

Prerequisites: CARTO & Snowflake Setup

Please follow these instructions carefully. Failure to do so may result in errors or unexpected behaviour.

1. Set up your CARTO free trial

Go to www.carto.com and click "Try for free" in the top right to setup a CARTO trial account.

IMPORTANT: Please set up a fresh trial account for this workshop, even if you already have an existing account.

If you already have a CARTO account, you can sign up for a free trial using an email alias e.g. if your email is sam@abc123.com and this is already associated with an existing CARTO account, you can sign up for a free trial using sam+workshop@abc123.com. The registration email should still make it to your account.

- a. Enter your email and a password.
- b. Check your inbox for the registration email and follow the link.
- c. Select "Create a new trial account for your company"
- d. Choose a name for your CARTO organisation and set the deployment region to **Europe (West)**

2. Set up your Snowflake free trial

- a. Go to www.snowflake.com and click "Start for free" in the top right corner.
- b. Enter your contact information on the first screen
- c. On the second screen please choose:
 - i. Enterprise
 - ii. AWS
 - iii. EU (Ireland)As shown below:

Now, let's set up your account 2 / 2

Company name

Job title

Choose your Snowflake edition [Learn more](#)

Enterprise (Most popular)

Choose your cloud provider

Snowflake runs on top of the cloud platform you're already working with.

Microsoft Azure Amazon Web Services Google Cloud Platform

Region

EU (Ireland)

☐ I have read and agree to the [Snowflake Self Service On Demand Terms](#).

Back Get started

Now you should be the proud owner of both a CARTO and a Snowflake trial account. Time to connect them together.

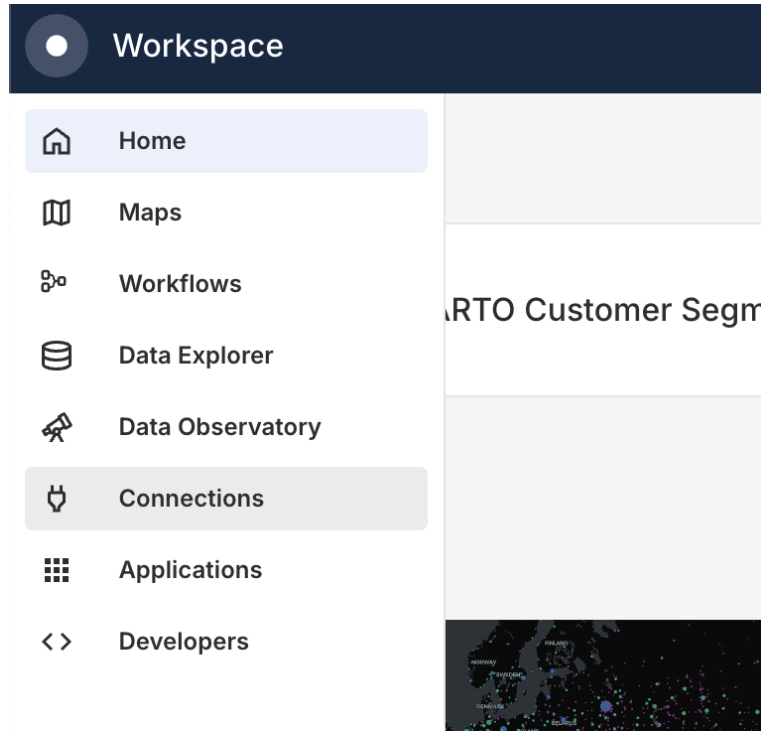
3. Connect your CARTO account to your Snowflake account

For speed & simplicity (and as we'll only be using open source data in this trial), we are going to connect our Snowflake and CARTO trial accounts using our Snowflake username and password.

