

Data Science 2.py ●

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```
1  import pandas as pd
2
3  # Create a DataFrame from a dictionary
4  data = {
5      'Name': ['Alice', 'Bob', 'Charlie', 'David', 'Eve'],
6      'Age': [25, 30, 35, 40, 28],
7      'City': ['New York', 'Los Angeles', 'New York', 'Chicago', 'Los Angeles']
8  }
9  df = pd.DataFrame(data)
10
11  print("Original DataFrame:")
12  print(df)
13  # Filtering
14  filtered_df = df[df['Age'] > 30]
15  print("\nFiltered (Age > 30):")
16  print(filtered_df)
17
18  # Sorting
19  sorted_df = df.sort_values(by='Age')
20  print("\nSorted by Age:")
21  print(sorted_df)
22  # Grouping
23  grouped_df = df.groupby('City').count()
24  print("\nGrouped by City:")
25  print(grouped_df)
```

```
PS C:\Users\suman\OneDrive\Desktop\sumanth_project> & C:/Users/suman/AppData/Local/Programs/Python/Python38/python.exe "c:/Users/suman/Documents/Data Science 2.py"
Original DataFrame:
   Name  Age  City
0  Alice  25  New York
1   Bob   30  Los Angeles
2 Charlie  35  New York
3  David  40  Chicago
4   Eve   28  Los Angeles

Filtered (Age > 30):
   Name  Age  City
2 Charlie  35  New York
3  David  40  Chicago

Sorted by Age:
   Name  Age  City
0  Alice  25  New York
4   Eve   28  Los Angeles
1   Bob   30  Los Angeles
2 Charlie  35  New York
3  David  40  Chicago

Grouped by City:
      Name  Age
City
Chicago      1    1
Los Angeles  2    2
New York     2    2
PS C:\Users\suman\OneDrive\Desktop\sumanth_project> 
```