

Using Apache Atlas

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Searching and Viewing Entities

Using Basic and Advanced Search

Using Basic Search

About this task

You can search for entities using three basic search modes:

- Search by Type – search based on a selected Entity type.
- Search by Classification – search based on a selected Atlas classification.
- Search by Term – search based on a specified glossary term.
- Search by Text – full-text search.

Procedure

1. To search for entities, click SEARCH on the Atlas web UI. Select an entity type, an Atlas tag, or enter a text string, then click Search to display a list of the entities associated with the specified search criteria.
 - In the example below, we searched for the Table entity type.

Results for: **Type: Table**
If you do not find the entity in search result below then you can [create new entity](#)

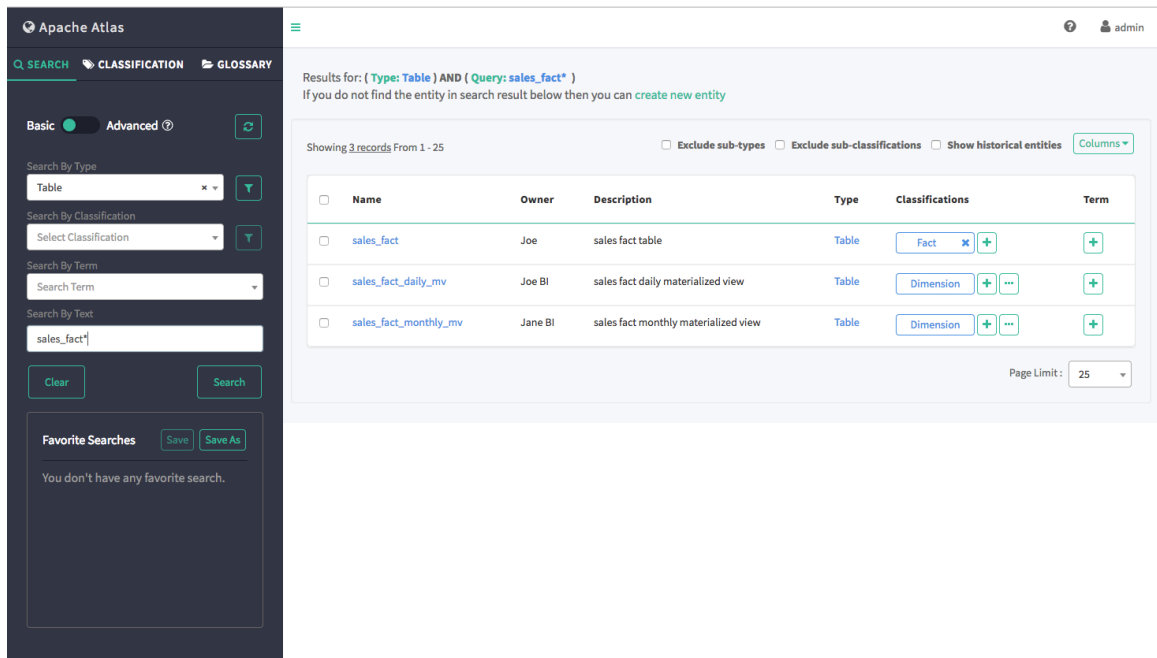
Showing 8 records From 1 - 25

Exclude sub-types Exclude sub-classifications Show historical entities [Columns](#)

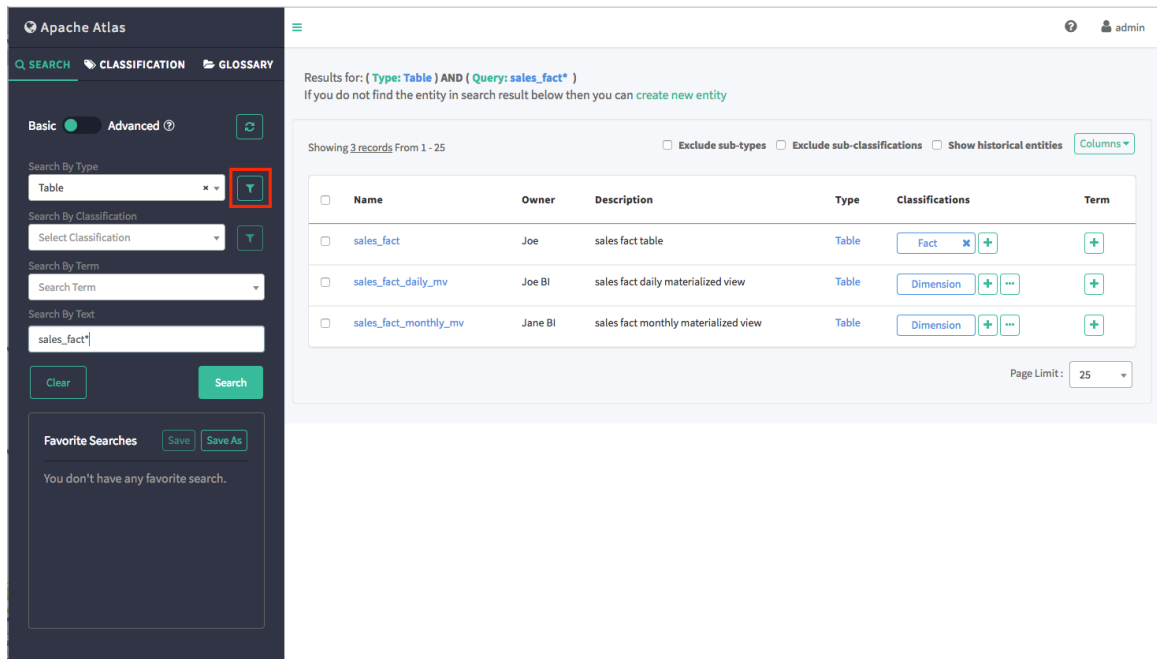
<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	customer_dim	feti	customer dimension table	Table	Dimension <input type="button" value="x"/> <input type="button" value="+"/>	<input type="button" value="+"/>
<input type="checkbox"/>	product_dim	John Doe	product dimension table	Table	Dimension <input type="button" value="x"/> <input type="button" value="+"/>	<input type="button" value="+"/>
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension <input type="button" value="+"/> <input type="button" value="..."/>	<input type="button" value="+"/>
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension <input type="button" value="+"/> <input type="button" value="..."/>	<input type="button" value="+"/>
<input type="checkbox"/>	logging_fact_monthly_mv	Tim ETL	logging fact monthly materialized view	Table	Log Data <input type="button" value="+"/> <input type="button" value="..."/>	<input type="button" value="+"/>
<input type="checkbox"/>	log_fact_daily_mv	Tim ETL	log fact daily materialized view	Table	Log Data <input type="button" value="x"/> <input type="button" value="+"/>	<input type="button" value="+"/>
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact <input type="button" value="x"/> <input type="button" value="+"/>	<input type="button" value="+"/>
<input type="checkbox"/>	time_dim	John Doe	time dimension table	Table	Dimension <input type="button" value="x"/> <input type="button" value="+"/>	<input type="button" value="+"/>

Page Limit: 25

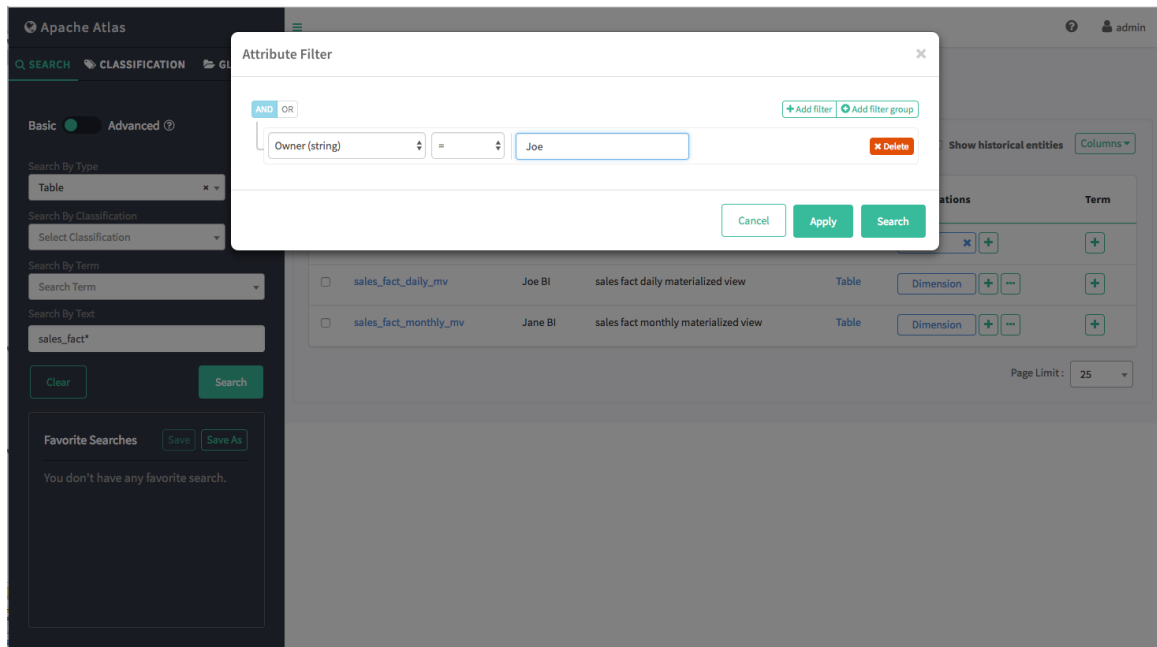
- You can also combine search criteria. In the example below, we combined Type and full-text search to find Table entities whose name contains the text string "sales_fact".



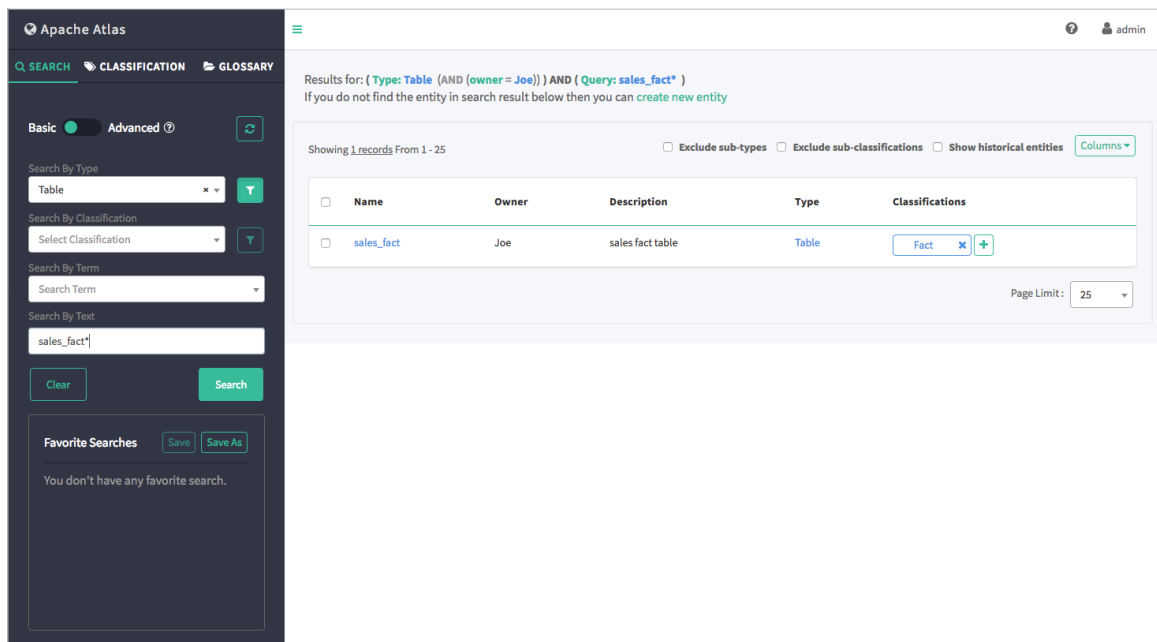
- You can use the attribute filters to further refine search criteria. Click an Attribute Filter symbol to display the Attribute Filter pop-up.



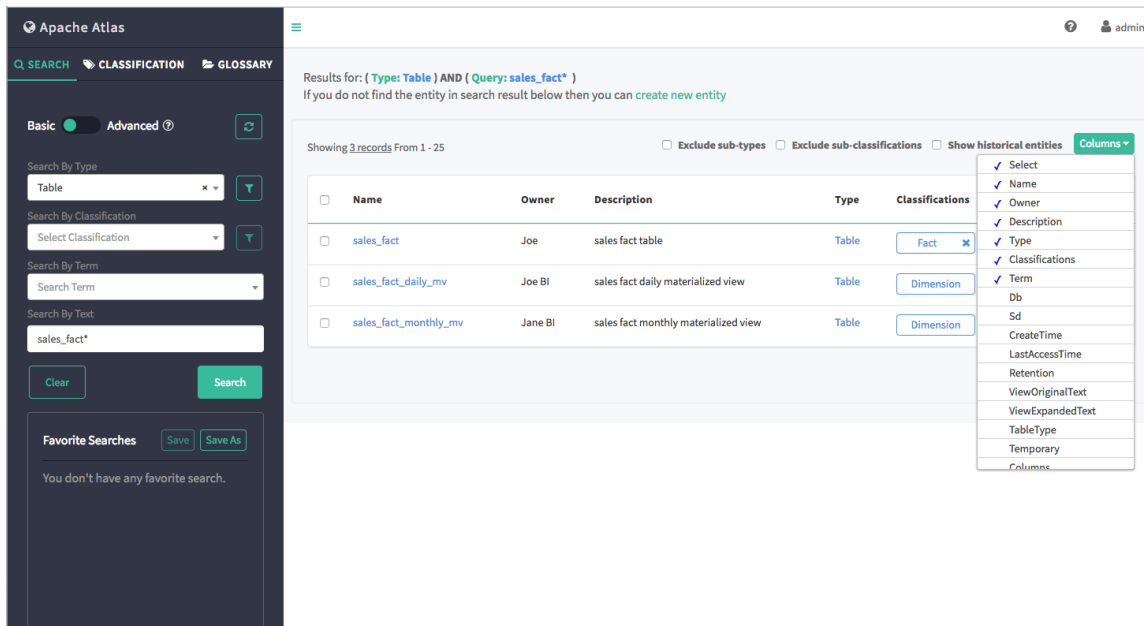
Use the selection boxes on the Attribute Filter pop-up to specify an attribute filter. The attributes listed reflect the entity type. In the following example, we set an attribute filter to return entities with an Owner attribute of "Joe".



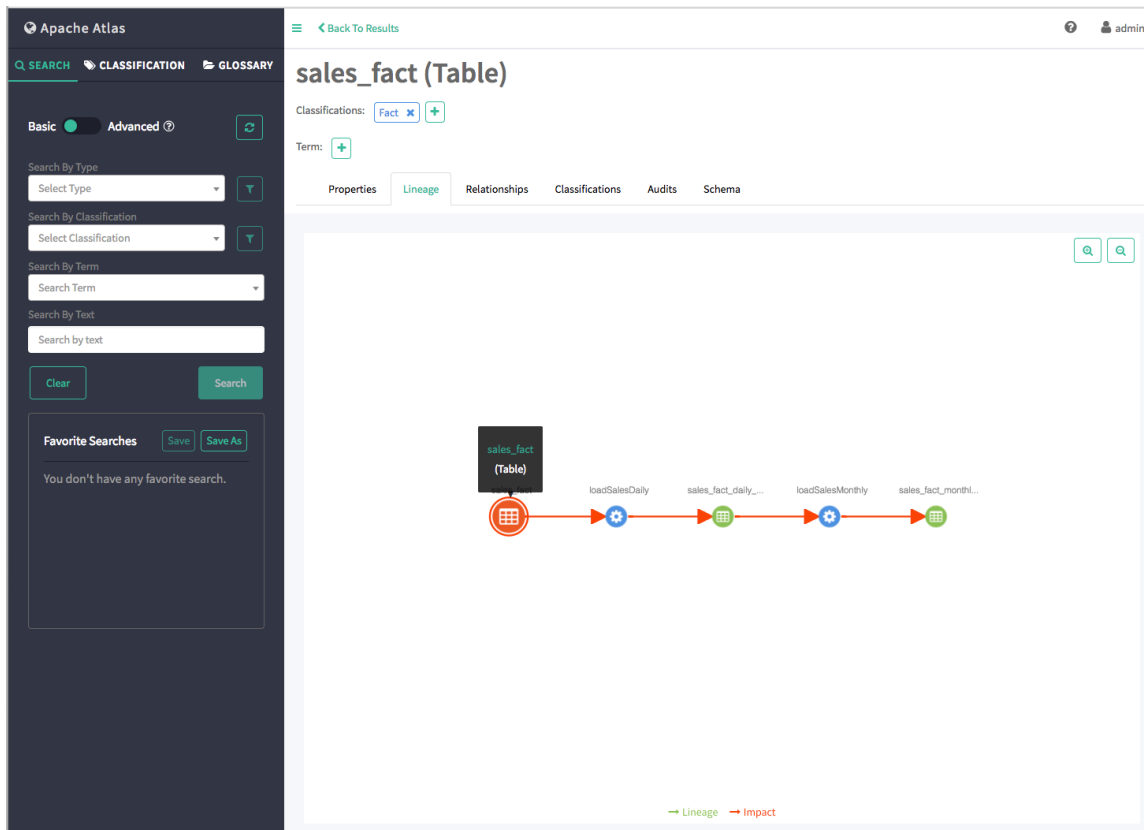
- Click Add filter to add more attribute filters.
- Click Add filter group to add an attribute filter group.
- Click Delete to remove an attribute filter or filter group.
- Click Apply to temporarily save the attribute filter to the current search without applying it to the search results. Click Search to apply the attribute filter to the search results.



