19-11-2024 **Training Day – 45**

November 19, Tuesday

- *Topic:* Advanced Visualizations

- Created multi-line plots to compare trends.
- Example: Compared monthly sales for different products.

Advanced visualizations go beyond simple charts to provide deeper insights into complex datasets. These visualizations can help reveal patterns, trends, and relationships that are not immediately apparent with basic plots. Below are some advanced techniques and types of visualizations that are commonly used in data analysis and data science.

1. Heatmaps

- Use: To represent data in a matrix format, where individual values are displayed with color gradients. It's often used to visualize correlation matrices, missing data, or any other form of numerical relationships.
- **Why:** It quickly shows the relationships and magnitude of values across a two-dimensional space.
- **Tools:** Seaborn, Matplotlib, Plotly.
- Example: Correlation Matrix Heatmap



