Cloudera Runtime 1.0.0

Administering Hue

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Contents

Hue configurations in Cloudera Data Warehouse

You can customize the settings for Hue at a Vitrual Warehouse level by specifying the configurations in the hue-safety-valve field in the Cloudera Data Warehouse (CDW) UI.

The following table lists the safety valve parameters supported by Hue in Cloudera Data Warehouse:

Parameter	Description

`[notebook]`
`  [[interpreters]]`
`  [[[hive]]]`
`  name=Hive`
`  interface=hiveserver2`
`  [[[hplsql]]]`
`  name=Hplsql`
`  interface=hiveserver2`
	Used to activate and enable switching between Hive and HPL/SQL interpreters for your queries.
	Note: Hue enables you to switch between Hive and HPL/SQL interpreters. By default, the Hive interpreter is enabled when you create a Hive Virtual Warehouse. To enable the HPL/SQL interpreter, you must update the configuration in the hue-safety-valve field in your Hive Virtual Warehouse. However, updating hue-safety-valve overrides the default configuration. Therefore, to use both Hive and HPL/SQL interpreters, you must enable both by updating the configuration in the hue-safety-valve field.

`[[desktop]]` `app_blacklist`	Used to add or remove applications, such as the File Browser, Impala, Hive, Oozie, and so on from the blocked list of applications.

`[desktop]`
`  [[session]]`
`  ttl=[***NUMBER-OF-SECONDS***]`
	Used to configure the duration of a user session. The ttl property determines the length of time that the cookie with the user's session ID lives before expiring. After the ttl setting is reached, the user's session expires whether it is active or not.
	The default setting for ttl is 1,209,600 seconds, which equals two weeks.

`[jobbrowser]`
`[[query_store]]`
`server_url=[***QUERY-PROCESSOR-URL***]`
	Used to display the **Queries** tab for Hive and Impala on the **Job Browser** page. This configuration is enabled by default and is not exposed in the Hue safety valve.
	However, to hide the **Queries** tab, you can override the configuration by adding the following lines in Virtual Warehosue ⋮ Edit CONFIGURATIONS Hue hue-safety-valve :
	`[jobbrowser]`
	`[[query_store]]`
	`is_enabled=false`
	To enable the **Queries** tab, set is_enabled to true.

`[aws]`
`[[aws_accounts]]`
`[[[default]]]`
`access_key_id=[***AWS-ACCESS-KEY***]`
`secret_access_key=[***SECRET-ACCESS-KEY***]`
`region=[***AWS-REGION***]`
	(Non-RAZ) Used to enable the S3 File Browser for Hue in Cloudera Data Warehouse to access an S3 bucket from Hue.

`[azure]`
`  [[azure_accounts]]`
`  [[[default]]]`
`  client_id=[***AZURE-ACCOUNT-CLIENT-ID***]`
`  client_secret=[***AZURE-ACCOUNT-CLIENT-SECRET***]`
`  tenant_id=[***AZURE-ACCOUNT-TENANT-ID***]`
`  [[abfs_clusters]]`
`  [[[default]]]`
`  fs_defaultfs=abfs://[***CONTAINER-NAME***]@[***AZURE-STORAGE-ACCOUNT-NAME***]>.dfs.core.windows.net`
`  webhdfs_url=https://[***AZURE-STORAGE-ACCOUNT-NAME***].dfs.core.windows.net/`
	(Non-RAZ) Used to enable the ABFS File Browser for Hue in Cloudera Data Warehouse to access ADLS Gen2 containers.

Hue supported browsers

Hue works with the two most recent LTS (long term support) or ESR (extended support release) browsers. Cookies and JavaScript must be enabled.

The lists the minimum tested versions of the most common browsers:

- Chrome: (Version history)
- Firefox: (Version history)
- Safari (Mac only): Version history
- Microsoft Edge: (Version history)

Hue can display in other browsers and in older versions of the common browsers, but you might not have access to all features.

Customizing the Hue web interface

You can customize the page logo and set the cache timeout value by configuring the parameters in the Virtual Warehouse which is running Hue.

