Install a Provider and add a Connection

Apache Airflow is built in modular way. The “core” of Apache Airflow provides core scheduler functionality which allow you to write some basic tasks, but the capabilities of Apache Airflow can be extended by installing additional packages, called providers Providers can contain operators, hooks, sensor, and transfer operators to communicate with a multitude of external systems, but they can also extend Airflow core with new capabilities.

Prerequisites

To add a provider you need have set up your local Astro project as described under the section “Set up your local environment”

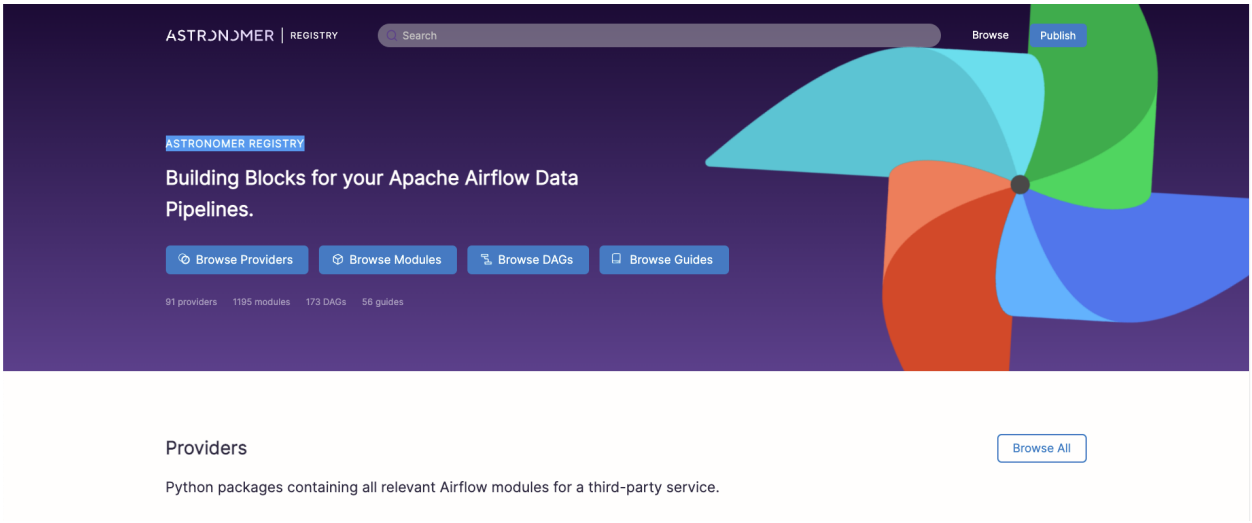
Where to find a Provider?

To interact with an external system such as AWS, DBT or Snowflake, you have to install the corresponding Provider. Airflow has 90+ providers.

The easiest way to find the one you are looking for, go to the https://registry.astronomer.io/

The Astronomer Registry is the discovery and distribution hub for Apache Airflow integrations.

You will find data pipeline examples, guides, documents and more.

