Quest Trusted Data Management Platform

Automated Data Product Factory

User Guide

Quest

If you have any questions regarding your potential use of this material, contact:

Quest Software Inc.

Attn: LEGAL Dept

20 Enterprise, Suite 100

Aliso Viejo, CA 92656

Refer to our Web site (https://www.quest.com) for regional and international office information.

Patents

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at https://www.quest.com/legal.

Trademarks

Quest, the Quest logo, and Join the Innovation are trademarks and registered trademarks of Quest Software Inc. For a complete list of Quest marks, visit https://www.quest.com/legal/trademark-information.aspx. All other trademarks and registered trademarks are property of their respective owners.

Legend

CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

IMPORTANT, **NOTE**, **TIP**, **MOBILE**, or **VIDEO**: An information icon indicates supporting information.

Contents

Overview

Welcome to the Automated Data Product Factory module. For details about the application, see About Automated Data Product Factory. Use the following table for information on using the module.

Assigning Role to Users	Automated Data Product Factory is a module in the Quest Trusted Data Management Platform. To use it, users must have the Automated Data Product Factory user role assigned under Settings>Access Control>Roles. For more information, refer the Assigning a role to a user topic.
Creating data product models	Create logical models by describing your requirements in natural language. The AI agent reuses existing models when possible or creates new ones. Use Export to collaborate, review Entity Matches, preview Synthetic Data, and publish validated data products to the marketplace.
Reviewing and updating data products	Review and update your saved versions of data product models. This gives you the flexibility to start where you left. You can also build multiple versions starting with a single prompt to support different requirements and use cases.
Best practices for writing effective prompts	Write effective prompts. Provide enough context for the AI agent to understand your goal, avoid ambiguity, and use simple, direct language to guide the model toward accurate results.
Benefits of Automated Data Product Factory	Get a quick overview of the Automated Data Product Factory benefits.

You can download the guide from the PDF downloads section.

About Automated Data Product Factory

Automated Data Product Factory enables you to define and create data products without learning modeling tools or writing technical specifications.

It delivers a streamlined, intelligent, and efficient approach to creating accurate and reusable logical models.

When you enter a prompt in the natural language chat interface, the AI agent analyzes what you are trying to accomplish, identifies the required entities, and checks whether an existing logical data product can meet your requirements.

If a match meets the defined threshold, the AI agent recommends the existing data product for reuse.

If no suitable match is found, the AI agent creates a new logical model through the following steps:

- Searches for semantically relevant entities and attributes from enterprise logical models and metadata
- Identifies gaps by applying AI-based reasoning and using physical metadata as contextual information
- Applies industry-standard logical models when internal context is incomplete
- Generates an AI-derived logical model

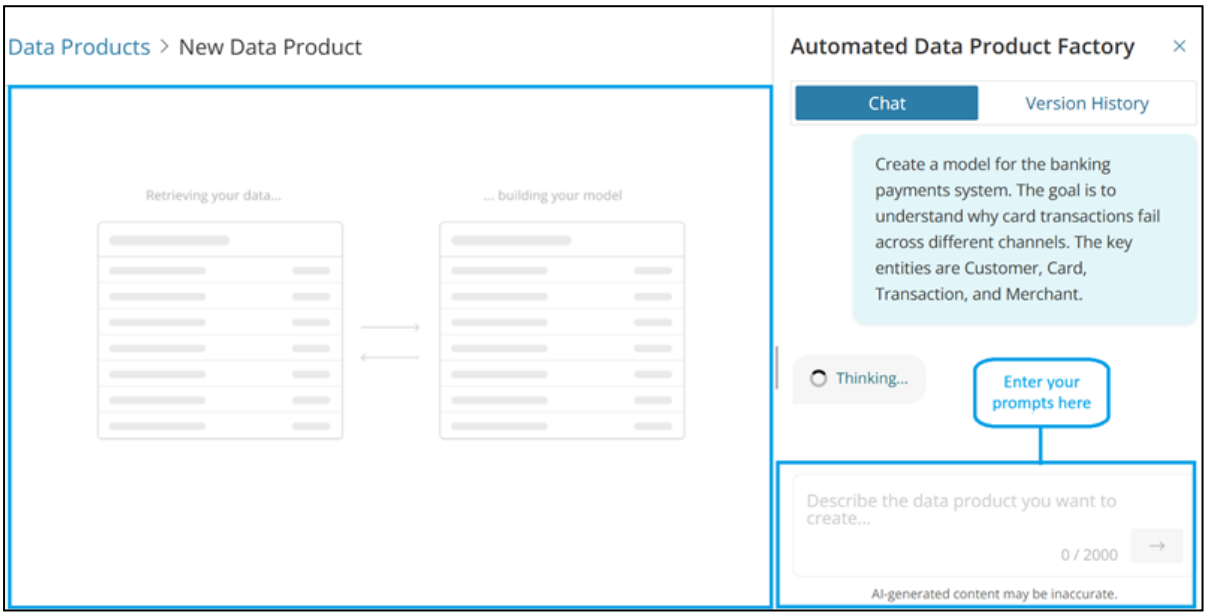
After creating a logical model, you can view the Entity Matches and either accept the recommended match or select another one based on your methodology or business rules. You can also export the versions of your model to an integrated system, such as erwin Mart Portal on cloud for collaboration.

After you finalize the model, publish it to the Data Marketplace for further use. Once published, you can also view the mindmap in the Automated Data Product Factory interface.

User interface

From the Quest Trusted Data Management Platform home page, open the Product menu from the side navigation bar. The menu expands into a sub-menu where you can choose to create a new data product or review the existing ones.

When you select **New data product**, a page with a chat box opens where you enter a prompt describing the data product model you want to create. Once you submit your prompt, it takes you to the model creation workspace.



The page consists of two main sections:

- **Chat panel**: Located on the right, where you enter prompts and receive responses from the AI agent.
- **Diagram canvas**: Visual Workspace located on the left, where you review models.

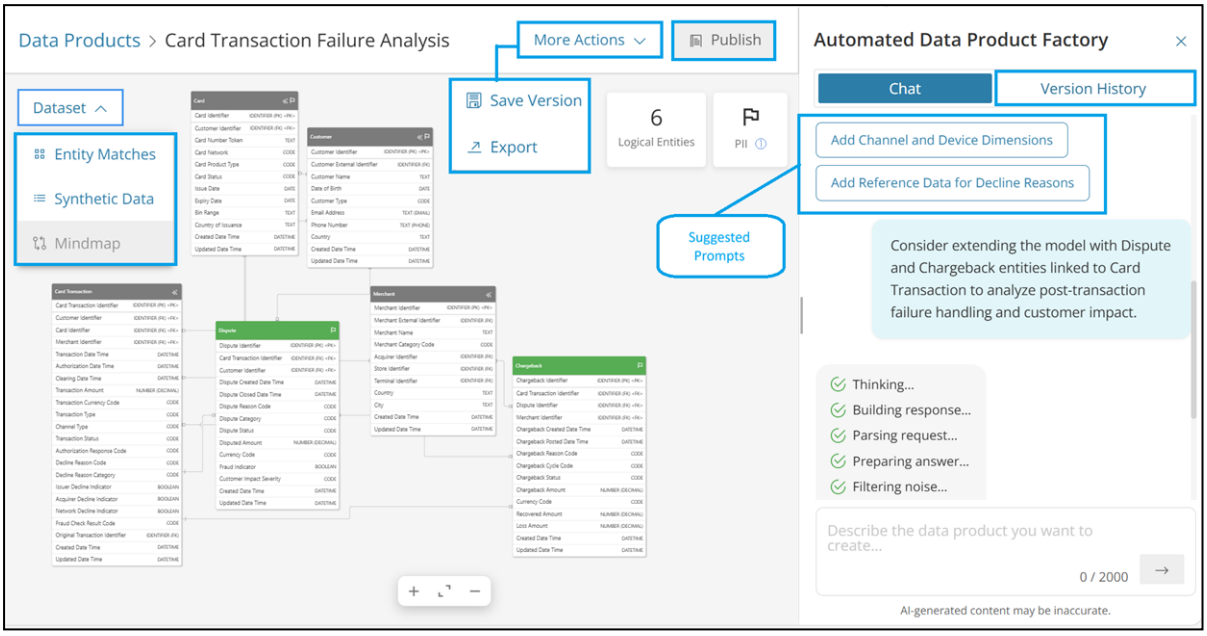
Key features

The module includes several key features to support the complete process of building and managing your data product models, including:

- AI-powered modeling workflows
- Dataset Options
  - Entity Matches
  - Synthetic Data
- More Actions
  - Save Version

    - Export
- Publish

Point to the thumbnail to preview the features.



