Centurion UNIVERSITY

School: SOET Campus: VZM

Academic Year: 2024/25 Subject Name: DAVP Subject Code: Cutm1018

Semester: 7th Program: B.TECH Branch: ECE Specialization: ECE

Date: ....

Applied and Action Learning

(Learning by Doing and Discovery)

Name of the Experiement : Build a real-time updating graph using Dash to visualization of weather condations.

Coding Phase: Pseudo Code / Flow Chart / Algorithm

→ load the dataset using 'pd.read_csv()'.

→ convert the 'formatted Date' column to datetime format using 'pd.to_datetime()'.

→ create a plot with three lines for temperature, humidity and wind speed.

→ Set the plot title, x-axis, and y-axis labels.

→ Rotate the x-axis labels for better readability

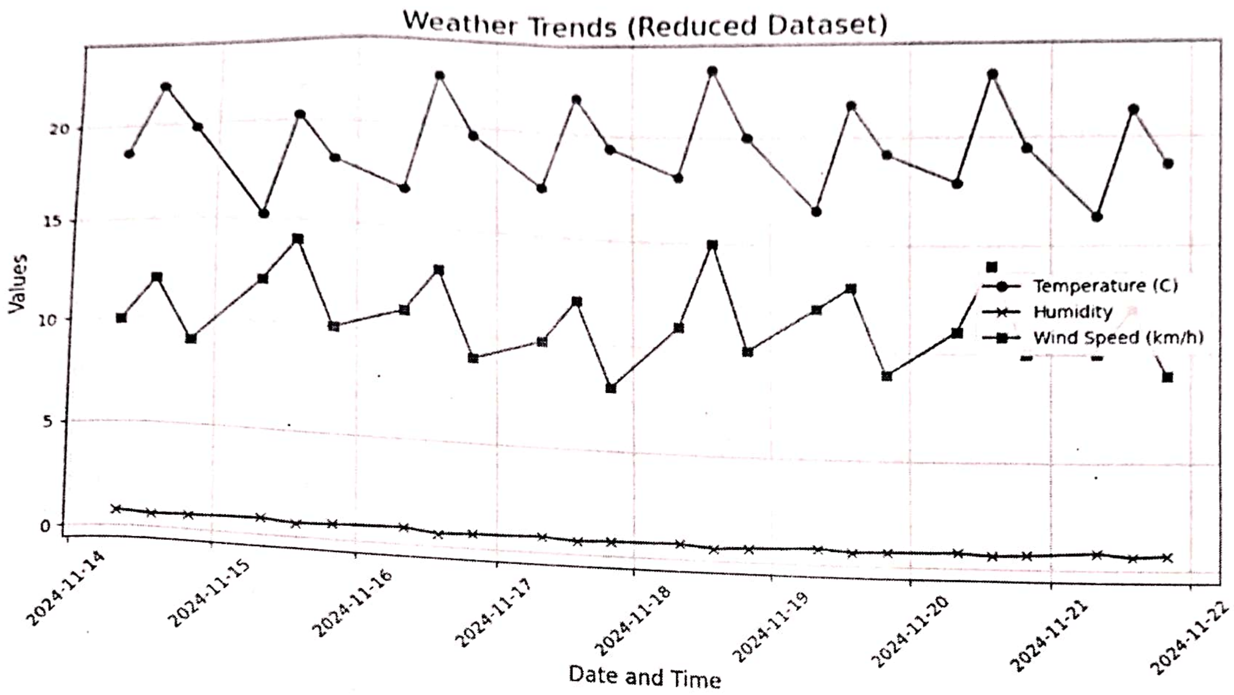
→ Display the legend and grid.

→ Adjust the layout to ensure everything fits.

→ Show the plot using 'plt_shown()'.

esting Phase: Compilation of Code (error detection)

Implementation Phase: Final Output (no error)



ASSESSMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/ Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
Total	**50**		

Signature of the Student:

Name : G. Sumanth

Regn. No. : 211801131001

Signature of the Faculty:

```
Import pandas as pd
Import matplotlib.pyplot as plt
df = pd.read_csv ('weather_data14.csv')
Print ("Dataset preview:")
Print (df)
df ['formatted Date'] = pd.to_datetime (df ['formatted
                                           Date']}
plt.figure (figsize= (10,6))
plt.plot (df ['formatted Date'], df ['Temperature (c)'],
          label = 'Temperature (c)', color = 'red', marker = 'o')
plt.plot (df ['formatted Date'], df ['Humidity', color = 'blue',
          marker = 'x')
plt.title.('weather Trends (Reduced Dataset)', fontsize=16)
plt.xlabel ('Date and Time', fontsize=12)
plt.ylabel ('values', fontsize = 12)
plt.xticks (rotation =45)
plt.legend ()
plt.grid (True)
plt.tight_layout ()
plt.show()
```