Cloudera Runtime 7.1.1

Atlas Business Metadata

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Business Metadata overview

Atlas allows you to define your own attributes as key-value pairs to add to the technical metadata Atlas stores for data assets. These attributes are grouped in Business Metadata collections so you can control which users have access to create, update, and assign these attributes.

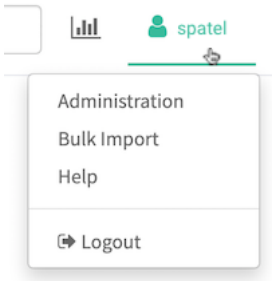
There's a fixed set of attributes that Atlas collects for each entity type from services on the cluster. You can augment these attributes by updating the entity model, but this requires changing the code in the plugin that manages metadata collection for the service. Defining business metadata attributes allows you to add to the technical metadata for an entity type, but also to control access to those attributes in groups. You can use business metadata groupings or collections in Ranger policies to determine who can view business metadata attributes, who can set their values, and who can create additional attributes. For example, you could create a business metadata collection called "Operations," that included attributes such as IT-owner, Operational Phase, Processing Strategy, and Processed Date. In a Ranger policy, you could expose these attributes only to the IT staff or expose them to all users but only allow the IT staff to set their values. You could define attributes that had meaning for a specific entity type or applied to any entity types.

In Atlas, you define a business metadata collection—simply the label for a group of attributes. You can than define attributes in that business metadata collection. After you've defined business metadata attributes, you can add values through the Atlas UI or apply them in bulk to entities using a bulk import process.

Creating Business Metadata

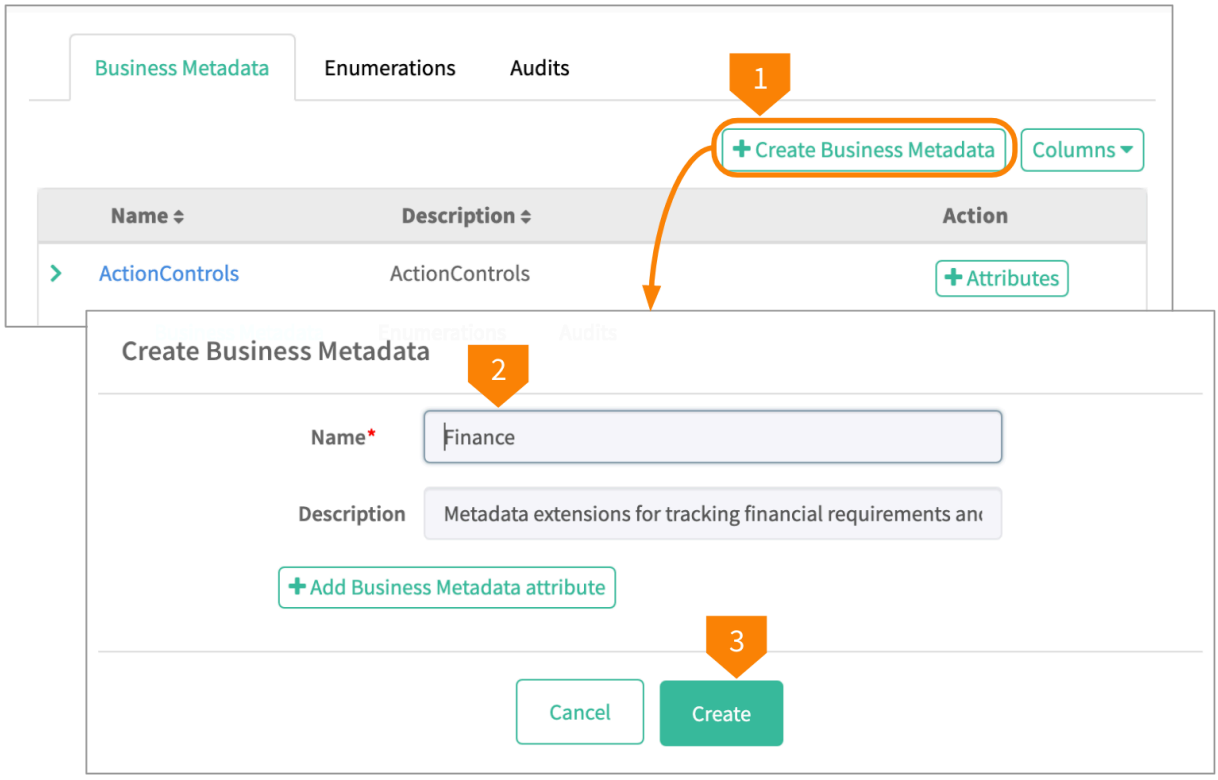
Create Business Metadata collections from the Administration page.