Adding a custom banner

You can add a custom banner to the Hue web interface by adding your custom HTML to the hue-safety-valve configuration for your Virtual Warehouse.

Procedure

1. Log in to the Data Warehouse service as DWAdmin.
2. Go to your Virtual Warehouse tile and click ⋮ Edit .
3. Go to CONFIGURATIONS Hue , select hue-safety-valve from the Configuration files drop-down menu and add the following lines:

```
[desktop]
[[custom]]
banner_top_html=<H1>Your company's custom Hue Web UI banner</H1>
```

4. Click Apply Changes.

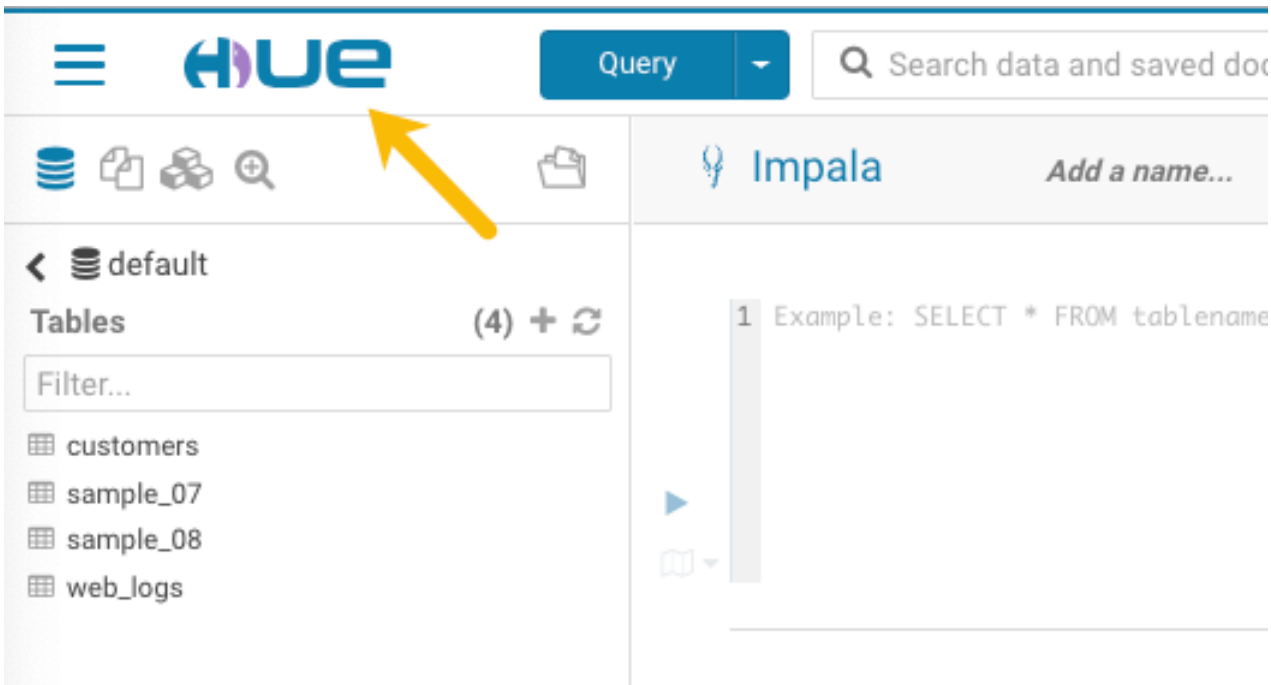
   The Virtual Warehouse goes into an "Updating" state. Wait for the update to complete, and then open or refresh Hue.

Changing the page logo

You can replace the Hue web interface logo with a custom log that is created with an SVG code. Add any type of logo you want, but your custom logo should be designed to fit into a 160 x 40 pixel space.

About this task

For example, here is the Hue logo shown in the following image:



You can change this Hue logo by adding the appropriate SVG code to the logo_svg property under the [desktop] [[custom]] section in the hue_safety_valve configuration parameter in Cloudera Data Warehouse (CDW).

