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# **Project 2 - Ames Housing Data and Kaggle Challenge**

## **House Price Influencers**

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# Problem statement

Real estate leasers often face challenges in identifying the most effective strategies to enhance the value of their properties, including homes, apartments, and villas. This project aims to analyze key property features that significantly influence market value. By identifying these critical features, leasers can make informed decisions on where to allocate resources to improve property quality and maximize profitability.

# The Daunting 'W's

We're aware that the best practice in solving any problem

Is asking the right questions?

What?: What is wrong with my property? What do I do

To improve my service?

Where?: Where do we begin? Where are my downfalls?

When?: When do we start? When do I expect results?

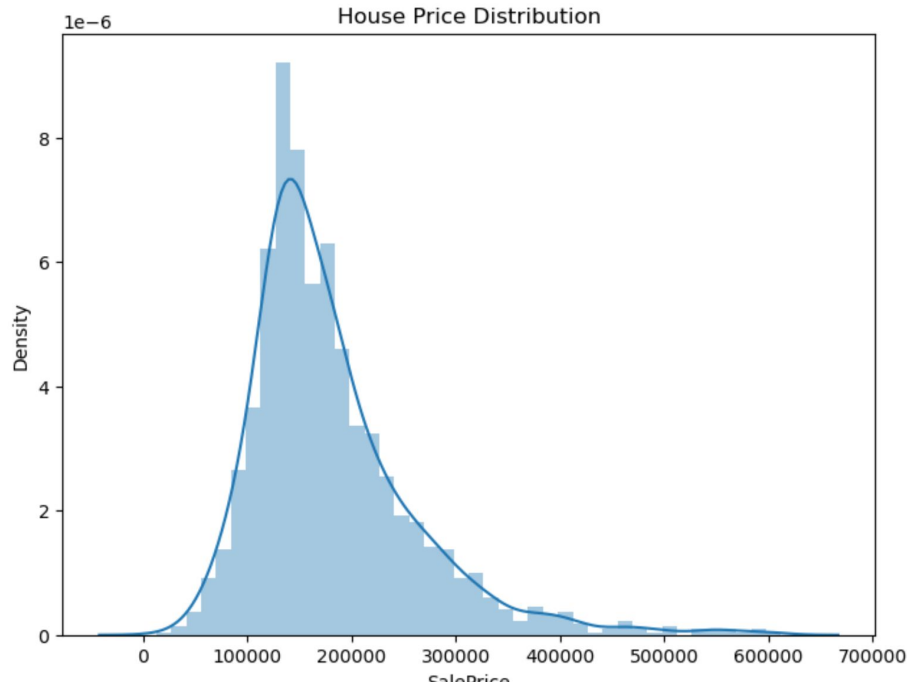


# Procedure

- 1 - Data Evaluation and Cleaning
- 2 - Visualization
- 3 - Model building and evaluation
- 4 - Selecting the best machine learning model
- 5 - Prediction
- 6 - Feature comparisons with Sale price

