



## **erwin Data Intelligence Suite**

### **User Guide**

**Release v11.0**

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- Other helpful resources appropriate for your product

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## Introduction

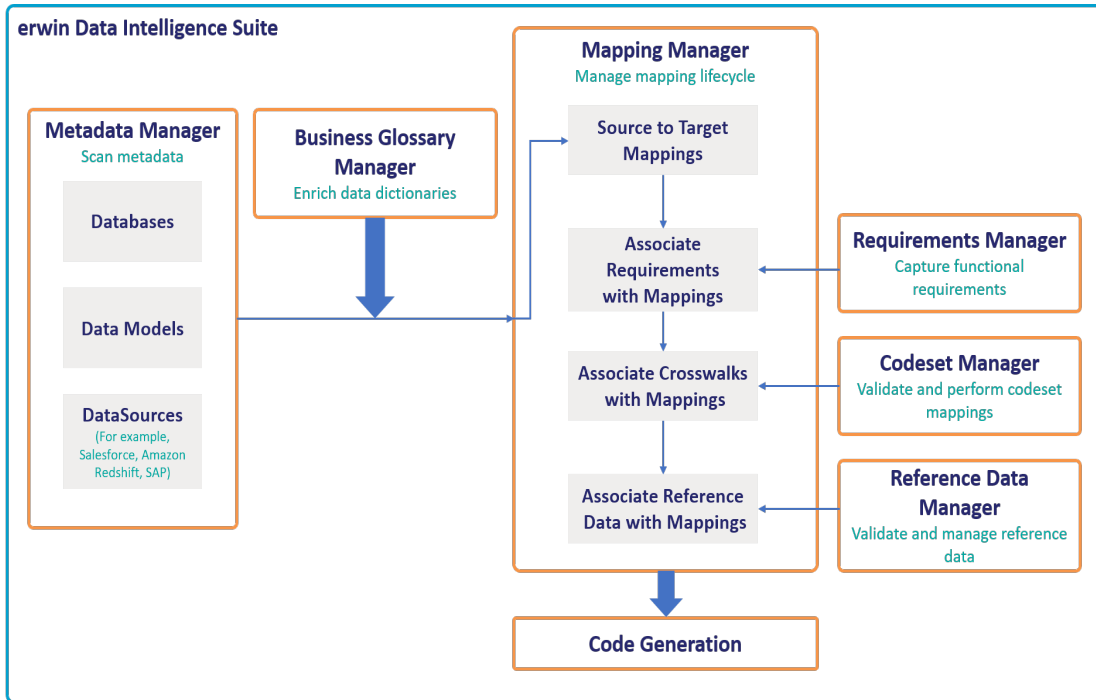
erwin Data Intelligence Suite (DI Suite) is a unified platform for data professionals that offers metadata-driven framework to:

- **Discover data:** Identify metadata from isolated data management sources
- **Harvest data:** Automate metadata collection from the isolated data management sources, and consolidate it into a single source
- **Structure and deploy data sources:** Connect physical metadata to specific data models, business terms, definitions, and reusable design standards
- **Analyze metadata:** Analyze the harvested data to understand its attributes and relation to business
- **Map data flows:** Identify data integration possibilities, and track its flows and transformations
- **Govern data:** Develop a governance model to manage standards, policies, and best practices, and associate them with physical assets.
- **Socialize data:** Empower stakeholders with role-based data availability in one place

This section introduces you to [erwin DI Suite architecture](#), its [user interface \(UI\)](#), and the tasks that you can accomplish using it.

# Architecture

To get you started with erwin Data Intelligence Suite (DI Suite), this topic gives you an overview of erwin DI Suite architecture and its modules. The following diagram shows a high-level architecture and data flow.



The following sequence gives a high-level understanding of how the modules interact in a typical data integration project:

1. Scan metadata from data sources.
2. Create business assets and associate them with technical assets.
3. Create source data to target data maps, and track data flow and transformations.
4. Capture functional requirements.
5. Associate requirements with mappings.
6. Define codesets and perform code crosswalks (mappings).
7. Associate code crosswalks with mappings.



8. Validate and manage reference data.
9. Associate reference data with Mappings.
10. Generate code for:
  - ETL jobs
  - SQL scripts
  - Python code
  - Spark code
  - DDL scripts
  - Stored procedures

erwin DI Suite consists of 11 modules that are categorized as core and add-on modules.

- Core modules perform the major functions of erwin DI Suite offering.
- Add-on modules offer additional functions on top of the core functions.  
The availability of add-on modules is subject to licensing.

The following table gives an overview of modules and their functions.

<b>Module</b>	<b>Type</b>	<b>Function</b>
Resource Manager	Core	Use the Resource Manager to add application users and create roles for them here. You can also manage access-level permissions.
Metadata Manager	Core	Use the Metadata Manager to harvest source or target metadata from a data source. You can run impact and lineage analysis to have better control on a data integration project.
Mapping Manager	Core	Use the Mapping Manager to perform source to target mappings. You can also link code mapping objects, reference data objects, and requirements to the mappings.
Codeset Manager	Add-On	Use the Codeset Manager to manage your enterprise and legacy codesets. You can perform code mappings (crosswalks) and manage them.
Reference Data Manager	Add-On	Use the Reference Data Manager to manage your reference data (tables). You can run validation rules on the reference data and perform data quality checks. Further, you can associate codesets with the reference data.

<b>Module</b>	<b>Type</b>	<b>Function</b>
Business Glossary Manager	Add-On	Use the Business Glossary Manager to create, manage, and collaborate on common business vocabulary across the organization. You can also view lineage maps to understand how semantic definitions are related to physical data dictionaries, data mappings, and data lineages.
Requirements Manager	Add-On	Use the Requirements Manager to standardize functional requirements documentation. Further, you can link requirements with data mappings.
Test Manager	Add-On	Use the Test Manager to manage test specifications created under Metadata Manager and Mapping Manager.
Release Manager	Add-On	Use the Release Manager to release data mappings, database objects, and release notes to standardize the release process.
Reports Manager	Add-On	Use the Reports Manager to create statistical reports and evaluate your team's productivity.
Workflow Manager	Add-On	Use the Workflow Manager to manage Business Glossary Manager, Metadata Manager, and Mapping Manager workflows. You can also create custom workflows and monitor their execution.

For more information on erwin DI Suite's user interface, refer to the [User Interface](#) topic.

# User Interface

To get you started with using erwin Data Intelligence Suite (DI Suite), this topic walks you through the erwin DI Suite UI, its components, and their functions.

Once you have installed erwin DI Suite, follow these steps to access and use it:








1. Start erwin DI Suite.  
The Login page appears. It displays your license information at the bottom of the page.
2. Enter your credentials.
3. Select the **I accept & agree to the terms of the EULA** check box.
4. Click **Sign In**.

After a successful log in, the following page appears.



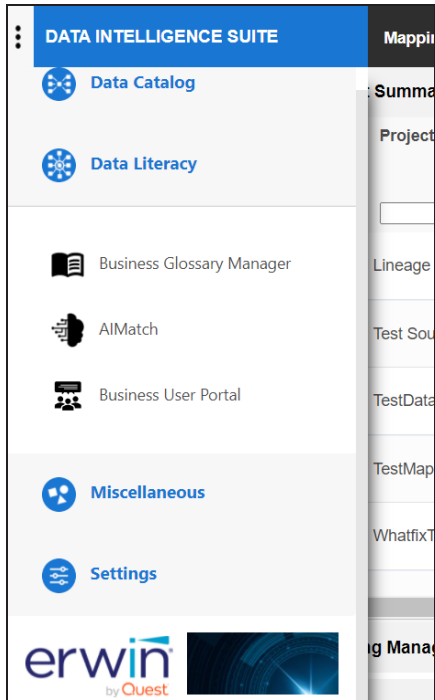
By default, the landing module is set to the Mapping Manager. You can change this under your [account settings](#).

#	Project Name	Project Description	Project Owner	Subject Count	Mapping Count	Created By	Created Date Time
1	Lineage Demo			0	12	Administrator	2020-02-26 04:01:32.913
2	Test Source			0	3	Administrator	2020-02-26 04:02:38.7
3	TestData Map			0	30	Administrator	2020-02-26 04:03:32.1
4	TestMap			0	3	Administrator	2020-02-26 04:04:19.267
5	WhatfixTrial			0	0	Administrator	2020-03-16 05:30:34.073
6	WhatfixIntegrator	<iframe id="editorembed" tabindex="1" style="position: absolute; width: 0px; height: 0px; border: none; left: -1000px; top: -1000px;"></iframe>		0	0	Administrator	2020-03-16 06:12:05.843
7	ABC	<iframe id="editorembed" tabindex="1" style="position: absolute; width: 0px; height: 0px; border: none; left: -1000px; top: -1000px;"></iframe>		0	2	Administrator	2020-03-17 05:34:23.3
8	TechPubs			0	6	Administrator	2020-04-15 09:56:37.803
9	Tech Pubs Online	<iframe id="editorembed" tabindex="1" style="position: absolute; width: 0px; height: 0px; border: none; left: -1000px; top: -1000px;"></iframe>		0	6	Administrator	2020-04-23 07:28:42.863

UI Section	Function
1- Navigation Pane	 <b>Application Menu:</b> Click this icon to access modules of erwin DI Suite. For more information, refer to the <a href="#">Application Menu</a> section.
	 <b>Messaging Center:</b> Click this icon to view notifications and messages.
	 <b>Search:</b> Use this feature to search for a keyword based on the module that you are working in.
	 <b>Search Options:</b> Click this icon to set the search criteria.
	 <b>Help:</b> Click this icon to access the context sensitive help.
	 <b>Bookshelf:</b> Click this icon to access the erwin DI Suite bookshelf.
	 <b>Options:</b> Click this icon to manage your profile options. <ul style="list-style-type: none"> <li>▪ <b>Suggestions:</b> Send an enhancement request to our team through an email.</li> <li>▪ <b>Change Password:</b> Change your password.</li> <li>▪ <b>My Dashboard:</b> View your activity report and mapping assignments.</li> <li>▪ <b>My Profiles:</b> View your profiles.</li> <li>▪ <b>My Workflow:</b> View and update your workflow queues.</li> <li>▪ <b>Logout:</b> Log out of the application.</li> </ul>
2-Workspace Mappings	Use this pane to browse and work on different projects and mappings.
3-Published Mappings	Use this pane to browse through published mappings and export them, if needed.
4-Central Pane	Based on your selection in the Workspace Mappings pane, use this pane to view or work on the data.
5-Mapping Manager Dashboard	Use this pane to view statistics related to mappings and projects in the Mapping Manager.

## Application Menu

To access the Application Menu, click .



The Application Menu classifies the functional module in different categories. Select a category to view its modules. Refer to the following table for a list of categories and their relevant modules.

Category	Modules
Data Catalog	<ul style="list-style-type: none"> <li>▪ Resource Manager</li> <li>▪ Metadata Manager</li> <li>▪ Mapping Manager</li> <li>▪ Codeset Manager</li> <li>▪ Reference Data Manager</li> <li>▪ Requirements Manager</li> <li>▪ Release Manager</li> <li>▪ Test Manager</li> </ul>
Data Literacy	<ul style="list-style-type: none"> <li>▪ Business Glossary Manager</li> <li>▪ AlMatch</li> </ul>

Category	Modules
	<ul style="list-style-type: none"> <li>▪ Business User Portal (BUP) instance integrated with the erwin DI Suite</li> </ul>
Miscellaneous	<ul style="list-style-type: none"> <li>▪ Enterprise Tags</li> <li>▪ Reporting Manager</li> <li>▪ Workflow Manager</li> <li>▪ Download Template</li> <li>▪ Plugins</li> <li>▪ Automation Framework</li> </ul>
Settings	<ul style="list-style-type: none"> <li>▪ Mapping Manger</li> <li>▪ Metadata Manager</li> <li>▪ Codeset Manager</li> <li>▪ Release Manager</li> <li>▪ Test Manager</li> <li>▪ Requirements Manager</li> <li>▪ Business Glossary Manager</li> <li>▪ Miscellaneous</li> <li>▪ License</li> <li>▪ Plugins</li> </ul>

## Quick Start

This section gives a quick hands-on experience of erwin Data Intelligence Suite (DI Suite). It walks you through the operations that you would perform regularly and helps you understand Metadata Management, Mapping Management, Data Literacy, Data Governance, and Life Cycle Management.

The following are the tasks that you would be performing regularly in a data integration project.

## Resource Management

[Creating Roles](#)

[Creating Users and Assigning Roles](#)

## Metadata Management

[Creating Systems](#)

[Creating Environments](#)

[Scanning Metadata](#)

[Performing Lineage Analysis](#)

[Performing Impact Analysis](#)

## Data Literacy

[Creating Business Terms](#)

[Defining Associations for Business Terms](#)

## Reference Data Management

[Categorizing Codesets and Defining Code Values](#)

[Publishing Codesets](#)

[Creating Code Crosswalks \(Mappings\)](#)

## **Life Cycle Management**

[Documenting Requirements](#)

[Creating Test Cases](#)

## **Mapping Management**

[Creating Projects and Maps](#)

[Defining Transformations](#)

[Mapping Source and Target](#)

[Associating Code Crosswalks with Data Item Mappings](#)

[Linking Requirements to Mappings](#)

[Exporting Mapping Specifications to ETL Tools](#)



## Creating Roles

Use roles to assign access-level permissions to users. While few roles are available by default in erwin DI Suite, you can create custom roles.



The Administrator role is system-generated and you cannot edit or delete it.

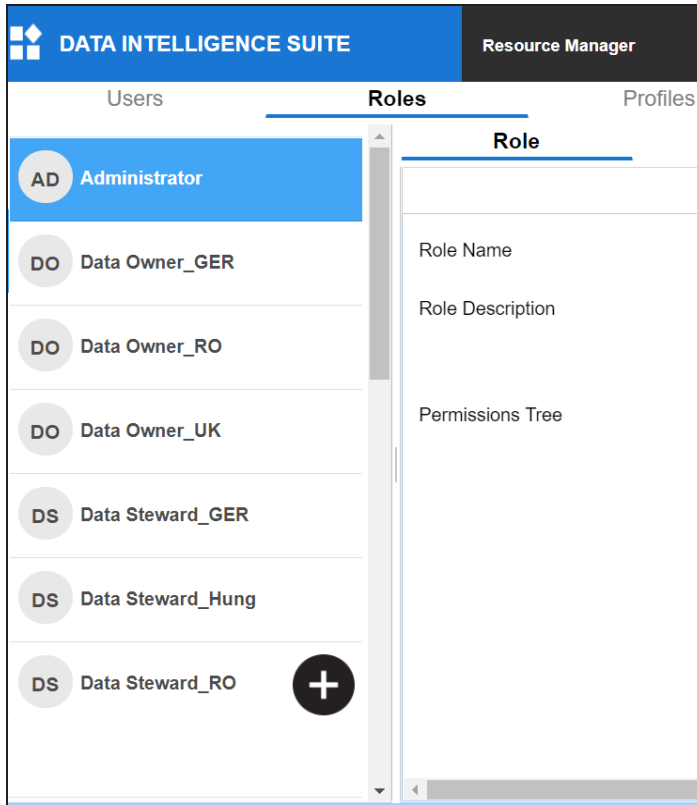
To create roles, follow these steps:

1. Go to **Application Menu > Data Catalog > Resource Manager**.

The Resource Manager page appears. By default the Users tab opens.

DATA INTELLIGENCE SUITE		Resource Manager		
Users	Roles	Profiles	Governance Responsibilities	Access Rights Report
Settings	<b>User Details</b>			
Users	User Type	<input type="text" value="Database"/>	Telephone Number	
<b>AD Administrator</b> Administrator - Default System User	User ID	<input type="text" value="Administrator"/>	Email ID	
ES esimpson Erica Simpson	User Full Name	<input type="text" value="Administrator - Default System User"/>	Alternate Telephone Number	
	Password	<input type="password" value="....."/>	Manager Name	
	Mobile	<input type="text" value="999999999"/>	Company	

2. Click the **Roles** tab.



3. Click **+**.

The Role page appears.

**Role**

Save Cancel

Role Name\*

Note: Role Name once created cannot be edited

Role Description

Permissions Tree

- Permissions
  - Resource Manager
  - Metadata Manager
  - Mapping Manager
  - Codeset Manager
  - Release Manager
  - Reference Data Manager
  - Code Automation Template

4. Enter the **Role Name** and **Role Description**.

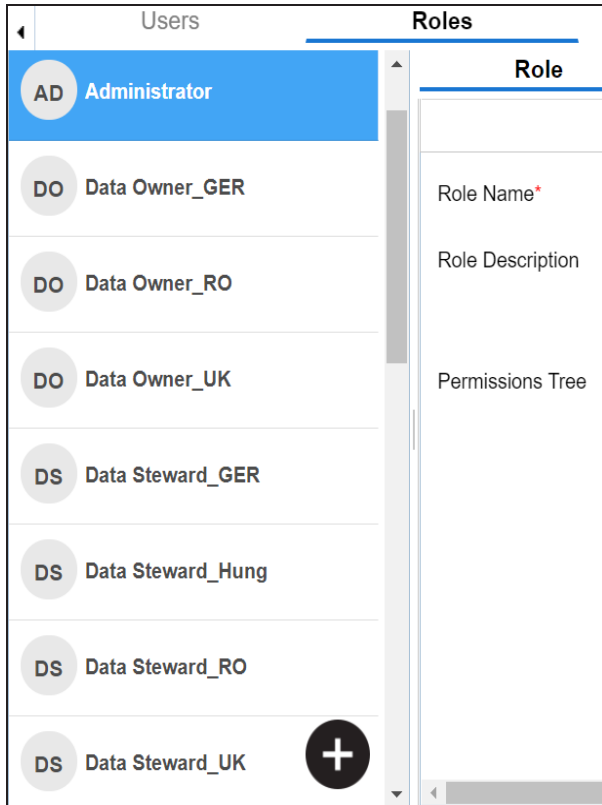
For example:

- **Role Name:** Data Steward\_UK
- **Role Description:** The role has access to the Resource Manager and Mapping Manager.

5. Under the **Permissions Tree** section, select the check box for the modules or the permission object to which you want to grant access to the role.

6. Click **Save**.

A role is created and added to the Roles list.



Once roles are created, you can create users and assign roles to them. For more information on managing resources, refer to the [Managing Resources](#) section.

## Creating Users and Assigning Roles

Users are used to grant members of your team access to erwin DI Suite and your projects. While a few users are available by default, you can create users for your organization using the Resource Manager. While you create users, you also assign them roles to define their access-level permissions.



The Administrator user is available by default and you cannot edit or delete this user.

To create users, follow these steps:

1. Go to **Application Menu > Data Catalog > Resource Manager**.

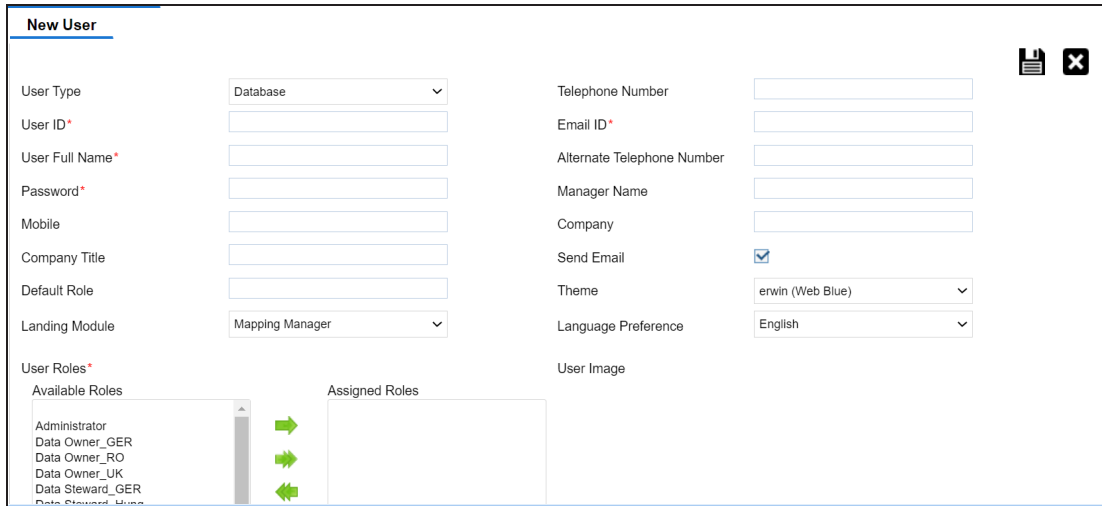
By default, the Users tab opens.

The screenshot displays the erwin DI Suite Resource Manager interface. The top navigation bar includes the 'DATA INTELLIGENCE SUITE' logo and the 'Resource Manager' title. Below this, there are two tabs: 'Users' (selected) and 'Roles'. The 'Users' tab shows a list of users with their initials and names. The 'User Details' panel on the right lists various attributes for the selected user.