The sections below provide more detail on each feature.

AI-powered modeling workflows

Automated Data Product Factory streamlines the creation and refinement of logical models by combining natural language understanding with the module's connected Data Modeling and Data Intelligence systems.

To support this experience, logical entities and attributes from enterprise data models, along with curated metadata from operational systems such as CRM, billing, and ticketing applications, are vectorized to enable semantic reasoning. This process allows the system to interpret model structures, identify relationships, and understand the context of your data.

Together, these capabilities enable AI to assist in designing, extending, and validating logical models with greater accuracy and efficiency, whether the workflow builds on existing data structures or starts from a new model.

This feature works through two main components:

- **Chat panel:** Accepts natural language instructions and provides explanatory responses.
- **Data model canvas**: Displays the entities, attributes, relationships, and structural changes generated by your prompts. It includes model diagrams and options such as Datasets and More Actions.

For information on creating models, refer to the Creating Data Product Models topic.

Dataset Options

Dataset Options provide two key capabilities, Entity Matches and Synthetic Data, that help you understand and validate how data is being interpreted and used within the data product model. These options offer insight into how the system aligns existing data sources with your model design.

Entity Matches

When you use the Entity Matches option, the system begins analyzing all information stored in the data catalog. It compares what is known about the databases, tables, and fields in your catalog with the entities defined in your data product model and displays the following:

- Each entity with its top physical table matches
- Percentage match scores for each match
- Column-level mappings that show which logical attributes correspond to which physical columns
- Data types for validation
- Type that specifies whether the result is matched or AI-generated

How it works

- Scans the data catalog and compares metadata from databases, tables, and fields with each entity in your model
- Searches strategically by evaluating data products first, then expanding to all catalog tables
- Prioritizes high-quality, authorized, production data
- Matches entities to physical tables and columns
- Calculates percentage match scores based on column coverage and structural alignment
- Recommends the highest-scoring table, and provides complete mapping results validation

What you can do

Although the system recommends the top match:

- You can review all matches, including those with lower scores.
- You may manually choose a different table according to your methodology, business rules, or domain.

This gives you both automation (to speed up modeling) and flexibility (to remain in control).

For information on using Entity Matches, refer to the Matching entities section.

Synthetic Data

The Synthetic Data option enables you to generate an example dataset that represents what the model's data would look like once populated.

How it works

The system generates a table-formatted sample dataset, where:

- Each row contains mock field values derived from the related data sources.
- The sample shows how data might look in the real model. This is especially useful during design and demonstration phases.

What you can do

- You can validate the model structure.
- You can review sample data safely, without exposing sensitive or restricted information.
- Use example values for testing data flows, visualizations, or downstream processes.

The Entity Matches and Synthetic Data options work together to help you understand how your modeled entities correspond to real data sources.

More Actions

The More Actions menu provides controls that help you manage your model's lifecycle, from preserving work states to sharing outputs and making the model available for use. These actions ensure that you can maintain version integrity, collaborate with others, and prepare your model for deployment.

Save Version

The Save Version option enables you to preserve a snapshot of your model at a specific moment in time. This helps you track progress and ensures that important milestones are never lost.

How it works

- When you save a version, it appears in your version history.
- You can select and restore any saved version at any point.
- Meanwhile, your draft progress is also auto-saved. This means you can resume from where you left off, even after disruptions.

What you can do

- You can refine the model; you may try multiple configurations or experimental changes.
- Return to an earlier state if you decide not to keep later modifications.
- It provides a controlled and safe way to iterate without fear of losing good work.

This combination of manual versioning and auto-saving ensures both flexibility and safety during editing.

Export

The Export option enables you to create a packaged version of your model that can be used outside the current environment.

How it works

- You can export a created or updated logical model to an application, such as erwin Mart Portal on cloud.
- When exporting, confirm that objects are created as intended by reviewing details such as the model name, version number, date of creation, last revision date, and so on.
- Exported models are stored in a defined Automated Data Product Factory folder within erwin Mart Portal on cloud to maintain clarity, traceability, and consistent organization.

How it helps

- Enables collaboration with team members who may need to review or contribute to the model
- Supports scenarios where the model must be shared, migrated, or integrated with other systems
- Ensures your work is not locked into one environment, promoting portability and broader use

Publish

Publishing finalizes your model by making it available for use in downstream systems. While the specific output depends on your platform, the conceptual purpose remains the same.

When you publish, the model is saved, exported, and published a data product to the Data Marketplace.

After the model is published to the Data Marketplace, a mindmap is generated and pulled into the Automated Data Product Factory, where it can be viewed.

How it helps

- Publishing transitions your model from a work-in-progress to a ready-for-use asset.
- It enables consumers such as analysts, developers, or applications to interact with the model.
- It reflects that your model has passed review, refinement, and validation stages.

The latest stable version of your model is packaged and released. The connected systems can start referencing the published model.

For more information, refer to the Publishing section.

Creating data product models

To understand how to create data product models effectively, let's look at a scenario.

Scenario: A retail company is implementing a new inventory management system

A retail organization is rolling out a new inventory management system and must align its logical data model with the existing physical databases. This scenario demonstrates how data product modeling helps teams translate business concepts into implementable structures while ensuring consistency, accuracy, and seamless integration across systems.

Business needs

- Maintain data consistency
- Enable seamless system integration
- Support accurate inventory tracking

The workflow for creating a logical model involves the following steps:

1. Creating a model
2. Saving a version
3. Matching entities
4. Viewing synthetic data
5. Exporting a model
6. Publishing a model
7. Viewing a mindmap

