By Lorna Wanjiku

KING COUNTY REAL ESTATE ANALYSIS

BUSINESS UNDERSTANDING

THE BUSINESS PROBLEM IS TO LOOK FOR BETTER SOLUTIONS FOR HOMEOWNERS BY PROVIDING THEM WITH DATA-DRIVEN INSIGHTS AND RECOMMENDATIONS ON HOW TO INCREASE THE VALUE OF THEIR HOMES AND ACHIEVE HIGHER SELLING PRICES. THE GOAL IS TO GIVE HOMEOWNERS WELL-INFORMED ADVICE TO MAKE BETTER DECISIONS THAT CAN MAXIMIZE THEIR RETURN ON INVESTMENT.

STAKEHOLDERS:

HOMEOWNERS - THEY ARE LOOKING TO SELL THEIR PROPERTIES, AND WANT TO SELL AT THE HIGHEST PRICES POSSIBLE. THEY ARE SEEKING GUIDANCE ON WHAT TO DO TO ACHIEVE SUCH RESULTS.

REAL ESTATE AGENTS - THE AGENTS ARE INTERMEDIARIES BETWEEN HOMEOWNERS AND POTENTIAL BUYERS. WE NEED TO PROVIDE THEM WITH ACCURATE DATA-BACKED RECOMMENDATIONS THAT ENABLE THEM TO BEST SERVE THEIR CLIENTS.
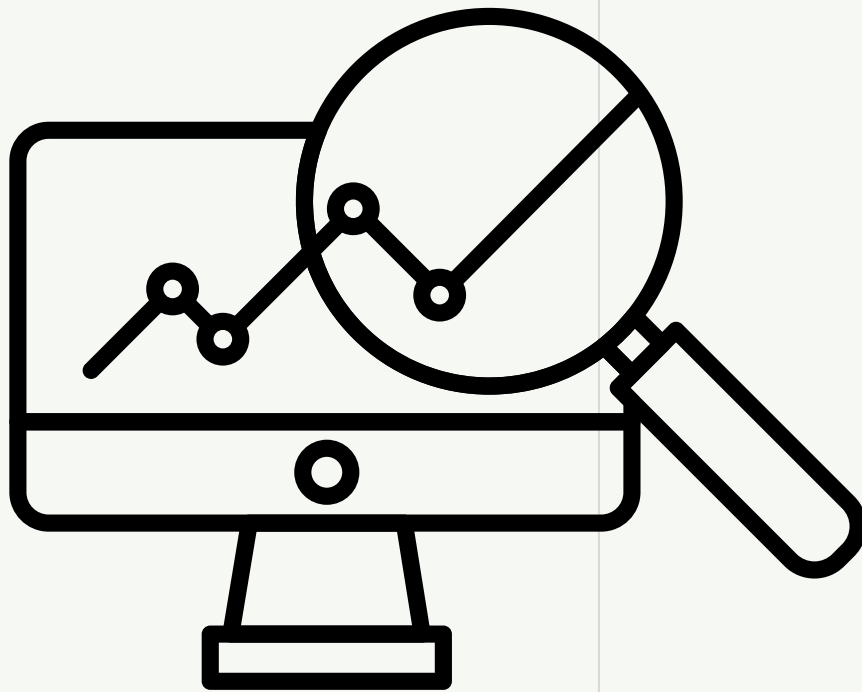
Data Understanding