Users	Roles
Settings	
Users	<b>User Details</b>
<b>AD</b> Administrator Administrator - Default System Us	User Type
<b>ES</b> esimpson Erica Simpson	User ID
<b>JA</b> jadams Joey Adams	User Full Name
<b>JD</b> janedoe Jane Doe	Password
<b>JD</b> John Doe John Doe	Mobile
<b>JW</b> jwilson Joey Wilson	Company Title
	Default Role
	Created By
	Last Modified By
	Landing Module
	User Image

2. Click .

The New User page appears.








The screenshot shows the 'New User' form with the following fields and values:

- User Type: Database
- User ID\*: (empty)
- User Full Name\*: (empty)
- Password\*: (empty)
- Mobile: (empty)
- Company Title: (empty)
- Default Role: (empty)
- Landing Module: Mapping Manager
- Telephone Number: (empty)
- Email ID\*: (empty)
- Alternate Telephone Number: (empty)
- Manager Name: (empty)
- Company: (empty)
- Send Email:
- Theme: erwin (Web Blue)
- Language Preference: English
- User Image: (empty)
- User Roles\*:
  - Available Roles: Administrator, Data Owner\_GER, Data Owner\_RO, Data Owner\_UK, Data Steward\_GER, Data Steward\_UK
  - Assigned Roles: (empty)

3. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
User Type	<p>Specifies whether the user type is Database, LDAP (Lightweight Directory Access Protocol), SAML (Security Assertion Markup Language), or NON LOGIN.</p> <p>For example, Database.</p> <ul style="list-style-type: none"> <li>▪ <b>Database:</b> Select this option if the user authentication is through the credentials created in the Resource Manager.</li> <li>▪ <b>LDAP:</b> Select this option if the user authentication is through a directory server, such as MS Active Directory, OpenLDAP or OpenDJ.</li> <li>▪ <b>SAML:</b> Select this option if the user authentication is through SAML attributes.</li> <li>▪ <b>NON LOGIN:</b> Select this option if the user is not required to log on to the application.</li> </ul>
User ID	Specifies the user name of the user to log on to erwin DI Suite.

Field Name	Description
	For example, lmicchal.
User Full Name	Specifies the user's full name. For example, Luqman Michal.
Password	Specifies the password to log on to erwin DI Suite. For example, Luqman@1. The administrator provides a default password, which can be changed later. The administrator can also enforce a password policy. For more information on enforcing password policy, refer to the <a href="#">Configuring Settings</a> topic.
Mobile	Specifies the user's valid mobile number. For example, +658374414288.
Company Title	Specifies the user's company title or designation. For example, Data Administrator.
Default Role	Specifies the default role of the user. For example, Data Steward_RO.
Landing Module	Specifies the landing module for the user. For example, Mapping Manager. The Landing Module is the first page displayed when a user logs in.
User Roles	Select roles under Available Roles list-box and move them to Assigned Roles list-box using the arrows (  or  ). Similarly, to change existing role assignment, select roles under Assigned Roles list-box and move them back to Available Roles list-box using the arrows (  or  ). For adding a new role under the Available Roles list-box, refer to the <a href="#">Creating Roles</a> topic. You can assign the Legacy Data Steward role to a user. This enables you to assign this user as a Data Steward in the Metadata Manager and Reference Data Manager.
Telephone	Specifies the valid telephone number of the user.

Field Name	Description
Number	For example, 1-800-783-7946.
Email ID	Specifies the user's email address. For example, l.michal@mauris.edu
Alternate Telephone Number	Specifies the user's valid alternate telephone number. For example, 1-802-456-7946.
Manager Name	Specifies the name of the user's reporting manager. For example, John Doe.
Company	Specifies the name of the user's company. For example, ABC Consulting Services.
Send Email	Specifies whether to send email to the user's email ID. Select the Send Email check box to send an email notification to the user's email ID. For more information on configuring notifications, refer to the <a href="#">Configuring Notifications</a> topic.
Theme	Specifies the theme for the user to set the appearance of erwin DI Suite. By default, it is set to erwin (Web Blue).
Language Preference	Specifies the language preferred by the user. For example, English. For more information on language settings, refer to the <a href="#">Configuring Language Settings</a> topic.
User Image	Specifies the physical image file being attached to the user. Drag and drop a user's image file or click  to select and upload the image file.

4. Click .

A new user is created and added to the Users list.

For more information on managing resources, refer to the [Managing Resources](#) section.



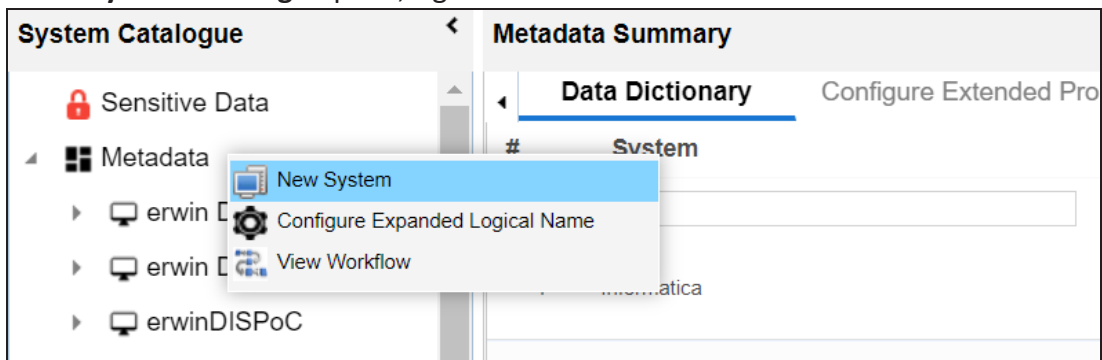
## Creating Systems

You can harvest (scan) metadata from data sources in the Metadata Manager. The scanned metadata is stored in a hierarchical manner (System > Environment > Table > Column) in the System Catalogue.

A System can contain multiple environments and in a typical data integration project a system can be a source or target type. You can create a system and specify data steward, system owner, and its business purpose etc.

To create systems, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. In the **System Catalogue** pane, right-click the **Metadata** node.



3. Click **New System**.

The New System page appears.


4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.



Field Name	Description
System Name	Specifies the physical name of the system. For example, Enterprise Data Warehouse. For more information on naming conventions, refer to the <a href="#">Best Practices</a> section.
Data Steward	Specifies the name of the data steward responsible for the system. For example, Jane Doe. Users assigned with the Legacy Data Steward role appear as drop down options. You can assign this role to a user in the Resource Manager. To assign data steward, select a data steward from the drop down options.
Business Purpose	Specifies the business objective of the system. For example: This is a source system to store Sales metadata of the organization for a data integration project.

Field Name	Description
Server Platform	Specifies the server platform of the system. For example, Windows.
DBMS Platform	Specifies the DBMS platform of the system (if the system is an RDBMS source). For example, SQL Server.
File Management Type	Specifies the file management system (if the system is a file-based source). For example, MS Excel.
Owner Name	Specifies the full name of the system owner. For example, Talon Smith.
Telephone Number	Specifies the telephone number of the system owner. For example, 1-800-783-7946.
Primary Move Type (Source/Target)	Specifies whether the system is source, target, or both. Valid values are: <ul style="list-style-type: none"> <li>▪ Source</li> <li>▪ Target</li> <li>▪ Both</li> </ul>
DQ Score	Specifies the overall data quality score of the system. For example, High (7-8). For more information on configuring DQ scores, refer to the <a href="#">Configuring Data Profiling and DQ Scores</a> topic.
Server OS version	Specifies the OS version of the system's server. For example, Windows Server 2012 R2.
DBMS Version	Specifies the DBMS version of the system (if the system is an RDBMS source). For example, SQL Server 2017.
File Location	Specifies a file path (if the system is a file-based source). For example, C:\Users\Talon Smith\erwin\Mike - Target System
Release	Specifies the system release including the point release number.

Field Name	Description
	For example, Oracle 18c.
Email Address	Specifies the system owner's email address. For example, talon.smith@mauris.edu

5. Click the **Miscellaneous** tab and enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
ESB Platform Type	Specifies the enterprise platform bus type (if the system is an ESB source). For example, Mule.
ESB Q Manager Name	Specifies the ESB queue manager's name of the system (if the source is an ESB). For example, John Doe.
Total DBSize	Specifies the total physical size of the database. For example, 198 GB.
Total Number of Tables	Specifies the total number of tables associated with the system. For example, 300.
Definition of the day	Specifies the definition of the system at the end of the day. For example: Extraction of details from the source system is complete.
Batch Extract Window	Specifies the daily batch extract window of the system. For example: Batch extract from the source system is scheduled at 3:30 P.M. everyday.
Average User	Specifies the average number of system users. For example, 30.
Average Concurrent Users	Specifies the average number of concurrent system users. For example, 15.
Sensitive Data Indicator (SDI) Flag	Specifies whether the system is sensitive. Switch <b>Sensitive Data Indicator (SDI) Flag</b> to  to mark the system sensitive.

Field Name	Description
Sensitive Data Indicator (SDI) Classification	<p>Specifies the SDI classification of the system.</p> <p>For example, PHI.</p> <p>This list is enabled when <b>Sensitive Data Indicator (SDI) Flag</b> is switched to . For more information on configuring SDI classifications, refer to the <a href="#">Configuring Sensitivity Classifications</a> topic.</p>
Sensitive Data Indicator (SDI) Description	<p>Specifies the description of the SDI classification.</p> <p>For example: Protected Health Information.</p> <p>It is enabled when <b>Sensitive Data Indicator (SDI) Flag</b> is switched to . The field autopopulates based on the SDI Classification.</p>
Special Instructions	<p>Specifies any special instructions or comments about the system.</p> <p>For example: The system acts as a source for creating the mapping specification.</p>

6. Click **Save and Exit**.

A new system is created and added under the system tree.

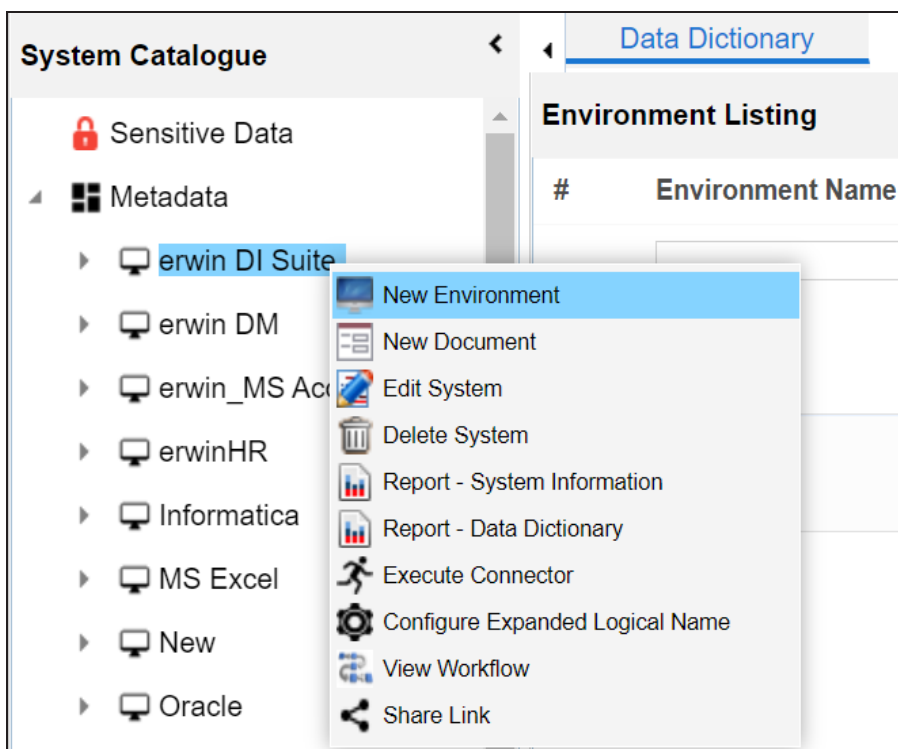
Once a system is created, you can create environments under it and scan metadata from different database types. For more information on managing metadata, refer to the [Managing Metadata](#) section.

## Creating Environments

After creating a system in the Metadata Manager, you can create environments under the system. An environment can be created for different database types and flat files by fulfilling prerequisites and providing the connection parameters.

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. In the **System Catalogue** pane, right-click a system.

The available options appear.



3. Click **New Environment**.

The New Environment page appears.

**New Environment**

Configuration Details Miscellaneous

System Environment Name\*

System Environment Type

Data Steward -Select Data Steward- ▼  
 Apply To All Tables & Columns

Server Platform

Server OS Version

File Management Type

File Location

Production System Name Choose Production System ▼

Production Environment Name ▼

Version 1.00

Version Label

DQ Score -Select DQ Score- ▼

Datasource Type\* -Select Database- ▼


**Please Select Database Type**

4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
System Environment Name	<p>Specifies the unique name of the environment. For example, EDW-Test.</p> <p>The following special characters are supported in an environment name:</p> <ul style="list-style-type: none"> <li>▪ - (hyphen)</li> <li>▪ ( (opening parenthesis)</li> <li>▪ ) (closing parenthesis)</li> <li>▪ / (slash)</li> </ul> <p>For more information on naming conventions, refer to the <a href="#">Best Practices</a> section.</p>

Field Name	Description
System Environment Type	Specifies the type of the environment. For example, development, test, or production.
Data Steward	Specifies the name of the data steward responsible for the environment. For example, Jane Doe. Users assigned with the Legacy Data Steward role appear as drop down options. You can assign this role to a user in the Resource Manager. To assign data steward, select a data steward from the drop down options..
Server Platform	Specifies the server platform of the environment. For example, Windows.
Server OS Version	Specifies the OS version of the environment's server. For example, Windows Server 2012 R2.
File Management Type	Specifies the file management system (if the environment is a file-based source). For example, MS Excel.
File Location	Specifies a file path (if the environment is a file-based source). For example, C:\Users\Jane Doe\erwin\Mike - Target System
Production System Name	Specifies the system name being associated with the environment as the production system. For example, Enterprise Data Warehouse.
Production Environment Name	Specifies the environment name being associated with the environment as the production environment. For example, EDW-PRD.
Version Label	Specifies the version label of the environment to track change history. For example, Alpha. For more information on configuring version display, refer to the <a href="#">Configuring Version Display of the Environments</a> topic.





Field Name	Description
DQ Score	<p>Specifies the overall data quality score of the environment.</p> <p>For example, High (7-8).</p> <p>For more information on configuring DQ scores, refer to the <a href="#">Configuring Data Profiling and DQ Scores</a> topic.</p>
Database Type	<p>Specifies the database type.</p> <p>For example, Sql Server.</p> <p>Select the type of database from where you wish to scan metadata.</p> <p>Depending upon your choice of database type you need to provide additional fields (connection parameters) appearing on the right hand side.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;">  <p>There are no additional fields for MS Excel File, and XSD.</p> </div>

5. Click  to test the connection.

If the connection with database is established successfully then a success message pops up.

6. Click the **Miscellaneous** tab and enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Sensitive Data Indicator (SDI) Flag	Specifies whether the environment is sensitive.
Sensitive Data Indicator (SDI) Classification	<p>Specifies the SDI classification of the environment.</p> <p>For example, PHI.</p> <p>This list is enabled when the Sensitive Data Indicator (SDI) Flag is switched to . For more information on configuring SDI classifications, refer to the <a href="#">Configuring Sensitivity Classifications</a> topic.</p>
Sensitive Data	Specifies the description of the SDI Classification.

Field Name	Description
Indicator (SDI) Description	For example: Protected Health Information. It is enabled when the Sensitive Data Indicator (SDI) Flag is switched to  . The field autopopulates based on the SDI Classification.
Intended Use Description	Specifies the description about the objective of the environment. For example: The environment contains the source metadata for the data integration project.
Environments Notes	Specifies relevant notes about the environment. For example: The environment uses Sql Server as database to scan the metadata.
Approval Instructions	Specifies any instructions for the environment's approval. For example: The environment must contain 50 tables from erwinDIS database.

7. Click **Save and Exit**.

A new environment is created and stored in the environment tree.

Once an environment is created, you can scan source or target metadata from the database type.

Different database types have different prerequisites and connection parameters:

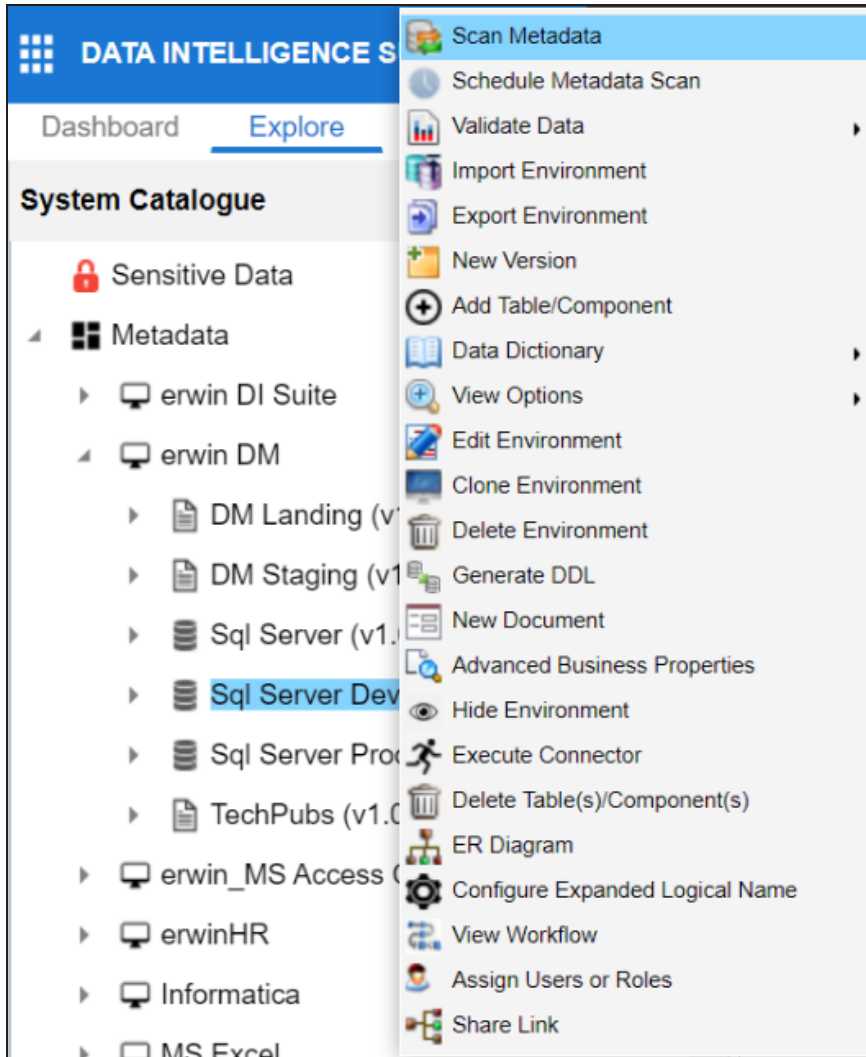
- [SQL Server - via SQL or Window authentication mode](#)
- [Oracle and Oracle RAC](#)
- [MySQL](#)
- [Snowflake](#)
- [MS Dynamics CRM](#)
- [SAP ECC R/3 and IS-U Metadata via JCO Driver](#)

## Scanning Metadata

After creating systems and environments, the next logical step is to scan source and target metadata. Ensure that the environment database type and connection parameters are correct and the environment is able to establish connection with the database.

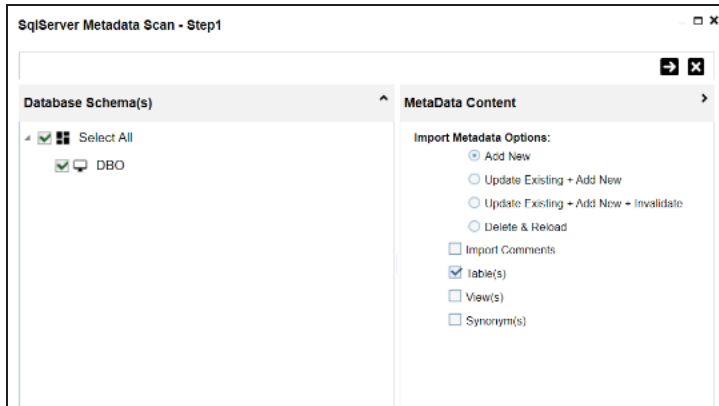
To scan source or target metadata, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. In the **System Catalogue** pane, right-click the required environment.



3. Click **Scan Metadata**.

The <Data\_Base> Metadata Scan-Step1 page appears. For example, if it is the SQL Server environment, then the SqlServer Metadata Scan - Step1 page appears.



