Matplotlib & Seaborn question

◇ BASIC LEVEL (1–15)

- Load the dataset and display the first 10 rows.
- Check for null values in each column.
- Display basic statistics (mean, median, min, max) for numerical columns.
- Plot a **line chart** of Temperature over Date .
- Create a **bar chart** showing counts of the City.
- Draw a **histogram** of Sales .
- Plot a **pie chart** of Weather distribution.
- Create a **scatter plot** between Temperature and Humidity .
- Plot Profit over Date using a line chart.
- Display top 5 City by total Sales using a bar chart.
- Count the number of occurrences of each Weather type.
- Show a **density plot** of Profit .
- Plot Temperature vs Sales using a scatter plot.
- Draw a histogram for Humidity with 20 bins.

INTERMEDIATE LEVEL (16–35)

- Handle missing values by imputing with mean for Temperature .
- Create a **box plot** of Profit grouped by City .
- Draw a **violin plot** of Sales by Weather .
- Create a **heatmap** of correlation among numerical columns.
- Create subplots for Temperature , Humidity , and Profit over Date .
- Group data by City and plot mean Profit in a bar chart.
- Draw a box plot of Temperature with horizontal orientation.
- Use hue to show Weather categories in scatter plots.
- Plot Sales distribution by City using KDE plots.
- Plot Profit vs Sales with regression line using Seaborn's regplot .

◇ ADVANCED LEVEL (36–50)

- Create a **grouped bar chart** comparing Profit by City and Weather .
- Use pairplot to visualize relationships among numerical columns.
- Plot Sales vs Profit with marginal histograms using jointplot .
- Handle missing values using forward fill and backward fill.
- Plot Temperature by City using swarmplot .
- Create a heatmap showing missing values in the dataset.
- Combine multiple Seaborn plots into a single figure using subplots.
- Save all plots in high resolution (300 dpi) in PNG and PDF formats.