Procedure

1. Log in to the Data Warehouse service as an administrator.
2. Go to the Virtual Warehouses Edit CONFIGURATIONS Hue and select hue-safety-valve from the Configuration files drop-down list.
3. Add the custom logo SVG code in the [desktop] [[custom]] section as shown in the following example:

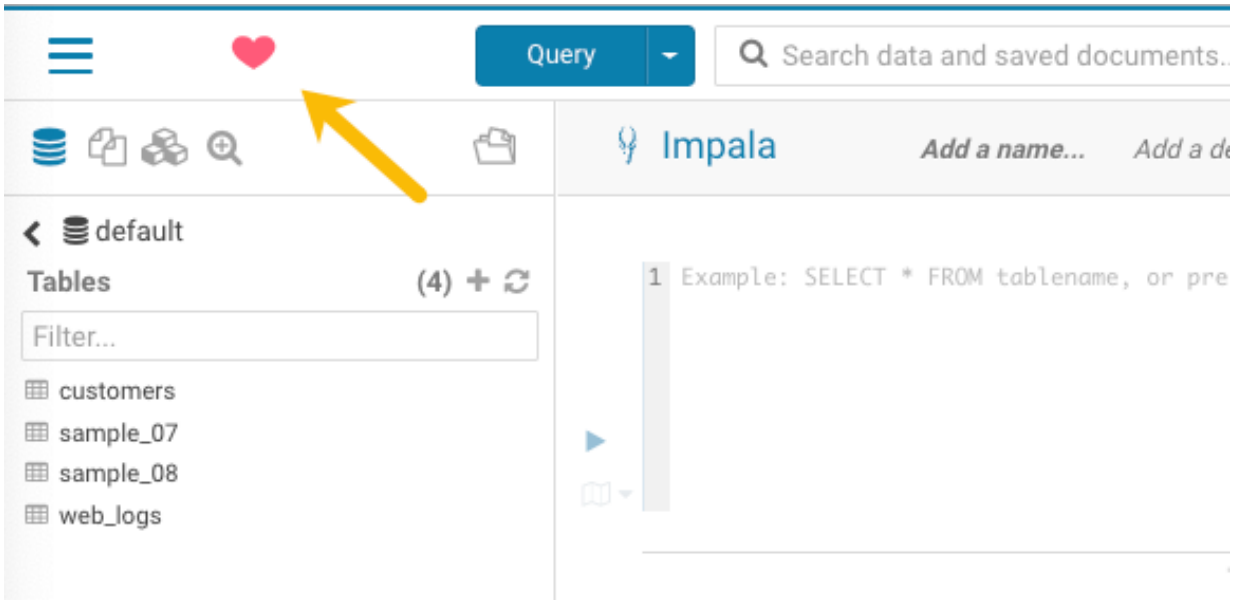
```
[desktop]
[[custom]]
logo_svg='[***SVG-CODE-FOR-CUSTOM-LOGO***]'
```

For example, the following SVG code replaces the Hue logo with a red heart:

```
[desktop]
[[custom]]
logo_svg='<g><path stroke="null" id="svg_1" d="m44.41215,11.43463c-4.05
017,-10.71473
-17.19753,-5.90773 -18.41353,-0.5567c-1.672,-5.70253 -14.497,-9.95663
-18.411,0.5643c-4.35797,11.71793 16.891,22.23443 18.41163,23.95773c1.518
1,-1.36927 22.7696,-12.43803
18.4129,-23.96533z" fill="#ffffff"/> <path stroke="null" id="svg_2"
d="m98.41246,10.43463c-4.05016,-10.71473 -17.19753,-5.90773 -18.41353,-
0.5567c-1.672,-5.70253
-14.497,-9.95663 -18.411,0.5643c-4.35796,11.71793 16.891,22.23443 18.4116
4,23.95773c1.5181,-1.36927
22.76959,-12.43803 18.41289,-23.96533z" fill="#FF5A79"/> <path stroke="nu
ll" id="svg_3"
d="m154.41215,11.43463c-4.05016,-10.71473 -17.19753,-5.90773 -18.41353,-0
.5567c-1.672,-5.70253
-14.497,-9.95663 -18.411,0.5643c-4.35796,11.71793 16.891,22.23443 18.41164
,23.95773c1.5181,-1.36927 22.76959,-12.43803 18.41289,-23.96533z" fill="
#ffffff"/> </g>'
```

4. Click APPLY.
5. Restart the Virtual Warehouse.
6. Verify your changes by opening Hue.

   If you added the sample SVG code that defines a red heart as the logo, then your Hue web interface looks as shown in the following image:



Related Information

Scalable Vector Graphics

Setting the cache timeout

Enable Hue UI caching by setting a timeout value in milliseconds. The default is 10 days or 864000000 milliseconds. Set the timeout to 0 to disable caching.

