

OpenWeatherMap API: Input Parameters and Methods for Retrieving Weather Data

OpenWeatherMap API Input Parameters

OpenWeatherMap API allows users to retrieve weather data using different input parameters. The primary input can be a city name and country, while latitude and longitude are optional.

API Documentation Link:

<https://openweathermap.org/api/one-call-api>

Input Parameters:

1. City Name (Required)
2. Country (Required)
3. Latitude (Optional)
4. Longitude (Optional)

Steps to Use Latitude and Longitude as Optional Parameters

1. Step 1: Retrieve the geographical coordinates (latitude and longitude) of the location.
2. Step 2: If you already have the city name and country, you can skip latitude and longitude.
3. Step 3: If you want more precise weather data, include the latitude and longitude in the API request.
4. Step 4: Structure the API request as follows:
`https://api.openweathermap.org/data/2.5/onecall?lat={lat}&lon={lon}&appid={API key}`
5. Step 5: Execute the API request and parse the response as required.

Getting Weather for a Specific Location in a State

Method 1: Using City, State, and Country

You can specify the city name along with the state code and country code in the Geocoding API request to get precise coordinates.

API Request Format:

`https://api.openweathermap.org/geo/1.0/direct?q={city name},{state code},{country code}&appid={API key}`

Example for Hyderabad, Telangana, India:

`https://api.openweathermap.org/geo/1.0/direct?q=Hyderabad,TS,IN&appid=YOUR_API_KEY`

Method 2: Using Latitude and Longitude Directly

Once you get the coordinates from the Geocoding API, use them in the One Call API to get weather data for the exact location.

API Request Format:

`https://api.openweathermap.org/data/2.5/onecall?lat={lat}&lon={lon}&appid={API key}`

The screenshot displays the OpenWeather API documentation page. The top navigation bar includes links for Guide, API, Dashboards, Marketplace, Pricing, Maps, Our Initiatives, Blog, For Business, Pavan, and Support centre. The main content area is divided into two columns. The left column, titled 'Parameters', lists the following: 'lat, lon' (required, Geographical coordinates), 'appid' (required, Your unique API key), 'exclude' (optional, By using this parameter you can exclude some parts of the weather data from the API response. It should be a comma-delimited list (without spaces). Available values: current, minutely, hourly, daily, alerts), '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), and 'lang' (optional, You can use the lang parameter to get the output in your language. Learn more). The right column lists various features and resources: 'Current and forecasts weather data' (with links for How to make an API call, Example of API response, and Fields in API response), 'Historical weather data' (with links for How to make an API call, Example of API response, and Fields in API response), 'List of weather condition codes', 'Other features' (including Units of measurement, Multilingual support, List of national weather alerts sources, and Call back function for JavaScript code), and a promotional banner for 'AI Notetaker' with a 'FREE unlimited subscription' offer.