

Develop the Python Script

(Develop a Python script)

Team ID : PNT2022TMID05047

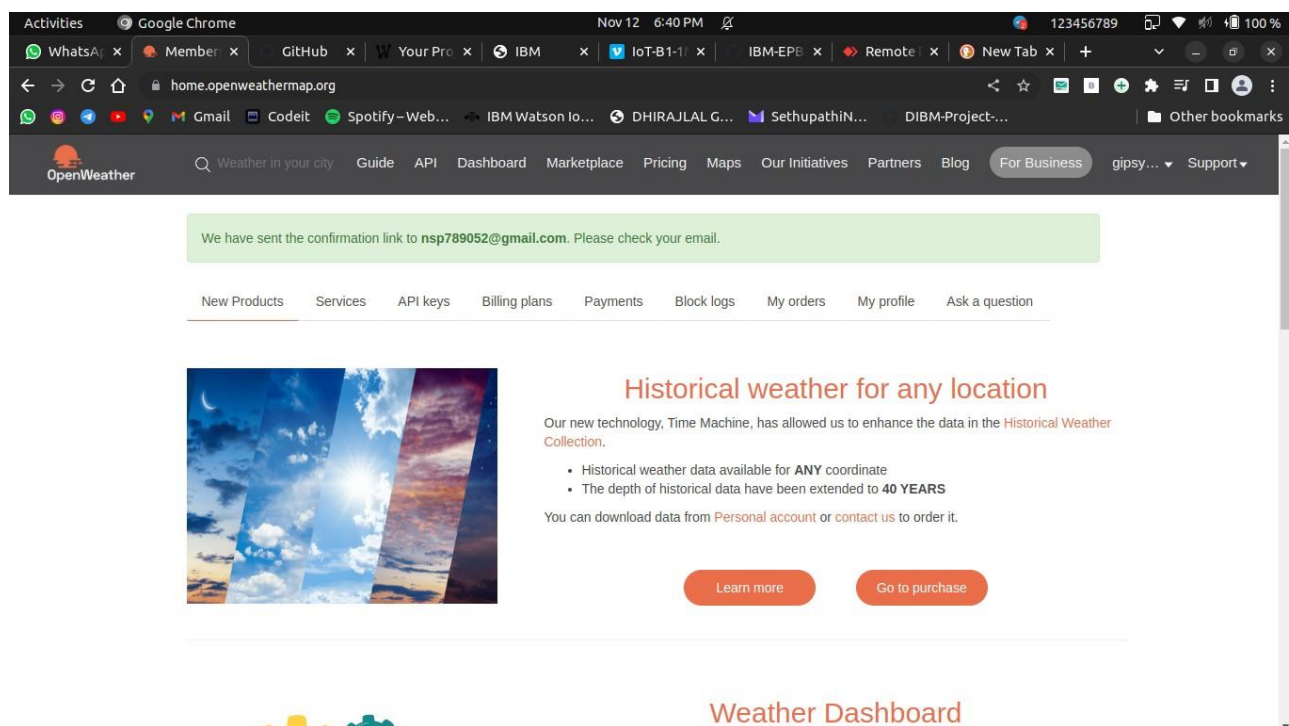
IBM ID : IBM-Project-8846-1658934532

Industry-specific intelligent fire management system

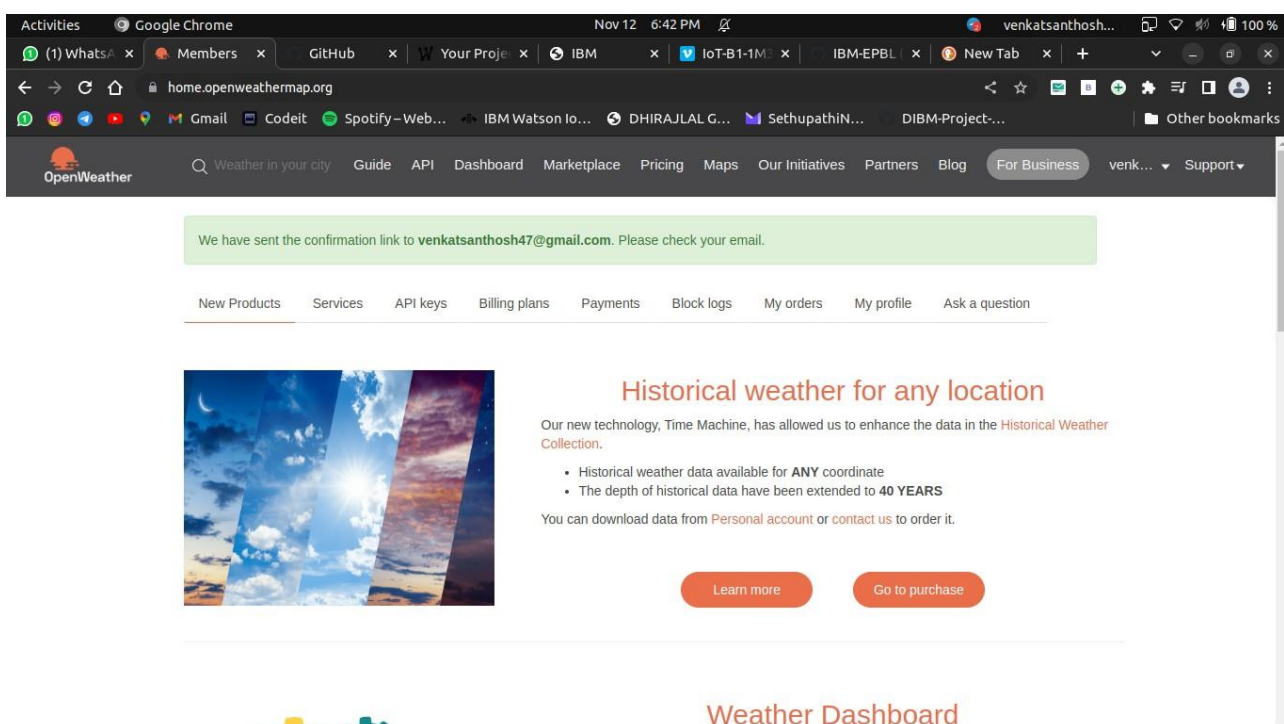
Create a code snippet using python to

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

1*Team Member Weather account ID

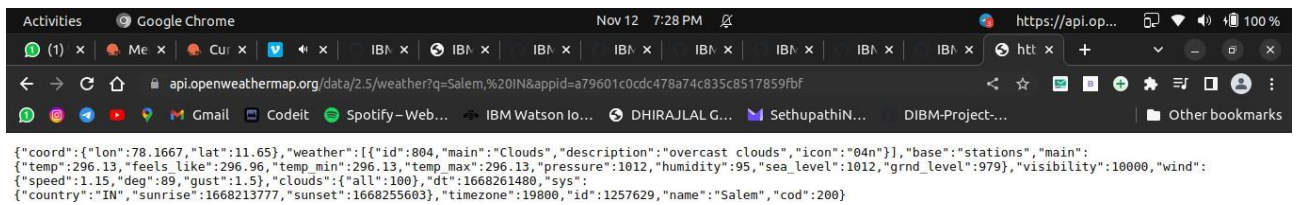


The screenshot shows the OpenWeatherMap website in a Google Chrome browser. The address bar displays 'home.openweathermap.org'. A green confirmation message at the top states: 'We have sent the confirmation link to nsp789052@gmail.com. Please check your email.' Below this, a navigation menu includes '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 and the heading 'Historical weather for any location'. The text below the heading reads: '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 list, it says 'You can download data from Personal account or contact us to order it.' At the bottom of this section are two buttons: 'Learn more' and 'Go to purchase'. The footer of the page shows a 'Weather Dashboard' with a colorful bar chart.



