strata API

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INTRODUCTION

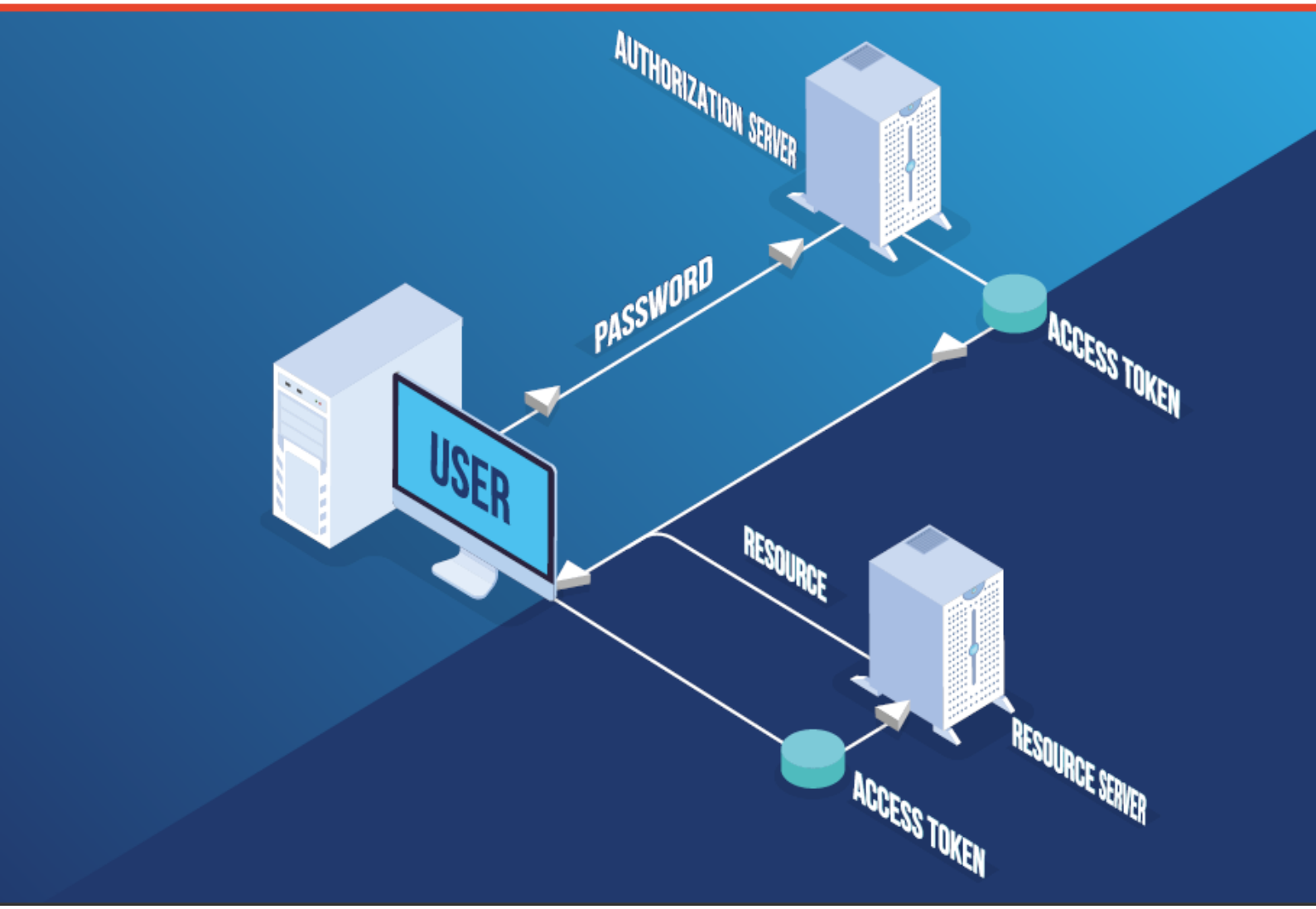
What is an API Endpoint? An API endpoint is a point at which an application program interface (API) -- the code that allows two software programs to communicate with each other -- connects with the software program. APIs send requests for information from a web application or web server and receive a response.

In other words, API endpoints are the specific digital locations where requests for information are sent by one program to retrieve the digital resource that exists there. Endpoints specify where APIs can access resources and help guarantee the proper functioning of the incorporated software.

This document intends to show how to connect and use Strata API as an interface where users can extract/insert raw data without any graphical user interface.

We need to provide the API with our Strata login details to access Strata data and retrieve an access token. Once we have the access token, this will act as an access code and authorise our API access.

Even though you may have access to more than one Strata (e.g. for different organisations), the API will allow access to each once you are authenticated. Connecting to each will issue a different access token, valid for seven days for security reasons.