About this task

When you browse tables using the left assist panel or run queries, Hue caches this information for fetching information faster and query autocompletion. You can configure the time for which you want to Hue to cache this information by setting the value of the cacheable_ttl property under the [desktop][[custom]] section in the hue_safety_valve configuration property in Cloudera Data Warehouse.

Procedure

1.
2. Log in to the Data Warehouse service as an administrator.
3. Go to the Virtual Warehouses ⋮ Edit CONFIGURATIONS Hue and select hue-safety-valve from the Configuration files dropdown menu.
4. Add the following parameters with the cache timeout value to the hue_safety_valve configuration parameter:

```
[desktop]
[[custom]]
```

```
cacheable_ttl=[***VALUE-IN-MILLISECONDS***]
```

For example, the following configuration sets the cache timeout to the default value of 86400000 milliseconds:

```
[desktop]
[[custom]]
cacheable_ttl=86400000
```

5. Click APPLY.
6. Restart the Virtual Warehouse.

Disabling the share option in Hue

Hue allows you to share documents, queries, and workflows with other users, either for viewing only or viewing and modifying in any Hue instances across all Virtual Warehouses within a Database Catalog. Sharing is enabled by default in the Hue UI. For added privacy and control, you can disable sharing by setting the enable_sharing property to false in the hue-safety-valve.

About this task

The sharing option is always available to the admin users. To disable the share option:

Procedure

1. Log in to the Data Warehouse service as an administrator.
2. Go to the Virtual Warehouses Edit CONFIGURATIONS Hue and select hue-safety-valve from the Configuration files drop-down list.
3. Add the following lines in the hue-safety-valve:

```
[desktop]
enable_sharing=false
```

4. Click APPLY.
5. Restart the Virtual Warehouse.

Configuring idle session timeout for Hue

By configuring idle session timeout, you can prevent unauthorized access to your data by automatically logging out users when they are not actively using the Hue web interface. Hue warns the users and then logs them out after a set period of inactivity that you specify in the Hue configuration.

About this task

By default, the value of the idle_session_timeout property is set to “-1”, which means that the users are not logged out until they manually log out of Hue.

Procedure

1. Log in to the Data Warehouse service as an administrator.
2. Go to the Virtual Warehouse in which Hue is running and click Edit.
3. Go to CONFIGURATIONS Hue and select hue-safety-valve from the Configuration files drop-down list and add the following lines:

```
[desktop]
```

```
[[auth]]
idle_session_timeout=[***TIME-IN-SECONDS***]
```

4. Click APPLY.

   The Virtual Warehouse restarts to update the configuration.

