Automated Weather Pull / Pandas Introduction

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In [12]:
```
import requests

#Create an account @ https://openweathermap.org/
# Grab the API Key from your account
API_KEY = 'd1a650f175b0d849b7cc772b25ff66a9'
BASE_URL = "http://api.openweathermap.org/data/2.5/weather"

city = input("Enter a city name: \n")
request_url = f"{BASE_URL}?appid={API_KEY}&q={city}"
response = requests.get(request_url)

print(response.json())
```

```
Enter a city name:
atlanta
{'coord': {'lon': -84.388, 'lat': 33.749}, 'weather': [{'id': 800, 'main': 'Clear', 'description': 'clear sky', 'icon': '01d'}], 'base': 'stations', 'main': {'temp': 297.92, 'feels_like': 296.97, 'temp_min': 296.25, 'temp_max': 299.57, 'pressure': 1018, 'humidity': 20}, 'visibility': 10000, 'wind': {'speed': 3.6, 'deg': 130, 'gust': 7.72}, 'clouds': {'all': 0}, 'dt': 1681334656, 'sys': {'type': 2, 'id': 2006749, 'country': 'US', 'sunrise': 1681297844, 'sunset': 1681344334}, 'timezone': -14400, 'id': 4180439, 'name': 'Atlanta', 'cod': 200}
```

In [9]:
```
# Clean / Convert your data into readable text
if response.status_code == 200:
    data = response.json()
    weather = data['weather'][0]['description']
    celcius = round(data['main']['temp'] - 273.15)
    fahrenheit = round((celcius * 9/5) + 32)
    print(f"Weather: {weather}")
    print(f"Temperature: {fahrenheit} in fahrenheit")
    print(f"Temperature: {celcius} in celcius")
else:
    print("An error occurred.")
```

```
Weather: clear sky
Temperature: 77 in fahrenheit
Temperature: 25 in celcius
```

In [17]:
```
import pandas as pd

#Putting the data into a dataframe
df = pd.json_normalize(data['main'])

#Add new column for a current timestamp
df['timestamp'] = pd.to_datetime('now')
df
```

```
C:\Users\skipper001\AppData\Local\Temp\ipykernel_1400\3662476903.py:7: FutureWarning: The parsing of 'now' in pd.to_datetime without `utc=True` is deprecated. In a future version, this will match Timestamp('now') and Timestamp.now()
  df['timestamp'] = pd.to_datetime('now')
```

Out[17]:

	temp	feels_like	temp_min	temp_max	pressure	humidity	timestamp
0	297.97	297.03	296.62	299.83	1019	20	2023-04-12 21:35:38.118226

In [5]:
```
# Clean / Convert your data into readable text
if response.status_code == 200:
    data = response.json()
    weather = data['weather'][0]['description']
    celcius = round(data['main']['temp'] - 273.15)
    fahrenheit = round((celcius * 9/5) + 32)
    print(f"Weather: {weather}")
    print(f"Temperature: {fahrenheit} in fahrenheit")
    print(f"Temperature: {celcius} in celcius")
else:
    print("An error occurred.")
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Weather: clear sky
Temperature: 77 in fahrenheit
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