For production CARTO+Snowflake environments **we strongly recommend that OAuth or Key-Pair authentication is used.**

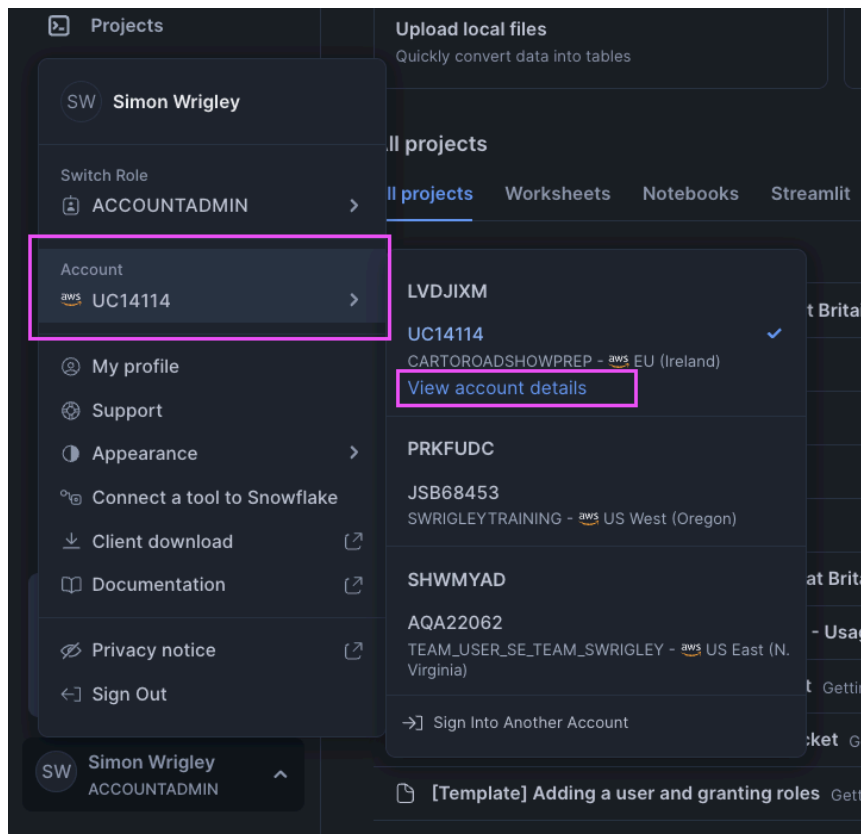
In your CARTO Trial Account:

- a. Navigate to Connections in the left tab:



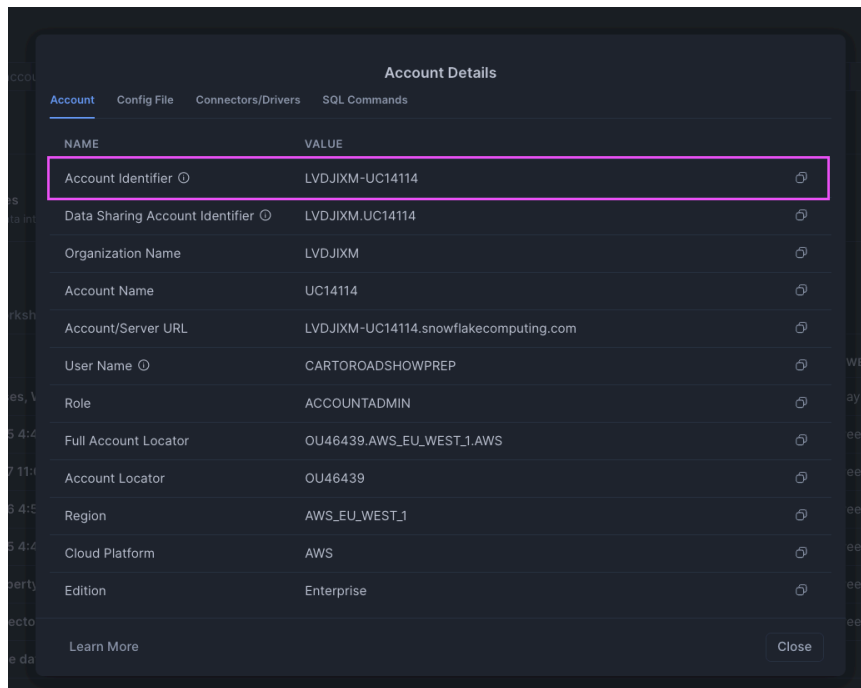
- b. Click New Connection in the top right and then choose Snowflake and the final option to "Connect using Username/Password."
- c. In the resultant screen, enter the following:
 - i. **Name:** snowflake_trial_connection
 - ii. **Username:** The username you used for your Snowflake Trial account
 - iii. **Password:** The password you set for your Snowflake Trial account
 - iv. **Account name:**

