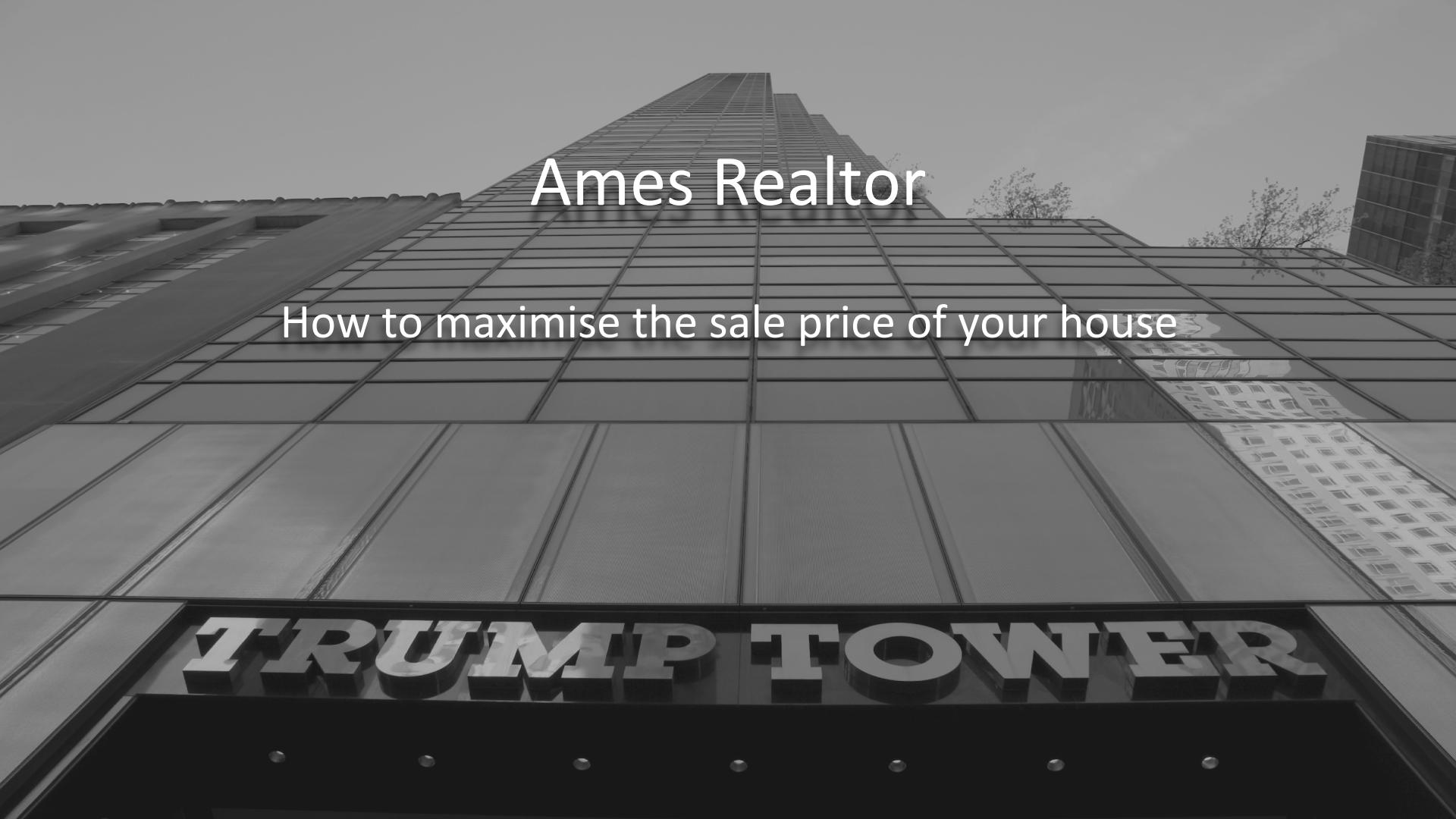


# Location Location Location



# Money Money Money



# Ames Realtor

How to maximise the sale price of your house

**01**

## **Introduction**

What do we do

**02**

## **Insights from our model**

How to sell your house at a higher price

**03**

## **Recommendations**

What should you do today



# Introduction

Analyzed historical housing sales data in Ames, Iowa



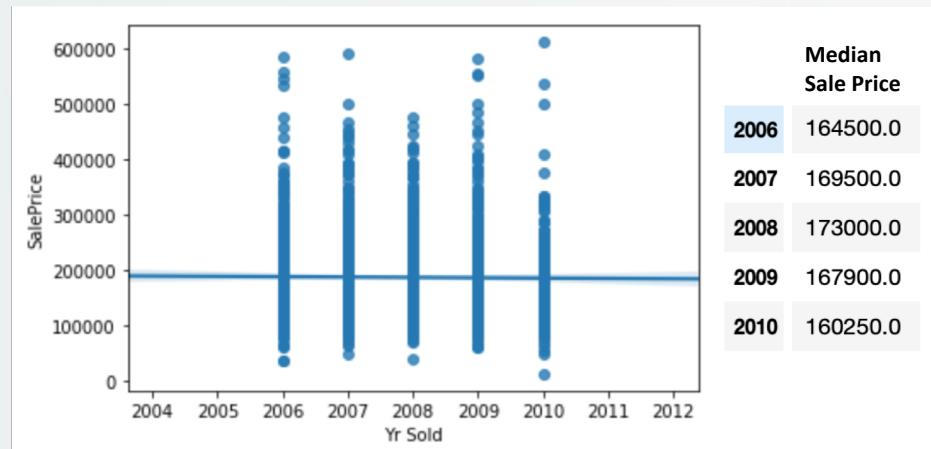
**2,051 transactions** between 2006 and 2010



Prices range from **\$12,789** to **\$611,657** (mean at \$168,000)



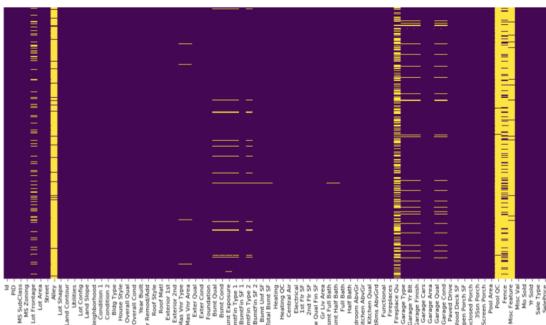
**25 neighbourhoods**



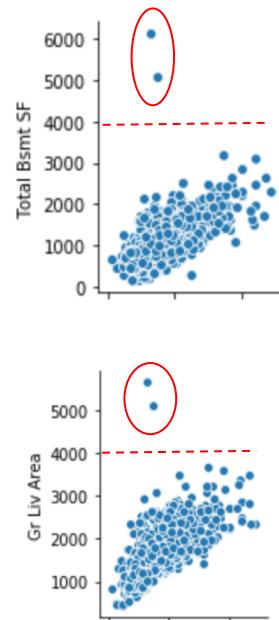
# Data Processing



## Null Values



- Columns with > 80% null values were not considered.
  - Categorical variables assumed none e.g. Null values in Fireplace Qu column replaced with 'NA'.
  - Others were imputed 0.



