**Day 10: Data Visualization Basics (Using Matplotlib & Seaborn)**

* Introduction to matplotlib.pyplot
* Line Plot, Bar Chart, Histogram
* Introduction to seaborn
* Styling and labeling plots
* Saving plots as image files

**🔸 1. Import required libraries**

import pandas as pd

import matplotlib.pyplot as plt

import seaborn as sns

**🔸 2. Load the sample CSV**

df = pd.read\_csv("sample\_day9.csv")

print(df.head())

**🔸 3. Line Plot — Plot Age vs Salary**

plt.plot(df["Age"], df["Salary"], marker='o')

plt.title("Age vs Salary")

plt.xlabel("Age")

plt.ylabel("Salary")

plt.grid(True)

plt.show()

**🔸 4. Bar Chart — Count of people per age**

df["Age"].value\_counts().sort\_index().plot(kind='bar')

plt.title("Count of People by Age")

plt.xlabel("Age")

plt.ylabel("Count")

plt.show()

**🔸 5. Histogram — Distribution of Salaries**

plt.hist(df["Salary"].dropna(), bins=5, color='skyblue', edgecolor='black')

plt.title("Salary Distribution")

plt.xlabel("Salary")

plt.ylabel("Frequency")

plt.show()

**🔸 6. Seaborn Example — Age vs Salary**

sns.scatterplot(data=df, x="Age", y="Salary", hue="Name")

plt.title("Seaborn: Age vs Salary")

plt.show()

**🔸 7. Save your plot to file**

plt.plot(df["Age"], df["Salary"], marker='o')

plt.title("Age vs Salary")

plt.savefig("age\_salary\_plot.png")

**📝 Mini Task**

* Load the provided CSV.
* Plot one line chart and one histogram.
* Try styling them with titles, labels, and different colors.
* Save one of your plots to a PNG file.