1. Go to your Snowflake Trial, click on your username in the bottom left, then Account > View account details



2. In the resultant panel that opens, copy your Account identifier and paste this into the Account Name section, back in the

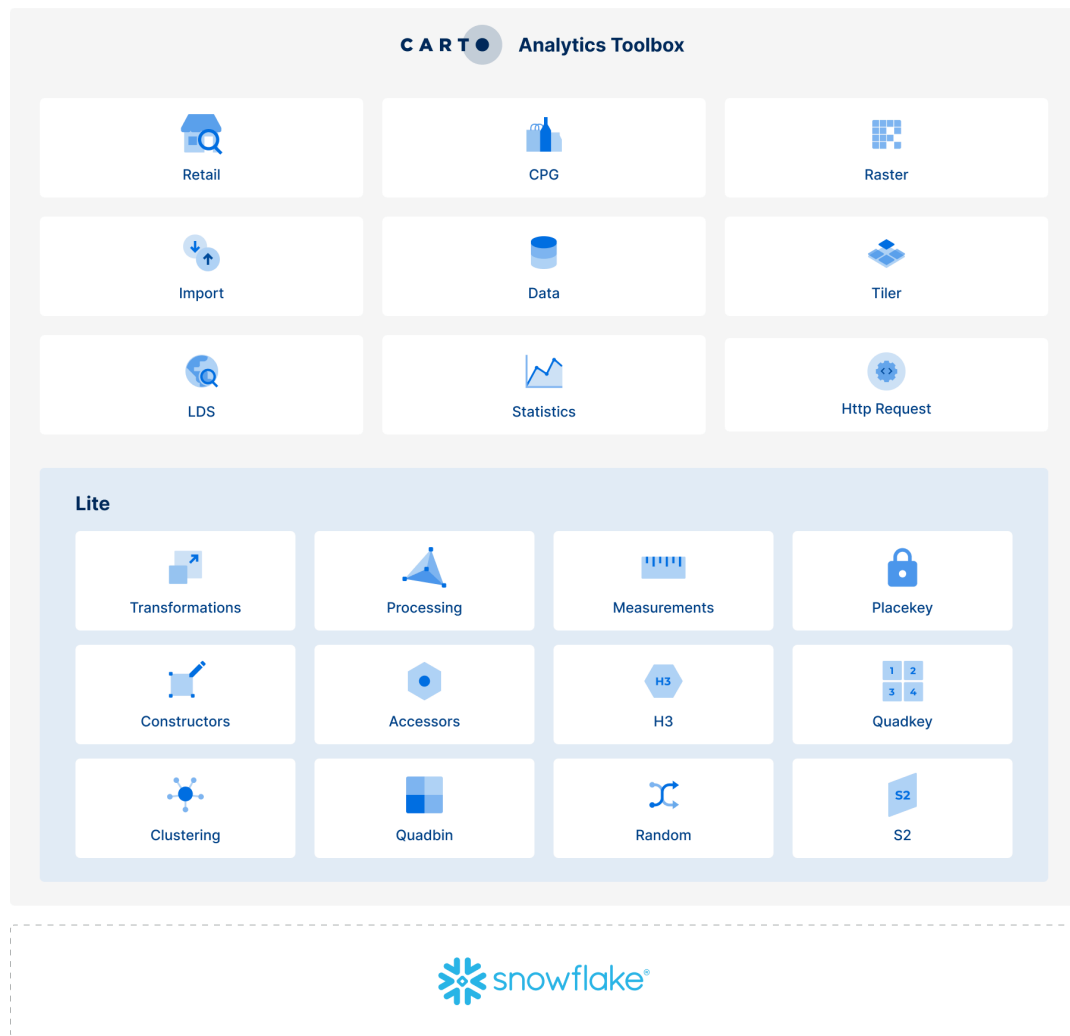
CARTO connection UI.



