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| Name Of The Student | Himanshu |
| Internship Project Topic | TCS iON RIO-210: Build a Classification Model for Drug Trials Dataset |
| Name of the Organization | TCS iON |
| Name of the Industry Mentor | Himdweep Walia |
| Name of the Institute | Amity University |

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| Date | Day # | Hours Spent |
| 25-05-2024 | Day-32 | 5 Hours |
| Activities done during the day:  Learn about the visualization libraries Matplotlib and how to plot the figures.  **Matplotlib:**  Matplotlib is easy to use and an amazing visualizing library in Python. It is built on NumPy arrays and designed to work with the broader SciPy stack and consists of several plots like line, bar, scatter, histogram, etc.  Python plotting with Matplotlib from basics to advance with the help of a huge dataset containing information about different types of plots and their customizations.  Matplotlib take care of the creation of inbuilt defaults like Figure and Axes. Don’t worry about these terms we will study them in detail in the below section but let’s take a brief about these terms.   * **Figure:** This class is the top-level container for all the plots means it is the overall window or page on which everything is drawn. A figure object can be considered as a box-like container that can hold one or more axes. * **Axes:** This class is the most basic and flexible component for creating sub-plots. You might confuse axes as the plural of axis but it is an individual plot or graph. A given figure may contain many axes but given axes can only be in one figure.   The following pip command in the command prompt **to install Matplotlib.**   |  | | --- | | pip install matplotlib |   To verify that matplotlib is successfully installed on your system, execute the following command in the command prompt.   |  | | --- | | import matplotlib  matplotlib.\_\_version\_\_ |   If matplotlib is successfully installed, the version of matplotlib will be displayed.  **Steps**   * Import matplotlib. * Set the figure size and adjust the padding between and around the subplots. * Create random data points, x. * Plot x using plot() method. * To display the figure, use show() method.   **Example:**   |  | | --- | | from matplotlib import pyplot as plt  import numpy as np  plt.rcParams["figure.figsize"] = [7.50, 3.50]  plt.rcParams["figure.autolayout"] = True  x = np.random.rand(20)  plt.plot(x, '\*-', color='red', markersize=10)  plt.show() |   **Output:**  IMG_256  Reference:  <https://matplotlib.org/2.0.2/users/pyplot_tutorial.html/> | | |
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