**EXPERMENT 04-WORKING WITH DATASET**

**(1)WEEKLY TEMPERATURE**

import pandas as pd

df = pd.read\_csv('temperature.csv')

df = df[df['AvgTemperature'] != -99]

df['Date'] = pd.to\_datetime(df[['Year', 'Month', 'Day']], errors='coerce')

df = df.dropna(subset=['Date'])

df['Month'] = df['Date'].dt.month\_name()

grouped = df.groupby(['City', 'Month'])['AvgTemperature'].sum().reset\_index()

pivot\_table = grouped.pivot(index='City', columns='Month', values='AvgTemperature').fillna(0)

pivot\_table['Total'] = pivot\_table.sum(axis=1)

print("Month-wise Temperature Summary:")

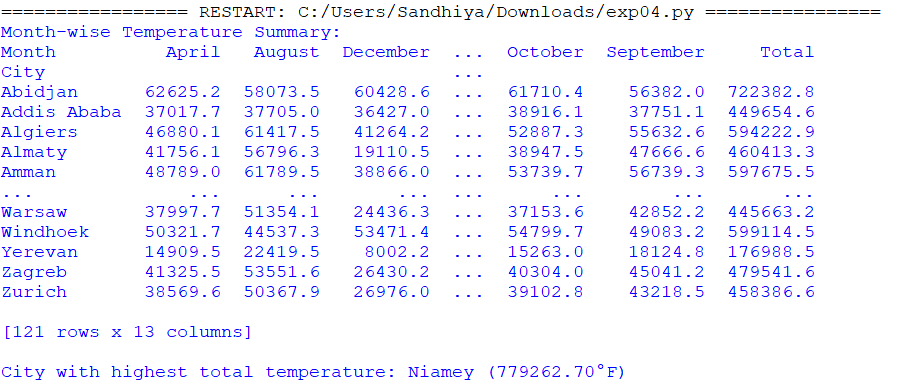
print(pivot\_table)

max\_city = pivot\_table['Total'].idxmax()

max\_temp = pivot\_table['Total'].max()

print(f"\nCity with highest total temperature: {max\_city} ({max\_temp:.2f}°F)")

**OUTPUT:**

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**(2)EMPLOYEE DATASET:**

import pandas as pd

df = pd.read\_csv("corporate\_work\_hours\_productivity.csv")

df.columns = df.columns.str.strip()

df = df.dropna(subset=['Department', 'Monthly\_Hours\_Worked'])

df['Monthly\_Hours\_Worked'] = pd.to\_numeric(df['Monthly\_Hours\_Worked'], errors='coerce')

df = df.dropna(subset=['Monthly\_Hours\_Worked'])

dept\_hours = df.groupby('Department')['Monthly\_Hours\_Worked'].sum().reset\_index()

pivot\_table = dept\_hours.pivot\_table(values='Monthly\_Hours\_Worked', index='Department')

max\_dept = pivot\_table['Monthly\_Hours\_Worked'].idxmax()

max\_hours = pivot\_table['Monthly\_Hours\_Worked'].max()

print("\n📊 Department-wise Total Monthly Working Hours Summary:\n")

print(pivot\_table)

print(f"\n🏆 Highest Total Working Hours:\n{max\_dept} → {max\_hours:.2f} hours")

**OUTPUT:**

