Connecting to Google BigQuery

Instructions on how to set up and connect to Google BigQuery

Version 1.0

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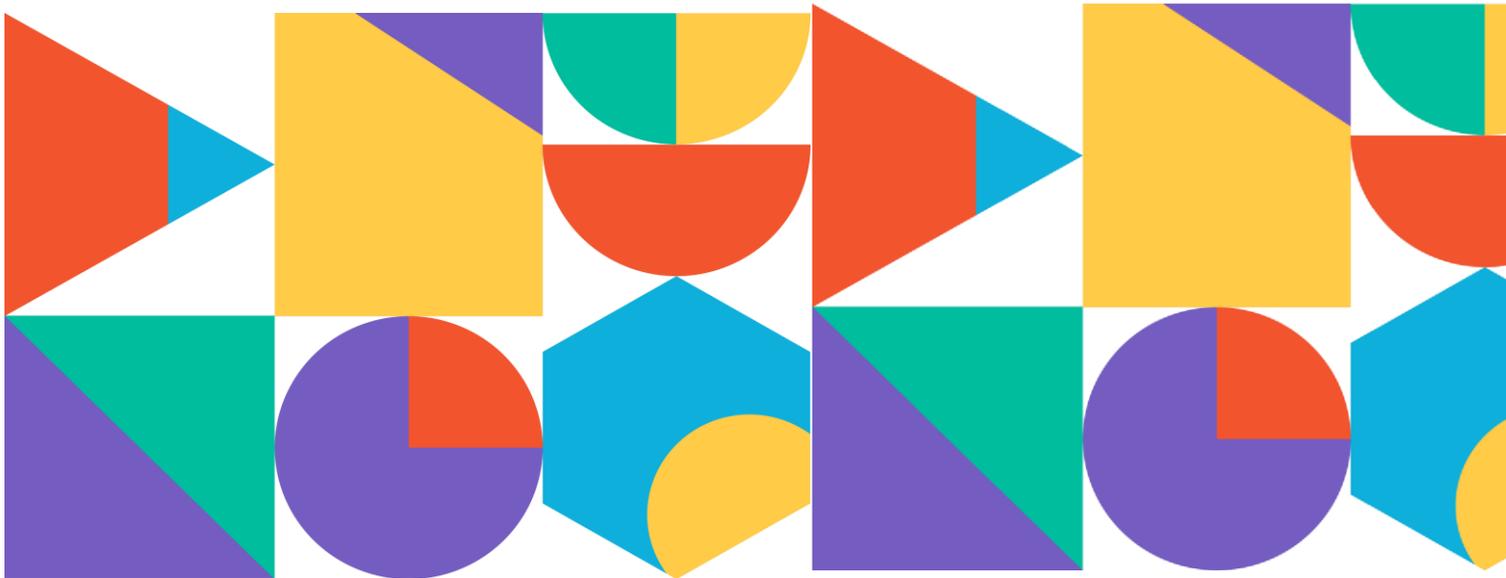
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Overview

Google BigQuery is a fully-managed data warehouse service that enables users to query massive datasets in real-time.

To enable Pyramid to connect to Google BigQuery, users must perform the following steps:

- Set up a Google Cloud Project
- Enable the BigQuery API
- Establish a BigQuery Connection in Pyramid

Note: Ensure that your version of Pyramid is version 2023.01 or higher.

