



School: SOET Campus: Vzm

Academic Year: 2021/2022 Subject Name: DAVP Subject Code: CUBM1012

Semester: 9th Program: B.TECH Branch: ECE Specialization: ECE

Date:

Applied and Action Learning

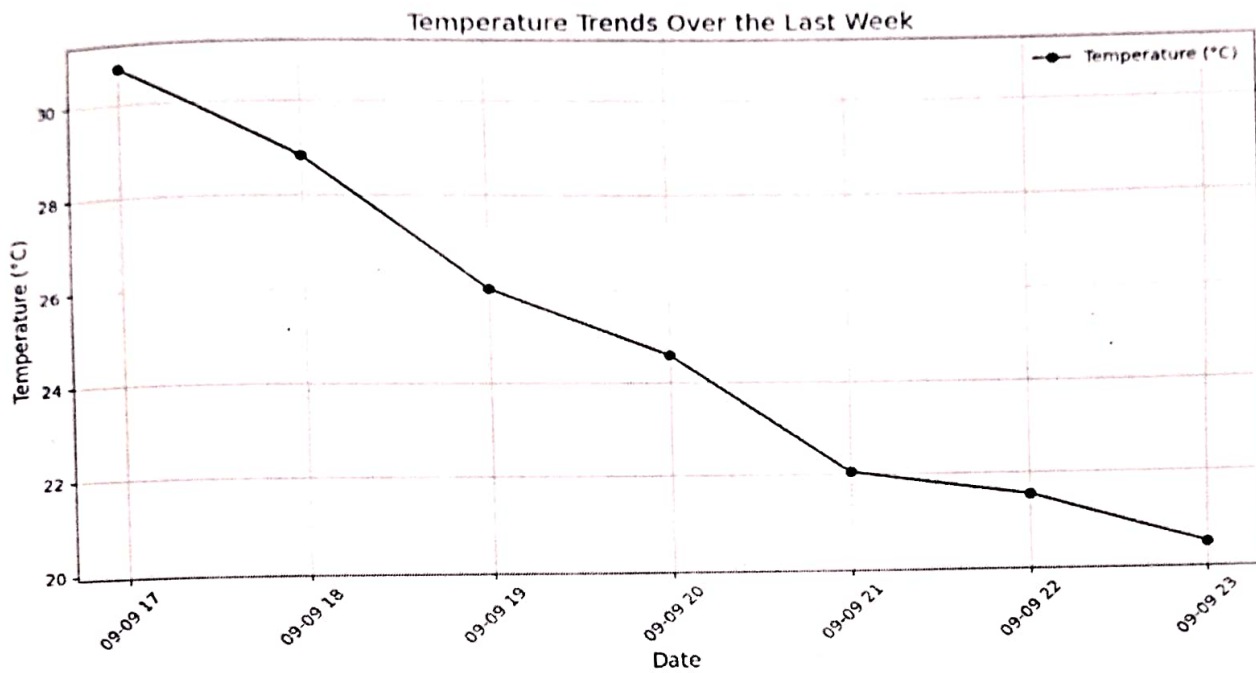
(Learning by Doing and Discovery)

ame of the Experiment : use web scraping to extract weather data from a website.
oding Phase: Pseudo Code / Flow Chart / Algorithm

- > load the dataset using 'pd-read-csv()'
- > verify that the dataset contains 'formatted Date' & 'temperature (c)' columns.
- > convert the "formatted Date" and 'Temperature': format.
- > filter the last 7 days of data using 'df.tail(7)'.
- > extract the 'formatted Date' and 'Temperature (c)' columns for plotting
- > plot the temperature trend using 'matplotlib', with dates
- > display the plot with labels, title, grid, and legend.

Testing 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		

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Signature of the Faculty:

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```
Import pandas as pd
```

```
import matplotlib.pyplot as plt
```

```
df = pd.read_csv('WeatherHistory.csv')
```

```
Print(df.head())
```

```
if 'formatted Date' not in df.columns or 'Temperature(°C)' not  
in df.columns:
```

```
    raise ValueError("Dataset must have 'formatted Date' columns")
```

```
df['formatted Date'] = pd.to_datetime(df['formatted Date'])
```

```
df_last_week = df.tail(7)
```

```
dates = df_last_week['formatted Date']
```

```
temperature_data = df_last_week
```

```
plt.figure(figsize=(10,6))
```

```
plt.plot(dates, temperature_data, marker='o', color='b', label  
         = 'Temperature(°C)')
```

```
plt.title('Temperature Trends over the last week; font size = 14)
```

```
plt.xlabel('Date', font size = 12)
```

```
plt.ylabel('Temperature (°C)', font size = 12)
```

```
plt.xticks(rotation=45)
```

```
plt.grid(True)
```

```
plt.legend()
```

```
plt.tight_layout()
```

```
plt.show()
```