

# Free weather data API for developers

- We recommend you to use API key in any cases. You can get API key in a very easy way - just register on OpenWeatherMap.org and leave information about your application, then get key in your personal page. In this case we can guarantee availability and accuracy of weather data. Please read more detailed information: [openweathermap.org/appid](https://openweathermap.org/appid)
- Find a bug? Welcome to [bugs.openweathermap.org/projects/api/wiki/](https://bugs.openweathermap.org/projects/api/wiki/)

---

## Getting current weather data

Using this kind of requests you can get weather data in any location on the earth. The current weather data are updated online based on data from more than 40,000 weather stations. All weather data can be obtained in JSON, XML or HTML format.

### You can search weather data by different ways:

- By city name
- By geographic coordinats
- By city ID

#### Examples of JSON format:

- Seaching by city name [api.openweathermap.org/data/2.5/weather?q=London,uk](https://api.openweathermap.org/data/2.5/weather?q=London,uk)
- Seaching by geographic coordinats [api.openweathermap.org/data/2.5/weather?lat=35&lon=139](https://api.openweathermap.org/data/2.5/weather?lat=35&lon=139)
- Seaching by city ID [api.openweathermap.org/data/2.5/weather?id=2172797](https://api.openweathermap.org/data/2.5/weather?id=2172797)

#### Examples of XML format:

To get data in XML or HTML formats you need to use mode = xml or html. Example:

- Seaching by city name in XML [api.openweathermap.org/data/2.5/weather?q=London&mode=xml](https://api.openweathermap.org/data/2.5/weather?q=London&mode=xml)
- Seaching by geographic coordinats in HTML [api.openweathermap.org/data/2.5/weather?lat=35&lon=139&mode=html](https://api.openweathermap.org/data/2.5/weather?lat=35&lon=139&mode=html)

#### Data format:

You can use different types of metric systems by units = metric or imperial

Example: [api.openweathermap.org/data/2.5/weather?q=London&mode=xml&units=metric](https://api.openweathermap.org/data/2.5/weather?q=London&mode=xml&units=metric)

#### Multilingual support:

You can use lang parameter to get output in your language. We support the following languages that you can use with the corresponded lang values: English - en, Russian - ru, Italian - it, Spanish - sp, Ukrainian - ua, German - de, Portuguese - pt, Romanian - ro, Polish - pl, Finnish - fi, Dutch - nl, French - fr, Bulgarian - bg, Swedish - se, Chinese Traditional - zh\_tw, Chinese Simplified - zh\_cn, Turkish - tr

Example: [http://api.openweathermap.org/data/2.5/forecast/daily?id=524901&lang=zh\\_cn](http://api.openweathermap.org/data/2.5/forecast/daily?id=524901&lang=zh_cn)

#### Call back function for JavaScript code:

To use JavaScript code you can transfer callback functionName to JSONP callback.

Example: [api.openweathermap.org/data/2.5/weather?q=London,uk&callback=test](https://api.openweathermap.org/data/2.5/weather?q=London,uk&callback=test)

### More about data returned:

- [Weather data in JSON format](#)
- [Weather condition codes](#)

---

## Getting forecast weather data

You can recieve weather forecast in any location on the earth. The flexible algorithm of weather calculation let us provide weather data not only for cities but for any geographic coordinates. It is important for megapolices, for example, where weather is different on opposit city edges. You can get forecast data every 3 hours or daily. The 3 hours forecast is available for 5 days. Daily forecast is available for 14 days. All weather data can be obtained in JSON or XML format.

### You can search weather data by different ways:

- By city name
- By geographic coordinats
- By city ID

#### Getting forecast data every 3 hours

- Seaching by city name at XML format [api.openweathermap.org/data/2.5/forecast?q=London,us&mode=xml](https://api.openweathermap.org/data/2.5/forecast?q=London,us&mode=xml)
- Seaching by geographic coordinats at JSON format [api.openweathermap.org/data/2.5/forecast?lat=35&lon=139](https://api.openweathermap.org/data/2.5/forecast?lat=35&lon=139)
- Seaching by city ID [api.openweathermap.org/data/2.5/forecast?id=524901](https://api.openweathermap.org/data/2.5/forecast?id=524901)

## Getting daily forecast weather data

You can get weather forecast for 14 days. All weather data can be obtained in JSON or XML format.