4. In the **Database Schema(s)** pane, select the database schemas.
5. In the **Metadata Content** pane, select the appropriate **Import Metadata Options**.

Refer to the following table for the descriptions of the metadata import options.

Import Metadata Options	Description
Add New	This option adds new objects to the existing object list. The existing metadata is not updated.
Update Existing + Add New	This option adds new objects to the existing list and at the same time the existing metadata is also updated.
Update Existing + Add New + Invalidate	This option adds new objects to the existing list, updates existing and invalidates table/column during the scanning process.
Delete & Reload	This option deletes all existing metadata and scans only the new objects that have been selected.
Import Comments	Select the check box to import comments.
Table(s)	Select the check box to import Tables.
View(s)	Select the check box to import Views.
Synonym(s)	Select the check box to import Synonyms.

6. Click .

The <Database\_Name> Metadata Scan Step-2 page appears. It pulls up the objects selected in Metadata Scan Step-1, such as Tables, Views and Synonyms.



7. Select the required objects.

8. Click .

The metadata is scanned successfully and saved under the environment node.

For more information on managing metadata, refer to the [Managing Metadata](#) section.

You can also import metadata from:

- [MS Excel File](#)
- [JSON](#)
- [CSV \(Flat File\)](#)
- [XMI](#)
- [MS Access File](#)
- [XSD](#)

## Creating Maps

Maps are categorized under projects and a project can have multiple maps. The maps are stored in a hierarchical manner, Projects > Mappings. Source to target mappings are performed in maps. You can create maps under a new or existing projects.

To create maps under a new project, follow these steps:

1. Go to **Application Menu > Data Catalog > Mapping Manager**.
2. Under the **Workspace Mappings** pane, right-click the **Projects** node.

The screenshot shows the 'Mapping Manager' interface. On the left, the 'Workspace Mappings' pane is expanded to show a tree view of projects. A context menu is open over the 'Projects' node, with 'Create Project' highlighted. The main area displays a 'Project Summary' table with columns for Project ID, Name, Description, Owner, Subjects Count, Mapping Count, Created By, and Created Date.

#	Project Name	Project Description	Project Owner	Subjects Count	Mapping Count	Created By	Created
1	ERP			0	2	Administrator	2018-01-10:50:10
2	EDW			0	2	Administrator	2018-01-10:15:10
3	Sales Data Mart			0	8	Administrator	2018-01-10:15:20
4	BFSI Integration			0	1	Administrator	2018-01-10:15:30
5	Data Lake Migration			3	3	Administrator	2018-01-10:16:20
6	OBIEE			3	23	Administrator	2018-01-12:44:10
7	AdventureWorks_J			0	8	Administrator	2018-01-10:10:00:20
8	Carrefour			12	9	Administrator	2018-01-10:10:00:20
9	IQVIA			0	1	Administrator	2018-01-10:10:00:20

3. Click **Create Project**.

The Create Project page appears.

4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Project Name	Specifies the name of the project. For example, Data Lake Migration. For more information on naming conventions, refer to the <a href="#">Best Practices</a> section.
Description	Specifies the description of the project. For example: The project contains the mapping specifications for the sales data migration.
Project Manager Name	Specifies the project manager's name. For example, John Doe.
Business Sponsor Name	Specifies the business sponsor of the project. For example, ABC Consulting Services.
Project ETL	Specifies the ETL tool assigned to the project. For example, Informatica Pseudocode.
Cost Center	Specifies the cost center of the project.

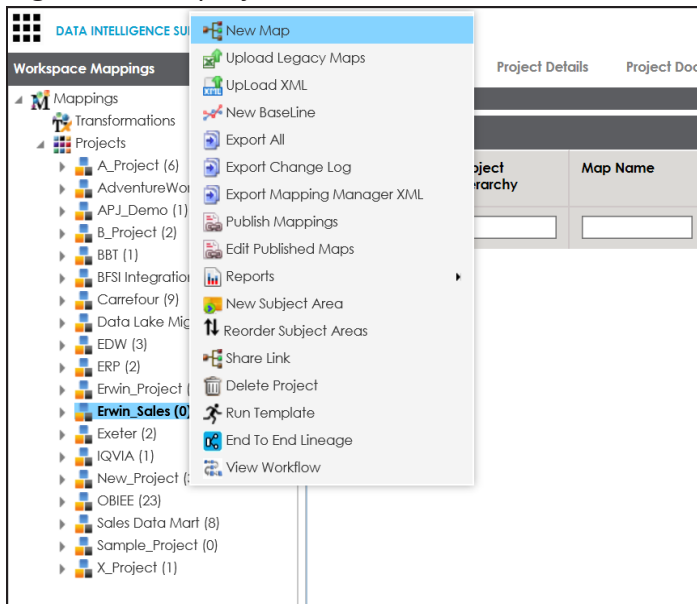


Field Name	Description
	For example, Finance and Accounting.
IT Sponsor Name	Specifies the IT sponsor of the project. For example, XYZ IT Services.
Enable display of Transformation without pseudocode	Specifies whether the transformation is displayed without pseudocode. Switch <b>Enable display of Transformation without pseudocode</b> to <b>Yes</b> to display transformation without pseudocode.

5. Click **Save and Exit**.

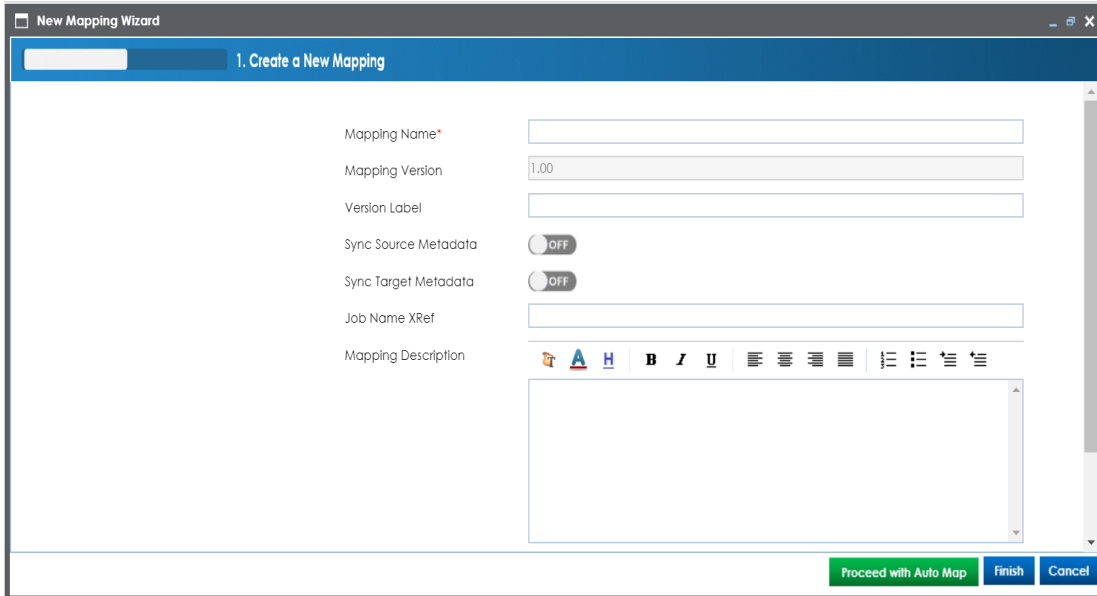
A new project is created and stored in the project tree.

6. Right-click the project.



7. Click **New Map**.

The New Mapping Wizard appears.



8. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Mapping Name	Specifies the mapping specification name. For example, EDW_PROD_IDS_Benefits_Detail. For more information on naming conventions, refer to the <a href="#">Best Practices</a> section.
Mapping Version	Specifies the version of the mapping specification. For example, 1.00. It is autopopulated. For more information on configuring version display of maps, refer to the <a href="#">Configuring Version Display</a> topic.
Sync Source Metadata	Switch <b>Sync Source Metadata</b> to <b>ON</b> to sync source metadata with the mapping.
Sync Target Metadata	Switch <b>Sync Target Metadata</b> to <b>ON</b> to sync target metadata with the mapping.
Mapping Description	Specifies the description about the mapping.

Field Name	Description
	For example: This is a map between EDW source and IDS target systems.
Mail Comments	<p>Specifies the mail comments, which can be sent to the project users through an email notification.</p> <p>For example: Source and target have identical columns, hence they can be mapped using auto-map technique.</p> <p>For more information on configuring notifications, refer to the <a href="#">Configuring Notifications</a> topic.</p>

9. Click **Finish**.

A new map is created and saved under the map tree.

For more information on performing source to target mappings, refer to the [Creating and Managing Mapping Specifications](#) section.

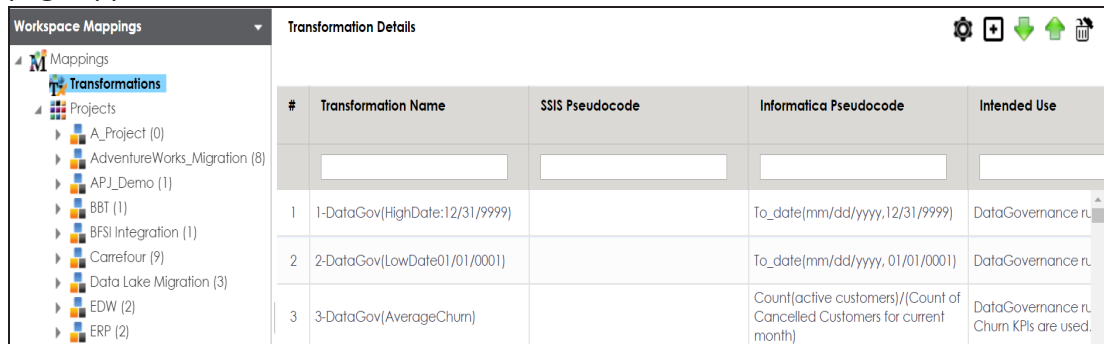
## Defining Transformations

Transformations specify rules that derive values from source columns to get the required values in target columns. You can define enterprise-level and project-level transformations. These transformations can be used as business rules and extended business rule transformations in mapping specifications. Ensure that you define transformations for the same ETL option as that of your mapping project.

To define transformations, follow these steps:

1. Go to **Application Menu > Data Catalog > Mapping Manager**.
2. In the **Workspace Mappings** pane, click any one of the following:
  - **Transformations node**: Click this option to define enterprise-level transformations.
  - **Transformations node under a project**: Click this option to define project-level transformations.

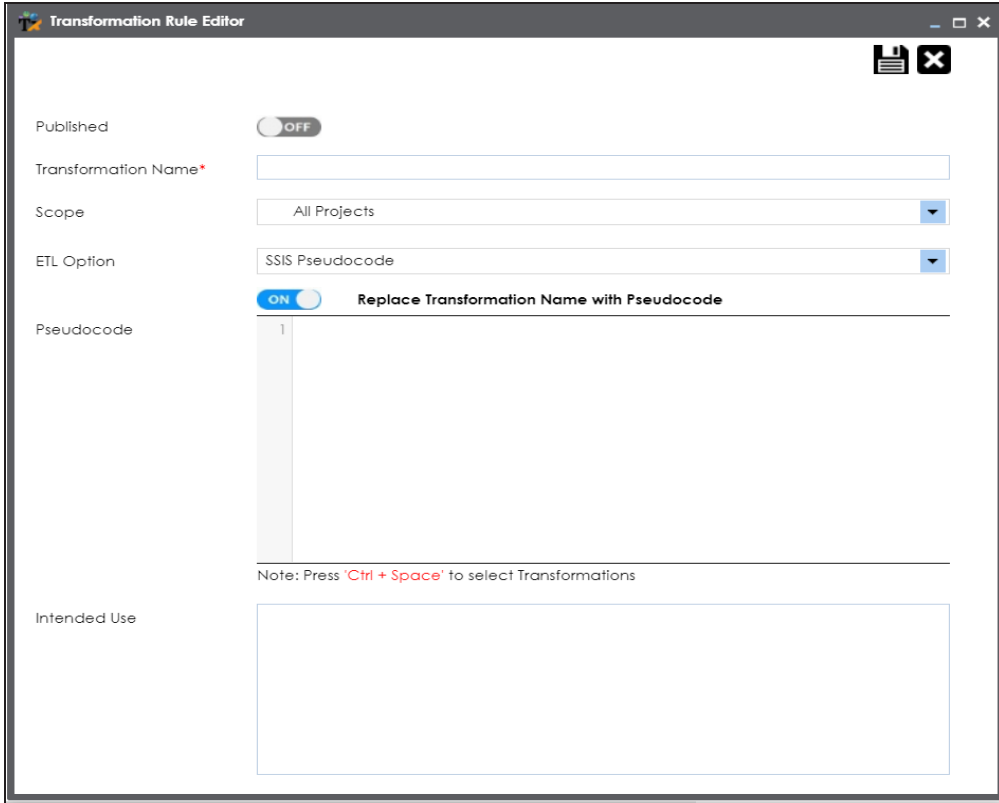
For example, if you click the Transformations node, then the Transformation Details page appears.




#	Transformation Name	SSIS Pseudocode	Informatica Pseudocode	Intended Use
1	1-DataGov(HighDate:12/31/9999)		To_date(mm/dd/yyyy,12/31/9999)	DataGovernance.ru
2	2-DataGov(LowDate01/01/0001)		To_date(mm/dd/yyyy,01/01/0001)	DataGovernance.ru
3	3-DataGov(AverageChurn)		Count(active customers)/(Count of Cancelled Customers for current month)	DataGovernance.ru Churn KPIs are used.


3. Click .

The Transformation Rule Editor page appears.



4. Enter or select appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Published	Switch <b>Published</b> on (  ) to publish the transformation.
Transformation Name	Specifies a unique name of the transformation. For example, ASCII.
Scope	Specifies the projects to which the transformation can be applied. For example, All Projects.
ETL Option	Specifies the ETL option. For example, Informatica Pseudocode. You can <a href="#">configure ETL option list</a> and add or remove an ETL option from the list.

Field Name	Description
Replace Transformation Name with Pseudocode	Switch <b>Replace Transformation Name with Pseudocode</b> on (  ) to replace the transformation name with pseudocode.
Pseudocode	Specifies the pseudocode for the transformation. Enter a pseudocode or use Ctrl + Space keys to select a pseudocode. For example, To_date(mm/dd/yyyy,1231,9999).
Intended Use	Specifies the objective of the transformation. For example: Data governance rule - use on projects.

5. Click .

A new transformation is added on the Transformations Details page.

For more information on transformations, refer to the [Defining Transformations](#) section.

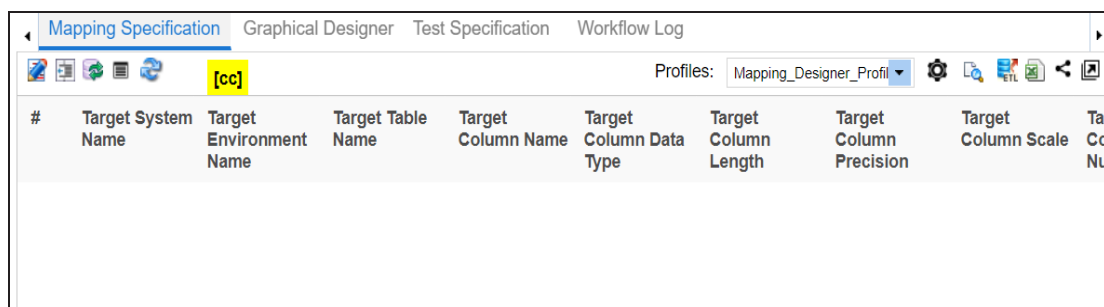
## Mapping Source and Target

You can create mapping specifications using drag and drop method, even when source column names are different from target column names. After mapping source to target, you can set the target update strategy and enter a description about the strategy.

To create mapping specifications using drag and drop method, follow these steps:

1. Under the **Workspace Mappings** pane, click the required map.

By default, it opens the Mapping Specification tab.

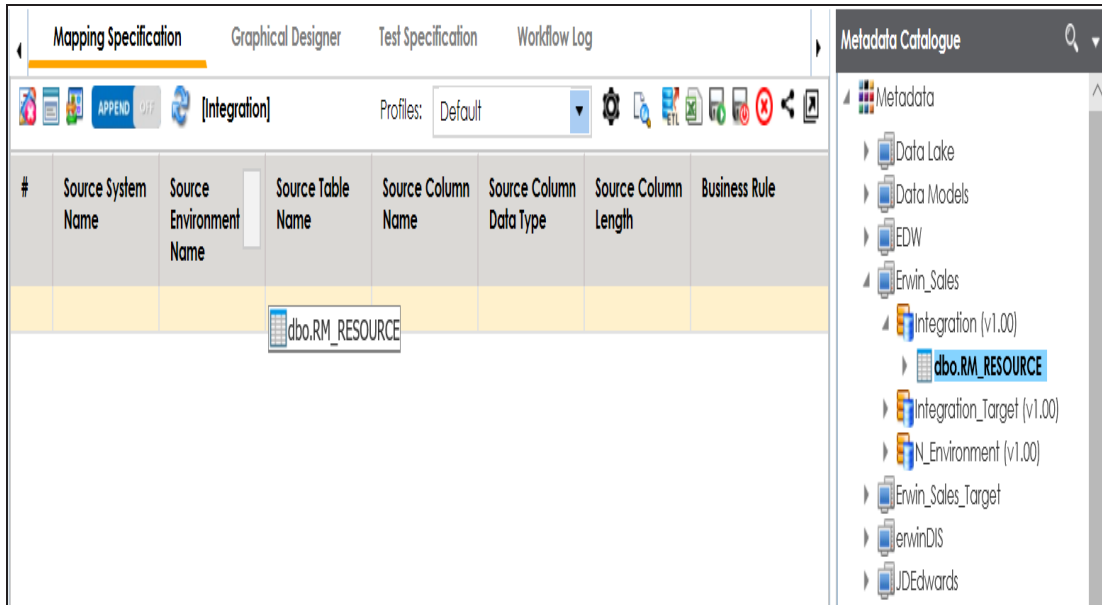


2. Click .

You can now, edit the Mapping Specification tab.

3. Drag source table or column from **Metadata Catalogue** and drop in **Mapping Specification**.

You cannot drop source system or source environment in Mapping Specification. Ensure that you drop source table or column under the respective column.



4. Drag target table or column from **Metadata Catalogue** and drop in **Mapping Specification**.

You cannot drop target system or target environment in Mapping Specification. Ensure that you drop target table or column under the respective column.

5. Click .

The mapping specification is saved.

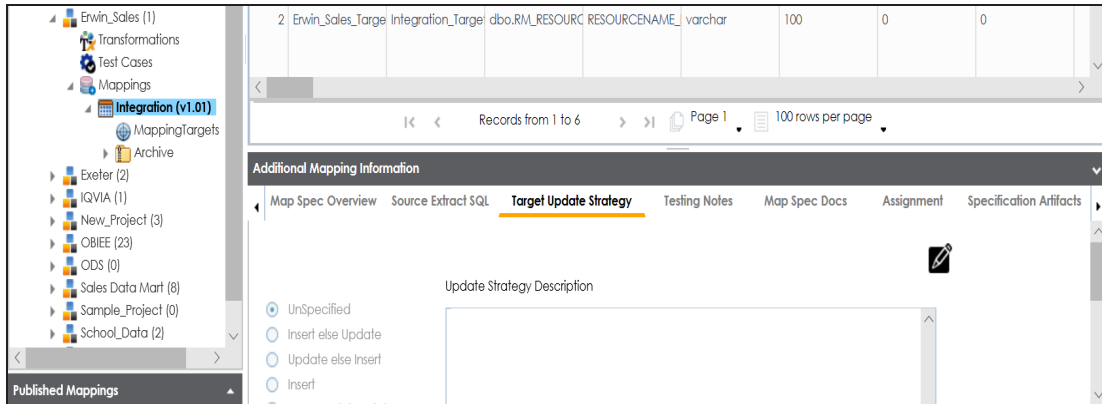
To set the target update strategy, follow these steps:

1. Expand the **Additional Mapping Information** pane.

The pane is available at bottom of the central pane when you click the map in Workspace Mappings.

2. Click the **Target Update Strategy** tab.





3. In the **Target Update Strategy** tab, click .

4. Click the required strategy, enter **Update Strategy Description**, and click .

The target update strategy is set.