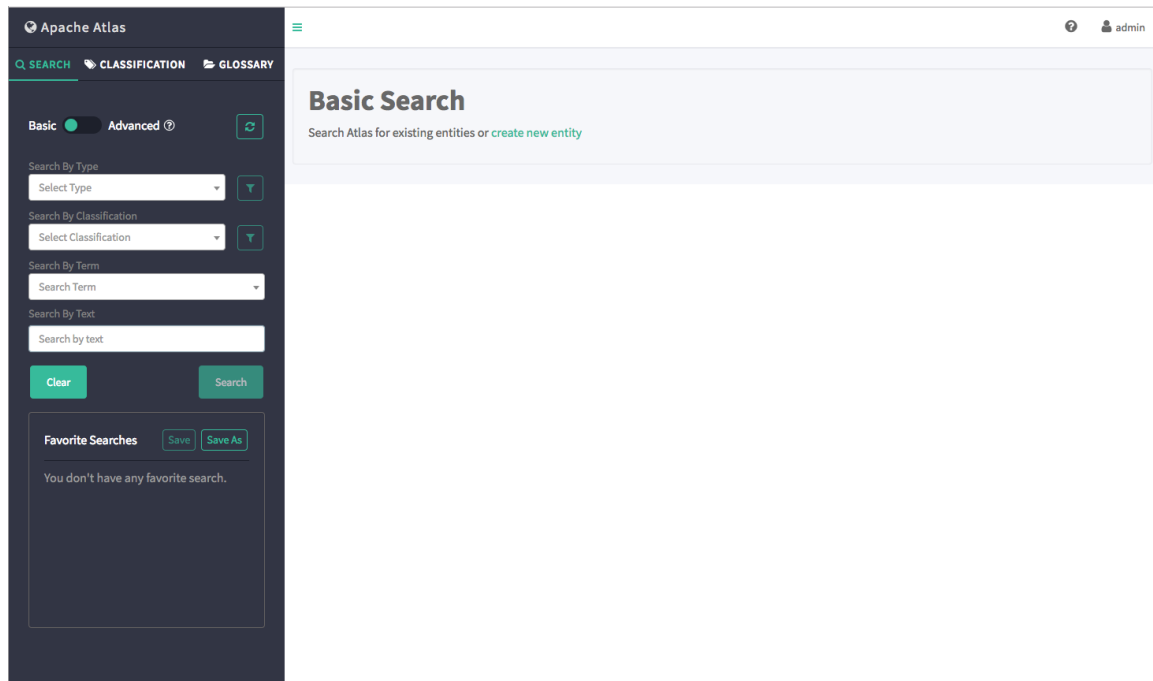
2. Click Columns to control which columns are displayed in the list of search results.



- To view detailed information about an entity, click the entity in the search results list. In the example below, we selected the "sales_fact" table from the list of search results. You can use the tabs to view categories of information about an entity – for example, click Lineage to view the entity lineage.



- Click Clear to clear the search settings.



Using Advanced Search

About this task

To switch to Advanced search mode, slide the green toggle button from Basic to Advanced. You can search for entities using two advanced search modes:

- Search by Type – search based on a selected Entity type.
- Search by Query – search using an Apache Atlas DSL query. Atlas DSL (Domain-Specific Language) is a SQL-like query language that enables you to search metadata using complex queries. For more information on Atlas DSL queries, click the Apache Atlas "Advanced Search" link under "Related information" at the end of this topic.

Procedure

1. To search for entities, select an entity type or enter an Atlas DSL search query, then click Search to display a list of the entities associated with the specified search criteria.

You can also combine search criteria. In the example below, we searched for Table entity types named "sales_fact".

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced [?](#)

Search By Type
Table

Search By Query
name="sales_fact"

Clear Search

Favorite Searches [Save](#) [Save As](#)

You don't have any favorite search.

Results for: (Type: Table) AND (Query: name="sales_fact")
If you do not find the entity in search result below then you can [create new entity](#)

Showing 1 records From 1 - 25

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact x +	+

Page Limit: 25

To display more information about Atlas DSL queries, click the question mark symbol next to the Advanced label above the search boxes.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced [?](#)

Search By Type
Table

Search By Query
name="sales_fact"

Clear Search

Favorite Searches [Save](#) [Save As](#)

You don't have any favorite search.

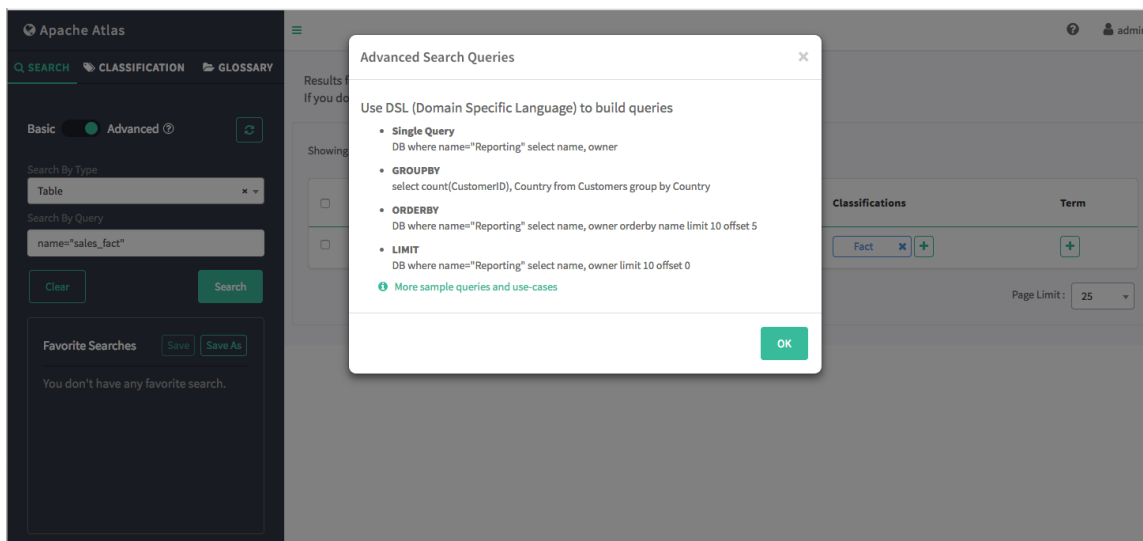
Results for: (Type: Table) AND (Query: name="sales_fact")
If you do not find the entity in search result below then you can [create new entity](#)

Showing 1 records From 1 - 25

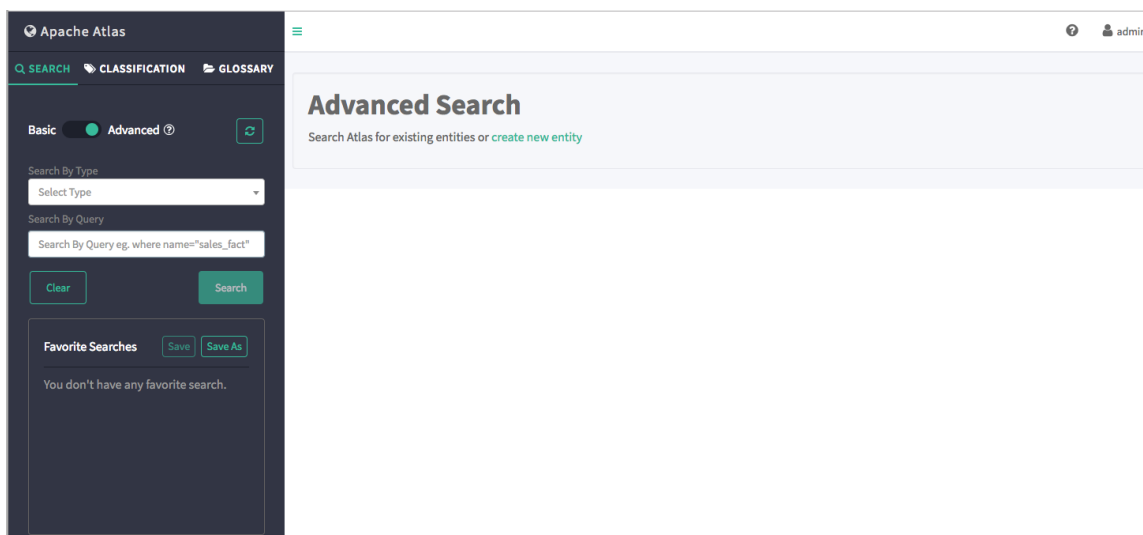
<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact x +	+

Page Limit: 25

The Advanced Search Queries lists example queries, along with a link to the Apache Atlas DSL query documentation:



2. Click Clear to clear the search settings.



Related Information

[Apache Atlas Advanced Search](#)

Save searches

About this task

You can use the Favorite Searches box to save both Basic and Advanced Atlas searches.

Procedure

1. To demonstrate saved searches, let's start with a Basic search for the Table entity type.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search By Text

Clear Search

Favorite Searches Save Save As

You don't have any favorite search.

Results for: **Type: Table**
If you do not find the entity in search result below then you can [create new entity](#)

Showing 8 records From 1 - 25 Exclude sub-types Exclude sub-classifications Show historical entities Columns

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	customer_dim	feti	customer dimension table	Table	Dimension x +	+
<input type="checkbox"/>	product_dim	John Doe	product dimension table	Table	Dimension x +	+
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	logging_fact_monthly_mv	Tim ETL	logging fact monthly materialized view	Table	Log Data + ...	+
<input type="checkbox"/>	log_fact_daily_mv	Tim ETL	log fact daily materialized view	Table	Log Data x +	+
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact x +	+
<input type="checkbox"/>	time_dim	John Doe	time dimension table	Table	Dimension x +	+

Page Limit: 25

2. To save this search, click Save As under Favorite Searches.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search By Text

Clear Search

Favorite Searches Save **Save As**

You don't have any favorite search.

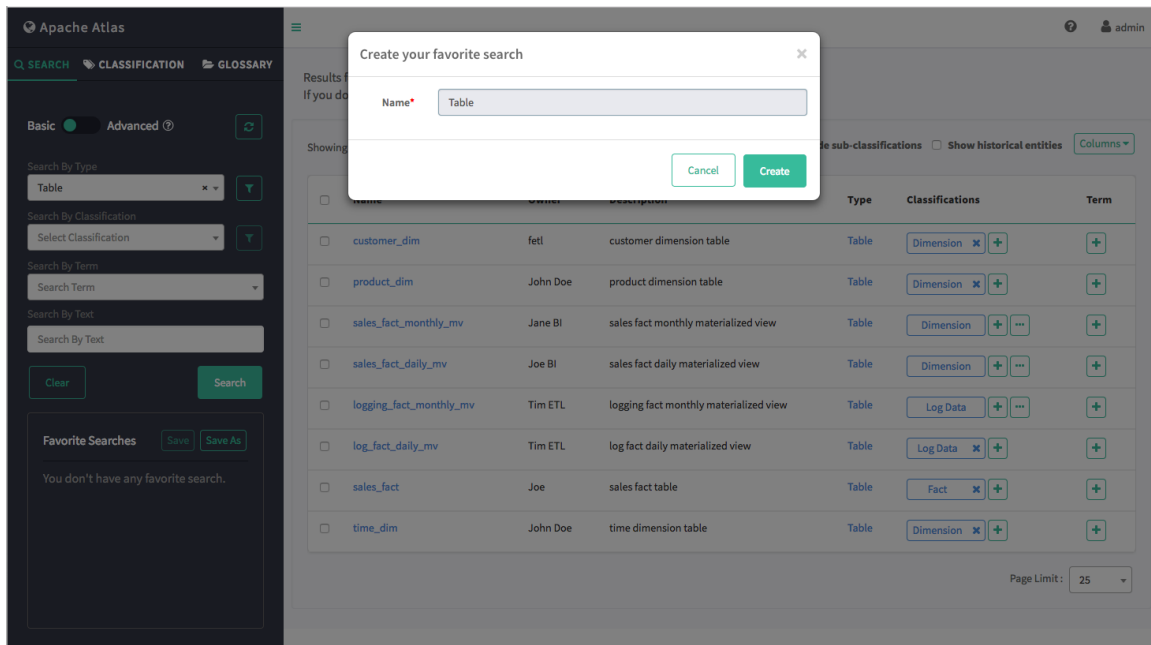
Results for: **Type: Table**
If you do not find the entity in search result below then you can [create new entity](#)

Showing 8 records From 1 - 25 Exclude sub-types Exclude sub-classifications Show historical entities Columns

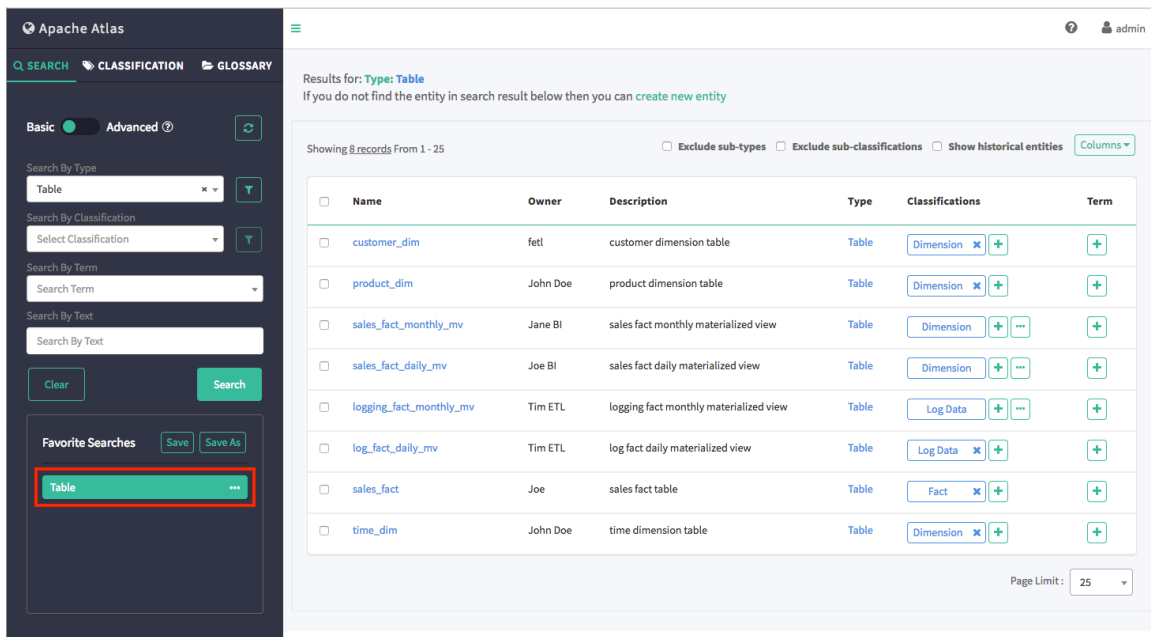
<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	customer_dim	feti	customer dimension table	Table	Dimension x +	+
<input type="checkbox"/>	product_dim	John Doe	product dimension table	Table	Dimension x +	+
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	logging_fact_monthly_mv	Tim ETL	logging fact monthly materialized view	Table	Log Data + ...	+
<input type="checkbox"/>	log_fact_daily_mv	Tim ETL	log fact daily materialized view	Table	Log Data x +	+
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact x +	+
<input type="checkbox"/>	time_dim	John Doe	time dimension table	Table	Dimension x +	+

Page Limit: 25

3. On the Create Your Favorite Search pop-up, type a name for the search in the Name box, then click Create. In this example, the search name is "Table".