THE DATASET I WILL USE IS THE KING COUNTY HOUSE SALES DATASET, WHICH CONTAINS INFORMATION ABOUT HOUSE SALES. THE DATASET WAS OBTAINED IN THE DATA FOLDER NAME KC_HOSUE_DATA.CSV.
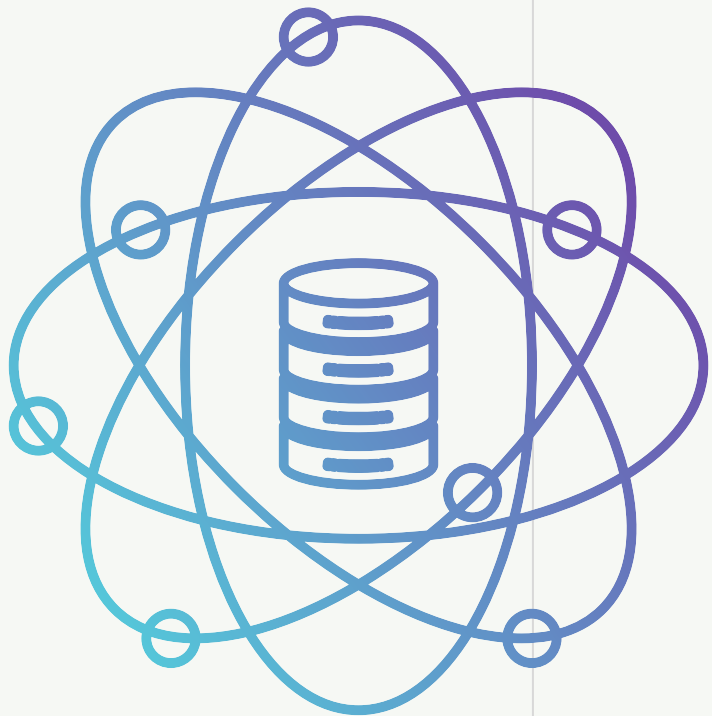
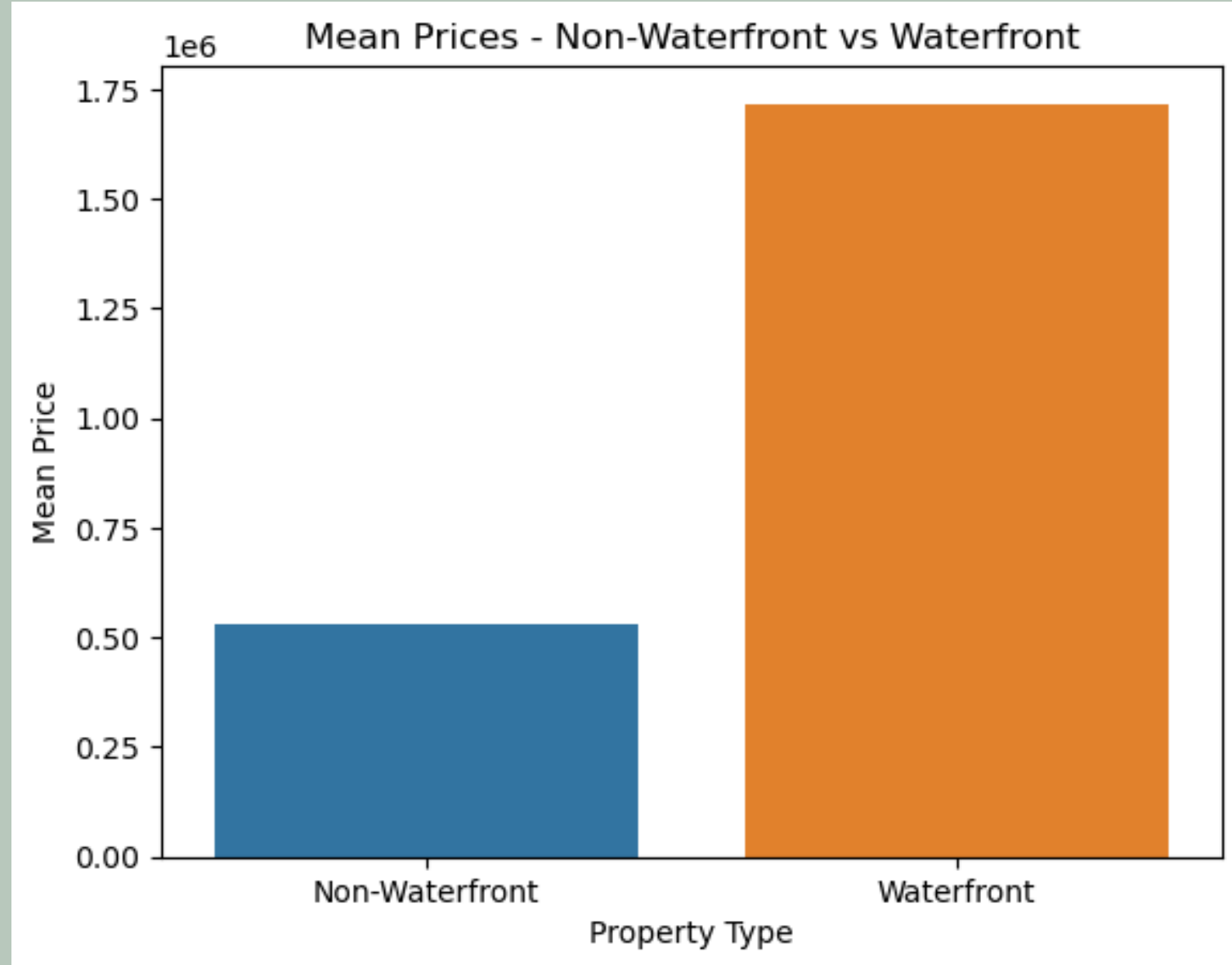IT CONTAINED DIFFERENT INFORMATION ON DIFFERENT ASPECTS OF A PROPERTY.