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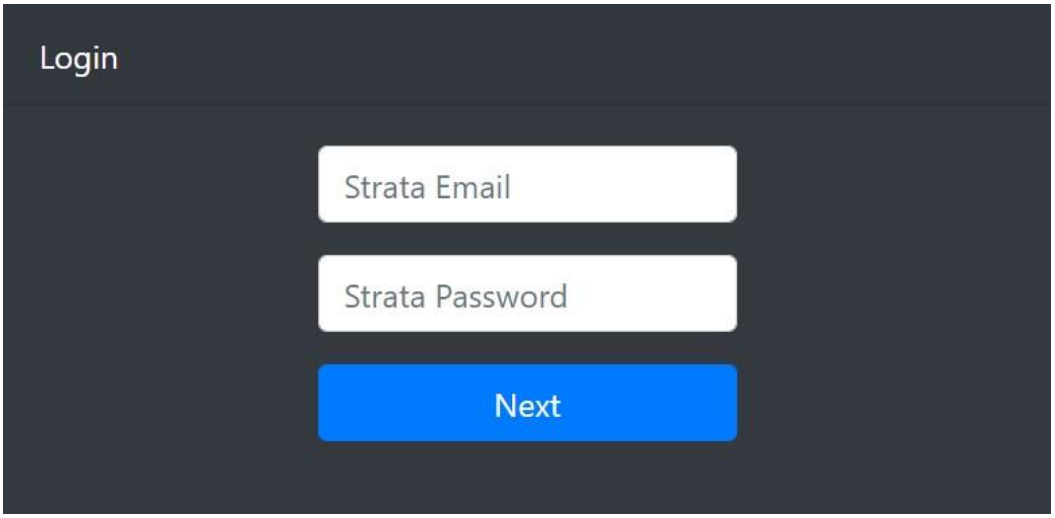
CONNECTING TO THE STRATA API

To start using the API and retrieve your access token, you have two options:

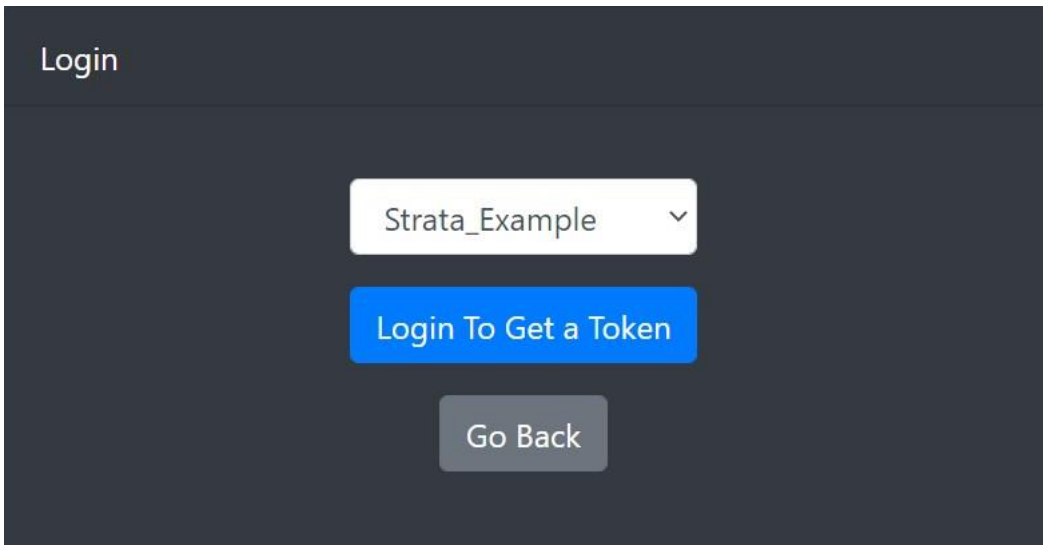
USER INTERFACE (Basic)

By using your web browser and going to **https://api.strata-login.com**

- Fill in the form with your Strata email and password.

