

Develop a Python script

Date	16 November 2022
Team ID	PNT2022TMID06071
Project Name	Project – Smart solution for railways
Maximum Marks	4 Marks

Smart solution for railways

Create a code snippet using python to

1. Extract weather data from OpenWeatherMap using APIs
2. Send the extracted data to the cloud
3. Receive data from the cloud and view it in the python compiler

The screenshot shows the OpenWeatherMap website. At the top, there's a navigation bar with links like 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', 'yoge...', and 'Support'. Below the navigation bar, a green message box states: 'We have sent the confirmation link to yogeshk0333@gmail.com. Please check your email.' Below this, there's a section titled 'Historical weather for any location' with a description: 'Our new technology, Time Machine, has allowed us to enhance the data in the Historical Weather Collection.' It lists two bullet points: 'Historical weather data available for ANY coordinate' and 'The depth of historical data have been extended to 40 YEARS'. Below the text, there are two buttons: 'Learn more' and 'Go to purchase'. At the bottom of the page, there's a 'Weather Dashboard' section with the text: 'The OpenWeather Dashboard is a lightweight and flexible visual tool for our customers who would'. The Windows taskbar is visible at the bottom with the time 12:54 PM.

The screenshot shows the OpenWeatherMap website. At the top, there's a navigation bar with links like 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', 'yoge...', and 'Support'. Below the navigation bar, there's a section titled 'Weather in your city' with a search bar containing the text 'chennai' and a 'Search' button. A dropdown menu is open next to the 'yoge...' link, showing options: 'My services', 'My API keys', 'My payments', 'My profile', and 'Logout'. Below the search bar, there's a section titled 'Chennai, IN scattered clouds' with a temperature of '31°C' and a description: 'temperature from 31 to 31 °C, wind 4.63 m/s, clouds 40 %, 1010 hpa'. Below this, there's a section titled 'Search engine is very flexible. How it works:' with a list of instructions: 'To make it more precise put the city's name, comma, 2-letter country code (ISO3166). You will get all proper cities in chosen country. The order is important - the first is city name then comma then country. Example - London, GB or New York, US.' At the bottom, there's a 'Plesk' advertisement with the text 'Control & Simplify your WebOps' and a 'SIGN UP' button. The Windows taskbar is visible at the bottom with the time 02:14 PM and date 04-11-2022.

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weatherMap.py - E:/IBM/pre/weatherMap.py (3.6.5)
File Edit Format Run Options Window Help

import requests
a = "https://api.openweathermap.org/data/2.5/weather?q=Chennai,IN&appid=6d13d12f9cd34a07871a5795d01e2c47"
r = requests.get(url = a)
data = r.json()
print(r)
print(data)
temp = data["main"]["temp"]
hum = data["main"]["humidity"]
print("Temperature is : ",temp)
print("Humidity is : ",hum)
```

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Python 3.6.5 Shell
File Edit Shell Debug Options Window Help

<Response [200]>
Temperature is : 298.14
>>>

===== RESTART: E:/IBM/pre/weatherMap.py =====
=====
<Response [200]>
{'coord': {'lon': 80.2785, 'lat': 13.0878}, 'weather': [{'id': 701, 'main': 'Mist', 'description': 'mist', 'icon': '50n'}, {'id': 500, 'main': 'Rain', 'description': 'light rain', 'icon': '10n'}], 'base': 'stations', 'main': {'temp': 298.14, 'feels_like': 299.15, 'temp_min': 298.14, 'temp_max': 298.14, 'pressure': 1012, 'humidity': 94}, 'visibility': 2500, 'wind': {'speed': 1.54, 'deg': 350}, 'rain': {'1h': 0.12}, 'clouds': {'all': 75}, 'dt': 1667317416, 'sys': {'type': 1, 'id': 9218, 'country': 'IN', 'sunrise': 1667262751, 'sunset': 1667304738}, 'timezone': 19800, 'id': 1264527, 'name': 'Chennai', 'cod': 200}
Temperature is : 298.14
Humidity is : 94
>>>
```

Ln: 10 Col: 26

Windows taskbar: Rain to stop, 9:17 PM, 11/1/2022