Total Bsmt SF: Total square feet of basement area  
Gr Liv Area: Above grade (ground) living area square feet



## Outliers

Removed the following outliers:

Lot Frontage >=300  
Lot Area >= 100000  
Mass Vnr Area >= 1500  
BsmtFin SF 1 >=4000  
BsmtFin SF 2 >= 1250  
Total Bsmt SF >= 5000  
1st Flr SF >= 3000  
Low Qual Fin SF >= 600  
Gr Liv Area >= 5000  
Garage Yr Blt >= 2050  
Wood Deck SF >= 1250

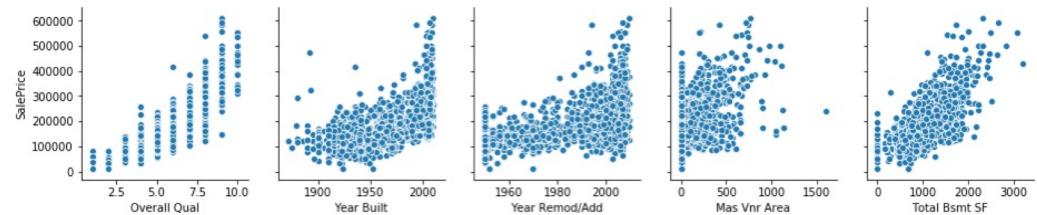
# Data Processing



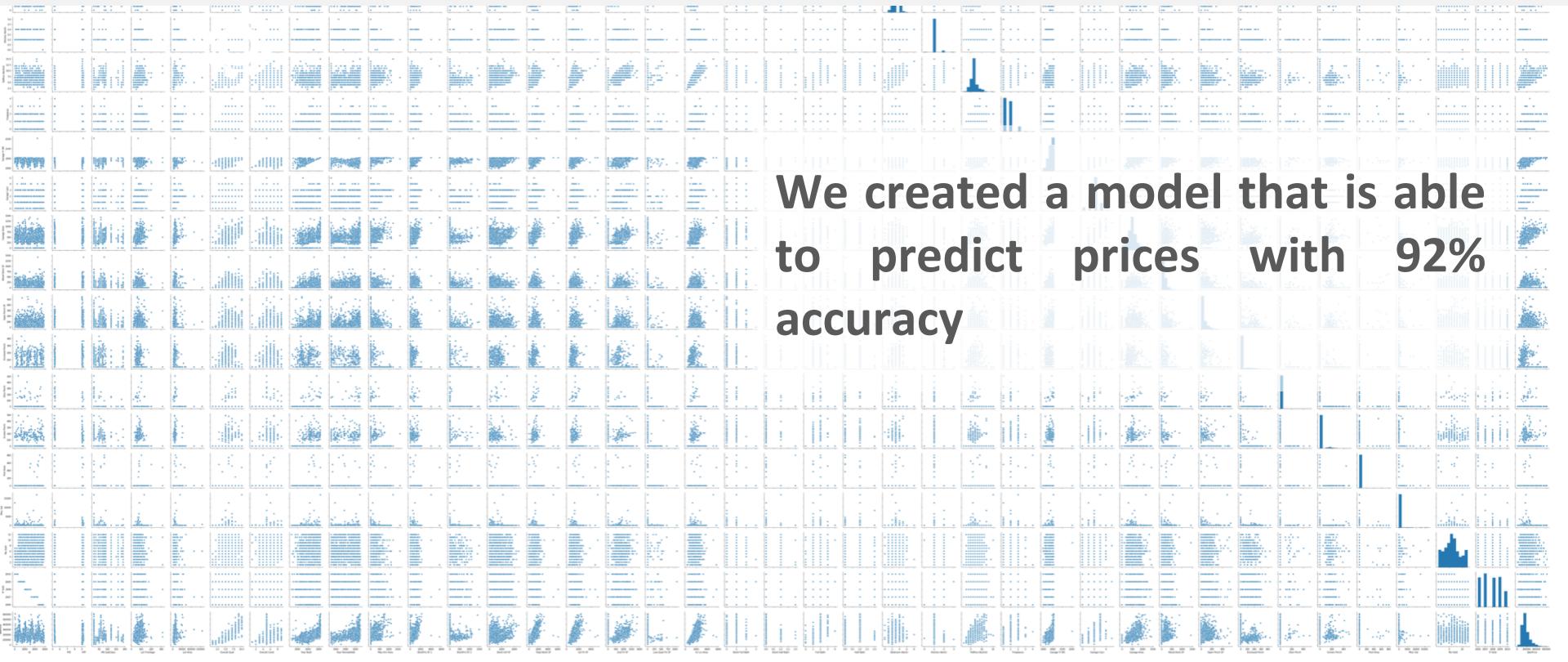
## Design Metrics

- Shortlist variables with > 50% correlation
- Drop variables highly correlated with each other
- Qualitative variables were considered using trial and error methods

Pairplots helped to visualise linear correlation while heatmaps quantified correlation with sale price and amongst variables.



# Sale Prices Prediction Model



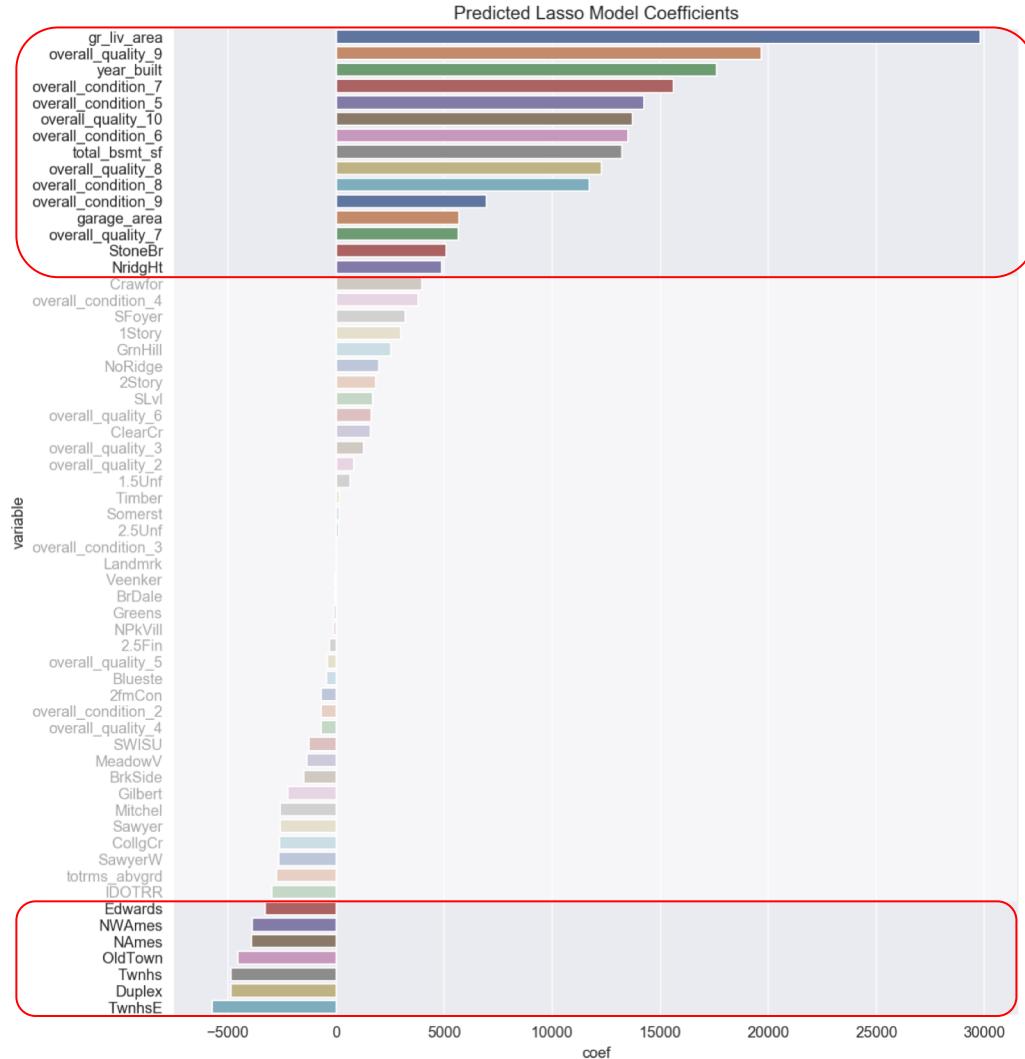
We created a model that is able  
to predict prices with 92%  
accuracy

