We would like x-variables to be related to the response, but not to be rela
When our x-variables are correlated with one another, this is known as **multicc**
Multicollinearity has two potential negative impacts. As you saw in the previous

1. The expected relationships between your x-variables and the response m multicollinearity is present. That is, you may expect a positive relationship explanatory variables and the response (based on the bivariate relationsh multiple linear regression case, it turns out the relationship is negative.

2. Our hypothesis testing results may not be reliable. It turns out that having explanatory variables means that our coefficient estimates are less stable deviations (often called standard errors) associated with your regression c large. Therefore, a particular variable might be useful for predicting the re of the relationship it has with other x-variables, you will no longer see this

We have also looked at two different ways of identifying multicollinearity:

1. Looking at the correlation of each explanatory variable with each other ex (with a plot or the correlation coefficient).
2. Looking at VIFs for each variable.

When VIFs are greater than 10, this suggests that multicollinearity is certainly a model. Some experts even suggest that VIFs of greater than 5 can be problema

just one VIF is high, but rather many VIFs are high, as these are measures of ho with one another.

The most common way of working with correlated explanatory variables in a m regression model is simply to remove one of the variables that is most related t Choosing an explanatory variable that you aren't interested in, or isn't as impor common choice.