- v. **Warehouse:** leave blank
- vi. **Database:** CARTO
- vii. **Role:** leave blank
- d. Click Connect in the top right of the CARTO UI. You have now established a direct connection between your CARTO and Snowflake trial accounts.

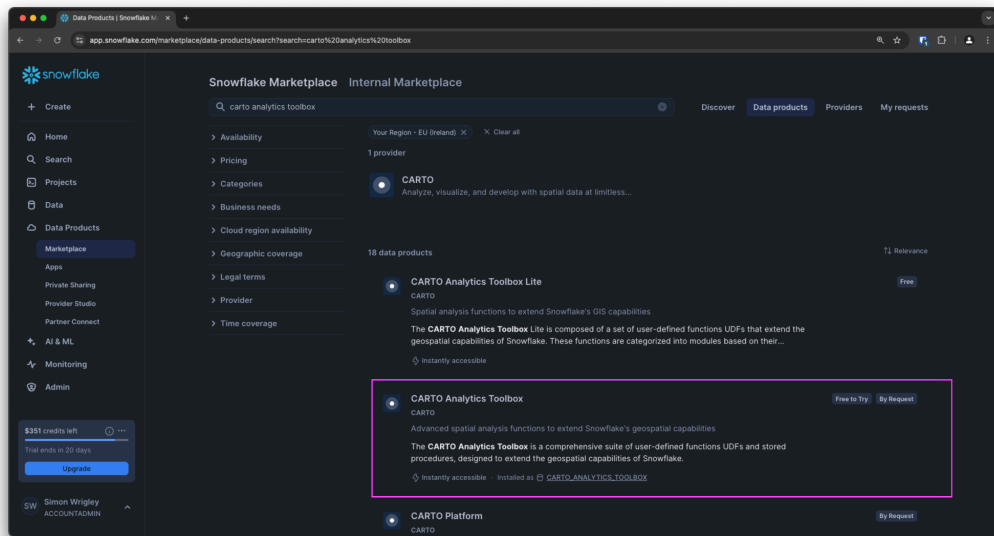
4. Install the CARTO Analytics Toolbox Native App in your Snowflake Environment.

The CARTO Analytics toolbox is a set of user defined functions and procedures that extends the geospatial capabilities of Snowflake. It is available as a Snowflake Native App from the Snowflake Marketplace.