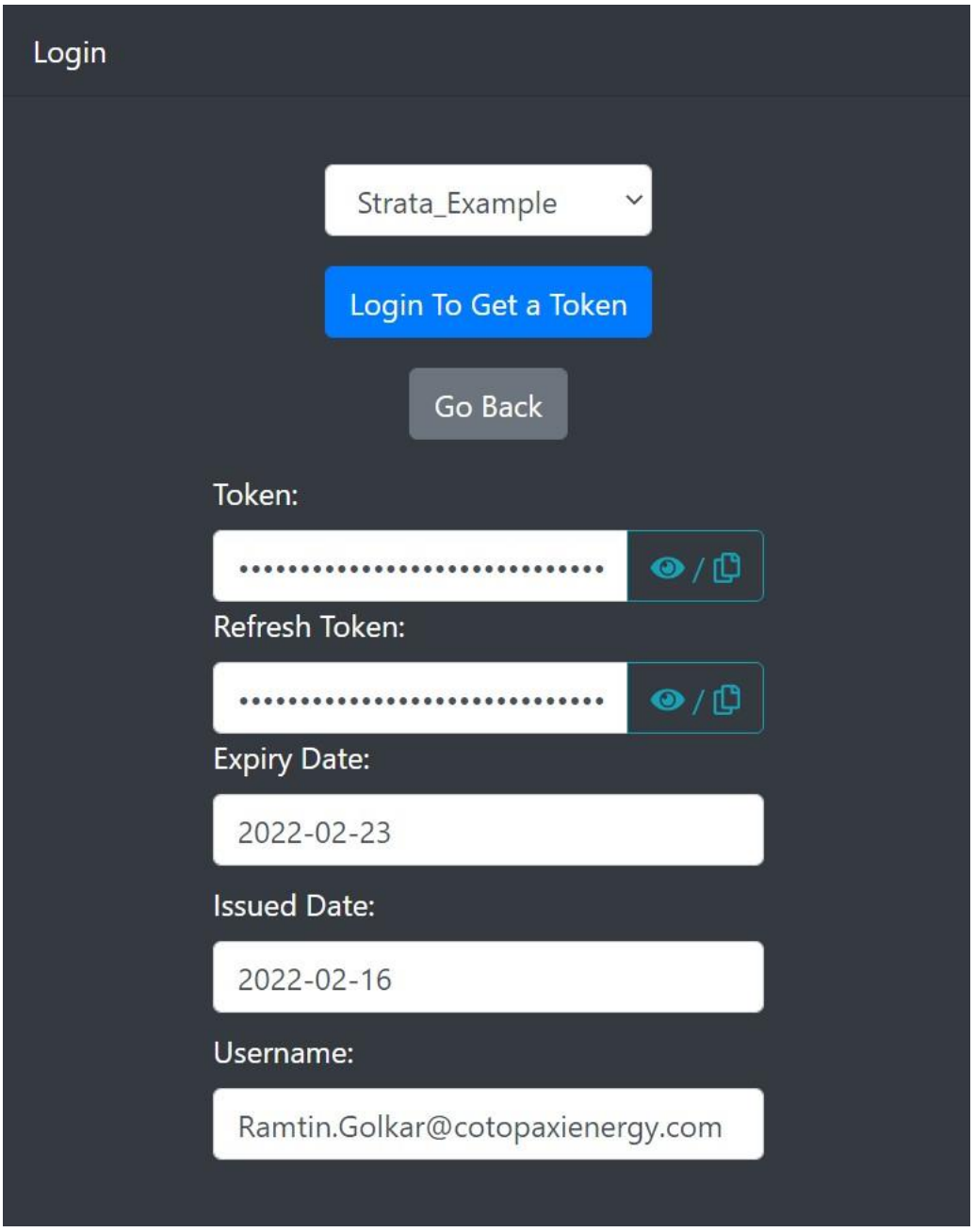


- Select the Strata you would like to access.



CONNECTING TO THE STRATA API

- Your access token and details will show like the form below.



- On this page, you can copy your token by clicking on the copy button by the token.
- Use this access token as the authorisation header for any request you are sending.
- The refresh token could be used to obtain a new token. Each refresh token is valid for 21 days, and upon using the refresh token, a new token and a new refresh token will be generated.

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CONNECTING TO THE STRATA API

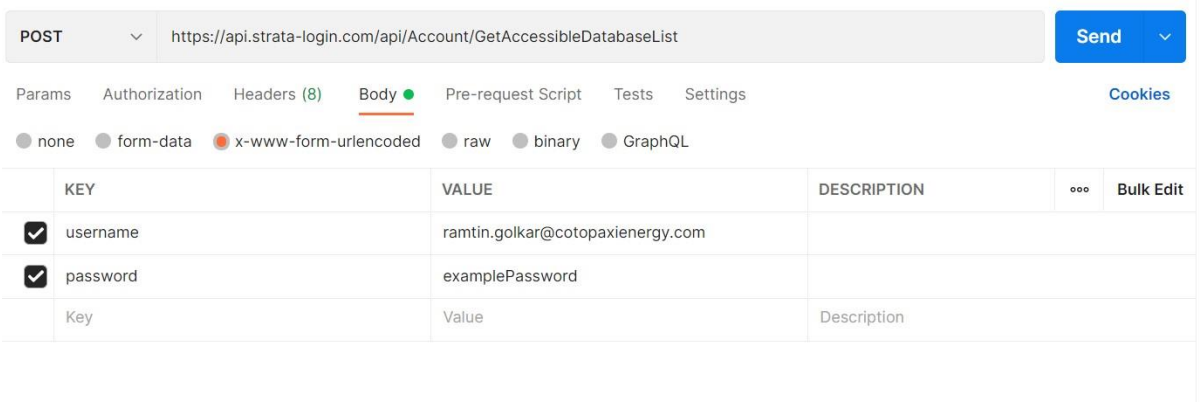
USING TOOLS LIKE POSTMAN (Advanced)

This will allow you to consume the API without using a user interface to get the access token.

If you need to see which Strata databases you have access to, send a POST request to:

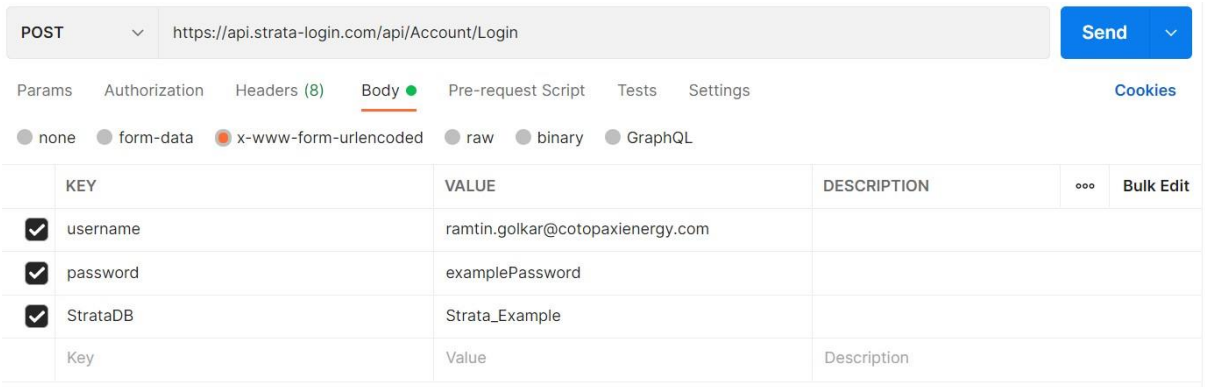
https://api.strata-login.com/api/Account/GetAccessibleDatabaseList

as the image below with your Strata username and password.



You can see in the response an array of objects called **"UserDbs",** which will show accessible Strata.

When you know which Strata you want to connect, pass that to the below POST request with your username, password and strataDB:



The response will return your access token, which will be used to make requests and be valid for seven days.