Set up a Google Cloud project

1. Sign into Google Cloud Console.
   Visit the Google Cloud Console at https://console.cloud.google.com/ and sign in with your Google Account. If you don't have a Google Account, you'll need to create one.
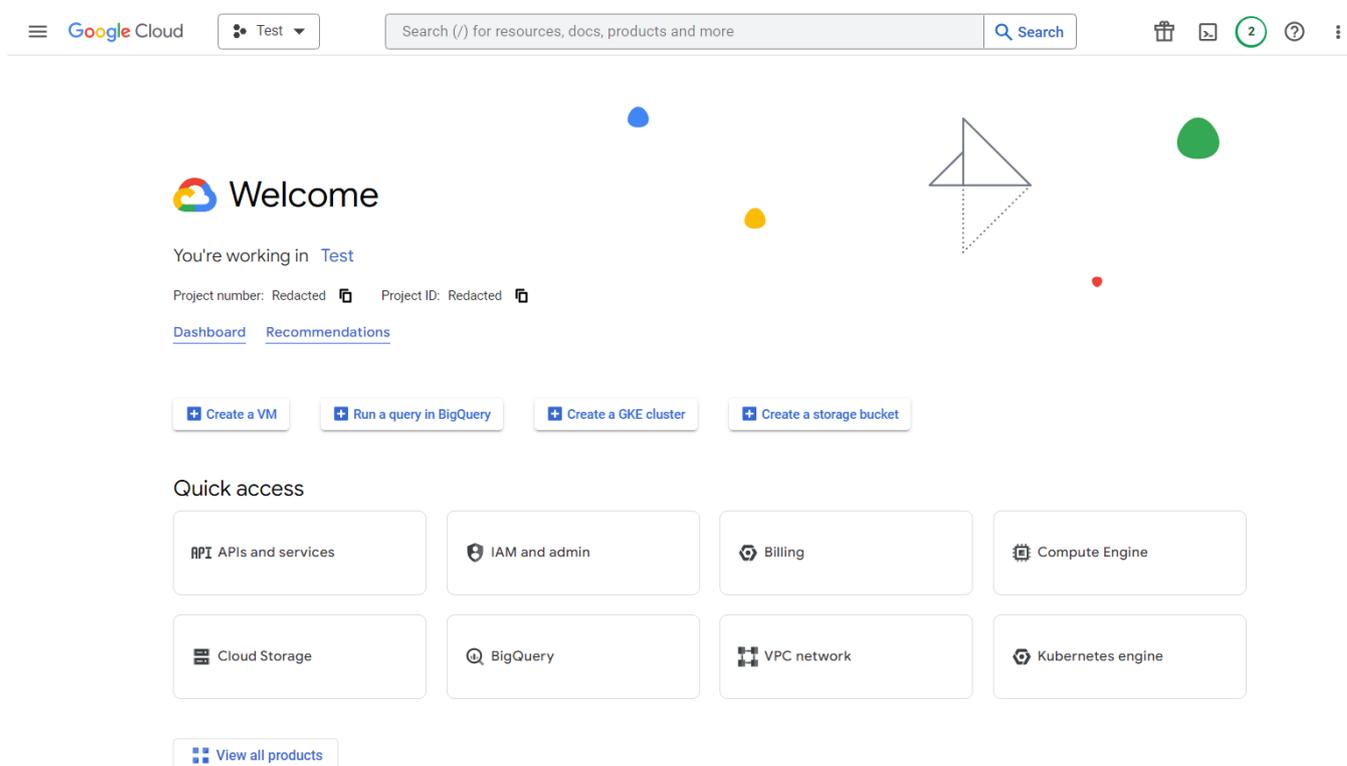
2. Go to the 'Manage resources' page
   Type "Manage Resources" in the search bar at the top. This will take you to the manage resources page.
