(/)

Current weather data

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

Call current weather data for one location

By city name

You can call by city name or city name, state code and country code. Please note that searching by states available only for the USA locations.

API call

```
api.openweathermap.org/data/2.5/weather?q={city name}&appid={API key}
(https://home.openweathermap.org/api_keys)
```

```
api.openweathermap.org/data/2.5/weather?q={city name},{state code}&appid={API key}
(https://home.openweathermap.org/api_keys)
```

```
api.openweathermap.org/data/2.5/weather?q={city name},{state code},{country code}&appid={API key}
(https://home.openweathermap.org/api_keys)
```

Parameters

`q`	`required`	City name, state code and country code divided by comma, use ISO 3166 country codes. You can specify the parameter not only in English. In this case, the API response should be returned in the same language as the language of requested location name if the location is in our predefined list of more than 200,000 locations.
`appid`	`required`	Your unique API key (you can always find it on your account page under the "API key" tab (https://home.openweathermap.org/api_keys))
`mode`	`optional`	Response format. Possible values are `xml` and `html`. If you don't use the `mode` parameter format is JSON by default. 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 this parameter to get the output in your language. Learn more

Examples of API calls:

`api.openweathermap.org/data/2.5/weather?q=London&appid={API key}`
(https://home.openweathermap.org/api_keys)

`api.openweathermap.org/data/2.5/weather?q=London,uk&appid={API key}`
(https://home.openweathermap.org/api_keys)

> There is a possibility to receive a central district of the city/town with its own parameters (geographic coordinates/id/name) in API response.
> Example (http://samples.openweathermap.org/data/2.5/forecast?q=München,DE&appid=439d4b804bc8187953eb36d2a8c26a02)

By city ID

You can make an API call by city ID. List of city ID 'city.list.json.gz' can be downloaded here (http://bulk.openweathermap.org/sample/).

We recommend to call API by city ID to get unambiguous result for your city.

API call

`api.openweathermap.org/data/2.5/weather?id={city id}&appid={API key}`
(https://home.openweathermap.org/api_keys)

Parameters

`id`	`required`	City ID. List of city ID 'city.list.json.gz' can be downloaded here (http://bulk.openweathermap.org/sample/).
`appid`	`required`	Your unique API key (you can always find it on your account page under the "API key" tab (https://home.openweathermap.org/api_keys))
`mode`	`optional`	Response format. Possible values are `xml` and `html`. If you don't use the `mode` parameter format is JSON by default. 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 this parameter to get the output in your language. Learn more

Examples of API calls

`api.openweathermap.org/data/2.5/weather?id=2172797&appid={API key}`
(https://home.openweathermap.org/api_keys)

By geographic coordinates

API call

`api.openweathermap.org/data/2.5/weather?lat={lat}&lon={lon}&appid={API key}`
(https://home.openweathermap.org/api_keys)

Parameters

`lat, lon`	`required`	Geographical coordinates (latitude, longitude)
`appid`	`required`	Your unique API key (you can always find it on your account page under the "API key" tab (https://home.openweathermap.org/api_keys))
`mode`	`optional`	Response format. Possible values are `xml` and `html`. If you don't use the `mode` parameter format is JSON by default. 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 this parameter to get the output in your language. Learn more

Examples of API calls

```
api.openweathermap.org/data/2.5/weather?lat=35&lon=139&appid={API key}
(https://home.openweathermap.org/api_keys)
```

By ZIP code

Please note if country is not specified then the search works for USA as a default.

API call

```
api.openweathermap.org/data/2.5/weather?zip={zip code},{country code}&appid={API key}
(https://home.openweathermap.org/api_keys)
```

Parameters

`zip`	required	Zip code
`appid`	required	Your unique API key (you can always find it on your account page under the "API key" tab (https://home.openweathermap.org/api_keys))
`mode`	optional	Response format. Possible values are `xml` and `html`. If you don't use the `mode` parameter format is JSON by default. 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 this parameter to get the output in your language. Learn more

Examples of API calls

```
api.openweathermap.org/data/2.5/weather?zip=94040,us&appid={API key}
(https://home.openweathermap.org/api_keys)
```

Call current weather data for several cities

If you request weather data for several locations, you will get the response only in JSON format (XML and HTML formats are not available for these cases).

