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Atlas Glossaries

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Contents

Glossaries overview

Use glossaries to define a common set of search terms that data users across your organization use to describe their data.

“Data” can describe a wide variety of content: lists of names or text or columns full of numbers. You can use algorithms to describe data as having a specific pattern, of being within a range or having wide variation, but what’s missing from these descriptions is what does the data mean in a given business context and what is it used for? Is this column of integers the count of pallets that entered a warehouse on a given day or number of visitors for each room in a conference center? An Atlas glossary is a way to organize the context information that your business uses to make sense of your data beyond what can be figured out just by looking at the content. The glossary holds the terms you’ve agreed upon across your organization so business users can use familiar terms to find what they are looking for.

Apache Atlas glossaries enable 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.

Glossaries

You can create any number of separate glossaries to group terms used in different domains. Define glossaries to correspond to how your users think about their data. For example, you might want to put terms specific to Sales in one glossary, while your Manufacturing terms might go in a separate glossary. Terms from multiple glossaries can still be associated with the same data; the same term (“Shipping Address City”) can appear in more than one glossary.

Terms

Glossary terms can be thought of as of a flat (but searchable) list of business terms organized by glossaries. Unlike classifications, terms are not propagated through lineage relationships: the context of the term is what’s important, so propagation may or may not make sense.

Categories

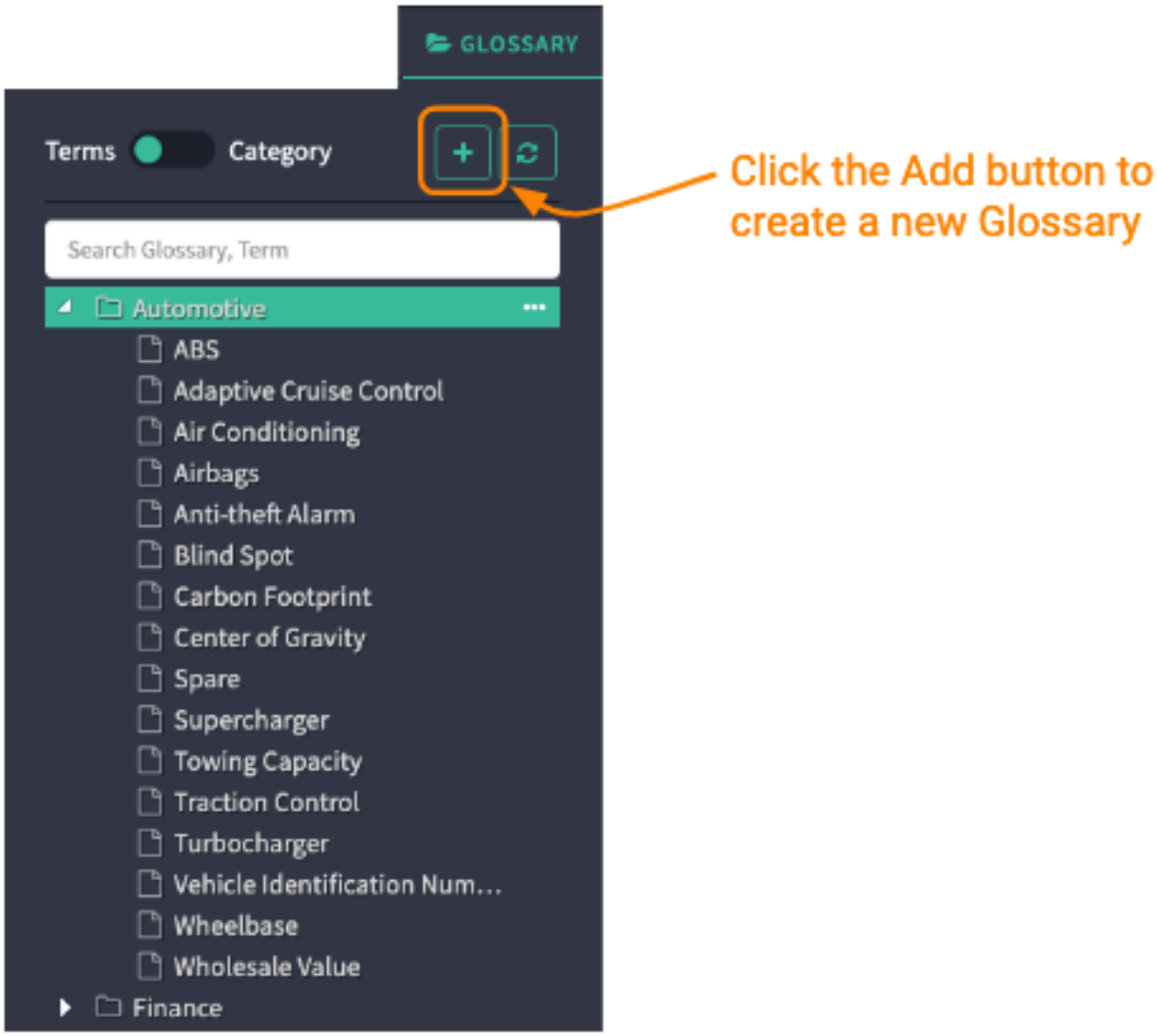
Glossary categories enable you to create a hierarchy of categories and subcategories within each glossary. You can then associate terms with these categories, thereby establishing an organizational hierarchy of business terms.