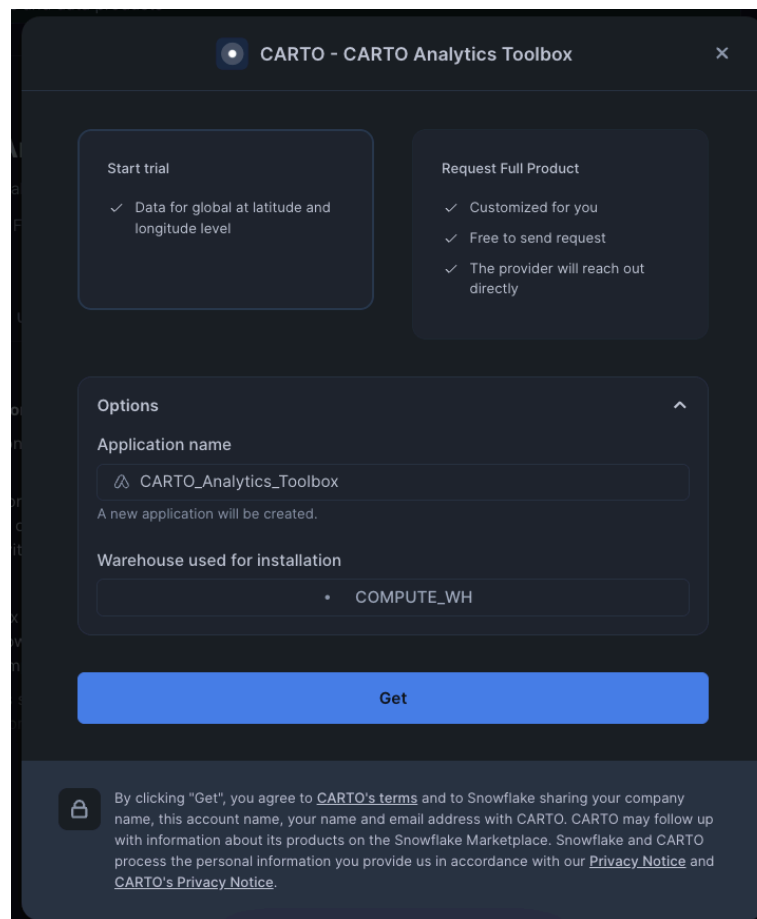


- a. In your Snowflake account, in the left hand menu go to **Data Products > Marketplace** and search for "CARTO Analytics Toolbox". Click on it and on

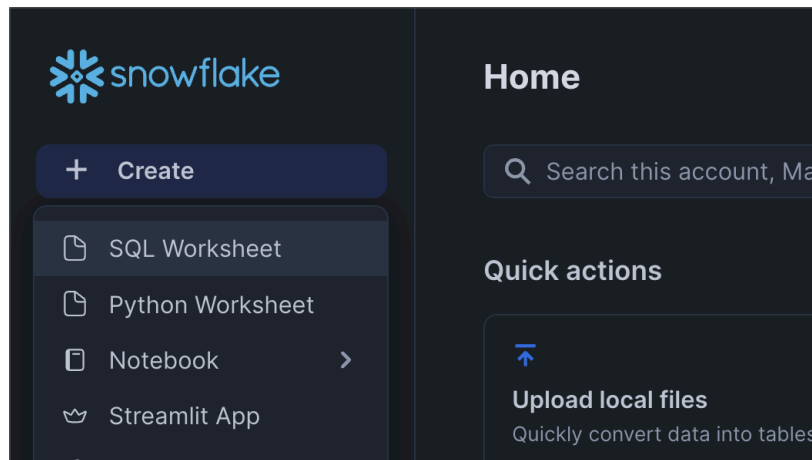
the next screen click **"Get"**



- b. Under options on the next screen you can see the Application name that the AT is going to be installed under. Click **"Get"** again and it will install the application.



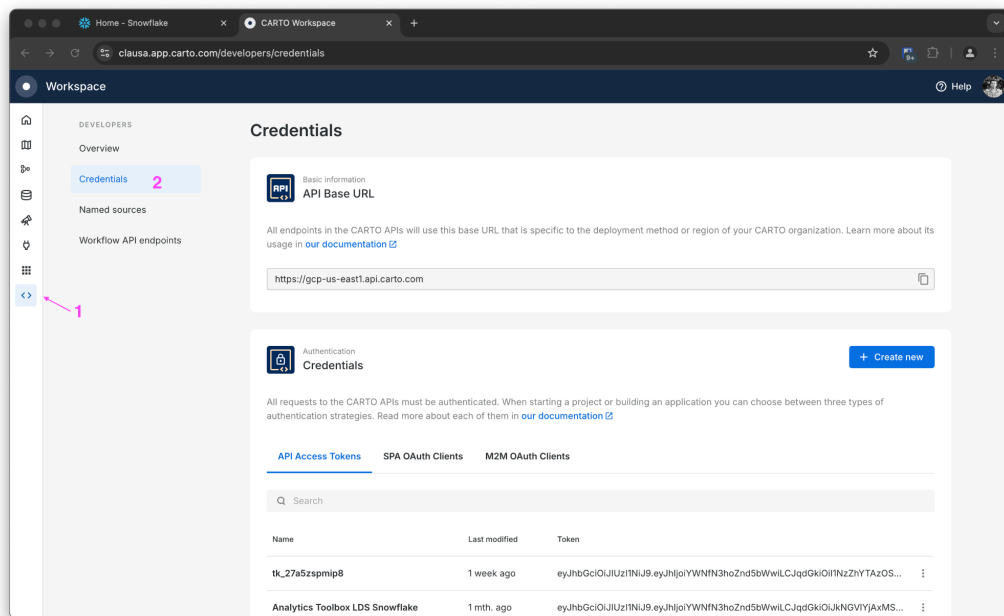
- c. Once the installation has completed, we need to run a setup script to finalise the installation. Click **+Create > SQL Worksheet** in the top left of your Snowflake account:



