LAB: Relationships with Python (3)

This exercise should be completed using Python Jupyter Notebooks.

1. Import the "British Election Panel Study" data set from https://vincentarelbundock.github.io/Rdatasets/datasets.html into a Pandas data frame and print out the first 10 rows of the data frame. Note that you can pass in a string with the URL directly into the reading function, rather than downloading onto your computer. You can open the documentation for the data set here: https://vincentarelbundock.github.io/Rdatasets/doc/carData/BEPS.html.

2. From the whole data set data frame create a smaller data frame that contains only the attributes `vote` and `age` and only the rows representing women.

3. Display a barchart of the average Eurosceptic-indicator score by party voted for (attribute `vote`).

4. Suitably prepare the data and perform a test to see if there is a relationship between which party people vote for and their gender. Interpret the results.

5. Perform the one-way ANOVA test (as covered in the labs) to see if there is a relationship between the party that people vote for and their age. Interpret the results.

6. Plot a barchart of average age by party. Interpret the results.