4. The saved search appears in the Favorite Searches box.



5. To run a saved search:

- Click the search name in the Favorite Searches list, then click Search.
- OR-
- Click the ellipsis symbol (...) for the saved search, then click Search in the drop-down menu.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search By Text

Clear Search

Favorite Searches: Save Save As

Table

Search Rename Delete

Results for: **Type: Table**
If you do not find the entity in search result below then you can [create new entity](#)

Showing 8 records From 1 - 25

Exclude sub-types Exclude sub-classifications Show historical entities Columns

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	customer_dim	feti	customer dimension table	Table	Dimension x +	+
<input type="checkbox"/>	product_dim	John Doe	product dimension table	Table	Dimension x +	+
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	logging_fact_monthly_mv	Tim ETL	logging fact monthly materialized view	Table	Log Data + ...	+
<input type="checkbox"/>	log_fact_daily_mv	Tim ETL	log fact daily materialized view	Table	Log Data x +	+
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact x +	+
<input type="checkbox"/>	time_dim	John Doe	time dimension table	Table	Dimension x +	+

Page Limit: 25

**Note:**

You can also use the ellipsis symbol drop-down menu to rename or delete a saved search.

- Now let's save this search under a new name, then change the search criteria and save the new search. To save a search under a new name, click the search, then click Save As.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search By Text

Clear Search

Favorite Searches: Save **Save As**

Table

Results for: **Type: Table**
If you do not find the entity in search result below then you can [create new entity](#)

Showing 8 records From 1 - 25

Exclude sub-types Exclude sub-classifications Show historical entities Columns

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	customer_dim	feti	customer dimension table	Table	Dimension x +	+
<input type="checkbox"/>	product_dim	John Doe	product dimension table	Table	Dimension x +	+
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	logging_fact_monthly_mv	Tim ETL	logging fact monthly materialized view	Table	Log Data + ...	+
<input type="checkbox"/>	log_fact_daily_mv	Tim ETL	log fact daily materialized view	Table	Log Data x +	+
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact x +	+
<input type="checkbox"/>	time_dim	John Doe	time dimension table	Table	Dimension x +	+

Page Limit: 25

- On the "Create your favorite search" pop-up, type a name for the new search in the Name box, then click Create. In this example, the new search name is "sales_fact".

The screenshot shows the Apache Atlas search interface. A modal dialog titled "Create your favorite search" is open, with a text input field containing "sales_fact" and "Create" and "Cancel" buttons. The background shows search results for "Table" entities, including a table with columns: Name, Owner, Description, Type, Classifications, and Term. The table lists various entities like customer_dim, product_dim, sales_fact_monthly_mv, etc.

8. The new search appears in the Favorite Searches box.

The screenshot shows the Apache Atlas search interface. The "Favorite Searches" box in the left sidebar now includes "sales_fact" (highlighted with a red box) and "Table". The search results table in the background shows the same list of entities as in the previous screenshot.

9. Next we add a full-text search string to find Table entities whose name contains the text string "sales_fact", then click Search to update the search results. To save this new set of search criteria to the "sales_fact" search, click Save under Favorite Searches.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: sales_fact*

Search By Text: sales_fact*

Clear Search

Favorite Searches: Save Save As

sales_fact Table

Results for: (Type: Table) AND (Query: sales_fact*)
If you do not find the entity in search result below then you can [create new entity](#)

Showing 3 records From 1 - 25 Exclude sub-types Exclude sub-classifications Show historical entities Columns

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact x +	+
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension + ...	+

Page Limit: 25



Note:

To modify a saved search, click the search name in the Favorite Searches list, update the search criteria, then click Save to save the new search settings.

View entity data lineage and impact

Procedure

1. Data lineage and impact is displayed when you select an entity. In the following example, we ran a Type search for Table, selected the "sales_fact" entity, and then clicked the Lineage tab. Data lineage and impact is displayed graphically, with each icon representing an action. You can use the zoom buttons to zoom in and out, and you can also click and drag to move the image.

The screenshot shows the Apache Atlas interface for the 'sales_fact (Table)' entity. The left sidebar contains search filters for Type (Table), Classification, Term, and Text. The main content area is titled 'sales_fact (Table)' and has tabs for Properties, Lineage, Relationships, Classifications, Audits, and Schema. The 'Lineage' tab is active, displaying a lineage diagram with nodes: 'sales_fact' (Table), 'loadSalesDaily' (Process), 'sales_fact_daily_mv' (Table), 'loadSalesMonthly' (Process), and 'sales_fact_monthly_mv' (Table). A legend at the bottom indicates that green arrows represent Lineage and red arrows represent Impact.

2. Moving the cursor over an icon displays a pop-up with more information about the action that was performed. Double-clicking an icon takes you to that entity's Lineage tab.

This screenshot is identical to the one above, but with a tooltip displayed over the 'sales_fact_daily_mv (Table)' node in the lineage diagram. The tooltip text reads 'Impact sales_fact_daily_mv (Table)'. This demonstrates the action of hovering over an icon to view more information.

View entity details

About this task

When you select an entity, detailed information about the entity is available.

Procedure

- The Properties tab displays the entity properties.

The screenshot displays the Apache Atlas web interface. On the left is a dark sidebar with search filters and a 'Favorite Searches' section containing 'sales_fact'. The main content area shows the entity 'sales_fact (Table)' with a 'Fact' classification. Below the classification are tabs for 'Properties', 'Lineage', 'Relationships', 'Classifications', 'Audits', and 'Schema'. The 'Properties' tab is active, showing a table of key-value pairs for the entity's metadata.

Key	Value
columns	time_id product_id customer_id sales
createTime	1528835063147
db	Sales
description	sales fact table
lastAccessTime	1528835063147
name	sales_fact
owner	Joe
qualifiedName	sales_fact
retention	1528835063147
sd	0450e753-8267-48fc-bc60-c247f5404f06
tableType	Managed
temporary	false
viewExpandedText	
viewOriginalText	

- The Lineage tab displays the entity lineage.

Apache Atlas interface showing the 'Lineage' tab for the entity 'sales_fact (Table)'. The left sidebar contains search filters and a 'Favorite Searches' section with 'sales_fact' listed. The main content area displays a lineage diagram with nodes: 'sales_fact' (Table icon), 'loadSalesDaily' (Process icon), 'sales_fact_daily,...' (Table icon), 'loadSalesMonthly' (Process icon), and 'sales_fact_monthl...' (Table icon). Red arrows indicate lineage flow between these nodes. A legend at the bottom indicates 'Lineage' (green arrow) and 'Impact' (red arrow).

- The Relationships tab displays the entity relationships.

Apache Atlas interface showing the 'Relationships' tab for the entity 'sales_fact (Table)'. The left sidebar is identical to the previous screenshot. The main content area displays a relationship diagram with a 'Table' icon connected to an 'InputProcesses' icon by a green arrow.

- Click the Classifications tab to display the classifications associated with the entity. In this case, the "Fact" classification has been associated with the "sales_fact" table.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search by text

Clear Search

Favorite Searches: sales_fact (Table)

sales_fact (Table)

Classifications: Fact

Term: +

Properties Lineage Relationships **Classifications** Audits Schema

Showing 1 - 1 Show Propagated Classifications

Classification	Attributes	Action
Fact	NA	

< 1 >

- The Audits tab provides a complete audit trail of all events in the entity history. You can use the Detail button next to each action to view more details about the event.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search by text

Clear Search

Favorite Searches: sales_fact (Table)

sales_fact (Table)

Classifications: Fact

Term: +

Properties Lineage Relationships Classifications **Audits** Schema

Showing 2 records From 1 - 25

Users	Timestamp	Actions	Tools
admin	Tue Jun 12 2018 16:24:28 GMT-0400 (Eastern Daylight Time)	Entity Updated	
admin	Tue Jun 12 2018 16:24:23 GMT-0400 (Eastern Daylight Time)	Entity Created	

< 1 >

- The Schema tab shows schema information, in this case the columns for the table. We can also see that a PII tag has been associated with the "customer_id" column.

The screenshot shows the Apache Atlas web interface. On the left is a dark sidebar with search filters. The main content area shows the search results for 'sales_fact (Table)'. The results are displayed in a table with columns for Name, Comment, and Tags.

Name	Comment	Tags
time_id	time id	+
product_id	product id	+
customer_id	customer id	PII x +
sales	product id	Metric x +

Manually create entities

About this task

Currently there is no Atlas hook in HDP for HDFS or Kafka. For these components, you must manually create entities in Atlas. You can then associate tags with these entities and control access using Ranger tag-based policies.



Note: When upgrading to HDP-3.0 from earlier versions, you may need to manually enable the HBase hook post-upgrade. On the Ambari dashboard, select HBase > Configs > Advanced hbase-env, then select the Enable Atlas Hook check box. Click Save, then restart HBase and any other services that require a restart.

Procedure

1. On the Atlas web UI Search page, click the create new entity link at the top of the page.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search by text

Clear Search

Favorite Searches: sales_fact, Table

Results for: **Type: Table**

If you do not find the entity in search result below then you can [create new entity](#)

Showing 8 records From 1 - 25

Exclude sub-types Exclude sub-classifications Show historical entities Columns

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	customer_dim	fetl	customer dimension table	Table	Dimension x +	+
<input type="checkbox"/>	product_dim	John Doe	product dimension table	Table	Dimension x +	+
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	logging_fact_monthly_mv	Tim ETL	logging fact monthly materialized view	Table	Log Data + ...	+
<input type="checkbox"/>	log_fact_daily_mv	Tim ETL	log fact daily materialized view	Table	Log Data x +	+
<input type="checkbox"/>	sales_fact	Joe	sales fact table	Table	Fact x +	+
<input type="checkbox"/>	time_dim	John Doe	time dimension table	Table	Dimension x +	+

Page Limit: 25

- On the "Create entity" pop-up, select an entity type.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search by text

Clear Search

Favorite Searches: sales_fact, Table

Create entity

--Select entity-type--

Required All

Cancel Create

hbase_column

hbase_column_family

hbase_namespace

hbase_table

hdfs_path

dimension table

Table

Dimension x +

+

sales_fact_monthly_mv

Jane BI

sales fact monthly materialized view

Table

Dimension + ...

+

sales_fact_daily_mv

Joe BI

sales fact daily materialized view

Table

Dimension + ...

+

logging_fact_monthly_mv

Tim ETL

logging fact monthly materialized view

Table

Log Data + ...

+

log_fact_daily_mv

Tim ETL

log fact daily materialized view

Table

Log Data x +

+

sales_fact

Joe

sales fact table

Table

Fact x +

+

time_dim

John Doe

time dimension table

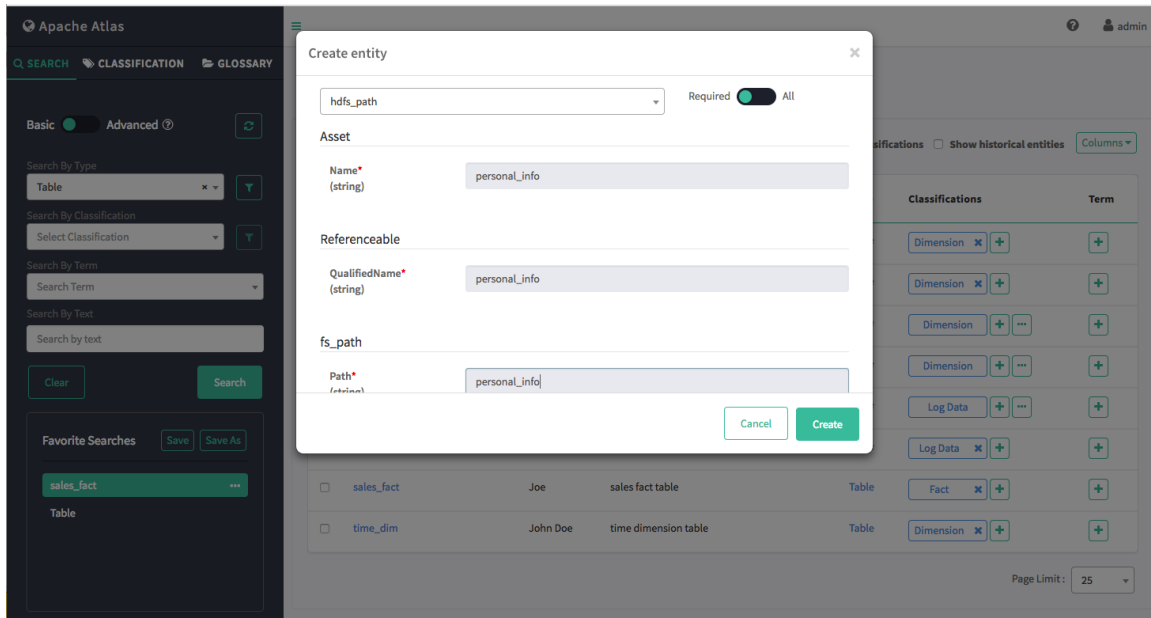
Table

Dimension x +

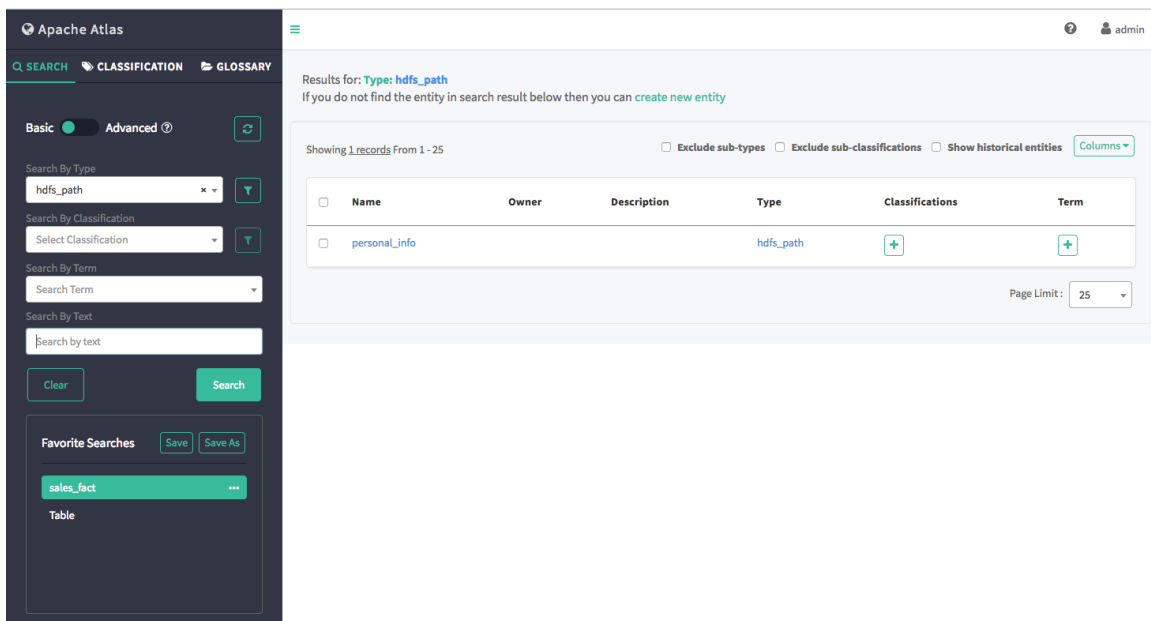
+

Page Limit: 25

- Enter the required information for the new entity. Click All to display both required and non-required information. Click Create to create the new entity.



- The entity is created and returned in search results for the applicable entity type. You can now associate classifications and terms with the new entity and control access to the entity with Ranger policies.



