What is Multicollinearity

- Multicollinearity is the situation when a high correlation is detected between two or more predictor variables.
- Such high correlations cause problems when trying to draw inferences about the relative contribution of each predictor variable to the success of the model

Consequences of High Multicollinearity:

Multicollinearity leads to decreased reliability and predictive power of statistical models, and hence, very often, confusing and misleading results.

- Increased standard error of estimates of the regression coefficients (i.e. decreased reliability of fitted model).
- This issue is not a serious one with respect to the usefulness of the overall model, but it does affect any attempt to interpret the meaning of the partial regression coefficients in the model.
- Multicollinearity can cause strange results when attempting to study how well individual independent variables contribute to an understanding of the dependent variable.
  In general, multicollinearity can cause wide confidence intervals and strange pvalues for independent variables, leading to confusing and misleading results.