You can enrich a mapping specification by:

- [Adding transformation and lookup details](#)
- [Associating code cross walks \(code mappings\)](#)
- [Associating reference tables](#)
- [Linking requirements](#)

After creating a mapping specification, you can analyze a mapping specification. [Analyzing mapping specification](#) involves:

- Generating virtual preview of target
- Previewing Data
- Performing table gap analysis
- Performing column gap analysis
- Running impact analysis
- Running lineage analysis
- Running end to end lineage

- Opening business view
- Viewing mapping statistics

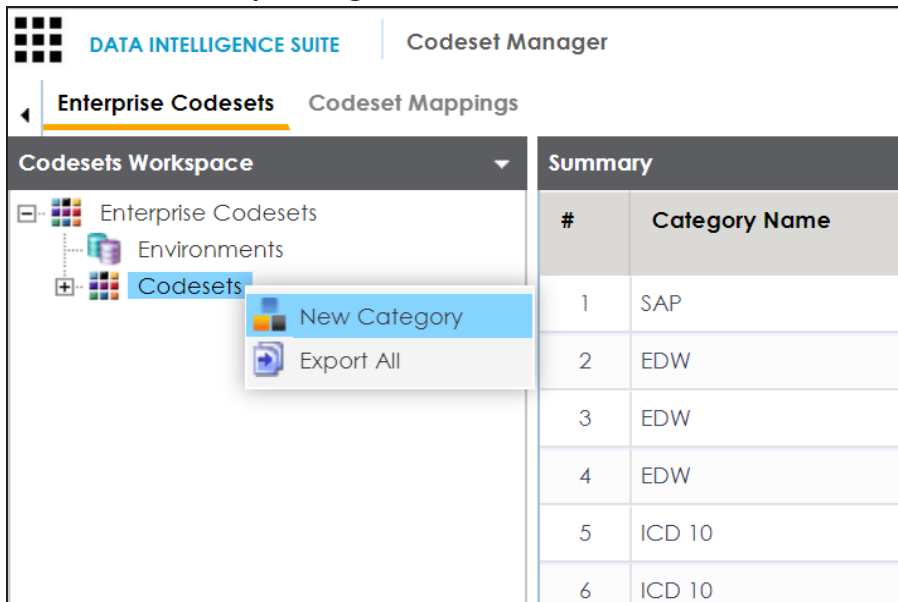
## Categorizing Codesets and Defining Code Values

You can create and manage codesets in Codesets Manager. Its workspace has two sections, Enterprise Codesets and Codeset Mappings. You can categorize and define codesets in the Enterprise Codesets section, while you can create codeset crosswalks (mappings) in the Codeset Mappings section.

Before defining codesets, you need to create categories to hold the codesets.

To create categories, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager**.
2. In **Codesets Workspace**, right-click the **Codesets** node.

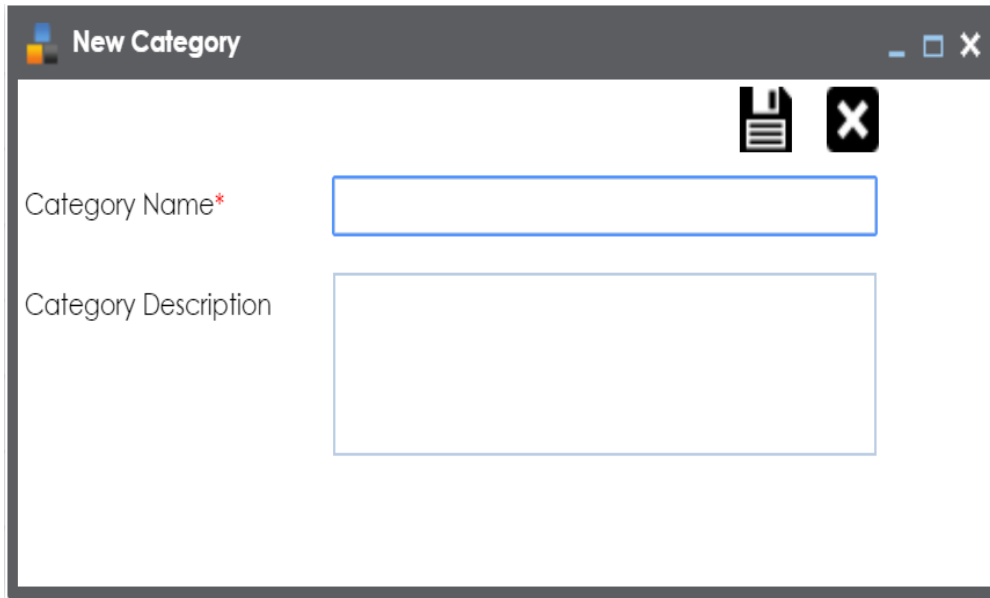


The screenshot shows the 'Codeset Manager' interface. On the left, the 'Codesets Workspace' is visible with a tree view containing 'Enterprise Codesets', 'Environments', and 'Codesets'. A context menu is open over the 'Codesets' node, showing 'New Category' and 'Export All' options. On the right, a 'Summary' table is displayed with the following data:

#	Category Name
1	SAP
2	EDW
3	EDW
4	EDW
5	ICD 10
6	ICD 10

3. Click **New Category**.

The New Category page appears.



The image shows a software dialog box titled "New Category". It features a standard window title bar with a close button (X) and a maximize button. The main area contains two text input fields. The first field is labeled "Category Name\*" and the second is labeled "Category Description". In the top right corner of the dialog, there are two icons: a save icon (floppy disk) and a close icon (X).

4. Enter **Category Name** and **Category Description**.

For example:

- Category Name - EDW
- Category Description - This category contains three codesets, Country Codes, Gender, and Marital Status.

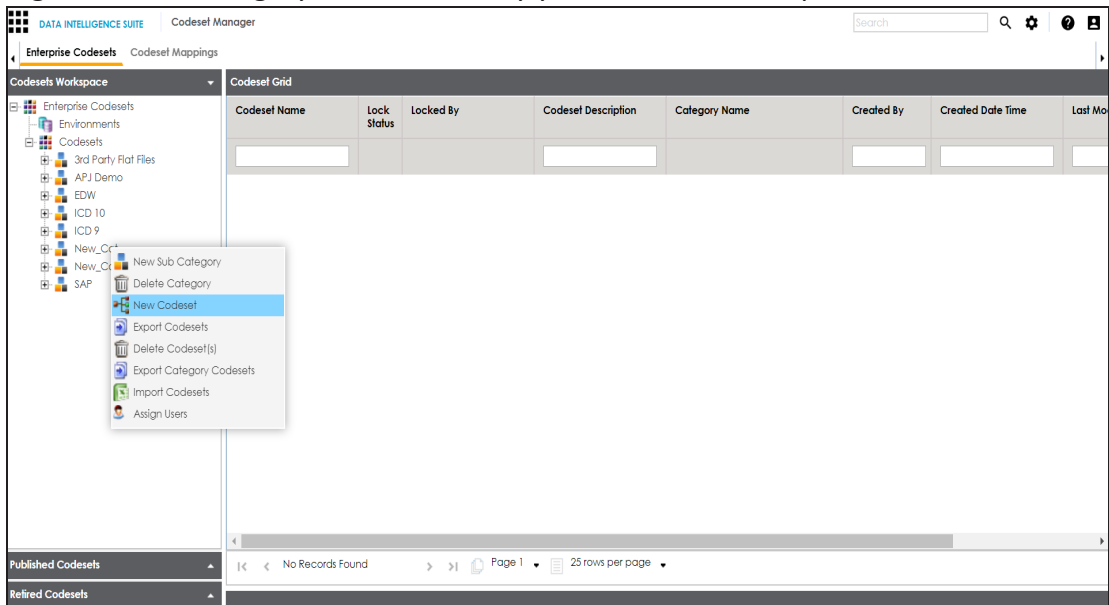
5. Click .

A new category is created and added to the category tree.

After creating a category, you can define codesets, which are stored inside the category.

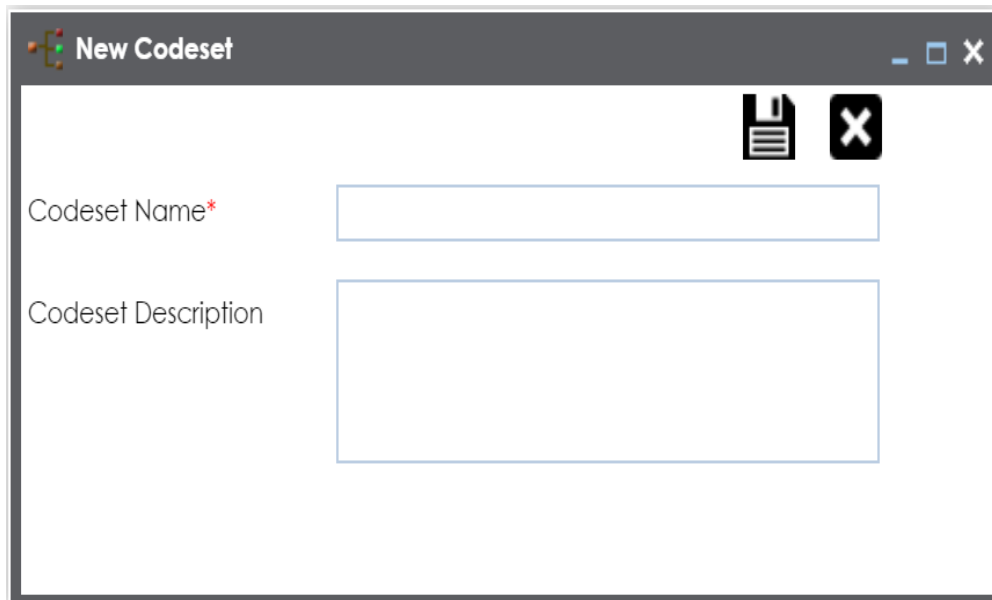
To define codesets, follow these steps:

1. Right-click the category node created by you in the above step.



2. Click **New Codeset**.

The New Codeset page appears.



3. Enter **Codeseal Name** and **Codeseal Description**.

For example:

- Codeset Name - Country Codes
- Codeset Description - This codeset has code names and code values for four countries.

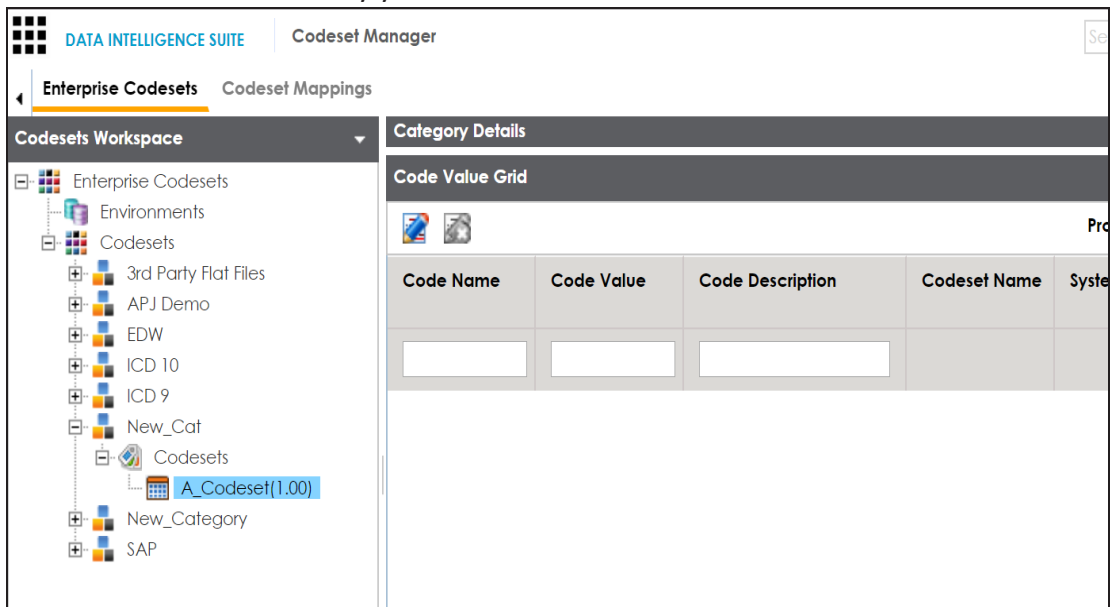
4. Click .

A codeset is created and stored in the codesets tree.

We can populate code values in codesets by scanning the database.

To populate code values in codesets via DB scan, follow these steps:

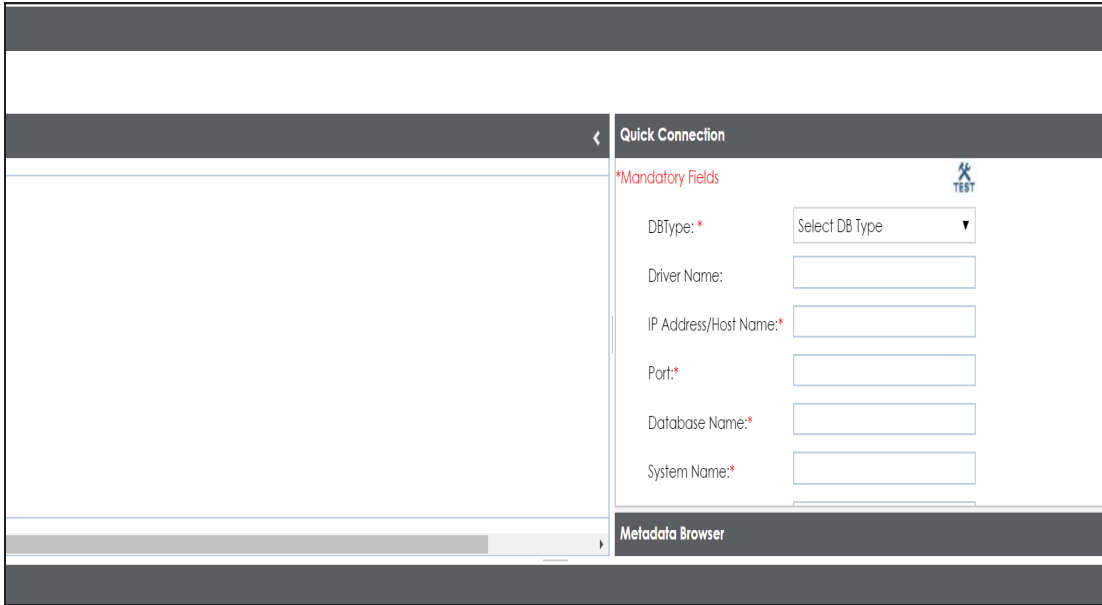
1. Click the codeset created by you.



The screenshot shows the 'Codeset Manager' window. On the left, a tree view shows 'Enterprise Codesets' expanded to 'Codesets', where 'A\_Codeset(1.00)' is selected. The main area is divided into 'Category Details' and 'Code Value Grid'. The 'Code Value Grid' has a header row with columns: 'Code Name', 'Code Value', 'Code Description', 'Codeset Name', and 'System'. Below the header, there are two empty input fields in the first three columns. There are two icons in the top left of the grid area.

2. In **Code Value Grid**, click .




3. Click  and expand the **Quick Connection** pane.



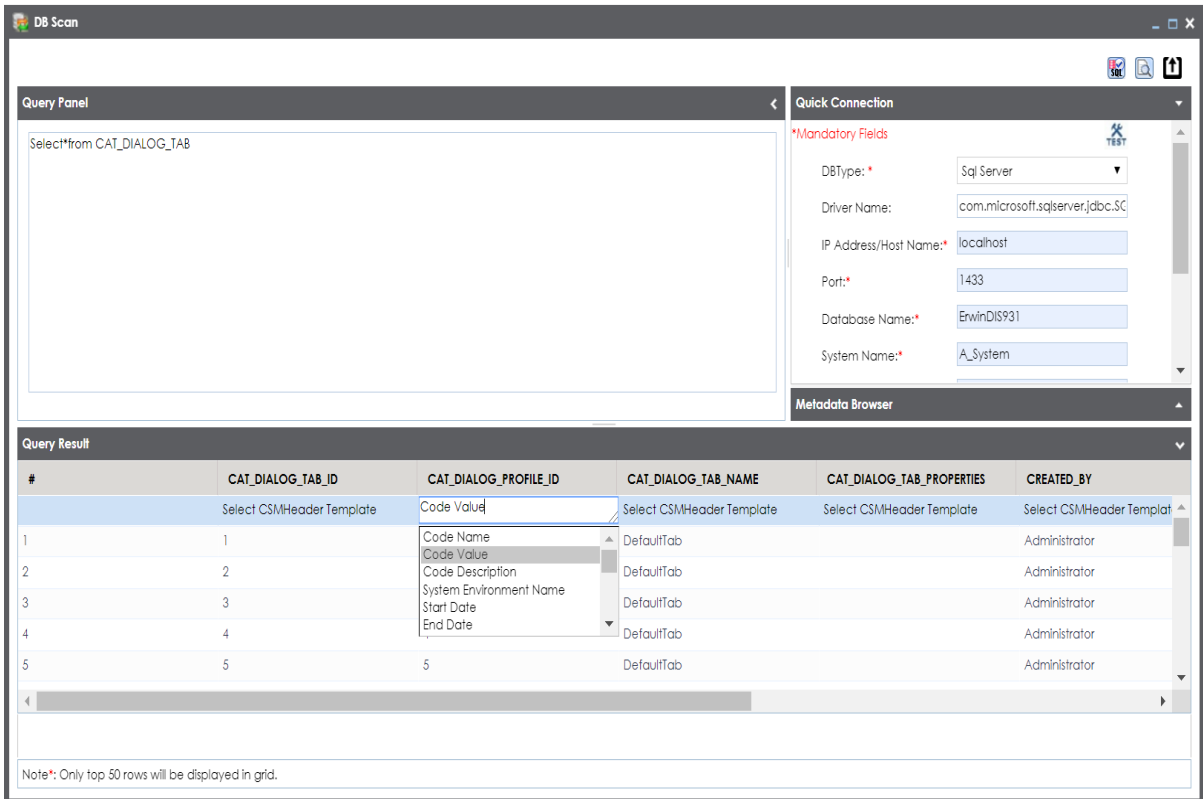
4. Enter appropriate values in the fields (connecting parameters). Fields marked with a red asterisk are mandatory. Refer to the following table for field description.

Field Name	Description
DBType	Specifies the database type. For example, Sql Server. Select the database type from which you wish to scan codes.
Driver Name	Specifies the JDBC driver name for connecting to the database. For example, com.microsoft.sqlserver.jdbc.SQLServerDriver It is autopopulated depending on the DB type. You can also update the driver name.
IP Address/Host Name	Specifies the IP address or server host name of the database. For example, localhost.
Port	Specifies the port to connect with the database. For example: 1433 is the default port for a Sql Server database type.
Database Name	Specifies the database name being used to connect to the code-set.


Field Name	Description
	For example, ErwinDIS931.
System Name	Specifies the name of the system related with the codeset. For example, EDW. The name of the system should be same as provided in Metadata Manager.
System Environment Name	Specifies the name of the environment related with the codeset. For example, EDW-DEV. The name of the environment should be same as provided in Metadata Manager.
User Name	Specifies the user name to connect with database. For example, sa.
Password	Specifies the password to connect with database. For example, goerwin@1.
URL	Specifies the full JDBC URL that is used to establish a connection with the database. For example, <b>jdbc:sqlserver://SERVER_NAME:PORT#;databaseName=DatabaseName</b> It is autopopulated based on the other parameters.


5. Click  to test the connection.  
If connection is established then a success message pops up.
6. Write a query in the **Query Panel** and click  to validate the query.
7. Click  to preview the query result.
8. Double-click the **Select CSMHeader Template** cell of the required column.  
The columns of the Code Value Grid appears as an option list.





9. Select the required **Code Value Grid** column.

 You can select multiple columns from the data base.

10. Click  to import the selected columns in the **Code Value Grid**.

The selected columns are imported in the Code Value Grid.

You can also enter codes in the Code Value Grid:

- Manually
- Using MS Excel files

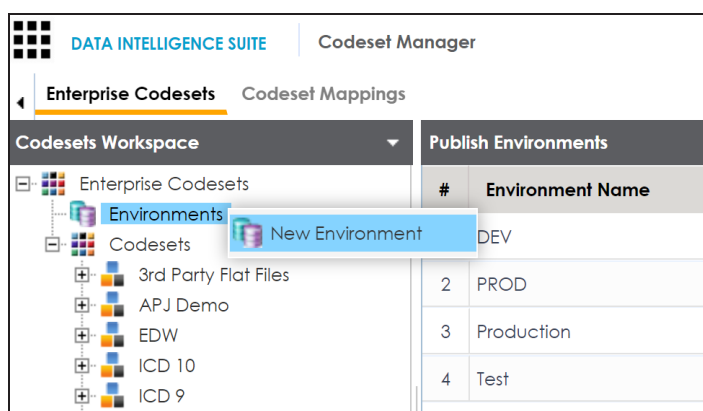
For more information on maintaining codesets, refer to the [Maintaining Enterprise Codesets](#) section.

## Publishing Codesets

You can publish your codesets to an environment. To publish the codesets, ensure that you have created and setup an environment.