Adding Query Processor Administrator users and groups in Cloudera Data Warehouse

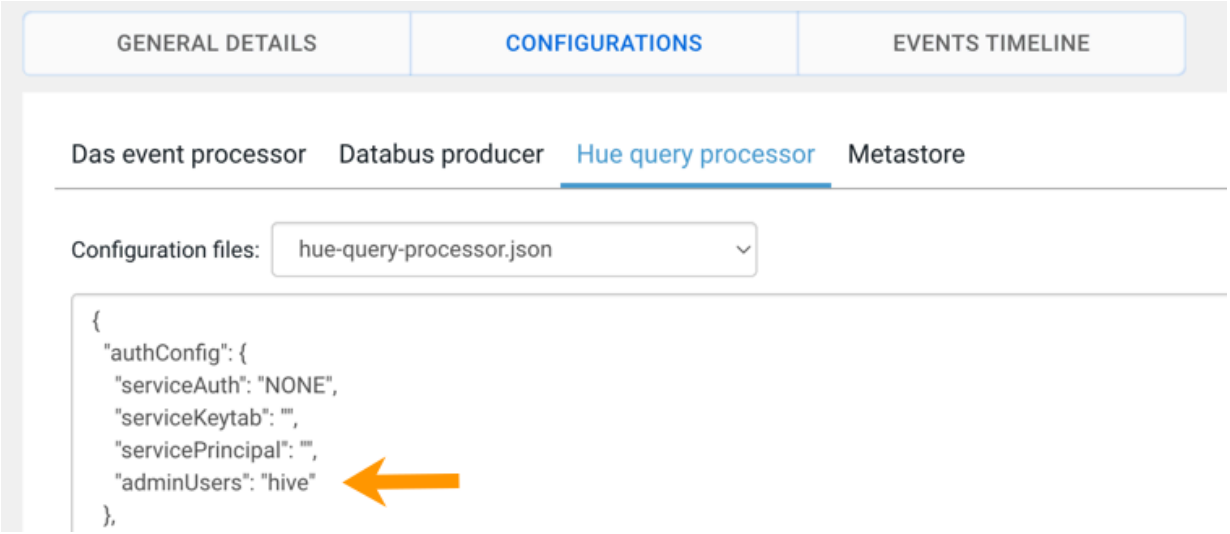
The Query Processor Administrators have special privileges that enable them to view and monitor queries from all users, including the ones that were submitted from query interfaces, such as Beeline, Hive Warehouse Connector (HWC), Tableau, Impala-shell, Impyla, and other JDBC/ODBC clients.

Before you begin

Make sure that the Virtual Warehouse to which you want to add the Hue Query Processor Administrators users is in the stopped state.

Procedure

1. Log in to the Cloudera Data Warehouse (CDW) web interface as a DWAdmin.
2. Click ⋮ Edit on the Database Catalog for which you want to add Hue Query Processor Administrators users.
3. On the **Database Catalog** details page, click CONFIGURATIONS Hue query processor and select hue-query-processor.json from the Configuration files drop-down menu, as shown in the following image:



4. In the “authConfig” section, add the list of users to the “adminUsers” key.

   For example: "adminUsers": "hive, [***USER-1***], [***USER-2***]"

   You can also add a list of admin groups as follows:

```
"adminGroups": "admin-group, [***GROUP-1***], [***GROUP-2***]"
```

5. Click Apply.

   The Hue service will be unavailable for approximately 5 minutes to make the update.

Ways to clean up old queries from the Query Processor tables

Learn how to schedule a query clean-up and how to use the API to manually clean up queries from the following Query Processor tables: vertex_info, dag_details, dag_info, query_details, hive_query, tez_app_info.

Scheduling query clean-up

Both Hive and Impala queries are retained in the backend database for 30 days by default, after which they are cleaned up. You can change the clean-up interval from the Database Catalog configurations. Go to Database Catalogs ⋮ Edit CONFIGURATIONS Hive query processor and select the hue-query-processor.json from the Configuration files drop-down menu.

Add the following line under the dasConf section and specify the time interval in seconds:

```
 "dasConf": {
    "hue.query-processor.event-pipeline.cleanup-interval-secs": "[***TIME-
INTERVAL-IN-SECONDS***]",
    “hue.query-processor.event-pipeline.cleanup.cron.expression” : “[***CR
ON-EXPRESSION***]”
  },
```

For example:

```
“hue.query-processor.event-pipeline.cleanup.cron.expression” : “0 0 2 * * ?”
“hue.query-processor.event-pipeline.cleanup-interval-secs” : “2592000”
```

Manually cleaning up queries using an API

The ability to clean up queries manually in addition to the scheduled clean-up routines is useful when you have a high load of queries in a particular week that are hogging resources that you must free up. The API also runs a VACUUM command on the Query Processor table to reclaim storage that is occupied by dead tuples.

You can send an API request using tools such as cURL or Postman.

API format: `[***QUERY-PROCESSOR-ADDRESS***]/api/admin/cleanup/[***EPOCH-TIME***]`

Where,

- [***QUERY-PROCESSOR-ADDRESS***] is the query processor host address
- [***EPOCH-TIME***] is the Unix epoch time in seconds

Queries that were run before the specified epoch time are purged.