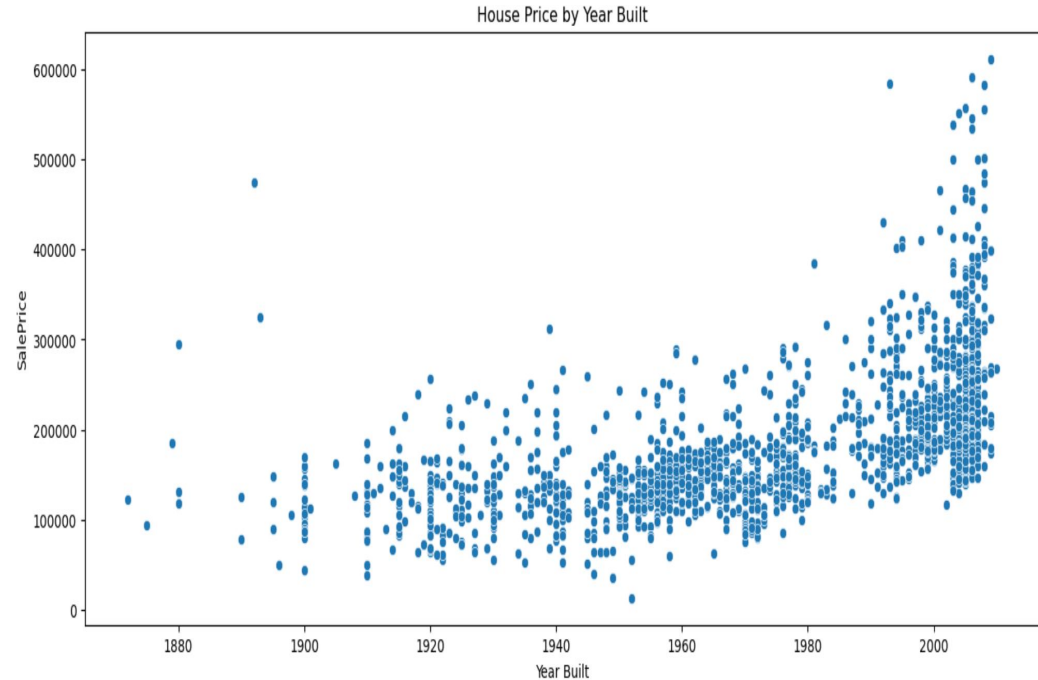
# Data Exploration

Majority of house prices were clustered  
Around low prices of about \$150, 000  
With respect to the changes made on  
Improving house quality. Further analysis  
Told us that there are certain house features  
That when focused on tends to increase house  
Quality and therefore, profit.



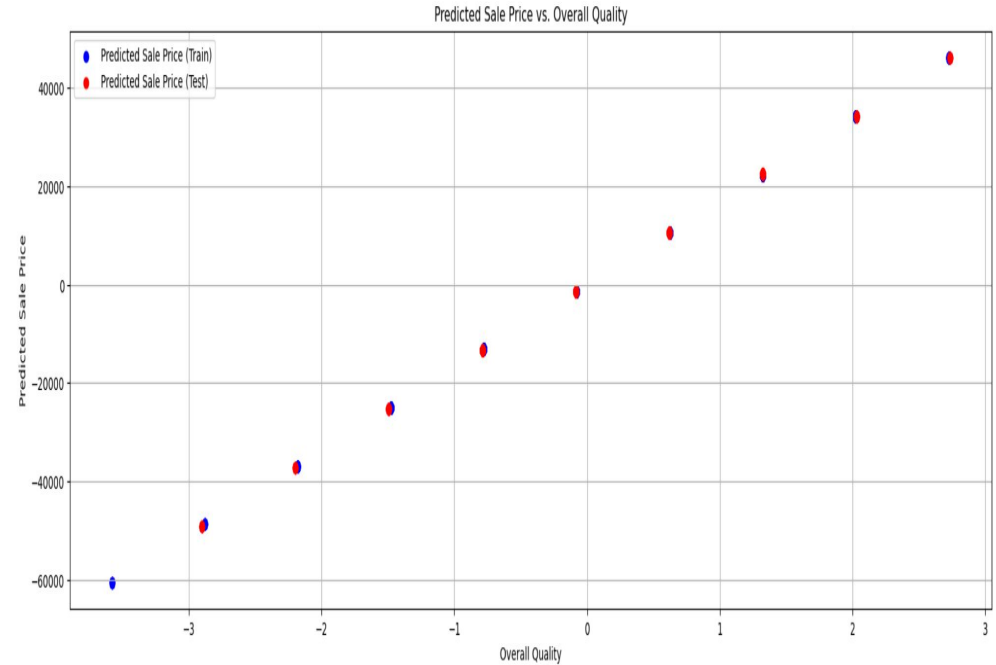
# Data Visualization

There is a significant relationship between  
Time progression and the Sales price of homes.  
The modern era has demanded everything to  
Keep up with the progressive trends? Why  
Would real-estate be excluded?  
As the years go  
By, there we see an increase in the sale price  
Of houses as well.



# Smart guessing

Looking at how an overall quality of a house can greatly influence the price of the house, we see that that our guesses are consistent with the predictions of the price. An increase in the quality means value attributed to the house and is reflective in the profit.



# Results

Based on our model, we clearly see what

Real-estate leasers should focus on when trying

To improve home qualities that would yield more  
Profit.