# Insights from our model



# 10 key features that add most value to a home

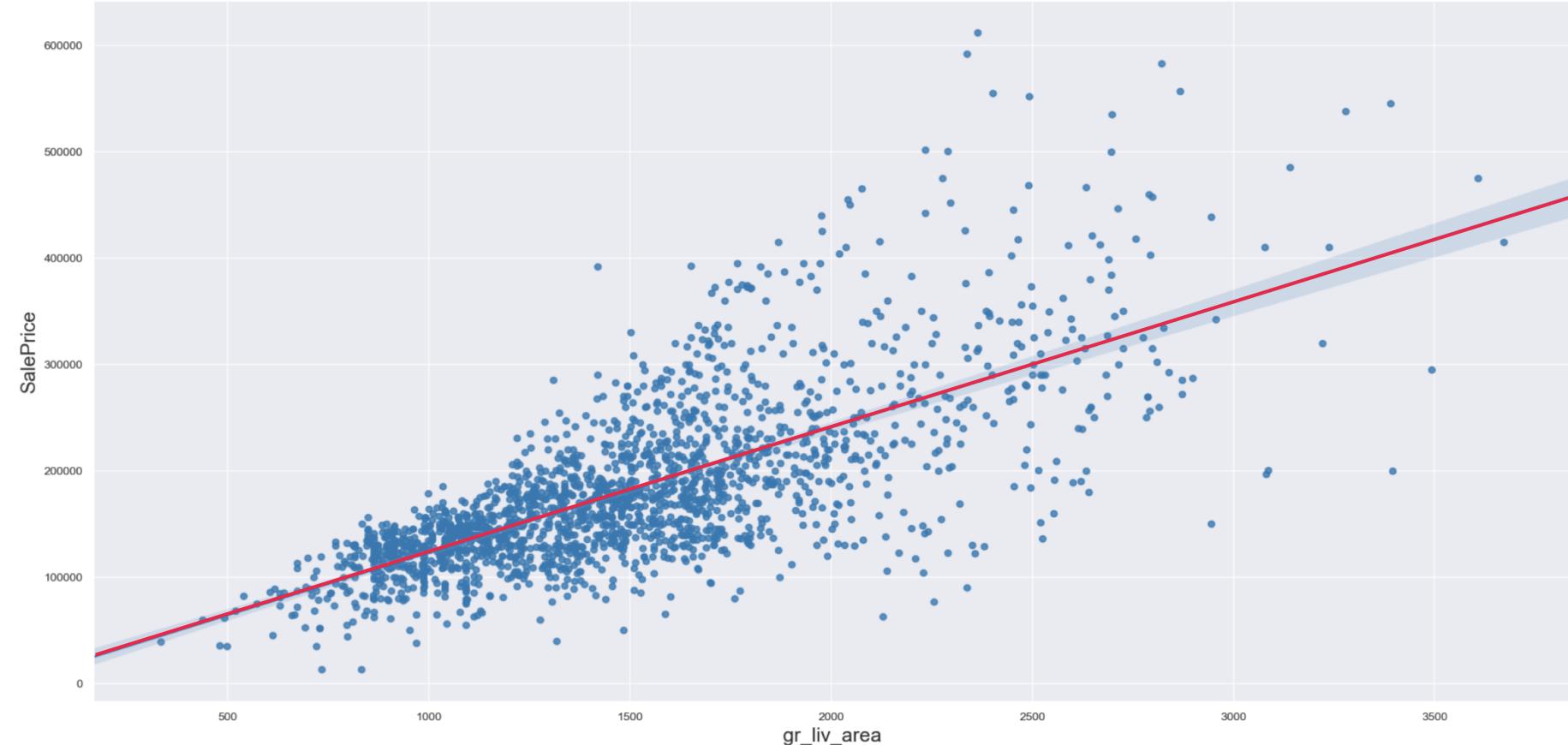
1. **Ground Living Area**
2. **Year Built**
3. **Overall Condition**
4. **Overall Quality**
5. **Total Basement Sq ft**
6. **Garage Area**
7. **Total Rooms**
8. **House Style**
9. **Neighborhood**
10. **Building Type**



