# **Lab 8: Summarizing the Dataframe**

## **Lab Instructions**

Show your Python code, supporting screenshots, and results:

Let us observe some data produced by several groups in an Experimental Evolutionary Ecology class. This dataset includes the fitness of a flocculated strain of Escherichia coli relative to a non-flocculated strain when grown alone in either spatially structured (dish) or spatially unstructured (tube) environments.

1. Read in the dataset Treatment.csv.
2. Group the dataset by Treatment.
3. We are interested in the Relative Fitness value. Let us explore the information about the distribution of Relative Fitness values within the groups. Use the describe () method to do so. What did you uncover?
4. Often, the data could be grouped by more than one category. Observe the Relative Fitness values per Treatment and per Group to see if each group saw similar differences between treatments. Collect similar statistics for this two-level grouping. What did you uncover?
5. Apply the following functions to the subsets: mean, max, median, sum, standard deviation.
6. Share additional findings from the dataset.