Creating glossaries

Create a new glossary when you need to create a new context for terms.

Typically you would want to create new glossaries when terms are used by significantly different audiences or when the same term has significantly different meanings depending on the context. You can create any number of glossaries; glossary names can include letters, numbers, spaces, and underscores.

Create a new glossary from the Glossary tab in the left navigation pane:

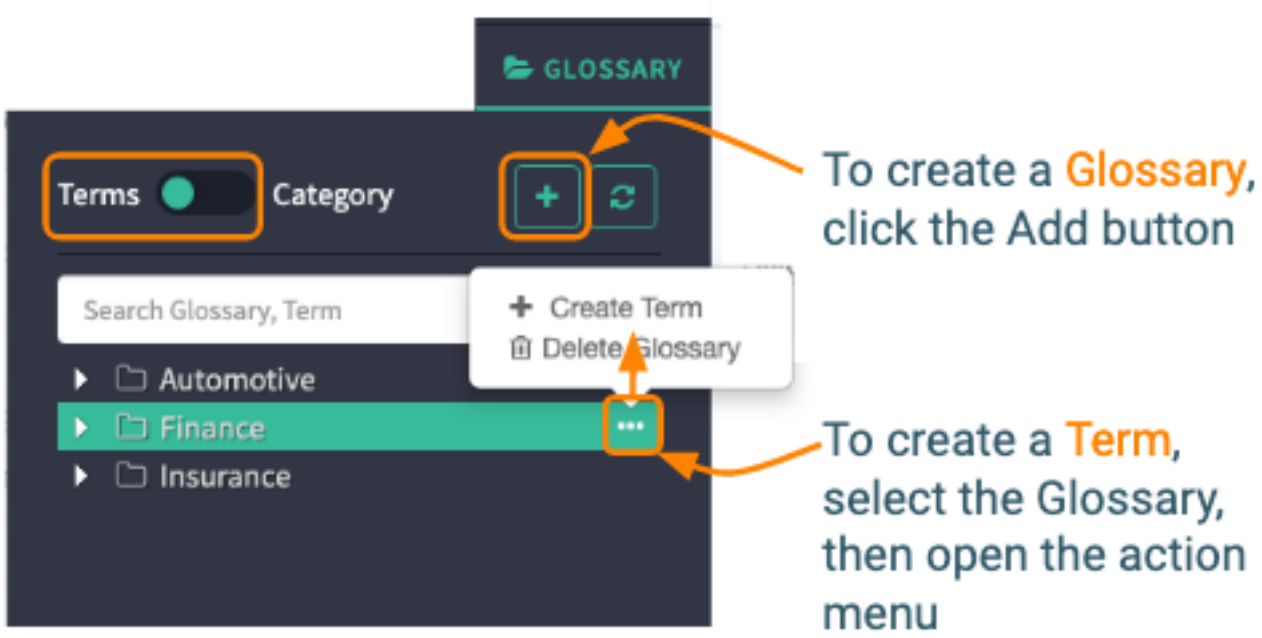


Creating terms

After you've created a glossary, you can add terms to it.

