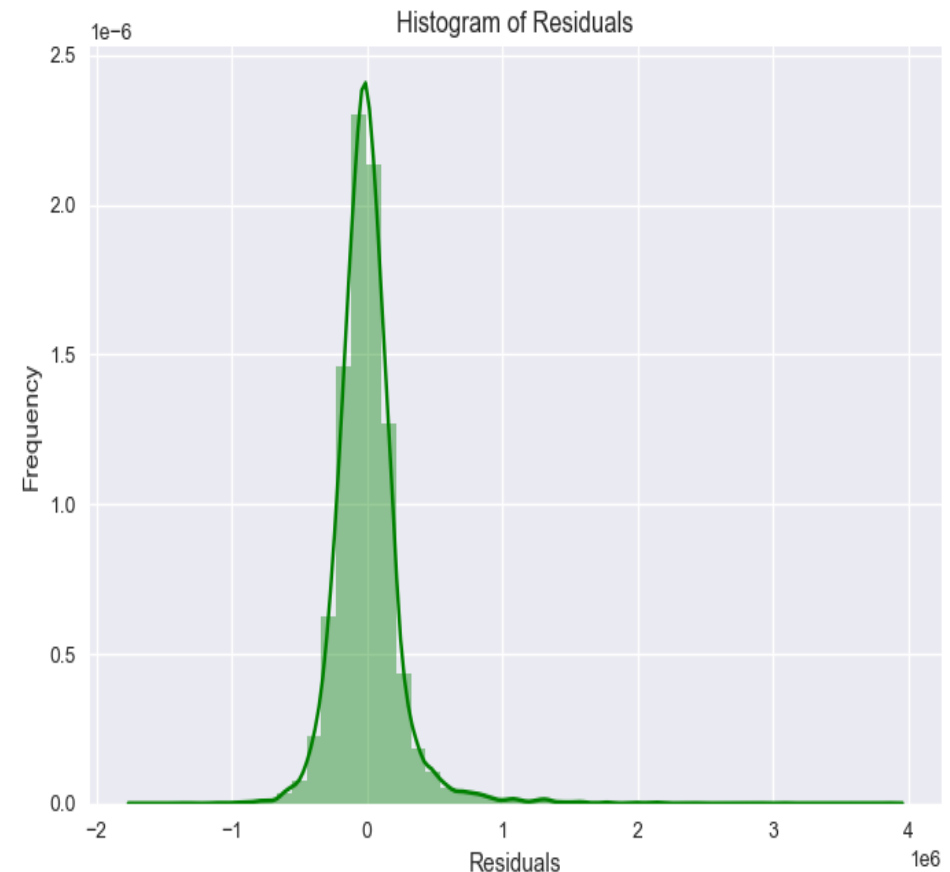
A visualization between actual & predicted values



Linearity



Homoscedasticity



Normality

Recommendations & Conclusions

1. For Home Buyers: Consider purchasing homes with high upgrade potential; houses with great views & don't panic buy because of the month as this is not significant in determining price. Likewise, consider looking for neighbors for an ideal house size.
2. For Home Sellers: Look for locations that sell well; consider increase assessed grade as this is a significant factor in determining home price; Consider renovating home by adding additional amenities like bathroom/bedrooms.