Working with Atlas Classifications

Create Atlas classifications

Procedure

- On the Atlas web UI, click CLASSIFICATION, then click the + icon.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Flat Tree **+**

Search Classification

Dimension

ETL

Fact

JdbcAccess

Log Data

Metric

PII

Dimension

Dimension Classification

Attributes: **+**

Showing 9 records From 1 - 25 Exclude sub-classifications Show historical entities

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	loadSalesDaily		hive query for daily summary	LoadProcess	Dimension + ...	+
<input type="checkbox"/>	time_dim	John Doe	time dimension table	Table	Dimension x +	+
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	loadSalesMonthly		hive query for monthly summary	LoadProcess	Dimension + ...	+
<input type="checkbox"/>	customer_dim	fetl	customer dimension table	Table	Dimension x +	+
<input type="checkbox"/>	product_dim	John Doe	product dimension table	Table	Dimension x +	+
<input type="checkbox"/>	customer_dim_view			View	JdbcAcc... x + ...	+
<input type="checkbox"/>	product_dim_view			View	Dimension x + ...	+

Page Limit: 25

- On the "Create a new classification" pop-up, type in a name and an optional description for the classification. You can use the Select classifications to inherit attributes box to inherit attributes from other classifications. Click Add New Attributes to add one or more new attributes to the classification. Click Create to create the new classification.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Flat Tree **+** **+**

Search Classification

Dimension

ETL

Fact

JdbcAccess

Log Data

Metric

PII

Dimension

Dimension Classification

Attributes: **+**

Showing 9 records From 1 - 25 Exclude sub-classifications Show historical entities

Create a new classification ✕

Name*

Description

Select classification to inherit attributes(optional)
Attributes define additional properties for the classification

Search Classification

Attributes(optional)
+ Add New Attributes

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	loadSalesDaily		hive query for daily summary	LoadProcess	Dimension + ...	+
<input type="checkbox"/>	time_dim	John Doe	time dimension table	Table	Dimension x +	+
<input type="checkbox"/>	sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension + ...	+
<input type="checkbox"/>	loadSalesMonthly		hive query for monthly summary	LoadProcess	Dimension + ...	+
<input type="checkbox"/>	customer_dim	fetl	customer dimension table	Table	Dimension x +	+
<input type="checkbox"/>	product_dim	John Doe	product dimension table	Table	Dimension x +	+
<input type="checkbox"/>	customer_dim_view			View	JdbcAcc... x + ...	+
<input type="checkbox"/>	product_dim_view			View	Dimension x + ...	+

Page Limit: 25

- The new classification appears in the Classifications list.

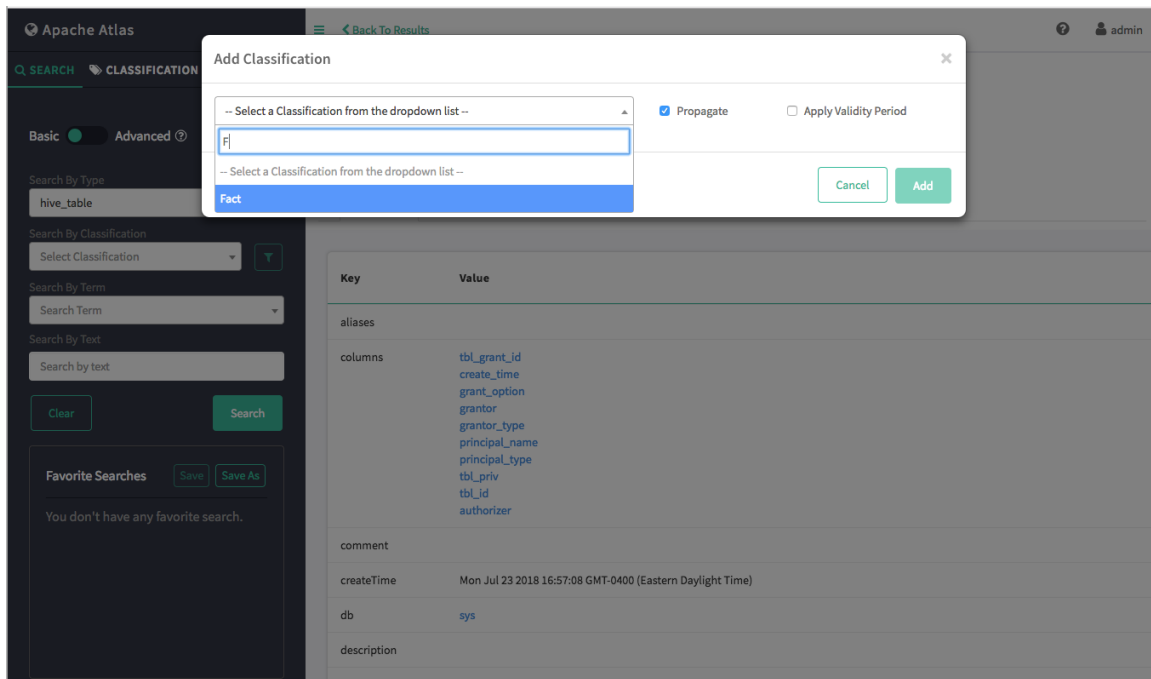
Associate classifications with entities

Procedure

1. Select an entity. In the example below, we searched for all hive_table entities, and then selected the "tbl_privs" table from the list of search results. To associate a classification with an entity, click the + icon next to the "Classifications:" label.

Key	Value
aliases	
columns	tbl_grant_id create_time grant_option grantor grantor_type principal_name principal_type tbl_priv tbl_id authorizer
comment	
createTime	Mon Jul 23 2018 16:57:08 GMT-0400 (Eastern Daylight Time)
db	sys
description	
lastAccessTime	Mon Jul 23 2018 16:57:08 GMT-0400 (Eastern Daylight Time)
name	tbl_privs
owner	hive

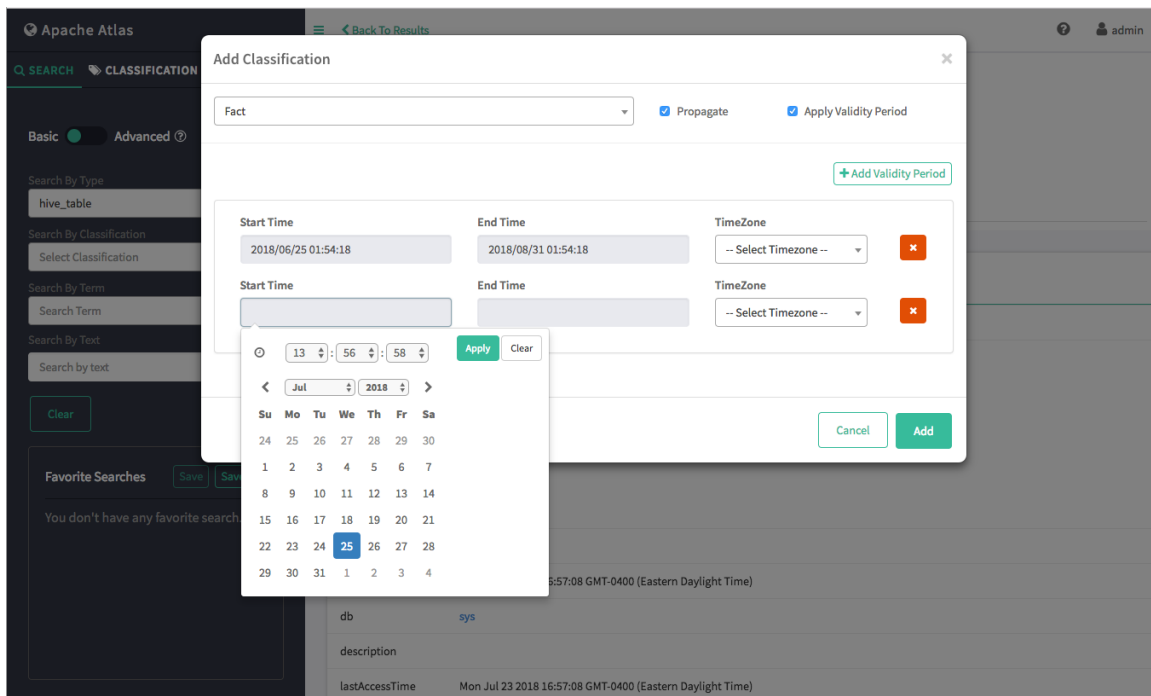
2. On the Add Classification pop-up, click the classification selection box, then select the classification you would like to associate with the entity. You can filter the list of classifications by typing text in the selection box.



3. After you select a classification, the Add Classification pop-up is redisplayed with the selected classification.

- Select the Propagate checkbox to add the classification, along with any associated attributes, to all downstream entities.
- Select the Apply Validity Period checkbox to limit the classification assignment to a specified time period. Click Add Validity Period to specify additional validity periods.

Click Add to associate the classification with the entity.



4. The new classification is displayed next to the "Classifications:" label on the entity page.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type
hive_table

Search By Classification
Select Classification

Search By Term
Search Term

Search By Text
Search by text

Clear Search

Favorite Searches Save Save As

You don't have any favorite search.

tbl_privs (hive_table)

Classifications: Fact x +

Term: +

Properties Lineage Relationships Classifications Audits Schema

Key	Value
aliases	
columns	tbl_grant_id create_time grant_option grantor grantor_type principal_name principal_type tbl_priv tbl_id authorizer
comment	
createTime	Mon Jul 23 2018 13:13:58 GMT-0400 (Eastern Daylight Time)
db	sys
description	
lastAccessTime	Mon Jul 23 2018 13:13:58 GMT-0400 (Eastern Daylight Time)
name	tbl_privs

- To edit a classification association, select the Classifications tab on the entity page, then click the Edit symbol for the classification.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type
hive_table

Search By Classification
Select Classification

Search By Term
Search Term

Search By Text
Search by text

Clear Search

Favorite Searches Save Save As

You don't have any favorite search.

tbl_privs (hive_table)

Classifications: PII x Fact x +

Term: +

Properties Lineage Relationships Classifications Audits Schema

Showing 1 - 2 Show Propagated Classifications

Classification	Attributes	Action								
PII	<table border="1"> <thead> <tr> <th>Name</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>customer</td> <td>-</td> </tr> <tr> <td>employee</td> <td>-</td> </tr> <tr> <td>partner</td> <td>-</td> </tr> </tbody> </table>	Name	Value	customer	-	employee	-	partner	-	<input type="checkbox"/> <input type="checkbox"/>
Name	Value									
customer	-									
employee	-									
partner	-									
Fact	NA	<input type="checkbox"/> <input checked="" type="checkbox"/>								

< 1 >

- To remove a classification from an entity, click the x symbol on the classification label, then click Remove on the confirmation pop-up. This removes the classification association with the entity, but does not delete the classification itself.

You can also select the Classifications tab on the entity page, then click the Delete (trash can) symbol for the classification.

Remove Classification Assignment

Remove: Fact assignment from tbl_privs (hive_table)?

Cancel Remove

Key	Value
aliases	
columns	tbl_grant_id create_time grant_option grantor grantor_type principal_name principal_type tbl_priv tbl_id authorizer
comment	
createTime	Mon Jul 23 2018 13:13:58 GMT-0400 (Eastern Daylight Time)
db	sys
description	
lastAccessTime	Mon Jul 23 2018 13:13:58 GMT-0400 (Eastern Daylight Time)

7. You can also associate a classification with an entity by clicking the + symbol for the entity in the Classifications column in a list of search results.

Results for: **Type: hive_table**
If you do not find the entity in search result below then you can [create new entity](#)

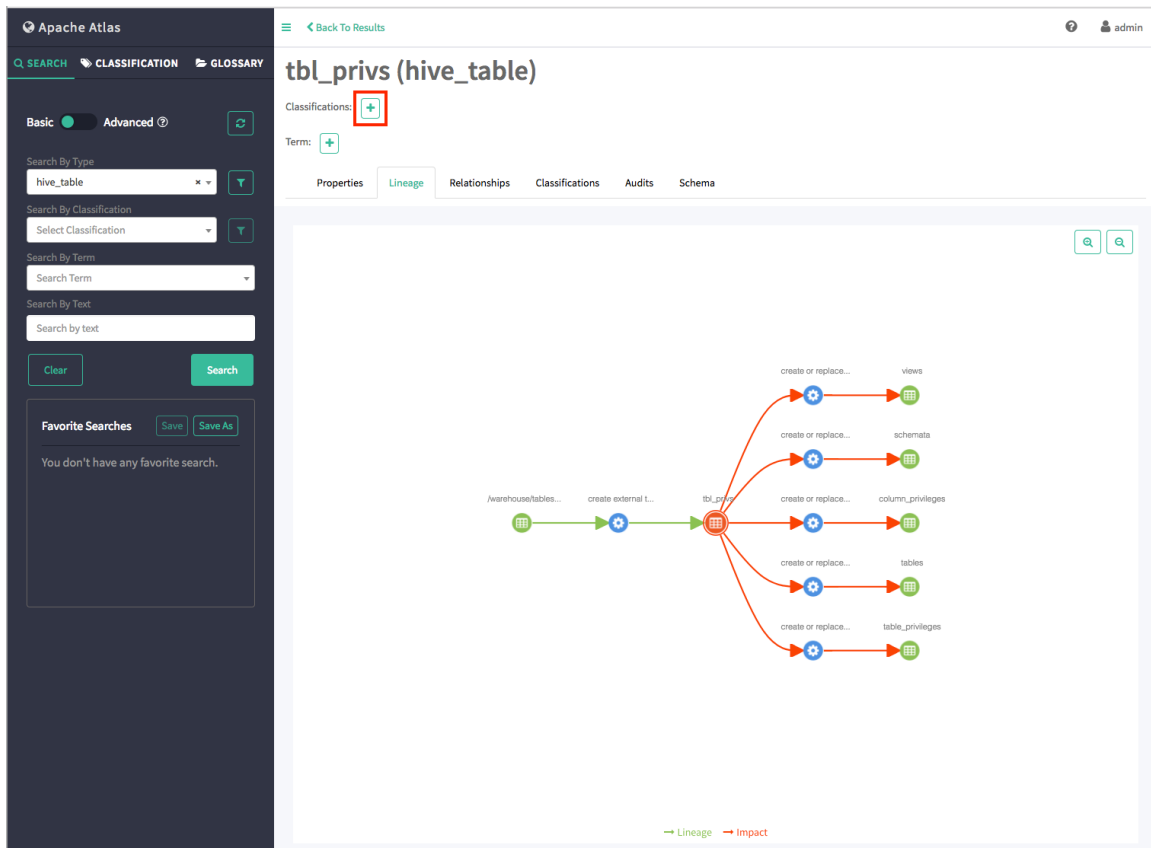
Showing 25 records from 1 - 25 Exclude sub-types Exclude sub-classifications Show historical entities Columns ▾

<input type="checkbox"/>	Name	Owner	Description	Type	Classifications	Term
<input type="checkbox"/>	partition_key_vals	hive		hive_table	+	+
<input type="checkbox"/>	db_privs	hive		hive_table	+	+
<input type="checkbox"/>	partition_keys	hive		hive_table	+	+
<input type="checkbox"/>	partitions	hive		hive_table	+	+
<input type="checkbox"/>	bucketing_cols	hive		hive_table	+	+
<input type="checkbox"/>	database_params	hive		hive_table	+	+
<input type="checkbox"/>	cds	hive		hive_table	+	+
<input type="checkbox"/>	part_col_privs	hive		hive_table	+	+
<input type="checkbox"/>	part_privs	hive		hive_table	+	+
<input type="checkbox"/>	role_map	hive		hive_table	+	+

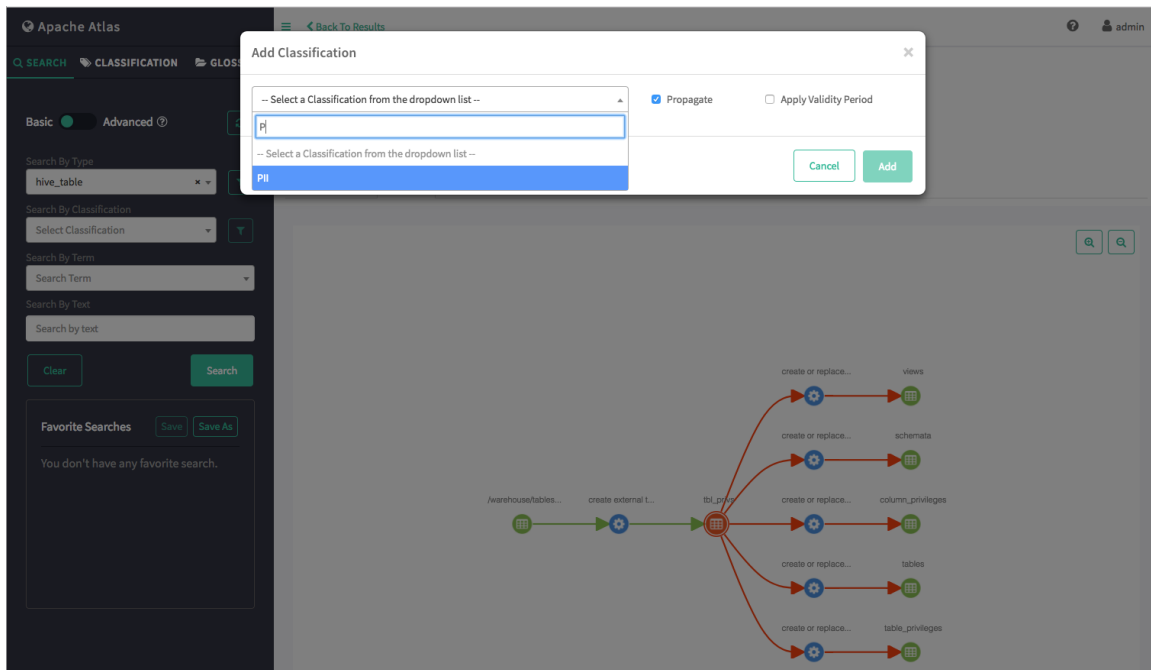
Propagate classifications to derived entities

Procedure

1. Select an entity. In the example below, we searched for all `hive_table` entities, and then selected the `tbl_privs` table from the list of search results. Clicking Lineage reveals that this table has derived (or "downstream") entities. To associate a classification with an entity, click the + icon next to the "Classifications:" label.



