

### **Output Module**

# Hitchhiker's Guide



The Hitchhiker's Guide to the Output Module

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### Chapter 1

### What's new

- The Community and Domain entities are now extensions of Organization. (January 2022)
- The Output Module API uses the same terminology as the user interface. (September 2021)
- The guide now contains YAML examples.
- References to the deprecated REST API v1 were removed.
- The Timeout mechanism is described.
- The Result limit mechanism is described.
- The API endpoints are described.

### Chapter 2

# Introduction

The Output Module is a lightweight graph query engine exposed through the public API. It allows different output formats, such as JSON, XML, Excel, and CSV. It also provides a single API to query most of the Collibra entities, such as assets, communities, domains and types, using SQL-like filtering capabilities. You can sort entities using any of the available properties and page results and view permissions for authenticated users who issue REST calls.

# Prerequisites

Before you begin using the query language used in the Output Module, you must understand the Collibra API model and how to execute REST calls. This guide shows examples that query the REST API but does not explain how to execute REST calls. Refer to external online resources for tutorials and instructional resources.

### **Terminology**

The Collibra API model was based on the Semantics of Business Vocabulary and Rules (SBVR) standard. Over time, the user interface adopted a simpler terminology set that aligns with Collibra concepts. Since version 2021.09 (5.7.10 for on-premisses), the Output Module API uses the same terminology as the user interface while the legacy one is deprecated.

The following table lists the renamed terminology:

| Deprecated                        | Current          |
|-----------------------------------|------------------|
| Term                              | Asset            |
| ConceptType                       | AssetType        |
| ConceptTypeSpecializedConcepts    | ChildAssetTypes  |
| Vocabulary                        | Domain           |
| VocabularyType                    | DomainType       |
| VocabularyTypeSpecializedConcepts | ChildDomainTypes |
| Source                            | SourceAsset      |

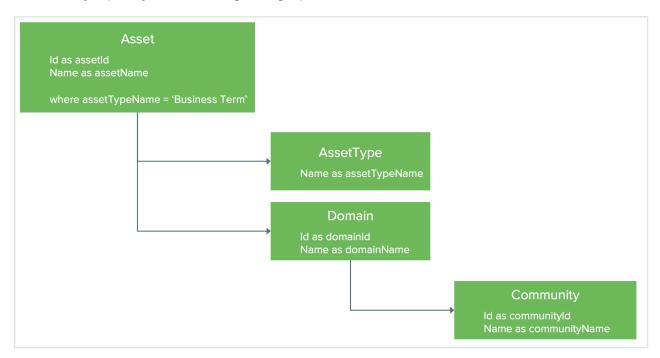
| Deprecated     | Current         |
|----------------|-----------------|
| Target         | TargetAsset     |
| BinaryFactType | RelationType    |
| HeadTerm       | SourceAssetType |
| TailTerm       | TargetAssetType |
| Member         | Responsibility  |

Tip Use only the new terminology.

# The Output Module query language

The API model has a set of well-defined entities and relations that allow you to create a single-rooted tree graph query and specify constraints that must exist for any of the resulting nodes, such as results filtering.

For example, to query all assets of type **Business Term** and their respective domain and community, specify the following tree graph:



#### Note

- The graph is a single-rooted tree graph.
- Multiple root nodes are not allowed.
- Each node has one parent.
- For each of the selected properties, you must specify a unique alias within the graph query.
- Filtering is specified on the node you want to filter and can reference any
  property of the current node of a child or grandchildren. The example above
  shows assets filtered by their related AssetType name.

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### Getting started

The format of the query language is either JSON or YAML. For simplicity, this example starts with a basic query and builds from there.

Select the Id and Name for all communities as a flat list. The object representing the query is called ViewConfig, as it defines a particular view, which is a selection of the data. The object containing the graph part of the query is called Resources.

The following example shows the Community entity along with its Id and Name properties.

```
ViewConfig:
Resources:
Community:
name: "Communities" <--- a node can (or must) have a name. Thus the community own 'name' property must be uppercased to avoid
name: "community id"
Name:
Name: "community name"
```

#### Note

- Entity and property keys are case insensitive, so Community and Id can be written in any case.
- The other keys are case sensitive. For example, ViewConfig, Resources or Name must be written as shown.
- If a property is spelled out the same way as a reserved keyword, you must use a different casing than the reserved key. For example, you use lowercase name as the node name and capitalized Name as the community name.

### Test the API

To test the API, use a REST client, such as the Postman plugin for Chrome. Many output formats are available, but the JSON tree is the format that most resembles the query.

This example uses the following endpoint on the OutputView resource:

• {{domain}}/rest/2.0/outputModule/export/json

Use a POST call with the following body.

```
YAML

---
ViewConfig:
Resources:
Community:
Id:
name: "community id"
Name:
name: "community name"
```

Note Remember to set the content type header.

```
JSON
'Content-Type': 'application/json'

YAML
```

The output is formatted as an array of communities.

'Content-Type': 'application/x-yaml'

You can use the ViewConfig queries with the following endpoints:

```
    {{domain}}/rest/2.0/outputModule/export/{{xml | json}}
    {{domain}}/rest/2.0/outputModule/export/{{xml | json}}-file
    {{domain}}/rest/2.0/outputModule/export/{{xml | json}}-job
```

### Add related entities to the tree

Use this query example to add the users that have been assigned a role at the community level. To reach those entities, you must retrieve the Responsibility entities that represent the assignments between a user, a role and one of the following resources:

- Asset
- Domain
- Community

```
JSON
  "ViewConfig": {
    "Resources": {
      "Community": {
        "Id": { "name": "community id" },
        "Name": { "name": "community name" },
        "Responsibility": {
          "User": {
            "Id": { "name": "user id" },
            "FirstName": { "name": "first name" },
            "LastName": { "name": "last name" }
          "Role": {
            "Signifier": { "name": "role name" }
     }
   }
  }
}
```

```
YAML
ViewConfig:
 Resources:
    Community:
      Id:
       name: "community id"
     Name:
       name: "community name"
      Responsibility:
       User:
          Id:
           name: "user id"
          FirstName:
           name: "first name"
          LastName:
           name: "last name"
        Role:
          Signifier:
            name: "role name"
```

Navigating from one entity to another requires nesting the entities. For a complete list of properties and relations for each entity, see Entities, properties and relations.

The following is an example of how the results is formatted.

```
"lastName": "Istrator"
               }
            ],
             "Role3": [
                 "roleName": "Admin"
          },
             "User2": [
                 "userId": "00000000-0000-0000-0000-
000000900002",
                 "firstName": "Admin",
                 "lastName": "Istrator"
            ],
             "Role3": [
                 "roleName": "Steward"
            1
          }
        ]
      }
    1
  }
}
```

#### Note

- The ViewConfig result tree always uses arrays for related entities, even when relations have a max cardinality of 1.
- Each responsibility has a maximum of one user and one role, even when arrays return.
- The results tree uses a generated entity alias in the response. For example, CommunityO, Responsibility1 or User2.
- To prevent duplicate names in the JSON keys, an index number is concatenated to the entity name.
- The relationship from community to responsibility is optional. The query engine recognizes optional and required relations between entities, which is why First Community appears even when no users have roles.

### Specify an entity alias

Auto-generated aliases in the response are not straightforward. For example,

CommunityO, Responsibility1 or User2. For this reason, you must specify an alias.

```
JSON
  "ViewConfig": {
    "Resources": {
      "Community": {
        "name": "community",
        "Id": { "name": "community id" },
        "Name": { "name": "community name" },
        "Responsibility": {
          "name": "responsibility",
          "User": {
            "name": "employee",
            "Id": { "name": "user id" },
            "FirstName": { "name": "first name" },
            "LastName": { "name": "last name" }
          },
          "Role": {
            "name": "role",
            "Signifier": { "name": "role name" }
     }
   }
 }
}
```

```
YAML
ViewConfig:
  Resources:
    Community:
      name: "community"
        name: "community id"
      Name:
        name: "community name"
      Responsibility:
       name: "responsibility"
        User:
          name: "employee"
          Id:
           name: "user id"
          FirstName:
            name: "first name"
          LastName:
           name: "last name"
        Role:
          name: "role"
          Signifier:
            name: "role name"
```

The results should then parse like the example below.

```
],
             "role": [
                 "roleName": "Admin"
          },
             "employee": [
                 "userId": "00000000-0000-0000-0000-
000000900002",
                 "firstName": "Admin",
                 "lastName": "Istrator"
             ],
             "role": [
                 "roleName": "Steward"
        ]
      }
    ]
 }
}
```

# Add a related entity more than once

To understand what roles users have in communities, you must query the groups that are linked through a responsibility.

To add another relation from community to responsibility, select the related groups.

This example shows the Id property of the two-responsibility nodes selected.

#### **JSON**

```
"ViewConfig": {
    "Resources": {
      "Community": {
        "Id": { "name": "communityId" },
        "Name": { "name": "communityName" },
        "Responsibility": [
          {
            "Id": { "name": "userResponsibilityId" },
            "User": {
              "Id": { "name": "userId" },
              "FirstName": { "name": "firstName" },
              "LastName": { "name": "lastName" }
            "Role": {
              "Signifier": { "name": "userRoleName" }
          },
            "Id": { "name": "groupResponsibilityId" },
            "Group": {
              "Id": { "name": "groupId" },
              "GroupName": { "name": "groupName" }
            },
            "Role": {
              "Signifier": { "name": "groupRoleName" }
          }
       ]
     }
   }
  }
}
```

```
YAML
ViewConfig:
 Resources:
    Community:
      Id:
       name: "communityId"
     Name:
       name: "communityName"
      Responsibility:
      - Id:
          name: "userResponsibilityId"
        User:
          Id:
           name: "userId"
         FirstName:
           name: "firstName"
          LastName:
            name: "lastName"
        Role:
          Signifier:
           name: "userRoleName"
      - Id:
         name: "groupResponsibilityId"
        Group:
          Id:
           name: "groupId"
          GroupName:
           name: "groupName"
        Role:
          Signifier:
            name: "groupRoleName"
```

To add the same related entity twice under the same node, change the JSON object into an array. In this case, the Responsibility JSON object became an array, and the anonymous JSON objects composing the array are multiple responsibilities.