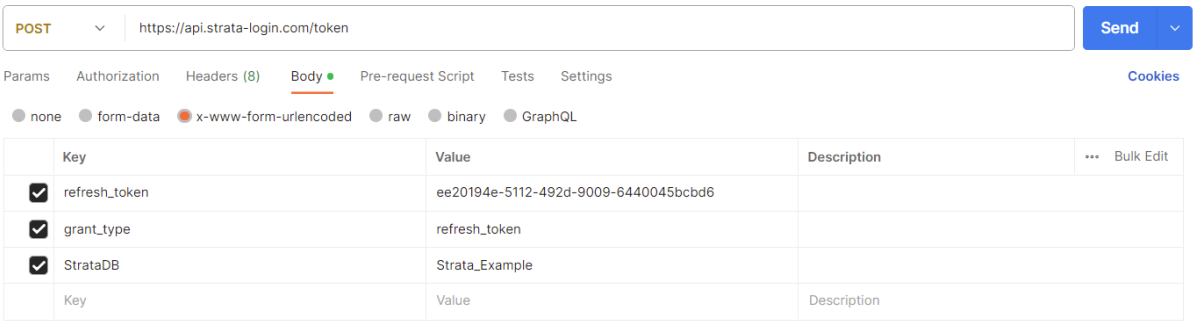
You could avoid the first step if you already know which Strata you want toconnect to, for example, Strata_(Replace Client Name).

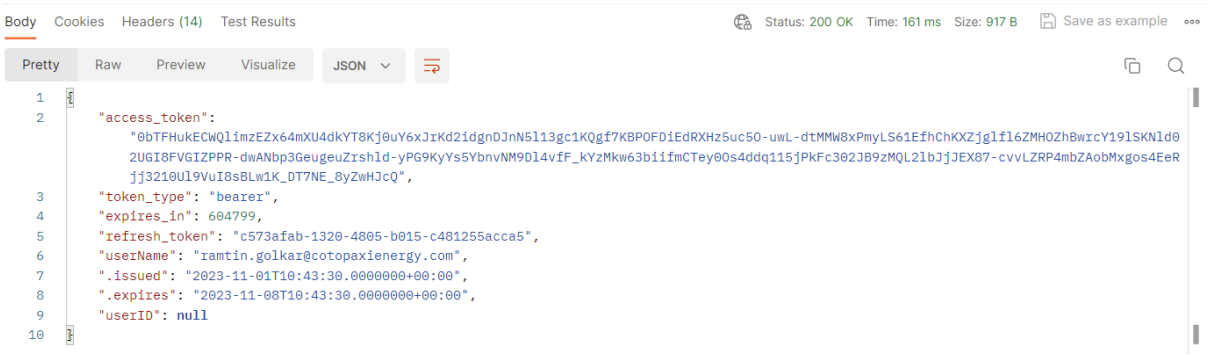
Refreshing the access token

Strata API can get new tokens by passing the refresh token obtained in the previous login step.

Each refresh token can be used once. As soon as you refresh your access token, a new refresh token will also be returned, which could be used to refresh the access token again.

You need to pass your refresh token in the body of the request like below:





CONNECTING TO STRATA API WITH POWER BI

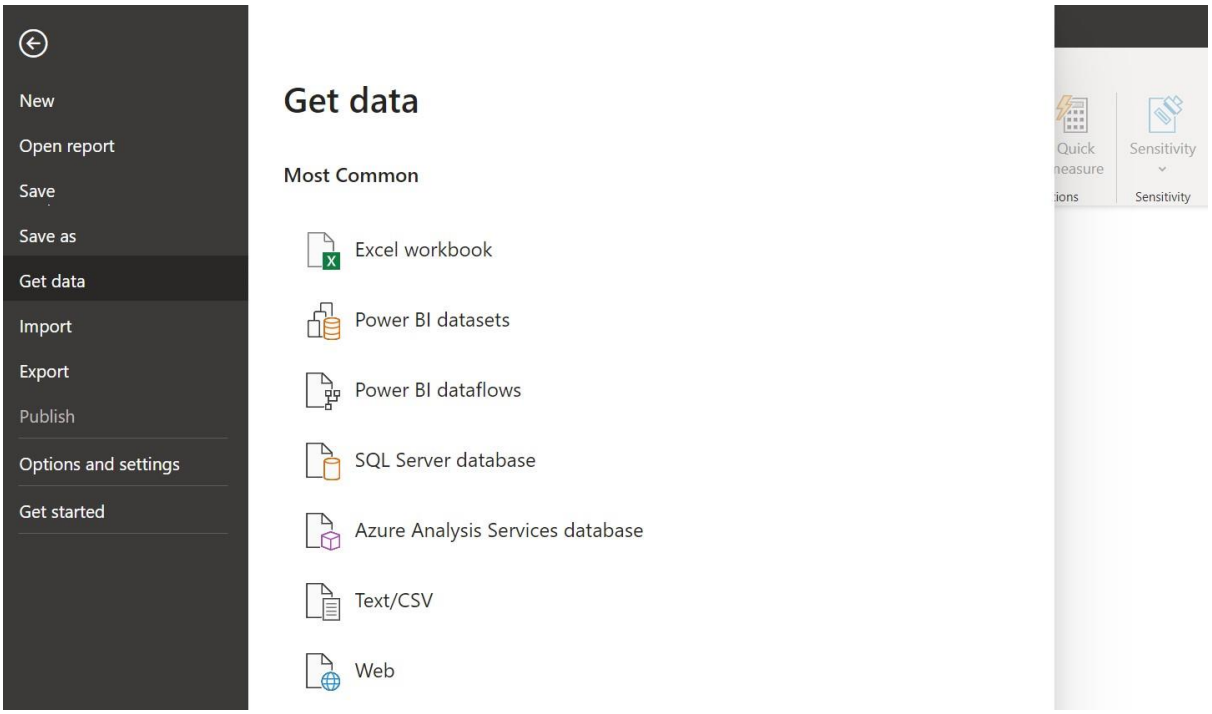
We can use Power BI to create custom visualised reports by extracting the data from the Strata API.