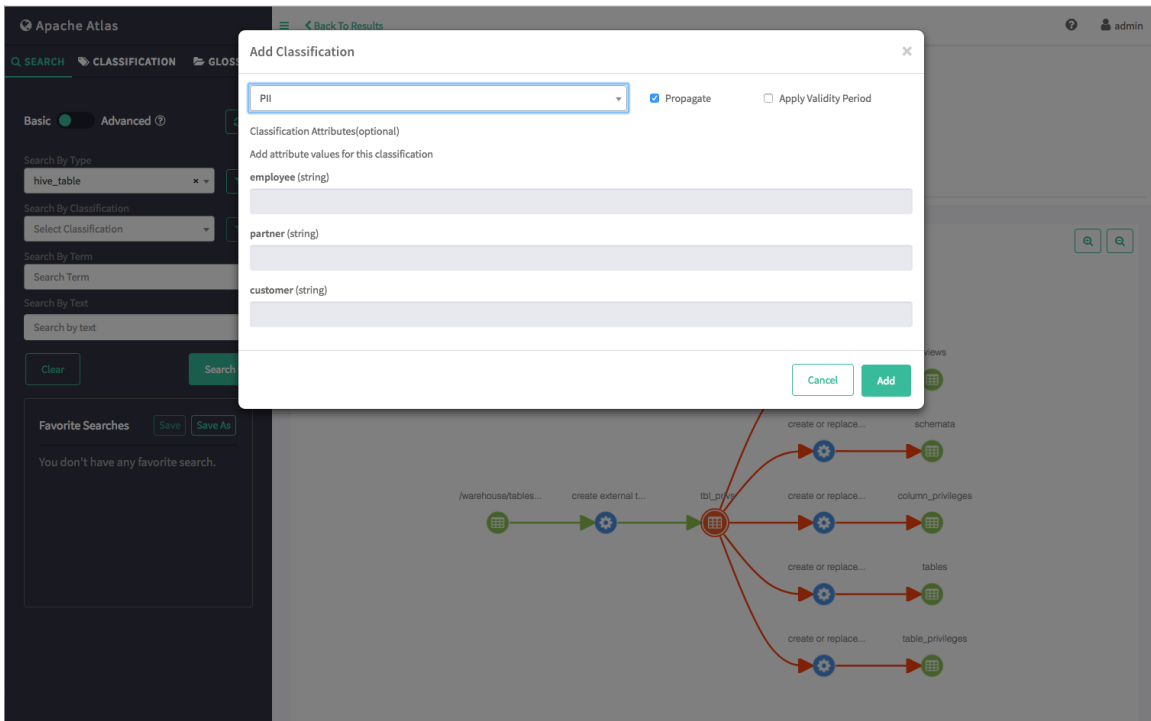
- On the Add Classification pop-up, click the classification selection box, then select the classification you would like to associate with the entity. You can filter the list of classifications by typing text in the selection box. In the following example we select the PII classification



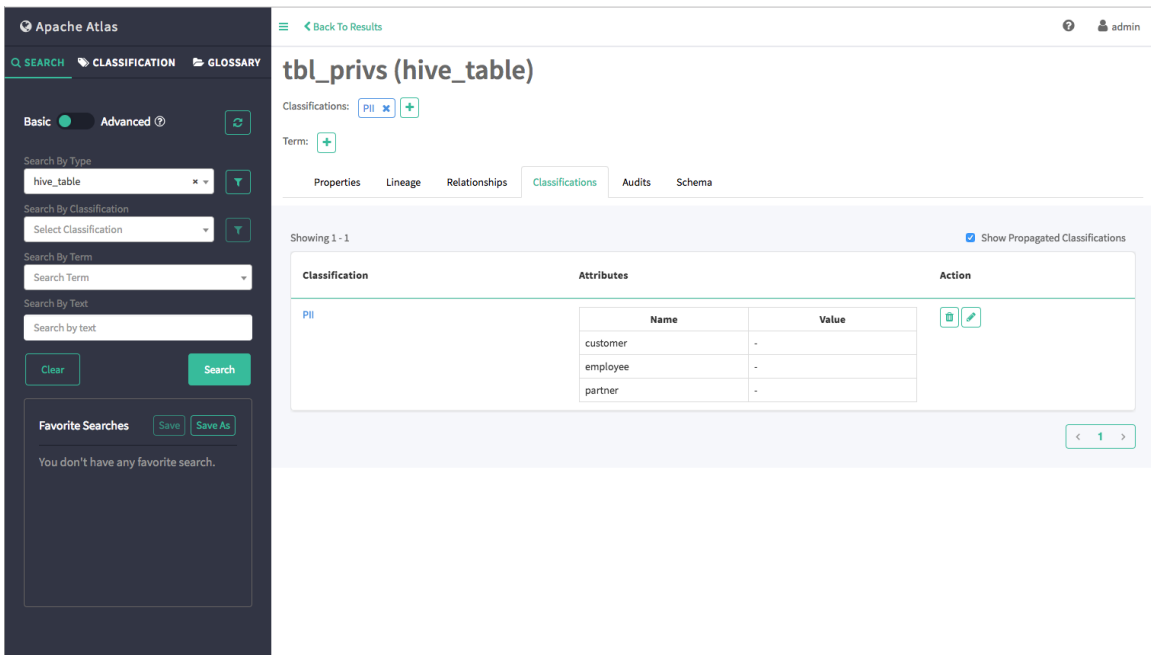
- After you select a classification, the Add Classification pop-up is redisplayed with the selected classification.
 - Select the Propagate checkbox to add the classification, along with any associated attributes, to all downstream entities.

- If the classification has attributes, you can use the text boxes to add attribute values.

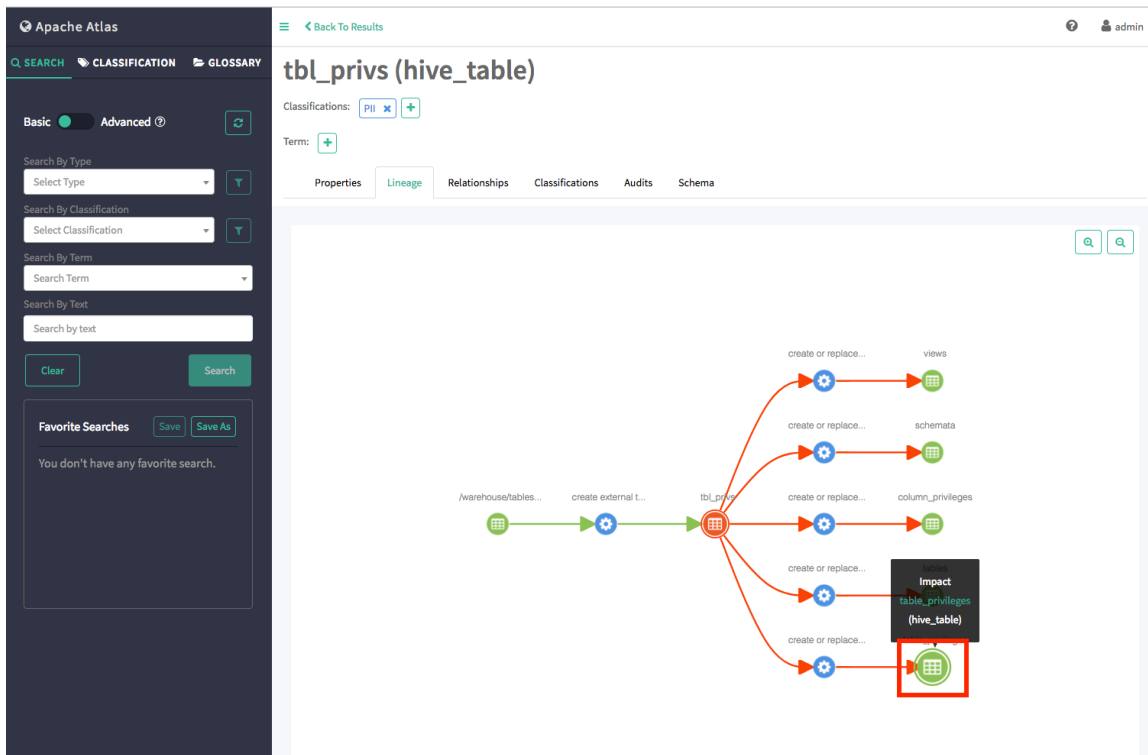
Click Add to associate the classification with the entity.



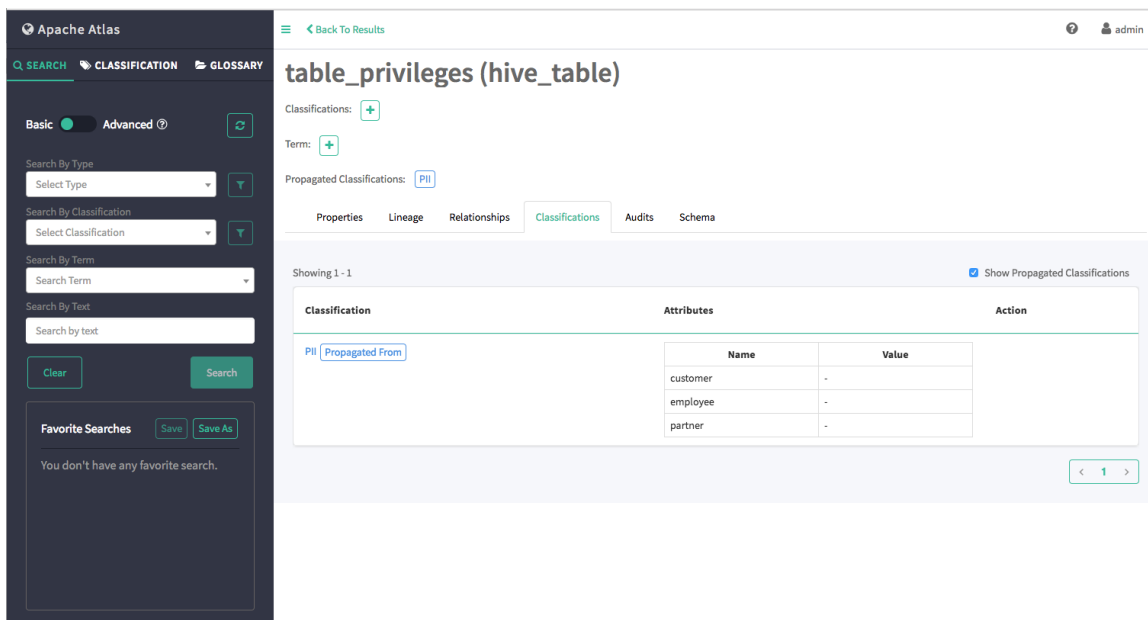
4. The new classification is displayed next to the "Classifications:" label on the entity page, and is also listed on the Classifications tab (along with any associated attributes).



5. Now we can double-click in the Lineage chart to open one of the downstream entities. In this example we double-click the icon for the "table_privileges" table.

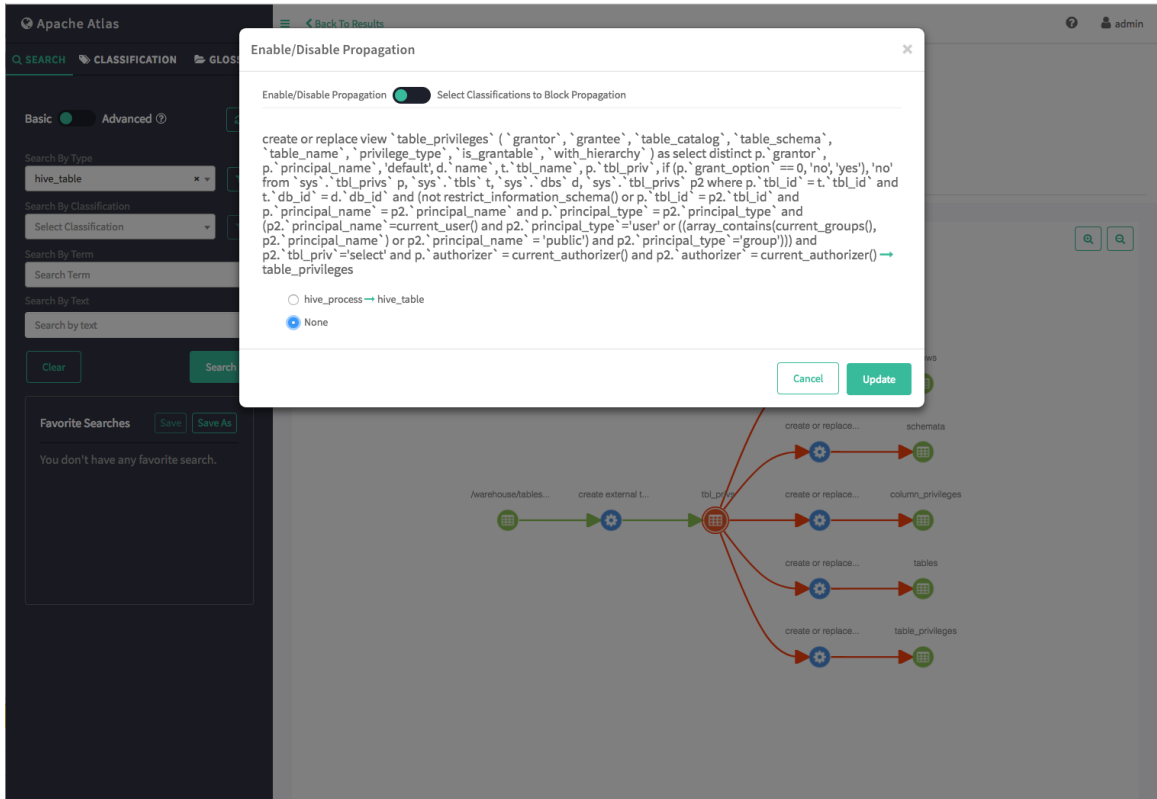


6. On the "table_privileges" entity page, the propagated classification is displayed next to the "Propagated Classifications:" label, and is also listed on the Classifications tab (along with the associated attributes). Clicking Propagated From on the Classifications tab opens the "tbl_privs" parent entity page.
 - Any subsequent attribute updates in the parent entity classification will also be applied to all downstream entities.
 - Removing a propagated classification from a parent entity also removes the classification from all downstream entities.

