

LAB: Relationships with Python (4)

This exercise should be completed using Python Jupyter Notebooks.

1. Find the data set titled "Tasting experiment that compared four apple varieties" at <https://vincentarelbundock.github.io/Rdatasets/datasets.html>. To find the set, you can search for the word `appletaste` on the page as that is the short name of the set. Open the documentation for the data set (the doc link to the right) and familiarise yourself with the set.
2. Import the set, without downloading it, into a Pandas data frame and print out the first 10 rows of the data frame. You can avoid downloading by passing the string with the data set's URL directly into the reading function.
3. Plot a bar chart that shows the average aftertaste score for each variety of apple and save the barchart to a `png` file.
4. Plot a histogram of the aftertaste scores.
5. If we assume that the alphabetic order of panelist codes (a, b, c etc.) is based on the order in which they were registered, perform a suitable test to see if statistically there is a relationship between the order of registration and average aftertaste score given by the panelists. Interpret the results.
6. Perform the one-way ANOVA test to see if there is a relationship between the type of apple (product attribute) and the aftertaste scores awarded by the panelists. Interpret the results.