If you add the admin group to the second community, the results would be formatted similar to the example below.

```
{
  "view": {
    "Community0": [
```

```
"communityId": "c87f166e-041f-4bea-8ff7-c1ffbab2ceeb",
        "communityName": "First Community"
      },
        "communityId": "12345678-0020-0000-0000-0000000000",
        "communityName": "Second Community",
        "Responsibility1": [
             "userResponsibilityId": "0ecb2fff-d5de-43d0-be60-
f7f201c10d41",
             "User2": [
               {
                 "userId": "00000000-0000-0000-0000-
000000900002",
                 "firstName": "Admin",
"lastName": "Istrator"
               }
            ],
             "Role3": [
                 "roleName": "Admin"
            ]
          },
            "userResponsibilityId": "42b9d114-2c0c-4e96-a1ce-
b645d5e92365",
             "User2": [
                 "userId": "00000000-0000-0000-0000-
000000900002",
                 "firstName": "Admin",
                 "lastName": "Istrator"
               }
            ],
             "Role3": [
              {
                 "roleName": "Steward"
            1
          },
            "groupResponsibilityId": "5fc0cc5f-e30e-488c-94bc-
acdea171219d",
             "User2": [
              { }
             "Role3": [
              {
```

```
"roleName": "Admin"
          }
        "Responsibility4": [
            "userResponsibilityId": "0ecb2fff-d5de-43d0-be60-
f7f201c10d41",
            "Group5": [
              { }
            "Role6": [
                "groupRoleName": "Admin"
          },
            "userResponsibilityId": "42b9d114-2c0c-4e96-a1ce-
b645d5e92365",
            "Group5": [
              { }
            ],
            "Role6": [
                "groupRoleName": "Steward"
            "groupResponsibilityId": "5fc0cc5f-e30e-488c-94bc-
acdea171219d",
            "Group5": [
                "groupId": "4eb1f4a9-14a3-4539-8afc-
733925161179",
                "groupName": "admin"
            ],
            "Role6": [
                "groupRoleName": "Admin"
        ]
      }
   ]
```

}

Note In the example above, the userResponsibilityId and groupResponsibilityId values contain three unique values in total: two related to a user and one to a group. When no further filtering is requested, adding the same entity twice means selecting the same thing twice. The result is one empty user for the responsibility linked to the group and two empty groups for each responsibility linked to a user.

# Add filtering

To discard irrelevant responsibility results, use filtering.

#### **JSON**

```
"ViewConfig": {
    "Resources": {
      "Community": {
        "Id": { "name": "communityId" },
        "Name": { "name": "communityName" },
        "Responsibility": [
          {
            "Id": { "name": "userResponsibilityId" },
            "User": {
              "Id": { "name": "userId" },
              "FirstName": { "name": "firstName" },
             "LastName": { "name": "lastName" }
            },
            "Role": {
              "Signifier": { "name": "userRoleName" }
            "Filter": { "Field": { "name": "userId", "operator":
"NOT NULL" } }
          },
            "Id": { "name": "groupResponsibilityId" },
            "Group": {
              "Id": { "name": "groupId" },
              "GroupName": { "name": "groupName" }
            "Role": {
             "Signifier": { "name": "groupRoleName" }
            "Filter": { "Field": { "name": "groupId",
"operator": "NOT NULL" } }
   }
 }
}
```

```
YAML
ViewConfig:
 Resources:
    Community:
      Id:
        name: "communityId"
      Name:
       name: "communityName"
      Responsibility:
        Id:
         name: "userResponsibilityId"
        User:
          Id:
            name: "userId"
          FirstName:
            name: "firstName"
          LastName:
           name: "lastName"
        Role:
          Signifier:
           name: "userRoleName"
        Filter:
          Field:
            name: "userId"
            operator: "NOT NULL"
        Id:
         name: "groupResponsibilityId"
        Group:
          Id:
            name: "groupId"
          GroupName:
            name: "groupName"
        Role:
          Signifier:
           name: "groupRoleName"
        Filter:
          Field:
            name: "groupId"
            operator: "NOT NULL"
```

Filter is a reserved key. The example above first includes a userId is not null" filtering clause to show responsibilities with a related user by (More on available filters later in this

guide). Then, select the related responsibilities again, this time only keeping those with a related group.

```
"view": {
    "Community0": [
        "communityId": "c87f166e-041f-4bea-8ff7-c1ffbab2ceeb",
        "communityName": "First Community"
        "communityId": "12345678-0020-0000-0000-0000000000",
        "communityName": "Second Community",
        "Responsibility1": [
            "userResponsibilityId": "0ecb2fff-d5de-43d0-be60-
f7f201c10d41",
            "User2": [
                "userId": "00000000-0000-0000-0000-
000000900002",
                "firstName": "Admin",
                "lastName": "Istrator"
              }
            ],
            "Role3": [
                "roleName": "Admin"
            1
          },
            "userResponsibilityId": "42b9d114-2c0c-4e96-a1ce-
b645d5e92365",
            "User2": [
                "userId": "00000000-0000-0000-0000-
000000900002",
                "firstName": "Admin",
                "lastName": "Istrator"
              }
            ],
            "Role3": [
                "roleName": "Steward"
        "Responsibility4": [
```

Note In the result tree, Responsibility1 shows all related users and Responsibility4 only contains the groups.

### Filtering performance considerations

When a to-many relation is traversed in the query tree, performance is impacted because a new query is made against the Collibra internal storage engine. In the above example, the relation between the community and responsibility entities is of the to-many kind because a community can have many related responsibilities. Depending on the shape and amount of results, the performance penalty can range from completely irrelevant to a sizeable chunk added to the overall query time.

Here is the optimal way to query.

#### **JSON**

```
"ViewConfig": {
 "Resources": {
    "Community": {
      "Id": { "name": "communityId" },
      "Name": { "name": "communityName" },
      "Responsibility": {
        "Id": { "name": "responsibilityId" },
        "User": {
          "Id": { "name": "userId" },
          "FirstName": { "name": "firstName" },
         "LastName": { "name": "lastName" }
        },
        "Group": {
         "Id": { "name": "groupId" },
         "GroupName": { "name": "groupName" }
       },
        "Role": {
         "Signifier": { "name": "roleName" }
   }
}
```

```
YAML
ViewConfig:
 Resources:
    Community:
      Id:
        name: "communityId"
      Name:
       name: "communityName"
      Responsibility:
        Id:
          name: "ResponsibilityId"
        User:
          Id:
            name: "userId"
          FirstName:
            name: "firstName"
          LastName:
            name: "lastName"
        Group:
          Id:
            name: "groupId"
          GroupName:
            name: "groupName"
        Role:
          Signifier:
            name: "roleName"
```

The results should be formatted like the example below.

```
"userId": "00000000-0000-0000-0000-
000000900002",
                 "firstName": "Admin",
                 "lastName": "Istrator"
               }
             ],
             "Group3": [
              { }
             "Role4": [
                 "roleName": "Admin"
             ]
           },
             "responsibilityId": "42b9d114-2c0c-4e96-a1ce-
b645d5e92365",
             "User2": [
                 "userId": "00000000-0000-0000-0000-
000000900002",
                 "firstName": "Admin",
"lastName": "Istrator"
               }
             ],
             "Group3": [
              { }
             ],
             "Role4": [
                 "roleName": "Steward"
             1
           },
             "responsibilityId": "5fc0cc5f-e30e-488c-94bc-
acdea171219d",
             "User2": [
              { }
             ],
             "Group3": [
                 "groupId": "4eb1f4a9-14a3-4539-8afc-
733925161179",
                 "groupName": "admin"
             ],
             "Role4": [
```

### Sort the results

Use the Order clause to sort results. Just like filters, Order references one or more declared fields on the entity to be sorted or one of its children, or grandchildren.

Use the ASC, which is the default, and DESC constants to request ordering in ascending or descending order.

```
YAML

---
ViewConfig:
Resources:
Community:
Id:
name: "communityId"
Name:
name: "communityName"
Order:
-
Field:
name: "communityName"
order: "ASC"
```

The following example shows assets ordered by the name of a related entity.

```
JSON
  "ViewConfig": {
   "Resources": {
      "Asset": {
        "Id": { "name": "id" },
        "Signifier": { "name": "name" },
        "Relation": {
          "type": "SOURCE",
          "TargetAsset": {
            "Id": { "name": "targetRelatedAssetId" },
            "Signifier": { "name": "targetRelatedAsset" }
          }
        },
        "Order": [
         { "Field": { "name": "targetRelatedAsset", "order":
"ASC" } }
   }
 }
}
```

```
YAML
ViewConfig:
 Resources:
   Asset:
      Td:
       name: "id"
      Signifier:
       name: "name"
      Relation:
       type: "SOURCE"
       TargetAsset:
          Id:
           name: "targetRelatedAssetId"
         Signifier:
           name: "targetRelatedAsset"
      Order:
        Field:
         name: "targetRelatedAsset"
          order: "ASC"
```

The type property on the relation allows you to determine which relationship is used when navigating from the parent asset to the relation. In the example above, there might be more than one targetRelatedAsset for each source asset. The query engine orders the related target assets first and uses the first value to order the parent assets. Similar to filtering, the order clause only affects the entities on which it is set. In the example, the targetRelatedAssets is not sorted. To sort, you must add another ordering clause on the Relation entity.

You should not sort on the target asset node because ordering only makes sense in a collection. If an asset is the source for many relations and the relation has one target asset, you must sort the collection of relations, not the related target asset directly.

The following query example sorts both collections.

Note For simplicity, this query has no filtering. Executing filtering would return all assets and all relations available in Collibra.

### **JSON**

```
"ViewConfig": {
    "Resources": {
      "Asset": {
        "Id": { "name": "id" },
        "Signifier": { "name": "name" },
        "Relation": {
          "type": "SOURCE",
          "TargetAsset": {
           "Id": { "name": "targetRelatedAssetId" },
           "Signifier": { "name": "targetRelatedAsset" }
          "Order": [
          { "Field": { "name": "targetRelatedAsset", "order":
"ASC" } }
         ]
        },
        "Order": [
         { "Field": { "name": "targetRelatedAsset", "order":
"ASC" } }
     }
   }
 }
```

```
YAML
ViewConfig:
 Resources:
   Asset:
      Td:
       name: "id"
      Signifier:
       name: "name"
      Relation:
       type: "SOURCE"
       TargetAsset:
         Id:
            name: "targetRelatedAssetId"
          Signifier:
           name: "targetRelatedAsset"
        Order:
          Field:
           name: "targetRelatedAsset"
           order: "ASC"
      Order:
        Field:
         name: "targetRelatedAsset"
          order: "ASC"
```

# Differentiate selected properties from properties required in a filter clause

To find the most recently created users, query the <code>CreatedOn</code> property and add a filter that uses the <code>greater</code> than operator. Adding the <code>CreatedOn</code> property to the tree also selects that property.

In cases where you only want the user ID and first and last name, tell the query engine not to return the CreatedOn property and use it in the filter.

Note CreatedOn is a date expressed as the number of milliseconds since 1/1/1970.

