



Task 3 – Basic Data Visualization



Objective:

To create basic yet meaningful visualizations to understand the distribution of individual features and the relationships between them using the cleaned Iris dataset.



Dataset Used:

- **Name:** `cleaned_iris.csv`
- **Description:** Preprocessed version of the Iris dataset with no missing or duplicate data.



Steps Performed:

1. **Bar Plot – Species Count:**
 - Used `seaborn.countplot()` to show how many instances of each species exist.
 - Helps in understanding class distribution.
2. **Line Chart – Average Sepal Length per Species:**
 - Grouped data by species and calculated the mean of `sepal_length`.
 - Plotted using `matplotlib` to visualize comparison across species.
3. **Scatter Plot – Sepal Width vs Petal Width:**
 - Plotted to understand the relationship between these two features.
 - Colored (`hue`) by species to observe clustering behavior.



Tools & Libraries Used:

- **Language:** Python
- **Libraries:** `matplotlib`, `seaborn`, `pandas`