Cities within a rectangle zone

API returns the data from cities within the defined rectangle specified by the geographic coordinates.

API call

```
api.openweathermap.org/data/2.5/box/city?bbox={bbox}&appid={API key}
(https://home.openweathermap.org/api_keys)
```

Parameters

`bbox`	required	Bounding box `[lon-left,lat-bottom,lon-right,lat-top,zoom]`
`appid`	required	Your unique API key (you can always find it on your account page under the "API key" tab (https://home.openweathermap.org/api_keys))
`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 this parameter to get the output in your language. Learn more

Examples of API calls

```
api.openweathermap.org/data/2.5/box/city?bbox=12,32,15,37,10&appid={API key}
(https://home.openweathermap.org/api_keys)
```

> There is a limit of 25 square degrees for **Free** and **Startup plans**.

Cities in circle

API returns data from cities laid within definite circle that is specified by center point (`lat` , `lon`) and expected number of cities (`cnt`) around this point.

API call

```
api.openweathermap.org/data/2.5/find?lat={lat}&lon={lon}&cnt={cnt}&appid={API key}
(https://home.openweathermap.org/api_keys)
```

Parameters

`lat, lon`	required	Geographical coordinates (latitude, longitude)
`appid`	required	Your unique API key (you can always find it on your account page under the "API key" tab (https://home.openweathermap.org/api_keys))
`cnt`	optional	Number of cities around the point that should be returned. The default number of cities is 5, the maximum is 50.
`mode`	optional	Response format. Possible values are `xml` and `html` . If you don't use the `mode` parameter format is JSON by default. 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 this parameter to get the output in your language. Learn more

Examples of API calls

```
api.openweathermap.org/data/2.5/find?lat=55.5&lon=37.5&cnt=10&appid={API key}
(https://home.openweathermap.org/api_keys)
```

Call for several city IDs

There is a possibility to get current weather data for several cities by making one API call.

API call

```
api.openweathermap.org/data/2.5/group?id={id,..,id}&appid={API key}
(https://home.openweathermap.org/api_keys)
```

Parameters

`id`	required	City ID. List of city ID 'city.list.json.gz' can be downloaded here (http://bulk.openweathermap.org/sample/). The limit of locations is 20.
`appid`	required	Your unique API key (you can always find it on your account page under the "API key" tab (https://home.openweathermap.org/api_keys))
`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 this parameter to get the output in your language. Learn more

Examples of API calls

```
api.openweathermap.org/data/2.5/group?id=524901,703448,2643743&appid={API key}
(https://home.openweathermap.org/api_keys)
```

> Please note that a single City ID counts as one API call. So, the above example is treated as a 3 API calls.

Bulk downloading

We provide number of bulk files with current weather and forecasts. The service allows you to regularly download current weather and forecast data in JSON format. There is no need to call an API to do this.

More information is on the Bulk page (/bulk).

Examples of bulk files

http://bulk.openweathermap.org/sample/ (http://bulk.openweathermap.org/sample/)

Weather fields in API response

> If you do not see some of the parameters in your API response it means that these weather phenomena are just not happened for the time of measurement for the city or location chosen. Only really measured or calculated data is displayed in API response.

