TASK

Your task for this discussion is to read [Chapter 4: Visualization With MatplotlibLinks to an external site.](https://jakevdp.github.io/PythonDataScienceHandbook/04.00-introduction-to-matplotlib.html). You are only required to read pages 217-222 and 230-232, pages 222-230 provide a good plotting example but are not required! This can be found in the link provided or the [pdf version of the textbook](https://elearning.mines.edu/courses/52392/files/5459013/download?wrap=1)[Download pdf version of the textbook](https://elearning.mines.edu/courses/52392/files/5459013/download?download_frd=1)for the class that we have provided. You will then post a discussion and a reply below!

DISCUSSION REQUIREMENTS

Once you have completed this weeks reading, you are asked to complete the following tasks:

1. Post a 1-2 sentence response from the reading for 2 of the three below prompts:

a. How do I save the plot "my\_graph.png" and what might be the use of saving a plot once it has been created?

b. Why is it important to use titles on your graphs? How do I add a title to "my\_graph"?

c. Freeform! For a response to this question, you must post anything such as clarification questions, something that piqued your interest, or maybe a personal experience you have with the topics discussed in the reading.

# **Instructional Videos & Materials: Python Visualization**

## WATCH

Watch this week's video, download the working files so you can follow along and experiment with the platform we'll be using for the course.

WORKING FILES

You will need the following files to get set up for this week. They include the following:

* Jupyterhub notebook (download to the personal device then upload to your Jupyterhub).
  + [Python Visualization Jupyter Notebook](https://elearning.mines.edu/courses/52392/files/5459158/download?wrap=1)[Download Python Visualization Jupyter Notebook](https://elearning.mines.edu/courses/52392/files/5459158/download?download_frd=1)
* PDF file that contains the same information as the Jupyterhub notebook, in case your Juypterhub is not yet working.
  + [Python Visualization PDF](https://elearning.mines.edu/courses/52392/pages/$CANVAS_COURSE_REFERENCE$/file_ref/gfb05e184db6bc46bef9fd547a44a5ad1/download?wrap=1)
* [This reference sheet](https://elearning.mines.edu/courses/52392/files/5459100/download?wrap=1)[Download This reference sheet](https://elearning.mines.edu/courses/52392/files/5459100/download?download_frd=1)helps you find the right plot to use when graphing different data.

ADDITIONAL RESOURCES

The links below are supplementary resources to help you review or strengthen the topics we have discussed:

* [How to Use MatplotlibLinks to an external site.](https://matplotlib.org/stable/tutorials/introductory/pyplot.html)
* [Matplotlib ExamplesLinks to an external site.](https://matplotlib.org/stable/gallery/index.html)
* [In Depth Guide to MatplotlibLinks to an external site.](https://realpython.com/python-matplotlib-guide/)
* [How to Choose a Chart TypeLinks to an external site.](https://infogram.com/page/choose-the-right-chart-data-visualization)