1. To access the Atlas Administration features, choose Administration from the user menu in the top right of the Atlas window.



Users need administrator privileges to access the Administration panel features.

2. In the Business Metadata tab, click Create Business Metadata:



Business Metadata names can be 255 characters. Names must start with a letter and can contain letters, numbers, underscores, and spaces. Descriptions can be 1024 characters and contain any characters.

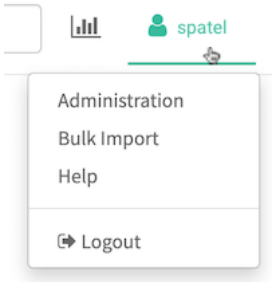
Note that Business Metadata collections cannot be deleted or modified after they are created.

Adding attributes to Business Metadata

Business Metadata attributes allow you to extend the metadata for a given entity type. Create them in a Business Metadata collection from the Administration page.

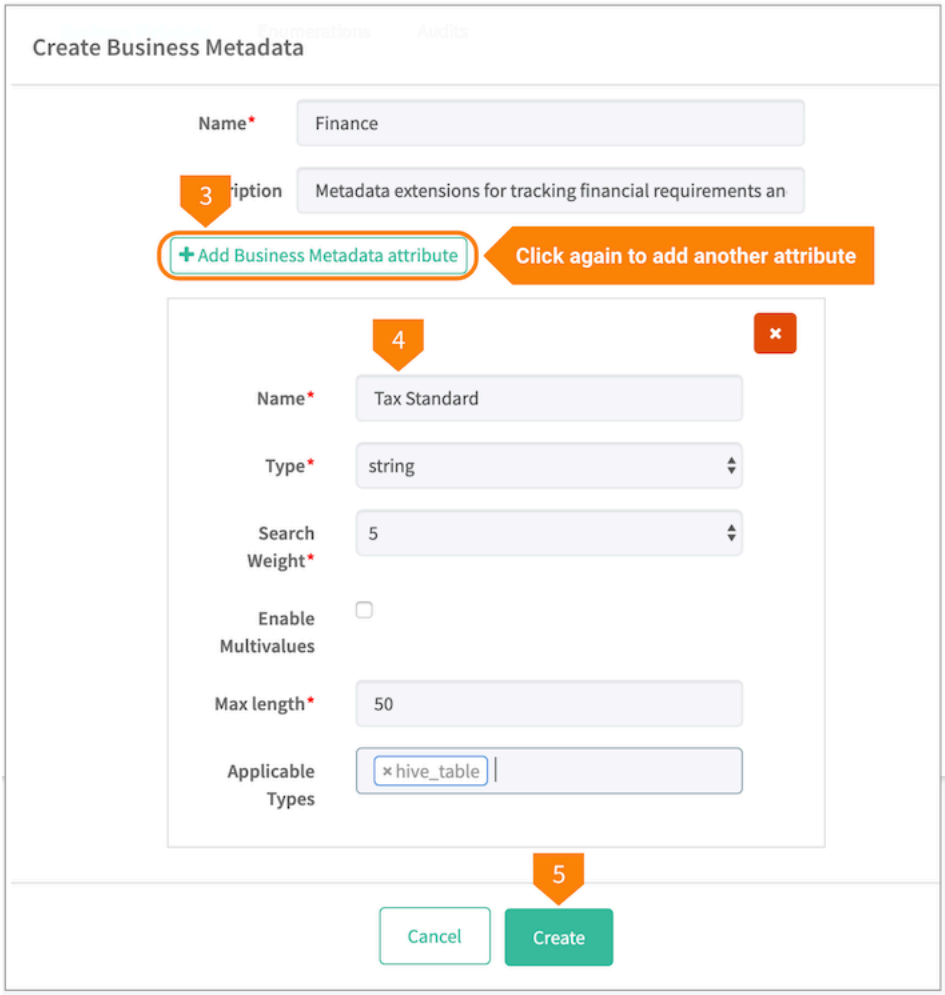
Important: At this time, Atlas doesn't support searching on business metadata attributes that allow multiple entries (arrays).

1. To access the Atlas Administration features, choose Administration from the user menu in the top right of the Atlas window.