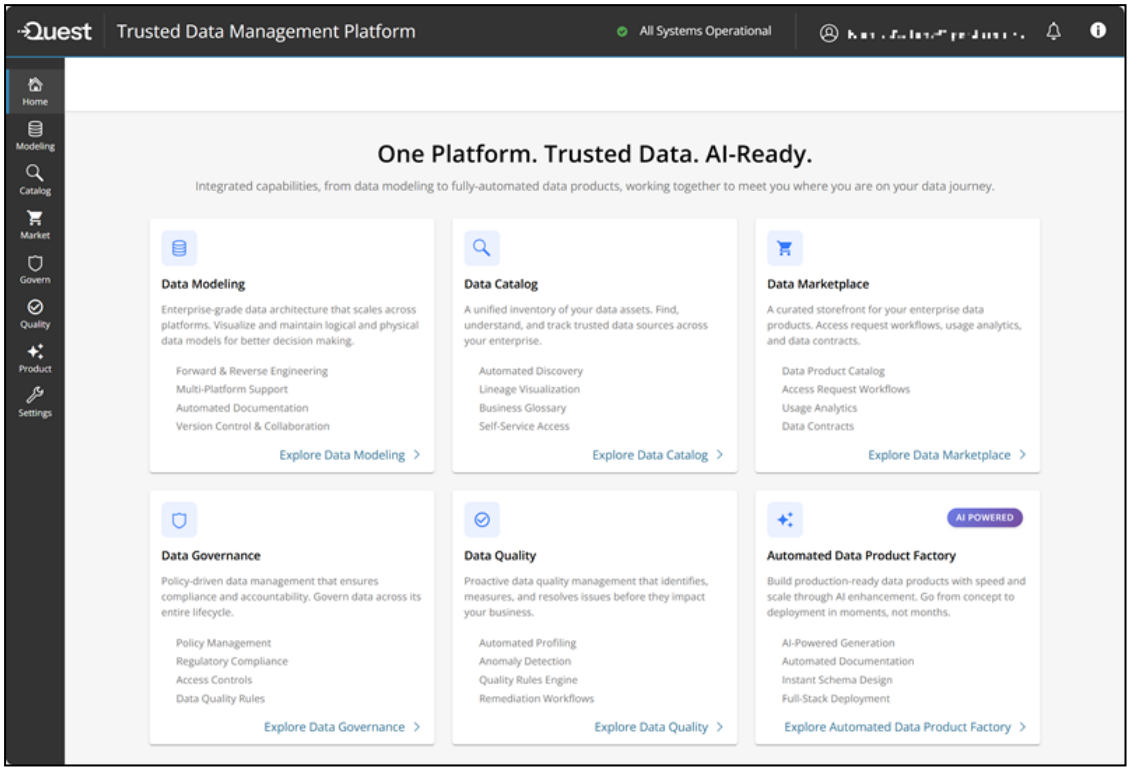
Creating a model

The following steps walk you through creating a new data product model for this scenario.

To create a model:

1. Sign in to the Quest Trusted Data Management Platform, then switch to your organization or create a new one.

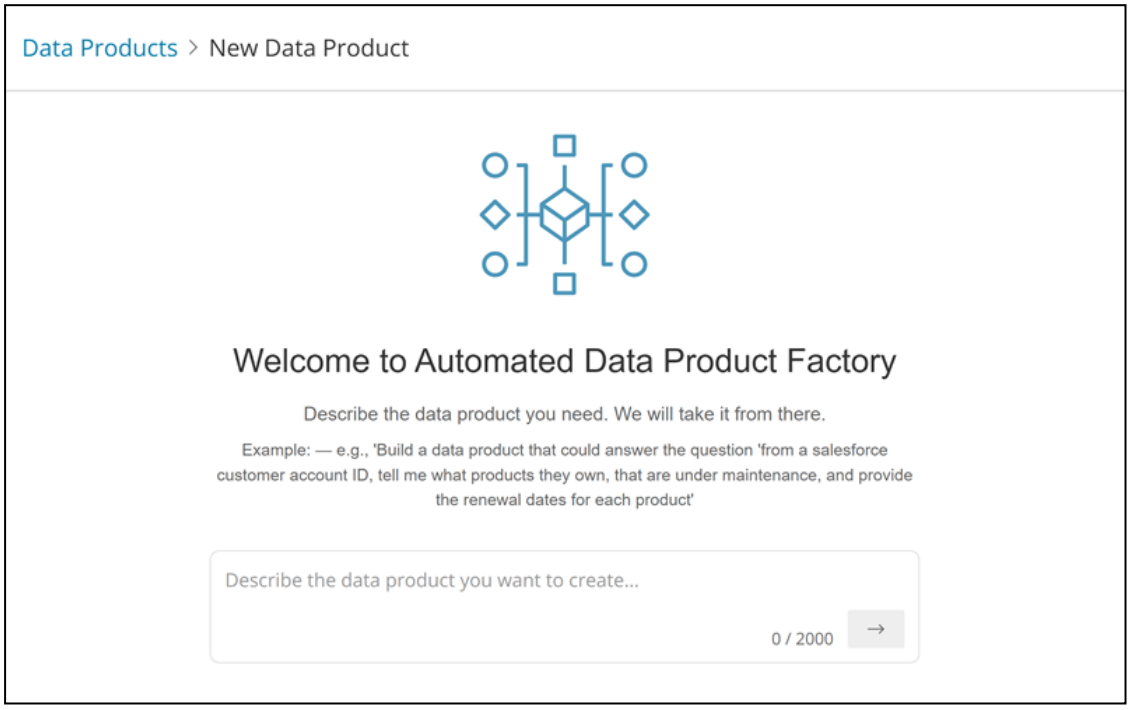
   The Home page appears.



> **NOTE**: For more information about organizations, refer to Managing organizations and regions section.

2. On the Home page, do one of the following:
   - In the left navigation pane, click **Product**, and then click **New Data Product**.
   - On the Home page, on the Automated Data Product Factory card, click **Explore Automated Data Product Factory**. Then, in the New Data Product card, click **Get started**.

   The chat box page appears.



3. Describe the data product you want to create. For example,

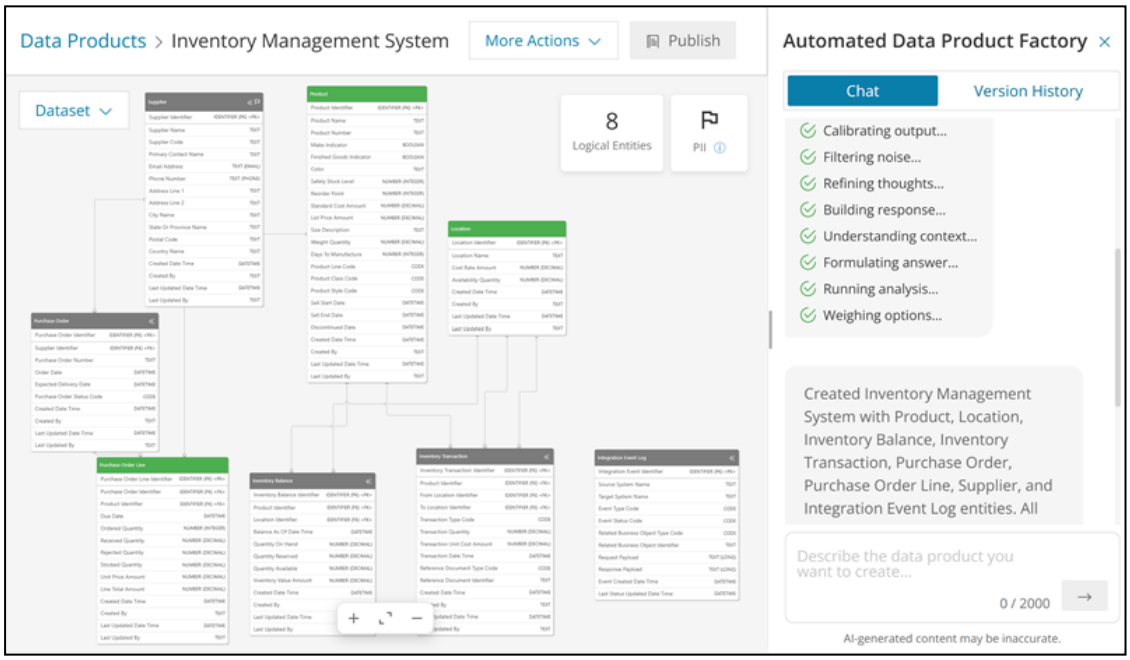
> Create a model for implementing a new inventory management system. The solution must maintain data consistency, enable seamless system integration, and support accurate inventory tracking.

