

Datamodel.json Explanation

Description:

Datamodel is used to define the structure of data stored in the ledger. It is also significant in providing the relationship between the tools in the DevOps pipeline.

General structure:

Every tool must have a field that ends with “-AssetID” as the primary identifier for that tool’s data. All other fields are optional.

Example: `"almAssetID": "key"`

General syntax:

```
Toolname:{  
    Ledger propertyname: Neo4j propertyname  
}
```

Array type properties:

```
Ledger propertyname: [Neo4j propertyname]
```

Example:

```
"attachments": ["Attachment"]
```

Hardcoded values:

If you wish to insert a property with a fixed value for all records of the given tool, use the following syntax:

```
Ledger propertyname:{Ledger propertyname: constant value}
```

Example:

```
"phase": {"phase": "Plan"}
```

Linking of tools:

The tools are linked through the special fields named as **uplink** and **downlink**. Uplink has to point to the previous tool and downlink to the next tool in the pipeline. Both the tools must have properties that can be used to link them.

Example: Consider a sample pipeline Jira → Git → Jenkins

```
"JIRA": {  
    "almAssetID": "key",  
    "uplink": "null",  
    "downlink": {"jiraKeys": "almAssetID"}  
},
```

```
"GIT": {  
    "scmAssetID": "commitId",  
    "jiraKeys": "message",  
    "uplink": {"almAssetID": "jiraKeys"},  
    "downlink": {"scmCommitId": "scmAssetID"}  
},
```

Search for the field “almAssetID” (defined in JIRA) with the value of “jiraKeys” (defined in GIT) i.e. the value of almAssetID and jiraKeys should be same for related data.

```
"JENKINS": {  
    "ciAssetID": "fullDisplayName",  
    "scmCommitId": ["scmCommitId"],  
    "resourceKey": "resourcekey",
```

```
"deploymentId": "deploymentId",  
"sonarTaskID": ["sonarTaskID"],  
"uplink": {"scmAssetID": "scmCommitId"},  
"downlink": {"codeQualityAssetID": "sonarTaskID", "artifactAssetID": "resourceKey",  
"deploymentAssetID": "deploymentId"}  
}
```

Uplink and downlink can contain multiple links or null as well.

Note: Jira issue ID will be extracted from GIT commit message only if the field name is specified as “jiraKeys”