

$R^2$

The model has  $R^2 \approx 0.5$ . This means that our model explains about 50% of the variation by using *sqft\_living* as independent variable.

## ANOVA

Is our model with many explanatory variable better than the model with zero explanatory variables?

Our model has  $F - statistic = 1.737 \times 10^4$  and  $Prob > F$  is 0.000.

**The Null Hypothesis: The slope= 0**

**The Alternative Hypothesis: The slope $\neq$  0**

Our p-value for this model is  $p = 0.000 < 0.05 = \alpha$ . Thus, we have enough evidence to reject the Null Hypothesis at 5% level of significance and we conclude that the Test tells us, that at least one of the coefficients is not 0. Since our p-value is 0, there is a 0% probability that the improvements that we are seeing with our independent variables model are due to random chance alone.