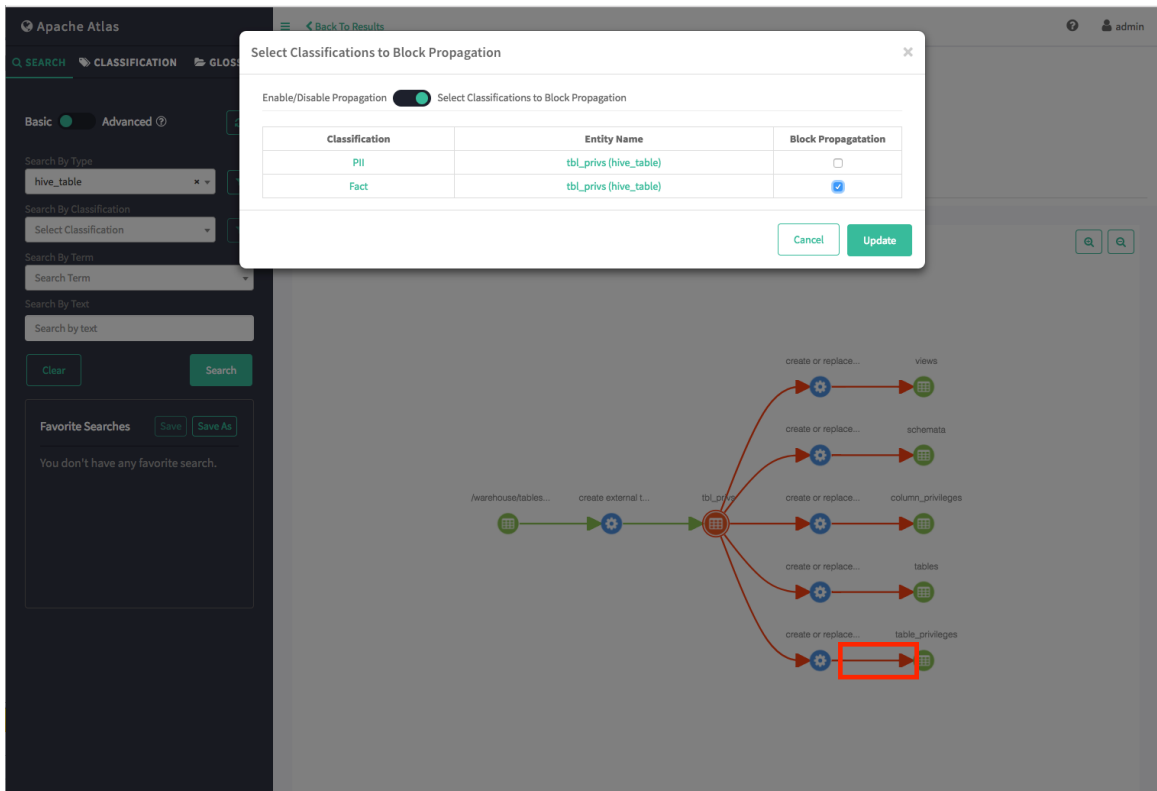


7. To remove a propagated classification from a downstream entity, click the upstream line segment ("lineage edge") next to the entity in the Lineage chart. In the following example we clicked the upstream line segment for the derived "table_privileges" tale.

- To disable all downstream classifications, select None, then click Update.



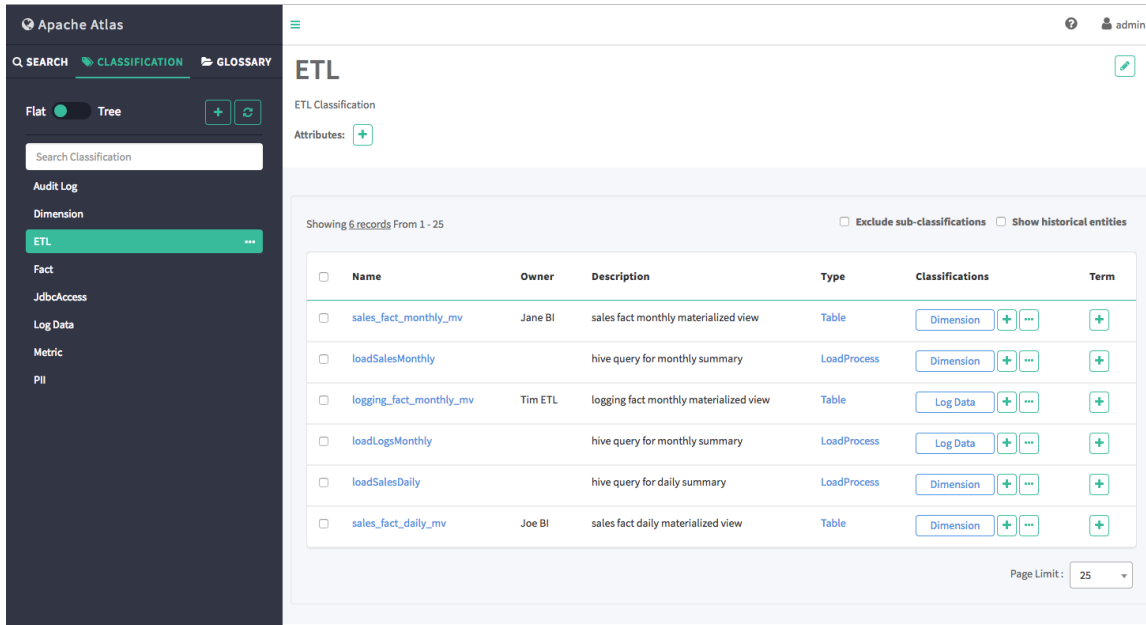
- To disable a subset of classification propagations to block, click Select Classifications to Block Propagation, select the classifications to block, then click Update.



Search for entities associated with classifications

Procedure

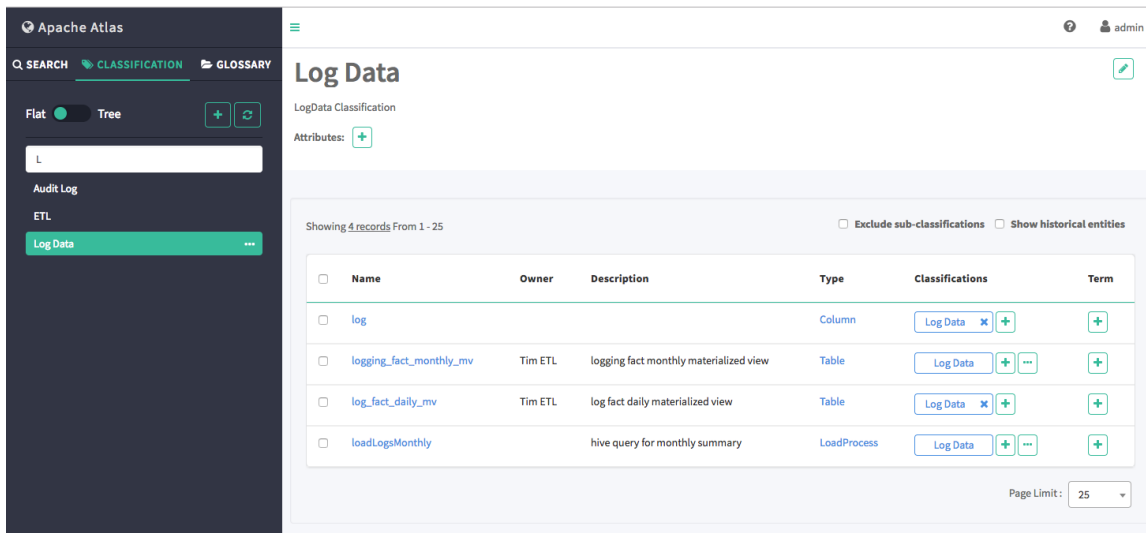
1. To display a list of all of the entities associated with a classification, click the classification name in the Atlas Classifications list.



The screenshot shows the Apache Atlas interface. On the left, the 'CLASSIFICATION' tab is active, and 'ETL' is selected in the left-hand navigation menu. The main content area displays the 'ETL Classification' page. It includes a search bar, a table of entities, and a 'Page Limit' dropdown set to 25.

Name	Owner	Description	Type	Classifications	Term
sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Dimension	+
loadSalesMonthly		hive query for monthly summary	LoadProcess	Dimension	+
logging_fact_monthly_mv	Tim ETL	logging fact monthly materialized view	Table	Log Data	+
loadLogsMonthly		hive query for monthly summary	LoadProcess	Log Data	+
loadSalesDaily		hive query for daily summary	LoadProcess	Dimension	+
sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Dimension	+

2. To filter the Classifications list based on a text string, type the text in the "Search Classifications" box. The list is filtered dynamically as you type to display the classifications that contain that text string. You can click a classification in the filtered list to display the entities associated with that classification.



The screenshot shows the Apache Atlas interface. On the left, the 'CLASSIFICATION' tab is active, and 'Log Data' is selected in the left-hand navigation menu. The main content area displays the 'Log Data Classification' page. It includes a search bar, a table of entities, and a 'Page Limit' dropdown set to 25.

Name	Owner	Description	Type	Classifications	Term
log			Column	Log Data	+
logging_fact_monthly_mv	Tim ETL	logging fact monthly materialized view	Table	Log Data	+
log_fact_daily_mv	Tim ETL	log fact daily materialized view	Table	Log Data	+
loadLogsMonthly		hive query for monthly summary	LoadProcess	Log Data	+

3. You can also search for entities associated with a classification by clicking the ellipsis symbol for the classification and selecting Search Classification. This launches a DSL search query that returns a list of all entities associated with the classification.

The screenshot shows the Apache Atlas interface for managing PII classifications. The left sidebar is dark-themed and lists various classification types, with 'PII' selected. The main area is titled 'PII Classification' and shows a table of entities. The table has columns for Name, Owner, Description, Type, Classifications, and Term. Four entities are listed, all of type 'Column' and classified as 'PII'. A search bar and a 'Flat' toggle are visible at the top left of the main area. A 'Page Limit' dropdown is set to 25.

Name	Owner	Description	Type	Classifications	Term
customer_id			Column	PII	
address			Column	PII	
customer_id			Column	PII	
name			Column	PII	

4. You can also use Basic and Advanced Search to search for entities associated with a classification.

Related Tasks

[Using Basic and Advanced Search](#)

Managing Business Terms with Atlas Glossaries

You can use the Apache Atlas Glossary feature to organize and discover data stored in Hadoop.

Overview

The Apache Atlas Glossary feature enables you to define a hierarchical set of business terms that represents your business domain. You can then associate these glossary terms with the metadata entities that Atlas manages. This hierarchical business catalog makes it easier to organize and discover data stored in Hadoop.

Atlas Terms

The Atlas Glossary Terms feature enables you to create glossaries and create terms within each glossary. The Terms list can be thought of as of a flat (but searchable) list of business terms organized by glossaries.

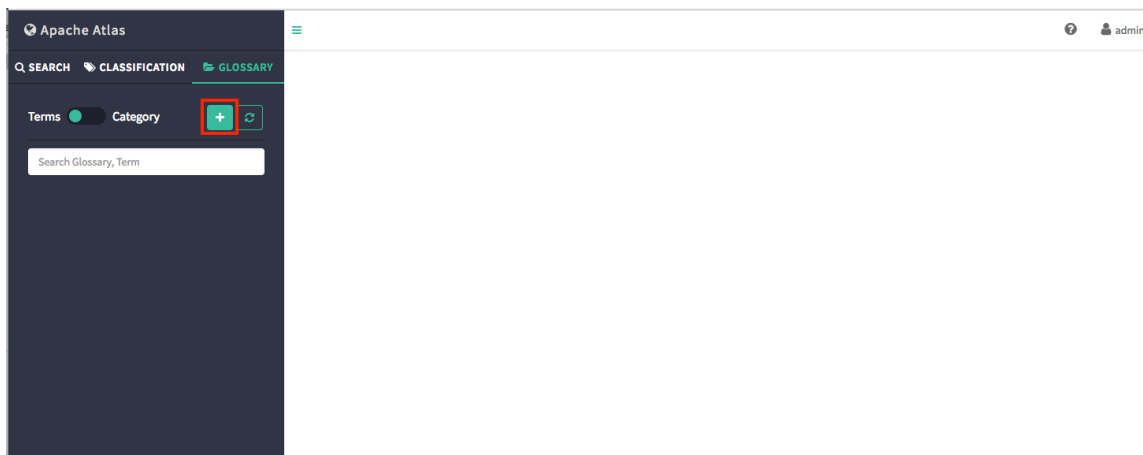
Atlas Categories

The Atlas Glossary Category feature enables you to create a hierarchy of categories and subcategories under each glossary. You can then associate terms with these categories, thereby establishing an organizational hierarchy of business terms.

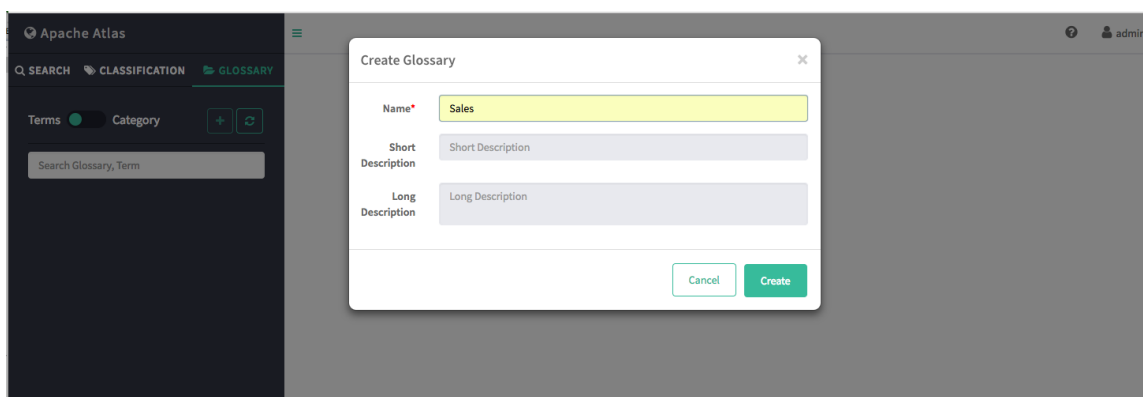
Create a glossary

Procedure

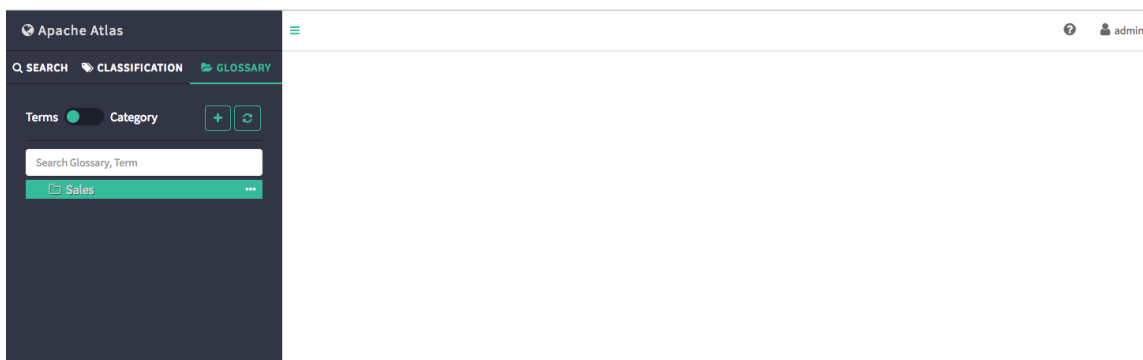
1. On the Atlas web UI, click GLOSSARY, then click the + icon.



2. On the Create Glossary pop-up, type in a name and optional short and long descriptions for the glossary. Click Create to create the new glossary.



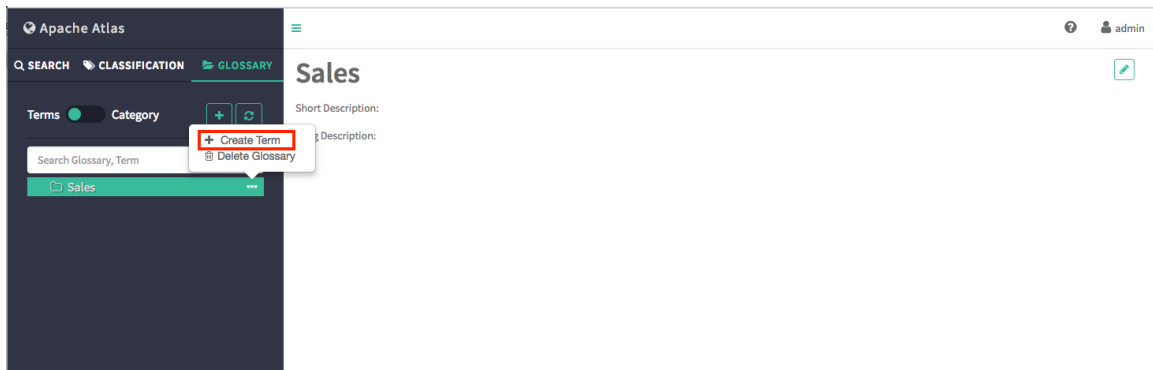
3. The new glossary appears in the Glossary list.



