Training Day – 29

* \*Topic:\* Pandas Data Manipulation
* Performed filtering, sorting, and adding new columns.
* Example: Filtered rows where column values exceeded a threshold.

# Import necessary libraries import pandas as pd

# Create a sample dataset data = {

'Name': ['Alice', 'Bob', 'Charlie', 'David', 'Eve'],

'Age': [25, 32, 18, 45, 22],

'Salary': [50000, 60000, 32000, 78000, 45000],

'Department': ['HR', 'IT', 'Finance', 'Marketing', 'HR']

}

# Convert to a DataFrame df = pd.DataFrame(data)

# Display the original dataset print("Original Dataset:") display(df)

# 1. Filtering rows where Salary > 45000 filtered\_df = df[df['Salary'] > 45000] print("\nFiltered Dataset (Salary > 45000):") display(filtered\_df)

# 2. Sorting by Age (ascending) sorted\_df = df.sort\_values(by='Age') print("\nDataset Sorted by Age:") display(sorted\_df)

# 3. Adding a new column 'Seniority'

# Seniority is 'Senior' if Age > 30, otherwise 'Junior' df['Seniority'] = ['Senior' if age > 30 else 'Junior' for age in df['Age']] print("\nDataset with New Column 'Seniority':")

display(df)

# Exporting to CSV for further analysis if needed df.to\_csv('pandas\_manipulation\_example.csv', index=False)