Glossary terms describe business concepts or information.

To create a glossary term, go to the Glossary tab in the left navigation panel. With the toggle switch set to "Terms", click the plus button.



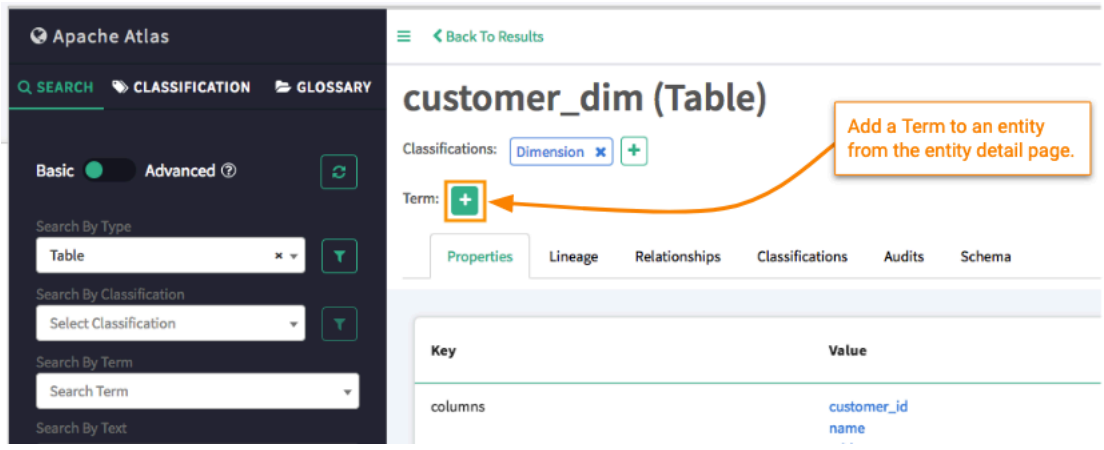
Associating terms with entities

The value of terms comes with using them to identify data and data sets. You can associate terms with entities from search results and within an entity detail page.

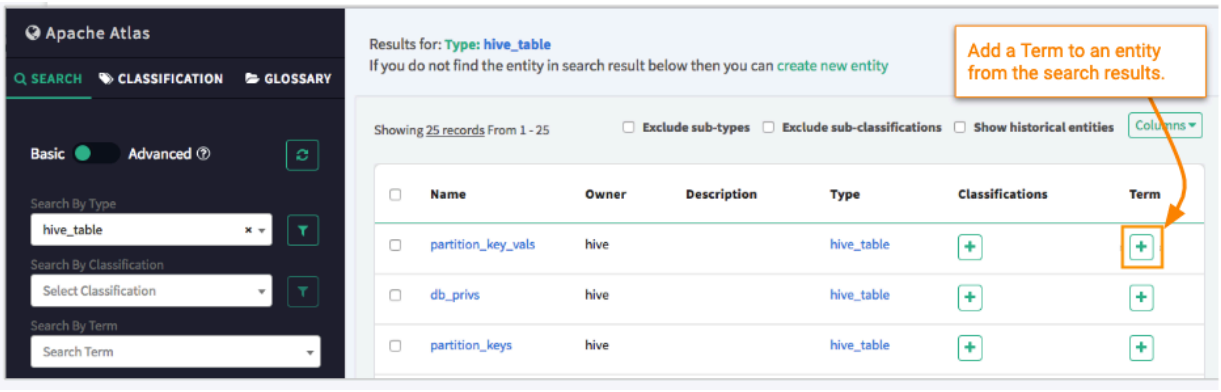
When you associate a term with an entity, that entity is part of the group of entities returned when you search on the term.

You can associate a term with an entity in the dashboard:

- From an entity detail page:



- From search results:



Both methods open a dialog box where you can search for the term or browse through the glossary hierarchy.

