

Matplotlib Assessment

1. Plot a simple line graph using the values: $x = [1, 2, 3, 4]$, $y = [10, 20, 25, 30]$
2. Add a title and axis labels to the line graph in Question 1.
3. Plot a red dotted line for: $x = [0, 1, 2, 3]$, $y = [3, 6, 1, 8]$
4. Plot two lines in the same graph: $x = [1, 2, 3, 4]$, $y1 = [10, 20, 25, 30]$, $y2 = [5, 15, 20, 25]$
5. Add a legend to the above plot to differentiate the two lines.
6. Plot a bar chart for: Fruits = ['Apple', 'Banana', 'Mango'], Quantity = [10, 20, 15]
7. Plot a horizontal bar chart for the same fruit and quantity data.
8. Create a pie chart with percentage labels: Subjects = ['Math', 'Science', 'English'], Values = [30, 40, 30]
9. Create a scatter plot: $x = [5, 7, 8, 7]$, $y = [8, 5, 6, 3]$
10. Create a histogram for the data: marks = [60, 70, 80, 75, 70, 90, 85, 80]
11. Create a subplot with two plots: one line plot and one bar chart.
12. Change the figure size to 8x5 while plotting a simple graph.
13. Plot a graph with customized line style, marker, and color.
14. Save a plot as a PNG file using `plt.savefig()`
15. Add grid lines to any plot you create.
16. Plot a line graph and annotate the highest point on it.
17. Create a bar chart and add value labels on top of each bar.
18. Create a plot with x-axis rotated 45 degrees using tick labels: Months = ['Jan', 'Feb', 'Mar', 'Apr'], Sales = [250, 300, 150, 400]
19. Draw three subplots in a single row, each with a different plot (line, bar, pie).
20. Use different colors for each bar in a bar chart using the color parameter.