# Renovate your house to maximise living space.

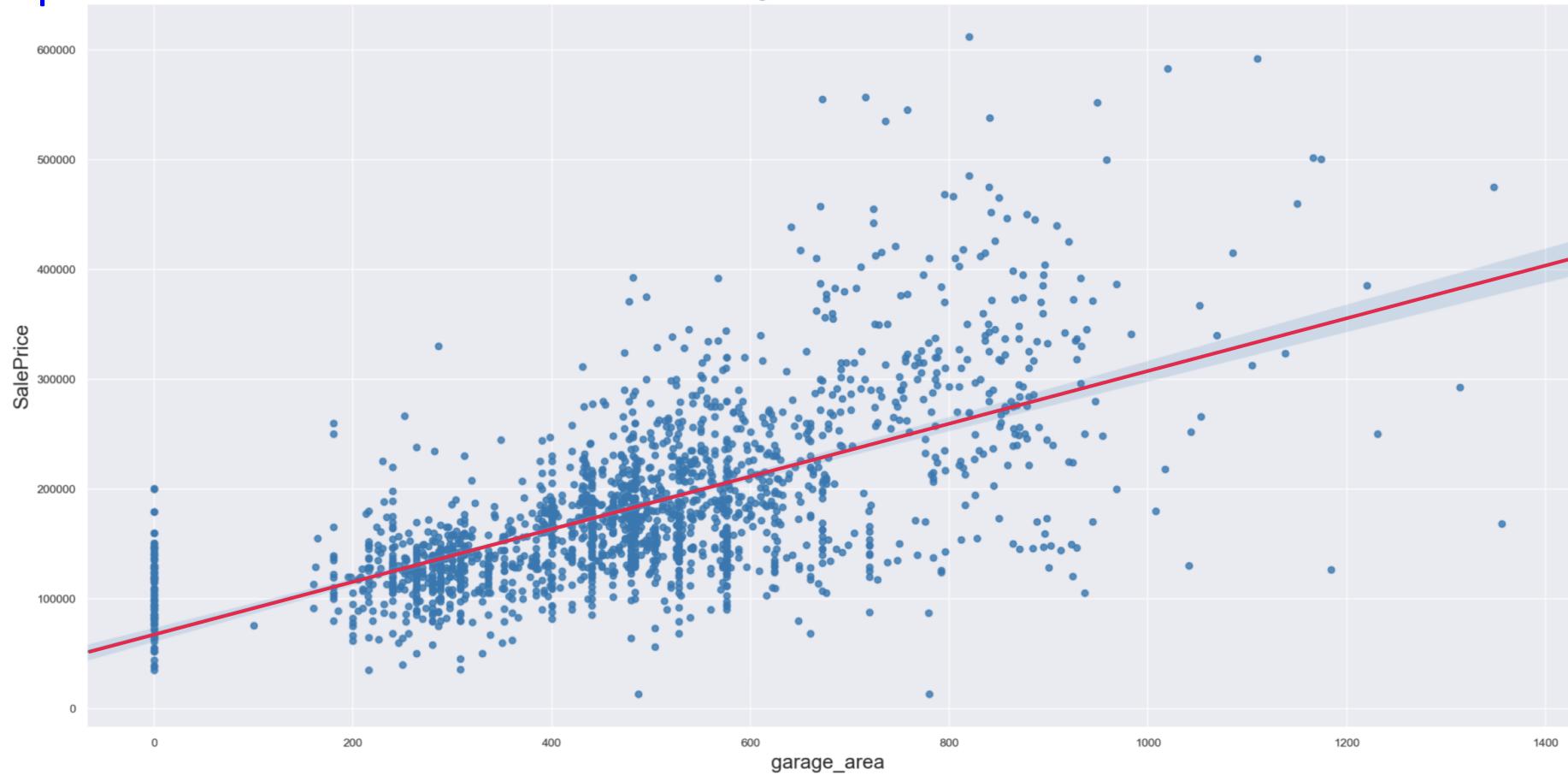
*The bigger your living area (sq ft), the higher you can expect your sale price to be.*