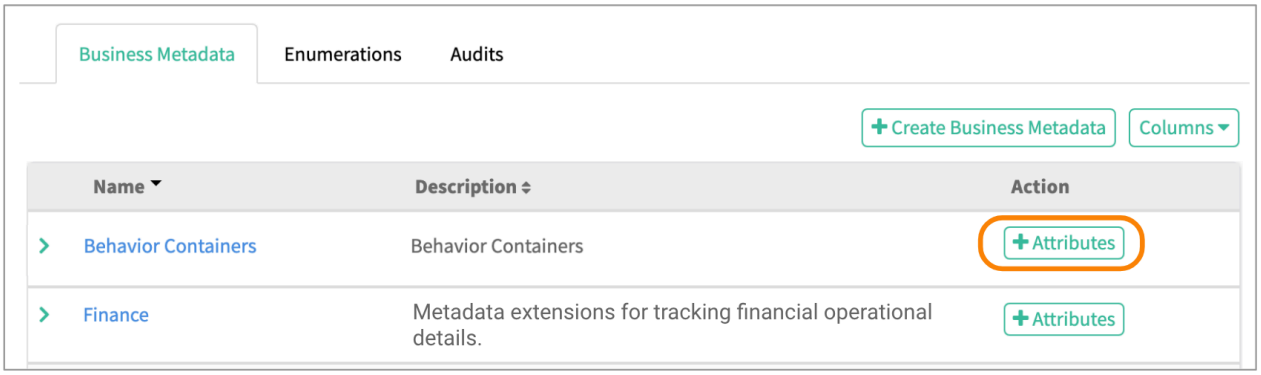


   Users need administrator privileges to access the Administration panel features.
2. Open the Business Metadata tab.

For a new Business Metadata collection, you can add attributes when you define the Business Metadata collection.



You can also add attributes to an existing Business Metadata collection.