### YAML

```
ViewConfig:
 Resources:
   User:
     Id:
       name: "userId"
     FirstName:
      name: "firstName"
     LastName:
      name: "lastName"
     CreatedOn:
       name: "createdOn"
       hidden: true
     Filter:
       Field:
         name: "createdOn"
         operator: "GREATER"
         value: "1440492290300"
```

Note Using hidden: true on a property removes that property from the results. The default value is false.

```
{
    "view": {
        "userId": "9546bbe9-7299-4a99-bfd2-

d97f8256c201",
        "firstName": "Patrick",
        "lastName": "Star"
        },
        "userId": "d9f3cc67-0db7-4aa5-a246-
e83a62ea5c62",
        "firstName": "SpongeBob",
        "lastName": "SquarePants"
        }
        ]
     }
}
```

# Strip HTML from text results

Saved values from Collibra also includes HTML formatting tags. Although not visible to users, the user interface uses the tags to format data. These tags are also included when you query data and may look like garbage in Excel reports.

The example below shows how to strip out the HTML formatting tags, leaving only the values.

```
YAML

---
ViewConfig:
Resources:
Community:
Id:
name: "communityId"
Name:
name: "communityId"
Description:
name: "communityName"
stripHtml: true
```

Note Use stripHtml on any text field. When true, the returned value is stripped from the HTML tags.

# Filtering operators

| Operator        | Reverse<br>Operator     | Parameters | Type compatibility       | Description                                     |
|-----------------|-------------------------|------------|--------------------------|---|
| EQUALS          | NOT_<br>EQUALS          | 1          | Text, Number,<br>Boolean | Equal/not equal to the value.                   |
| STARTS_<br>WITH | NOT_<br>STARTS_<br>WITH | 1          | Text                     | The text starts/does not start with characters. |

| Operator              | Reverse<br>Operator   | Parameters | Type compatibility       | Description   |
|-----------------------|-----------------------|------------|--------------------------|---|
| STARTS_<br>WITH_DIGIT |                       | Optional   | Text                     | The text starts with a digit. The optional parameter is a pair of upper and lower boundaries separated by a comma. For example, "3, 8" means any digit from 3 to 8 is included. |
| ENDS_<br>WITH         | NOT_ENDS_<br>WITH     | 1          | Text                     | The text ends/does not end with characters.   |
| INCLUDES              | NOT_<br>INCLUDES      | 1          | Text                     | The text contains/does not contain the characters.  |
| LESS                  | GREATER               | 1          | Number                   | The value is strictly less than/greater than the value.   |
| LESS_OR_<br>EQUALS    | GREATER_<br>OR_EQUALS | 1          | Number                   | The value is less than or equal to/greater than or equal to the value.  |
| BETWEEN               | 1                     | 2          | Number                   | The value is included within the values.  |
| NULL                  | NOT_NULL              | None       | Text, Number,<br>Boolean | Absence/presence of value.  |
| IN                    | NOT_IN                | Collection | Text, Number,<br>Boolean | The value is in/not in the set of values.   |

| Operator                 | Reverse<br>Operator | Parameters   | Type com-<br>patibility | Description   |
|--------------------------|---------------------|--------------|-------------------------|---|
| EXISTS                   | NOT_<br>EXISTS      | 1 (optional) | n/a                     | See below.  |
| CR_<br>FILTER_<br>DOMAIN | 1                   | 1            | n/a                     | ComplexRelation specific filter. Includes only complex relations with at least one related asset in the domain. |

The following table shows samples for each operator.

| Operator              | Example  |
|-----------------------|--|
| EQUALS                | { "Field": { "name": "domainName", "operator": "EQUALS", "value": "New Business Terms" } } |
| STARTS_<br>WITH       | { "Field": { "name": "domainName", "operator": "STARTS_WITH", "value": "New" } }           |
| STARTS_<br>WITH_DIGIT | { "Field": { "name": "assetName", "operator": "STARTS_WITH_DIGIT" } }                      |
| ENDS_WITH             | { "Field": { "name": "domainName", "operator": "ENDS_WITH", "value": "Terms" } }           |

| Operator           | Example   |
|--------------------|---|
| INCLUDES           | { "Field": { "name": "domainName", "operator": "CONTAINS", "value": "Bus" } }                                 |
| LESS               | { "Field": { "name": "lastModified", "operator": "GREATER", "value": "1440492290300" } }                      |
| LESS_OR_<br>EQUALS | { "Field": { "name": "lastModified", "operator": "GREATER_OR_EQUALS", "value": "1440492290300" } }            |
| BETWEEN            | { "Field": { "name": "lastModified", "operator": "BETWEEN", "values": [ "1440492290300", "1440493000000" } }  |
| NULL               | { "Field": { "name": "description", "operator": "NULL" } }  |
| IN                 | { "Field": { "name": "statusName", "operator": "IN", "values": [ "New", "In Review" ] } }                     |
| EXISTS             | { "Field": { "target": "RelationSource", "operator": "EXISTS", "value": "00000000-0000-0000-0000-0000-0000-00 |

| Operator             | Example   |
|----------------------|---|
| CR_FILTER_<br>DOMAIN | <pre>{ "Field": { "operator": "CR_FILTER_DOMAIN",     "value": "00000000-0000-0000-0000-000000006013" } }</pre> |

# EXISTS/NOT\_EXISTS filter

In the context of a graph query, the EXISTS filter tests the existence of a relationship with another entity. This is the only filter that is explicitly limited to filtering on an entity located directly under the filtered node. To specify which relation should exist/not exist, the filter has a target key.

You can also pass a parameter to the EXISTS filter. This parameter is used as a secondary filtering element. To query the assets with an attribute of type <code>Description</code>, use the EXISTS filter on the asset with target value <code>Attribute</code> and also the Id of the <code>Description</code> type in the <code>value</code> key of the filter.

The table below lists the possible target values and the expected value type for optional parameters.

| Filtered<br>Entity             | Target value   | Optional Para-<br>meter | Description   |
|--------------------------------|----------------|-------------------------|---|
| Community,<br>Domain,<br>Asset | Responsibility | Role Id                 | Filter resources related/not related to a responsibility. Optionally, only responsibilities related to the Role Id.           |
| Asset                          | Relation       | RelationType<br>Id      | Filter assets that are/are not the source or target of a relation. Optionally, only relations related to the RelationType Id. |

| Filtered<br>Entity | Target value             | Optional Para-<br>meter | Description   |
|--------------------|--------------------------|-------------------------|---|
| Asset              | RelationSource           | RelationType<br>Id      | Filter assets that are/are not the "source " of a relation. Optionally, only relations related to the RelationType Id.                      |
| Asset              | RelationTarget           | RelationType<br>Id      | Filter assets that are/are not " target" of a relation. Optionally, only relations related to the RelationType Id.                          |
| Asset              | Attribute                | AttributeType<br>Id     | Filter assets that have/do not have an attribute. Optionally, only attributes related to the AttributeType Id.                              |
| Asset              | StringAttribute          | AttributeType<br>Id     | Filter assets that have/do not have a StringAttribute. Optionally, only StringAttributes related to the AttributeType Id.                   |
| Asset              | SingleValueListAttribute | AttributeType<br>Id     | Filter assets that have/do not have a SingleValueListAttribute. Optionally, only SingleValueListAttributes related to the AttributeType Id. |

| Filtered<br>Entity | Target value            | Optional Para-<br>meter | Description  |
|--------------------|-------------------------|-------------------------|--|
| Asset              | MultiValueListAttribute | AttributeType<br>Id     | Filter assets that have/do not have a MultiValueListAttribute. Optionally, only MultiValueListAttribute related to the Attrib- uteType Id. |
| Asset              | BooleanAttribute        | AttributeType<br>Id     | Filter assets that have/do not have a BooleanAttribute. Optionally, only BooleanAttributes related to the AttributeType Id.                |
| Asset              | NumericAttribute        | AttributeType<br>Id     | Filter assets that have/do not have a NumericAttribute. Optionally, NumericAttributes related to the AttributeType Id.                     |
| Asset              | DateTimeAttribute       | AttributeType<br>Id     | Filter assets that have/do not have a DateTimeAttribute. Optionally, only DateTimeAttributes related to the AttributeType Id.              |

Note The EXISTS/NOT\_EXISTS filters are exclusively for communities, domains and assets.

### Filtering in Hierarchy

When the EQUALS/NOT\_EQUALS and IN/NOT\_IN operators are used in conjunction with an Id property of an asset, a RelationType or a Community can take an additional descendants: true parameter. When true, the query engine will force an IN or NOT\_IN filter and add all Ids from the child assets, relation types or communities. This allows selecting the following assets.

- All assets under a community, including the subcommunities.
- All assets that are of type "X" or one of its subtypes.

# **Boolean operators**

You can combine the filtering operators using Boolean operators. Combining Boolean operators results in a logical binary tree of possibilities. Because the binary tree is not easy to read, the <code>ViewConfig</code> provides a way of specifying a <code>Named Logical Array</code>.

### **YAML**

```
Filter:
 AND:
   Field:
    name: "domainId"
     operator: "EQUALS"
     value: "02204077-1cd1-4c70-a7c4-4cd845194b81"
   Field:
    name: "assetId"
    operator: "EXISTS"
    value: "00000000-0000-0000-0000-00000007001"
     target: "RelationSource"
   Field:
     name: "statusName"
     operator: "IN"
     values:
     - "New"
     - "In Review"
```

Note Filtering elements bundled together in a named array, are logically combined using the name of the array: either  $\mathtt{AND}$  or  $\mathtt{OR}$ . You can also nest these logical arrays, allowing all possible Boolean combinations.

#### **JSON**

### YAML

```
Filter:
 AND:
   OR:
     Field:
       name: "domainId"
       operator: "EQUALS"
       value: "02204077-1cd1-4c70-a7c4-4cd845194b81"
     Field:
       name: "assetId"
       operator: "EXISTS"
       value: "00000000-0000-0000-0000-000000007001"
       target: "RelationSource"
    Field:
     name: "statusName"
     operator: "IN"
     values:
      - "New"
      - "In Review"
```

# Filter properties

You can use filter shortcuts to reduce the amount of time required to write a JSON query. For example, Relation has a typeId parameter that takes an Id and eliminates the need to add a RelationType node with an Id property. These one-line filtering properties are the most commonly used filters because they make the query a lot less verbose.

The following example shows filtering a StringAttribute on an AttributeType using the labelId filtering property.

```
"StringAttribute": {
    "labelId": "00000000-0000-0000-00000000000202",
    "Id": { "name": "descriptionId" },
    "LongExpression": { "name": "description" }
}
```

Refer to Entities, properties and relations for the list of available filter properties for each entity.