The next screen:

- Loads the canvas on the left side of the screen
- Opens the chat panel on the right and begins displaying live processing updates
- Automatically generates entities and relationships based on your input
- Displays the completed logical model, which includes entities such as Product, Location, Inventory Balance, and Supplier

For more information on prompts, refer to the Best Practices for Writing Effective Prompts topic.

After the process completes, the chat panel displays a summary of what was created and suggests prompts for further actions.

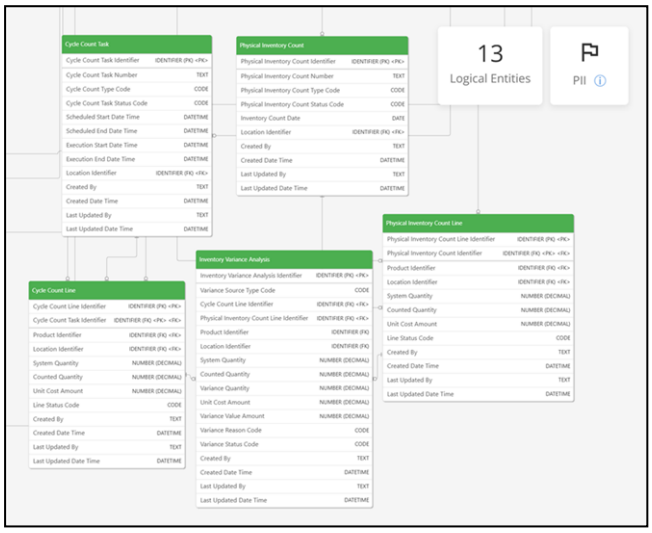


NOTE: Green indicates that semantic matches have been found in existing data products. Blue shows matches in physical models, and gray identifies AI-generated entities.

4. Enter your own prompt or choose a suggested prompt. For example,

   > Add Cycle Count and Physical Inventory entities.

   The Cycle Count Task, Cycle Count Line, Physical Inventory Count, Physical Inventory Count Line, and Inventory Variance Analysis entities are added. And all relationships are created linking them to Product, Location, and each other.

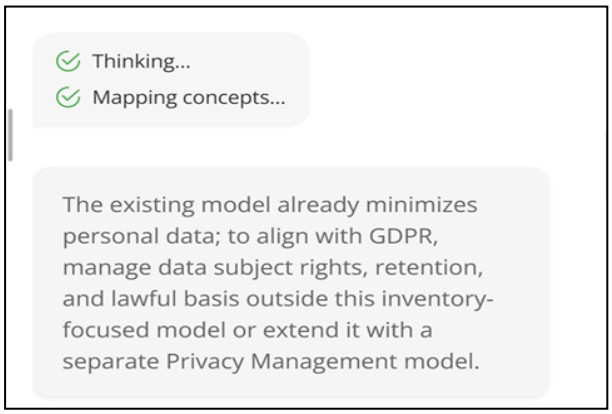
   

   It also explains in the chat panel what has been created.

5. Enter your prompts for compliance. For example,

   > Ensure that the model and all its components align with GDPR standards. Add any additional elements or constraints required to fully meet GDPR guidelines.

   It thinks, maps, conceptualizes, and provides suggestions.

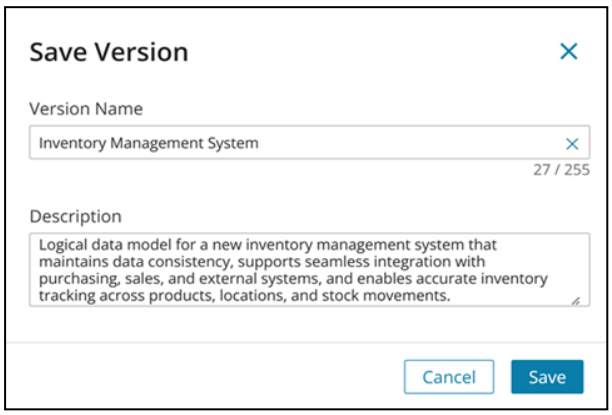
   

You can continue with the updates according to your requirements. You can also save different versions of your model. This will help you return to a previous version if you decide to go back later.

Saving a version

To save a version of your model:

1. Expand **More Actions**, and then click **Save Version**.
   The Save Version dialog appears.



2. Verify or update details, and then click **Save**.

You can save multiple versions of your model and view the version history in the chat panel or when reviewing and updating the data model. You can select any saved version to load it again.

For more information on reviewing and updating, refer to the Reviewing and Updating Data Products topic.

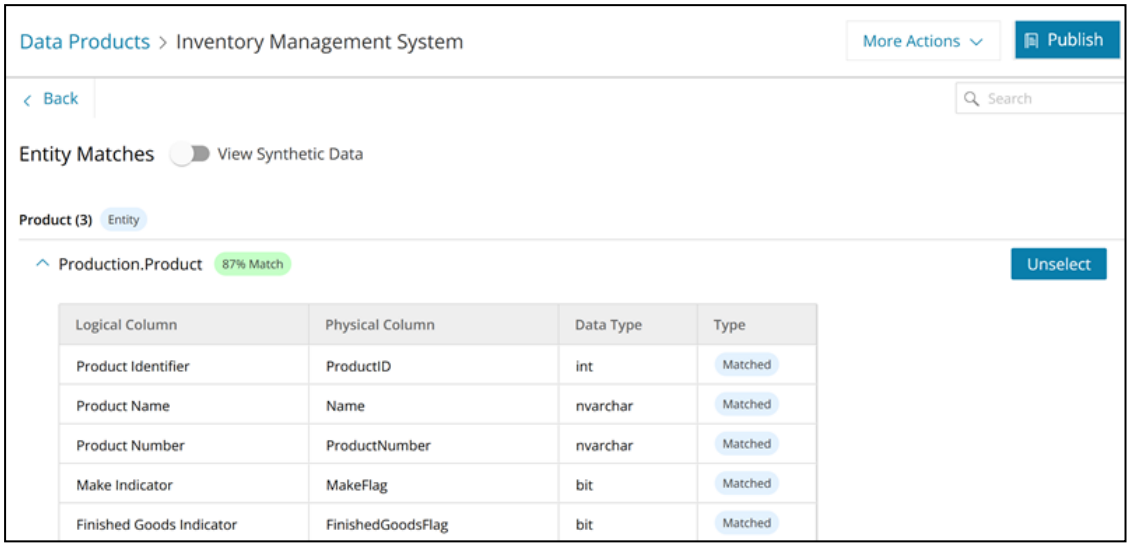
Matching entities

You can use the Entity Matches option to analyze your data catalog and identify the tables that best correspond to each entity in your data product model.

To view entity matches:

1. Expand **DataSet**, and then click **Entity Matches**.

   Entity matches are displayed with their corresponding percentage match scores, and the match with the highest score is selected by default.



   You can expand each match to view the details. It displays the matched Physical Column with its Data type and Type. Type shows whether it is a match or AI-generated.

2. To select a match of your choice, click **Unselect** for the already selected match, and then click **Select** next to the desired table.

> **NOTE**: Once the Entity Matches are displayed for all entities, the Publish button becomes active.

In addition to analyzing entity matches, you can also view synthetic data. This gives you an insight into how your data might look and helps you make a better selection of entities.

