SalePrice: Sale price of the house in dollars

TotRmsAbvGrd: Total rooms above grade (does not include bathrooms)

OverallCond: Rates the overall condition of the house

- 10 Very Excellent
- 9 Excellent
- 8 Very Good
- 7 Good
- 6 Above Average
- 5 Average
- 4 Below Average
- 3 Fair
- 2 Poor
- 1 Very Poor

YrSold: Year Sold (YYYY)

YearBuilt: Original construction date

LandSlope: Slope of property

Gt1 Gentle slope
Mod Moderate Slope
Sev Severe Slope

Loading the data

Check the number of rows and columns of data frame

Sales Price

Check the mean, median, and standard deviation for the Sales Price:

Interpret the above information:

Looks like a log normal distribution. Most houses in this sample are clustered around the median value of \$163,000, but the higher-end homes are pulling the mean up to over \$180,000.

Total Rooms Above Grade

Check the mean, median, and standard deviation for the total rooms above grade:

Interpret the above information:

Overall Condition

below_average_condition: home sales where the overall condition was less than 5 average_condition: home sales where the overall condition was exactly 5 above_average_condition: home sales where the overall condition was greater than 5:

Interpret the above information:

First, we note again that the majority of the houses have average condition, then about 1/3 have above average condition, then less than 10% have below average condition. As we might expect, the average condition therefore contains houses across a broader spectrum of the sale price range than either the below-average or above-average houses.

Another unsurprising finding is that below-average condition houses have a price distribution that is much lower than average or above-average condition houses.

But what might be surprising is that above-average condition houses do not seem to have higher average sale prices than average condition houses. In fact, above-average condition houses seem more clustered around a particular price range, especially the \$100,000 to \$200,000 range, whereas average condition houses are more frequent above \$200,000. We might want to investigate further to understand what kinds of houses are rated as above-average condition, since this goes against a standard assumption that better condition would mean higher cost.