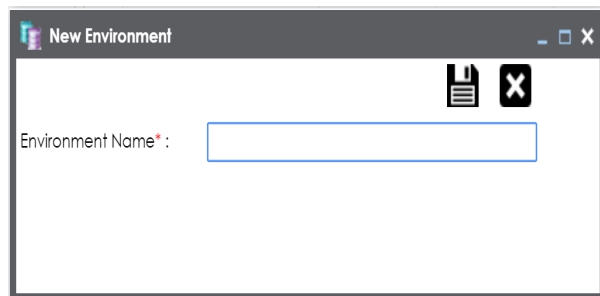
To create publish environments, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager**.
2. In the **Codesets Workspace** pane, right-click the **Environments** node.



3. Click **New Environment**.

The New Environment page appears.



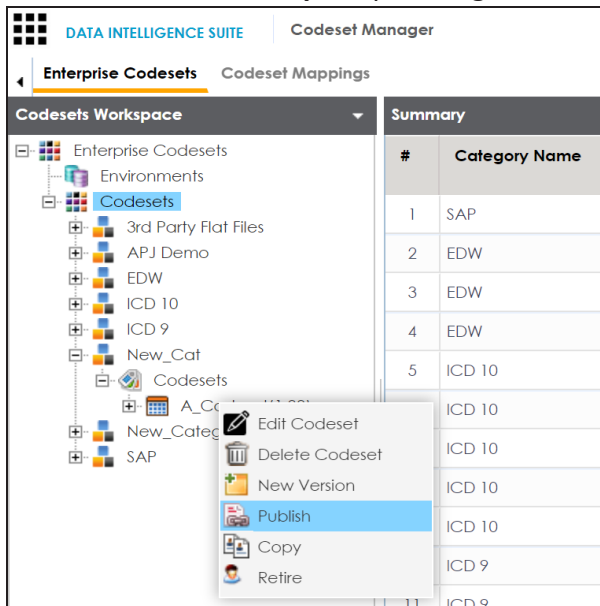
4. Enter **Environment Name**.

5. Click .

A new publish environment is created and saved in the Publish Environments pane.

To publish codesets, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager>**.
2. In the **Codesets Workspace** pane, right-click a codeset.



3. Click **Publish**.

The Publish Codesets page appears.

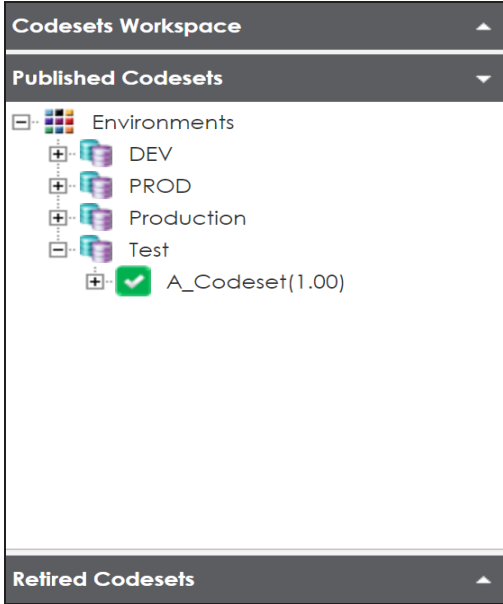
4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field description.

Field Name	Description
Codeset Name	Specifies the name of the codeset which is being published. For example, Country Codes. It autopopulates with the codeset name and cannot be edited.
Codeset Version	Specifies the new version of the codeset. For example, 1.03. It autopopulates with the new version and cannot be edited.
Codeset Version Label	Specifies the version label of the codeset. For example, Beta.
Codeset Changed Description	Specifies the description about the changes in the codeset. For example: Code Value for CANADA was changed to CAN.
Publish Environment	Specifies the publish environment to which the codeset is

Field Name	Description
	being published. For example, Production.

5. Click .

The codeset is published successfully and the published codesets move under Published Codesets pane.



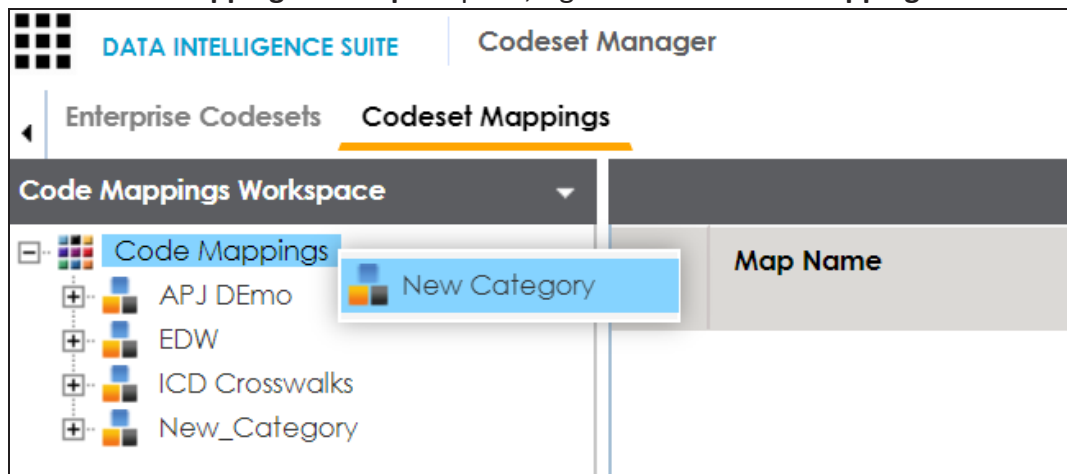
## Creating Code Crosswalks (Mappings)

You can create code crosswalks (mappings) for the source and target codesets in Codeset Manager. These codesets can have the same or different code values. Using the Auto-Map functionality, you can map codesets having same code values. Codesets having different code values can be mapped using the drag and drop method.

A category can hold multiple code maps. Code maps are stored in a hierarchical manner, Category > Mappings. You can also create sub-categories under a category to provide one more level of categorization to mappings.

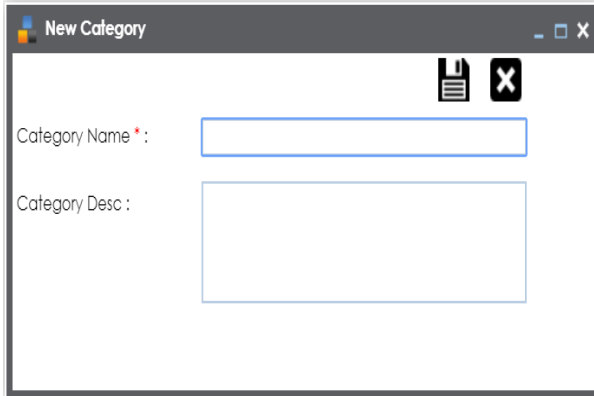
To create a category, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager > Codeset Mappings**.
2. In the **Code Mappings Workspace** pane, right-click the **Code Mappings** node.



3. Click **New Category**.

The New Category page appears.



The image shows a software window titled "New Category". Inside the window, there are two text input fields. The first is labeled "Category Name \*" with a red asterisk indicating it is a required field. The second is labeled "Category Desc". In the top right corner of the window, there are two icons: a floppy disk icon representing "Save" and an "X" icon representing "Close".

4. Enter **Category Name** and **Category Description**.

For example:

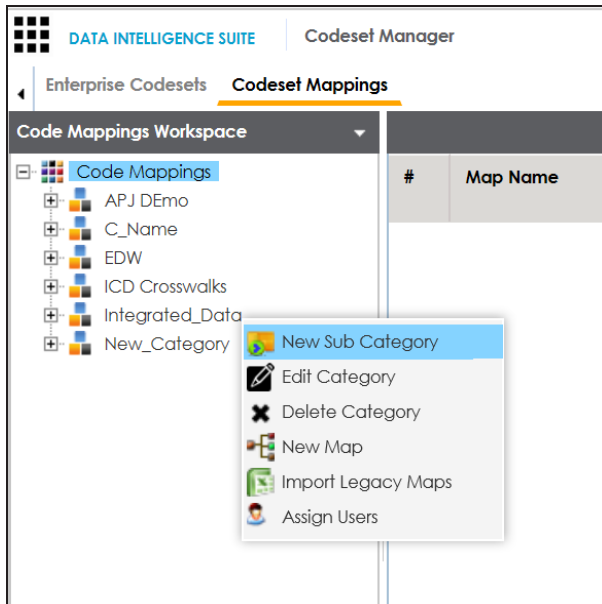
- **Category Name:** EDW
- **Category Description:** This category contains two code mappings, Gender Crosswalk and Marital Status Crosswalk.

5. Click .

A new category is created and saved under the category tree.

To create sub-categories under a category, follow these steps:

1. Under the **Code Mappings Workspace** pane, right-click the required category.



2. Click **New Sub Category**.

The New Category page appears.

3. Enter **Category Name** and **Category Description**.

For example:

- Category Name - EDW-Finance
- Category Description - This sub-category contains two code mappings, Gender Crosswalk and Marital Status Crosswalk.



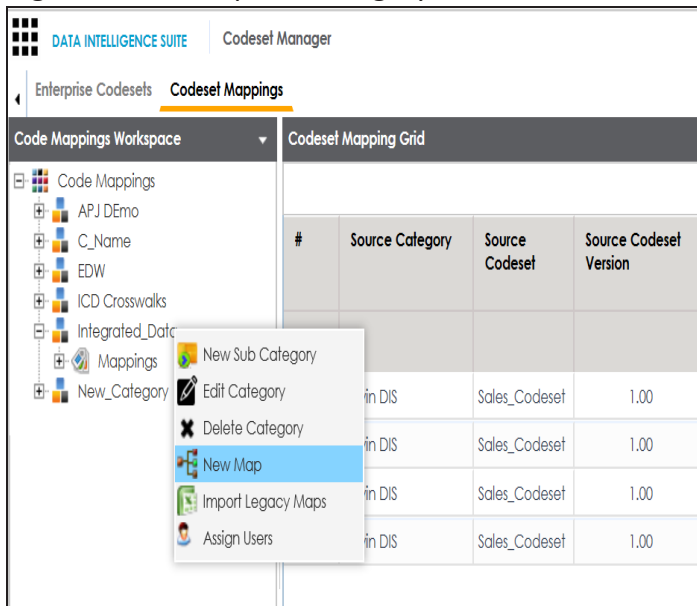
4. Click .

A new sub-category is created and saved under the sub-category tree.

You can use Auto-Map functionality to map source and target codesets having same code values.

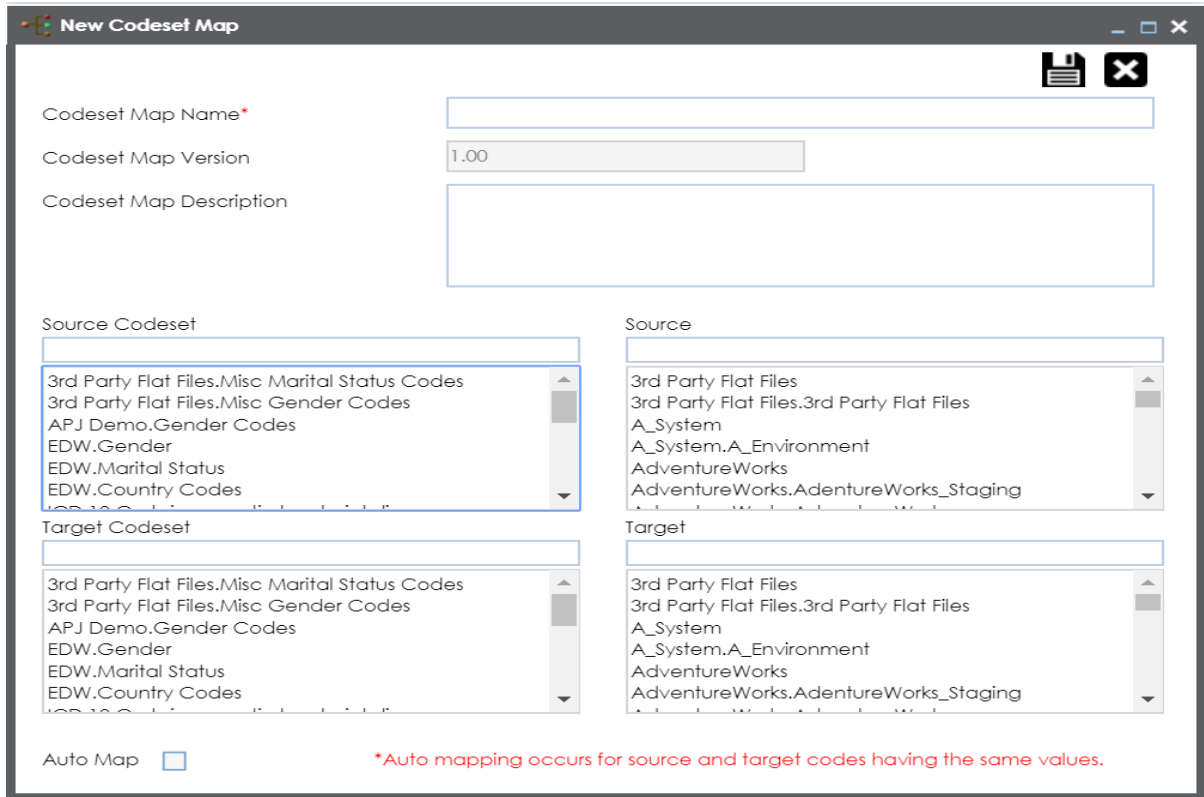
To create code mappings when source and target codesets have same code values, follow these steps:

1. Right-click the required category.



2. Click **New Map**.

The New Codeset Map page appears.



3. Enter **Codeset Map Name** and **Codeset Map Description**.

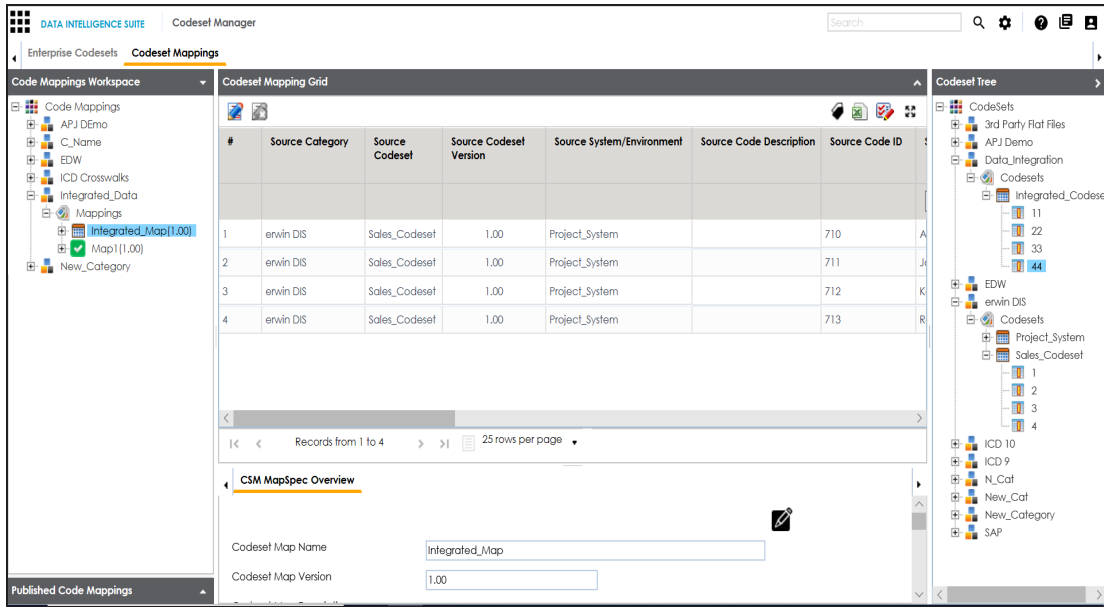
For example:

- Codeset Map Name - Gender Crosswalk
- Codeset Map Description - The codeset map is the code mappings between the two codesets, Misc Gender Codes and Gender.

4. Select the **Source Codeset/System** and **Target Codeset/System**.

5. Select the Auto Map check box and click .

A new code mapping is created and source and target codesets are mapped in the Codeset Mapping Grid.

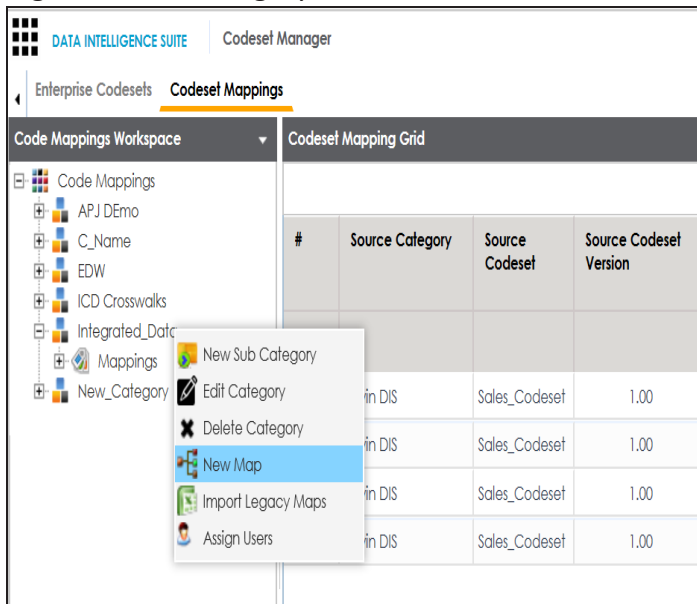


6. Click  to validate the code mapping.

You need to use drag and drop method to map codesets having different code values.

To create code mappings when source codesets and target codesets have different code values, follow these steps:

1. Right-click the category.



2. Click **New Map**.

The New Codeset Map page appears.

3. Enter **Codeset Map Name** and **Codeset Map Description**.

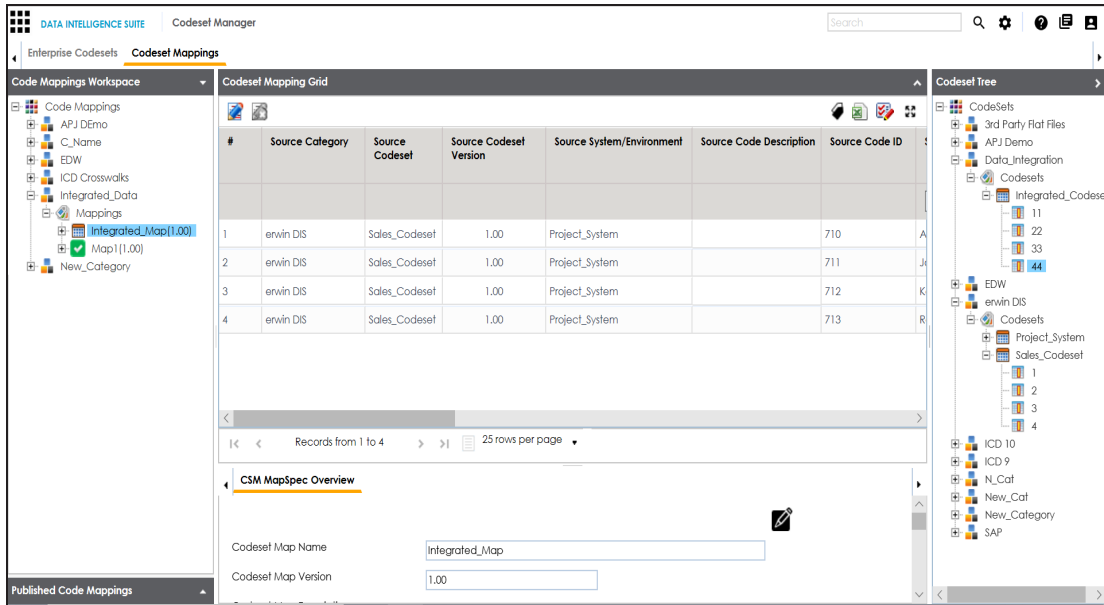
For example:


- Codeset Map Name - Gender Crosswalk
- Codeset Map Description - The codeset map is the code mappings between the two codesets, Misc Gender Codes and Gender.

