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import requests
import matplotlib.pyplot as plt
import seaborn as sns
from datetime import datetime
# CONFIGURATION
API_KEY = '611038c4efaf6f8681dd21db9e560902' # Replace with your own OpenWeatherMap API Key
CITY = 'London'
UNITS = 'metric' # Use 'imperial' for Fahrenheit, 'standard' for Kelvin
# Build API URL
url = f"https://api.openweathermap.org/data/2.5/forecast?q={CITY}&units={UNITS}&appid={API_KEY
# Fetch data
response = requests.get(url)
# Handle possible errors
if response.status_code != 200:
    print("Error fetching data:")
    print(f"Status Code: {response.status_code}")
    print("Response:", response.text)
    exit()
# Load JSON data
data = response.json()
# Check if 'list' is in the response
if 'list' not in data:
    print("Unexpected response structure:")
   print(data)
    exit()
# --Extract noon temperature data for the next 5 days
dates = []
temps = []
for entry in data['list']:
    if "12:00:00" in entry['dt_txt']:
        \label{eq:date} \texttt{datetime.strptime(entry['dt\_txt'], "%Y-%m-%d %H:%M:%S").strftime('%a, %d')} \\
        temp = entry['main']['temp']
        dates.append(date)
        temps.append(temp)
# Plotting
sns.set(style="whitegrid")
plt.figure(figsize=(10, 6))
plt.plot(dates, temps, marker='o', label='Noon Temperature')
plt.title(f"5-Day Weather Forecast for {CITY}", fontsize=16)
plt.xlabel("Date")
plt.ylabel(f"Temperature ({''C' if UNITS == 'metric' else 'oF'})")
plt.xticks(rotation=45)
plt.tight_layout()
plt.legend()
plt.show()
```