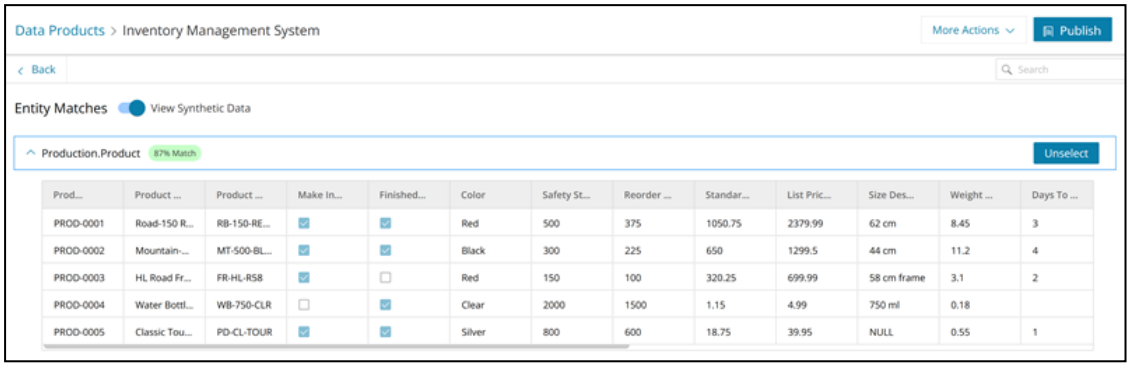
Viewing synthetic data

Before connecting to real data, you can use the View Synthetic Data option to view a sample dataset.

To view synthetic data:

1. Expand **DataSet**, and then click **Synthetic Data**.

   Or, if you are on the Entity Matches page, you can switch the **View Synthetic Data** option on.



   After analyzing the entities and datasets, if you want to make changes, follow the next step.

2. To select a match of your choice, click **Unselect**, and then click **Select** next to the desired table.

It sets the table to be used before you export or publish. This allows you to override the recommended top-match table.

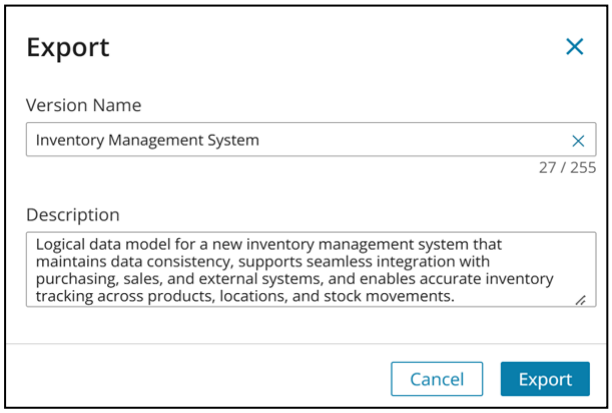
Exporting a model

You can export any version of your model. Exporting creates a copy in your integrated application, such as the erwin Mart Portal on cloud. If the model is not already saved, the system saves when you export.

To export a version of your model:

1. Expand **More Actions**, and then click **Export**.

   The Export dialog appears.



2. Verify or update the details, and then click **Export**.

After you export the model, you can find it in the Automated Data Product Factory folder in erwin Mart Portal on cloud. You can then review key details such as the model name, version

number, creation date, last revision date, and, if applicable, the percentage match score compared to other models.

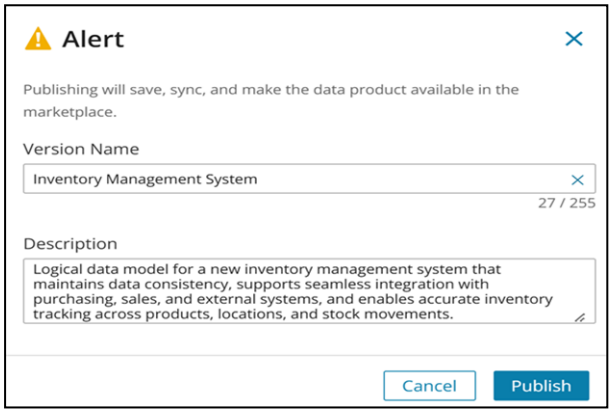
Publishing a model

Publishing a model streamlines its registration in the connected Data Intelligence catalog and prepares it for use as a data product in the Data Marketplace.

To publish a version of your model:

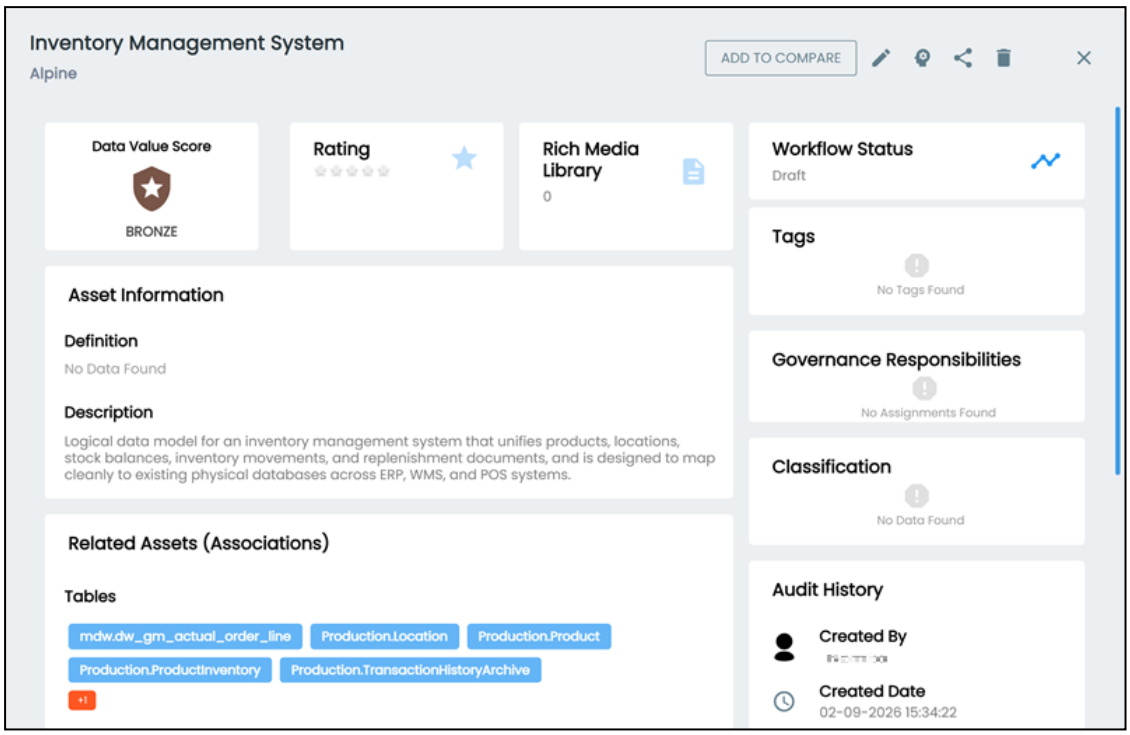
1. Click **Publish**.

   The Alert message appears.



2. Verify or update the details, and then click **Publish**.

   The published data product model can now be accessed from the Data Marketplace for further use.



