

Lab Exercise 3- Data Lake & Data Model (Mapping & Design)

Objective

By the end of this hands-on, you will:

- Understand how Data Lake Objects (DLOs) map to Data Model Objects (DMOs).
- Create and map a formula field to enrich your dataset.
- Navigate to Data Model and Map Data.
- Visualize your model in graph view and verify relationships before unification.
- Use Data Model to validate mapped data.

Part 1: Add & Map a Formula Field

1. Open Your Data Stream

Go to App Launcher → Data Cloud → Data Streams.

The screenshot shows the Data Cloud interface with the 'Data Streams' tab selected. A table lists three data streams: 'sample_web_events.csv', 'Contact_Home', and 'Lead_Home'. The columns include Data Stream Name, Data Connector Type, Stream Type, Last Run Status, Data Stream S..., Last Processed..., Total Records, and Last Refreshed. Each row has a checkbox in the first column and a dropdown menu icon in the last column.

	Data Stream Name	Data Connector Type	Stream Type	Last Run Status	Data Stream S...	Last Processed...	Total Records	Last Refreshed	
1	sample_web_events.csv	File Upload	Ingest	Success	Active	10	10	10/2/2025, 5:53 PM	
2	Contact_Home	Salesforce CRM	Ingest	Success	Active	0	20	10/2/2025, 6:14 PM	
3	Lead_Home	Salesforce CRM	Ingest	Success	Active	0	22	10/2/2025, 6:14 PM	

Select an existing data stream you ingested in Module 2 (e.g., Contact_Home).

The screenshot shows the details for the 'Contact_Home' data stream. It includes summary information like Stream Type (Ingest), Data Stream Status (Active), Last Run Status (Success), Last Refreshed (10/2/2025, 7:34 PM), Last Processed Records (0), and Total Records (20). The 'Fields' tab is selected, showing 74 fields with columns for Field Name, Field Label, Field API Name, Data Type, Field Used As, Formula Field, and Status. The 'Data Mapping' section indicates 0/0 fields mapped. There are also sections for 'Details', 'Refresh History', and social sharing.

2. Add a Formula Field

- In the stream detail, click Fields → Add Formula Field.

The screenshot shows the Salesforce Data Cloud interface. At the top, there's a navigation bar with links like Home, Data Streams, Data Lake Objects, Data Model, Data Governance, Data Explorer, Einstein Studio, Semantic Layer, Identity Resolutions, Profile Explorer, and More. Below the navigation is a search bar and a toolbar with various icons. The main area is titled 'Data Stream Contact_Home'. It displays stream details: Stream Type (Ingest), Data Stream Status (Active), Last Run Status (Success), Last Refreshed (10/2/2025, 7:34 PM), Last Processed Records (0), and Total Records (20). There are tabs for Fields, Details, and Refresh History. Under Fields, there's a section for Data Properties, showing Object Category (Profile) and Data Lake Object Name (Contact_Home). On the right, there's a 'Data Mapping' section with a note about ethics, privacy, and consent. A red box highlights the 'New Formula Field' button at the top right of the page.

- Define a new formula field:

- **Name:** CompositeContactKey
- **Type:** Text
- **Formula:** CONCAT>Email, "-", MobilePhone)

(This creates a composite key for unique identification.)

The screenshot shows the 'New Formula Field' configuration screen. It has fields for 'Field Label' (CompositeContactKey), 'Field API Name' (CompositeContactKey), and 'Formula Return Type' (Text). On the left, there's a 'Search function' dropdown with options like Conversion, Date, Logical, and Text. In the center, there's a 'Transformation Formula' field containing 'CONCAT>Email, "-", MobilePhone)'. On the right, there's a 'Tested Value' section with a 'Test' button and an 'Output' field. At the bottom right are 'Cancel' and 'Save' buttons, with 'Save' being highlighted by a red box.

- **Map the Formula Field**

The mapping interface opens. On the right side, under **Data Model entities**, expand the **Profile** subject area.

Data Stream Contact_Home

Stream Type	Data Stream Status	Last Run Status	Last Refreshed	Last Processed Records	Total Records
Ingest	Active	Success	10/2/2025, 7:19 PM	0	20

Fields Details Refresh History

Data Properties

Object Category Profile	Data Lake Object Name Contact_Home
Object API Name Contact_Home__dl1	

Fields (74)

Field Name ↑ Field Label ↓ Field API Na... ↓ Data Type ↓ Field Used As ↓ Formula Field ↓ Status ↓

Data Mapping

Data mappings have ethics, privacy, and consent considerations. [Learn more about ethics, privacy, and consent in Salesforce Help](#)

Only mapped fields or objects with relationships can be used for segmentation and insights

Data Space default	Fields mapped 0/0
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Start

Post Poll Question

Contact_Home

Search Fields...