# Virtual properties

Collibra does not store virtual properties. It calculates them at runtime and dynamically evaluates the value of each property when the query executes. Virtual properties typically support hierarchical queries that show if the resource has children. Some examples are hasTaxonomyChildren and hasChildForRelation.

# Clarify the relationship between two entities

When two entities are related in more than one way, nesting the entities inside each other is not enough to determine which path to follow. For example, an asset can be either the source or target of a relation or a user can be the creator or the lastModifier of a resource. Depending on the entity, there are two possibilities:

- The name of the child entity is changed. For example, SourceAsset or TargetAsset should be used under Relation instead of Asset. In this case, they act and behave just like normal assets and exist for the sole purpose of clarifying the relationship followed.
- A special parameter called the Parent Relationship Selector is added to the child entity. For example, Relation has a Type parameter with possible values of SOURCE or TARGET. This parameter determines the relationship between the Relation and the parentAsset.

The following example shows the query going two levels deep.

### **JSON**

```
"ViewConfig": {
  "Resources": {
    "Asset": {
      "Id": { "name": "id" },
      "Signifier": { "name": "name" },
      "Relation": {
        "type": "SOURCE",
        "TargetAsset": {
          "Id": { "name": "relatedAssetLevelOneId" },
          "Signifier": { "name": "relatedAssetLevelOne" },
          "Relation": {
            "type": "TARGET",
            "SourceAsset": {
              "Id": { "name": "relatedAssetLevelTwoId" },
              "Signifier": { "name": "relatedAssetLevelTwo" }
          }
        }
      }
   }
 }
}
```

```
YAML
ViewConfig:
 Resources:
   Asset:
      Id:
       name: "id"
      Signifier:
       name: "name"
      Relation:
       type: "SOURCE"
       TargetAsset:
          Id:
            name: "relatedAssetLevelOneId"
          Signifier:
           name: "relatedAssetLevelOne"
          Relation:
            type: "TARGET"
            SourceAsset:
               name: "relatedAssetLevelTwoId"
              Signifier:
               name: "relatedAssetLevelTwo"
```

These special parameters and custom entity names only exist for a fraction of the available entities. For a complete list, see Entities, properties and relations.

Note To reduce the number of assets returned, the query example above is not filtered. Filtering would return a large amount of data and impact performance.

# Page the results

The Output Module also supports paging the results for the root node of the query. You can specify an offset and a length parameter to limit the results to a subset of the complete list.

| JSON key      | Default<br>value | Description   |
|---------------|------------------|---|
| displayStart  | 0                | The offset in the list of results. This offset is a zero-based index value.   |
| displayLength | -1               | The maximum total number of results to return. A negative value means unlimited.  |
| maxCountLimit | -1               | The maximum count value. A count of all records can lead to performance problems. When paging, you can limit the max count to this value. Passing 0 means no count is done. |

### **JSON**

```
"ViewConfig": {
    "displayStart": 10,
    "displayLength": 5,
    "maxCountLimit": 10000,
    "Resources": {
        "Community": {
            "Id": { "name": "communityId" },
            "Name": { "name": "communityName" },
            "Description": { "name": "communityDescription" },
            "Order": [ { "Field": { "name": "communityName",
            "order": "ASC" } } ]
        }
    }
}
```

### YAML ViewConfig: displayStart: 10 displayLength: 5 maxCountLimit: 10000 Resources: Community: name: "communityId" Name: name: "communityName" Description: name: "communityDescription" Order: Field: name: "communityName" order: "ASC"

The example query above selects page 3 of all communities, with five results per page.

#### Note

- Paged results should always be sorted, otherwise the results might seem inconsistent from page to page.
- The paged results list is recalculated upon each request.
- All entities that have been added or removed will appear/disappear from the list, modifying the indexes of the elements in the results list.
- The Collibra Console allows limiting the number of results returned by queries. The values range from 10 000 to 100 000. If enabled, and the limit is set, then:
  - The default displayLength value (-1) is overwritten by the limit set through the console.
  - If the displayLength set in the ViewConfig/TableViewConfig is larger than the limit value set in the Collibra Console, an exception is thrown.

# Map the results to a tabular format

The Output Module supports a tabular output format and uses a different kind of ViewConfig, called TableViewConfig. TableViewConfig has a Columns mapping

section that assigns each selected field to a column. The previous examples use the <code>ViewConfig</code> as input to the API to produce a JSON tree format.

The following example uses TableViewConfig. This is available under the same { {domain} } / rest/2.0/outputModule/export/json endpoint, just using the TableViewConfig as the JSON payload.

```
YAML
TableViewConfig:
 displayLength: 5
  displayStart: 10
 Resources:
    Community:
      Id:
        name: "communityId"
      Name:
        name: "communityName"
      Description:
       name: "communityDescription"
  Columns:
    Column:
      fieldName: "communityId"
    Column:
      fieldName: "communityName"
    Column:
      fieldName: "communityDescription"
```

When formatted, this query produces an array of rows, each containing the requested columns.

```
"communityId": "12345678-0008-0000-0000-
00000000000",
            "communityName": "Simple Community 8",
            "communityDescription": ""
        },
            "communityId": "12345678-0009-0000-0000-
000000000000",
            "communityName": "Simple Community 9",
            "communityDescription": ""
        },
            "communityId": "12345678-0010-0000-0000-
000000000000",
            "communityName": "Simple Community 10",
            "communityDescription": ""
        }
    ]
}
```

Note Because the Columns mapping determines what should be returned, setting hidden: true on a property has no effect in a TableViewConfig.

In the following example, the "displayLength" value is set to 0. This query shows the number of entities without retrieving actual results.

Note The JSON Data Table output contains the total number of available records in Collibra for this query, which is iTotalDisplayRecords. It also contains the number of records returned in this set, which is iTotalRecords.

```
"iTotalDisplayRecords": 48,
  "iTotalRecords": 0,
  "aaData": []
}
```

You can use the TableViewConfig queries with the following endpoints:

```
    {{domain}}/rest/2.0/outputModule/export/{{json | csv}}
    {{domain}}/rest/2.0/outputModule/export/{{json | csv | excel}}-file
```

{{domain}}/rest/2.0/outputModule/export/{{json | csv | excel}}job

### Handling to-many results in a tabular format

You can select all assets from a domain together with their Note attributes. Each asset may have multiple notes. When there are multiple notes, the most recent note should be ordered at the top of the list.

The TableViewConfig may look similar to the example below.

```
JSON
  "TableViewConfig": {
    "Resources": {
      "Asset": {
        "Id": { "name": "assetId" },
        "Signifier": { "name": "assetName" },
        "StringAttribute": {
          "LongExpression": { "name": "note" },
          "CreatedOn": { "name": "noteCreatedOn" },
          "Order": [ { "Field": { "name": "noteCreatedOn",
"order": "DESC" } } ]
        },
        "Domain": {
          "Id": { "name": "domainId" }
        "Filter": { "Field": { "name": "domainId", "operator":
"EQUALS", "value": "f342423f-54fd-4643-935b-adbd9e7f5e25" } },
        "Order": [ { "Field": { "name": "assetName" } } ]
    },
    "Columns": [
      { "Column": { "fieldName": "assetId" } },
      { "Column": { "fieldName": "assetName" } },
      { "Column": { "fieldName": "note" } }
    1
 }
}
```

```
YAML
TableViewConfig:
 Resources:
   Asset:
      Id:
       name: "assetId"
      Signifier:
       name: "assetName"
      StringAttribute:
       LongExpression:
         name: "note"
        CreatedOn:
         name: "noteCreatedOn"
        Order:
          Field:
            name: "noteCreatedOn"
            order: "DESC"
      Domain:
        Id:
         name: "domainId"
      Filter:
        Field:
          name: "domainId"
          operator: "EQUALS"
          value: "f342423f-54fd-4643-935b-adbd9e7f5e25"
      Order:
        Field:
         name: "assetName"
  Columns:
    Column:
     fieldName: "assetId"
   Column:
     fieldName: "assetName"
    Column:
      fieldName: "note"
```

Depending on the format requested, the results might be different. In Excel or CSV format, each asset is duplicated on a new row for each note value.

|   | A                                    | В               | С                  | D |
|---|--------------------------------------|-----------------|--------------------|---|
| 1 | termrld                              | termName        | note               |   |
| 2 | c20d5b39-6c5d-411b-adcb-82a1dd3851cc | Business Term 1 | Second Note        |   |
| 3 | c20d5b39-6c5d-411b-adcb-82a1dd3851cc | Business Term 1 | First note         |   |
| 4 | 1a6a8f73-43b0-4a29-84c3-baaa3467be70 | Business Term 2 | Single note on BT2 |   |
| 5 | 7329349e-0631-41a7-a740-738979d887c6 | Business Term 3 | Single Note on BT3 |   |
| 6 |                                      |                 |                    |   |

This is similar to using SQL queries to join two tables with a one-to-many relationship. Unlike SQL, if you select an asset with two notes and three responsibilities, the asset would use three lines of the Excel table, not six, and the third row in the note column would be empty.

JSON format, on the other hand, does not add duplicate rows to the results. Instead, it returns the first note found and discards the other notes.

```
Example "First note" is missing for "Business Asset 1"
   {
       "iTotalDisplayRecords": 3,
       "iTotalRecords": 3,
       "aaData": [
                "assetId": "c20d5b39-6c5d-411b-adcb-
   82a1dd3851cc",
                "assetName": "Business Term 1",
                "note": "Second Note"
           },
                "assetId": "1a6a8f73-43b0-4a29-84c3-
  baaa3467be70",
                "assetName": "Business Term 2",
                "note": "Single note on BT2"
           },
           {
               "assetId": "7329349e-0631-41a7-a740-
   738979d887c6",
                "assetName": "Business Term 3",
                "note": "Single Note on BT3"
       ]
```

For tabular formats that do not duplicate rows, you can add the Group mapping construct to the Columns section.

