## LRM - Question 10

- Two Metrics for detecting multicollinearity: Variance Inflation Factor and Tolerance.
- One is the reciprocal of the other

$$VIF = \frac{1}{\text{tolerance}}$$

- Large Values of VIF indicated Multicollinearity
- Small Values of Tolerance indicate Multicollinearity
- If the variance inflation factor of a predictor variable were 5.27 ($\sqrt{5.27} = 2.3$) this means that the standard error for the coefficient of that predictor variable is 2.3 times as large as it would be if that predictor variable were uncorrelated with the other predictor variables.

## LRM - Question 11

- Multicollinearity: Inflates the standard errors of the regression estimates.(i.e. very wide confidence intervals, and strange inaccurate p-values)
- Multicollinearity : Reduces predictive power of the model.
- Multicollinearity is indicative of overfitting.