Copy and paste the setup script from the Roadshow Github repo:

https://github.com/CartoDB/carto-snowflake-roadshow/blob/master/Initial%20Setup/CARTO_Snowflake_AT_install.sql into the worksheet.

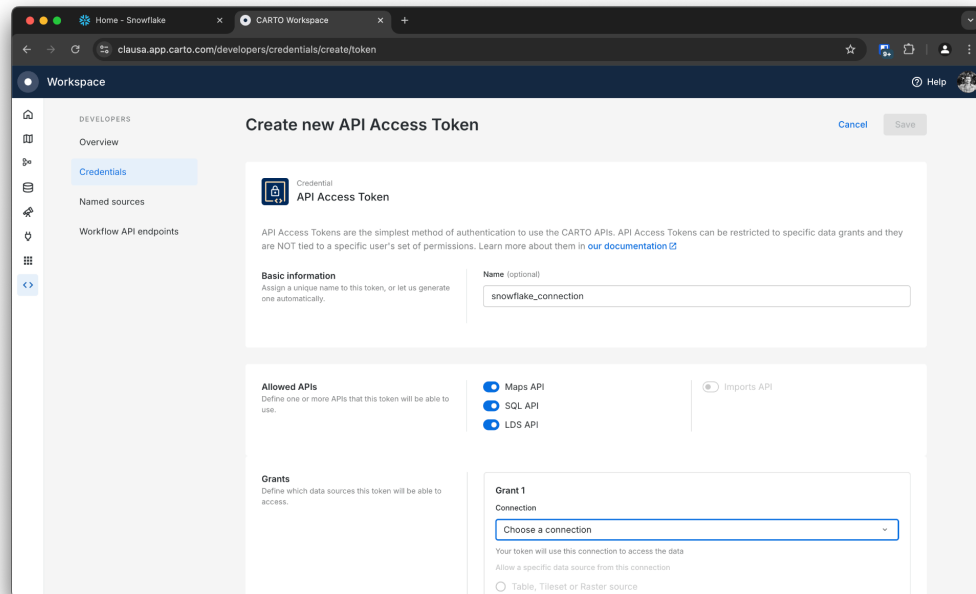
- d. Next, go back to your CARTO account and go to Developers > Credentials (on the left).



Copy the API Base URL and paste it into the Snowflake SQL, replacing the **MY_API_BASE_URL** placeholder.

Next, back in the CARTO UI, click **Create New** under Authentication Credentials and select API Access Token. Give the API Access Token a name, tick on all of the APIs, then under Grants, select the Snowflake