JSON

```
Example of API response
```

```
{
  "coord": {
    "lon": -122.08,
    "lat": 37.39
  },
  "weather": [
    {
      "id": 800,
      "main": "Clear",
      "description": "clear sky",
      "icon": "01d"
    }
  ],
  "base": "stations",
  "main": {
    "temp": 282.55,
    "feels_like": 281.86,
    "temp_min": 280.37,
    "temp_max": 284.26,
    "pressure": 1023,
    "humidity": 100
  },
  "visibility": 16093,
  "wind": {
    "speed": 1.5,
    "deg": 350
  },
  "clouds": {
    "all": 1
  },
  "dt": 1560350645,
  "sys": {
    "type": 1,
    "id": 5122,
    "message": 0.0139,
    "country": "US",
    "sunrise": 1560343627,
    "sunset": 1560396563
  },
  "timezone": -25200,
  "id": 420006353,
  "name": "Mountain View",
  "cod": 200
}
```


Fields in API response

- `coord`
  - `coord.lon` City geo location, longitude
  - `coord.lat` City geo location, latitude
- `weather` (more info Weather condition codes)
  - `weather.id` Weather condition id
  - `weather.main` Group of weather parameters (Rain, Snow, Extreme etc.)
  - `weather.description` Weather condition within the group. You can get the output in your language. Learn more
  - `weather.icon` Weather icon id
- `base` Internal parameter
- `main`
  - `main.temp` Temperature. Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit.
  - `main.feels_like` Temperature. This temperature parameter accounts for the human perception of weather. Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit.
  - `main.pressure` Atmospheric pressure (on the sea level, if there is no sea_level or grnd_level data), hPa
  - `main.humidity` Humidity, %
  - `main.temp_min` Minimum temperature at the moment. This is minimal currently observed temperature (within large megalopolises and urban areas). Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit.
  - `main.temp_max` Maximum temperature at the moment. This is maximal currently observed temperature (within large megalopolises and urban areas). Unit Default: Kelvin, Metric: Celsius, Imperial: Fahrenheit.

- `main.sea_level` Atmospheric pressure on the sea level, hPa
- `main.grnd_level` Atmospheric pressure on the ground level, hPa

- `wind`
  - `wind.speed` Wind speed. Unit Default: meter/sec, Metric: meter/sec, Imperial: miles/hour.
  - `wind.deg` Wind direction, degrees (meteorological)
  - `wind.gust` Wind gust. Unit Default: meter/sec, Metric: meter/sec, Imperial: miles/hour
- `clouds`
  - `clouds.all` Cloudiness, %
- `rain`
  - `rain.1h` Rain volume for the last 1 hour, mm
  - `rain.3h` Rain volume for the last 3 hours, mm
- `snow`
  - `snow.1h` Snow volume for the last 1 hour, mm
  - `snow.3h` Snow volume for the last 3 hours, mm
- `dt` Time of data calculation, unix, UTC
- `sys`
  - `sys.type` Internal parameter
  - `sys.id` Internal parameter
  - `sys.message` Internal parameter
  - `sys.country` Country code (GB, JP etc.)
  - `sys.sunrise` Sunrise time, unix, UTC
  - `sys.sunset` Sunset time, unix, UTC
- `timezone` Shift in seconds from UTC
- `id` City ID
- `name` City name
- `cod` Internal parameter

XML

Example of API response

```
<current>
<city id="0" name="Mountain View">
  <coord lon="-122.09" lat="37.39" />
  <country>US</country>
  <timezone>-28800</timezone>
  <sun rise="2020-01-07T15:22:59" set="2020-01-08T01:05:37" />
</city>
<temperature value="278.07" min="273.15" max="282.59" unit="kelvin" />
<feels_like value="275.88" unit="kelvin" />
<humidity value="86" unit="%" />
<pressure value="1026" unit="hPa" />
<wind>
  <speed value="0.93" unit="m/s" name="Calm" />
  <gusts />
  <direction value="23" code="NNE" name="North-northeast" />
</wind>
<clouds value="1" name="clear sky" />
<visibility value="16093" />
<precipitation mode="no" />
<weather number="800" value="clear sky" icon="01n" />
<lastupdate value="2020-01-07T11:33:40" />
</current>
```

Parameters:

- `city`
  - `city.id` City ID
  - `city.name` City name
  - `city.coord`

        - `city.coord.lon` City geo location, longitude
        - `city.coord.lat` City geo location, latitude
    - `city.country` Country code (GB, JP etc.)
    - `timezone` Shift in seconds from UTC
    - `city.sun`
        - `city.sun.rise` Sunrise time
        - `city.sun.set` Sunset time
- `temperature`
    - `temperature.value` Temperature
    - `temperature.min` Minimum temperature at the moment of calculation. This is minimal currently observed temperature (within large megalopolises and urban areas), use this parameter optionally.
    - `temperature.max` Maximum temperature at the moment of calculation. This is maximal currently observed temperature (within large megalopolises and urban areas), use this parameter optionally.
    - `temperature.unit` Unit of measurements. Possilbe valure is Celsius, Kelvin, Fahrenheit.
- `feels_like`
    - `feels_like.value` Temperature. This temperature parameter accounts for the human perception of weather.
    - `feels_like.unit` Unit of measurements. Possilbe valure is Celsius, Kelvin, Fahrenheit. Unit Default: Kelvin
- `humidity`
    - `humidity.value` Humidity value
    - `humidity.unit` Humidity units, %
- `pressure`
    - `pressure.value` Pressure value
    - `pressure.unit` Pressure units, hPa
- `wind`
    - `wind.speed`
        - `wind.speed.value` Wind speed
        - `wind.speed.unit` Wind speed units, m/s
        - `wind.speed.name` Type of the wind
    - `wind.direction`
        - `wind.direction.value` Wind direction, degrees (meteorological)
        - `wind.direction.code` Code of the wind direction. Possilbe value is WSW, N, S etc.
        - `wind.direction.name` Full name of the wind direction.
- `clouds`
    - `clouds.value` Cloudiness
    - `clouds.name` Name of the cloudiness
- `visibility`
    - `visibility.value` Visibility, meter
- `precipitation`
    - `precipitation.value` Precipitation, mm
    - `precipitation.mode` Possible values are 'no", name of weather phenomena as 'rain', 'snow'
- `weather`
    - `weather.number` Weather condition id
    - `weather.value` Weather condition name
    - `weather.icon` Weather icon id
- `lastupdate`
    - `lastupdate.value` Last time when data was updated

List of weather condition codes

List of weather condition codes (/weather-conditions) with icons (range of thunderstorm, drizzle, rain, snow, clouds, atmosphere including extreme conditions like tornado, hurricane etc.)

Min/max temperature in current weather API and forecast API

> Please, do not confuse min/max parameters in our weather APIs.
>
> - In **Current weather API**, Hourly forecast API (/api/hourly-forecast) and 5 day / 3 hour forecast API (/forecast5) - **temp_min** and **temp_max** are optional parameters mean min / max temperature in the city at the current moment just for your reference. For large cities and megalopolises geographically expanded it might be applicable. In most cases both **temp_min** and **temp_max** parameters have the same volume as 'temp'. Please, use **temp_min** and **temp_max** parameters in current weather API optionally.

- In 16 Day forecast (/forecast16) - **min** and **max** mean maximum and minimum temperature in the day.

Example of current weather API response

```
"main":{
   "temp":306.15, //current temperature
   "pressure":1013,
   "humidity":44,
   "temp_min":306, //min current temperature in the city
   "temp_max":306 //max current temperature in the city
 }
```

For comparison look at example of daily forecast weather API response:

Example of daily forecast weather API response

```
"dt":1406080800,
"temp":{
      "day":297.77,  //daily averaged temperature
      "min":293.52, //daily min temperature
      "max":297.77, //daily max temperature
      "night":293.52, //night temperature
      "eve":297.77, //evening temperature
      "morn":297.77}, //morning temperature
```

Other features

Format

Response format. JSON format is used by default. To get data in XML format just set up mode = xml.