#### **JSON**

```
"TableViewConfig": {
    "Resources": {
      "Asset": {
        "Id": { "name": "assetId" },
        "Signifier": { "name": "assetName" },
        "StringAttribute": {
          "LongExpression": { "name": "note" },
          "CreatedOn": { "name": "noteCreatedOn" },
          "Order": [ { "Field": { "name": "noteCreatedOn",
"order": "DESC" } } ]
        },
        "Domain": {
         "Id": { "name": "domainId" }
        "Filter": { "Field": { "name": "domainId", "operator":
"EQUALS", "value": "f342423f-54fd-4643-935b-adbd9e7f5e25" } },
        "Order": [ { "Field": { "name": "assetName" } } ]
     }
    },
    "Columns": [
      { "Column": { "fieldName": "assetId" } },
      { "Column": { "fieldName": "assetName" } },
      {
        "Group": {
          "name": "Notes",
          "Columns": [
            { "Column": { "fieldName": "note" } }
     }
   1
  }
}
```

### **YAML**

```
TableViewConfig:
 Resources:
   Asset:
      Id:
       name: "assetId"
      Signifier:
       name: "assetName"
      StringAttribute:
       LongExpression:
         name: "note"
        CreatedOn:
         name: "noteCreatedOn"
        Order:
          Field:
            name: "noteCreatedOn"
            order: "DESC"
      Domian:
        Id:
         name: "domainId"
      Filter:
        Field:
         name: "domainId"
          operator: "EQUALS"
         value: "f342423f-54fd-4643-935b-adbd9e7f5e25"
      Order:
       Field:
         name: "assetName"
  Columns:
   Column:
     fieldName: "assetId"
   Column:
     fieldName: "assetName"
   Group:
     name: "Notes"
     Columns:
       Column:
         fieldName: "note"
```

A Group mapping allows grouping multiple results for a single parent. A Group must receive a user-defined name that will be used when formatting the results.

```
{
    "iTotalDisplayRecords": 3,
    "iTotalRecords": 3,
    "aaData": [
            "assetId": "c20d5b39-6c5d-411b-adcb-82a1dd3851cc",
            "assetName": "Business Term 1",
            "Notes": [
                     "note": "Second Note"
                },
                    "note": "First note"
            ]
        } ,
            "assetId": "1a6a8f73-43b0-4a29-84c3-baaa3467be70",
            "assetName": "Business Term 2",
            "Notes": [
                     "note": "Single note on BT2"
            ]
        },
            "assetId": "7329349e-0631-41a7-a740-738979d887c6",
            "assetName": "Business Term 3",
            "Notes": [
                    "note": "Single Note on BT3"
            ]
        }
   ]
}
```

#### Note

Here are some rules about Group:

- Group mappings cannot be nested, a Group defined within a Group is not supported.
- All columns within a group must be related to the same parent entity.

### Set an execution timeout

Queries that run on complicated or large amounts of data may be slower than expected. Usually, the best approach is to paginate the results. In cases where the complexity or amount of data is unknown, a timeout can break up the execution. The Output Module can timeout, not only on the execution logic level, but also break running database queries to protect the database load from stress.

You can set a timeout for each <code>ViewConfig</code> and <code>TableViewConfig</code> execution on the main config level. Defining it in the body of the query is optional.

If a timeout is not set in the <code>ViewConfig</code> or <code>TableViewConfig</code>, then a default value is added. You can configure the default value in the Collibra console, the default setting is eight hours.

### Warning

- No single query may run longer than 24 hours, which is the maximum value.
- Pagination is recommended for queries that may run longer.
- Those values will significantly smaller in the next major release, so it would be prudent to think about pagination.
- If the queryTimeout is more than 24 hours, the system will overwrite it with the maximum 24-hour limit value.
- Important exceptions are the {{domain}}/rest/2.0/outputModule/export/{{csv | excel}}-job endpoints. Here, data is calculated in chunks, with the size of the chunk defined in the Collibra Console. A separate query calculates each chunk and the timeout value set in the TableViewConfig will be a timeout value calculation for that chunk.

| JSON key     | Minimum<br>value | Default value          | Maximum<br>value | Description   |
|--------------|------------------|------------------------|------------------|---|
| queryTimeout | 1 minute         | 8 hours (configurable) | 24 hours         | Timeout in number of seconds that computation of the output can last. No decimal point allowed. Negative values are invalid. Zero means no timeout. Positive values will stop execution and return an error if the execution takes longer than the given number of seconds. |

Example of ViewConfig with a timeout set:

### **JSON**

```
"ViewConfig": {
  "queryTimeout": 5,
  "Resources": {
    "Domain": {
      "name": "d",
      "Name": {
        "name": "vocName"
      "Asset": {
        "name": "t",
        "Signifier": {
         "name": "assetName"
        "AssetType": {
          "name": "tt",
          "Name": {
            "name": "assetType"
   }
 }
}
```

```
YAML

---
ViewConfig:
    queryTimeout: 5
Resources:
    Domain:
        name: "d"
        Name:
            name: "vocName"
        Asset:
            name: "t"
        Signifier:
            name: "assetName"
        AssetType:
            name: "tt"
        Name:
            name: "assetType"
```

After the timeout is reached, the REST request will receive a response with HTTP error code 408. Instead of a results message, the body will contain a JSON with the error description.

## Structural validation of the query

Because writing ViewConfigs and TableViewConfigs is a tedious and error-prone task, the following endpoints allow using the validationEnabled parameter.

```
    {{domain}}/rest/2.0/outputModule/export/{{xml | json | csv}}
    {{domain}}/rest/2.0/outputModule/export/{{xml | json | csv | excel}}-file
    {{domain}}/rest/2.0/outputModule/export/{{xml | json | csv | excel}}-job
```

This parameter, when set to true, enables validation of the input ViewConfig/TableViewConfig. By default, the parameter value is set to false.

The example below shows a small typo in the filter. userID is used instead of userId. When you make a POST request to

{ {domain} } / rest/2.0/outputModule/export/json?validationEnabled=true, the following body results.

```
JSON
  "ViewConfig": {
   "displayLength": 5,
    "Resources": {
      "Community": {
        "Id": { "name": "communityId" },
        "Name": { "name": "community" },
        "Responsibility": {
          "Id":{ "name": "responsibilityId"},
          "User": {
            "Id": { "name": "userId" },
            "FirstName": { "name": "userName" }
          }
        "Filter": {"Field": {"name":"userID", "Operator":"NOT
NULL" } }
    }
 }
}
```

```
YAML
ViewConfig:
 displayLength: 5
 Resources:
   Community:
      Id:
       name: "communityId"
     Name:
       name: "community"
     Responsibility:
       Id:
         name: "responsibilityId"
        User:
          Id:
           name: "userId"
          FirstName:
           name: "userName"
      Filter:
       Field:
          name: "userID"
          Operator: "NOT_NULL"
```

The response will be similar to the example below.

### Chapter 5

# API endpoints and query formats

The available rest API endpoints URL are:

- {{domain}}/rest/2.0/outputModule/export/{{format}}
- {{domain}}/rest/2.0/outputModule/export/{{format}}-file
- {{domain}}/rest/2.0/outputModule/export/{{format}}-job

The available formats are XML, JSON, CSV and Excel.

# In this chapter

| Endpoints and formats                  | . 67 |
|--|------|
| ViewConfig/TableViewConfig and formats | .67  |
| Single query and multi-query           | 67   |

## **Endpoints and formats**

| Endpoint  | CSV | JSON | CSV | EXCEL |
|---|-----|------|-----|-------|
| <ul><li>{{domain}}/rest/2.0/outputModule/export/<br/>{{format}}</li></ul> | YES | YES  | YES | NO    |
| • {{domain}}/rest/2.0/outputModule/export/<br>{{format}}-file             | YES | YES  | YES | YES   |
| • {{domain}}/rest/2.0/outputModule/export/<br>{{format}}-job              | YES | YES  | YES | YES   |

## ViewConfig/TableViewConfig and formats

| Format | Supports ViewConfig | Supports TableViewConfig |
|--------|---------------------|--------------------------|
| XML    | YES                 | NO                       |
| JSON   | YES                 | YES                      |
| CSV    | NO                  | YES                      |
| EXCEL  | NO                  | YES                      |

# Single query and multi-query

Multi-query endpoints have less chance to timeout because of execution time limits, and thus can be used for larger exports.

| Endpoint  | CSV    | JSON   | CSV    | EXCEL  |
|---|--------|--------|--------|--------|
| {{domain}}/rest/2.0/outputModule/expor t/{{format}} | SINGLE | SINGLE | SINGLE | SINGLE |

#### Chapter 5

| Endpoint   | CSV    | JSON   | CSV    | EXCEL  |
|--|--------|--------|--------|--------|
| {{domain}}/rest/2.0/outputModule/expor t/{{format}}-file | SINGLE | SINGLE | SINGLE | SINGLE |
| {{domain}}/rest/2.0/outputModule/expor t/{{format}}-job  | SINGLE | SINGLE | MULTI  | MULTI  |

## Entities, properties and relations

### **Entity**

Entity is the base abstract class of all other entities. An abstract entity cannot be queried, thus Entity cannot be used in the query tree.

#### **Properties**

| id | Text (36) | Universally unique identifier |
|----|-----------|-------------------------------|
|    |           | (UUID).                       |

### Resource

#### **Extends Entity**

Resource is an abstract entity, which is the base class of most other entities. Most other entities share the following properties and relations. An abstract entity cannot be queried, thus Resource cannot be used in the query tree.

| Properties         |        |  |
|--------------------|--------|--|
| createdOn          | Number | Creation date (# milliseconds since 1/1/1970). |
| createdOnTimestamp | Number | Creation date (# milliseconds since 1/1/1970). |

| createdBy             | Text        | Id of the user who created this Resource.  |
|-----------------------|-------------|--|
| lastModified          | Number      | Last modification date (# milliseconds since 1/1/1970).  |
| lastModifiedTimestamp | Number      | Last modification date (# milliseconds since 1/1/1970).  |
| lastModifiedBy        | Text        | Id of the last user who modified this resource.  |
| system                | Boolean     | Is this resource reserved by the system.   |
|                       | Relations   |  |
| User                  | Many-to-one | <ul> <li>the user who created the resource.</li> <li>the user who last modified the resource.</li> <li>the user who created or last modified the resource. See User for details on specifying which kind of relationship is used.</li> </ul> |

# Representation

#### **Extends Resource**

Representation is an abstract entity, which is the base class for Asset. All assets share the following relationships. An abstract entity cannot be queried, thus Representation cannot be used in the query tree.