The overall quality is at the top, followed by

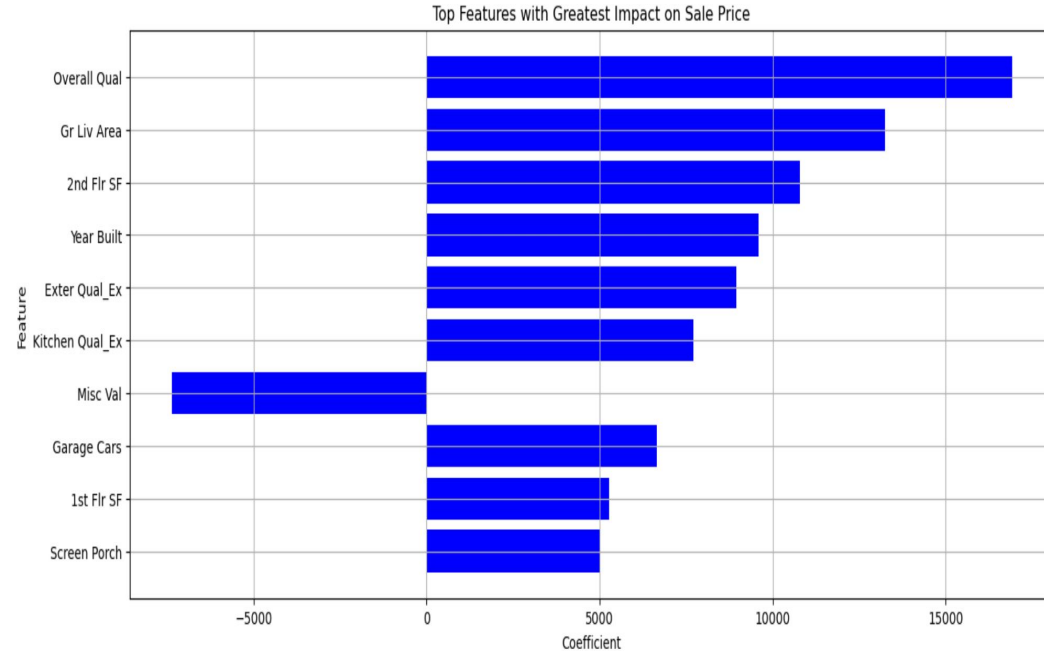
Above ground living area in square feet,

Second floor in square feet, House age, quality of the

material on the exterior, exterior kitchen quality,

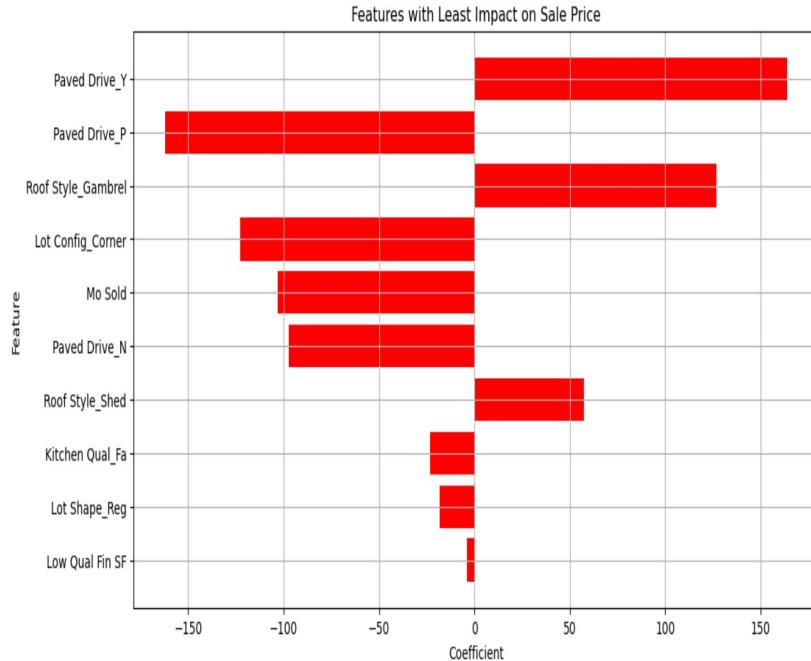
Size of garage in car capacity, first floor in square feet and

Screen porch area in square feet.





# Results



Likewise, the qualities for landlords, leasers, To focus less on are Parking lot shapes, kitchen Quality, types of roofs, Paved driveway, Month Of sale and parking lot configuration. Identifying this will enable these real-estate Agents, leasers, homeowners and business men Focus on improving what would yield more profit.

**Thank you for you keen attention!**