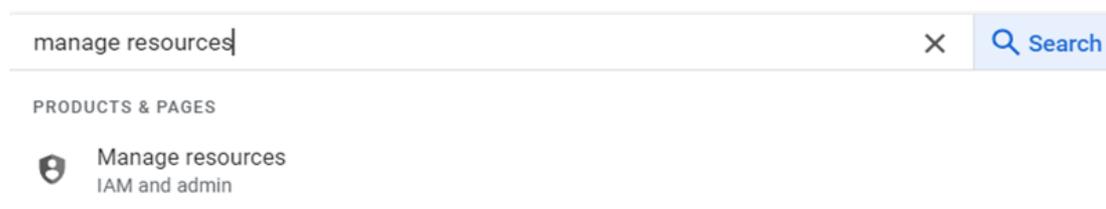
3. Create a new project:
   In the 'Manage resources' page, click on the 'CREATE PROJECT' button at the top of the page. If you have other projects, you might have to first click on the project dropdown on the header bar, and then click on "NEW PROJECT" button.
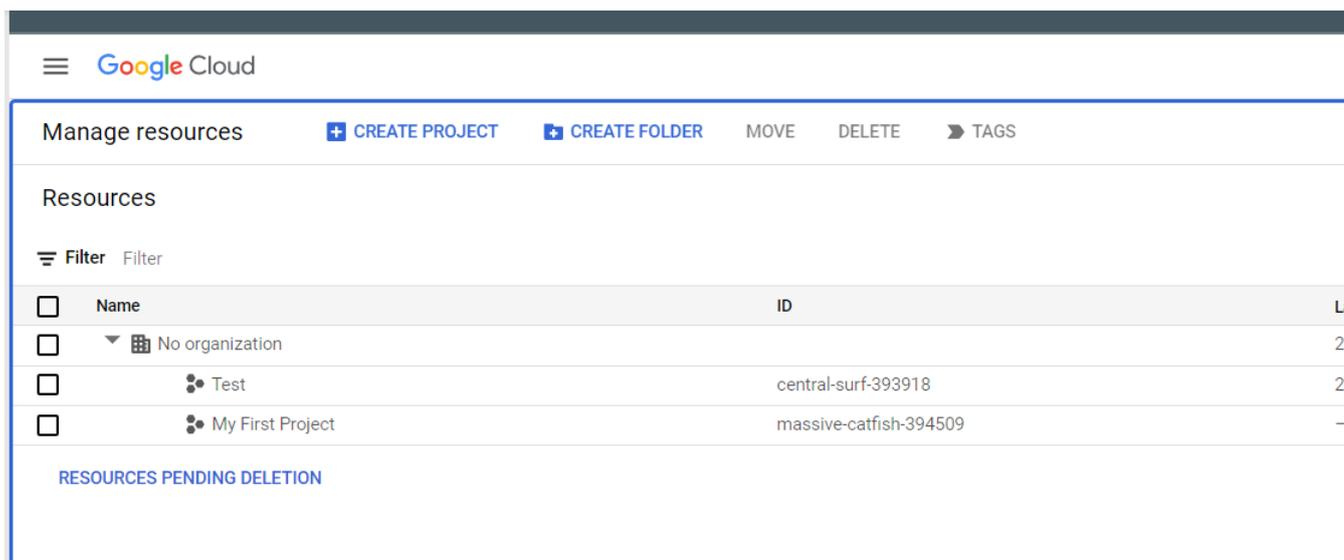
4. Enter your project details:

    In the new project form, enter your desired Project Name and Project ID. The Project ID is a unique identifier for your project that can be used in commands and in configurations.

    Note: If you're part of an organization, you may have to select the organization where this project will reside, or you can choose "No organization" for personal projects.

    Once you've filled out all the information, click on the 'CREATE' button to create your new Google Cloud Project.
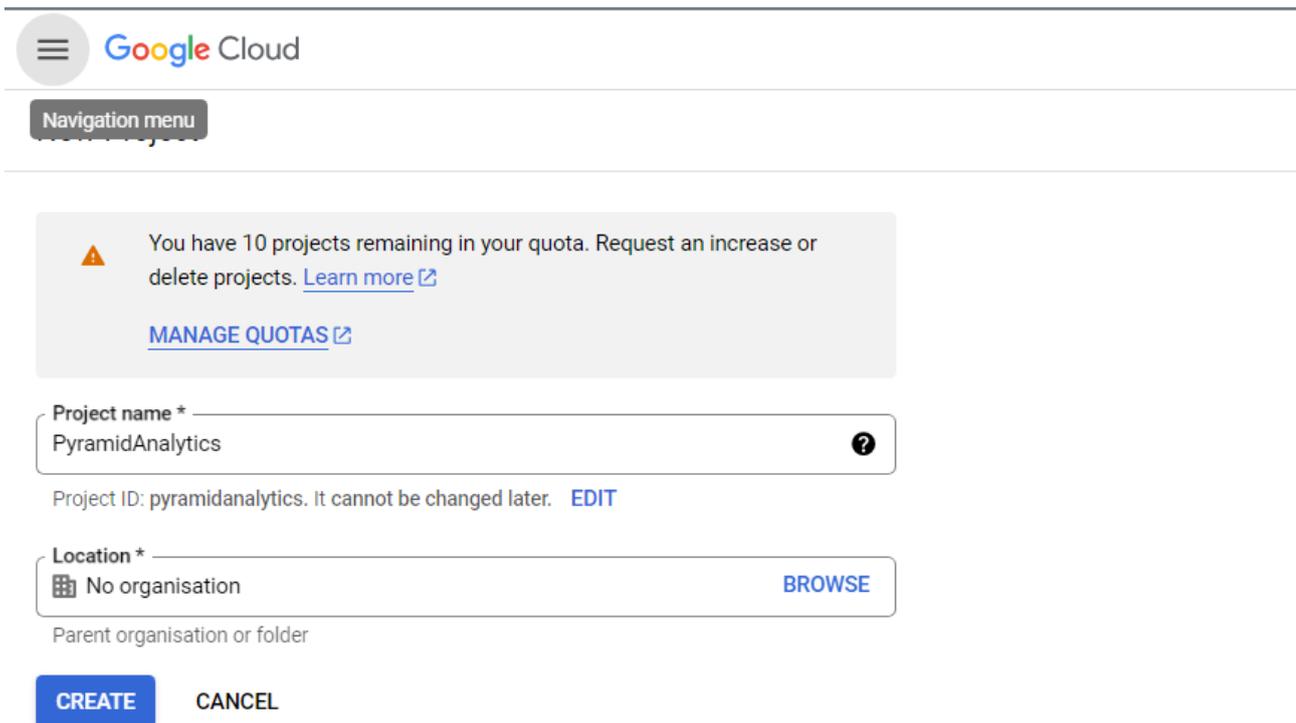
5. After creating your project, you may want to enable billing, especially if you plan to use resources that aren't available in the free tier.

