🌸 Intern Assignment Sheet: Iris Dataset Analysis

🎯 Objective:  
Apply data analysis techniques using pandas, NumPy, and Seaborn/Matplotlib to explore and analyze the classic Iris dataset.

# 📁 Dataset

Use the Iris dataset

# ✅ Task List

## 🟢 Part A – Basic Exploration

* Load the dataset and display the first 10 rows.
* Print the number of rows and columns (shape).
* Display column names and data types.
* Use .describe() to summarize numeric features.

## 🟡 Part B – Filtering & Sorting

* Filter rows where sepal\_length > 5.
* Select only petal\_length and species columns.
* Get all rows where species is versicolor.
* Sort the data by sepal\_width in descending order.

## 🟠 Part C – Grouping & Aggregation

* Group the dataset by species and compute:  
   - Mean  
   - Max  
   - Count
* Which species has the highest average petal\_length?

## 🔵 Part D – Visualization

* Plot a histogram of sepal\_length.
* Create a boxplot of petal\_width by species.
* Draw a scatter plot of sepal\_length vs petal\_length, color by species.
* Use seaborn.pairplot() to visualize all numerical relationships.

# 📦 Deliverables

Submit a Jupyter Notebook (.ipynb) or Python Script (.py) with:  
- Code  
- Outputs (plots, tables)  
- Short conclusions/comments for major findings  
File name: iris\_analysis\_<yourname>.ipynb