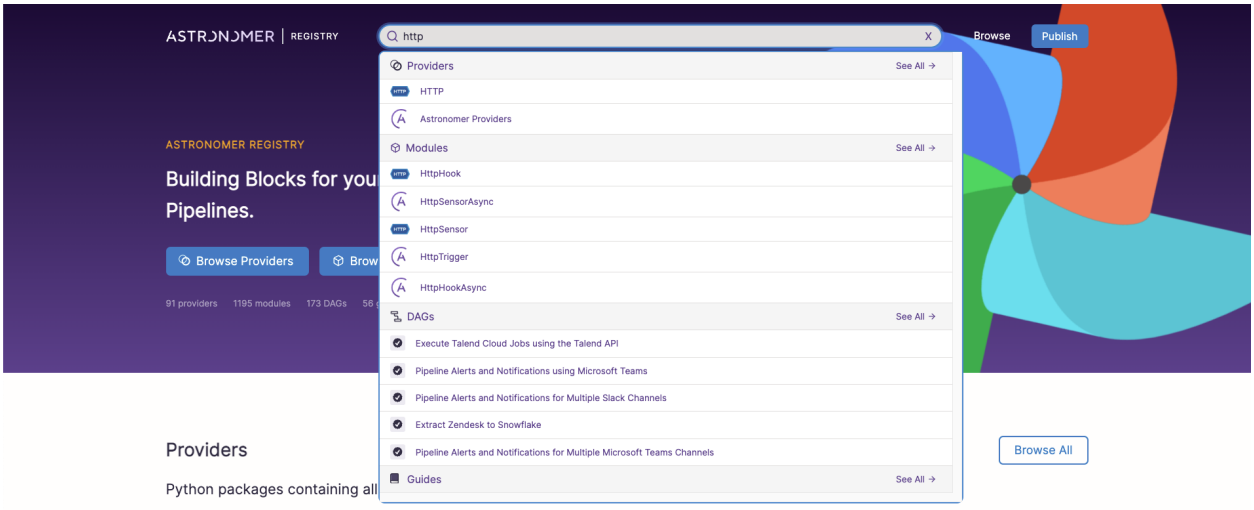


Find the HTTP provider

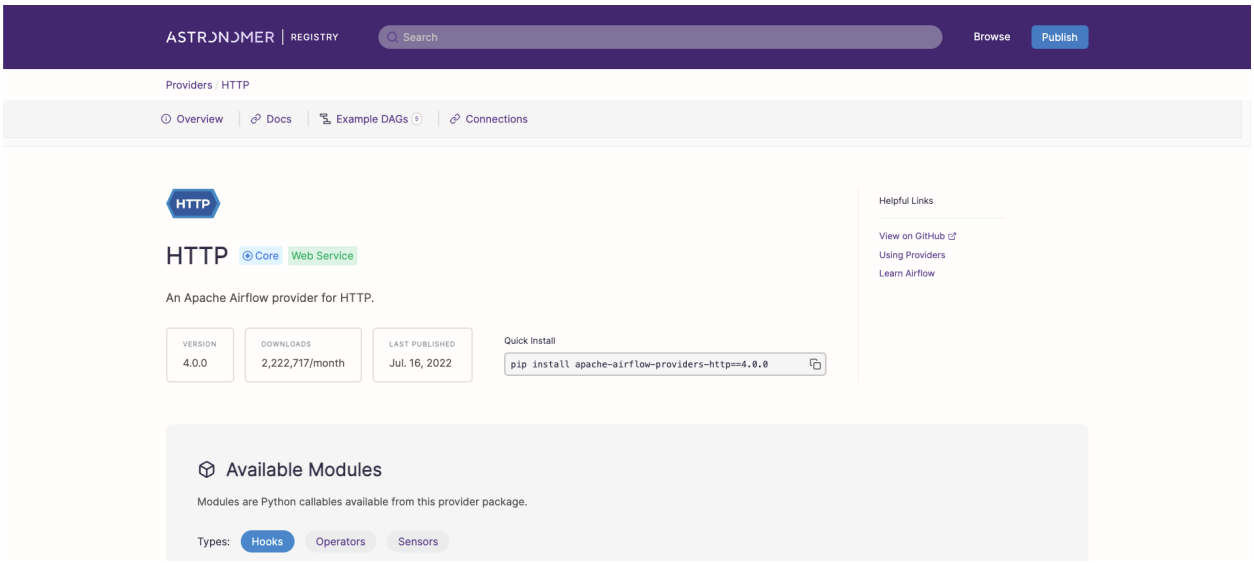
To interact with an API, a website or any HTTP resource, you have to install the http provider.

Go to https://registry.astronomer.io/

Look for `http` in the search bar



Select `HTTP` under `Providers`



On this page, you get access to Provider's informations such as:

- Version
- Popularity
- Last update
- Quick install
- Available modules: ways of interacting with HTTP from your data pipelines.
- Example DAGs: data pipeline examples

