Navigating to tables and databases in Hue using Data Catalog (Preview)

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Contents

Legal Notice 2

Contents 3

Navigating to tables and databases in Hue using Data Catalog 4

Prerequisites for accessing Hue tables and databases from Data Catalog UI 4

Accessing Hue tables and databases from the Data Catalog UI 5

Accessing Hue tables and databases from the Data Catalog Search page 5

Accessing Hue tables and databases from the Asset Details page 7

Accessing Hue assets 9

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Navigating to tables and databases in Hue using Data Catalog

Data Catalog helps you to explore assets within your Data Lake. Hue allows you to run analytics on Hive assets. The integration between Data Catalog and Cloudera Data Warehouse (CDW) service provides a direct web link to the Hue instance from the Data Catalog web UI, making it easy to navigate across services.

**Note:** This feature is under entitlement. Contact your Cloudera account representative to activate this feature in your CDP environment.

Prerequisites for accessing Hue tables and databases from Data Catalog UI

Hue is a part of the CDW service. Before you can access Hue from Data Catalog, you must set up the CDW service.

**Note:** You must have the **DWAdmin** role to perform these tasks.

1. **An AWS or Azure environment in CDW that has been activated and registered in the CDP Management Console.**
   
   Activating an AWS or Azure environment in CDW enables the CDW service to use the existing Data Lakes that are present in the CDP environment. This also creates a default Database Catalog that is used by a Virtual Warehouse.

   For more information, see [Activating AWS environments](#) or [Activating Azure environments](#).

   Currently, CDW only supports AWS and Azure Cloud environments.

2. **A Hive or an Impala Virtual Warehouse created using CDW.**
   Depending on your data set type, create a Hive or an Impala Virtual Warehouse using CDW.

   For more information, see [Adding a new Virtual Warehouse](#).
3. **Select the asset type in the Data Catalog.**
   The asset type must be either `hive_table` or `hive_db`.

After these conditions are met, Hue links for the selected assets are displayed in the Data Catalog UI.

**Accessing Hue tables and databases from the Data Catalog UI**

When you log into Data Catalog, you can access web links to the Hue instances from the Data Catalog Search page or the Asset Details page.

You can access the Hue tables and databases by using one of the following options in Data Catalog:

- When you navigate to the entity search page, you can click on the icon present at the end of the row which opens the Link to Experiences dialog.
- Directly on the selected asset's Asset Details page, you can click Link to Experiences.

**Accessing Hue tables and databases from the Data Catalog Search page**

1. Log into Cloudera Data Catalog.
2. Select the Data Lake associated with your environment.
3. Select the asset type under Filters, for example Hive Table.
   Hive tables present within the Data Lake are displayed.

4. Click the icon at the end of the row for a table that you want to display in Hue:
A Link to Experiences pop-up appears. It contains a list of Hue instances within the Virtual Warehouses that are associated with this particular table.

5. Click the link to open Hue web interface.
   The Hive table is displayed on the Hue Table Browser.
Accessing Hue tables and databases from the Asset Details page

1. Log into Cloudera Data Catalog.
2. Select the Data Lake associated with your environment.
3. Select the asset type under Filters, for example Hive Table.
   All the Hive tables present within the Data Lake are displayed.
4. Click on the asset name to open the Asset Details page.
   The Asset Details page contains the Link to Experiences button as shown in the following image:
5. Click **Link to Experiences**.
   The pop-up contains a list of Hue instances within the Virtual Warehouses that are associated with this particular table.
6. Click the link to open Hue web interface.
   The Hive table is displayed on the Hue **Table Browser**.

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Accessing Hue assets

Currently, you cannot access Hue assets directly from Data Catalog as this feature is under entitlement.

**Note:** When you are on the Data Catalog search page or the Asset Details page, an external link button appears if all the three conditions for viewing links to Hue are satisfied as detailed under Prerequisites for accessing Hue tables and databases from Data Catalog UI.

1. You must enable the feature for the required tenant, for example, dev tenant:
   ```
   CDP_PROFILE=admin_dev  cdpenv/bin/cdp  coreadmin  grant-entitlement
   --entitlement-name  DATA_CATALOG_ENABLE_NAVIGATION_TO_EXPERIENCE  --account-id 9d74eee4-1cad-45d7-b645-7ccf9edbb73d
   ```
   This will grant the entitlement for the dev tenant.

2. Enable access to AWS or Azure environments for Hue.

3. Activate CDW for AWS.

   To activate CDW on your selected environment, follow these steps:
   
   - Under **Management Console** > select **Data Warehouse**.
   - On the **Overview** page, click on the left pane property displaying **Environments**. AWS/Azure environments are listed.
   - Locate the enabled AWS / Azure environment and activate CDW by clicking on the bolt icon. This action also creates a default **Database Catalogs**.
3. Once the environment is activated and a DB Catalog is created and running, you can create a Virtual Warehouse as per the requirement.

For more information about AWS and Azure Environment, see AWS environments overview and Azure environments overview.

You will now be able to navigate to the Hue assets on these virtual warehouses using the links provided by Data Catalog.