Neuroscience Data Analysis with Python Workshop – MiniProject #1

Due till 21/12/25

For this task you will use the dataset titled "laptop-price – dataset.csv".

Import the libraries mentioned above and import the dataset from your filesystem into the code.

Please write code to complete the following tasks with this dataset:

- Plot the price of all the laptops
- Which company has on average the most expensive laptop? What is the average laptop price for each company?
- Find the different types of Operating systems present in the data - under the column name "OpSys".
    - Please note - there are operating systems that are the same systems and just written differently in the column - please fix them to be uniform.
- Plot for each of the operating system types the distribution of the prices, so that the number of plots equals to the number of unique operating systems.
- What is the relationship between RAM and computer price? add an adequate plot to support your findings. <<< check data for outliers, what would be considered as an outlier? How will you detect it ? >>>
- Create a new column for the dataframe called "Storage type" that extracts the storage type from the column "Memory".
    - For example, in the first row in the column "Memory" it states "128GB SSD", the new column will have just "SSD" in its first row.

Submission: your submission will include one jupyter notebook file for the code (including comments in the code), and the URL to your github page (where we will find your uploaded project).

Please use the git commands that you were taught while completing this project and upload this project to your github account.

When submitting the assignment, please include the code file as well as the URL to your git account to show us you understand navigating projects using git.

All plots must be plotted with axes titles and units as well as plot titles.

Grading criteria:

Correctness: 60%

Structure and readability: 15%

Explanation and documentation: 15%

Adherence to guidelines and submission requirements: 10%

Innovation and creativity (bonus): 5pts