Parameters

`mode` optional Response format. Possible values are `xml` and `html`. If you don't use the `mode` parameter format is JSON by default.

Example of API calls

JSON

```
api.openweathermap.org/data/2.5/weather?q=London&appid={API key}
(https://home.openweathermap.org/api_keys)
```

XML

```
api.openweathermap.org/data/2.5/weather?q=London&mode=xml
```

Units of measurement

`standard`, `metric`, and `imperial` units are available. List of all API parameters with available units (/weather-data).

Parameters

`units`	optional	`standard`, `metric`, `imperial`. When you do not use the `units` parameter, format is `standard` by default.	

> Temperature is available in Fahrenheit, Celsius and Kelvin units.
>
> - For temperature in Fahrenheit use units=imperial
> - For temperature in Celsius use units=metric
> - Temperature in Kelvin is used by default, no need to use units parameter in API call
>
> List of all API parameters with units openweathermap.org/weather-data (http://openweathermap.org/weather-data)

Examples of API calls:

Standard

```
api.openweathermap.org/data/2.5/find?q=London&appid={API key}
(https://home.openweathermap.org/api_keys)
```

metric

```
api.openweathermap.org/data/2.5/find?q=London&units=metric
```

imperial

```
api.openweathermap.org/data/2.5/find?q=London&units=imperial
```

Multilingual support

You can use the `lang` parameter to get the output in your language.

Translation is applied for the `city name` and `description` fields.

API call

```
http://api.openweathermap.org/data/2.5/weather?id=524901&appid={API key}
(https://home.openweathermap.org/api_keys)&lang={lang}
```

Parameters

`lang`	optional	Language code

Examples of API calls

```
http://api.openweathermap.org/data/2.5/weather?id=524901&lang=fr&appid={API key}
(https://home.openweathermap.org/api_keys)
```

We support the following languages that you can use with the corresponded lang values:

- `af` Afrikaans
- `al` Albanian
- `ar` Arabic
- `az` Azerbaijani
- `bg` Bulgarian
- `ca` Catalan
- `cz` Czech
- `da` Danish
- `de` German
- `el` Greek
- `en` English
- `eu` Basque
- `fa` Persian (Farsi)
- `fi` Finnish

- `fr` French
- `gl` Galician
- `he` Hebrew
- `hi` Hindi
- `hr` Croatian
- `hu` Hungarian
- `id` Indonesian
- `it` Italian
- `ja` Japanese
- `kr` Korean
- `la` Latvian
- `lt` Lithuanian
- `mk` Macedonian
- `no` Norwegian
- `nl` Dutch
- `pl` Polish
- `pt` Portuguese
- `pt_br` Português Brasil
- `ro` Romanian
- `ru` Russian
- `sv, se` Swedish
- `sk` Slovak
- `sl` Slovenian
- `sp, es` Spanish
- `sr` Serbian
- `th` Thai
- `tr` Turkish
- `ua, uk` Ukrainian
- `vi` Vietnamese
- `zh_cn` Chinese Simplified
- `zh_tw` Chinese Traditional
- `zu` Zulu

Call back function for JavaScript code

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

Example of API call

```
api.openweathermap.org/data/2.5/weather?q=London,uk&callback=test&appid={API key}
(https://home.openweathermap.org/api_keys)
```

Product Collections

Subscription

About us (/about-us)

Technologies

Terms & Conditions

Our team (https://openweather.co.uk/team)

Blog (https://openweather.co.uk/blog/category/weather)

Support center (https://openweathermap.force.com/s/contactsupport)

info@openweathermap.org (mailto:info@openweathermap.org)

Download OpenWeather app

(https://apps.apple.com/gb/app/openweather/id1535923697)

(https://play.google.com/store/apps/details?id=uk.co.openweather)

(https://www.facebook.com/groups/270748973021342)(https://twitter.com/OpenWeatherMap)(https://www.linkedin.com/company/9816754)(https://medium.com/@openweatl