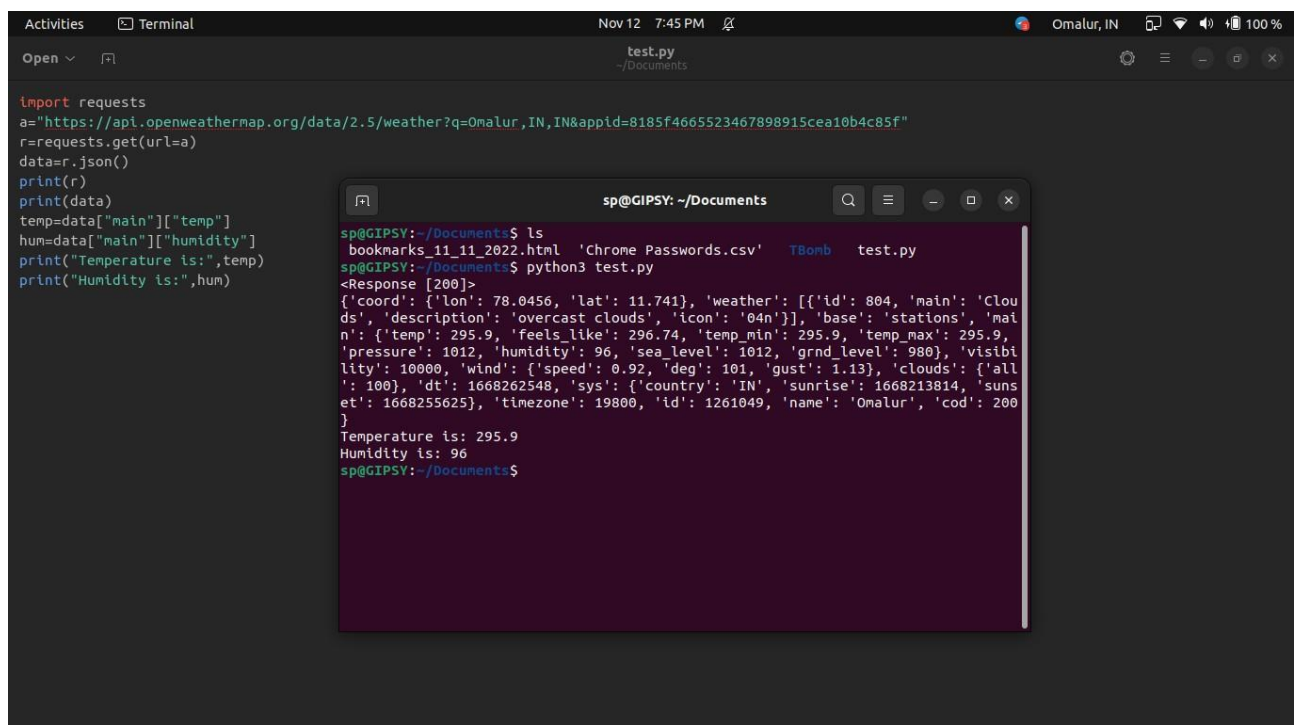
This screenshot is identical to the one above, showing the OpenWeatherMap website. The confirmation message now states: 'We have sent the confirmation link to venkatsanthosh47@gmail.com. Please check your email.' The rest of the page content, including the navigation menu, the 'Historical weather for any location' section with its text and buttons, and the 'Weather Dashboard' footer, remains the same.

3* python compiler



The screenshot shows a Google Chrome browser window with the URL `https://api.openweathermap.org/data/2.5/weather?q=Salem,%20IN&appid=a79601c0cdc478a74c835c8517859fbf`. The page displays a JSON response from the OpenWeatherMap API. The JSON data includes coordinates, weather conditions (overcast clouds), temperature (296.13 K), humidity (95%), and other meteorological data for Salem, India.

```
{
  "coord": {
    "lon": 78.1667,
    "lat": 11.65
  },
  "weather": [
    {
      "id": 804,
      "main": "Clouds",
      "description": "overcast clouds",
      "icon": "04n"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 296.13,
    "feels_like": 296.96,
    "temp_min": 296.13,
    "temp_max": 296.13,
    "pressure": 1012,
    "humidity": 95,
    "sea_level": 1012,
    "grnd_level": 979
  },
  "visibility": 10000,
  "wind": {
    "speed": 1.15,
    "deg": 89,
    "gust": 1.5
  },
  "clouds": {
    "all": 100
  },
  "dt": 1668261480,
  "sys": {
    "country": "IN",
    "sunrise": 1668213777,
    "sunset": 1668255603,
    "timezone": 19800,
    "id": 1257629,
    "name": "Salem",
    "cod": 200
  }
}
```



The screenshot shows a terminal window with a Python script named `test.py` being executed. The script uses the `requests` library to fetch weather data from the OpenWeatherMap API for Omalur, India. The output of the script shows the temperature and humidity values extracted from the JSON response.

```
import requests
a="https://api.openweathermap.org/data/2.5/weather?q=Omalur,IN,IN&appid=8185f4665523467898915cea10b4c85f"
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)
```

Terminal Output:

```
sp@GIPSY: ~/Documents
$ ls
bookmarks_11_11_2022.html  Chrome Passwords.csv  TBomb  test.py
$ python3 test.py
<Response [200]>
{'coord': {'lon': 78.0456, 'lat': 11.741}, 'weather': [{'id': 804, 'main': 'Clouds', 'description': 'overcast clouds', 'icon': '04n'}], 'base': 'stations', 'main': {'temp': 295.9, 'feels_like': 296.74, 'temp_min': 295.9, 'temp_max': 295.9, 'pressure': 1012, 'humidity': 96, 'sea_level': 1012, 'grnd_level': 980}, 'visibility': 10000, 'wind': {'speed': 0.92, 'deg': 101, 'gust': 1.13}, 'clouds': {'all': 100}, 'dt': 1668262548, 'sys': {'country': 'IN', 'sunrise': 1668213814, 'sunset': 1668255625}, 'timezone': 19800, 'id': 1261049, 'name': 'Omalur', 'cod': 200}
Temperature is: 295.9
Humidity is: 96
sp@GIPSY: ~/Documents$
```