Multiple Regression, Part 1

As we already saw, we can do linear regression on many variables. The Boston housing dataset is really famous and is often used for this purpose. You can download it online or - better - load it using scikit-learn (look up how). Note: This dataset is cleaned and prepared for modelling. If you want to download the original one and prepare it yourself, you're in for quite a challenge :). Now, Perform linear regression on all features. What is the coefficient related to the number of rooms? Round your answer to two decimal places.



Multiple Regression, Part 2

What is the price of a hypothetical house with all variables set to zero? Round your answer to two decimal places.



Multiple Regression, Part 3

It's good to have a model of the data but it means nothing if we have no way of testing it. A way to test regression algorithms involves the so-called "coefficient of determination" (R^2). Research how to compute it and apply it to the regression model you just created. What is the coefficient of determination for this model? Round your answer to two decimal places. (Note: Compute the coefficient of determination using all the data. Technically, this is not correct but at least gives a good idea of how this model performs. If you're more interested, look up "training and testing set".)