#### **Properties**

| 1                        |             |  |
|--------------------------|-------------|--|
|                          | Relations   |  |
| Status                   | Many-to-One | The current status of the representation.                          |
| Domain                   | Many-to-One | The domain containing the representation.                          |
| AssetType                | Many-to-One | The AssetType of the representation.                               |
| Attribute                | One-to-Many | The collection of attributes in the representation.                |
| StringAttribute          | One-to-Many | The collection of StringAttributes in the representation.          |
| ScriptAttribute          | One-to-Many | The collection of ScriptAttributes in the representation.          |
| SingleValueListAttribute | One-to-Many | The collection of SingleValueListAttributes in the representation. |
| MultiValueListAttribute  | One-to-Many | The collection of MultiValueListAttributes in the representation.  |
| BooleanAttribute         | One-to-Many | The collection of BooleanAttributes in the representation.         |

| NumericAttribute  | One-to-Many | The collection of NumericAttributes in the representation.  |
|-------------------|-------------|---|
| DateTimeAttribute | One-to-Many | The collection of DateTimeAttributes in the representation. |
| DateAttribute     | One-to-Many | The collection of DateAttributes in the representation.     |

# Organization

#### Extends Resource

Represents the hierarchy of organizations available in Collibra.

| Properties         |            |   |  |
|--------------------|------------|---|--|
| name               | Text (255) | The name of the organization.   |  |
| description        | Text       | The description of the organization.  |  |
| uri                | Text (255) | The URI of the organization.  |  |
| language           | Text(255)  | The name of the language used.  |  |
| meta               | Boolean    | Indicates if the community is related to the meta model, such as a hidden organization. |  |
| hasNonMetaChildren | Boolean    | Indicates if the organization contains non-meta subcommunities or domains.              |  |

| hasNonMetaChildCommunity | Boolean            | Indicates if the organization contains non-meta communities.                    |  |  |
|--------------------------|--------------------|---|--|--|
| organizationType         | Text               | Indicates if the organization is a community ("C") or a domain ("D")            |  |  |
|                          | Relat              | ions  |  |  |
| ParentCommunity          | Many-to-<br>One    | The parent community of this organization. Null for root communities. Optional. |  |  |
| Community                | One-to-<br>Many    | The collection of subcommunities.   |  |  |
| Domain                   | One-to-<br>Many    | The collection of vocabularies contained in the organization.                   |  |  |
| Responsibility           | One-to-<br>Many    | The collection of responsibilities playing a role in the organization.          |  |  |
| SubCommunities           | One-to-<br>Many    | The collection of domains contained in the community.                           |  |  |
| Comment                  | One-to-<br>Many    | The collection of comments contained in the community.                          |  |  |
| Asset                    | One-to-<br>Many    | The collection of assets contained in the community.                            |  |  |
| DomainType               | One-to-<br>Many    | The type of domain.   |  |  |
| Mapping                  | One-to-<br>Many    | The collection of mappings corresponding to this domain.                        |  |  |
|                          | Filtering Property |   |  |  |

| rootCommunity | Boolean | When true, the query engine adds a filter retaining only root communities. Only available when the community is also root of the query tree. |
|---------------|---------|--|
|---------------|---------|--|

### Community

**Extends Organization** 

Exact synonym of an organization but with default filtering on organizationType equal to "C"

## **ParentCommunity**

**Extends Community** 

Exact synonym of a community. It can only be used as a child of the community to disambiguate the relationship followed.

### **Domain**

**Extends Organization** 

Synonym of an organization but with default filtering on organizationType equal to "D" and with overridden relation for Community

| Relations |             |                       |
|-----------|-------------|-----------------------|
| Community | Many-to-One | The parent community. |

# DomainType

#### **Extends Resource**

Each domain has a Domain Type.

| Properties       |                 |   |  |
|------------------|-----------------|---|--|
| signifier        | Text (255)      | Text (255) The name of the DomainType.  |  |
| name             |                 | Synonym for signifier.  |  |
| description      | Text            | The description of the DomainType.  |  |
| meta             | Boolean         | Indicates if the DomainType is related to the Collibra meta model.            |  |
|                  |                 | Relations   |  |
| Domain           | One-to-<br>Many | The collection of domain instances of the DomainType.                         |  |
| DomainType       | Many-to-<br>One | The parent DomainType of the DomainType. Null for root DomainTypes. Optional. |  |
| ChildDomainTypes | One-to-<br>Many | The collection of DomainType children.  |  |

# ChildDomainTypes

Extends DomainType Collection of DomainType

Exact synonym of DomainType. Can only be used as a child of DomainType to disambiguate the relationship followed.

# RelationType

#### Extends Resource

A RelationType defines a class of relationship between two AssetTypes, also called AssetTypes.

| Properties      |             |   |
|-----------------|-------------|---|
| role            | Text        | The label of the relation when followed from head to tail.  |
| corole          | Text        | The label of the reversed relation, when followed from tail to head.  |
| description     | Text        | The description of the RelationType.  |
| Relations       |             |   |
| Relation        | One-to-Many | The collection of relation instances with this RelationType.  |
| SourceAssetType | Many-to-One | The AssetType that is head of the RelationType. SourceAssetType is a synonym of AssetType and clarifies which path is followed from the Relation entity to its child. In this case, the child node is the head.     |
| TargetAssetType | Many-to-One | The AssetType that is the tail of the RelationType. TargetAssetType is a synonym of AssetType and clarifies which path is followed from the Relation entity to its child. In this case, the child node is the tail. |

| Parent Relationship Selector |  |  |
|------------------------------|--|--|
| type                         | This parameter allows specifying which path should be followed from the parent AssetType entity to the RelationType. The possible values are either HEAD or TAIL, which tells whether the parent AssetType is the head or the tail of the RelationType. The default value is HEAD. |  |

## Relation

#### **Extends Resource**

 $\label{eq:Assets} A \, \text{Relation links two} \, \text{Assets together}.$ 

| Properties   |             |  |
|--------------|-------------|--|
| startingDate | Number      | The optional start date for this relation. |
| endingDate   | Number      | The optional end date for this relation.   |
| isGenerated  | Boolean     | True if this relation was generated.       |
|              | Relations   |  |
| RelationType | Many-to-One | The type of this relation.                 |
| SourceAsset  | Many-to-One | The source asset of this relation.         |
| TargetAsset  | Many-to-One | The target asset of this relation.         |

Parent relationship selector. Only if the parent is a asset node or is of type inheriting from an asset node.

| type   | This parameter allows specifying which path should be followed from the parent asset entity to this relation. The possible values are either SOURCE or TARGET, which tells whether the parent asset is the source or target of the relation. This parameter is mandatory because there is no default value. |
|--------|---|
|        | Filtering Property  |
| typeld | Allows filtering relations using the ld value of their related RelationType.  |

| ComplexRelation   |               |                                    |
|---|---------------|------------------------------------|
|   | Extends Asset |                                    |
| A ComplexRelation is an anonymous asset, whose signifier, or name, has been generated.            |               |                                    |
|   | Properties    |                                    |
| 1   |               |                                    |
|   | Relations     |                                    |
| ComplexRelationType   | Many-to-One   | The type of this complex relation. |
| Filtering Property  |               |                                    |
| typeId Allows filtering ComplexRelations using the Id value of their related ComplexRelationType. |               |                                    |
| Additional Parameters   |               |                                    |

| separator | The character to be used to separate related asset names in an Excel or CSV export. |  |
|-----------|---|--|
| quote     | The character to be used to quote related asset names in an Excel or CSV export.    |  |

# ComplexRelationType

#### Extends AssetType

 $\label{lem:appendix} A \ {\tt ComplexRelationType} \ \ \textbf{determines} \ \ \textbf{the type of a} \ {\tt ComplexRelation}.$ 

#### **Properties**

/

| Relations                    |           |  |
|------------------------------|-----------|--|
| ComplexRelation              | OneToMany | The collection of ComplexRelation instances with the ComplexRelationType.            |
| ComplexRelationLegType       | OneToMany | The collection of ComplexRelationLegTypes linked to the ComplexRelationType.         |
| ComplexRelationAttributeType | OneToMany | The collection of Com- plexRelationAttributeTypes linked to the ComplexRelationType. |

## ComplexRelationLegType

#### Extends Resource

A ComplexRelationLegType is a RelationType used in the context of a ComplexRelationType. The SourceAssetType of those RelationTypes of the ComplexRelationType. It can only be used as a child of ComplexRelationType.

| Properties   |             |  |
|--------------|-------------|--|
| min          | Number      | The minimum occurrences of this RelationType in the ComplexRelationType. |
| max          | Number      | The maximum occurrences of this RelationType in the ComplexRelationType. |
| legOrder     | Number      | Order of this ComplexRelationLegType in the ComplexRelationType.         |
| Relations    |             |  |
| RelationType | Many-to-One | The RelationType of the ComplexRelationLegType.                          |

### ComplexRelationAttributeType

#### Extends Resource

A ComplexRelationAttributeType is an AttributeType used in the context of a ComplexRelationType.

Can only be used as a child of  ${\tt ComplexRelationType}.$ 

| Properties     |             |   |
|----------------|-------------|---|
| min            | Number      | The minimum occurrences of this AttributeType in the ComplexRelationType. |
| max            | Number      | The maximum occurrences of this AttributeType in the ComplexRelationType. |
| readOnly       | Boolean     | Indicates if the attribute can be edited or not.                          |
| attributeOrder | Number      | Order of this ComplexRelationAttributeType in the ComplexRelationType.    |
| Relations      |             |   |
| AttributeType  | Many-to-One | The AttributeType of this ComplexRelationAttributeType.                   |

### **Asset**

#### **Extends Representation**

An  ${\tt Asset}$  is the basic building block capturing information about the assets available in Collibra.

| Properties        |             |   |
|-------------------|-------------|---|
| signifier         | Text (2000) | The full name of the asset.                               |
| displayName       | Text (2000) | The display name of the asset.                            |
| articulationScore | Number      | Result of the last calculation of the articulation score. |

| hasChildrenForRelation Boolean (deprecated) |             | Virtual calculated property indicating if this asset has children for the relation type defined at the query level. This property takes two additional parameters:  • the RelationType • direction (role or co-role) |
|---|-------------|--|
|   |             | For example:   |
|   |             | "HasChildrenForRelation": {     "name": "hasChildren",     "relationTypeId": "00000000-0000-0000-0000- 000000007005",     "roleDirection": true }  |
|   |             | It can only be used if Asset is a root node of the query. It is not inherited by nodes extending the Asset node.   |
| avgRating                                   | Number      | Average value of all ratings assigned to the asset.  |
| ratingsCount                                | Number      | Number of all ratings signed to the asset.   |
| class                                       | Text        | With other entities that extend the asset, can be used to differentiate amongst the various subclasses.  |
|   | Rela        | tions  |
| Relation                                    | One-to-Many | The collection of relations this asset has. See Relation for a mandatory type parameter.   |

| Responsibility | One-to-Many  | The collection of responsibilities this asset has. |
|----------------|--------------|--|
| Mapping        | One-to-Many  | The related mappings.                              |
| Tag            | Many-to-Many | The collection of tags associated with this asset. |

#### Filtering Property

#### rootOfRelation

An array relation types/direction pairs. Root assets are not the child of any of the relations.

#### For example:

### SourceAsset

#### **Extends Asset**

Exact synonym of Asset. It can only be used as a child of relation to disambiguate the relationship followed.

