#importing libraries

import pandas as pd

import matplotlib.pyplot as plt

# 1)temperature\_data

temp\_data = pd.read\_csv('path\_file')

def temperature\_change(data):

plt.figure(figsize=(26, 6))

areas = data['Area'].unique()

for area in areas:

area\_data = data[data['Area'] == area]

plt.plot(area\_data['Month'], area\_data['TemperatureChange'], label=area)

plt.title('Temperature Changes Over Months by Area in 2019')

plt.xlabel('Month')

plt.ylabel('Temperature (°C)')

plt.legend()

plt.grid(True)

plt.show()

temperature\_change(temp\_data)

# 2) salary experience data

sal\_exp\_data=pd.read\_csv('path\_file')

def sal\_exp(data, x, y):

plt.figure(figsize=(9, 6))

plt.scatter(data[x], data[y], alpha=0.9)

plt.title(f'Scatter Plot - {x} vs. {y}')

plt.xlabel(x)

plt.ylabel(y)

plt.grid(True)

plt.show()

# Call the function with your actual dataset

sal\_exp(sal\_exp\_data, 'YearsExperience', 'Salary')

# 3) heart disease usi data

heart\_uci\_data=pd.read\_csv('path\_file')

def heart\_uci(data):

plt.figure(figsize=(8, 6))

plt.hist(data['age'], bins=20, edgecolor='black')

plt.title('Age Distribution in Heart Disease UCI Dataset')

plt.xlabel('Age')

plt.ylabel('Frequency')

plt.grid(True)

plt.show()

heart\_uci(heart\_uci\_data)