KING COUNTY HOUSING AFFORDABILITY

OVERVIEW: A real estate agency from King County, Seattle hired us for a project to analyse how different factors affect prices of homes.The aim of this analysis is to build a multiple linear regression model that predicts the prices of houses in King County, Seattle.

Business Understanding:

A real estate agency from King County, Seattle hired us for a project to analyse how different factors affect prices of homes.The aim of this analysis is to build a multiple linear regression model that predicts the prices of houses in King County, Seattle.
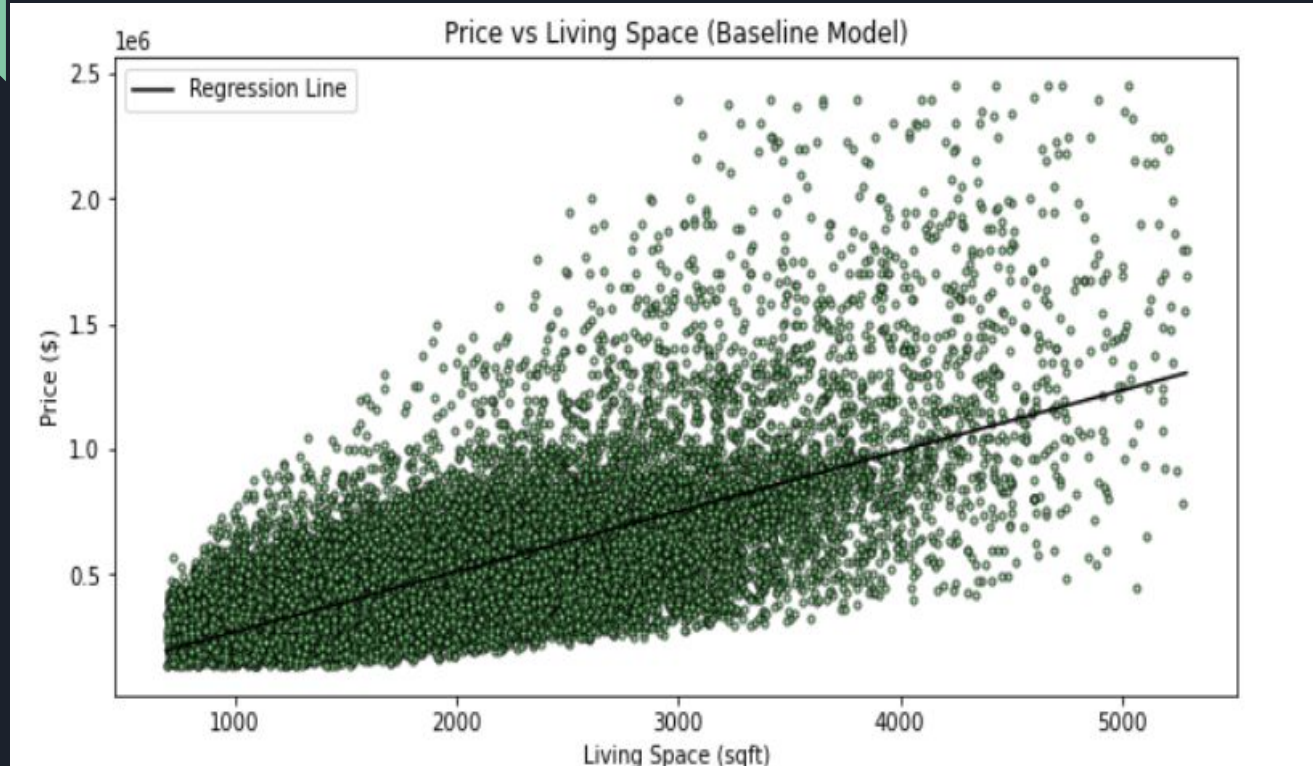
By developing a model that can accurately predict the sale price of houses, real estate agents can better advise their clients on pricing strategies, investors can identify potentially undervalued properties, and homeowners can better estimate the value of their own properties. This can ultimately lead to more efficient and profitable real estate transactions in King County. We will also investigate whether homes sell for higher prices in certain seasons, or whether certain types of homes are more popular in certain seasons.

Data Understanding:

The dataset contains information about the houses in King County, Seattle. The dataset has 21 variables including the price, number of bedrooms, bathrooms, square footage of the living area, and other variables.
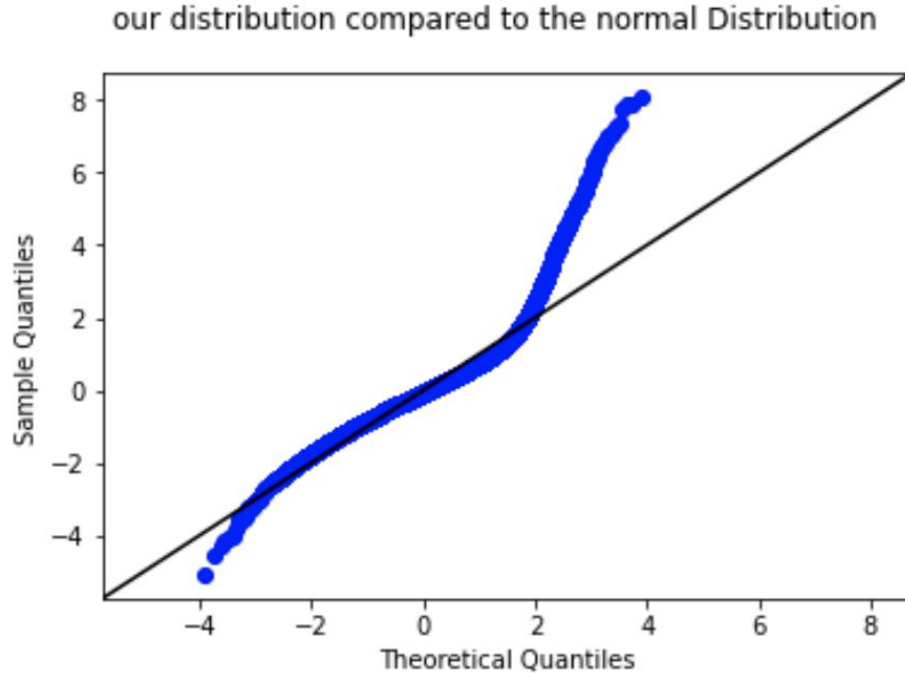
Simple Regression Model :

Price vs Living Space (Baseline Model)

From this model, there appears to be a strong relationship between living space and price.

Approximately 44.3% of the variance in housing prices can be explained by the square footage of the living area.

Multiple Regression Model:

our distribution compared to the normal Distribution

A Q-Q plot,of the model compared to normal distribution.

Multiple Regression Results:

The model explains about 63.4% of the variance in the target variable (price). This is a significant improvement over the previous model which had 44.3%

Recommendations:

Every factor in a house determines the price of a home , which include:

Living area/loft

Bathrooms

Floors

Condition and grade of a house

Age and the renovated

Waterfront view

Season of the year

Next steps:

Develop and compare multiple regression models to predict house prices with high accuracy.

THANK YOU!