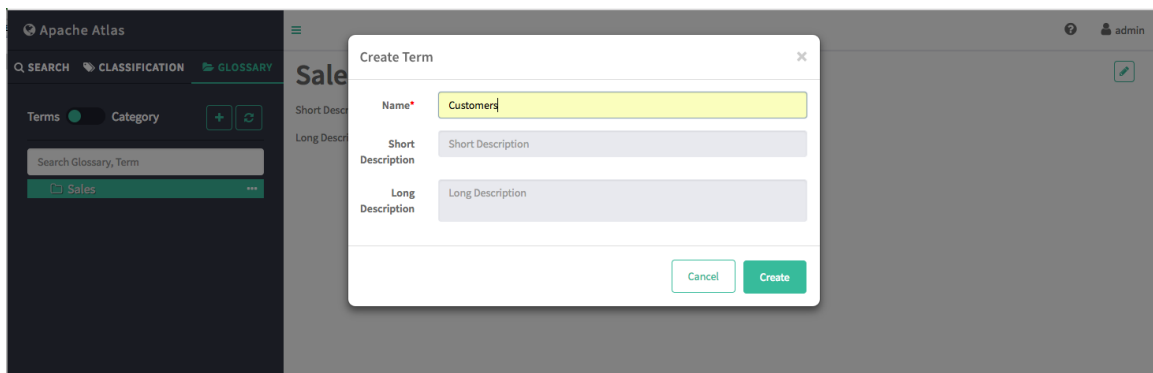
Create glossary terms

Procedure

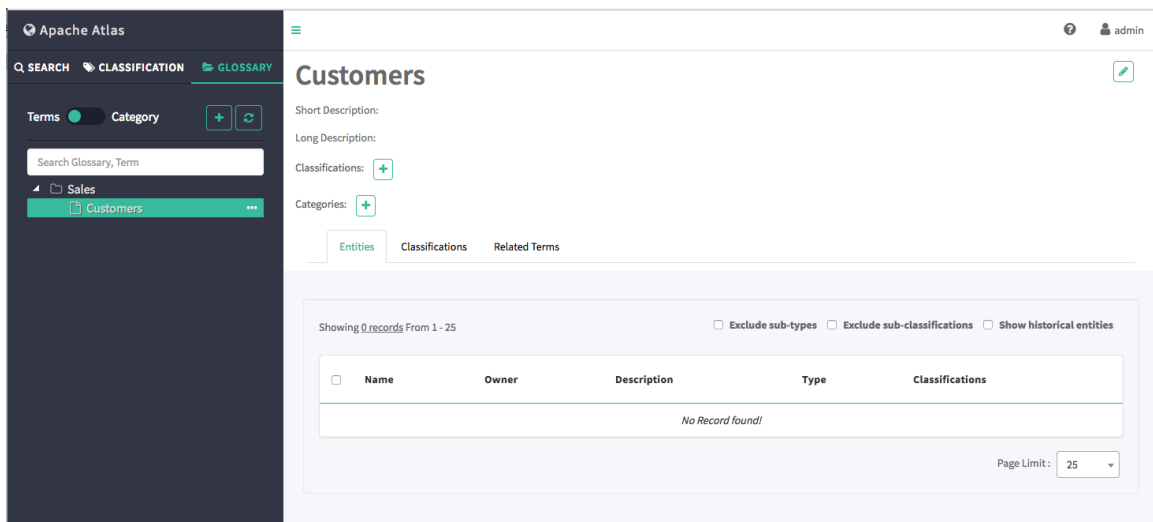
1. On the Atlas Glossary page, click the ellipsis symbol next to a glossary, then click Create Term.



2. On the Create Term pop-up, type in a name and optional short and long descriptions for the term. Click Create to create the new glossary term.



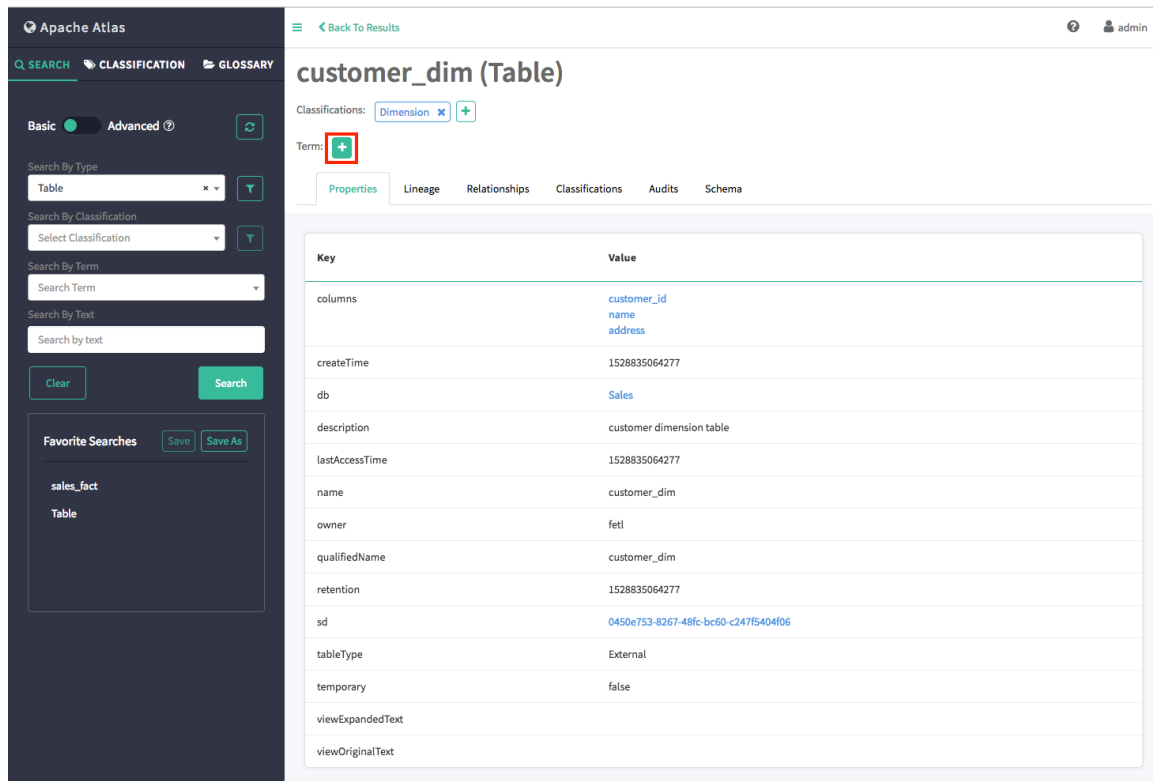
3. The new term appears under the glossary.



Associate glossary terms with entities

Procedure

1. Select an entity. In the example below, we searched for all Table entities, and then selected the "customer_dim" table from the list of search results. To associate a term with the entity, click the + icon next to the Terms: label.



Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search by text

Clear Search

Favorite Searches: sales_fact, Table

customer_dim (Table)

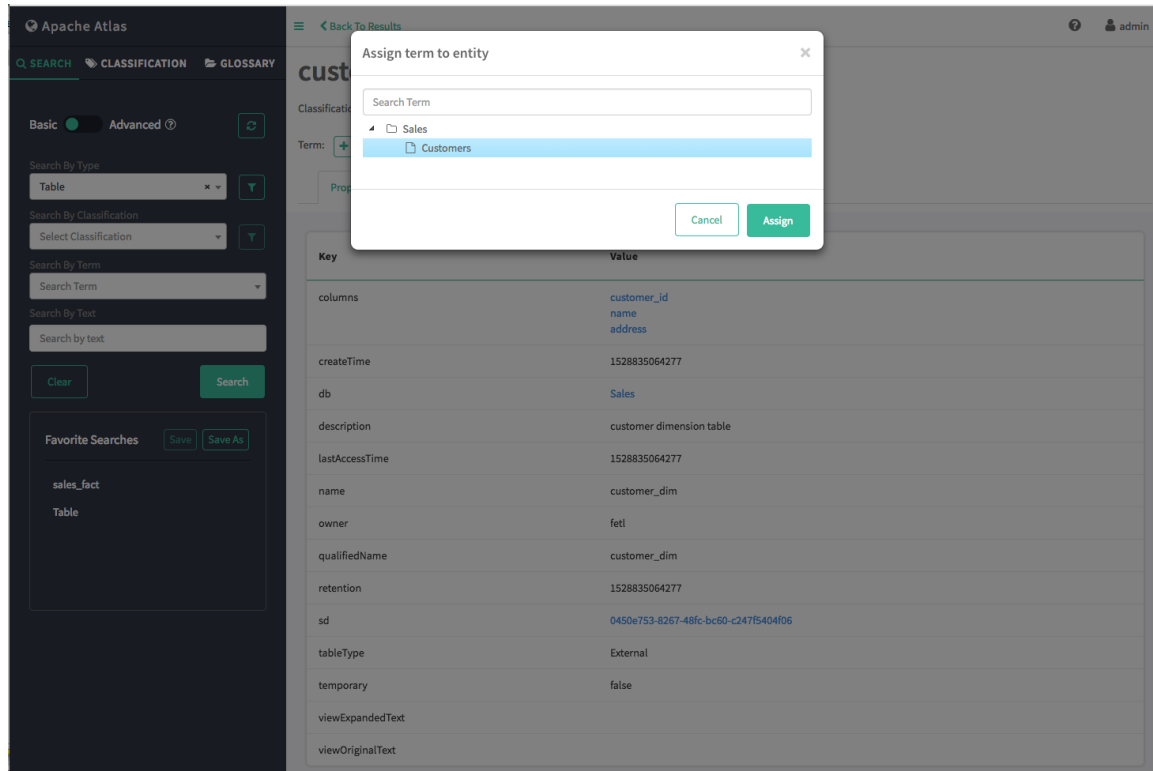
Classifications: Dimension

Terms: +

Properties Lineage Relationships Classifications Audits Schema

Key	Value
columns	customer_id name address
createTime	1528835064277
db	Sales
description	customer dimension table
lastAccessTime	1528835064277
name	customer_dim
owner	fettl
qualifiedName	customer_dim
retention	1528835064277
sd	0450e753-8267-48fc-bc60-c247f5404f06
tableType	External
temporary	false
viewExpandedText	
viewOriginalText	

- On the "Assign term to entity" pop-up, browse to select a glossary term. Here we have selected the term "Customers". You can also filter the list of tags by typing text in the Search Term box, and then click to select a term. Click Assign to assign the term to the entity.



Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search by text

Clear Search

Favorite Searches: sales_fact, Table

customer_dim (Table)

Classifications: Dimension

Terms: +

Assign term to entity

Search Term

Sales
Customers

Cancel Assign

Key	Value
columns	customer_id name address
createTime	1528835064277
db	Sales
description	customer dimension table
lastAccessTime	1528835064277
name	customer_dim
owner	fettl
qualifiedName	customer_dim
retention	1528835064277
sd	0450e753-8267-48fc-bc60-c247f5404f06
tableType	External
temporary	false
viewExpandedText	
viewOriginalText	

- The new term is displayed next to the Terms: label.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: Table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search by text

Clear Search

Favorite Searches: sales_fact, Table

customer_dim (Table)

Classifications: Dimension

Term: Customers

Properties Lineage Relationships Classifications Audits Schema

Key	Value
columns	customer_id name address
createTime	1528835064277
db	Sales
description	customer dimension table
lastAccessTime	1528835064277
name	customer_dim
owner	fetl
qualifiedName	customer_dim
retention	1528835064277
sd	0450e753-8267-48fc-bc60-c247f5404f06
tableType	External
temporary	false
viewExpandedText	
viewOriginalText	

- You can also associate a term with an entity by clicking the + symbol for the entity in the Terms column in a list of search results.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Basic Advanced

Search By Type: hive_table

Search By Classification: Select Classification

Search By Term: Search Term

Search By Text: Search by text

Clear Search

Favorite Searches: You don't have any favorite search.

Results for: Type: hive_table

If you do not find the entity in search result below then you can create new entity

Showing 25 records From 1 - 25

Exclude sub-types Exclude sub-classifications Show historical entities Columns

Name	Owner	Description	Type	Classifications	Term
partition_key_vals	hive		hive_table	+	+
db_privs	hive		hive_table	+	+
partition_keys	hive		hive_table	+	+
partitions	hive		hive_table	+	+
bucketing_cols	hive		hive_table	+	+
database_params	hive		hive_table	+	+
cds	hive		hive_table	+	+
part_col_privs	hive		hive_table	+	+
part_privs	hive		hive_table	+	+
role_map	hive		hive_table	+	+
sequence_table	hive		hive_table	+	+

Associate glossary terms with related terms

Procedure

1. Select a glossary term, then click Related Terms. On the Related Terms tab, click the + symbol for the applicable related term. In this example we add a "seeAlso" related term.

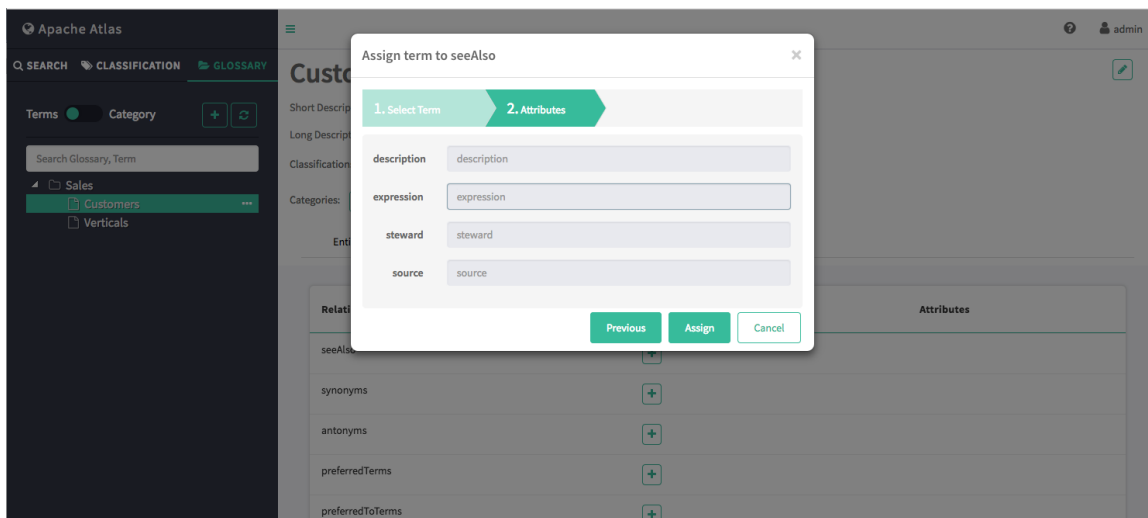
The screenshot shows the Apache Atlas interface for the 'Customers' glossary term. The 'Related Terms' tab is active, displaying a table of relation types and their corresponding add buttons. The 'seeAlso' relation type is highlighted with a red box, indicating it is the selected option.