Click on the bar under `Quick install` to copy the `pip install` line

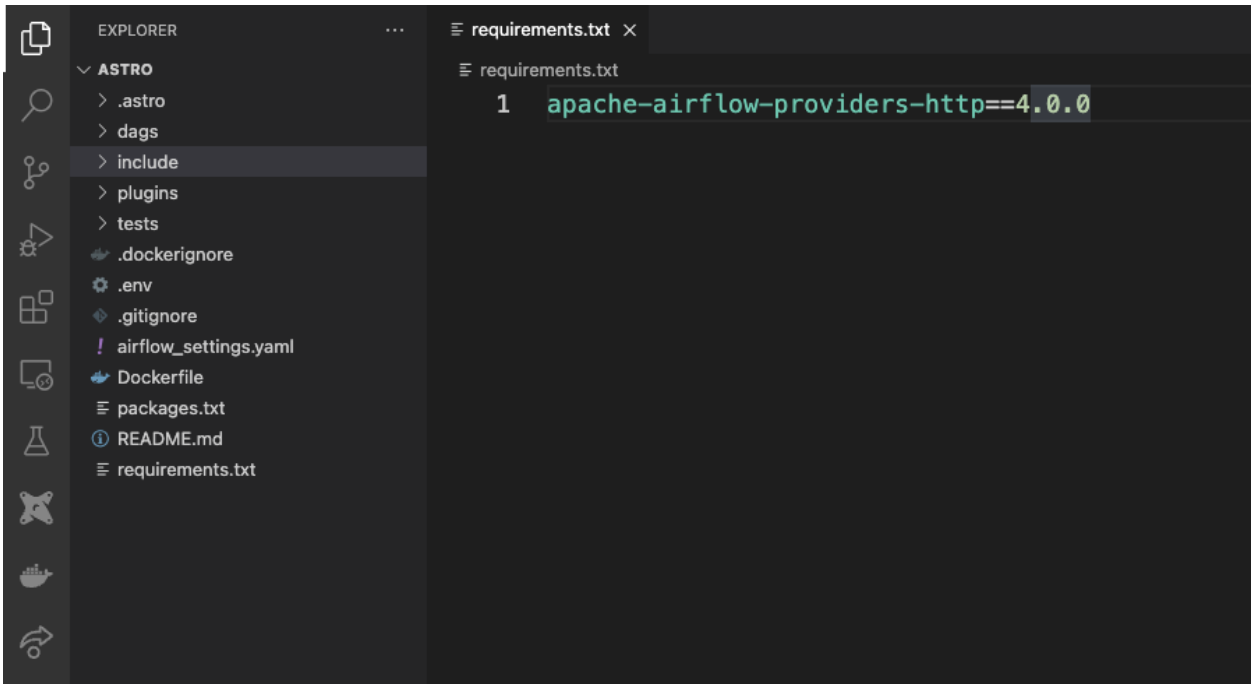
Install the HTTP provider

In your local Astro project

Open the file `requirements.txt`

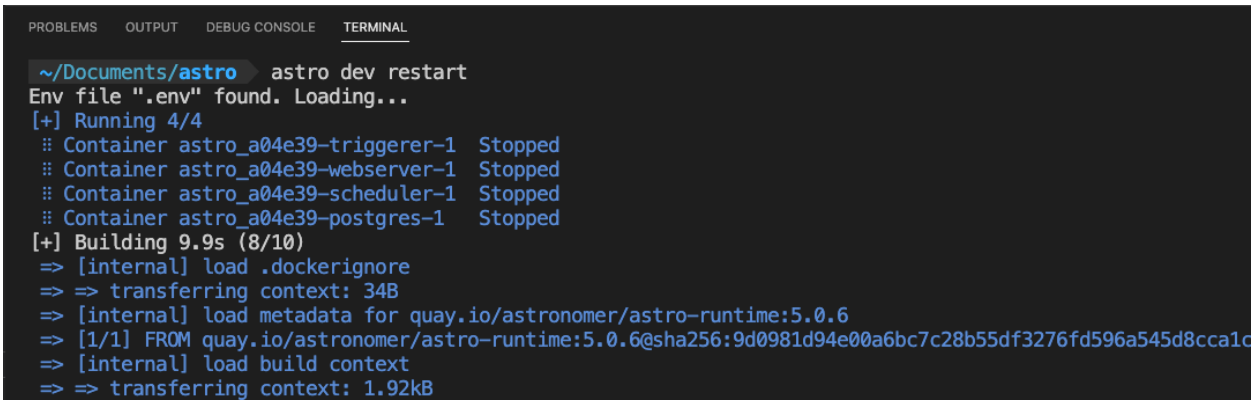
Paste what you copied just before. Should be:

`apache-airflow-providers-http==4.0.0`



Save the file

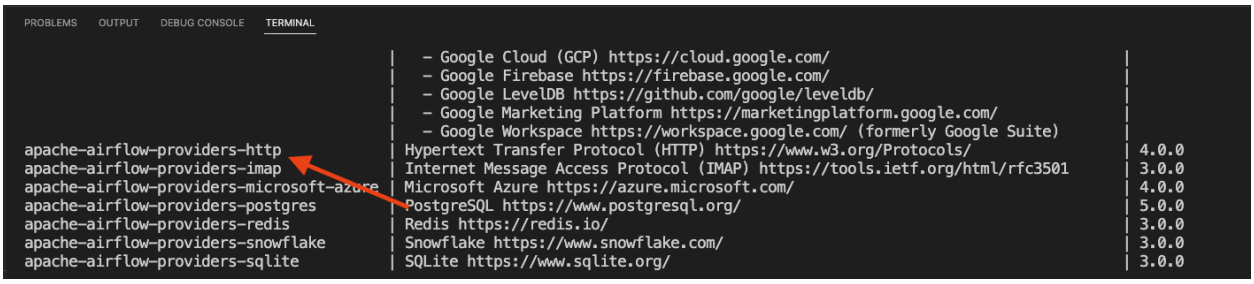
Restart the Astro project by typing in your terminal: `astro dev restart` (make sure you are in the folder where the Astro project is)