Related Information

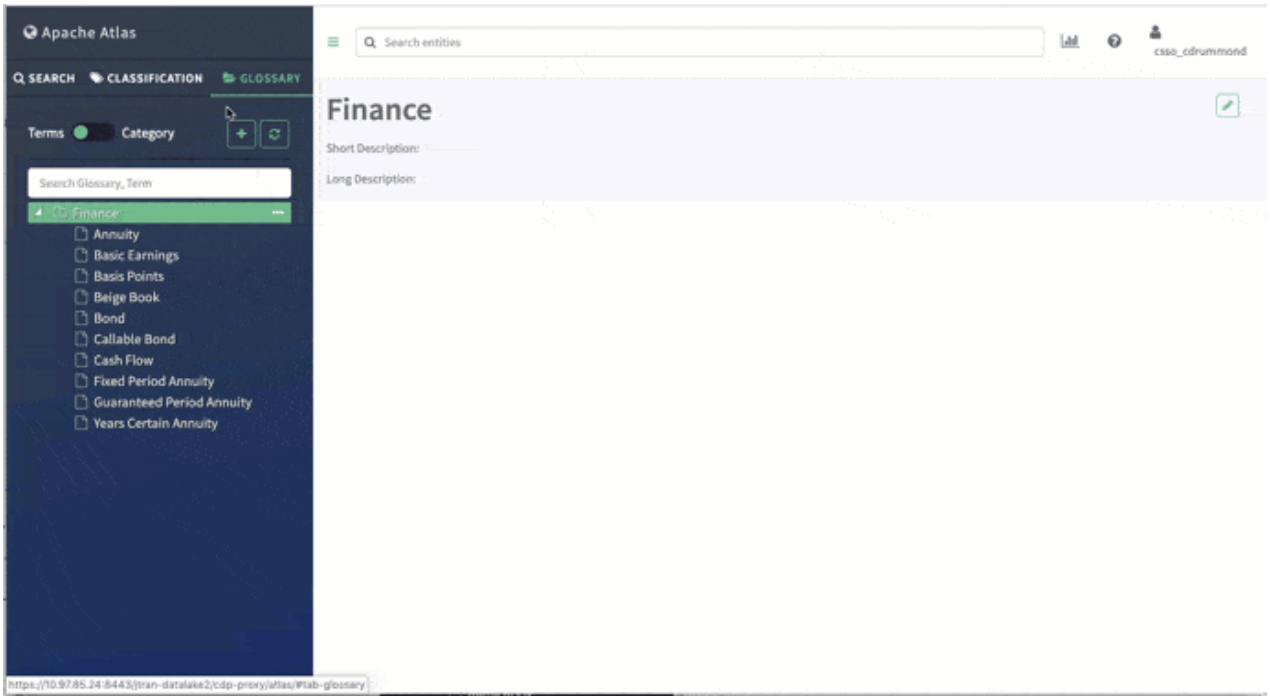
Searching using terms

Defining related terms

Can't agree on a single term among multiple organizations? Define two terms as synonyms so you can use either term to search for entities. Atlas provides many types of relationships to help data stewards build useful glossaries.

The glossary allows you to indicate relationships among terms. When you indicate a relationship, it is automatically added to the definition of the related term.

To create a relationship between two glossary terms, go to the detail page for one term, open the Related Terms tab, and add a term to the appropriate relationship type.



The relationship types are as follows:

Antonym

Glossary terms that have the opposite (or near opposite) meaning, in the same language.

Classifies

The current term is a generic name for the indicated more specific term or terms. "Has Types"

isA

The current term is an example of or type of the identified term. "Is A Type Of"

Preferred Terms

The identified term is the preferred synonym and should be used instead of the current term. "Preferred Synonym"

Preferred To Terms

The current term is the preferred term among a group of synonyms.

Replaced By

The current term is replaced by the indicated term.

Replacement Terms

The indicated term or terms replace the current term.

See Also

The indicated term or terms provide additional information related to the current term.

Synonyms

A relationship that indicates that the current term is the same or similar to the indicated term.

Translated Term

The current term is translated from the indicated term.

Translation Term

The current term is translated into one or more languages in the indicated terms.

Valid Values

Values that are meaningful for this term, such as a list of types that could apply to the term.

Valid Values For

The current term is a valid value for the indicated term.

Creating categories

Categories form the layers in a hierarchy so you can organize glossary terms to make them intuitive to find.

Assigning terms to categories

Group terms into categories to create meaningful contexts in a glossary.