WIZARD

If you want to use the wizard option, follow the steps below.

Note: We offer packages for creating Power BI reports with Strata API. If you are interested, please get in touch with us at support@strata-login.com.

- From the **"File"** menu, select **"Get Data".**



- In new versions, click on "**Web"** as shown in the screenshot above; otherwise, click on **"Other"** then select **"Web".**

CONNECTING TO STRATA API WITH POWER BI

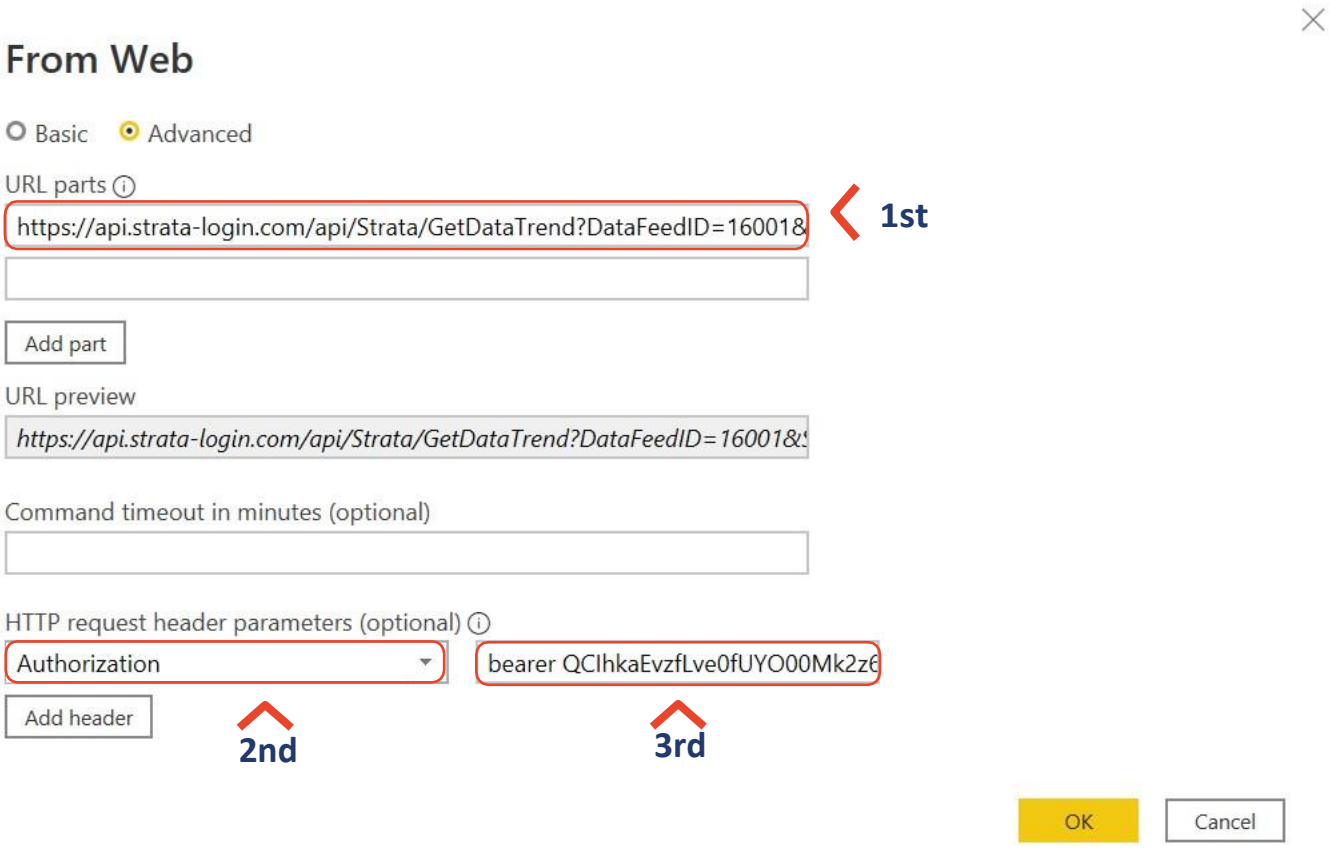
1. Select the "**Advanced**" option here and fill the form with the requested URL in the 1st box as shown below. The URL would be the endpoint you want to access; the most common URL is for getting data from a datafeed: **Click Here**

   In the above example, put your desired DatafeedID after the equal sign, as in the picture below.