Enable the BigQuery API

1. Click on the left menu and go to APIs and Services -> Enabled APIs and Services in your Google Cloud Console.
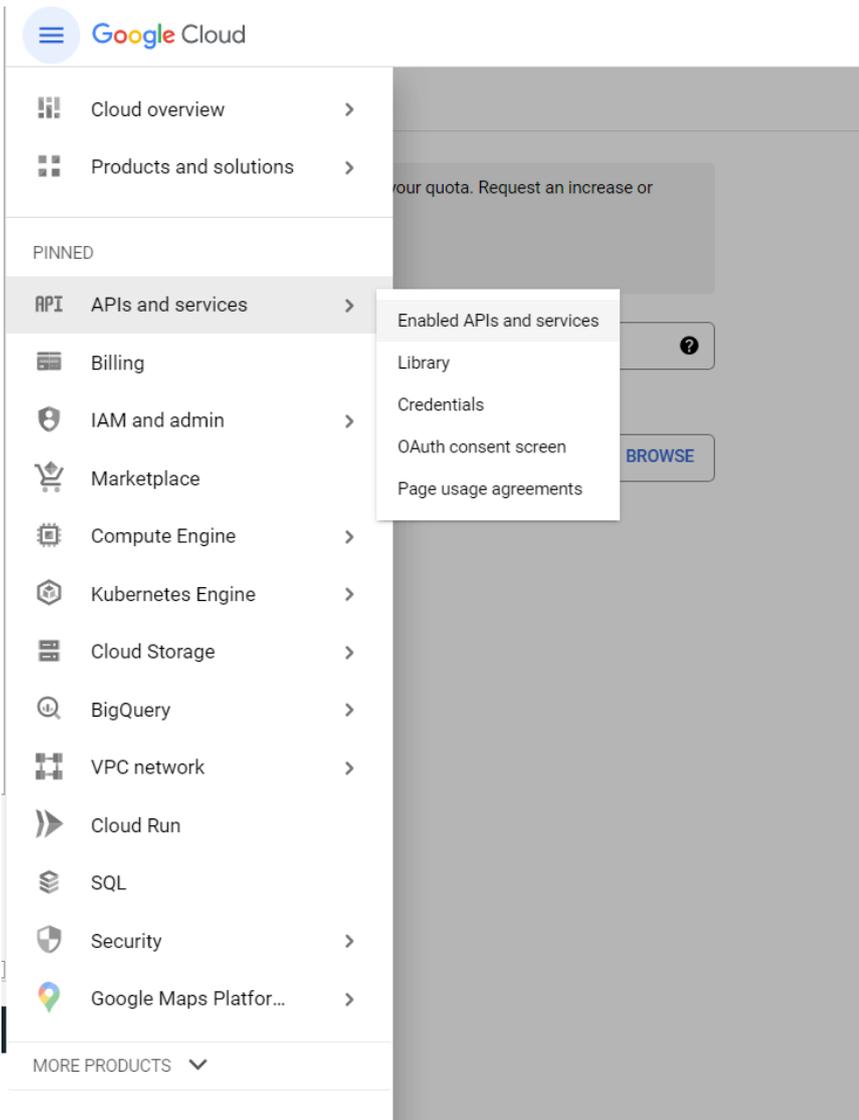
2. Create OAuth 2.0 Credential by going to the Google Cloud Console, open the side menu and navigate to APIs & Services > Credentials.
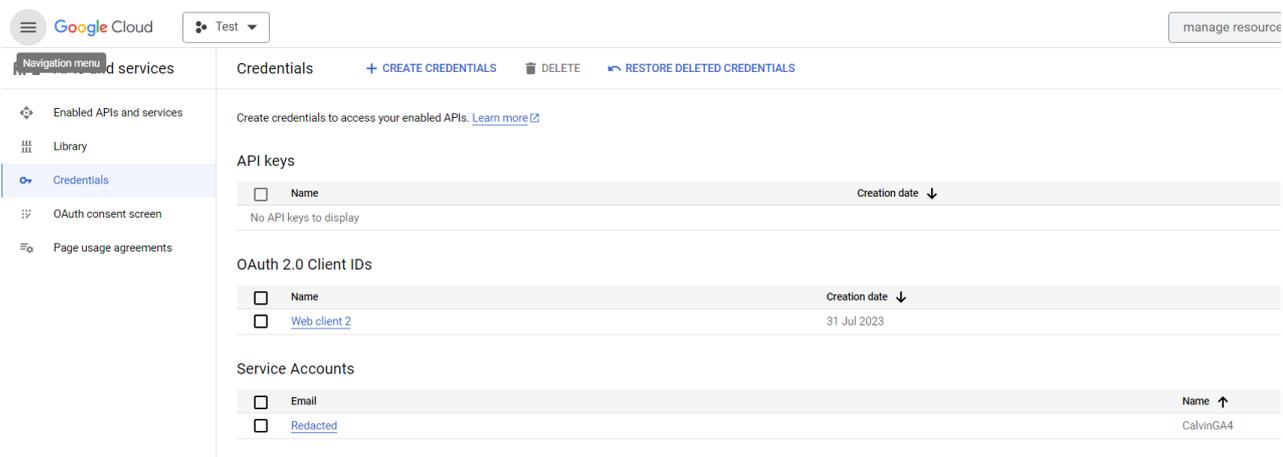
3. Click the 'Create credentials' button and select 'OAuth client ID'.

4. You will be taken to a form to fill out the details. Select 'Web Application' at the top. It's important that you add the URL of the Pyramid instance in the 'Authorised JavaScript origins' section. For instance, here I would add 'https://partners.pyramidanalytics.com/'. Then in the redirect URI section, add '{Your Pyramid URL}/AuthenticateCallbackPage'. This URL is where Google will redirect users after they authenticate with Google.

5. You may be prompted to configure the consent screen. Fill out the necessary information and save it.
6. Click 'Create' and take note of your 'Client ID' and 'Client Secret'. These are needed for Pyramid to identify itself to Google.