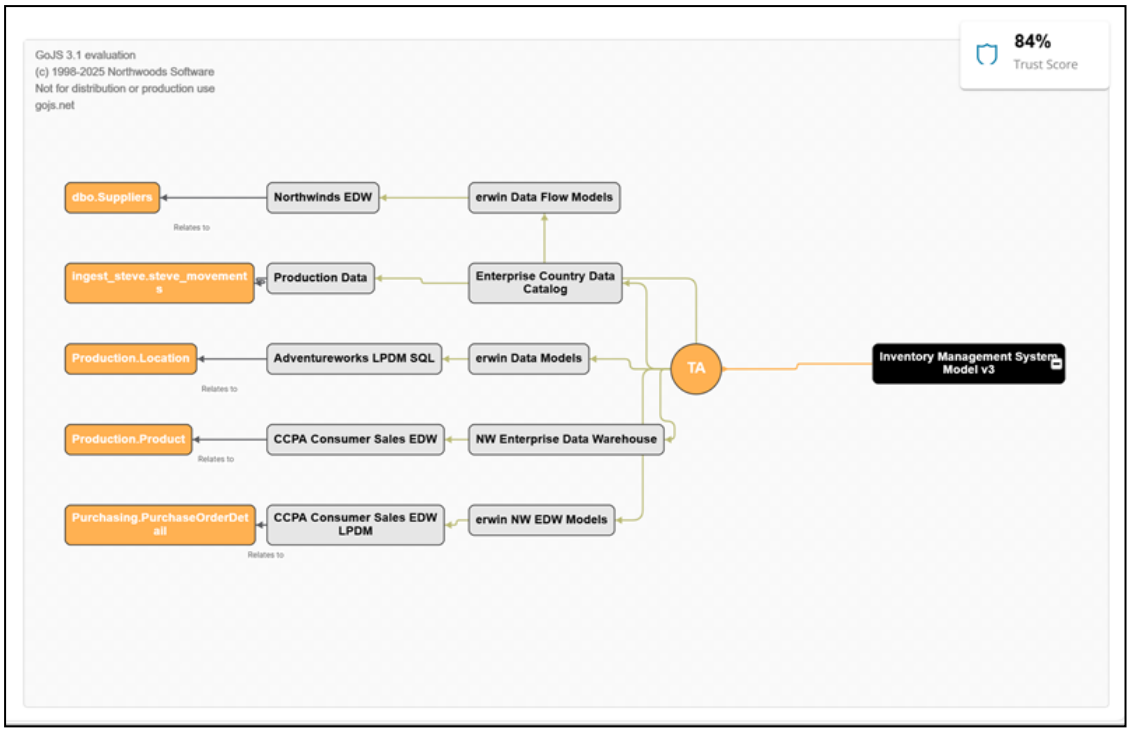
Viewing a mindmap

Once published to the Data Marketplace, you can also view the mindmap of your model in Automated Data Product Factory.

To view the mindmap:

1. Expand **DataSet**, and then click **Mindmap**.

   The mindmap of your model appears. It displays the tables and their sources.


GoJS 3.1 evaluation
(c) 1998-2025 Northwoods Software
Not for distribution or production use
gojs.net
84%
Trust Score
dbo.Suppliers
Northwinds EDW
erwin Data Flow Models
Relates to
ingest_steve.steve_movements
Production Data
Enterprise Country Data Catalog
Production.Location
Adventureworks LPDM SQL
erwin Data Models
TA
Inventory Management System Model v3
Relates to
Production.Product
CCPA Consumer Sales EDW
NW Enterprise Data Warehouse
Relates to
Purchasing.PurchaseOrderDetail
CCPA Consumer Sales EDW LPDM
erwin NW EDW Models
Relates to

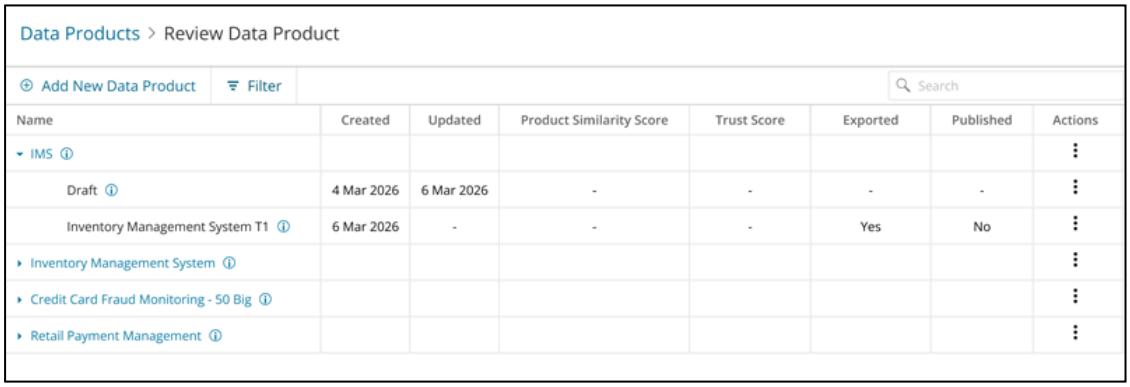
Reviewing and updating data product models

The following steps walk you through reviewing and updating Data Product models.

To review and update a model:

1. Do one of the following:
   - In the left navigation bar, click **Product**, and then select **Review and Update Data Products**.
   - On the Home page, on the Automated Data Product Factory card, click **Explore Automated Data Product Factory**. Then, on the Review and update Data Products card, click **Get started**.

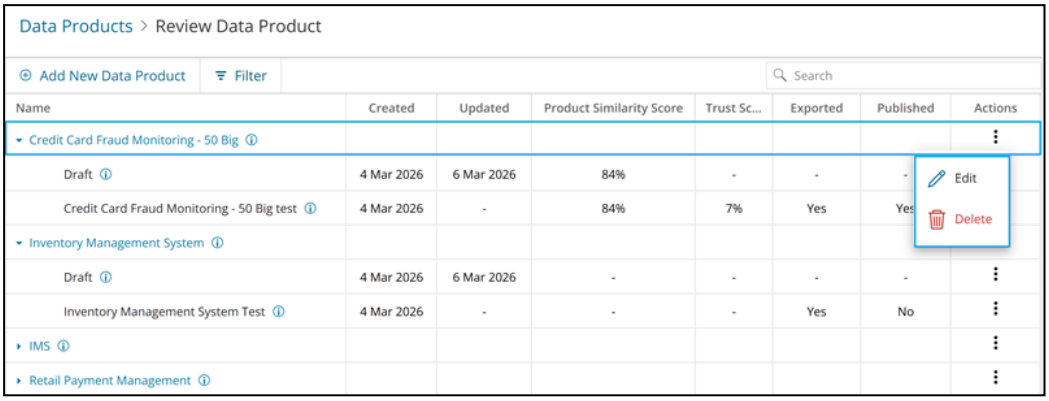
   The Review Data Product page appears.



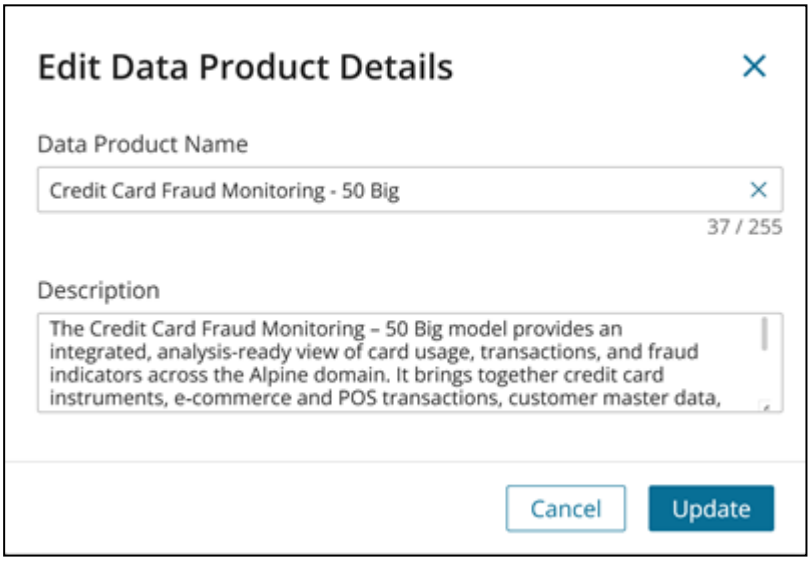
   From here, you can edit the data product details and version details, and open the Data Product workspace to update the data product model.