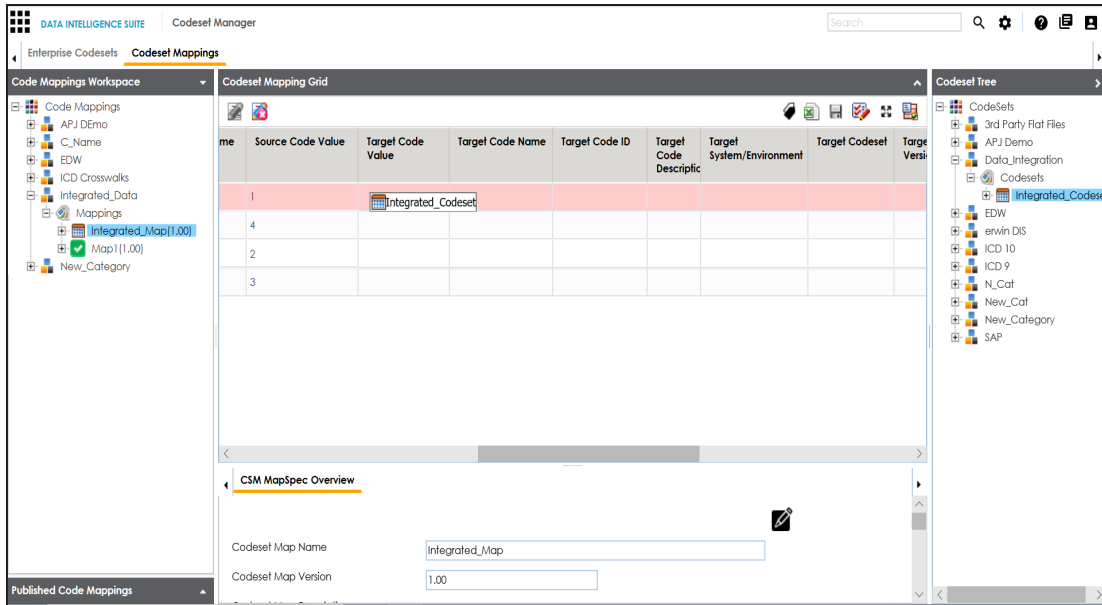
4. Select the Source Codeset/System.

5. Click .

The source codesets details are updated in the Codeset Mapping Grid.



6. Click .
7. Scroll to right of the Codeset Mapping Grid to see the Target Code Value column.
8. In **Codeset Tree**, expand the target category and the Codesets node.
9. Drag and drop the target codeset into the Code Set Mapping Grid under the Target Code Value column.



10. Click .


The code mappings are successfully saved.

11. Click  to validate the code mapping.


The code map is validated. Ensure that all the required codes are mapped.

Use the following options:

### Export

To download the code map details in .xlsx format, click .

### Extend Mapping Grid

To extend the Codeset Mapping Grid, click .

## Associating Code Mappings with Data Item Mappings

A code map can be associated with a data item mapping to standardize data across the organization. These code maps are maintained in Codesets Manager. For more information on codesets and code mappings, refer to the [Using Codesets Manager](#) section.

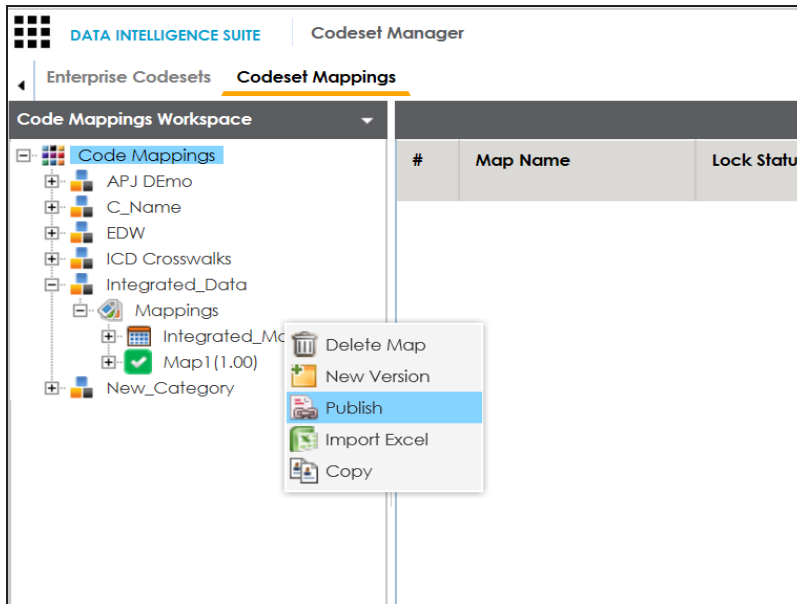
Before associating a code map with data item mappings, ensure that you publish the code map.

## Publishing Code Maps

To publish code maps, follow these steps:

1. Go to **Application Menu > Data Catalog > Codeset Manager > Codeset Mappings**.
2. In the **Code Mappings Workspace** pane, right-click a code map.

The available options appear.



3. Click **Publish**.

The Publish Codeset Map page appears.

4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Codeset Map Name	Specifies the name of the code map. For example, Gender Crosswalk.
Codeset Map Version	Specifies the new version of the code map. For example, 1.02.
Codeset Map Description	Specifies the description about the code map. For example: The codeset map is the code mappings between the two codesets, Misc Gender Codes and Gender.
Map Version Label	Specifies the version label of the code map. For example, Beta.
Map Changed Description	Specifies the description about the changes made in the code map. For example: Code values were updated.
Publish Environment	Specifies the environment where the code map is being published. For example, test. You can create publish environments in Enterprise Codesets.

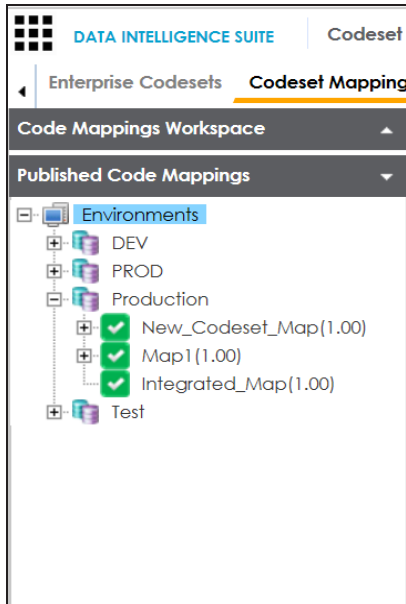


Field Name	Description
	For more information on creating publish environments, refer to the <a href="#">Publishing Codesets</a> topic.

5. Click .

The code map is published and it can be found in the Published Code Mappings pane under the selected Publish Environment.

A new version of the code map is created under the Mappings tree.



A published code map can be associated with a mapping in the Mapping Manager. The published code map is available under the Code Mappings Catalogue.

## Associating Code Maps

To associate published code maps with data item mappings, follow these steps:

1. Go to **Application Menu > Data Catalog > Mapping Manager**.
2. In the **Workspace Mappings** pane, click the required map.

The Mapping Specification grid appears.

#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Source Column Data Type	Source Column Length	Business Rule
1	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG_TAB	int	5	TRUNC
2	erwinDIS	Data_Migration	dbo.ADS_ASSOCI	ID	bigint	80	TRUNC
3	erwinDIS	Data_Migration	dbo.ADS_ASSOCI	SOURCE_OBJECT	bigint	8	ABS
4	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG_PRC	int	4	

3. Click .

4. In the **Mapping Specification** grid, right-click the header menu.

#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Source Column Data Type	Source Column Length	Business Rule
1	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG			TRUNC
2	erwinDIS	Data_Migration	dbo.ADS_ASSOCI	ID			TRUNC
3	erwinDIS	Data_Migration	dbo.ADS_ASSOCI	SOURCE_OBJECT	bigint	8	ABS

5. Select the **CSM Mapping** check box.

The CSM Mapping Column appears in the Mapping Specification grid.

6. In the right pane, expand **Code Mapping Catalogue**.

7. Drag the code map into the **Mapping Specification** grid and drop it under the **CSM Mapping** column for the required row.

Mapping Specification    Graphical Designer    Test Specification    Workflow Log

[Erwin\_Map]    Profiles: Default

target Column length	Created By	Created Date	CSM Mapping	Last Modified By	Last Modified Date Time	Reference Table
		2019-10-21 14:36:15.057				
	Administrator	2019-10-21 14:36:15.057	Integrated_Map(1.00)	Administrator	2019-12-10 14:49:07.187	
	Administrator	2019-10-21 14:36:15.057		Administrator	2019-12-10 14:49:07.187	

Metadata Catalogue

Code Mappings Catalogue

- Code Mappings
  - C\_Name
  - EDW
  - ICD Crosswalks
  - Integrated\_Data
    - Mappings
      - Integrated\_Map(1.00)
      - Map1(1.00)
  - New\_Category

8. Click .

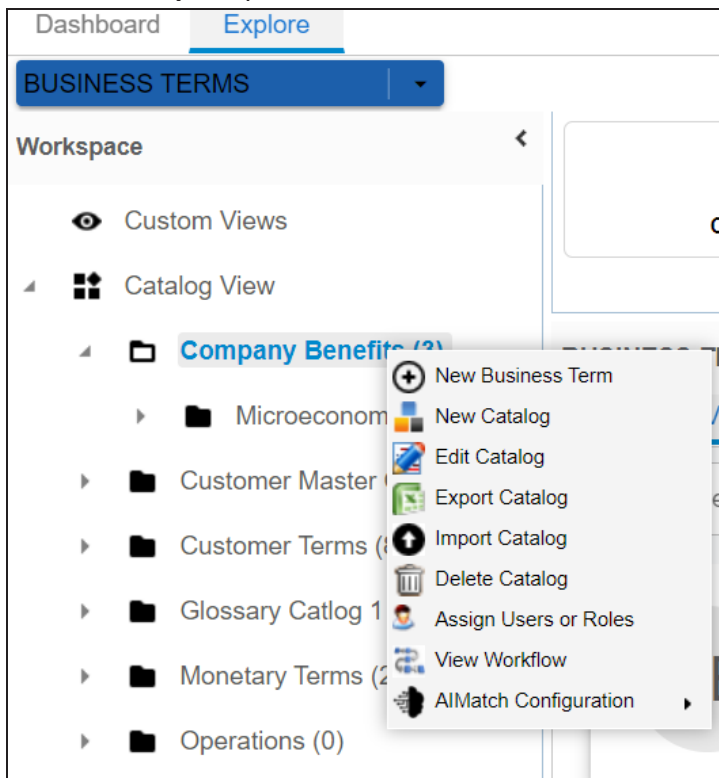
The code map is associated with the data item mappings.

## Creating Business Terms

Business terms are globally defined terms that represent your business terminology usage. Using business terms, you can maintain a common business vocabulary across your organization. You can create business terms in new or existing catalogs. For more information about catalogs, refer to the [Creating Catalogs](#) topic.

To create business terms, follow these steps:

1. Go to **Application Menu > Data Literacy > Business Glossary Manager > Explore**.
2. In the business asset list, select **Business Terms**.  
The Workspace switches to the business terms view.
3. In the **Workspace** pane, under the **Business Terms** node, right-click a catalog node.




4. Click **New Business Term**.

The New Business Term page appears.

5. Enter appropriate values to the fields. Fields marked with a red asterisk are mandatory.

Refer to the following table for field descriptions.

Field Name	Description
Business Term	Specifies the name of the business term. For example, Account.
Definition	Specifies the definition of the business term. For example: An Account contains data for a party.
Description	Specifies the description about the business term. For example: Account contains data for posting, payments, debt recovery, and taxes.
Notes	Specifies the reference notes, if any.

Field Name	Description
	For example: The data for posting, payments, debt recovery, and taxes was imported from the Account.xlsx file.
Governance Responsibilities	Specifies the users assigned with data governance responsibilities for the business assets. For more information, refer to <a href="#">Updating Data Governance</a> .
Sensitive Data Indicator(SDI)	Specifies whether the business term is sensitive. Switch <b>Sensitive Data Indicator(SDI)</b> to <b>Yes</b> to mark the business term as sensitive.
Sensitive Data Indicator (SDI) Classification	Specifies the SDI classification of the business term. For example, PHI. This list is enabled when Sensitive Data Indicator (SDI) is switched to Yes. For more information on configuring SDI classifications, refer to the <a href="#">Configuring Sensitive Data Indicator Classifications</a> topic.
Sensitive Data Indicator (SDI) Description	Specifies the description of the SDI classification. For example: Protected Health Information. It is enabled when Sensitive Data Indicator(SDI) is switched to Yes. The field autopopulates based on the SDI classification.
Business Term Image Uploader	Drag and drop a picture of business term or click  to browse and upload a picture.
Acronym	Specifies whether the business term is an acronym.



By default, sensitivity fields (Sensitive Data Indicator(SDI), Sensitive Data Indicator (SDI) Classification, and Sensitive Data Indicator (SDI) Description) are enabled for business terms. For more information on enabling sensitivity fields, refer to the [Configuring Asset Details](#) topic.

6. Click .

A business term is created and added to the catalog.

Based on your workflow assignment settings, the business term may need further

action for review or approval. For more information, refer to the [Managing Business Glossary Workflows](#) topic.

Once, a business term is created you can set up associations for business terms.


You can also create Business Policies, Business Rules, and other business assets in the Business Glossary Manager. For more information on creating business assets, refer to the [Managing Business Glossary](#) section.

## Setting Up Associations for Business Terms

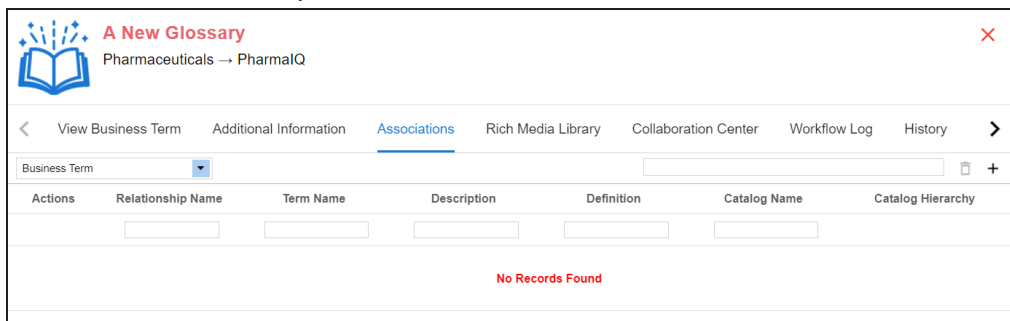
By default, you can associate business terms with business assets (business policies and other business terms) and technical assets (columns, environments, and tables). You can control the available asset types for association using the Business Glossary Manager settings page. For more information, refer to the [configuration](#) topic.

To set up associations, follow these steps:

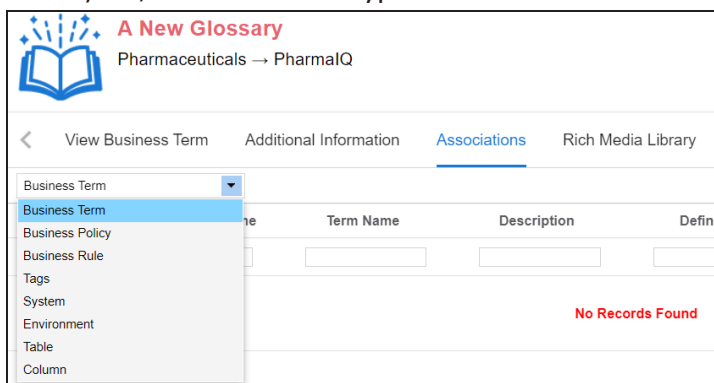
1. On the **Compact View** tab, click .

Alternatively, on the **Grid View** tab, under the **Options** column, click . Then, click **Associations**.

The Associations tab opens in edit mode.



2. In the asset type (business policies, business terms, columns, environments, and tables) list, select an asset type to associate with the business term.



3. Click **+**.

The Relationship Associations page appears. Based on the asset type that you select, it



displays a list of available assets.

Relationship Associations

Save Cancel

Current Context: Business\_Term

Current Context Type: Business Term

Relationship Name: is associated with

Search (partial matches):

<input type="checkbox"/>	Policy Name	Description	Definition	Catalog Name	Catalog Hierarchy	Data Steward
<input checked="" type="checkbox"/>	Gender Policy			Customer Gender DQ Po	Customer Gender DQ Polic	N/A
<input type="checkbox"/>	Ledger Policy	The GL is at the heart of C		HV	HV	

1 2 Records from 11 to 16 of 16

4. Select assets to associate with your business term.  
If you know the asset name, use the Search (partial matches) field to look up for it.
5. Click **Save**.  
The selected assets are associated with the business term and added to the list of associations.  
You can define as many associations as required.

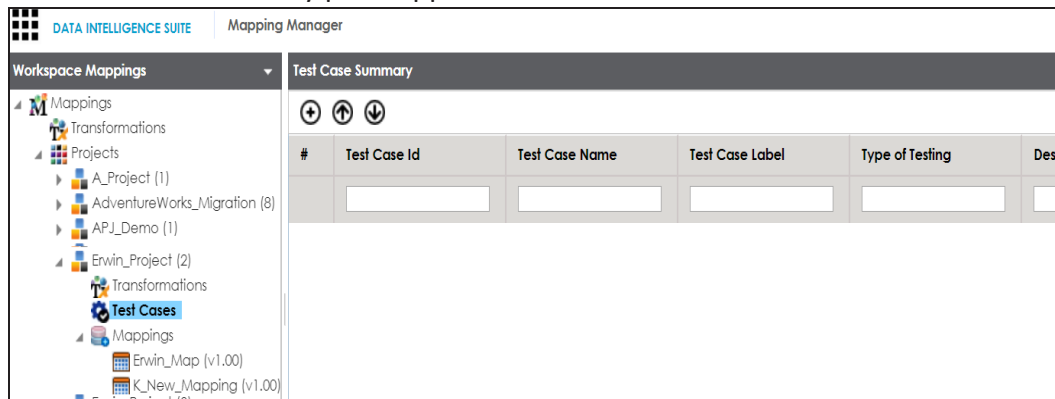
## Creating Test Cases

You can create multiple test cases at project level and, record expected and actual results. Using these test cases, you can test data mappings and ETL process. You can also manage test cases as per your requirements.

To create test cases, follow these steps:

1. In the **Workspace Mappings** pane, expand a project.
2. Click the **Test Cases** node.

The Test Case Summary pane appears.



3. Click .

The Add New Test Case page appears.

**Add New Test Case**

Test Case Overview    Validation Steps    Document Upload

Save & Continue    Save & Exit    Cancel

Test Case Name \*

Test Case Label

Type of Testing    Select

Test SQL Script

Description

Expected Result

4. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Test Case Name	Specifies the name of the test case. For example, Verifying the Completeness of Source Metadata.
Test Case Label	Specifies the unique label for the test case. For example, Source Metadata.
Type of Testing	Specifies the type of testing. For example, Metadata Testing.
Test SQL Script	Specifies the SQL script required in the test execution. For example, select * from dbo.ADS_ASSOCIATIONS.
Description	Specifies the test objective in brief. For example: The objective of the test case is to verify the completeness of source metadata.
Expected Result	Specifies the expected result of the test case in detail. For example: The source table should have 50 columns.
Actual Result	Specifies the actual test result after the execution of the test.

Field Name	Description
	For example: The source table has 39 columns.
Testing Comments	Specifies the testing comments about the test case. For example: The source metadata was scanned from a Sql Server database.

5. Click **Save and Exit**.

The test case is created and saved under the **Test Cases** node.

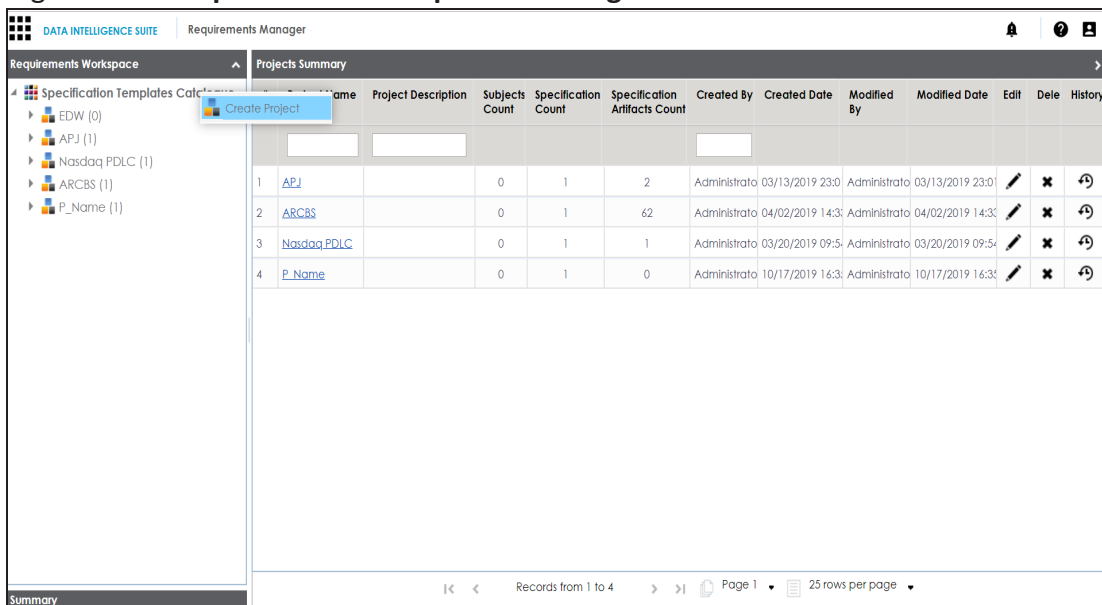
For more information on test cases, refer to the [Creating and Managing Test Cases](#) topic.