Searching using terms

Now that you have terms defined and associated with entities, you have a search index that lets you quickly find data assets based on their value in your organization.

Importing Glossary terms in bulk

You can import a comma-separated list of Glossary terms into Atlas.

Create the Glossary or Glossaries before you begin the import. Then, download a template CSV file to organize your term list so Atlas can consume it.

Note: The mechanism to import Glossary terms can be used to import new terms only. If you want to update existing terms, use the Atlas UI or API.

To import terms:

1. Log into Atlas.
2. From the user menu, chose Bulk Import Glossary Download Import template to download a template for the bulk import file.
3. Fill in the template with the Glossary term details.

   Consider the following guidelines for the import file:

   - Each line in the file produces a term in a pre-defined Glossary.
   - Only the GlossaryName and TermName are required.
   - Only new terms can be added; if your list contains an existing term, it will fail to import any terms.
   - If you provide other metadata for a term, be sure to include the correct separators so the value is applied to the correct relationship type.
4. When you have a term list to import, from the user menu, chose Bulk Import Glossary Import Glossary Term 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, remove the rows previous to the error row, and reimport the file. 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

Defining related terms

Accessing Atlas logs

Enhancements related to bulk glossary terms import

After you import Glossary terms into Atlas, you can now list the terms linked to the specific term (Related Terms) in Atlas UI that are provided by the user using the CSV file.

Additionally, you can view the error messages that contain information about the terms that are not in accordance with the import definitions, and also view the status of import from the Response after the import operation is complete. Before this enhancement, the relationship dependency was not in place to import a related term that was created as a part of the same file.

You can now make changes to the CSV file as shown in the example:

```
GlossaryName, TermName, ShortDescription, LongDescription, Examples, Abbrevi
ation, Usage,
          AdditionalAttributes, TranslationTerms, ValidValuesFor, Synonyms,
 ReplacedBy, ValidValues,
          ReplacementTerms, SeeAlso, TranslatedTerms, IsA, Antonyms, Clas
sifies, PreferredToTerms,
```

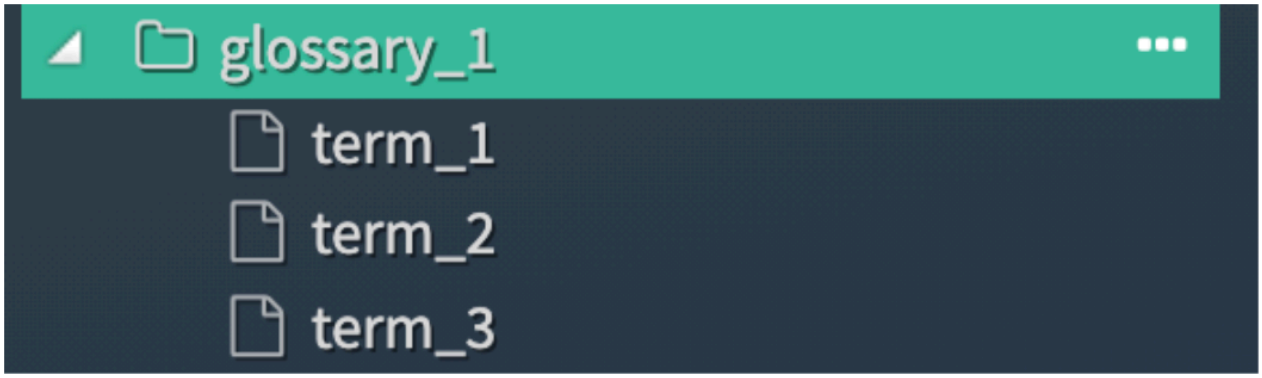
```
          PreferredTerms
```

```
glossary_1,term_1,"short desc","long desc", "eg", "G1", "Usage",
          "val:100%",,,,,,,glossary_1:term_2,,glossary_1:term_3,,,,"glossar
y_1:term_2|glossary_1:term_3"
```

