Time Series Visualization

Part 2 Plot the moving average

Plot Exponential Weighted Moving Average function

| ```python
import matplotlib.pyplot as plt
import numpy as np
``` | Import Matplotlib та Numpy, the two libraries for charting and handling data, respectively |
| ```python
data = np.genfromtxt('daily-minimum-temperatures-in-me.csv', delimiter = ",", skip_header = 1)
temps = data[:,1]

mean = np.nanmean(temps)
std = np.nanstd(temps)
``` | Read the data from the file Select only the temperature data |
| ```python
mean = np.nanmean(temps)
std = np.nanstd(temps)

window_size = 50
``` | Window size describes the size of the rolling window over which to average |
| ```python
plt.plot(np.convolve(temps, np.ones(window_size,)/ window_size, 'same'))
plt.show()
``` | Compute and plot the moving average |
| ```python
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
``` | Import Matplotlib та Numpy, the two libraries for charting and handling data, respectively |

```python
data = np.genfromtxt('daily-
minimum-temperatures-in-me.csv',
delimiter = ",",

skip_header = 1)
temps = data[:,1]

span = 50
df =
pd.DataFrame({'temps':temps})
df_exp = df.ewm(span =
50).mean()
plt.plot(df_exp)
plt.show()
```

Also import Pandas, which has a built-in Exponential Weighted Moving Average function
Read the data from the file

Read the data from the file
Select only the temperature data

Span serves the same purpose as "window size" in the moving average.
Convert the np array of temperature into a dataframe
Perform the computation
Plot the result