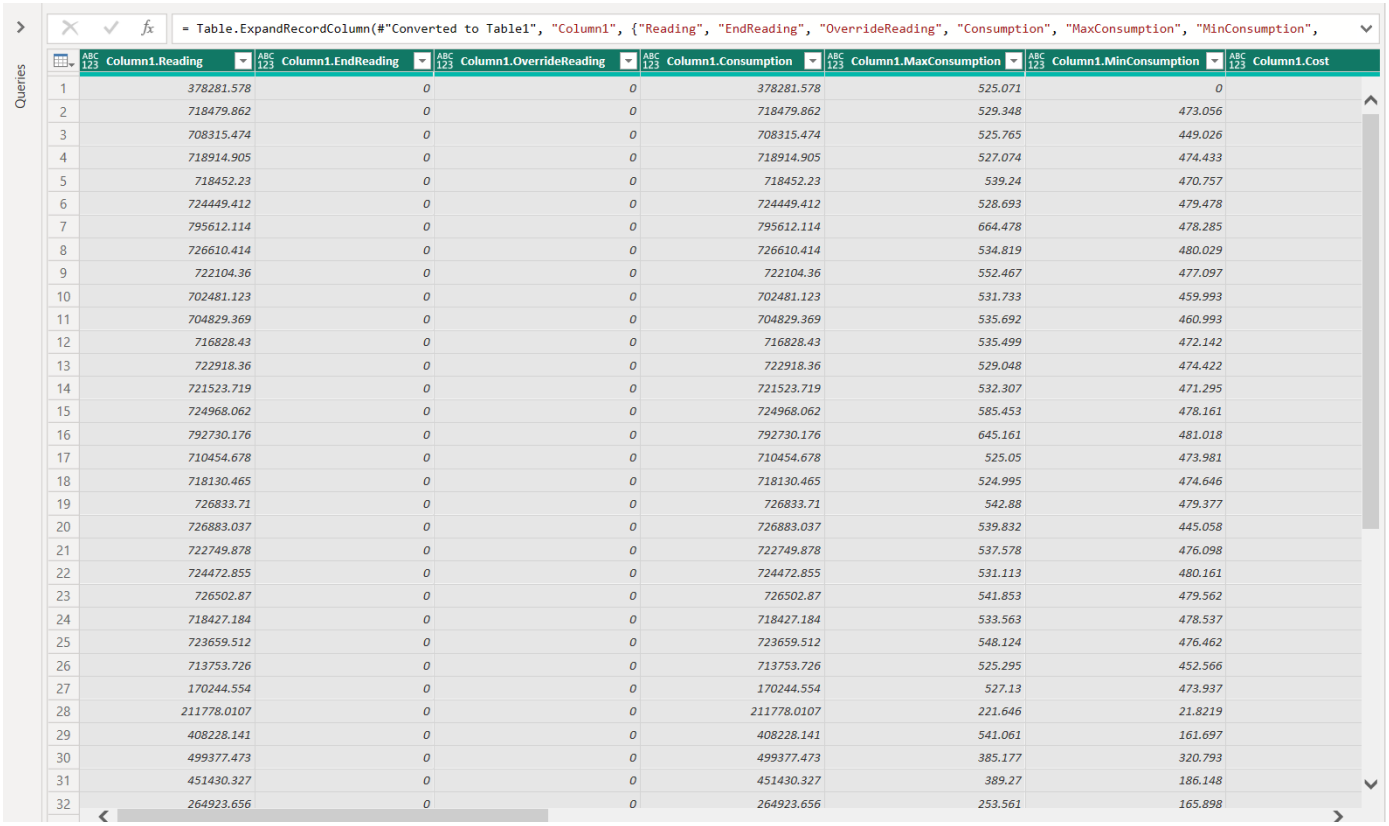
   Tip: When you are viewing a data feed in Strata. The last part is your data feed ID. (in this example 16001)

   https://example.strata-login.com/#/DataFeed/View/16001

   Type in a header called **"Authorization"** in the 2nd box. Then, in the 3rd box, type **"bearer",** add one space after and paste your access token, which you obtained from the previous steps.



2. Pressing ‘OK’ will return the data.



Queries

= Table.ExpandRecordColumn(#"Converted to Table1", "Column1", {"Reading", "EndReading", "OverrideReading", "Consumption", "MaxConsumption", "MinConsumption",

	Column1.Reading	Column1.EndReading	Column1.OverrideReading	Column1.Consumption	Column1.MaxConsumption	Column1.MinConsumption	Column1.Cost
1	378281.578	0	0	378281.578	525.071	0	
2	718479.862	0	0	718479.862	529.348	473.056	
3	708315.474	0	0	708315.474	525.765	449.026	
4	718914.905	0	0	718914.905	527.074	474.433	
5	718452.23	0	0	718452.23	539.24	470.757	
6	724449.412	0	0	724449.412	528.693	479.478	
7	795612.114	0	0	795612.114	664.478	478.285	
8	726610.414	0	0	726610.414	534.819	480.029	
9	722104.36	0	0	722104.36	552.467	477.097	
10	702481.123	0	0	702481.123	531.733	459.993	
11	704829.369	0	0	704829.369	535.692	460.993	
12	716828.43	0	0	716828.43	535.499	472.142	
13	722918.36	0	0	722918.36	529.048	474.422	
14	721523.719	0	0	721523.719	532.307	471.295	
15	724968.062	0	0	724968.062	585.453	478.161	
16	792730.176	0	0	792730.176	645.161	481.018	
17	710454.678	0	0	710454.678	525.05	473.981	
18	718130.465	0	0	718130.465	524.995	474.646	
19	726833.71	0	0	726833.71	542.88	479.377	
20	726883.037	0	0	726883.037	539.832	445.058	
21	722749.878	0	0	722749.878	537.578	476.098	
22	724472.855	0	0	724472.855	531.113	480.161	
23	726502.87	0	0	726502.87	541.853	479.562	
24	718427.184	0	0	718427.184	533.563	478.537	
25	723659.512	0	0	723659.512	548.124	476.462	
26	713753.726	0	0	713753.726	525.295	452.566	
27	170244.554	0	0	170244.554	527.13	473.937	
28	211778.0107	0	0	211778.0107	221.646	21.8219	
29	408228.141	0	0	408228.141	541.061	161.697	
30	499377.473	0	0	499377.473	385.177	320.793	
31	451430.327	0	0	451430.327	389.27	186.148	
32	264923.656	0	0	264923.656	253.561	165.898	

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ADVANCED POWER BI SCRIPT EXAMPLE

USING ADVANCED QUERY

Here is an example: **https://api.strata-login.com/PowerBIQueryExample.txt**

Use this example to log in by providing your Strata credentials, retrieving the data from different data feeds, and combining those results. You could use the example to call other endpoints by simply following the same format as the example.