GR Living Area vs SalePrice

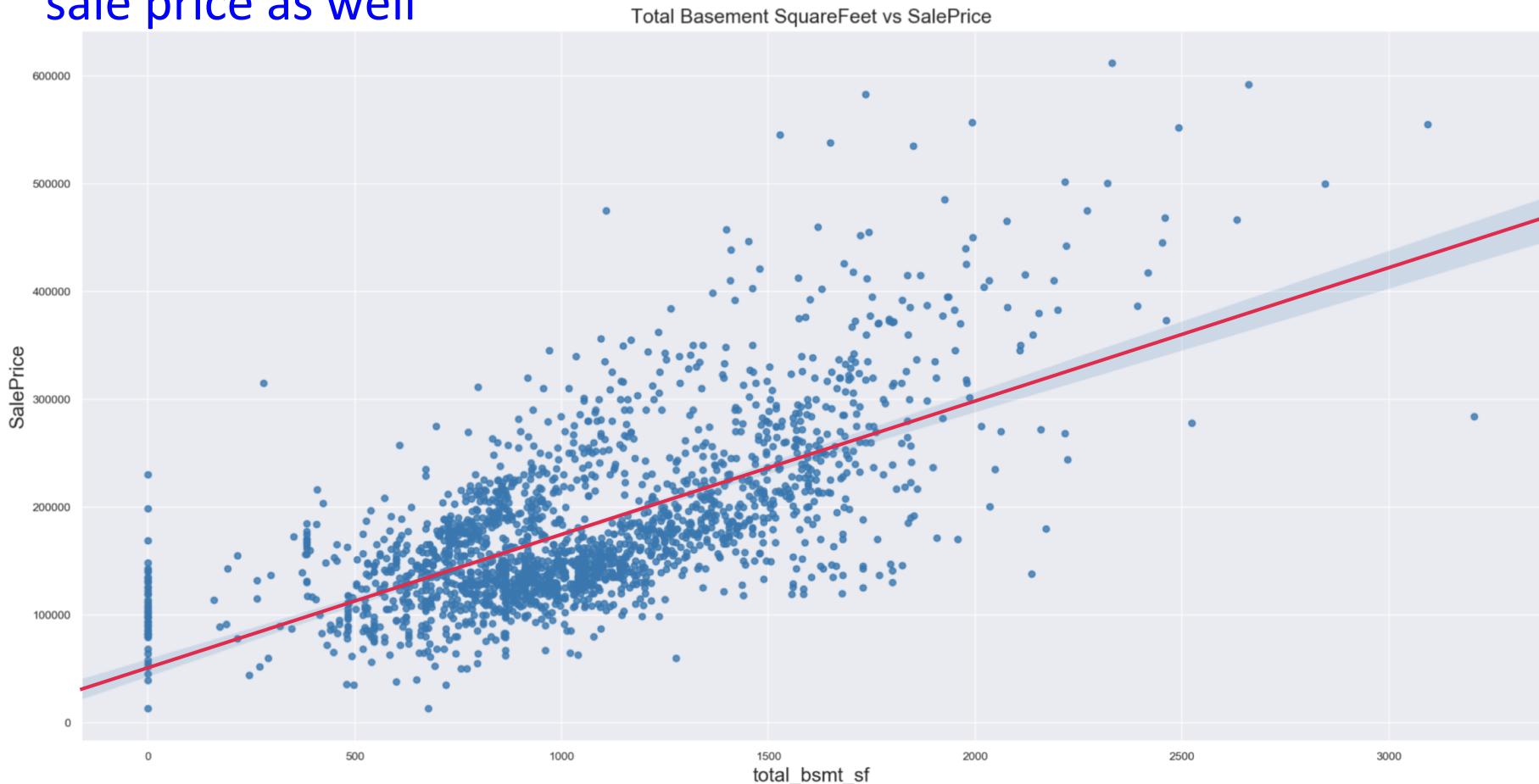


# Having a bigger garage improves sale price as well

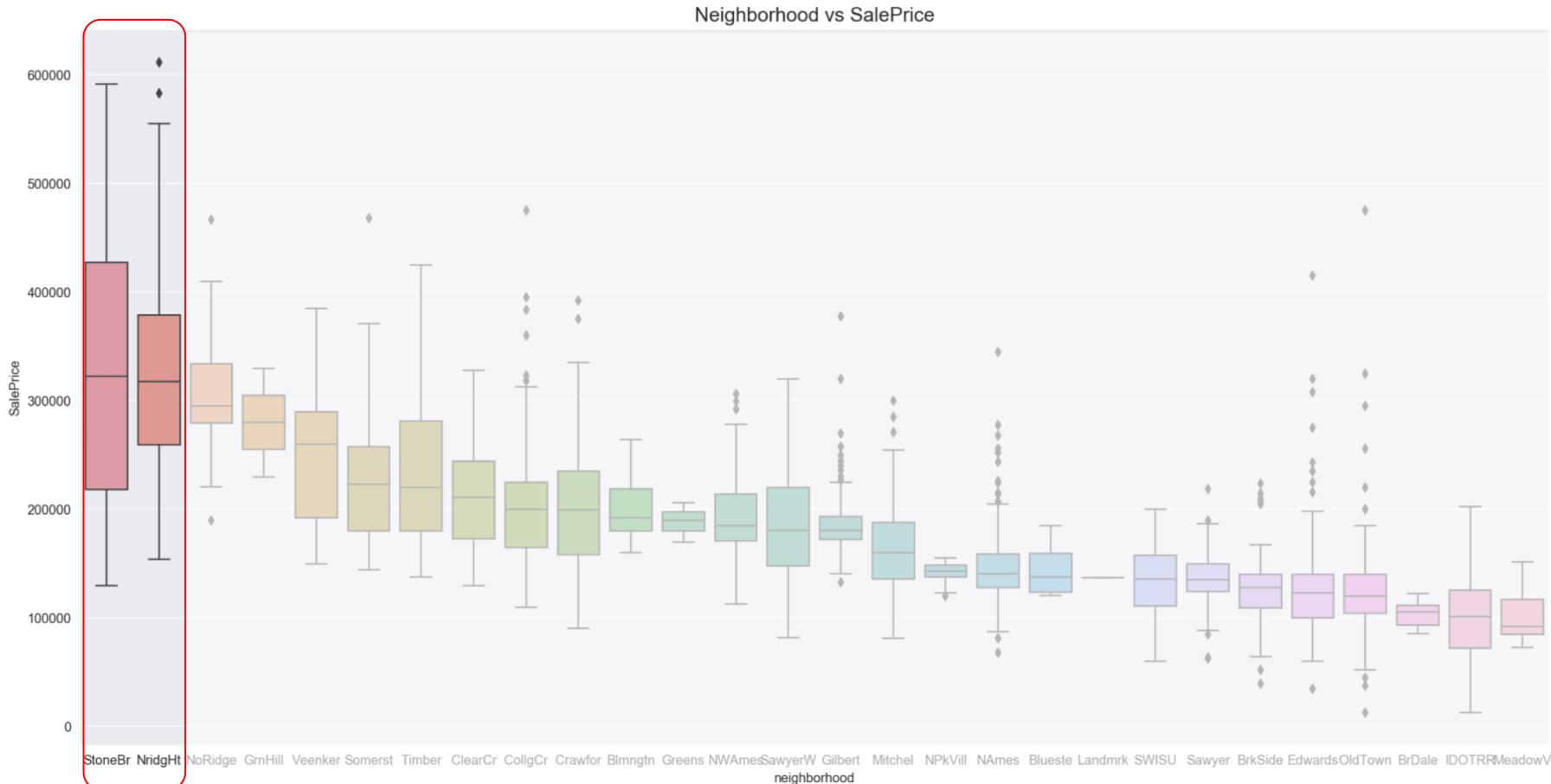
Garage Area vs SalePrice



Likewise, a bigger basement area increases sale price as well



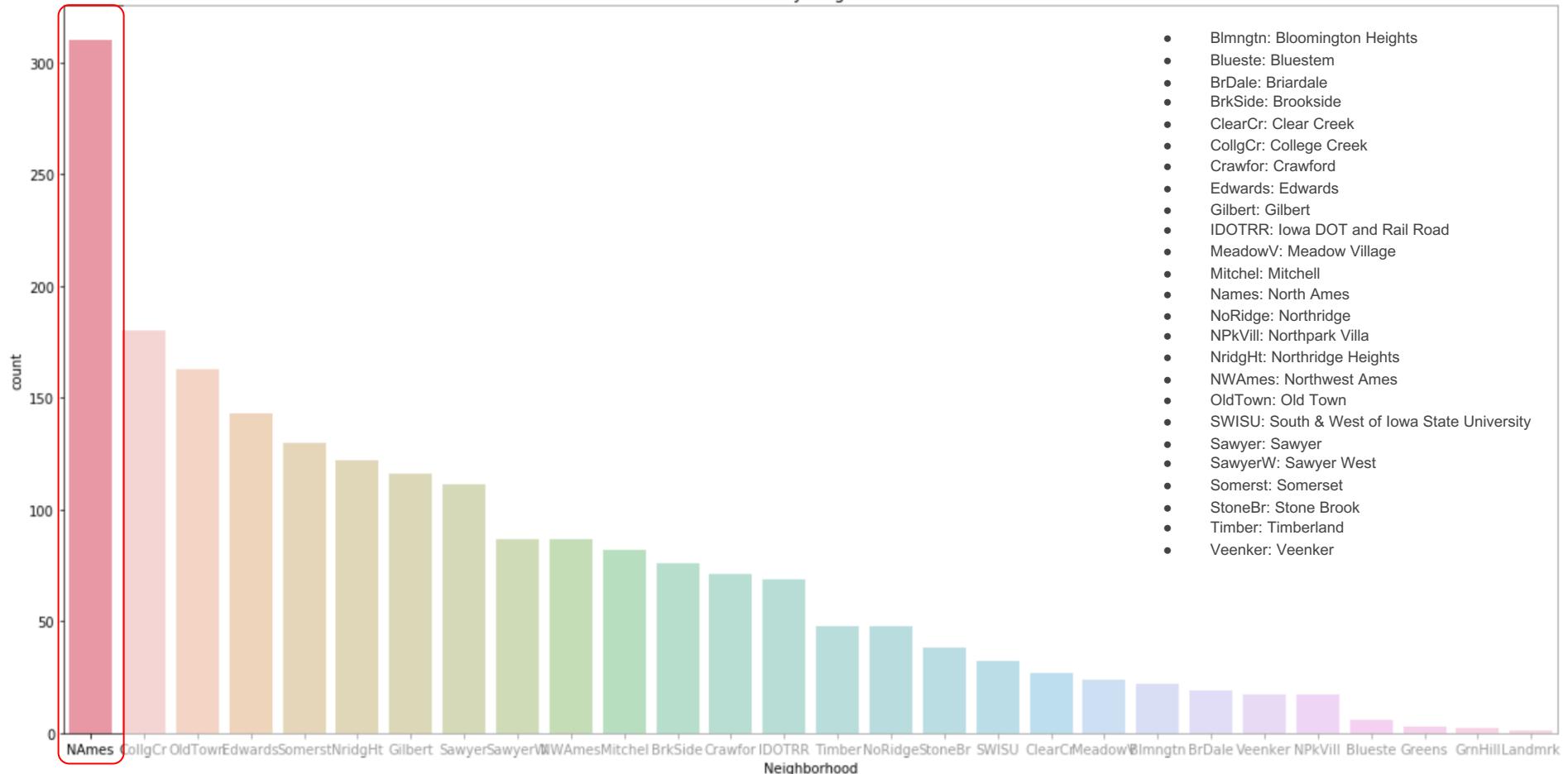
In general, residences in Stone bridge and North ridge heights command a higher price.