## Documenting Requirements

You can document functional requirements in a standardized manner in Requirements Manager. It is an agile and collaborative platform to create customized requirements templates.

To document your requirements in standard templates, follow these steps:

1. Go to **Application Menu > Data Catalog > Requirements Manager > Requirements Workspace**.
2. Right-click the **Specification Templates Catalogue** node.



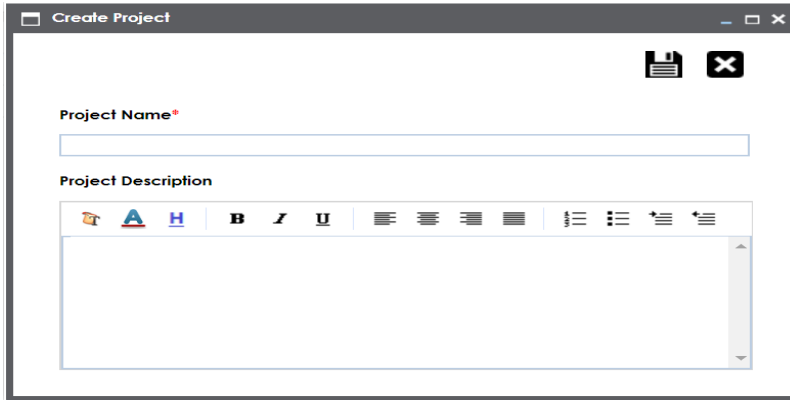
The screenshot shows the Requirements Manager interface. On the left, the 'Specification Templates Catalogue' node is expanded, showing a tree view with nodes for EDW (0), APJ (1), Nasdaq PDLC (1), ARCBS (1), and P\_Name (1). A 'Create Project' button is visible over the APJ node. The main area displays a table with the following data:

	Name	Project Description	Subjects Count	Specification Count	Specification Artifacts Count	Created By	Created Date	Modified By	Modified Date	Edit	Dele	History
1	APJ		0	1	2	Administrato	03/13/2019 23:0	Administrato	03/13/2019 23:0			
2	ARCBS		0	1	62	Administrato	04/02/2019 14:3	Administrato	04/02/2019 14:3			
3	Nasdaq PDLC		0	1	1	Administrato	03/20/2019 09:5	Administrato	03/20/2019 09:5			
4	P_Name		0	1	0	Administrato	10/17/2019 16:3	Administrato	10/17/2019 16:3			

At the bottom of the table, there is a pagination control showing 'Records from 1 to 4', 'Page 1', and '25 rows per page'.

3. Click **Create Project**.

Create Project page appears.



4. Enter **Project Name** and **Project Description**.

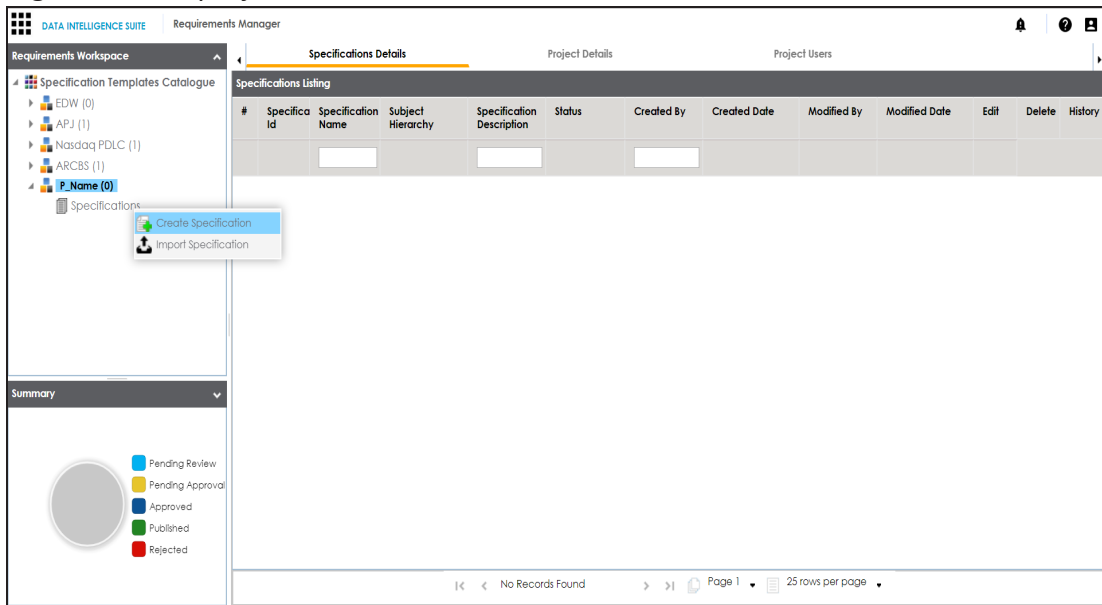
For example:

- Project Name - Nasdaq PDLC
- Project Description - This project captures functional and business requirements of the data migration project.

5. Click .

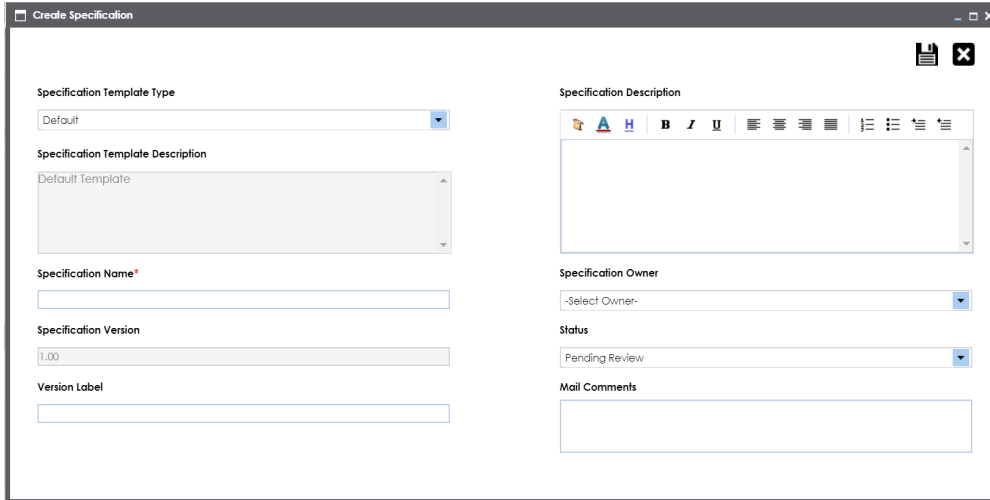
A new project is created and stored in the project tree.

6. Right-click the project node.



7. Click **Create Specifications**.

Create Specifications page appears.



8. Enter appropriate values in the fields. Fields marked with a red asterisk are mandatory. Refer to the following table for field descriptions.

Field Name	Description
Specification Template Type	Specifies the template of the specification. For example, Health Migration Template. You can create templates and add artifacts to templates in the <a href="#">Requirements Manager Settings</a> .
Specification Template Description	Specifies the description about the specification template. For example: The Health Migration Template is to capture functional and business requirements of the data migration project.
Specification Name	Specifies the name of the specification. For example, OrganMatch.
Specification Version	Specifies the version of the specification. For example, 1.01. The specification version is autopopulated. For more information on configuring version display of specifications, refer to the <a href="#">Configuring Version Display</a> topic.

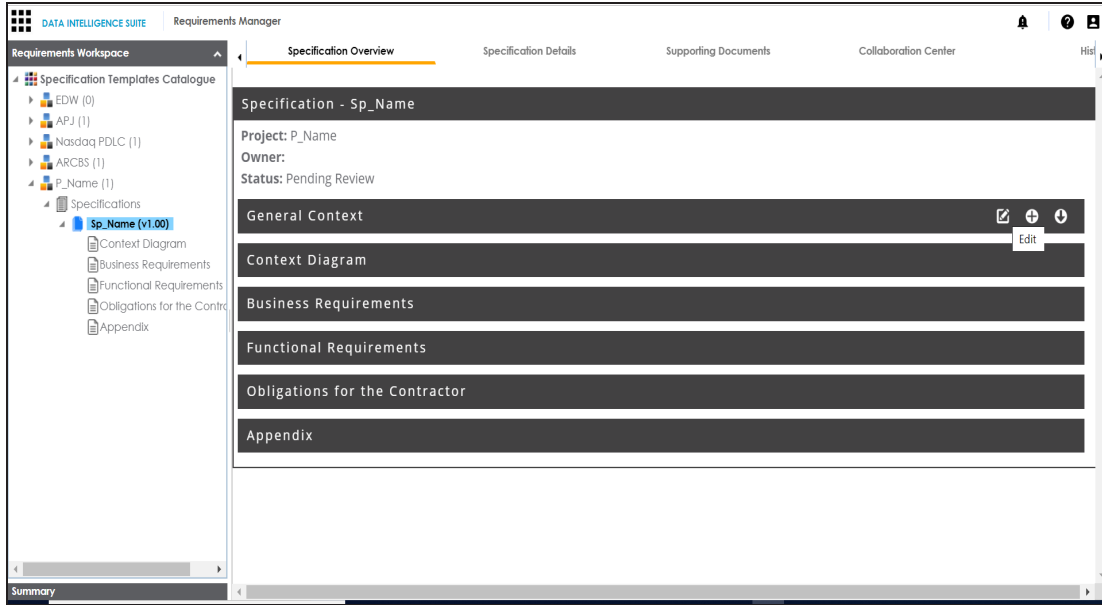
Field Name	Description
Version Label	Specifies the version label of the specification. For example, Beta. For more information on configuring version display of specifications, refer to the <a href="#">Configuring Version Display</a> topic.
Specification Description	Specifies the description about the specification. For example: The specification uses the Health Migration Template to capture functional and business requirements of the data migration project.
Specification Owner	Specifies the specification owner's name. For example, Jane Doe.
Status	Specifies the status of the specification. For example, Pending Review.
Mail Comments	Specifies the mail comments, which are sent to the project users. For example: The specification uses the Health Migration Template. For more information on configuring email notifications, refer to the <a href="#">Configuring Email Settings</a> topic.

9. Click  .

A new specification is created and stored in the specifications tree. The specifications tree is nested under the project node.

10. Document your requirements in the **Specification Overview** page.





Specification Overview page depends on the **Specification Template Type** selected while creating the specification.

11. Click .

The artifact is saved.

For more information on creating specifications and documenting requirements, refer to the [Using Requirements Manager](#) section.

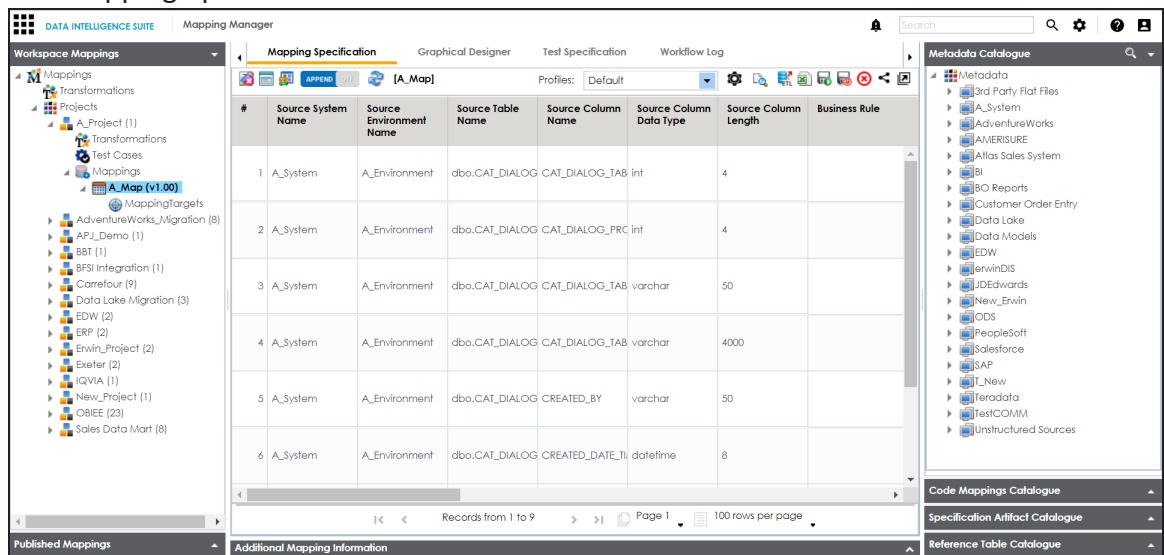
## Linking Requirements to Mappings

To ensure enterprise-wide traceability, you can link your functional requirements to data mappings.

To link functional requirements to mappings, follow these steps:

1. Go to **Application Menu > Data Catalog > Mapping Manager**.
2. Click a mapping.

The mapping opens in the detailed view.



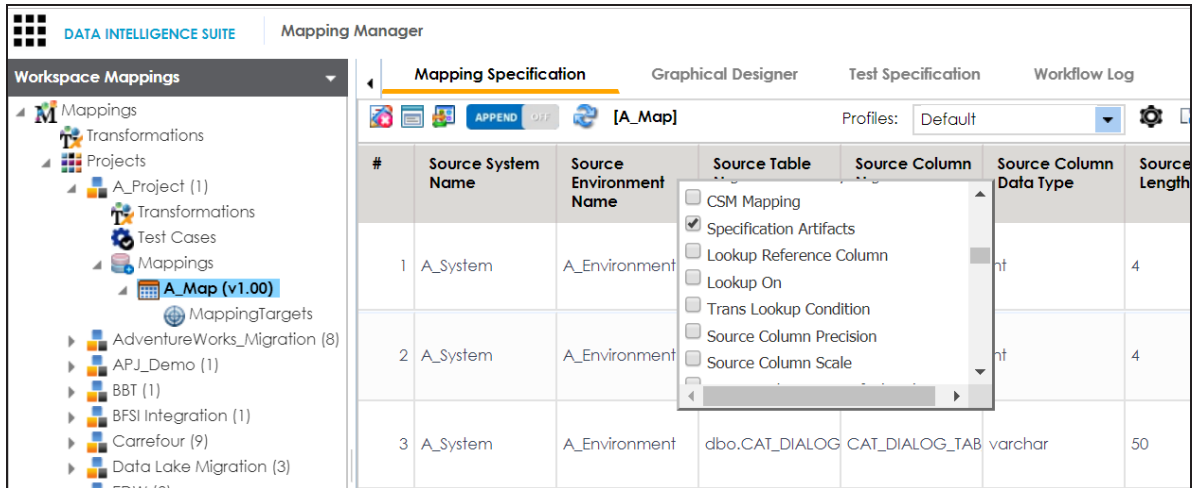
The screenshot displays the Mapping Manager interface with the 'Mapping Specification' tab active. The central area shows a table with the following columns: #, Source System Name, Source Environment Name, Source Table Name, Source Column Name, Source Column Data Type, Source Column Length, and Business Rule. The table contains six rows of data:

#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Source Column Data Type	Source Column Length	Business Rule
1	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG_TAB	int	4	
2	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG_PRC	int	4	
3	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG_TAB	varchar	50	
4	A_System	A_Environment	dbo.CAT_DIALOG	CAT_DIALOG_TAB	varchar	4000	
5	A_System	A_Environment	dbo.CAT_DIALOG	CREATED_BY	varchar	50	
6	A_System	A_Environment	dbo.CAT_DIALOG	CREATED_DATE_Tl	datetime	8	

The interface also includes a 'Workspace Mappings' tree on the left, a 'Metadata Catalogue' on the right, and a 'Published Mappings' section at the bottom left. The bottom status bar shows 'Records from 1 to 9', 'Page 1', and '100 rows per page'.

3. On the **Mapping Specification** tab, right click the grid header.

A list of header columns appears.



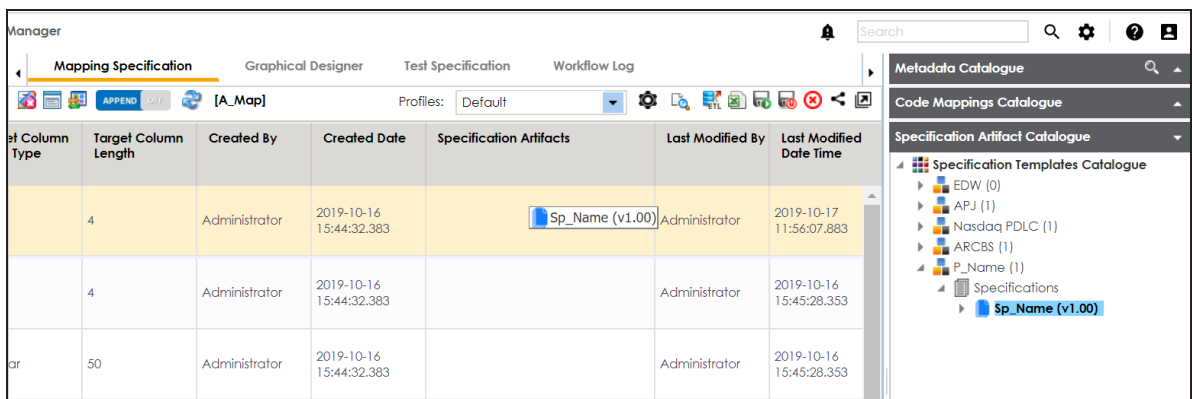
4. Scroll down the list and select the **sSpecification Artifact** check box.

The specification Artifact column becomes visible on the Mapping Specification tab.

5. In the right pane, click **Specification Artifact Catalogue**.

6. Expand the project that contains the required specification.

7. Drag and drop the specification on the **Specification Artifacts** column in the required row.



8. Click .

Requirements are linked to the selected mapping.

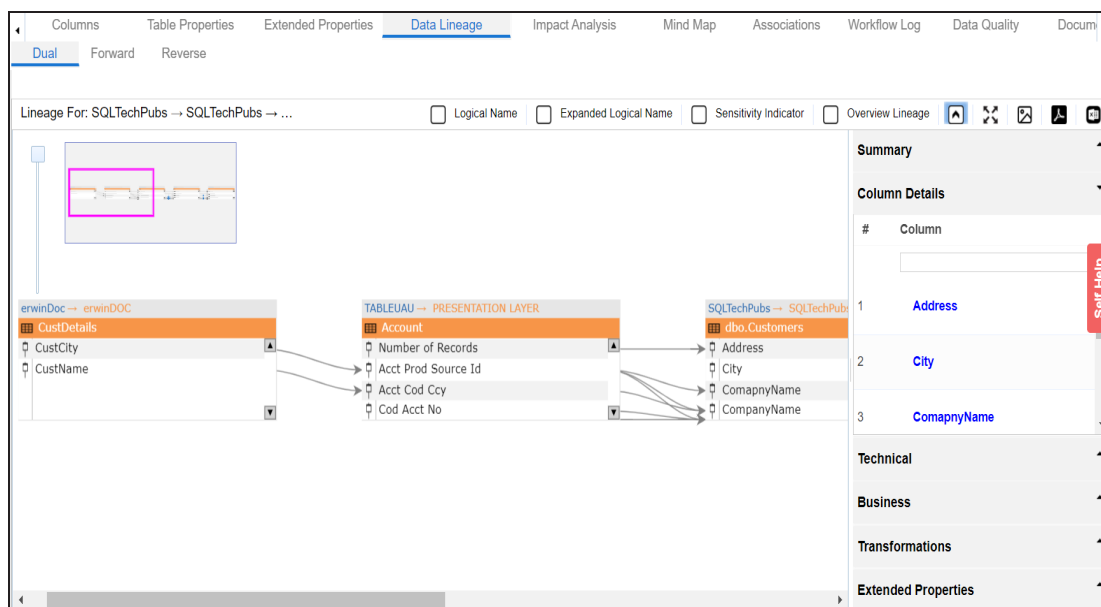
## Running Lineage Analysis

You can run forward and reverse lineage analysis to trace metadata at the table level. Forward lineage analysis generates lineage with the table as source. And, reverse lineage analysis generates lineage with the table as target. The Dual lineage analysis generates a lineage, which includes both forward and reverse lineage.

