

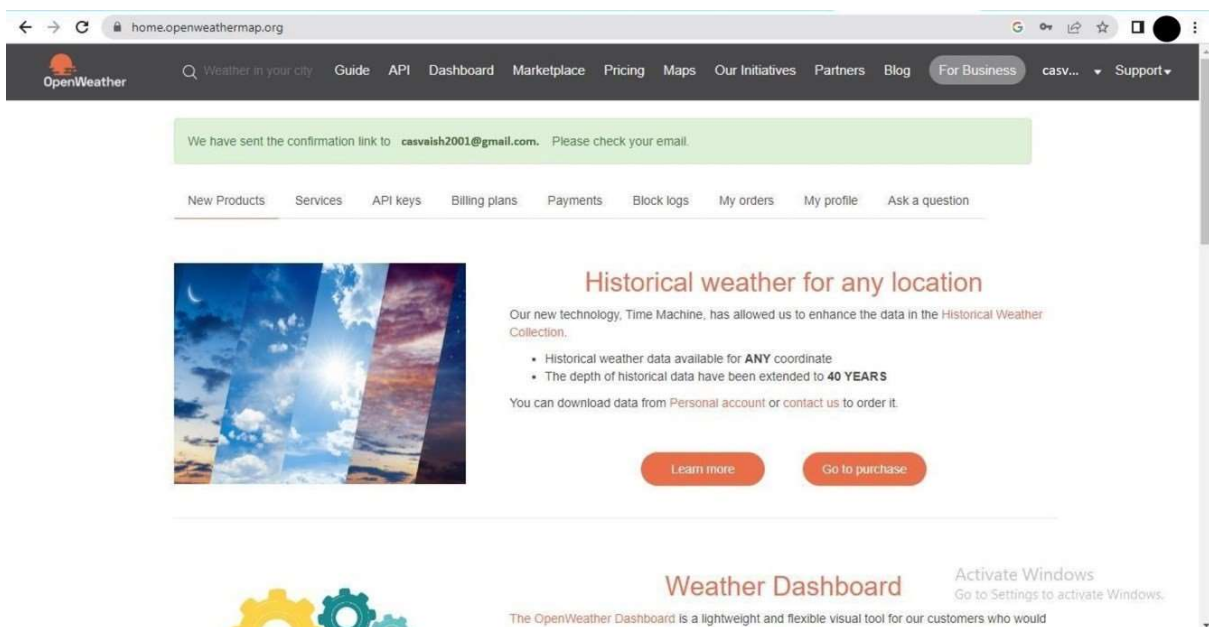
Develop a Python script

Date	10 November 2022
Team ID	PNT2022TMID12653
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 Open Weather Map 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 OpenWeather website interface. 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', 'casv...', and 'Support'. Below the navigation bar, a green confirmation message states: 'We have sent the confirmation link to casvaish2001@gmail.com. Please check your email.' Underneath this, there's 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 sunset over a body of water. To the right of the image, the heading 'Historical weather for any location' is displayed. 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 two bullet points: '• Historical weather data available for ANY coordinate' and '• The depth of historical data have been extended to 40 YEARS'. Below the bullet points, it says: 'You can download data from Personal account or contact us to order it.' At the bottom of this section, there are two orange buttons: 'Learn more' and 'Go to purchase'. At the very bottom of the page, there's a 'Weather Dashboard' section with a logo of three interlocking gears (yellow, green, and blue) and text describing it as a 'lightweight and flexible visual tool for our customers who would'. On the right side of the bottom section, there's a 'Activate Windows' watermark with the text 'Go to Settings to activate Windows.'

openweathermap.org/find?utf8=✓&q=chennai

OpenWeather

Weather in your city

Guide API Dashboard Marketplace Pricing Maps Our Initiatives Partners Blog For Business casv... Support

My services
My API keys
My payments
My profile
Logout

chennai Search

Chennai, IN scattered clouds
31°C temperature from 31 to 31 °C, wind 4.63 m/s, clouds 40 %, 1010 hpa
Geo coords [13.0878, 80.2785]

Search engine is very flexible. How it works:

- 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.

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weatherMap.py - E:/IBM/pre/weatherMap.py (3.6.3)
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)
```

```
Python 3.6.3 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
>>>
```