EDA Graphs

These are the notes for the exploratory data analysis.

Please note the code chunks are what should be included to paste the image in an rmd file.

```
![]('images/Imputed_Numeric_Histogram.png')
```

This is graph shows the distribution of the numeric variables.

Normalcy of the features is not a requirement for OLS so we are not too worried about skewed features *per se*. Some variables that look problematic are the ones with very little variance because the offer little to the model.

```
![]('images/Imputed_Factor_Histogram.png')
```

The main issue here is that many of the variables are lopsided. This means there is little variance for our model to learn from.

```
![]('images/Scatter_Numeric_Imputed.png')
```

The scatter of the numeric variables against SalePrice shows relationships between many of the variables. These are especially strong in GrLivArea and OverallQual but are apparent in may others as well.

Notice that many of these relationships look non-linear.

```
![]('images/Imputed_Categorical_Scatter.png')
```

There are fewer trends here, but some dummy variables may be useful.

```
![]('images/Scatter_Numeric_Transformed.png')
```

Transforming the response variable makes the relationships much linear as well as making trends more obvious.

There is not a tone to say about the correlation heat matrix except that there is little worry about multi co-linearity.