For example:

```
curl "http://machine1.company.com:30700/api/admin/cleanup/1670006742"
```

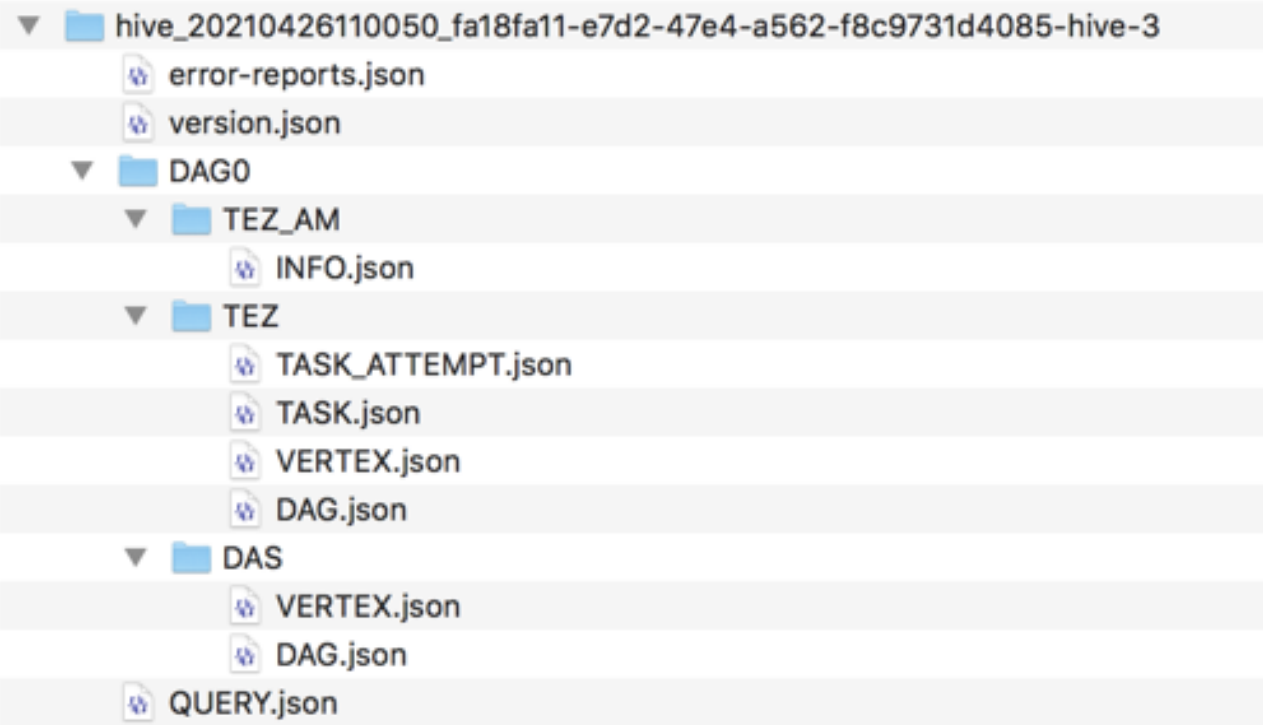
Downloading debug bundles

The debug bundle is a ZIP file that contains the query details in JSON format and an error-reports.json file, which is created only if an error occurs while the query is run.

About this task

Note: This feature is available only for Hive queries.

If Tez is used to run a query, then the debug bundle also contains DAG and Tez JSON files, as shown in the following image:



Procedure

1. Go to the Cloudera Data Warehouse (CDW) web interface and open Hue from your Virtual Warehouse.
2. Click Jobs from the left assist panel.
   The **Job Browser** page is displayed.
3. Click Queries.
   The Hive queries that were run are displayed.
4. Select a query for which you want to download the debug bundle.
5. Click Download and save the ZIP file on your computer.
   The filename is in the following format:

```
hive_[***HIVE-QUERY-ID***]_[***USER-ID***]_[***UNIQUE-INDEX***]
```