If you are undecided and risk-averse, you may consider North Ames where the property market seems to be most active!

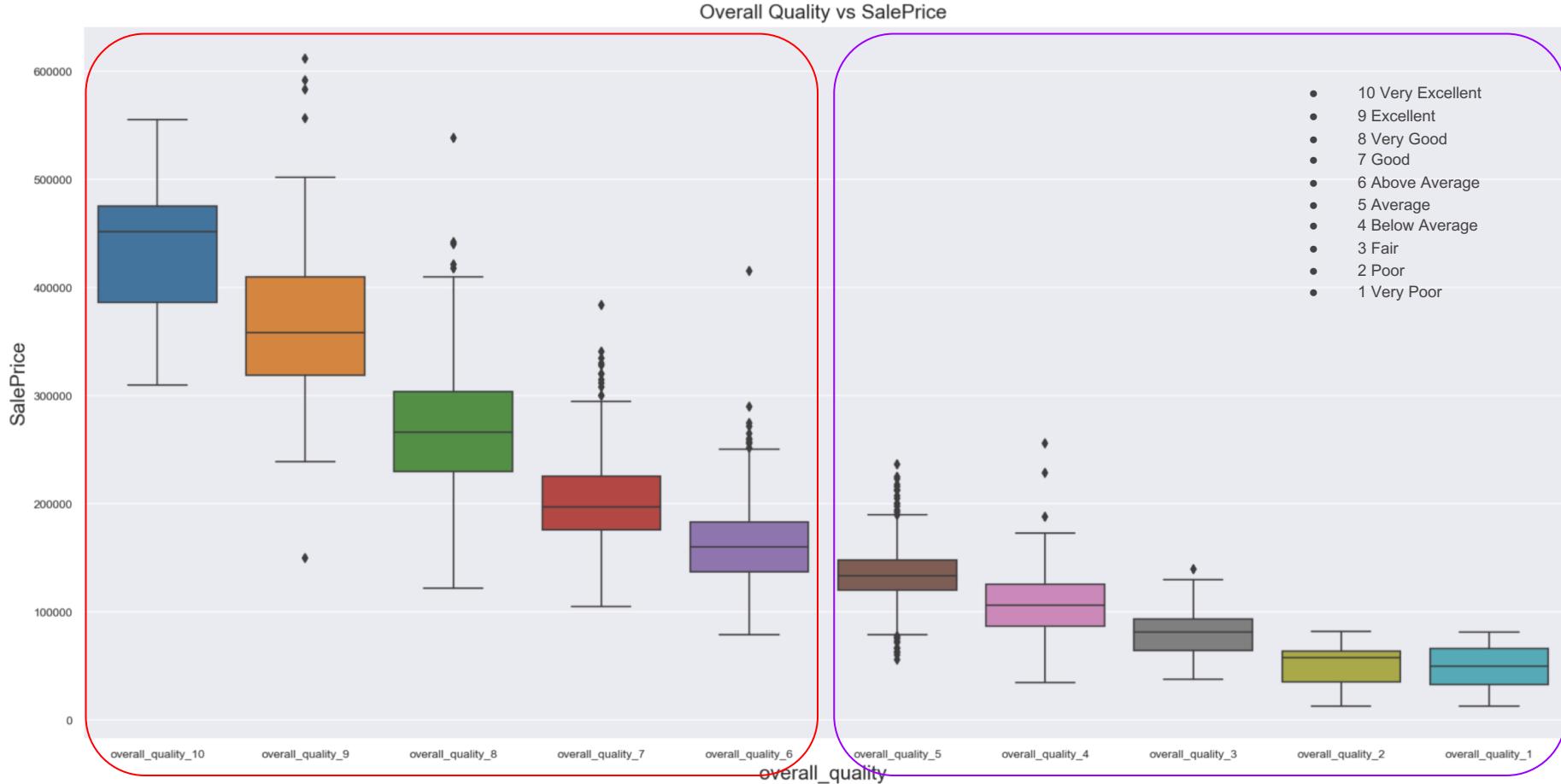
Fun Fact

Sales Vol. by Neighborhood



# Consider the quality of your home wisely!

*Material and finishing of a house has a disproportionate impact on selling price.*