   Expand existing data products to view both draft and saved versions.

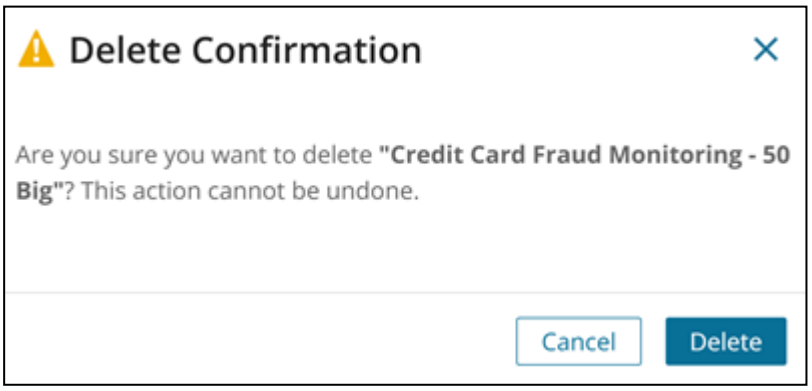
2. Click the three-dot menu in the Actions column and then choose your preferred option.
   - To edit data product details, click the three-dot menu in the Actions column corresponding to that, and then work with following options:



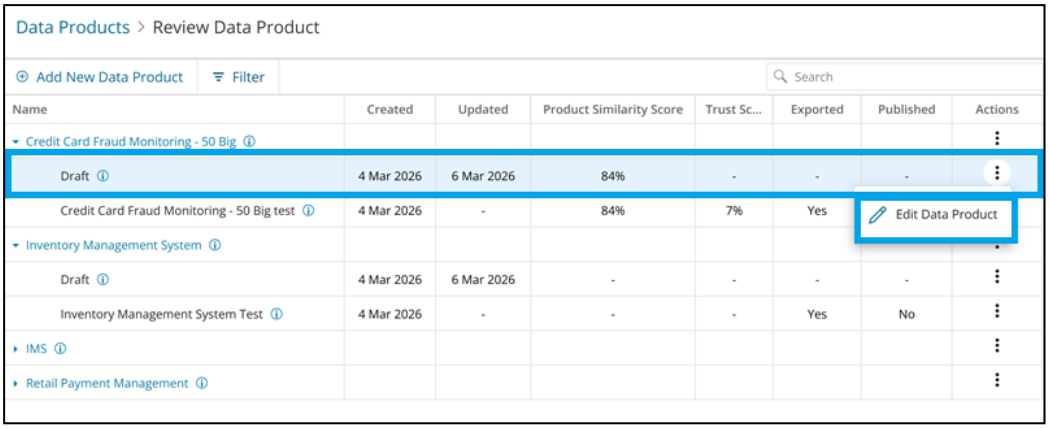
   - **Edit**: Opens the Edit Data Product Details dialog. Make the required changes and click **Update**.



   - **Delete**: Opens the Delete Confirmation dialog, click **Delete** to confirm.

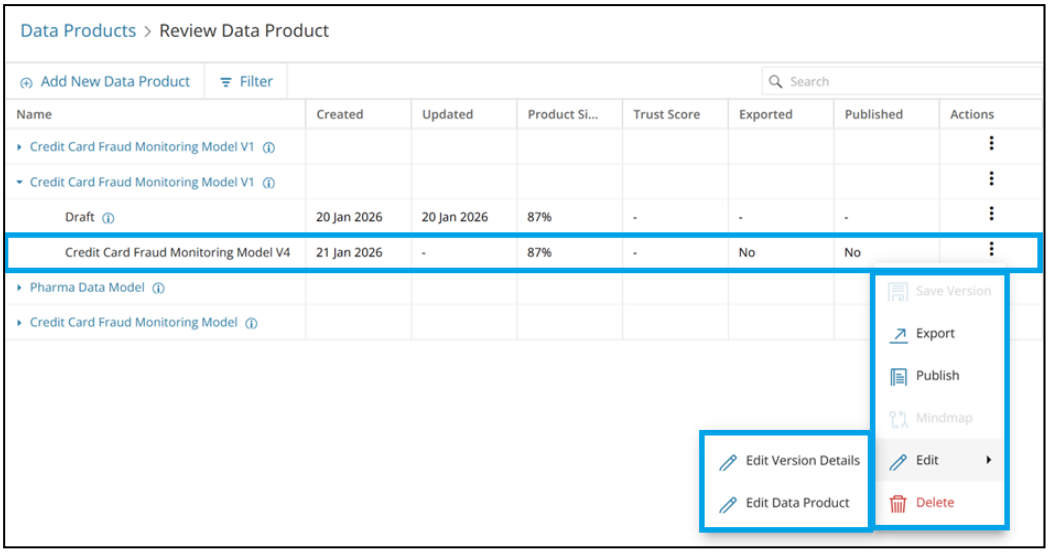


- To edit the Draft version, click the three-dot menu in the Actions column corresponding to that, and then click **Edit Data Product**.



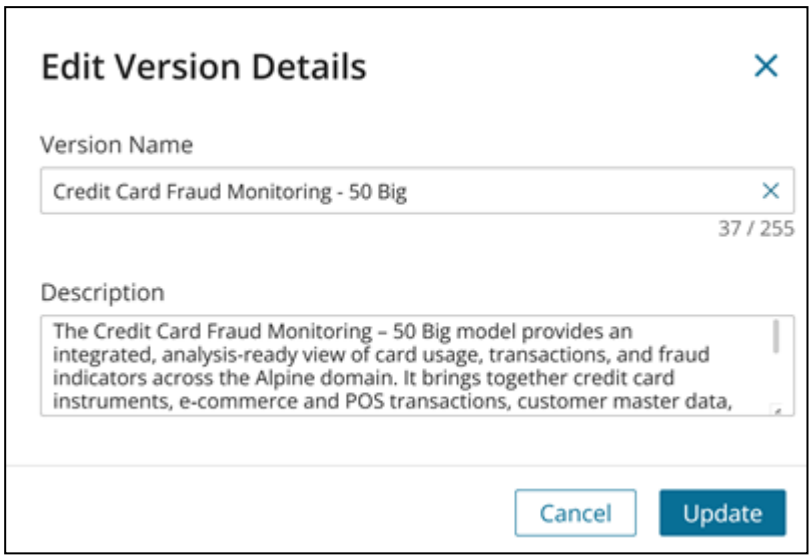
The Data Product workspace appears. Go to step 3.