### **TargetAsset**

#### **Extends Asset**

Exact synonym of Asset. It can only be used as a child of a relation to disambiguate the relationship followed.

### SourceAssetType

#### Extends AssetType

Exact synonym of AssetType. It can only be used as a child of RelationType to disambiguate the relationship followed.

### TargetAssetType

Extends AssetType

Exact synonym of AssetType.

Can only be used as a child of RelationType to disambiguate the relationship followed.

### AssetType

Extends Resource

A AssetType, also called AssetType, determines the type of asset, which is an Asset

| _ |     |   |                  | - | $\boldsymbol{\mathcal{L}}$ | c |
|---|-----|---|------------------|---|----------------------------|---|
|   | 'no |   |                  |   |                            |   |
|   |     | _ | $\mathbf{\circ}$ |   | •                          | • |
|   |     |   |                  |   |                            |   |

signifier Text (255) The name of this AssetType.

| name               |                 | Synonym for signifier.   |
|--------------------|-----------------|--|
| description        | Text            | The description of the AssetType.  |
| meta               | Boolean         | Is the AssetType related to the Collibra meta model.   |
| color              | Text            | The color of the AssetType.  |
| icon               | Text            | The icon of the AssetType.   |
| acronym            | Text            | The acronym of the AssetType   |
| symbolType         | Text            | Defines the icon or acronym used in Collibra.  Possible values are: ICON, ACRONYM and  NONE. |
| displayNameEnabled | Boolean         | Indicates if the display name is enabled for all assets of this AssetType.                   |
| ratingEnabled      | Boolean         | Are ratings enabled for all assets of this AssetType.  |
|                    | F               | Relations  |
| Asset              | One-to-<br>Many | The collection of instances of this AssetType.   |
| AssetType          | Many-to-<br>One | The parent AssetType of this AssetType.  |
| ChildAssetTypes    | One-to-<br>Many | The collection of concept types that have this AssetType as parent.                          |

## ChildAssetTypes

# Extends AssetType Collection of AssetType

Can only be used as a child of  ${\tt AssetType}$  to disambiguate the relationship followed.

The ComplexRelationType, despite inheriting from AssetType, does not support ChildAssetTypes node.

### **Attribute**

#### **Extends Resource**

Attribute represents an attribute linked to a representation.

| Properties   |                                    |  |  |
|--|------------------------------------|--|--|
| value  | Text                               | The text value of this attribute.  |  |
| class  | Text                               | With other entities, extends attribute. You may use the class qualifier to differentiate between the various subclasses. |  |
| Relations  |                                    |  |  |
| AttributeType  | Many-to-One The type of attribute. |  |  |
| Asset  | Many-to-One                        | The asset to which the attribute belongs.  |  |
| Filtering Property   |                                    |  |  |
| Allows filtering the attributes based on the Id of their related Attributes uteType. |                                    |  |  |

# StringAttribute

#### **Extends Attribute**

A StringAttribute is an attribute dedicated to text values.

#### **Properties**

| longExpression | Text | The unbounded text value. Obsolete, but returns the |
|----------------|------|---|
|                |      | same content as Attribute: value.                   |

### ScriptAttribute

#### **Extends Attribute**

A ScriptAttribute is an attribute dedicated to script values.

#### **Properties**

Script Text The script. Obsolete, but returns the same content as Attribute: value.

# SingleValueListAttribute

#### **Extends Attribute**

A SingleValueListAttribute is an attribute dedicated to storing a single value selected from a list.

### MultiValueListAttribute

#### **Extends Attribute**

A MultiValueListAttribute is an attribute dedicated to storing multiple values selected from a list.

| Properties |      |                     |
|------------|------|---------------------|
| values     | Text | The multiple values |

### BooleanAttribute

#### **Extends Attribute**

A BooleanAttribute is an attribute dedicated to Boolean values.

#### **Properties**

booleanValue Boolean The value

### **NumericAttribute**

#### **Extends Attribute**

A NumericAttribute is an attribute dedicated to numeric values.

#### **Properties**

numericValue Number The stored number.

### DateTimeAttribute

#### **Extends Attribute**

A DateTimeAttribute is an attribute dedicated to date values that also keep track of time.

|          |        | Properties   |
|----------|--------|--|
| dateTime | Number | The date and time values expressed as the number of milliseconds since 1/1/1970. |

### **DateAttribute**

#### **Extends Attribute**

A DateAttribute is an attribute dedicated to date values.

| Properties |        |  |  |
|------------|--------|--|--|
| date       | Number | The date value expressed as the number of milliseconds since 1/1/1970. |  |
| timestamp  | Number | The date value expressed as the number of milliseconds since 1/1/1970. |  |

## AttributeType

#### **Extends Resource**

The AttributeType determines the type of an attribute.

#### **Properties**

| signifier     | Text(255)       | The name of the AttributeType.   |  |
|---------------|-----------------|--|--|
| name          |                 | Synonym for signifier.   |  |
| description   | Text            | The description of this AttributeType.   |  |
| attributeKind | Text(255)       | The AttributeType kind. The possible values are: BOOLEAN, STRING, NUMERIC, DATE, DATE_TIME, SINGLE_VALUE_LIST, MULTI_VALUE_LIST and SCRIPT.        |  |
| language      | Text(255)       | The name of the language used. The kind is SCRIPT.   |  |
| isInteger     | Boolean         | Indicates if the AttributeType defines an integer or decimal. If true, it defines an integer. If false, it defines a decimal. The kind is NUMERIC. |  |
| allowedValues | Text            | Comma separated list of values. The kind is SINGLE_<br>VALUE_LIST or MULTI_VALUE_LIST.   |  |
| Relations     |                 |  |  |
| Attribute     | One-to-<br>Many | The collection of Attributes of this type  |  |

### User

#### **Extends Resource**

Represents Collibra users. Any resource has a creation date and the last modification date. Collibra also stores which user made each of these operations. The User entity is related to all types as the creator and/or last modifier of the entity.

| Properties                   |  |  |  |
|------------------------------|--|--|--|
| userName Text The user name. |  |  |  |

| firstName               | Text         | The first name.  |
|-------------------------|--------------|--|
| lastName                | Text         | The last name.   |
| fullName                | Text         | Virtual property containing the first and last name together, which is useful for filters. |
| gender                  | Text         | The gender.  |
| language                | Text         | The user language.   |
| activated               | Boolean      | Indicates if the user is activated.  |
| IdapUser                | Boolean      | Indicates if the user is a LDAP User.  |
| apiUser (deprecated)    | Boolean      | Indicates if this is an API user.  |
| enabled                 | Boolean      | Indicates if the user is enabled.  |
| emailAddress            | Text         | The user's primary email address.  |
| guest                   | Boolean      | Indicates if this is a guest user.   |
|                         | Relations    |  |
| Email                   | Many-to-Many | The collection of emails owned by the user.  |
| Phone                   | Many-to-Many | The collection of phone numbers owned by the user.   |
| InstantMessagingAccount | Many-to-Many | The collection of InstantMes-sagingAccount accounts owned by this user.                    |

| Website         | Many-to-Many | The collection of websites owned by the user.                              |
|-----------------|--------------|--|
| Address         | Many-to-Many | The collection of addresses owned by the user.                             |
| Community       | One-to-Many  | The collection of communities created or last modified by the user.        |
| Domain          | One-to-Many  | The collection of vocabularies created or last modified by the user.       |
| DomainType      | One-to-Many  | The collection of DomainTypes created or last modified by the user.        |
| RelationType    | One-to-Many  | The collection of RelationType created or last modified by the user.       |
| Relation        | One-to-Many  | The collection of relations created or last modified by the user.          |
| ComplexRelation | One-to-Many  | The collection of Com- plexRelations created or last modified by the user. |
| Asset           | One-to-Many  | The collection of assets created or last modified by the user.             |
| AssetType       | One-to-Many  | The collection of AssetTypes created or last modified by the user.         |
| Attribute       | One-to-Many  | The collection of attributes created or last modified by the user.         |

| StringAttribute          | One-to-Many | The collection of StringAt-<br>tributes created or last modified<br>by the user.    |
|--------------------------|-------------|---|
| ScriptAttribute          | One-to-Many | The collection of ScriptAttributes created or last modified by the user.            |
| SingleValueListAttribute | One-to-Many | The collection of SingleValueListAttributes created or last modified by the user.   |
| MultiValueListAttribute  | One-to-Many | The collection of  MultiValueListAttributes  created or last modified by the  user. |
| BooleanAttribute         | One-to-Many | The collection of BooleanAt-<br>tributes created or last modified<br>by the user.   |
| NumericAttribute         | One-to-Many | The collection of Numer-<br>icAttributes created or last<br>modified by the user.   |
| DateTimeAttribute        | One-to-Many | The collection of DateTimeAt-<br>tributes created or last modified<br>by the user.  |
| DateAttribute            | One-to-Many | The collection of DateAt- tributes created or last modified by the user.            |
| AttributeType            | One-to-Many | The collection of Attrib-<br>uteTypes created or last modified<br>by this user.     |

| User                          | One-to-Many  | The collection of users created or last modified by this user.                                   |
|-------------------------------|--------------|--|
| Group                         | Many-to-Many | The collection of groups to which this user belongs.   |
| Responsibility                | One-to-Many  | The collection of responsibilities linking this user to a role on an asset, domain or community. |
| Role                          | One-to-Many  | The collection or roles created or last modified by this user.                                   |
| Status                        | One-to-Many  | The collection of statuses created or last modified by the user.                                 |
| WorkflowTaskInfo (deprecated) | One-to-Many  | The collection of Work- flowTaskInfos created or last modified by the user.                      |
| Mapping                       | One-to-Many  | The collection of mappings created or last modified by the user.                                 |
| Parent Relationship Selector  |              |  |

#### linkType

This parameter allows specifying the path that should be followed from the parent resource to a user. When the parent resource is responsibility or group, <code>linkType</code> is not used and the relationship defined for responsibility or group is used. When a user is the parent node, <code>linkType</code> determines the relationship with the child resources that have a created or last modified kind of relationship. See relations above. The possible values are CREATED, MODIFIED, "CREATED\_OR\_MODIFIED or CREATED OR MODIFIED. CREATED\_OR\_MODIFIED is the default value, but can only be used when User is root of the query tree. CREATED\_OR\_MODIFIED turns into a simple CREATED when User is not the root of the query.

### **Email**

#### Extends Resource

Email represents one of the user's email addresses. It can only be used as a child of the user ser.

| Properties   |      |                    |
|--------------|------|--------------------|
| emailAddress | Text | The email address. |

### Phone

#### **Extends Resource**

Phone represents one of the user's phone numbers. It can only be used as a child of the user.