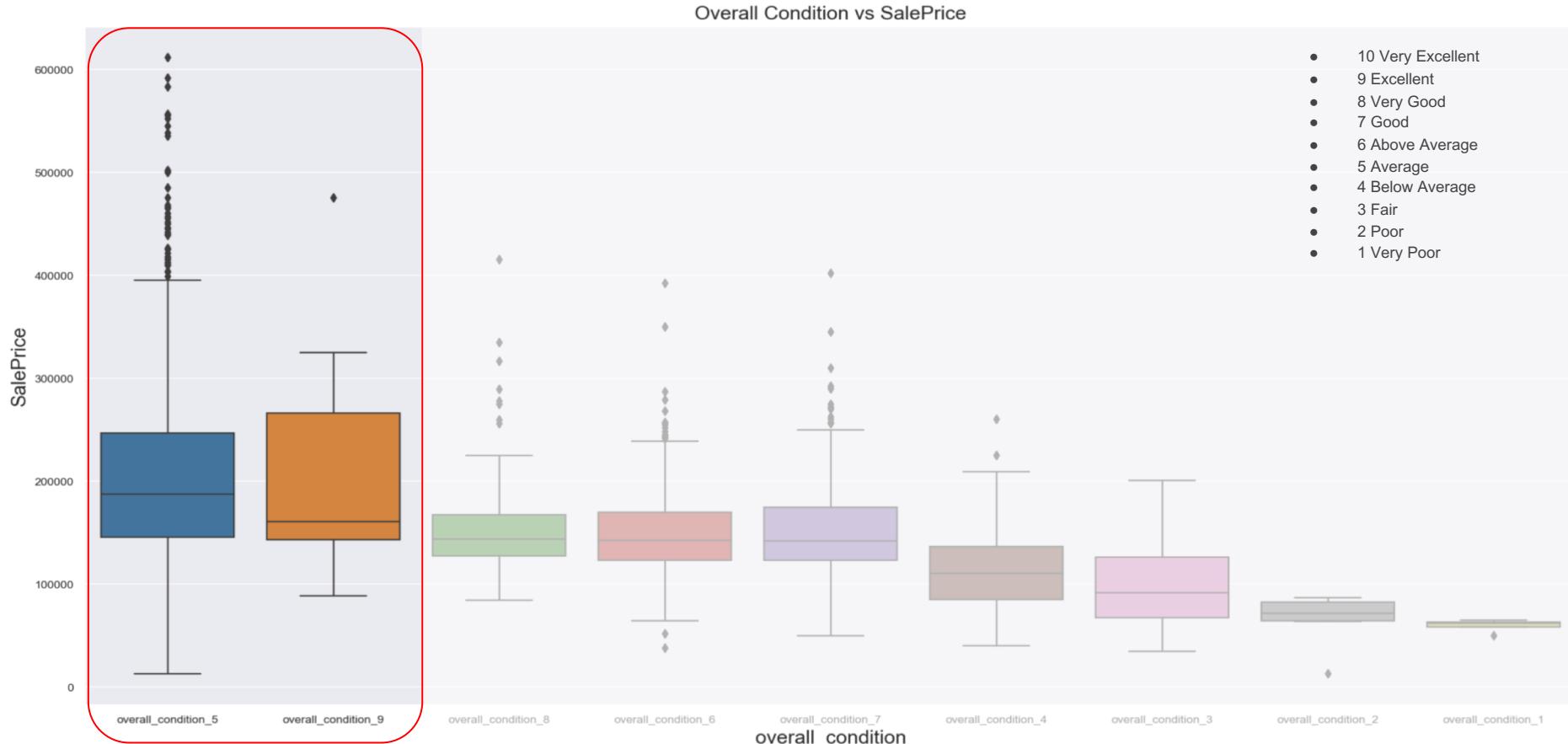


A close-up photograph of the "TRUMP TOWER" sign. The sign is made of large, gold-colored letters with a metallic, slightly weathered texture. It is mounted on a dark, reflective surface, likely the glass facade of the building. The letters are illuminated from behind, creating a bright glow against the dark background. The "T" in "TOWER" is notably taller than the other letters. Below the sign, there is a horizontal band with several small, glowing orange lights. The overall composition is architectural and dramatic.

**TRUMP TOWER**

Condition matters too!

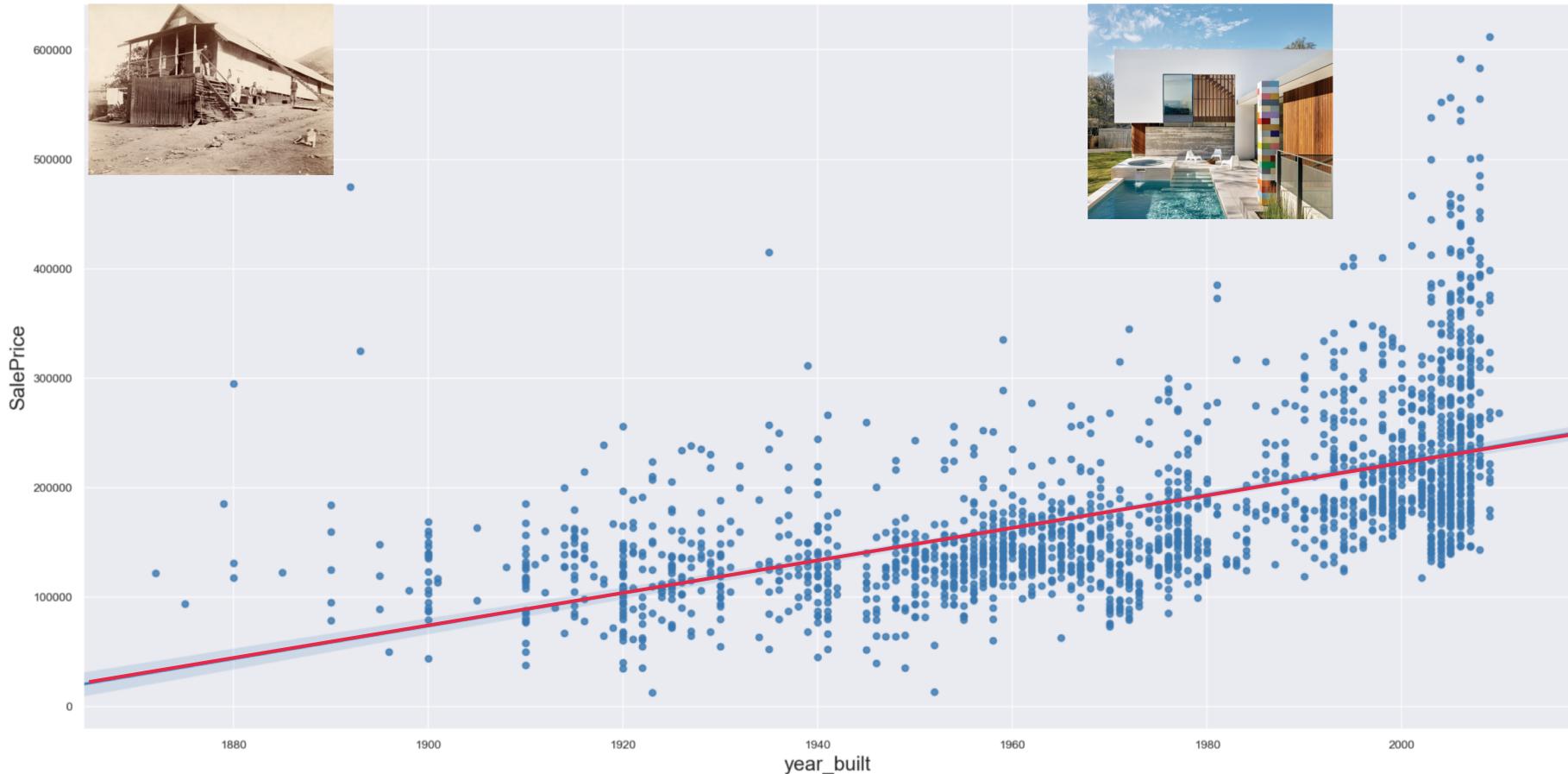
It is possible to fetch a high price for your home that is in fairly good condition. A lot depends on your pitch!