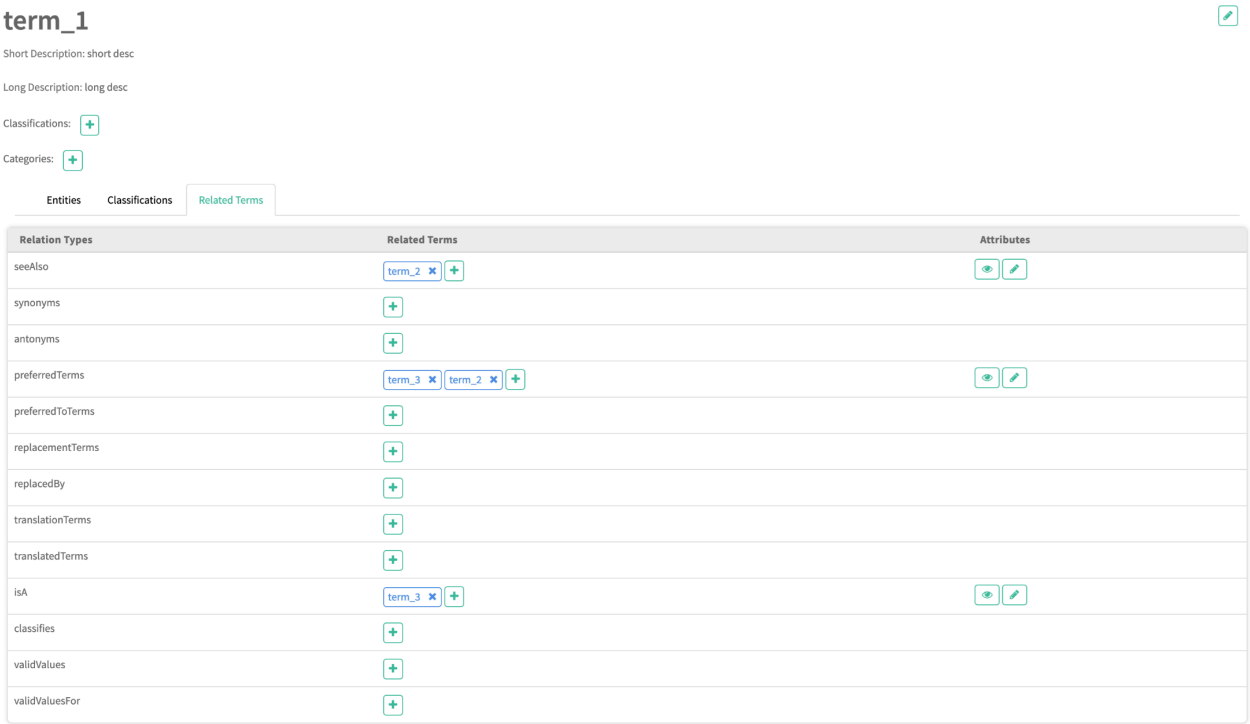
```
glossary_1,term_2,"short desc","long desc", "eg", "G1", "Usage",
          "val:100%",,,,,,,,,,"glossary_1:term_3|glossary_1:term_2",,,
```