- To edit a saved version, click the three-dot menu in the Actions column corresponding to that, and then work with following options:

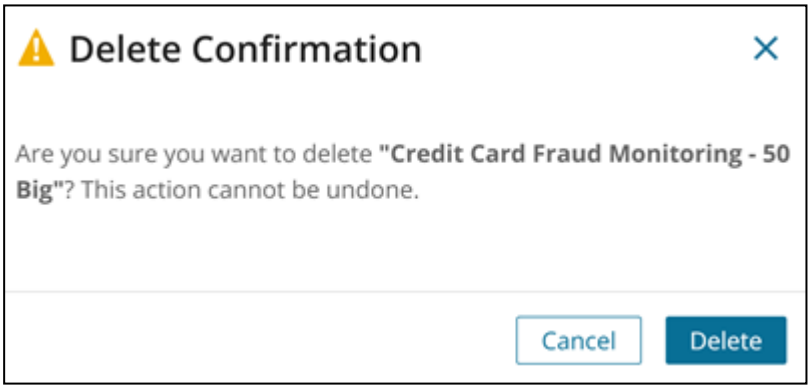


  - **Save Version**: Saves the selected version.
  - **Export**: Exports the selected version to erwin Mart Portal on cloud.
  - **Publish**: Publishes the Data Product model to Data Marketplace.
  - **Mindmap**: Displays the mindmap for the Data Product model that was created in Data Marketplace and pulled back to Automated Data Product Factory.

- **Edit**: Displays following options:
  - **Edit Version Details**: Opens the Edit Version Details dialog. Make the required changes and click **Update**.



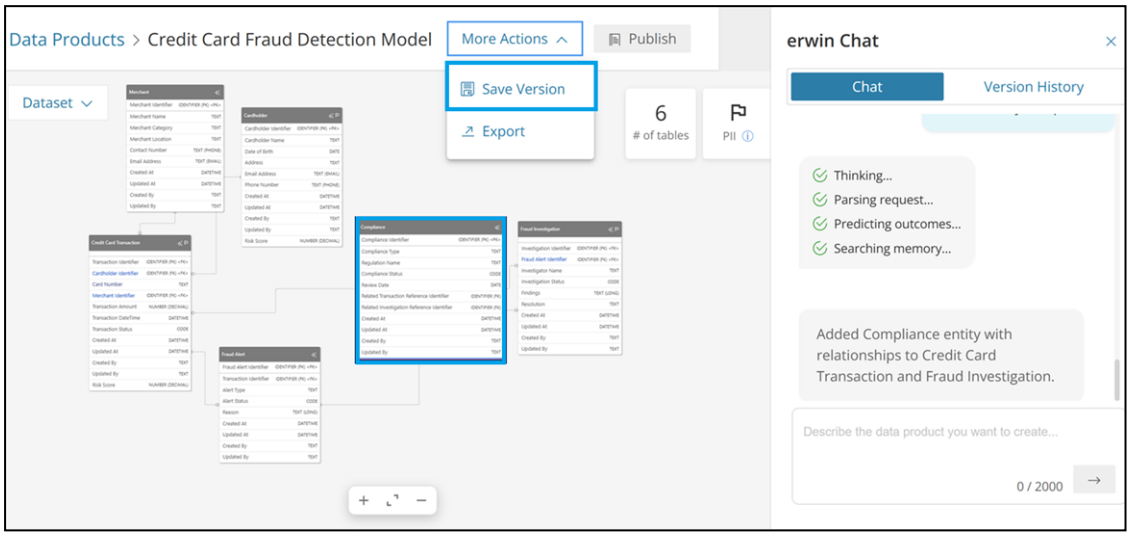
  - **Edit Data Product**: Opens the Data Product Details workspace. Go to step 3 to update.
- **Delete**: Opens Delete Confirmation dialog, click **Delete**.



NOTE: The Publish button becomes active after all entity matches are loaded. After you publish the model, the Mindmap option becomes available. The mindmap is generated in the Data Marketplace and then pulled into Automated Data Product Factory.

3. Enter your prompt for update. For example,

> Add an entity for compliance.



The Compliance entity is added. You can save the version.

Best practices for writing effective prompts

When using the chat panel to generate logical models, well-structured prompts help ensure accurate and relevant outputs. Effective prompts ensure that the system produces accurate logical models, and business-specific structures.

Follow these best practices when writing prompts to generate or refine models.

1. **Specify the business domain clearly**

   Start by stating the industry or domain your model belongs to. For example, Banking, Healthcare, Logistics and so on.

   The application interprets domain context to determine terminology, regulatory needs, and data types. A clear domain prevents the system from generating generic or incorrect structures.

2. **Identify the functional area within the domain**

   Most domains contain multiple specialized areas. Naming the correct area helps generate accurate entities and relationships. For example,

   Banking: Payments, lending, fraud detection, customer onboarding

   Healthcare: Patient admissions, patient visits, diagnostics and imaging, lab services, billing and insurance claim

   Providing this information ensures your prompt reflects real world processes within that domain.

3. **Define the problem you want to solve**

   The system needs to understand what you are analyzing, optimizing, or modeling.

   Avoid vague goals and instead describe the business question or workflow. For example,

   - Identify delays in the clinical trial recruitment process.
   - Analyze order return patterns for high-value customers.
   - Track payment failures across digital channels.

   This helps the model prioritize the correct entities and relationships.

4. **List the key entities you need to track**

   Entities form the foundation of any logical model. Include major objects involved in your process. For example, Customers, Patient admissions, Patient visits, Billing and insurance claims, Orders, Products, Invoices, Patients, Clinical trial participants and so on.

   The application can generate entities based on the domain area, but specifying a few of them helps produce more accurate fields, relationships, and model structures.

5. **Use direct, structured language**

   Write prompts in short sentences and avoid unnecessary jargon. Focus on the domain, the area, the problem, and the entities.

   A structured prompt makes the output more predictable and aligned with your intent.

6. **Sample well-structured prompt**

   Prompts that combine multiple use cases such as, “Create a model for order management and product returns and customer loyalty”, can affect the quality of model generated.

   Keep the prompt focused on a single workflow or outcome.

   For example,

   > Create a model for the banking payments system. The goal is to understand why card transactions fail across different channels. The key entities are Customer, Card, Transaction, and Merchant.

Benefits of Automated Data Product Factory

The Automated Data Product Factory helps you create logical models quickly. It automates early discovery work, reduces manual effort, and supports collaboration across teams. The following sections describe how it improves the modeling process.

- **Accelerates the initial modeling process**

  When you enter your prompt, the AI assistant analyzes your source information and automatically identifies entities, attributes, and relationships. It uses this information to generate a draft model that you can refine. Starting with a ready-made structure helps you move from ideation to design faster and reduces time spent creating diagrams from scratch.
- **Improves collaboration across teams**

  AI-generated logical models provide a visual reference that technical and business users can review together. When you export the model, other stakeholders can open it, update it, and provide feedback. This shared view improves clarity during planning, discussions, and design reviews.
- **Supports early validation**

  The features such as Entity Matches and View Synthetic Data highlight disconnected entities, missing attributes, and structural gaps early in the process. This makes it easier to validate assumptions and run early demos without relying on production data. Identifying issues early reduces the risk of rework during implementation.
- **Enables versioning**

  You can save versions of your model. Versioning helps track changes over time and enables teams to compare models during reviews without losing work.
- **Improves data quality through automated checks**

  Manual modeling may lead to inconsistencies or missing metadata. The Automated Data Product Factory creates AI-powered logical models that fill in missing information where possible. These corrections help produce more accurate and reliable models.
- **Scales to large and complex data domains**

  The AI agent can process large datasets and multiple domains without losing consistency. This makes it easier to create and maintain models across different teams, products, and business areas.

- **Maximizes reuse and reduces redundancy**

  The AI agent analyzes existing enterprise or industry data products before generating new ones, helping maximize reuse and avoid duplicate models.
- **Publishing to Data Marketplace**

  Publishing data product models to the data marketplace is a key advantage because it makes those models instantly discoverable, reusable, and governed across the organization. By curating and packaging models into trusted products, the marketplace ensures consistent use and compliance-aligned access, maximizing the value and impact of every data product created.