Related Information

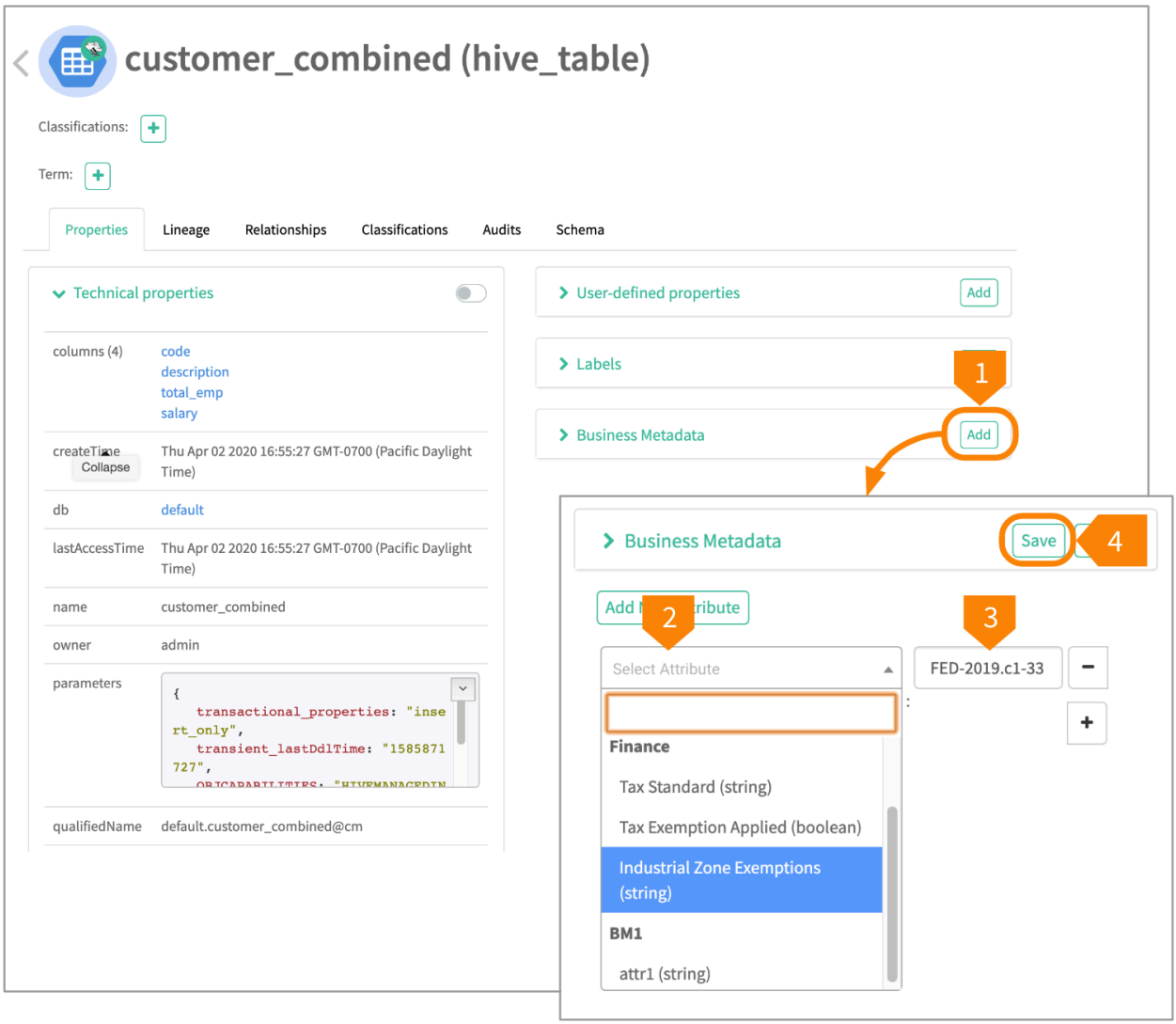
Defining Apache Atlas enumerations

Associating Business Metadata attributes with entities

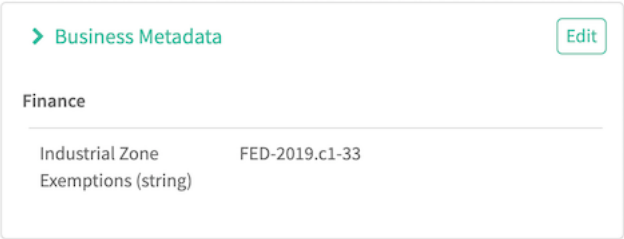
Assign Business Metadata attributes to entities in the entity detail page.

To add a Business Metadata attribute and value in the detail page for an entity:

1. Click Add in the Business Metadata section.
2. Select the Business Metadata collection and attribute from the drop-down menu.
3. Set the attribute value associated with this entity.
4. Click Save.



The final result appears in the Business Metadata section:



You can update the value of Business Metadata attributes from an entity by clicking Edit, then entering a new value. Be sure to click Save.

You can remove Business Metadata attributes from an entity by clicking Edit, then using the X button next to the attribute.

Related Information

Importing Business Metadata associations in bulk

Importing Business Metadata associations in bulk

After defining Business Metadata attributes, you can assign values to these attributes for individual entities in bulk by creating and importing a comma-separated values file, one row for each assigned attribute value.

To import business metadata attribute values:

1. Log into Atlas.
2. From the user menu, chose Bulk Import Business Metadata Download Import template to download a template for the bulk import file.
3. Fill in the template with the entity names and the attribute values you want to assign to the entities.

   Each line in the file assigns a value to one business metadata attribute on one entity. To assign the value for more than one business metadata attribute to an entity, include multiple lines in the file that refer to the same entity.

Field	Description	Example Value
EntityType	The model type definition for the entity.	hive_table or aws_s3_object.
EntityUniqueAttributeValue	The value of the unique attribute that identifies the entity. By default, the unique-attribute is qualifiedName; however you can specify a different unique attribute name in the optional field EntityUniqueAttributeName (see below).	financedb.annualized_earnings@uswest1 if EntityUniqueAttributeName is not set. annualized_earnings if EntityUniqueAttributeName is set to "name"
BusinessAttributeName	The name of the business metadata attribute to assign to the entity. The name is in the form: <business metadata>.<attribute>	operations.itowner
BusinessAttributeValue	The business metadata attribute value to set for this entity. The value must conform to the data type defined for the attribute. Enclose the value in quotes if it includes spaces or more than one value; use | to separate values.	spatel|nyork
EntityUniqueAttributeName	The name of the technical attribute to use to identify the entity if not qualifiedName.	location name

4. From the user menu, chose Bulk Import Business Metadata Import Business Metadata and select the file to upload.

   If a row in the input file does not import successfully, you will see an error in the UI; additional errors in the same import are not shown. Rows that are correct import even if you see an error for a row that does not import. If you see an error, fix the error and reimport the file. Rows that have already been successfully imported are reapplied without error. Note that if you provide a single entry for an array, the new value replaces all the values of the array. To see all the errors for a given import, look in the Atlas Server log.

Related Information

Accessing Atlas logs

Searching for entities using Business Metadata attributes

Because business metadata attributes are centrally defined and consistently applied across entities, they provide an excellent framework for building an index of search terms that reflect the terminology of your business users. You can add attribute values as filters in Atlas searches.

About this task

After your organization has defined business metadata attributes and data stewards have applied values to the attributes in Atlas entities, users can use the attribute values for searching.

Before you begin

Important: At this time, the free-text search includes only string type Business Metadata attributes. To search on business metadata attributes of other data types, use the attribute filter in Basic Search as shown here. Attributes that allow multiple string values (arrays) are not searchable in free-text or Basic search.

Procedure

1. Select the type of entity you want to search for in the left navigation panel.
2. Click the filter icon.
3. Select the Business Metadata attribute to search for.
4. Form the filter criteria, using operators such as equal, contains, not null, etc.
5. Click Apply if you want to add more filters from the left navigator panel.
6. Click Search to apply this filter and run the search.

Results

Entities with the attribute value appear in the search results.

Related Information

Using Basic Search