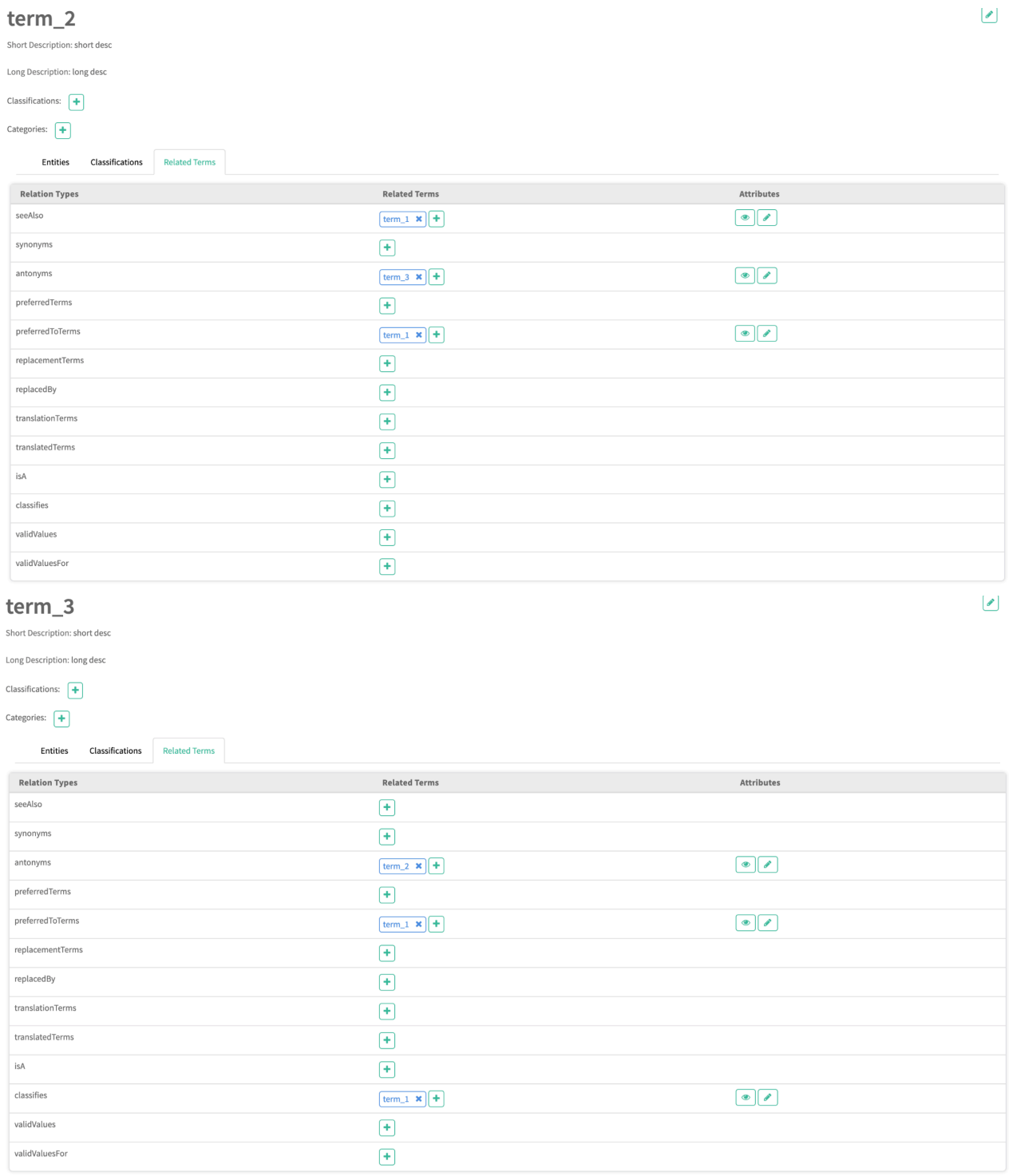
```
glossary_1,term_3,"short desc","long desc", "eg", "G1", "Usage",
          "val:100%",,,,,,,"glossary_1:term_a|glossary_1:term_3",,,,,,
```

And later when you import the CSV file into Atlas, the glossary terms are imported.



You can view the glossary-associated Related Terms in Atlas, which are displayed as seen in the following example images:

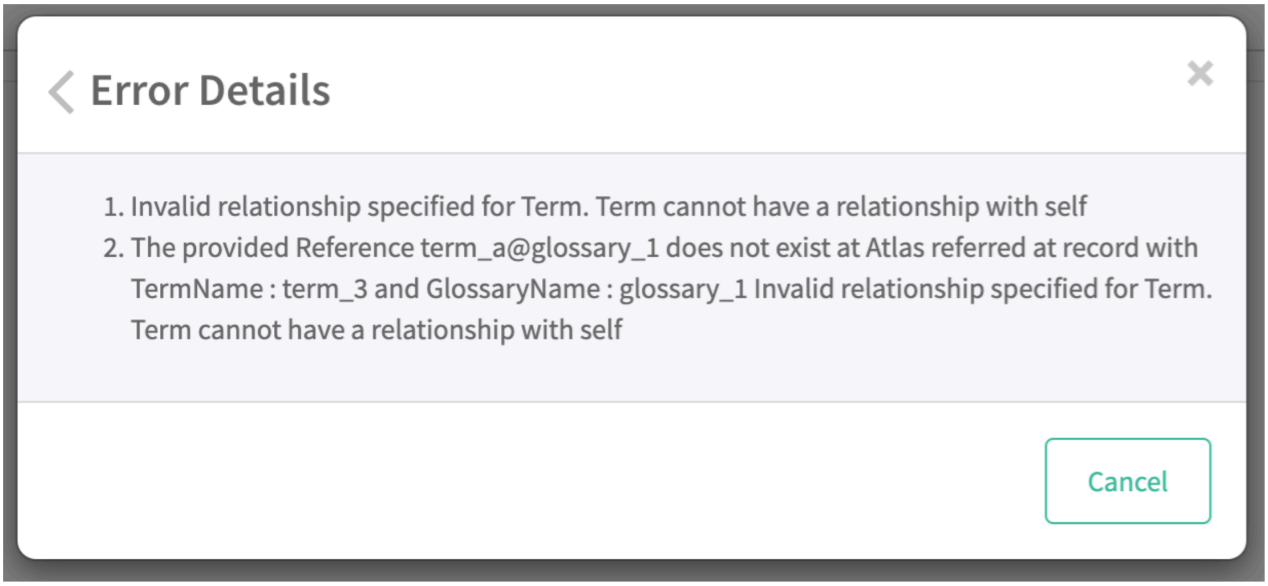




In the example use case, the terms associated with the Glossary named “glossary_1” are listed. And the Related Terms tab displays the list of associated terms.

A new error message is displayed pertaining to the imported CSV file containing specific entries that are not in agreement with the conformed standards with which Atlas operates. The error might be due to a wrong format for including the terms or not adhering to the defined standards. The error message that gets displayed provides all the changes that need to be made.

The following image details an error message:



The new response format provides extensive information about the bulk import of glossary terms. This response file contains failedImportInfoList and successImportInfoList.

The messages that are listed in the error message in the Atlas UI are available in this response format.

An example response format:

{

"failedImportInfoList": [

{

"parentObjectName": "glossary_1",

"childObjectName": "term_2",

"importStatus": "FAILED",

```
     "remarks": "Invalid relationship specified for Term. Term cannot have a
          relationship with self"
```

},

{

"parentObjectName": "glossary_1",

"childObjectName": "term_3",

"importStatus": "FAILED",

```
     "remarks": "The provided Reference term_a@glossary_1 does not exist at
Atlas
          referred at record with TermName  : term_3 and GlossaryName : gl
ossary_1\nInvalid
          relationship specified for Term. Term cannot have a relationship
 with self"
```

}

],

"successImportInfoList": [

{

"parentObjectName": "glossary_1",

"childObjectName": "term_1",

"importStatus": "SUCCESS",

```
     "remarks":
          "{\"termGuid\":\"650e4f8e-cebe-43c7-a312-72216ab975f6\",\"qualifie
dName\":\"term_1@glossary_1\"}"
```

},

{

"parentObjectName": "glossary_1",

"childObjectName": "term_2",

"importStatus": "SUCCESS",

```
     "remarks":
          "{\"termGuid\":\"874392b7-8dff-4c3a-881e-c57afe5b2919\",\"qualifie
dName\":\"term_2@glossary_1\"}"
```

},

{

"parentObjectName": "glossary_1",

"childObjectName": "term_3",

"importStatus": "SUCCESS",

```
     "remarks":
          "{\"termGuid\":\"d2b9b591-5912-4b14-8793-58ee04d06d17\",\"qualifie
dName\":\"term_3@glossary_1\"}"
```

}

]

}

Glossary performance improvements

Atlas glossary peformance improvement information is available on this page.

Some of the performance related use cases are listed below:

- Insignificant database calls made when there is a large number of data associated with the Glossary (say about 10K terms or categories)

Earlier, for Glossary GET API it took about 180 seconds, 168.814 seconds, and 169.237 seconds respectively. AVERAGE: 172.683 seconds.

Currently, for Glossary GET API with performance changes it takes about: 45 seconds, 45 seconds, and 43.626 seconds respectively. AVERAGE: 44.542 seconds

- The Bulk Term creation process took about a day to complete the creation process of about 2222 terms.

A patch is now provided which stores the optimum information of Glossaries and Categoies in the cache against their respective GUIDs. With the performance optimization, the Bulk Term creation takes about 5-6 minutes to complete the process.