#### **Properties**

| phoneNumber | Text | The phone number.  |
|-------------|------|--|
| phoneType   | Text | The phone type: FAX, MOBILE, OTHER, PAGER, PRIVATE and WORK. |

# InstantMessagingAccount

#### Extends Resource

 ${\tt InstantMessagingAccount}\ represents\ one\ of\ the\ user's\ instant\ messaging\ account.$  It can only be used as a child of the user.

| Properties                  |      |  |
|-----------------------------|------|--|
| account                     | Text | The account id   |
| instantMessagingAccountType | Text | The instant messaging type: AOL, GTALK, ICQ, JABBER, LIVE_MESSENGER, SKYPE or YAHOO_MESSENGER. |

### Website

#### **Extends Resource**

Website represents one of the user's websites. It can only be used as a child of the user.

| Properties  |      |   |
|-------------|------|---|
| url         | Text | The URL of the website.   |
| websiteType | Text | The type of website: FACEBOOK, LINKEDIN, MYSPACE, TWITTER or WEBSITE. |

## Address

#### Extends Resource

Address represents one of the user's addresses. It can only be used as a child of the user.

| Properties  |      |                                 |
|-------------|------|---------------------------------|
| street      | Text | The street.                     |
| number      | Text | The street number.              |
| city        | Text | The city.                       |
| postalCode  | Text | The zip code.                   |
| state       | Text | The state.                      |
| country     | Text | The country.                    |
| addressType | Text | The address type: HOME or WORK. |

| Group                                   |                  |  |  |
|---|------------------|--|--|
|   | Extends Resource |  |  |
| A group is a named collection of users. |                  |  |  |
| Properties                              |                  |  |  |
| groupName Text The name of the group.   |                  |  |  |
| Relations                               |                  |  |  |

| User           | One-to-<br>Many | The users that are part of this group.  |
|----------------|-----------------|---|
| Responsibility | One-to-<br>Many | The collection of responsibilities linking this group to a role on an asset, domain or community. |

# Responsibility

#### **Extends Resource**

A responsibility links a user or group with a role on an asset, domain or community. Mutually exclusive.

#### **Properties**

/

| Relations |             |   |
|-----------|-------------|---|
| User      | Many-to-One | The related user. Empty if linked to a group. |
| Group     | Many-to-One | The related group. Empty if linked to a user. |
| Role      | Many-to-One | The related role.                             |
| Asset     | Many-to-One | The associated asset.                         |
| Domain    | Many-to-One | The associated domain.                        |
| Community | Many-to-One | The associated community.                     |
|           |             |   |

#### **Filtering Property**

| roleld | Allows filtering responsibilities using the Id property of the related role. |
|--------|--|
|        | Telated fole.  |

### Role

Extends Asset (deprecated)

The Role that a user plays. For example, Steward or Admin.

| Status                                       |                                    |  |  |  |
|--|------------------------------------|--|--|--|
|  | Extends Resource                   |  |  |  |
| The status of an asset.                      | The status of an asset.            |  |  |  |
| Properties                                   |                                    |  |  |  |
| signifier                                    | Text(255) The name of the status.  |  |  |  |
| description                                  | otion Text The status description. |  |  |  |
| Relations                                    |                                    |  |  |  |
| Asset One-to-Many The assets of this status. |                                    |  |  |  |

## WorkflowTaskInfo (deprecated)

**Extends Resource** 

WorkflowTaskInfo holds all information about an ongoing workflow task.

#### **Properties**

| description      | Text   | The description of the task.   |
|------------------|--------|--|
| title            | Text   | The title of the task.   |
| dueDate          | Number | The due date of the task expressed as the number of milliseconds since 1/1/1970. |
| itemResourceId   | Text   | The related item Id.   |
| itemResourceType | Text   | The related resource type.   |
| itemVerbalized   | Text   | The verbalized version of the related item.                                      |
| taskType         | Text   | The type of task.  |
| assignee         | Text   | The id of the assigned user.   |
| candidateUsers   | Text   | The ids or candidate users.  |
| domain           | Text   | The related domain Id.   |
| community        | Text   | The related community Id.  |
| status           | Text   | The status of the task.  |

# Mapping

#### **Extends Resource**

A Mapping links an externally defined entity, such as an asset or domain, to one entity.

| Properties  |      |  |
|-------------|------|--|
| extSystemId | Text | The identifier of the external system. |
| extEntityId | Text | The external identifier of the entity. |

| extEntityUrl | Text        | The external URL of the entity.                         |
|--------------|-------------|---|
| lastSyncDate | Number      | The last synchronization date.                          |
| syncAction   | Text        | The last synchronization action: ADD, UPDATE or REMOVE. |
| description  | Text        | Description of this mapping.                            |
|              | Re          | lations   |
| Asset        | Many-to-One | The related asset.                                      |
| Domain       | Many-to-One | The related domain.                                     |

| Tag  |              |                     |  |
|--|--------------|---------------------|--|
| Extends Resource   |              |                     |  |
| A Tag allows categorizing assets by adding one or more labels. |              |                     |  |
| Properties   |              |                     |  |
| name Text The name of the tag.                                 |              |                     |  |
| Relations  |              |                     |  |
| Asset  | Many-to-Many | The related assets. |  |

# DataQualityRule (deprecated)

**Extends Resource** 

A DataQualityRule describes the rules for the data quality of an asset.

| Properties  |  |   |
|---|--|---|
| name Text The name of the DataQualityRule.              |  |   |
| description Text The description of the DataQualityRule |  | The description of the DataQualityRule. |
| Relations   |  |   |

# Scope

#### **Extends Resource**

A  ${ t Scope}$  describes the scope of an assignment.

| Properties                                     |  |  |  |
|--|--|--|--|
| name Text The name of the scope.               |  |  |  |
| description Text The description of the scope. |  |  |  |
| Relations                                      |  |  |  |

### Comment

#### **Extends Resource**

Comment represents a single comment of a resource.

| Properties   |        |   |
|--------------|--------|---|
| content      | String | The content of this comment.                          |
| resourceType | String | A type of the resource to which this comment belongs. |

| Relations          |                 |   |
|--------------------|-----------------|---|
| ParentComment      | Many-to-<br>One | The parent comment of this comment.                                     |
| Comment            | One-to-<br>Many | List of subcomments of this comment                                     |
| Asset              | One-to-<br>One  | The asset to which this comment is linked.                              |
| Domain             | One-to-<br>One  | The domain to which this comment is linked.                             |
| Community          | One-to-<br>One  | The community to which this comment is linked.                          |
| Filtering property |                 |   |
| rootComment        | Boolean         | When true, the query engine adds a filter retaining only root comments. |

## **ParentComment**

**Extends Resource** 

ParentComment can only be used as a child of a comment to disambiguate the relationship followed.

# DataType (deprecated)

**Extends Entity** 

| A DataType is a Catalog entity that characterizes a data element's data type. |                 |   |
|---|-----------------|---|
|   |                 | Properties  |
| name  | Text            | The name of the type: Date or SSN.  |
| description   | Text            | Description of the type.  |
| class   | Text            | The class of DataTypes: BASE and ADVANCED.  |
| logicalDataType   | Text            | The corresponding logical data type used by the pro-<br>filing job. It is one of the base types.      |
| Relations   |                 |   |
| DataTypeMatch   | One-to-<br>Many | The related DataTypeMatches holding a specific percentage of match value for a Data Element instance. |

# AdvancedDataType (deprecated)

#### Extends DataType

An AdvancedDataType is an extension of one of the base DataTypes, for example, Text, Numeric or Date, that provides patterns that help the profiling job detect the Data Type.

| Properties      |             |   |
|-----------------|-------------|---|
| Relations       |             |   |
| DataTypePattern | One-to-Many | The patterns associated with this advanced data type. |

# DataTypePattern (deprecated)

#### **Extends Entity**

A DataTypePattern contains a pattern associated with an AdvancedDataType.

| Properties              |             |                               |  |
|-------------------------|-------------|-------------------------------|--|
| value Text The pattern. |             |                               |  |
| Relations               |             |                               |  |
| AdvancedDataType        | Many-to-One | The related AdvancedDataType. |  |

## DataTypeMatch (deprecated)

#### **Extends Entity**

A DataTypeMatch contains profiling results indicating the percentage of the actual data behind a DataElement asset that matches a DataType.

| Properties |             |                           |
|------------|-------------|---------------------------|
| percentage | Double      | The matching percentage.  |
| Relations  |             |                           |
| Asset      | Many-to-One | The related Data Element. |
| DataType   | Many-to-One | The matched DataType.     |

# BaseView (deprecated)

#### Extends Resource

An abstract entity base class of View and DiagramPicture.

| Properties   |         |  |
|--------------|---------|--|
| name         | Text    | The name of the baseView.  |
| description  | Text    | The description of the baseView.   |
| config       | Text    | The JSON config of the baseView.   |
| originalView | Text    | The ld of the original View of this base view, meaning the view from which this base view was created. |
| isDefault    | Boolean | Indicates if this is a default baseView.   |
| isPreferred  | Boolean | Indicates if this a preferred pinned baseView  |
| Relations    |         |  |

| View (deprecated)   |  |  |
|---------------------|--|--|
| Extends BaseView    |  |  |
| A view in Collibra. |  |  |
| Properties          |  |  |
| Relations           |  |  |

# DiagramPicture (deprecated)

#### Extends BaseView

A diagram illustration.

| Properties                |                  |   |  |
|---------------------------|------------------|---|--|
| svg                       | Text             | Text field containing an SVG representation of the diagram picture. |  |
| Relations                 |                  |   |  |
| View                      | Many-to-<br>One  | The view used to create ort take the picture.                       |  |
| DiagramPictureSharingRule | One-to-<br>Many  | The sharing rules of the diagram picture.                           |  |
| AssignmentRule            | Many-to-<br>Many | The assignment rules of the diagram picture.                        |  |

## DiagramPictureSharingRule (deprecated)

#### **Extends Resource**

A DiagramPicture sharing rule. A diagram picture can be shared with a user, group or role.

| Properties |             |                               |
|------------|-------------|-------------------------------|
| Relations  |             |                               |
| Role       | Many-to-One | The role linked to this rule. |

| Group | Many-to-One | The group linked to this rule. |
|-------|-------------|--------------------------------|
| User  | Many-to-One | The user linked to this rule.  |

# AssignmentRule (deprecated)

#### **Extends Resource**

An assignment rule, only exposed to the graph query engine to show the asset linked to a DiagramPicture.

| a Diagrammicture. |             |                                |
|-------------------|-------------|--------------------------------|
| Properties        |             |                                |
| Relations         |             |                                |
| Asset             | Many-to-One | The asset linked to this rule. |