To use this, you need to go to **"File"** => **"Get Data"** => **"Blank Query"**, then from the left-hand side, right-click on the new query (usually called **"Query 1"**) and select **"Advanced Query"**, then paste the above example.

```
let

baseURL = "https://api.strata-login.com/api/",
body =
[
   Username = "Replace Strata Username",
   Password = "Replace Strata Password",
   StrataDB = "Strata_[ClientName]"
],


login =Json.Document(Web.Contents(baseURL&"account/login",[Content = Text.ToBinary(Uri.BuildQueryString(body)),Headers = [#"Content-Type"="application/x-www-form-urlencoded"]])),

Access_token = login[Access_token],

//startdate set to 7 days ago and end date is current date
startDate = DateTime.ToText(Date.AddDays(DateTime.LocalNow(),-7), "yyyy-MM-dd"),
endDate = DateTime.ToText(DateTime.LocalNow(), "yyyy-MM-dd"),


//Add as many Source as you need (e.g: source1,2,3,4,5) and just change the DatafeedID like below example -- Aggregation is now weekly 604800 seconds = 1 week
Source1 = Json.Document(Web.Contents("https://api.strata-login.com/api/Strata/GetDataTrend?DataFeedID=[DataFeed
ID]&StartDate="&startDate&"&EndDate="&endDate&"&AggregationLevel=604800&AggegationType=1", [Headers=[authorization="bearer "&Access_token]])),
Source2 = Json.Document(Web.Contents("https://api.strata-login.com/api/Strata/GetDataTrend?DataFeedID=[DataFeed
ID]&StartDate="&startDate&"&EndDate="&endDate&"&AggregationLevel=604800&AggegationType=1", [Headers=[authorization="bearer "&Access_token]])),


//this will combine the result if you need
    output = List.Combine({Source1,Source2}),
    output1 = output{0}

in
    output1
```

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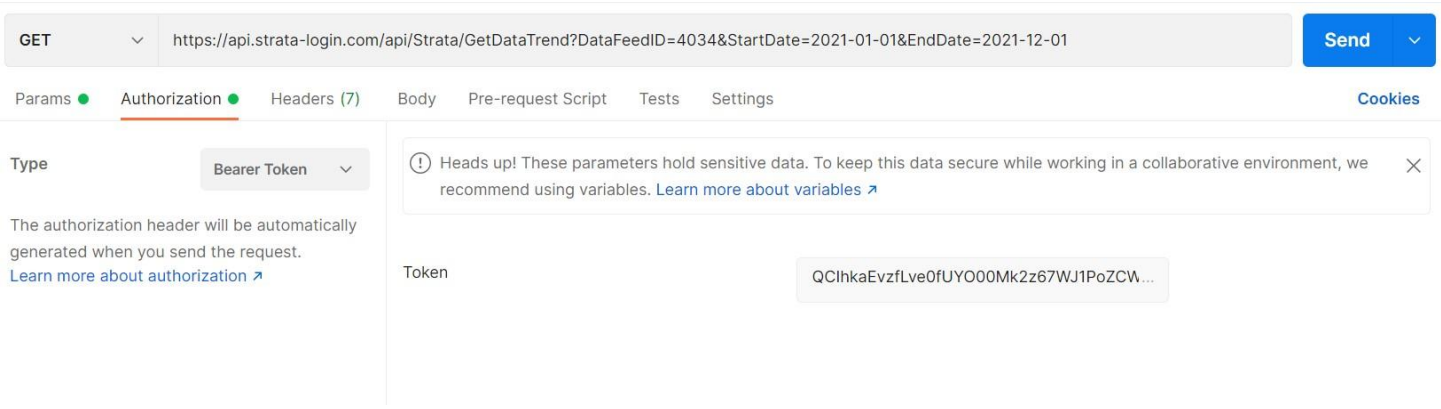
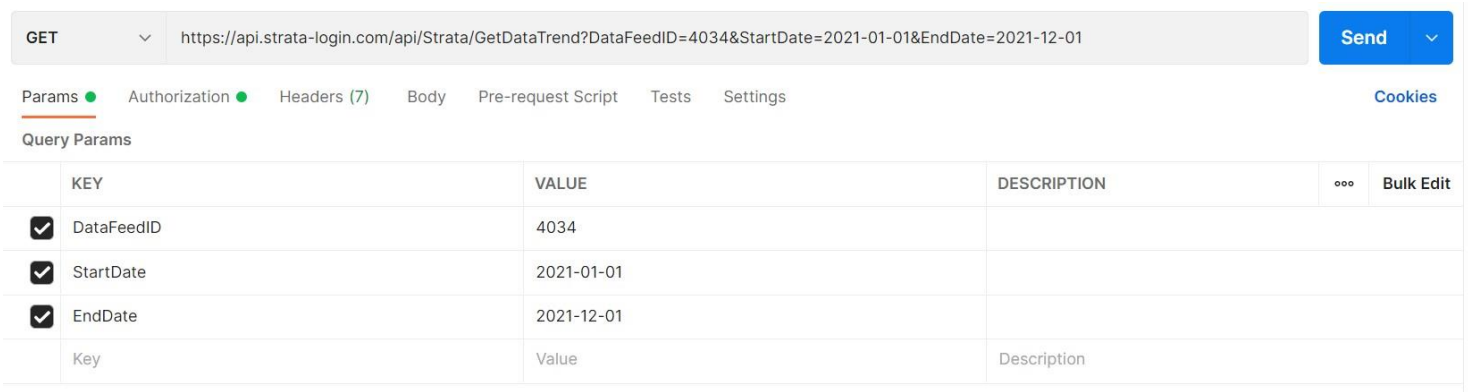
EXAMPLE OF USING AN ENDPOINT WITH AN ACCESS TOKEN