CLEANED THE DATA AS THERE WERE MISSING VALUES AND DROPPED COLUMNS THAT WERE NOT NECESSARY.

Modeling

THE PURPOSE OF MODELLING IS TO
EXTRACT MEANINGFUL INFO AND
MAKE DATA-DRIVEN DECISIONS BY
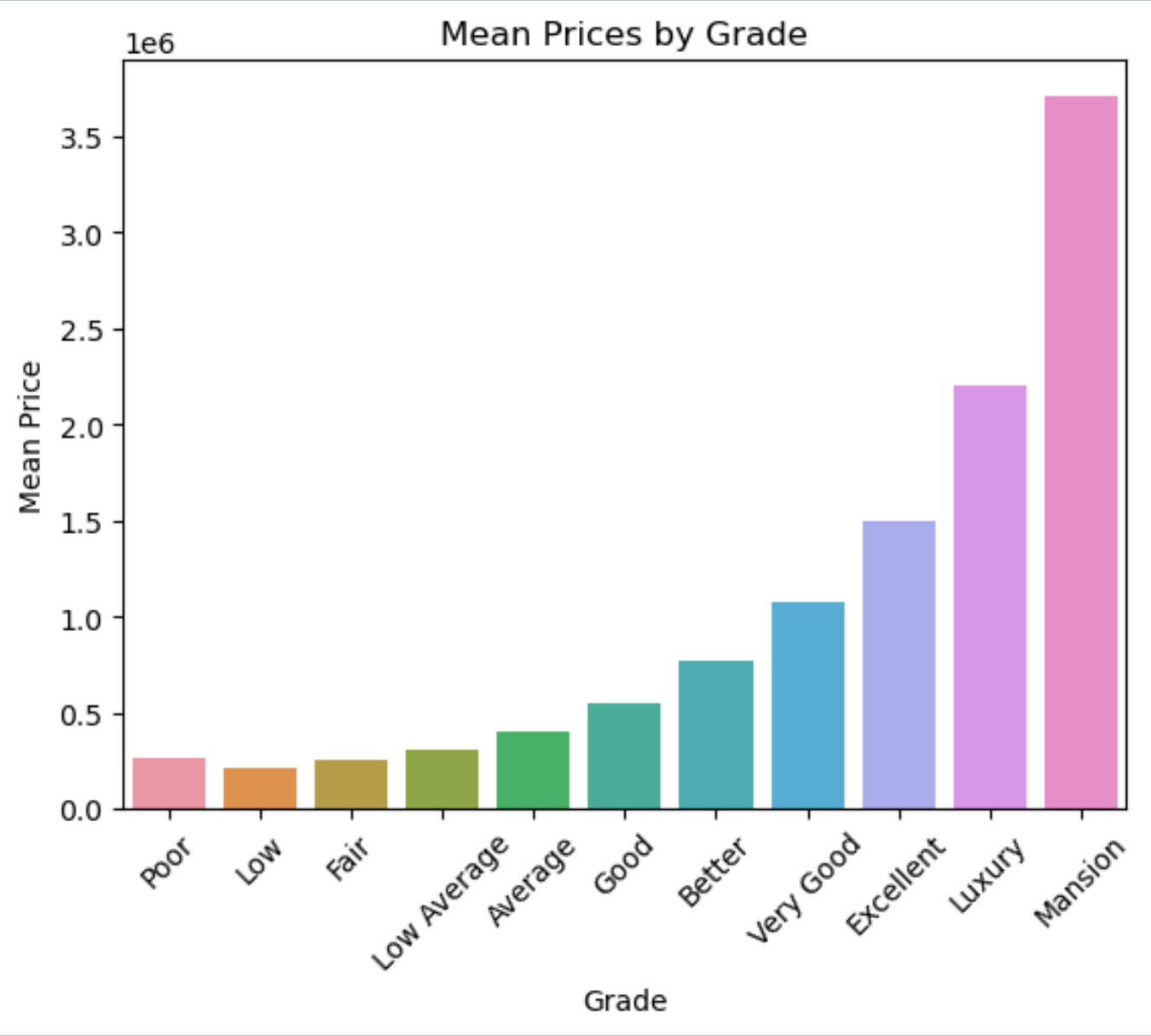LOOKING AT RELATIONSHIPS AND
PATTERNS IN THE DATA.