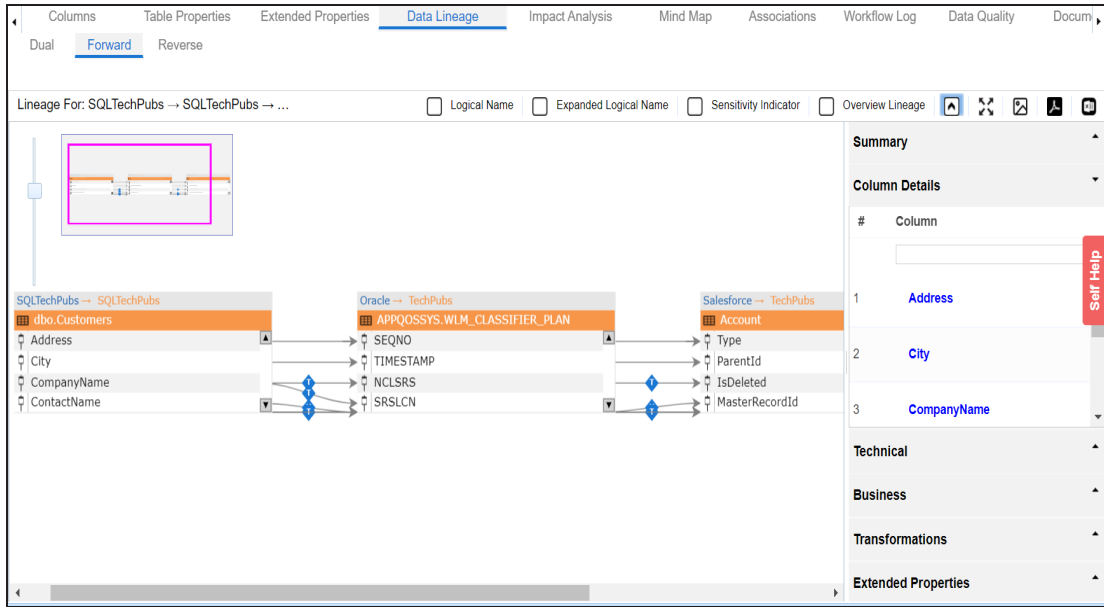
To run lineage analyzer at the table level, follow these steps:

1. Go to **Application Menu > Data Catalog > Metadata Manager**.
2. In the **System Catalogue** pane, click the required table.
3. In the right pane, click the **Data Lineage** tab.

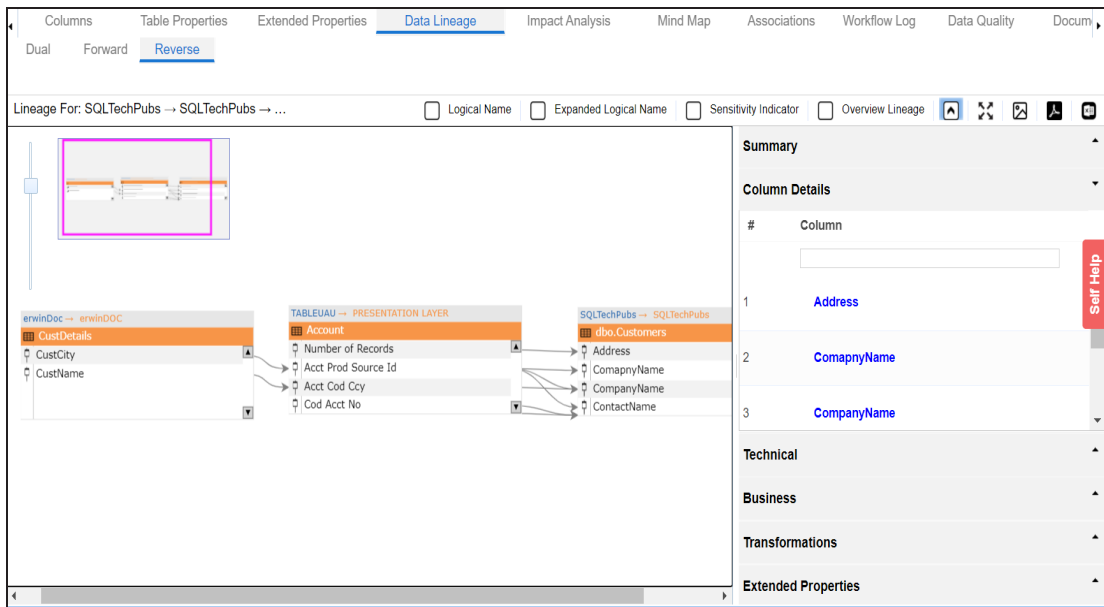
By default, dual lineage of the table appears.



To view forward lineage of the table, click the **Forward** tab.



To view reverse lineage of the table, click the **Reverse** tab.



You can also run the lineage at the following levels:

- System
- Environment

- Column

For more information on performing lineage analysis in Metadata Manager, refer to the [Running Lineage Analysis](#) section.

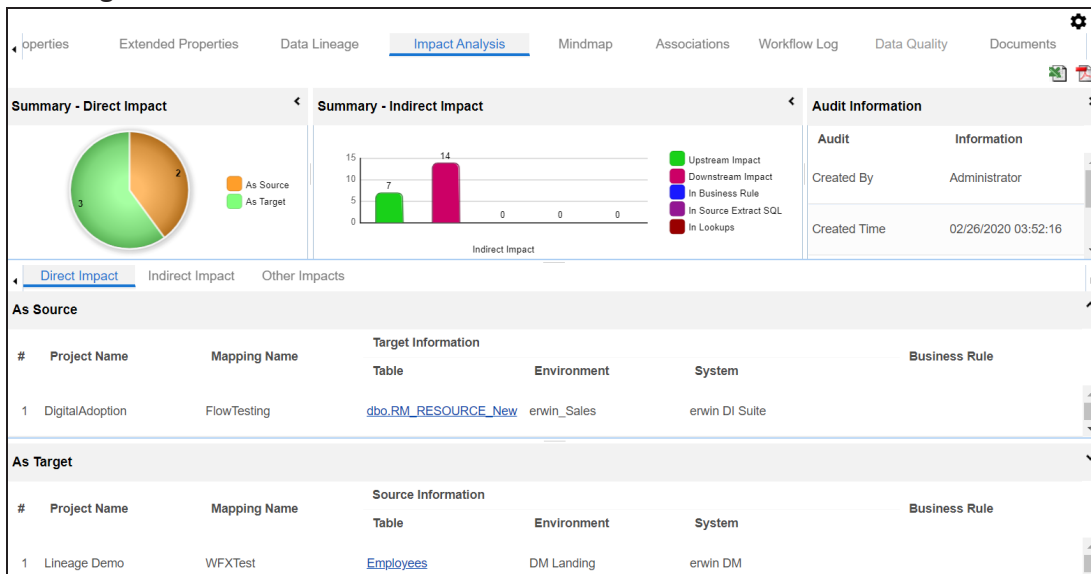
## Running Impact Analysis

After mapping source metadata with target metadata, you can run impact analysis on the technical assets that form the mappings. Impact analysis helps you understand upstream and downstream dependencies of technical assets. It helps you assess the impact of transformations and source or target-level changes.

To run impact analysis at table level, follow these steps:

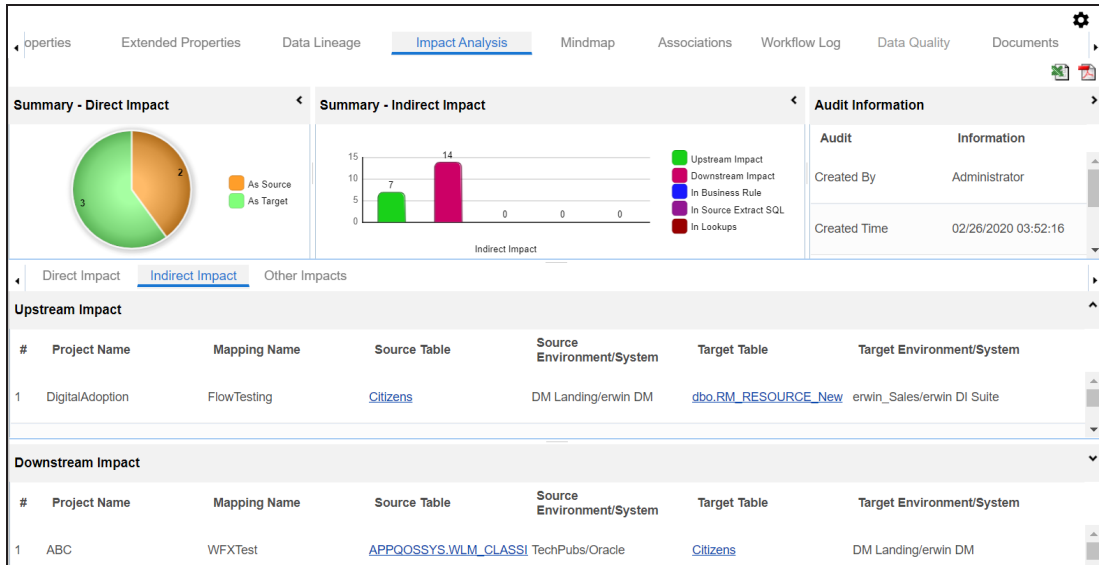
1. Go to **Application Menu > Data Catalog > Metadata Manager > Explore**.
2. In the **System Catalogue** pane, click a table.
3. Click the **Impact Analysis** tab.

By default, the Direct Impact tab opens. It displays the impact of the table as source and target.



To view the indirect impact, click the **Indirect Impact** tab.

It displays the upstream and downstream impact of the table.

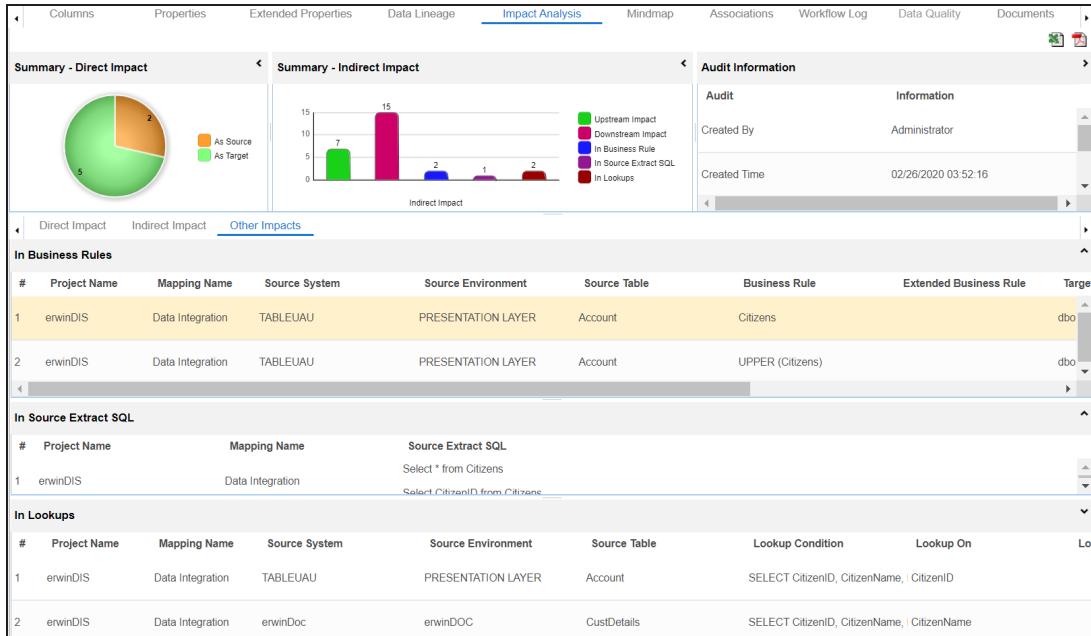


To view other impacts, click the **Other Impacts** tab.

It displays the impact of the table on:

- Business rules
- Source Extract SQL
- Lookups





For more information on performing lineage and impact analysis in the Metadata Manager, refer to the [Running Impact](#) and [Lineage Analysis](#) section.

You can also [run impact analysis](#) in the Mapping Manager on:

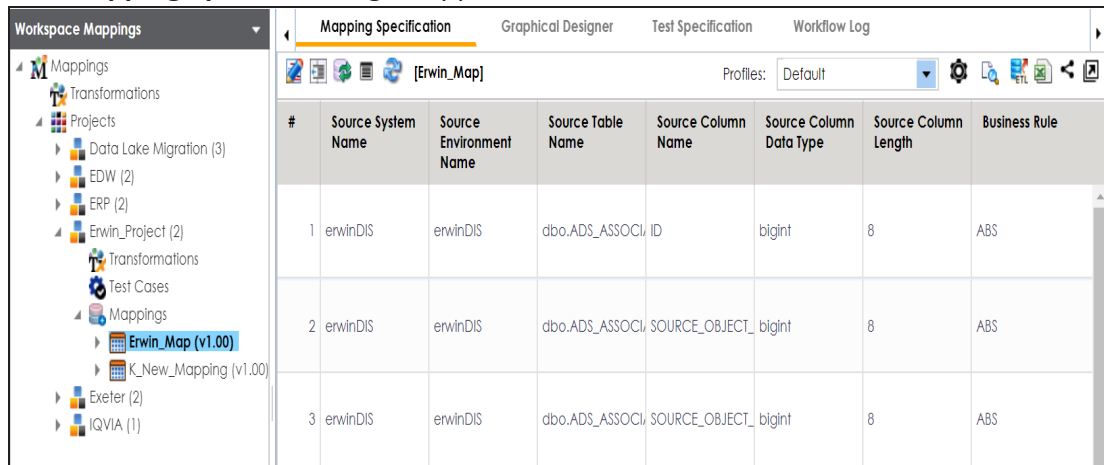
- Any source/target table
- Any source/target column

## Exporting Mapping Specifications to ETL Tools

Once the mappings are considered 'approved for coding', you can export the mappings as coding requirements to automatically generate ETL/ELT jobs. The ETL jobs can be generated for tools, such as Informatica PowerCenter, IBM DataStage, Microsoft SQL Server SSIS, and Talend.

1. Go to **Application Menu > Data Catalog > Mapping Manager**.
2. In the **Workspace Mappings** pane, click the required map.

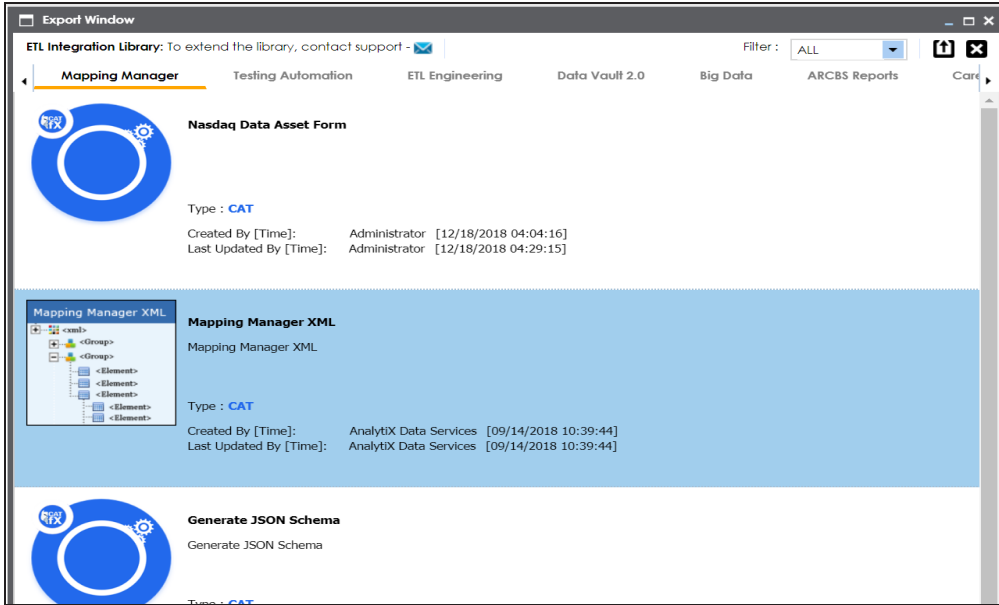
The **Mapping Specification** grid appears.



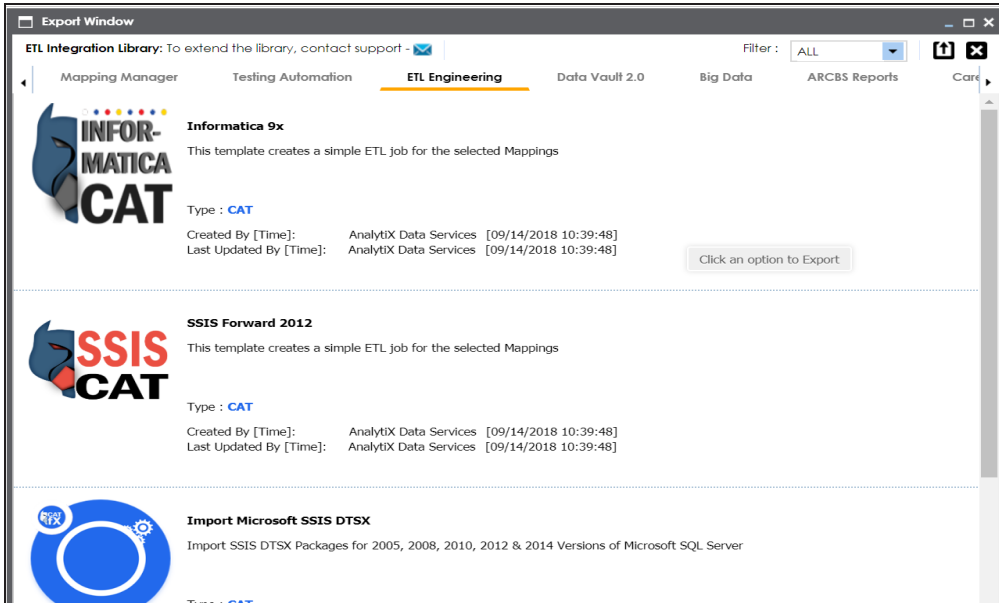
#	Source System Name	Source Environment Name	Source Table Name	Source Column Name	Source Column Data Type	Source Column Length	Business Rule
1	erwinDIS	erwinDIS	dbo.ADS_ASSOCI	ID	bigint	8	ABS
2	erwinDIS	erwinDIS	dbo.ADS_ASSOCI	SOURCE_OBJECT_	bigint	8	ABS
3	erwinDIS	erwinDIS	dbo.ADS_ASSOCI	SOURCE_OBJECT_	bigint	8	ABS

3. Click .

The **Export Window** page appears.

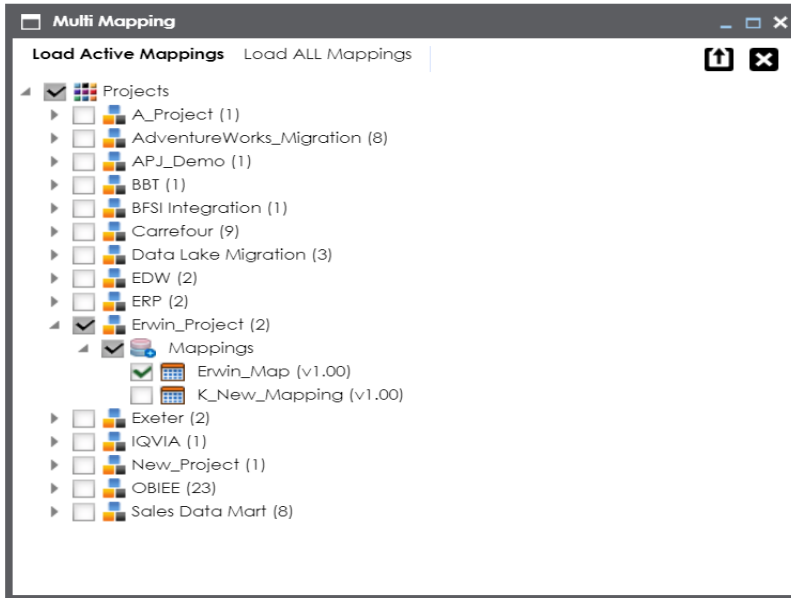



4. Click the **ETL Engineering** tab.



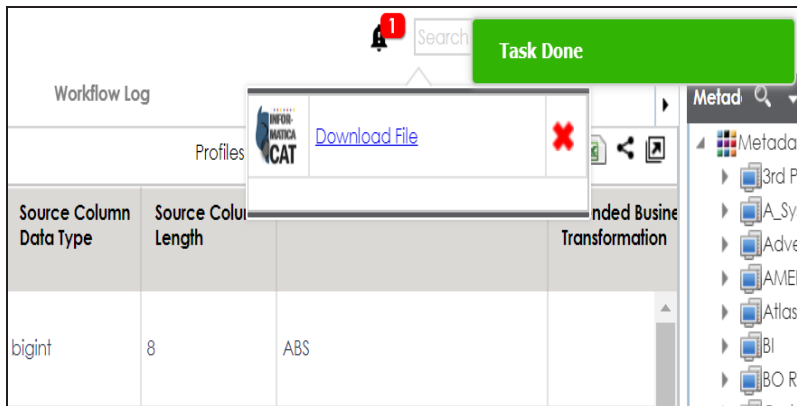
5. Select the required ETL tool and click .

The Multi Mapping page appears.



6. Select the mapping and click .

The following notification appears.



7. Click the **Download File** hyperlink.

The mapping specification is exported.