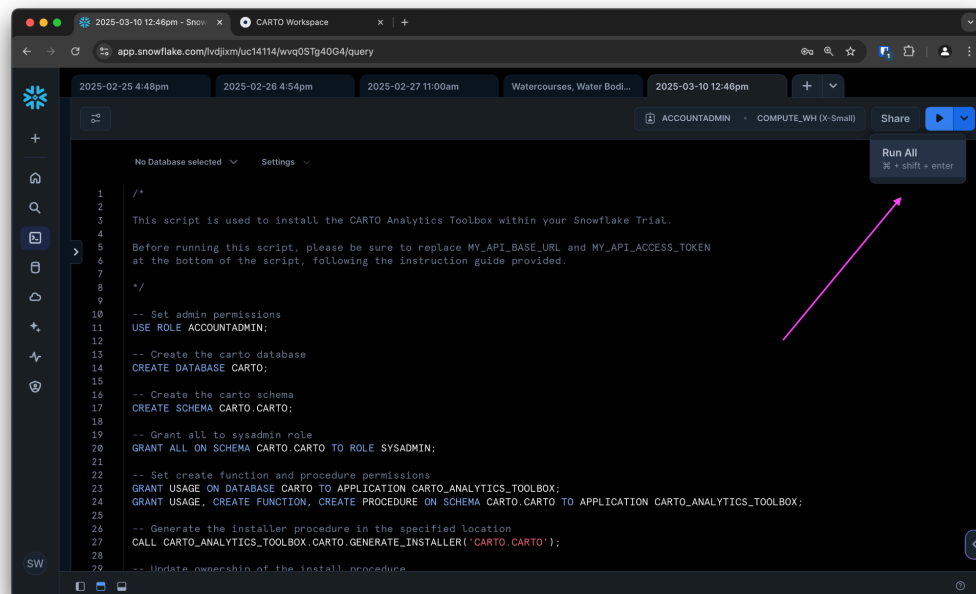
connection that we previously established. Allow access to all sources.



The screenshot shows the 'Create new API Access Token' page in the CARTO Workspace. The page has a sidebar with 'DEVELOPERS' selected, containing links for 'Overview', 'Credentials', 'Named sources', and 'Workflow API endpoints'. The main content area is titled 'Create new API Access Token' and includes a 'Cancel' button and a 'Save' button. It contains several sections: 'Basic information' with a 'Name (optional)' field set to 'snowflake_connection'; 'Allowed APIs' with checkboxes for 'Maps API', 'SQL API', 'LDS API', and 'Imports API' (which is disabled); and 'Grants' with a 'Grant 1' section containing a 'Connection' dropdown menu set to 'Choose a connection' and a note about data source access.

Click Save, and copy the token from the Credentials section (a long alphanumeric string). Use this to replace the **MY_API_ACCESS_TOKEN** placeholder at the bottom of the Snowflake SQL worksheet.

- e. Click the down arrow next to the run button and click Run All to run the setup script.



The screenshot shows a Snowflake SQL worksheet in the CARTO Workspace. The top bar displays the date '2025-03-10 12:48pm' and the user 'ACCOUNTADMIN'. The main area contains a SQL script for installing the CARTO Analytics Toolbox. The script includes comments and SQL commands for setting permissions, creating a database and schema, granting permissions, and calling a procedure. A red arrow points to the 'Run All' button in the top right corner of the worksheet.

```
1 /*
2 This script is used to install the CARTO Analytics Toolbox within your Snowflake Trial.
3
4 Before running this script, please be sure to replace MY_API_BASE_URL and MY_API_ACCESS_TOKEN
5 at the bottom of the script, following the instruction guide provided.
6
7 */
8
9 -- Set admin permissions
10 USE ROLE ACCOUNTADMIN;
11
12 -- Create the carto database
13 CREATE DATABASE CARTO;
14
15 -- Create the carto schema
16 CREATE SCHEMA CARTO.CARTO;
17
18 -- Grant all to sysadmin role
19 GRANT ALL ON SCHEMA CARTO.CARTO TO ROLE SYSADMIN;
20
21 -- Set create function and procedure permissions
22 GRANT USAGE ON DATABASE CARTO TO APPLICATION CARTO_ANALYTICS_TOOLBOX;
23 GRANT USAGE, CREATE FUNCTION, CREATE PROCEDURE ON SCHEMA CARTO.CARTO TO APPLICATION CARTO_ANALYTICS_TOOLBOX;
24
25 -- Generate the installer procedure in the specified location
26 CALL CARTO_ANALYTICS_TOOLBOX.CARTO.GENERATE_INSTALLER('CARTO.CARTO');
27
28 -- Update ownership of the install procedure
29
```

Congratulations - you now have CARTO & Snowflake trial accounts, connected and ready to use together 🚀!