Results

AVERAGE PRICE FOR A PROPERTY WITH WATERFRONT IS MUCH HIGHER THAN THOSE WITHOUT.(1,717,215)

Results

THE AVERAGE PRICE OF A HOME WITH A HIGH-GRADE EXA GRADE 13 MANSION IS THE HIGHEST.(3,710,769)

Final Model Results

Our model is statistically significant overall, with an F-statistic 2137.
The model is 49.7% of the variance in the target variable(price).
Grade 13 Mansion has the highest coefficient to price(1.455)

The higher the grading of a property, the higher the price. Instance Grade 13 Mansion
will attract 3,710,769 Average Price.
While a property on water will attract 17,172,145 Average Price.

Conclusion

TO INCREASE VALUE OF PROPERTY SO AS TO SELL AT THE HIGHEST PRICE POSSIBLE, THE REAL ESTATE COMPANY SHOULD ADVISE THEIR HOMEOWNERS THE FOLLOWING

GRADE IS THE MOST IMPORTANT FACTOR TO CONSIDER.
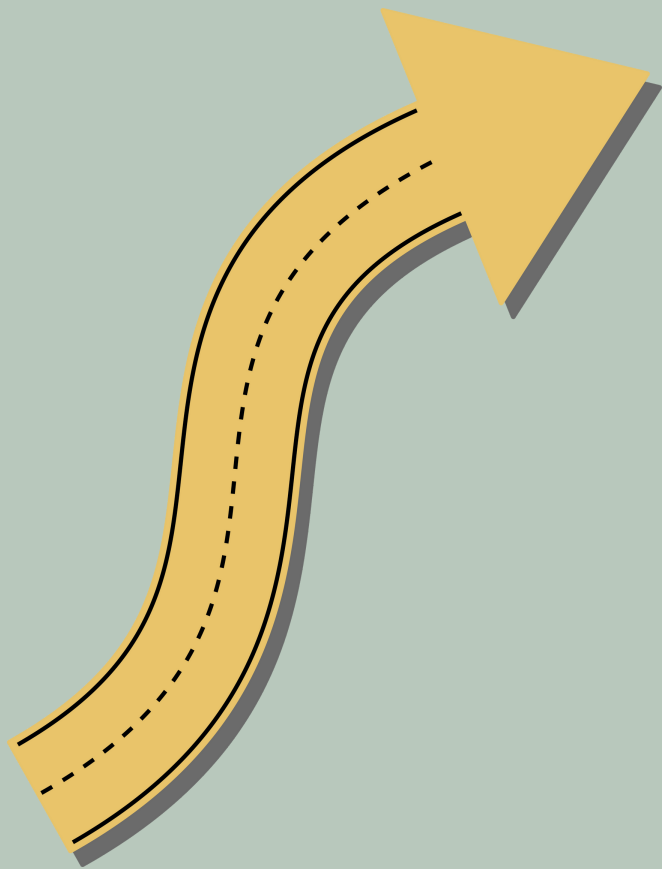
FOLLOWED BY WATERFRONT.

Recommendation

USE HIGHER QUALITY MATERIALS (INTERIOR AND EXTERIOR) TO INCREASE VALUE OF PROPERTY. EG FLOORING, ROOFING. AND THE PROPERTY SHOULD BE WELL CONSTRUCTED TO AVOID GRADE BEING AFFECTED NEGATIVELY. HAVING PROPERTY NEAR WATER ALSO SIGNIFICANTLY INCREASES PRICE.

Next Steps

MOVING FORWARD I WOULD LIKE TO DISCOVER KEY FEATURES TO CREATE A LARGE DATASET SO AS TO HAVE A BETTER MODEL.
LOOK AT FACTORS LIKE LOCATION, SECURITY AND SCHOOLS IF THIS AFFECTS PRICE.

Thank you!