Establish a BigQuery connection in Pyramid

1. In the admin console, go to Data Sources and add a new data source. Select BigQuery, give your connection a name.
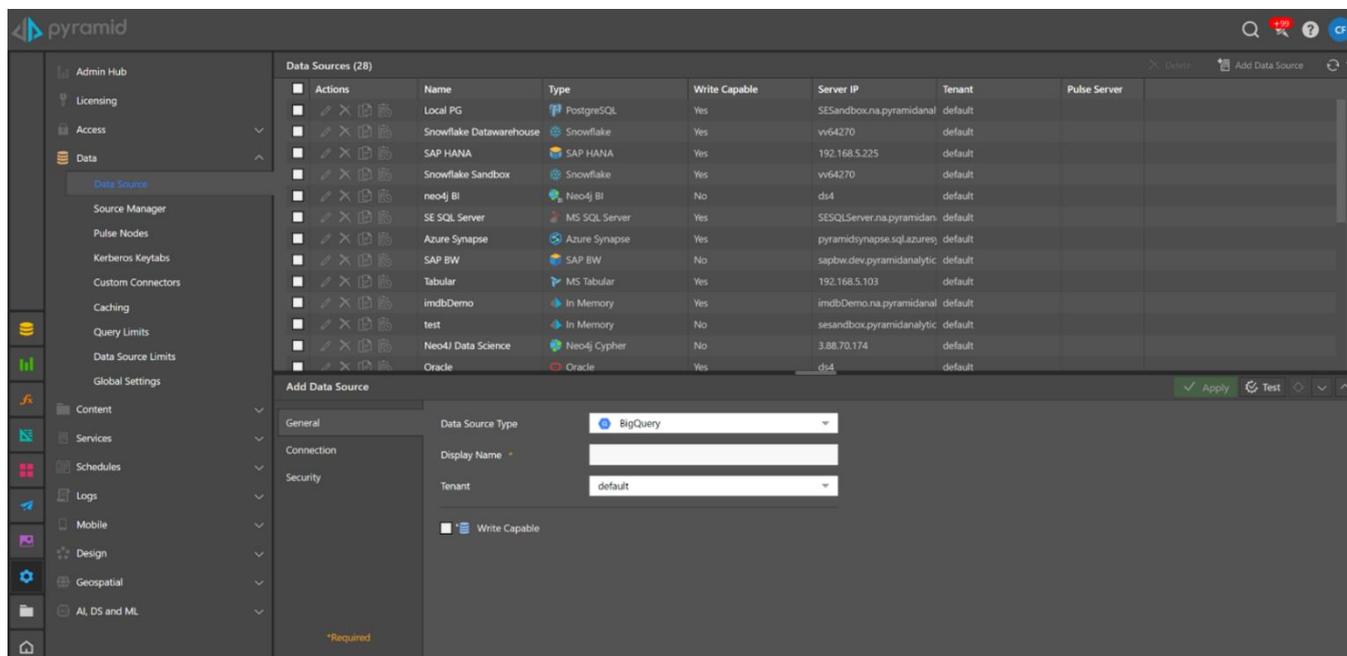
2. Go to 'Security'. Paste your Client ID and Client Secret into the fields.
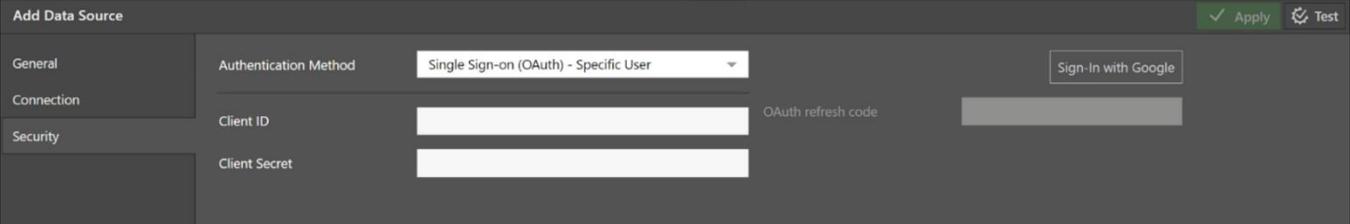
3. If you have completed the previous steps correctly, you will be asked to sign in with your Google account associated with Google Cloud. You will then need to accept the relevant permissions by clicking 'Allow'. You will then be able to access your BigQuery database in Model.

Possible issue

If you happen to delete the BigQuery connection from Pyramid, you will not be able to recreate it as the refresh token will not be generated again by Google Cloud until it expires. You will need to manually delete the Pyramid connection from the 'Allowed Third Party Connections'.