Endpoint example: **https://api.strata-login.com/api/Strata/GetDataTrend**

- Go to the **"Authorization"** tab, select '**bearer token'** and paste the obtained token.



- Go to the "**Params"** tab and add your parameters; in this case, the data feed ID, start and end date are below.



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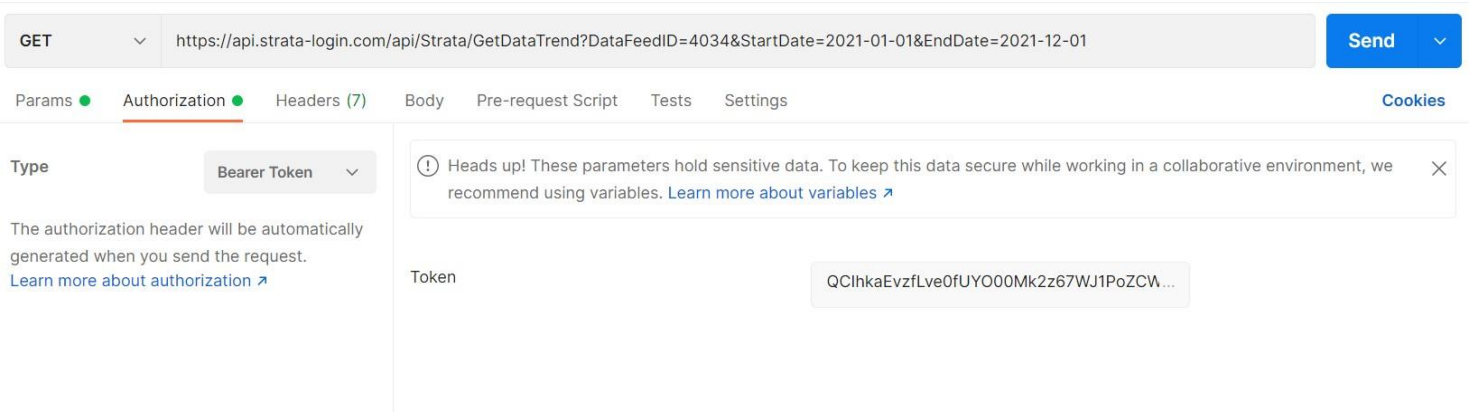
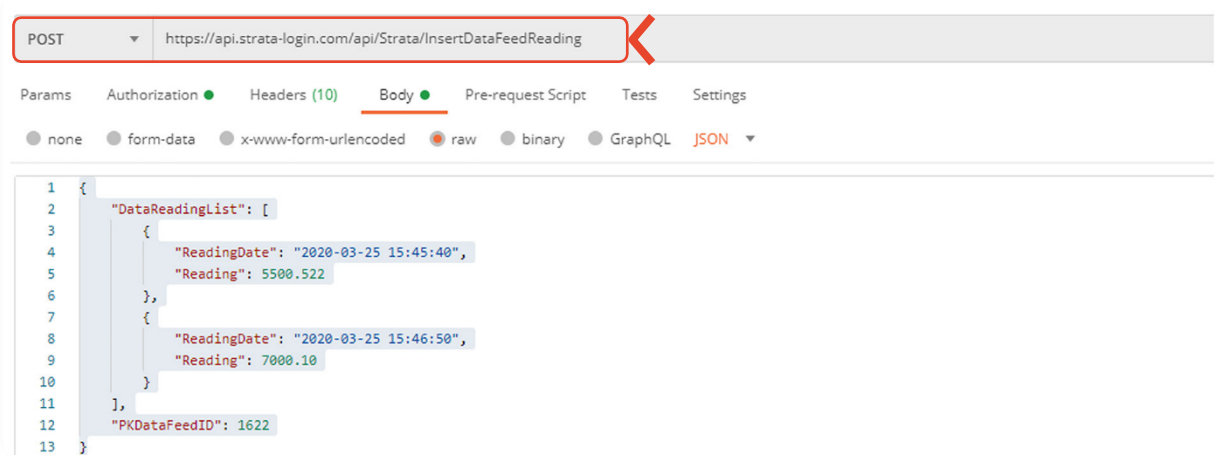
EXAMPLE OF INSERTING DATA INTO STRATA WITH AN ACCESS TOKEN

Endpoint example: **https://api.strata-login.com/api/Strata/InsertDataFeedReading**

- Go to the **"Authorization"** tab, select "bearer token", and paste the obtained token from the previous steps.



- Change your method to "POST" and go to the "Body" tab and send your readings like below:



ALL AVAILABLE ENDPOINTS AND DOCUMENTATION

- To see all the available Strata API endpoints and their documentation, please **Click here**.