

Meteostat JSON API

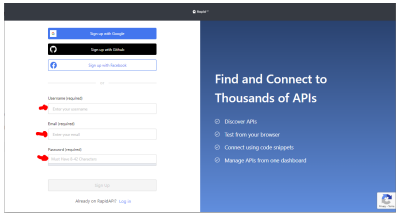
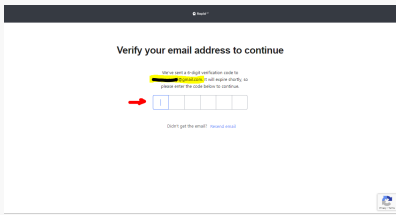
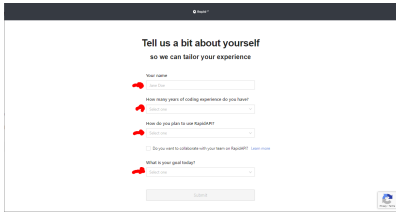
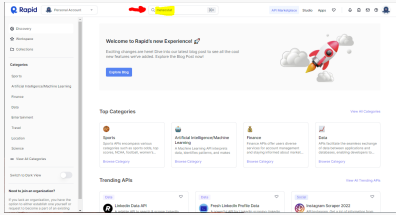
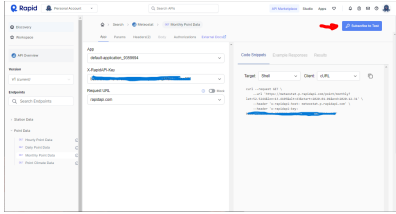
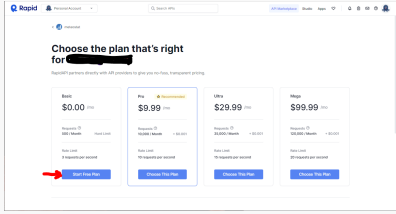
We are going to get historical weather data from the Meteostat JSON API

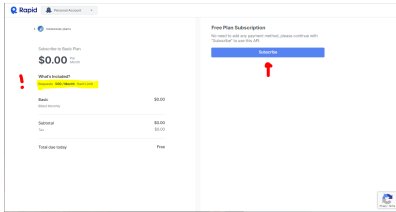
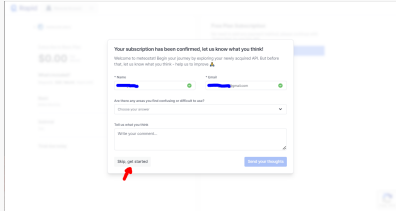
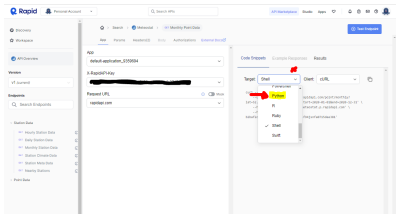
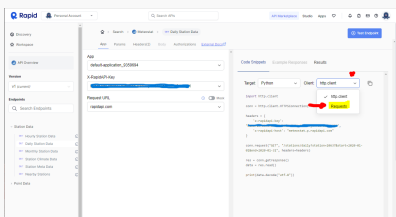
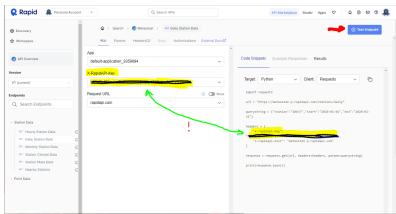
Meteostat JSON API service is hosted on [RapidAPI](https://rapidapi.com/), an API marketplace which allows developers to use thousands of APIs through the same platform.

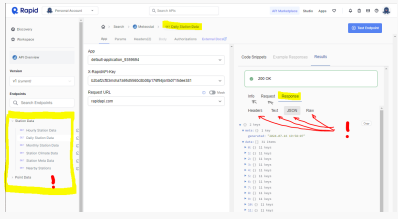
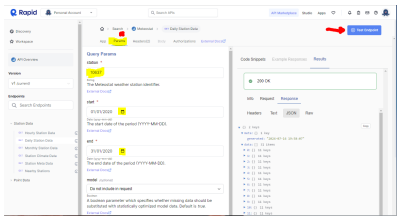
Meteostat JSON API Documentation: <https://dev.meteostat.net/api/>

Task #1:

Follow the **Sign Up** to [RapidAPI](https://rapidapi.com/) instructions in order to get access to the Meteostat API.

