

PYPLOT

VIVA QUESTIONS

1. What is a data visualization?

Data visualization is the graphical representation of information and data ie it presents quantitative information in a graphical form.

2. What is the importance of data visualization?

- a. To make data easier to understand, process and remember
- b. To discover unknown facts, outliers, and trends
- c. To visualize relationships and patterns quickly
- d. To make better and meaningful decisions

3. Which library in Python is used for Data Visualization?

Matplotlib

4. What are the basic steps of plotting a graph?

- a. Import matplotlib.pyplot
- b. Choose the appropriate plot type like line, bar, pie etc.
- c. Create a list/array of values according to the type of plot chosen
- d. Use the built-in functions to set various parameters and to view the plot

5. What is a line plot?

- a. Line plot is the most common, simplest, and classic type of plot.
- b. It shows a change in one or more variables over time.
- c. The plot() method is used to plot the line plot.
- d. It is often used to visualize a trend in data over intervals of time.

6. What is a bar plot?

- a. Bar plot presents categorical data in the form of bars with heights or lengths proportional to the values that they represent.
- b. One axis of the chart shows the specific categories being compared, and the other axis represents a measured value.
- c. The bars can be plotted horizontally or vertically.
- d. Bar_plots can be either single, stacked, or grouped.

7. What is a histogram plot?

- a. Histogram is a graphical representation of the distribution of numerical data.

- b. It takes one numerical variable as input. The variable is cut into several bins. The bins are usually specified as consecutive, non-overlapping intervals of a variable.
- c. The number of observations per bin is represented by the height of the bar.

8. What is the difference between Histogram and Bar graph?

HISTOGRAM	BAR GRAPH
Graphical representation, that uses bars to show the frequency of numerical data.	Pictorial representation of data that uses bars to compare different categories of data.
Indicates distribution of continuous variables	Indicates comparison of discrete variables
Presents quantitative data	Presents categorical data
Bars touch each other	Bars do not touch each other
Elements are grouped together, so that they are considered as ranges.	Elements are taken as individual entities.
Bars need not to be same width	All bars are of same width