Once your Airflow instance is up and running again, execute the command

`astro dev run providers list`

You should see the http provider

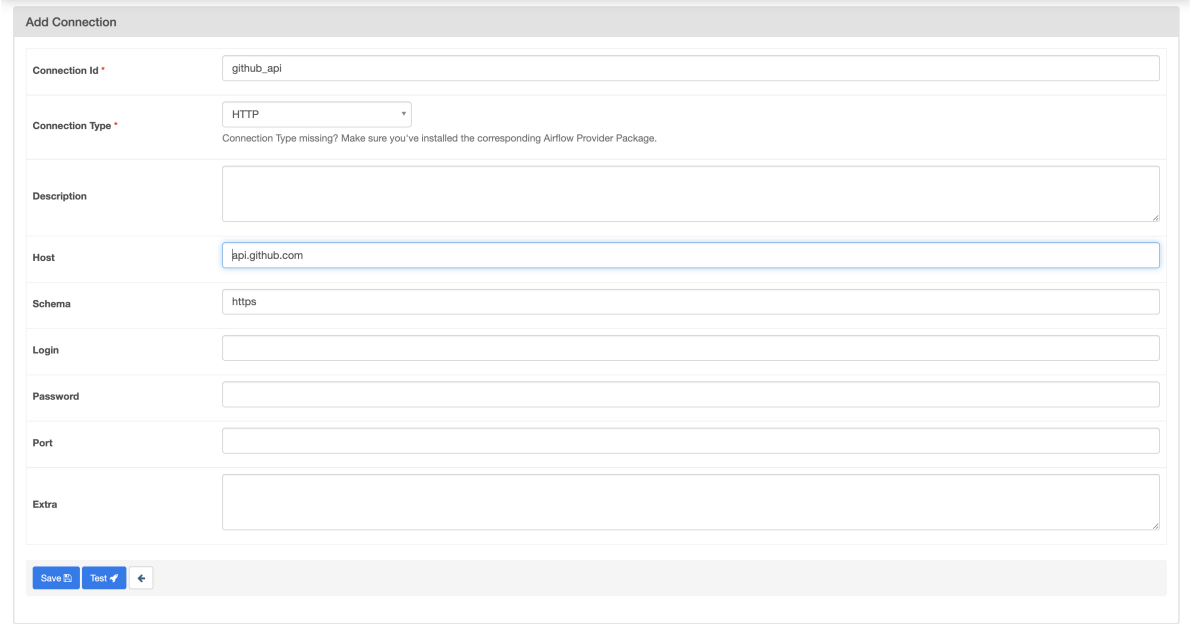


Well done! You have successfully installed a Provider to Airflow 😎

Add a Connection

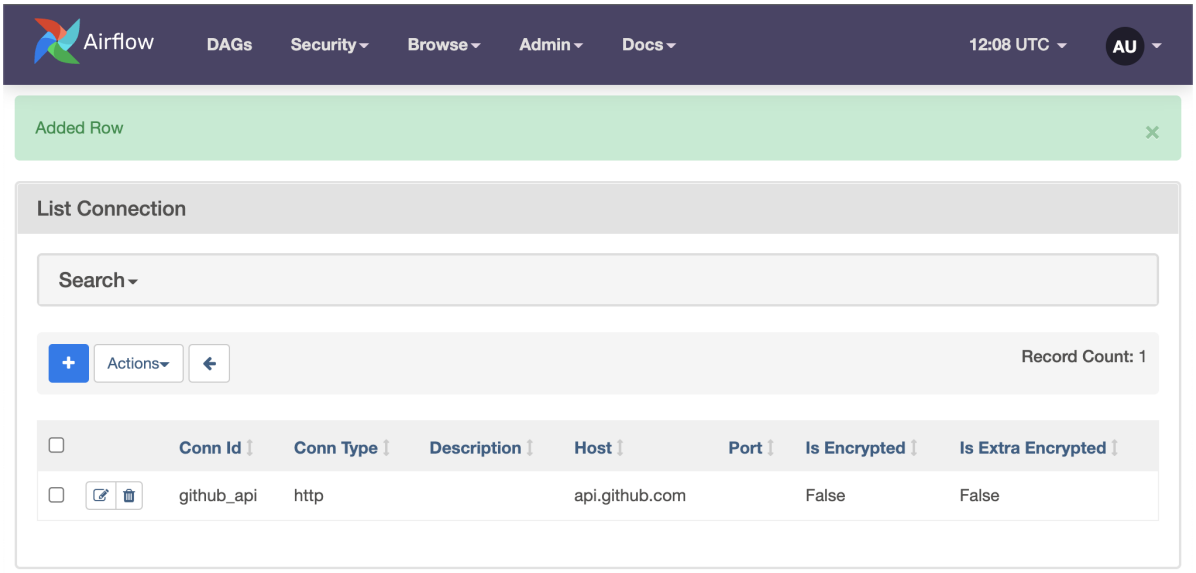
Create a Connection in the UI

- Navigate in the Airflow UI to `Admin` then `Connections` , click the blue plus button
- Fill it in like the following (note `https` is the Schema due to legacy reasons)
  - connection_id: `github_api`
  - host: `api.github.com`
  - schema: `https`



Click `Save`

You should see a new Connection as shown below:

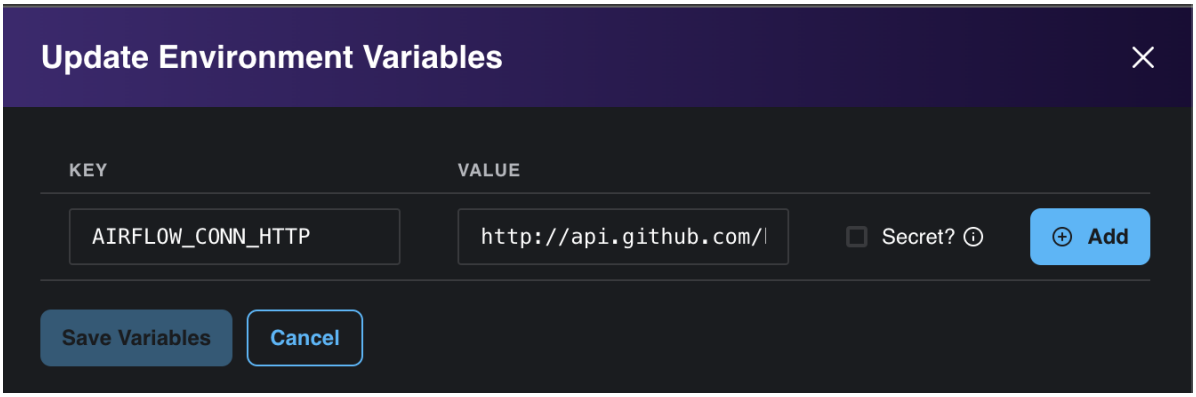


Other ways to create a connection

- Additionally, connections can be created via a text form in your `.env` file, structured as a URI or JSON, e.g. the URI form would be:

```
AIRFLOW_CONN_GITHUB_API="http://api.github.com/https"
```

- NOTE: The `.env` file only applies to your Local Airflow, but can be added to the Astronomer UI via the `Environmental Variables` section on your Deployment, which you can read more about here. Make sure to Hit `Add` and `Save Variables` to add them to your Astronomer Cloud Deployments.



- You can also add connections via a Secrets Backend and in your Dockerfile, but these are advanced topics and not covered here

Additional resources

Astronomer Registry: https://registry.astronomer.io/

Airflow providers: https://airflow.apache.org/docs/apache-airflow-providers/

Airflow Http Connection: HTTP Connection | Airflow OSS Doc