Relation Types	Related Terms	Attributes
seeAlso	<input type="button" value="+"/>	
synonyms	<input type="button" value="+"/>	
antonyms	<input type="button" value="+"/>	
preferredTerms	<input type="button" value="+"/>	
preferredToTerms	<input type="button" value="+"/>	
replacementTerms	<input type="button" value="+"/>	
replacedBy	<input type="button" value="+"/>	
translationTerms	<input type="button" value="+"/>	
translatedTerms	<input type="button" value="+"/>	
isA	<input type="button" value="+"/>	
classifies	<input type="button" value="+"/>	
validValues	<input type="button" value="+"/>	
validValuesFor	<input type="button" value="+"/>	

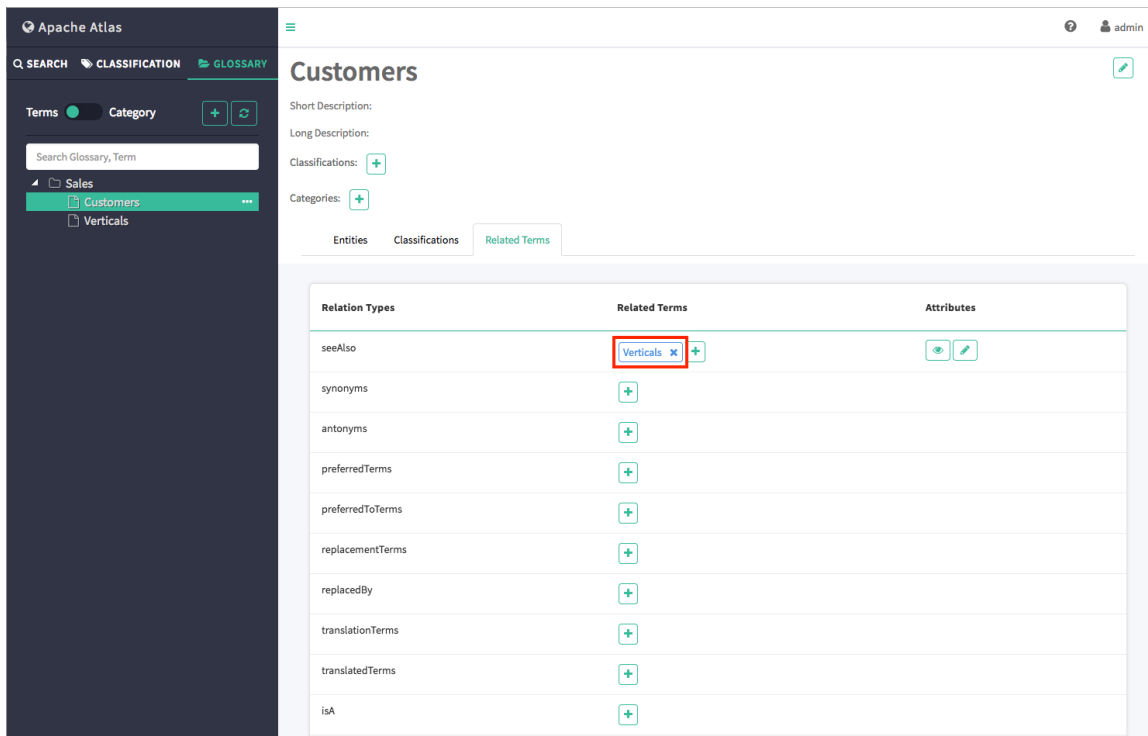
2. On the "Assign term to seeAlso" pop-up, browse to select a related glossary term. Here we have selected the term "Verticals". You can also filter the list of tags by typing text in the Search Term box, and then click to select a term. Click Next after selecting a term.

The screenshot shows the 'Assign term to seeAlso' pop-up dialog. The dialog has two steps: '1. Select Term' and '2. Attributes'. The 'Verticals' term is selected in the list of terms under the 'Sales' category. The 'Next' button is highlighted, indicating the user is ready to proceed to the next step.

3. On the "Assign term to seeAlso" pop-up, optionally specify attributes, then click Assign.



4. The new "seeAlso" related term is displayed on the Related Terms tab.



5. The "Customers" term is also listed as a "seeAlso" related term on the "Verticals" Related Terms tab.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Terms Category

Search Glossary, Term

- Sales
 - Customers
 - Verticals

Verticals

Short Description:

Long Description:

Classifications: +

Categories: +

Entities Classifications Related Terms

Relation Types	Related Terms	Attributes
seeAlso	Customers x +	👁️ ✎
synonyms	+	
antonyms	+	
preferredTerms	+	
preferredToTerms	+	
replacementTerms	+	
replacedBy	+	
translationTerms	+	
translatedTerms	+	

Search for entities associated with terms

Procedure

- To display a list of all of the entities associated with a term, click the term name in the Atlas Terms list.

Apache Atlas

SEARCH CLASSIFICATION GLOSSARY

Terms Category

Search Glossary, Term

- Customer Data
 - Canada
 - France
 - Northeast
 - South
 - Spain
 - UK
 - US
 - West
- Sales
 - Customers
 - Fact
 - Regions
 - Verticals

Fact

Short Description:

Long Description:

Classifications: +

Categories: +

Entities Classifications Related Terms

Showing 3 records From 1 - 25 Exclude sub-types Exclude sub-classifications Show historical entities

Name	Owner	Description	Type	Classifications
sales_fact	Joe	sales fact table	Table	Fact x +
sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Metric + ...
sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Metric x + ...

Page Limit: 25

- To filter the Terms list based on a text string, type the text in the "Search Glossary, Term" box. The list is filtered dynamically as you type to display the terms that contain that text string. You can click a term in the filtered list to display the entities associated with that term.

The screenshot shows the Apache Atlas web UI. On the left, the 'Glossary' sidebar is active, showing a tree view with 'Fact' selected under 'Customers'. The main content area displays the 'Fact' glossary details, including a table of entities.

Name	Owner	Description	Type	Classifications
sales_fact	Joe	sales fact table	Table	Fact
sales_fact_monthly_mv	Jane BI	sales fact monthly materialized view	Table	Metric
sales_fact_daily_mv	Joe BI	sales fact daily materialized view	Table	Metric

3. You can also use Basic and Advanced Search to search for entities associated with a term.

Related Tasks

[Using Basic and Advanced Search](#)

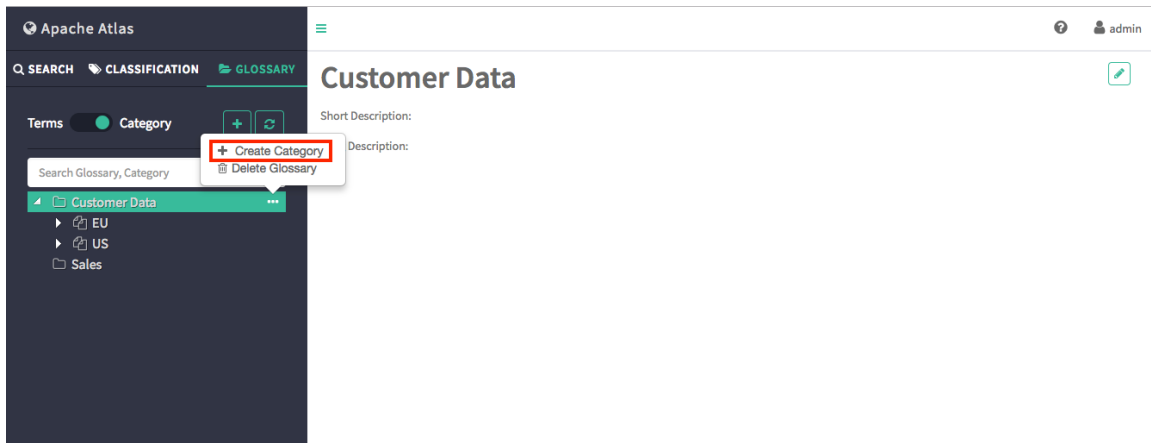
Create glossary categories

Procedure

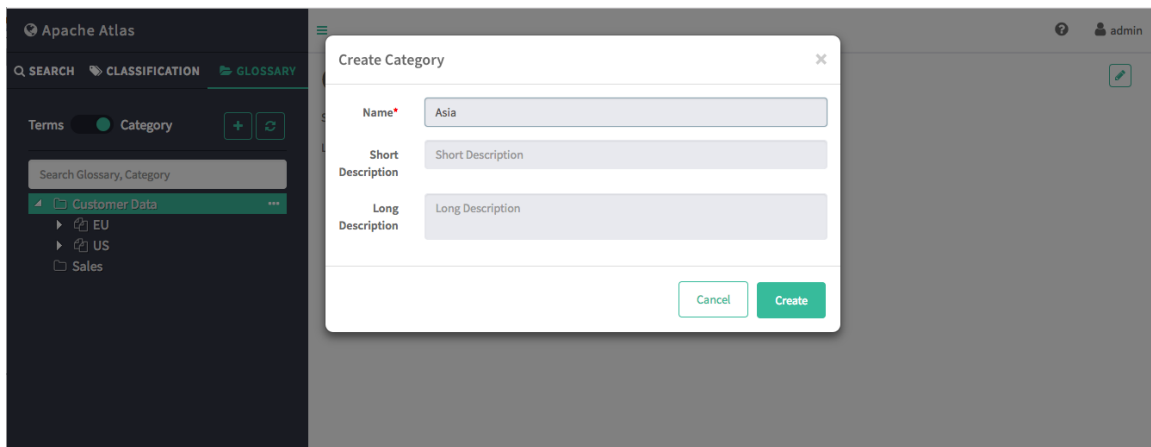
1. On the Atlas web UI, click GLOSSARY, then select Category. The Category list displays the top-level glossaries, along with the categories and subcategories for each glossary.

The screenshot shows the Apache Atlas web UI. On the left, the 'Glossary' sidebar is active, showing a tree view with 'Customer Data' selected. The 'Category' button is highlighted in the sidebar. The main content area displays the 'Customer Data' glossary details, including a search bar and a list of categories.

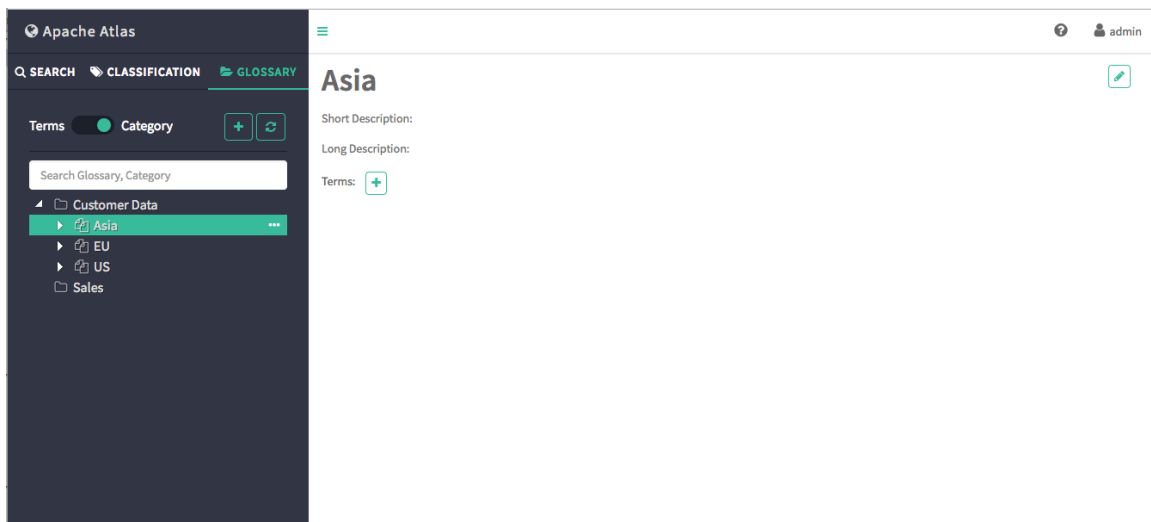
2. To create a new category, click the ellipsis symbol next to a glossary, then click Create Category.



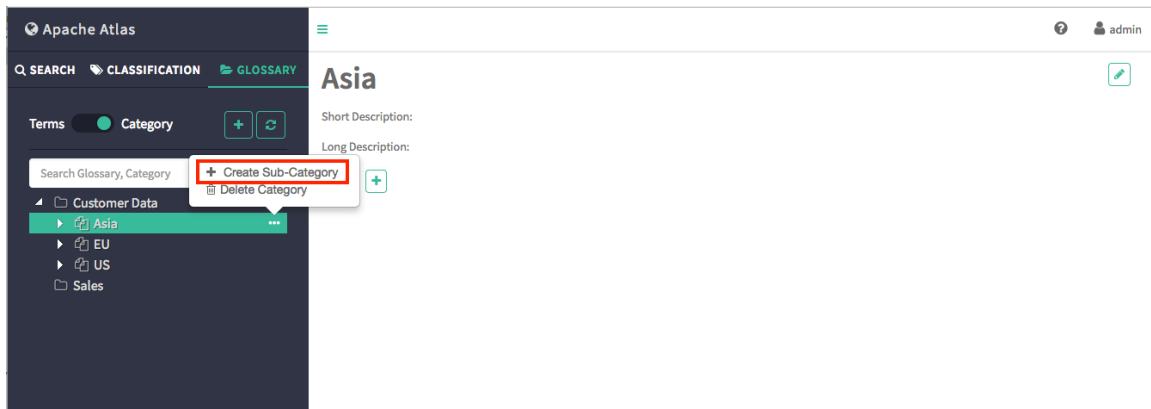
3. On the Create Category pop-up, type in a name and optional short and long descriptions for the category. Click Create to create the new category.



4. The new category appears under the glossary in the Category list.



5. To create a new subcategory, click the ellipsis symbol next to a category, then click Create Subcategory. You can create multiple levels of subcategories.



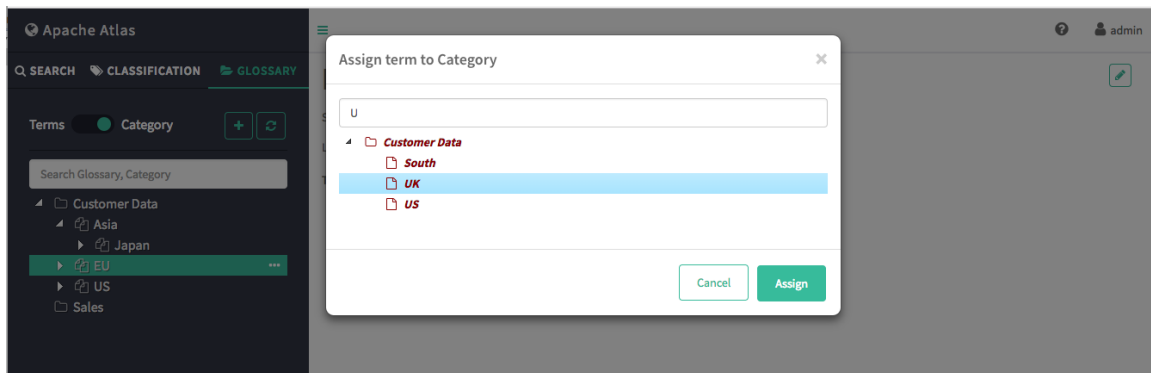
Assign terms to categories

Procedure

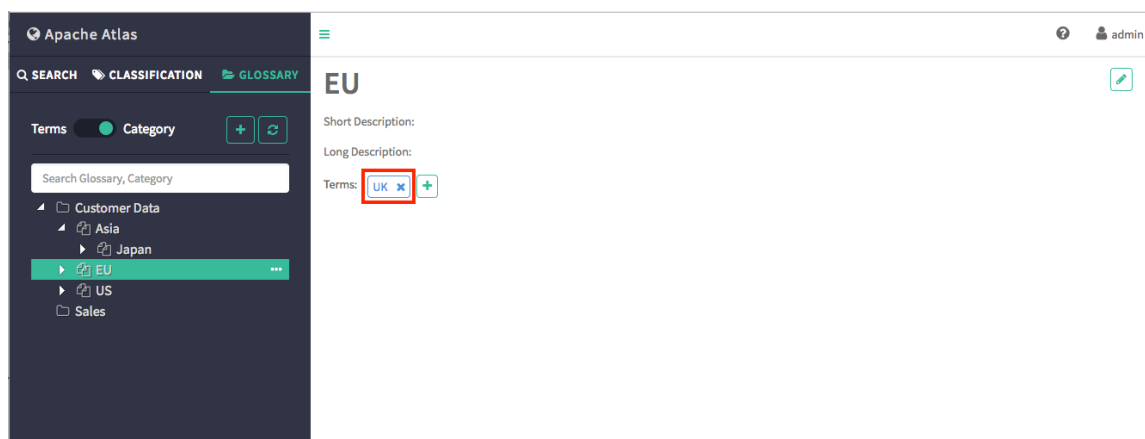
1. On the Atlas Glossary page, click Category. Select a category, then click the + symbol next to the "Terms:" label on the Category page.



2. On the "Assign term to Category" pop-up, select a glossary term. To filter the list of terms based on a text string, type the text in the "Search Term" box. The list is filtered dynamically as you type to display the terms that contain that text string. Click Assign to assign the term to the category.



3. The new category appears next to the "Terms:" label on the Category page.



Apache Atlas REST API

Apache Atlas exposes a variety of REST endpoints that enable you to work with types, entities, lineage, and data discovery.

Related Information

[Apache Atlas REST API](#)

[Apache Atlas Swagger](#)