**Weather Service API Documentation**

**Request Types**

**Authentication**

POST: <https://hostname/api/weather/authenticate>

In the body of the request you need to include your username and password in JSON format like this:

{

"Username": "John Doe",

"Password": "12345678"

}

This request returns you a JSON Web Token (JWT) which you must include in every request to get authenticated.

Example response:

eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.PcmVIPbcZl9j7qFzXRAeSyhtuBnHQNMuLHsaG5l804A

In order to use the JWT when a request requires authentication add a header to the request with the following values:

|  |  |
| --- | --- |
| Key | Value |
| Authorization | Bearer [Insert JWT here] |

**Weather Providers List**

GET: <https://hostname/api/weather/providers>

NOTE: Authorization required. Check the authentication section.

This request returns you a list of all the activated providers so you can use the appropriate provider ID when sending weather requests.

Example response:

[

{

"id": 0,

"name": "WeatherProvider1"

},

{

"id": 1,

"name": "WeatherProvider2"

}

]

**Weather**

GET: [https://hostname/api/weather/{providerID},{latitude},{longitude}](https://hostname/api/weather/%7bproviderID%7d,%7blatitude%7d,%7blongitude%7d)

Example: GET <https://hostname/api/weather/0,51.528308,-0.3817765>

You can optionally specify the system of measurement by setting the “units” parameter in the URL like this:

GET <https://hostname/api/weather/0,51.528308,-0.3817765?units=metric>

The available options are “metric” and “imperial”. The default value is “metric”.

NOTE: Authorization required. Check the authentication section.

NOTES:

This request returns you the current weather data and the daily forecast.

You will receive the status 400: “Bad Request” if the provider you have specified has been disabled. It’s useful to use the api/weather/providers request in that case to find an alternative solution.

If you receive the status 503: “Service Unavailable”, then there’s most likely a problem with the weather provider. You can try again later or use a different weather provider temporarily.

It’s recommended to be consistent with one weather provider unless there’s an issue. However, in case you switch for whatever reason, you may receive a cached response from your previous provider if that response hasn’t expired.

Data explanation

*General data:*

**expiration [string]**

Unix UTC time when the response is removed from the server cache.

**provider [string]**

The name of the weather provider.

**units [string]**

The system of measurement.

**cityName [string] [optional]**

The name of the area chosen from the weather provider based on the coordinates given.

**country [string] [optional]**

The country detected from the weather provider.

**coords.lat [double]**

Latitude. It may be different than the one given in the URL.

**coords.lon [double]**

Longitude. It may be different than the one given in the URL.

*Weather data:*

**now [forecasts]**

**current [optional]**

**date [int64]**

UNIX Utc time.

**temp [float] [optional]**

Current temperature.

**tempMin [float] [optional]**

Lowest temperature of the day.

**tempMax [float] [optional]**

Highest temperature of the day.

**humidity [int32] [optional] [%]**

**weatherType [string] [optional]**

Can be used for icons.

**weatherDescription [string] [optional]**

Can be used as the weather summary.

**cloudiness [int32] [optional] [%]**

**windSpeed [float] [optional]**

**windDeg [float] [optional]**

The wind direction. 0 or 360 is North and 180 is South.

Example response:

{

"expiration": "2019-08-21T09:32:42.2221862Z",

"provider": "MyWeatherProvider",

"units": "Metric",

"cityName": "Greenford",

"country": "GB",

"coords": {

"lat": 51.5287,

"lon": -0.3551

},

"now": {

"date": 1566378162,

"temp": 17.21,

"humidity": 72.0,

"weatherType": "Clear",

"weatherDescription": "clear sky",

"cloudiness": 0,

"windSpeed": 1.5,

"windDeg": 220.0

},

"forecasts": [

{

"date": 1566388800,

"tempMin": 13.0,

"tempMax": 21.23,

"humidity": 64.0,

"weatherType": "Clouds",

"weatherDescription": "broken clouds",

"cloudiness": 79,

"windSpeed": 3.65125,

"windDeg": 223.095291

},

. . .

]

}