

## Day 10 – 4 July 2024

### Training Day 10 Report

**Date:** 4 July 2024

**Topic:** Introduction to Data Visualization and Matplotlib

#### Summary:

On Day 10, we started learning **data visualization**, which is essential for understanding datasets and communicating insights effectively. The trainer explained why visualizing data is important before modeling, as it helps identify trends, patterns, and anomalies.

We learned about **Matplotlib**, a Python library for creating various types of plots. We practiced creating **line plots**, **bar charts**, and **scatter plots**, and learned to add **titles**, **axis labels**, and **legends** to make the graphs informative. The session emphasized using visualization to understand relationships between variables, distributions, and trends.

Additionally, we explored **customizing plots** with colors, markers, and line styles to improve readability. Small exercises included plotting sales data over months, student scores, and comparing category distributions.

#### Key Learnings:

- Learned the importance of data visualization.
- Created line, bar, and scatter plots using Matplotlib.
- Added titles, labels, and legends for clarity.
- Customized plots using colors and markers.
- Practiced interpreting data visually for insights.

#### Conclusion:

Day 10 taught me how to visualize data effectively. I realized that visualization is a critical step in understanding datasets and preparing for Machine Learning modeling.