Practical – 6
API Documentation

Open Weather API

GET Current weather data

No request URL found. It will show up here once added.

Access current weather data for any location on Earth including over 200,000 cities! We collect and process weather data from di erent sources such as global and local weather models, satellites, radars and a vast network of weather stations. Data is available in JSON, XML, or HTML format.

Parameters

Parameters	Description
`lat, lon`	Geographical coordinates (latitude, longitude). If you need the geocoder to automatic convert city names and zip-codes to geo coordinates and the other way around, please use our Geocoding API.
`appid`	Your unique API key (you can always nd it on your account page under the "API key" tab)
`mode`	Response format. Possible values are xml and html. If you don't use the mode parameter format is JSON by default.
`units`	Units of measurement. standard, metric and imperial units are available. If you do not use the units parameter, standard units will be applied by default.
`lang`	You can use this parameter to get the output in your language.

Example Request   Example

```
curl --location --request GET 'https://api.openweathermap.org/data/2.5/weather?lat=44.34&lon=10.99&appi
```

Body   Header (9)

```
{
  "coord": {
    "lon": 10.99,
    "lat": 44.34
  },
```

GET Air polution

http://api.openweathermap.org/data/2.5/air_pollution?lat=50&lon=50&appid=f50b236e9d4317b8afd2c0223121143f

Air Pollution API provides current, forecast and historical air pollution data for any coordinates on the globe

Besides basic Air Quality Index, the API returns data about polluting gases, such as Carbon monoxide (CO), Nitrogen monoxide (NO), Nitrogen dioxide (NO2), Ozone (O3), Sulphur dioxide (SO2), Ammonia (NH3), and particulates (PM2.5 and PM10).

Air pollution forecast is available for 5 days with hourly granularity. Historical data is accessible from 27th November 2020.

Here is a description of Air Quality index levels:

Qualitative name	Index	Pollutant concentration in µg/m3
	NO2	PM10
Good	1	0-50
Fair	2	50-100
Moderate	3	100-200
Poor	4	200-400
Very Poor	5	>400

PARAMS

lat
50

lon
50

appid
f50b236e9d4317b8afd2c0223121143f

Example Request

```
curl --location --request GET 'http://api.openweathermap.org/data/2.5/air_pollution?lat=50&lon=50&appid
```

Example Response

```
"weather": [
  { "main": "Clear",
    "id": 800,

    "lo": "ວອນດອນ",
    "be": "Лондан",
```

GET 5 day / 3 hour forecast data

api.openweathermap.org/data/2.5/forecast?lat=44.34&lon=10.99&appid=f50b236e9d4317b8afd2c0223121143fx

5 day forecast is available at any location on the globe. It includes weather forecast data with 3-hour step.

Parameters		
lat, lon	required	Geographical coordinates (latitude, longitude). If you need the geocoder to automatic convert city names and zip-codes to geo coordinates and the other way around, please use our Geocoding API.
appid	required	Your unique API key (you can always nd it on your account page under the "API key" tab)
units	optional	Units of measurement. standard, metric and imperial units are available. If you do not use the units parameter, standard units will be applied by default. Learn more
mode	optional	Response format. JSON format is used by default. To get data in XML format use mode=xml. Learn more
cnt	optional	A number of timestamps, which will be returned in the API response. Learn more
units	optional	Units of measurement. standard, metric and imperial units are available. If you do not use the units parameter, standard units will be applied by default. Learn more
lang	optional	You can use the lang parameter to get the output in your language. Learn more

PARAMS

lat
44.34

lon
10.99

Example Request   Example

```
curl --location --request GET 'api.openweathermap.org/data/2.5/forecast?lat=44.34&lon=10.99&appid=f50b2
```

Example Response   200 OK

Body   Header (9)

```
{
  "cod": "200",

  "message": 0,
  "cnt": 40,
  "list": [
    {
      "dt": 1664776800,
      "main": {
```

View More

GET 7Timer!

http://www.7timer.info/bin/api.pl?lon=113.17&lat=23.09&product=astro&output=json

7Timer! is a series of web-based meteorological forecast products, mainly derived from the NOAA/NCEP-based numeric weather model, the Global Forecast System (GFS). *7Timer!* was rstly established in July 2005 as an exploration product under supported of the National Astronomical Observatories of China and had been largely renovated in 2008 and 2011. Currently it is supported by the Shanghai Astronomical Observatory of Chinese Academy of Sciences.

The 2nd version of *7Timer!* - APanel, the predecessor of ASTRO

7Timer! produces high-resolution forecast for the entire globe that covering about 1.5 million geographic points, and would be updated four times a day. It also produces specialized products for users with di erent concentrations such as astronomy or meteorology.

PARAMS

lon
113.17

lat
23.09

product
astro

Example Request   200 OK
                                                                                        Example

```
curl --location --request GET 'http://www.7timer.info/bin/api.pl?lon=113.17&lat=23.09&product=astro&out
```

Example Response

Body   **Header** (9)

```json
{
  "product": "astro",
  "init": "2022101400",
  "dataseries": [
    {
      "timepoint": 3,
      "cloudcover": 4,
   "seeing": 6
```