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}