Introduction

You've learned to use NumPy and Pandas to read and manipulate your data from a statistical and mathematical standpoint. Now, you'll visualize your data in the form of graphs/charts, to get insights that the statistics alone may not completely convey.

The current and the next lesson will help you learn to draw a variety of informative statistical visualizations using the Matplotlib and Seaborn packages.

Lesson Overview

The current lesson will focus on introducing univariate visualizations: bar charts, and histograms. By the end of this lesson, you will be able to:

1. Create bar charts for qualitative variables, for example, the amount (number) of eggs consumed in a meal (categories: {breakfast, lunch, or dinner}). In general, bar chart maps categories to numbers.

2. Create Pie charts. A pie chart is a common univariate plot type that is used to depict *relative* frequencies for levels of a categorical variable. A pie chart is preferably used when the number of categories is less, and you'd like to see the *proportion* of each category.

3. Create histograms for quantitative variables. A histogram splits the (tabular) data into evenly sized intervals and displays the count of rows in each interval with bars. A histogram is similar to a bar chart, except that the "category" here is a range of values.

4. Analyze the bar charts and histograms.

Once you have the foundational knowledge of Matplotlib and Seaborn, we will move on to the next lesson (part-2), where you'll learn advanced visualizations such as heat map, scatter plot, violin plots, box plots, clustered bar charts, and many others.