STEP 1	Visit: https://rapidapi.com/auth/sign-up Enter a nickname, an email and a password to sign up.	 The image shows the RapidAPI sign-up page. It has a dark blue header with the RapidAPI logo. Below the header, there are input fields for 'Username/Email', 'Email', and 'Password'. To the right, there is a section titled 'Find and Connect to Thousands of APIs' with a list of categories: 'Discover APIs', 'Get from your browser', 'Connect using code snippets', and 'Manage APIs from our dashboard'. A red arrow points to the 'Sign Up' button at the bottom.
STEP 2	Check your email inbox for code Copy/Paste the code for verification.	 The image shows the RapidAPI email verification page. It has a white background with a dark blue header. The main text says 'Verify your email address to continue'. Below this, there is a red arrow pointing to a yellow box containing a verification code. A red arrow also points to the input field where the code should be pasted. At the bottom, there is a link that says 'Didn't get the email? Resend email'.
STEP 3	Fill out the fields.	 The image shows the RapidAPI profile completion page. It has a white background with a dark blue header. The main text says 'Tell us a bit about yourself so we can tailor your experience'. Below this, there are several input fields for 'Your name', 'How many years of coding experience do you have?', 'How do you plan to use RapidAPI?', 'Do you want to collaborate with your team on RapidAPI?', and 'What is your goal today?'. A red arrow points to the 'Sign Up' button at the bottom.
STEP 4	Search for 'meteostat'. And select it.	 The image shows the RapidAPI search results page. It has a white background with a dark blue header. The main text says 'Welcome to RapidAPI's new Experience!'. Below this, there is a search bar with 'meteostat' entered. The search results show 'meteostat' as the top result. A red arrow points to the 'Subscribe to Test' button next to the 'meteostat' result.
STEP 5	Click the Subscribe to Test button.	 The image shows the RapidAPI subscription page. It has a white background with a dark blue header. The main text says 'Choose the plan that's right for you'. Below this, there are four subscription plans: 'Basic', 'Pro', 'Ultra', and 'Mega'. A red arrow points to the 'Subscribe to Test' button under the 'Basic' plan.
STEP 6	Click Start Free Plan button under the basic plan.	 The image shows the RapidAPI subscription page. It has a white background with a dark blue header. The main text says 'Choose the plan that's right for you'. Below this, there are four subscription plans: 'Basic', 'Pro', 'Ultra', and 'Mega'. A red arrow points to the 'Start Free Plan' button under the 'Basic' plan.

STEP 7	<p>Note that it is for free.</p> <p>Note that it is limited to 500 requests per month.</p> <p>Click Subscribe button.</p>	
STEP 8	<p>Feel free to skip. Click Skip, get started button</p>	
STEP 9	<p>You see now an online interface API preview area.</p> <p>Select <i>Target</i>: Python</p>	
STEP 10	<p>Select <i>Client</i>: Requests</p>	
STEP 11	<p>Below you see now the python code.</p> <p>We will not need it as we are going to use a slightly different syntax.</p> <p>But for experiments you can check with this code for default syntax.</p> <p>However the headers are the mandatory part as it contains your API Key.</p> <p>Click Test Endpoint button (top/right) to get some data.</p>	

<p>STEP 12</p>	<p>On the right lower section we now have a Response.</p> <p>Expand the numbers to see the contents.</p> <p>Check out all those Response parts (<i>Headers, Text, JSON, Raw</i>).</p> <p>Also see <i>Info</i> and <i>Request</i>.</p> <p>We just tested the Daily Station Data (see marked top/middle).</p> <p>On the left you see all other available endpoints.</p>	
<p>STEP 13</p>	<p>Switch to Params.</p> <p>Here you can adjust the period start and end also change the station id.</p> <p>How can we find the station we need?</p> <p>Check out the <i>Nearby Stations</i> endpoint.</p>	

Another way of finding a station we look for is to enter Names or Coordinates here:

<https://meteostat.net/en/>

Finding a specific station id can get tricky and requires some patience and double checks. The API endpoint *Nearby Stations* finds multiple stations.

We could make our requests based on coordinates only, then it will return aggregated values from the nearby stations. However sometimes the aggregation causes missing data.

Hence we will address the exact station ids (will be given). And typically airport have their own weather stations.

Task #2

update your **.env** file with the `X-RapidAPI-Key = 'dfsd8w43roihsdfu.....whateveritis'`

Task #3:

- Check out the Meteostat JSON API documentation: <https://dev.meteostat.net/api/>
- Find out what the call limits are for this API (Hint: it is not only the 500 requests per month)
-> Consider data retrieval needs (including testing) and how to fit within these limits.
- Check out the *Daily Data* and *Hourly Data*.
- Which parameter can we pass to the Request?
- Which data will get from the Response

Keep in mind that your API calls are limited!

When possible, separate code calling the API from other code working on the data.

How to check used API calls

To check the number of API calls so far: <https://rapidapi.com/console/analytics/my-subscriptions/playground>

Or on <https://rapidapi.com/>:

- click your Icon (Top-Right-Corner) >> Console
- Under Analytics switch from My APIs to **My Subscriptions** (My APIs is for API providers)
- Click **Analytics Playground** button

How to find meteostat interface on rapidapi.com

<https://rapidapi.com/meteostat/api/meteostat>

Or on <https://rapidapi.com/>:

- In the left Navigation select Workspace
- Scroll down to **My Subscriptions**
- Click the link to meteostat