

Weather Service API Documentation (WIP)

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 in order to get authenticated.

Example response:

```
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MzIyMDQyPmVIPbcZl9j7qFzXRAeSyhtuBnHQNMuLHsaG5l804A
```

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}>

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.

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

NOTES:

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 still receive cached responses from your previous provider if those responses haven’t expired.

Do not assume the availability of the optional (check “Data explanation” below) values. The data returned by the weather providers are out of our control. It’s recommended that you handle the response in a way that won’t fail in case of missing data.

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 [JSON object] [optional]

Current weather conditions.

forecasts [JSON array] [optional]

Daily weather conditions. Starts from today.

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] [%]

Percentage of humidity.

weatherType [string] [optional]

Can be used for icons.

weatherDescription [string] [optional]

Can be used as the weather summary.

cloudiness [int32] [optional] [%]

Percentage of cloud cover.

windSpeed [float] [optional]

windDeg [float] [optional]

The wind direction in degrees. 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
    },
    . . .
  ]
}
```