# The best time to sell your house is... NOW!

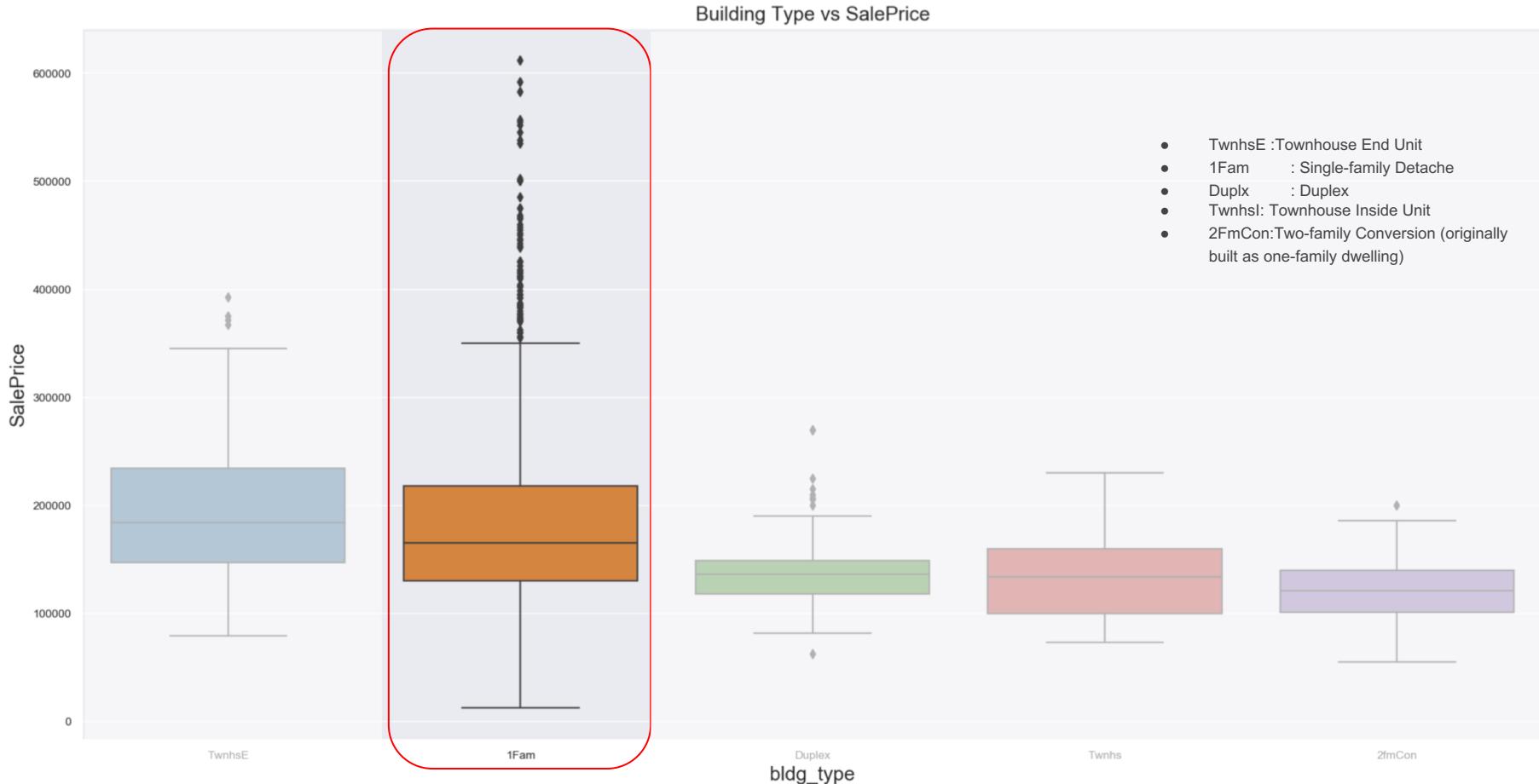
*The older the house, the greater the loss on its valuation*

Year Built vs SalePrice



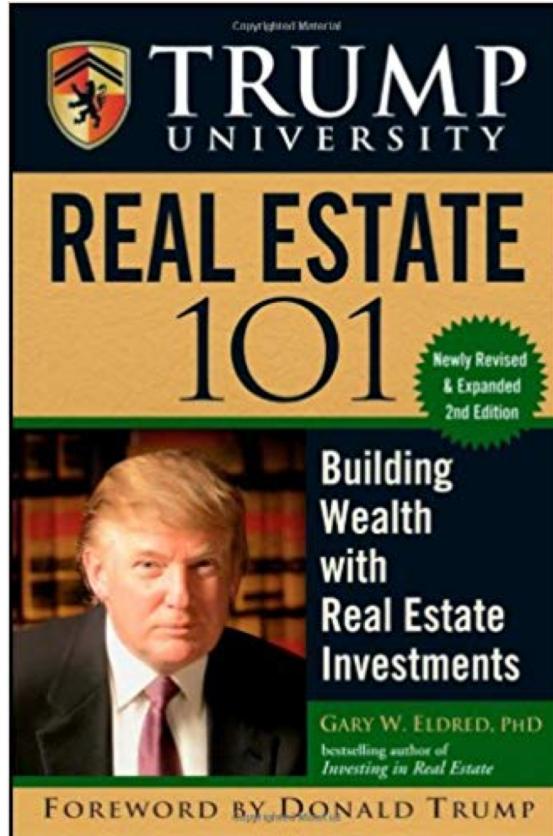
# For those with a small family, go for single family detached houses.

*The odds to sell off at exorbitant prices are apparent.*



# Recommendations





# How to Maximize Sale Price

## New Owners

### Year Built

Get a newly built house

### Living Area

Maximise property space (living, basement, garage areas and the number of rooms)

### Neighborhood and House/Bldg Type

Reside in Stone Brook or Northridge Heights if possible

## Existing Owners

### Housing Condition

Perform maintenance works just enough to meet the average condition

### Housing Quality

Perform renovation / upgrading works to improve the material/finishing of your house

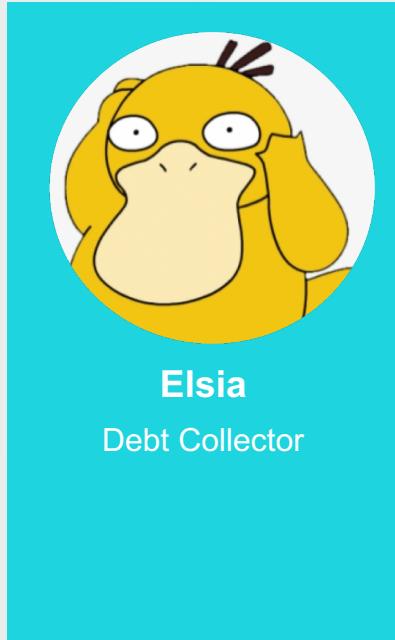
# Contact Ames Realtor Today!

(special offer to our birthday girl Serene!)



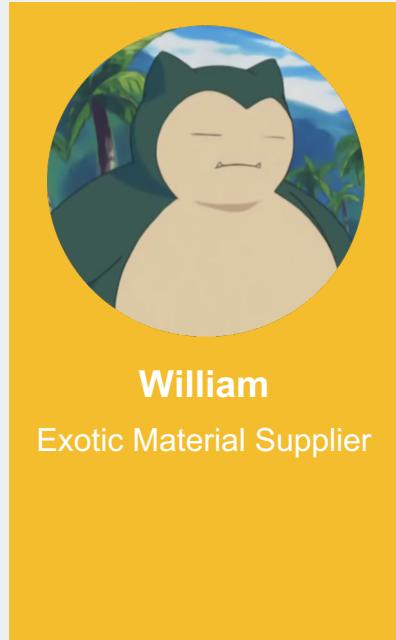
**Chun Wai**

Real Estate Agent



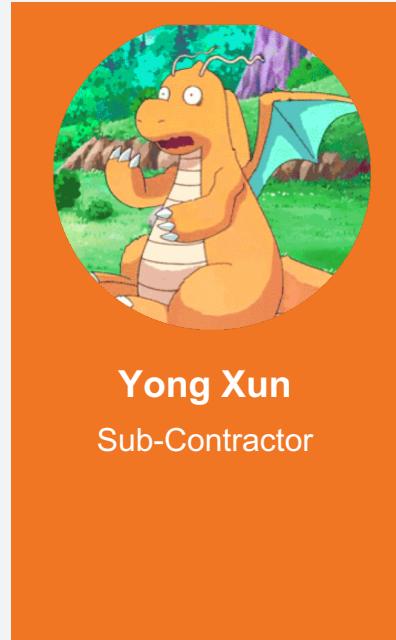
**Elsia**

Debt Collector



**William**

Exotic Material Supplier



**Yong Xun**

Sub-Contractor





Thank you!