### Examples:

- Searching 7 days forecast by city name at XML format and metric units  
[api.openweathermap.org/data/2.5/forecast/daily?q=London&mode=xml&units=metric&cnt=7](http://api.openweathermap.org/data/2.5/forecast/daily?q=London&mode=xml&units=metric&cnt=7)
- Searching 10 days forecast by geographic coordinates at JSON format  
[api.openweathermap.org/data/2.5/forecast/daily?lat=35&lon=139&cnt=10&mode=json](http://api.openweathermap.org/data/2.5/forecast/daily?lat=35&lon=139&cnt=10&mode=json)
- Searching by city ID  
[api.openweathermap.org/data/2.5/forecast/daily?id=524901](http://api.openweathermap.org/data/2.5/forecast/daily?id=524901)

## Searching of city

---

### You can search weather data by different ways:

- By city name. Put the city name or its part and get the list of the most proper cities in the world. Example - Lon or Lond or London. The more precise city name you put the more precise list you will get. To make it more precise put the city's name or its part, comma, the name of the country or 2-letter country code. You will get all proper cities in chosen country. The order is important - the first is city name than comma than country. Example - Lon, UK or Lon, GB or London, GB or Lon, England.
- By geographic coordinates.

#### Searching by city name

[api.openweathermap.org/data/2.5/find?q=London&units=metric&mode=xml](http://api.openweathermap.org/data/2.5/find?q=London&units=metric&mode=xml)

#### Searching by geographic coordinates

[api.openweathermap.org/data/2.5/find?lat=57&lon=-2.15](http://api.openweathermap.org/data/2.5/find?lat=57&lon=-2.15)

#### Data output format:

- json [api.openweathermap.org/data/2.5/find?q=London&mode=json](http://api.openweathermap.org/data/2.5/find?q=London&mode=json)
- xml [api.openweathermap.org/data/2.5/find?q=London&mode=xml](http://api.openweathermap.org/data/2.5/find?q=London&mode=xml)

#### Restriction output:

To limit number of listed cities please setup cnt parameter [api.openweathermap.org/data/2.5/find?lat=57&lon=-2.15&cnt=3](http://api.openweathermap.org/data/2.5/find?lat=57&lon=-2.15&cnt=3)

#### Accuracy:

To setup accuracy level please use type parameter that have two values - accurate and like. In case of accurate value you will get results that exactly equivalent to your searching word. In case of like value the result is searching by substring. type ['accurate', 'like']  
Example

- Like [api.openweathermap.org/data/2.5/find?q=London&type=like&mode=xml](http://api.openweathermap.org/data/2.5/find?q=London&type=like&mode=xml)
- Accurate [api.openweathermap.org/data/2.5/find?q=London&type=accurate&mode=xml](http://api.openweathermap.org/data/2.5/find?q=London&type=accurate&mode=xml)

#### Metric systems:

- internal [api.openweathermap.org/data/2.5/find?q=London](http://api.openweathermap.org/data/2.5/find?q=London)
- metric [api.openweathermap.org/data/2.5/find?q=London&units=metric](http://api.openweathermap.org/data/2.5/find?q=London&units=metric)
- imperial [api.openweathermap.org/data/2.5/find?q=London&units=imperial](http://api.openweathermap.org/data/2.5/find?q=London&units=imperial)

## More detailed information about features of API

---

- More detailed information about features of API [bugs.openweathermap.org/projects/api/wiki/](http://bugs.openweathermap.org/projects/api/wiki/)
- For web developers - examples and code
- The protocol of weather station data transmission
- How to create charts with weather data
- How to create weather widgets
- How to create maps with weather data
- Mobile version of site