

Develop the Python Script

(Develop a Python script)

Team ID	PNT2022TMID30849
Project Name	Industry-specific intelligent fire management system

Industry-specific intelligent fire management system

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

ABINAYA S:

The screenshot shows a web browser window with the OpenWeatherMap website. The address bar shows 'home.openweathermap.org'. A green confirmation message states: 'We have sent the confirmation link to **abinayasp27@gmail.com**. Please check your email.' Below this, a navigation bar includes links for 'New Products', 'Services', 'API keys', 'Billing plans', 'Payments', 'Block logs', 'My orders', 'My profile', and 'Ask a question'. A large banner for 'Historical weather for any location' features a collage of weather images and text: '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 banner, it says 'You can download data from **Personal account** or **contact us** to order it.' Two orange buttons, 'Learn more' and 'Go to purchase', are at the bottom of the banner. The Windows taskbar at the bottom shows the time as 12:32 on 18-11-2022, with a temperature of 31°C and 'Haze' weather.

AISHWARYA V:

The screenshot shows the OpenWeather website in a web browser. The address bar displays 'home.openweathermap.org'. The navigation bar includes links for 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', and a user profile 'Aish...' with a dropdown arrow, followed by 'Support'. A green confirmation message states: 'We have sent the confirmation link to vjaace@gmail.com. Please check your email.' Below this is a horizontal menu with links: 'New Products', 'Services', 'API keys', 'Billing plans', 'Payments', 'Block logs', 'My orders', 'My profile', and 'Ask a question'. The main content area features a large image of a sky with clouds and a sun. To the right of the image, the heading 'Historical weather for any location' is displayed in red. Below the heading, text reads: 'Our new technology, Time Machine, has allowed us to enhance the data in the [Historical Weather Collection](#).' This is followed by a bulleted list: '• Historical weather data available for **ANY** coordinate' and '• The depth of historical data have been extended to **40 YEARS**'. Below the list, it says 'You can download data from [Personal account](#) or [contact us](#) to order it.' At the bottom of this section are two orange buttons: 'Learn more' and 'Go to purchase'. Below the main content area, the heading 'Weather Dashboard' is shown in red, followed by a sub-heading: 'The OpenWeather Dashboard is a lightweight and flexible visual tool for our customers who would'. The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates the time as 12:16 and the date as 18-11-2022.

GOMATHI M :

This screenshot is similar to the one above, showing the OpenWeather website. The address bar shows 'home.openweathermap.org'. The navigation bar is identical. The confirmation message now states: 'We have sent the confirmation link to gomathimurugan0209@gmail.com. Please check your email.' The horizontal menu and the 'Historical weather for any location' promotional banner are also identical. The Windows taskbar at the bottom shows the search bar, task view button, and application icons. The system tray on the right indicates the time as 12:27 and the date as 18-11-2022, with additional weather information showing '31°C Haze'.

MOHANAPRIYA S :

The screenshot shows the OpenWeatherMap website interface. At the top, a navigation bar includes links like 'Weather in your city', 'Guide', 'API', 'Dashboard', 'Marketplace', 'Pricing', 'Maps', 'Our Initiatives', 'Partners', 'Blog', 'For Business', and a user profile dropdown. A green confirmation banner states: "We have sent the confirmation link to mohanapriyas111@gmail.com. Please check your email."

Below the banner is a horizontal menu with links: 'New Products', 'Services', 'API keys', 'Billing plans', 'Payments', 'Block logs', 'My orders', 'My profile', and 'Ask a question'.

The main content area features a banner for "Historical weather for any location". It includes a collage of weather images and text stating: "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**". It also mentions: "You can download data from [Personal account](#) or [contact us](#) to order it." There are two buttons: "Learn more" and "Go to purchase".

Below this is another banner for "Weather Dashboard" with the text: "The OpenWeather Dashboard is a lightweight and flexible visual tool for our customers who would".

The bottom of the image shows a Windows taskbar with the search bar, taskbar icons, and a system tray displaying "31°C Haze" and the date "18-11-2022".

OUTPUT:

The screenshot shows a Python script in a text editor and its execution output in a terminal window.

Python Script (weatherMap.py):

```
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)
```

Python 3.6.5 Shell Output:

```
<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
>>>
```