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Python Library: Matplotlib

Project Assignment #2: Write-Up Part 3

4/8/20

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Background and Central Purpose:

A popular python library known as Matplotlib is helpful in visualizing data. Amongst many additional functions, Matplotlib is a Python library which primarily serves in the domains of data analysis, statistical analysis, and statistical organization. The ability to effectively plot and interpret data in an understandable medium highlights the central purpose of the Python library. It allows a programmer to efficiently interpret information in meaningful ways.

Practical Applications:

The realm of possibility of applications of the Matplotlib library depend on the data it is trying to represent. During my research, I found many applications of Matplotlib in the realm of statistical analysis. For example, you could use this library to take the seven day weather forecast and make a line graph to see how the weather fluctuates over the course of a week.

Other interesting ways of using Matplotlib would be to write Python code to graph the changes in stock prices for different companies to see how each company is performing relative to one another. This could allow investors to make important decisions with their investments, and the ability to identify trends to predict where the market will potentially go.

Overview of Functions & Further References:

The amount of functions Matplotlib contains are extensive. You can create and visualize a line graph by using the `.plot()`, `.xlabel()` and `ylabel()`. More advanced operations can be performed, such as adding in additional axes with the `.add_axes([])` function. You can make scatter plots with the `.scatter()` function, add a colorbar with the `.colorbar()` function, and

customize labels and tick marks. For further reference, please visit the official documentation page for Matplotlib at <https://matplotlib.org/>.