Contact_Home

Unmapped

- A_ Account ID
- A_ Assistant's Name
- Asst. Phone
- Birthdate
- Business Fax
- Business Phone
- A_ Buyer Attributes
- A_ Clean Status
- A_ CompositeContactKey

Data Model entities

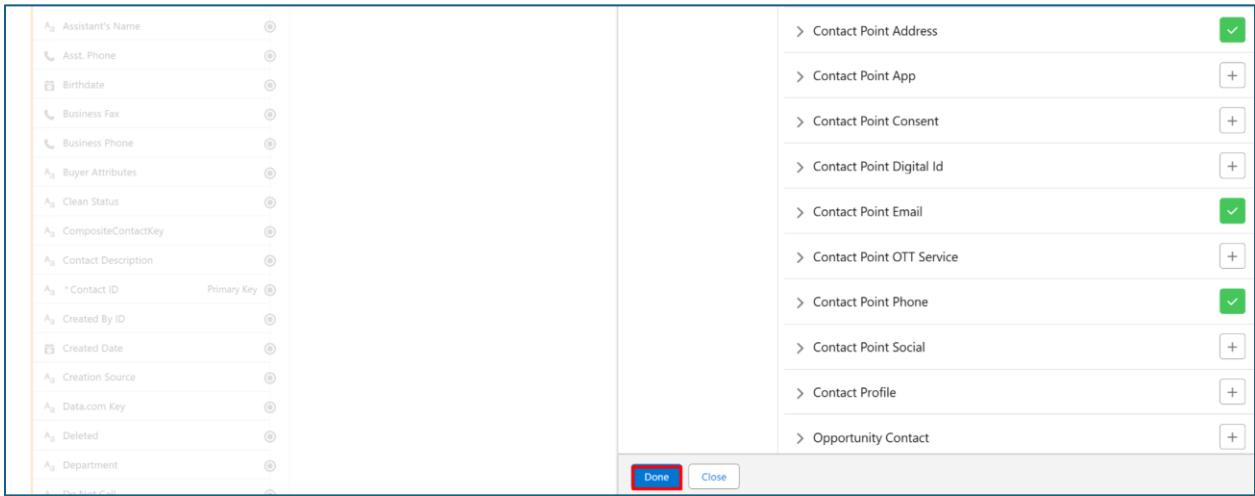
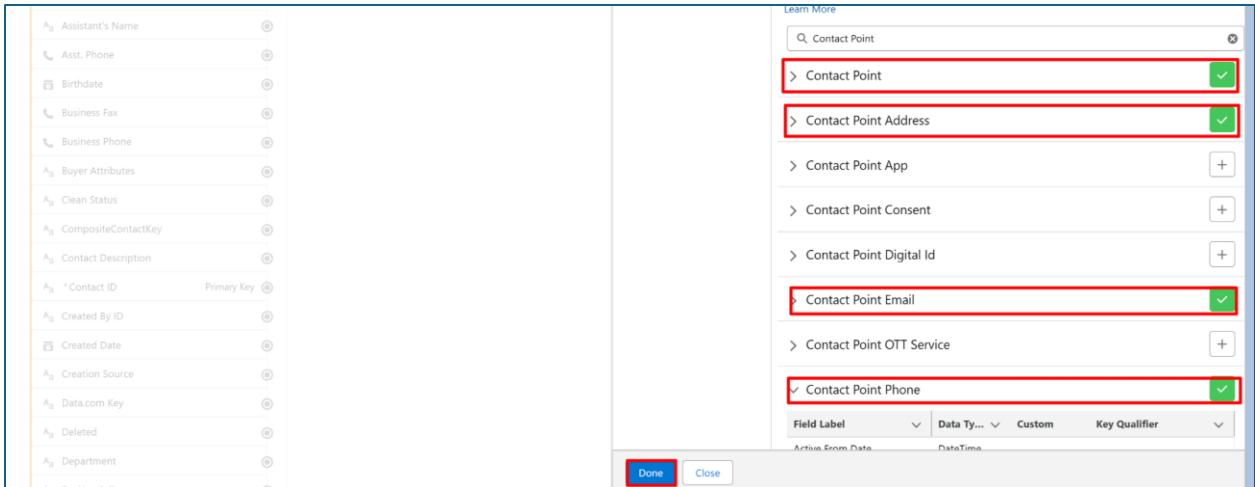
No objects selected

Select standard or create custom objects to display here as mapping targets

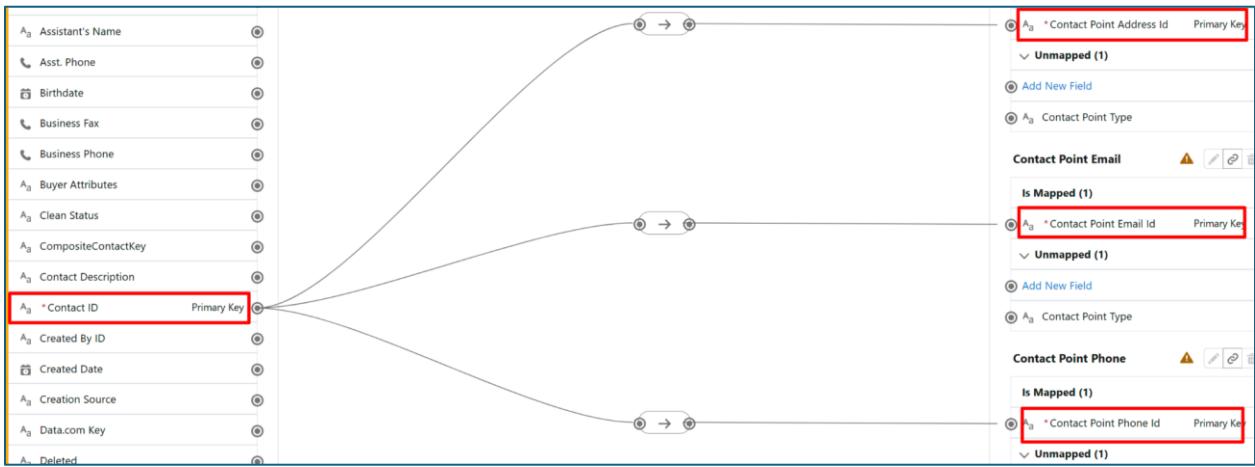
[Learn More](#)

Select Objects

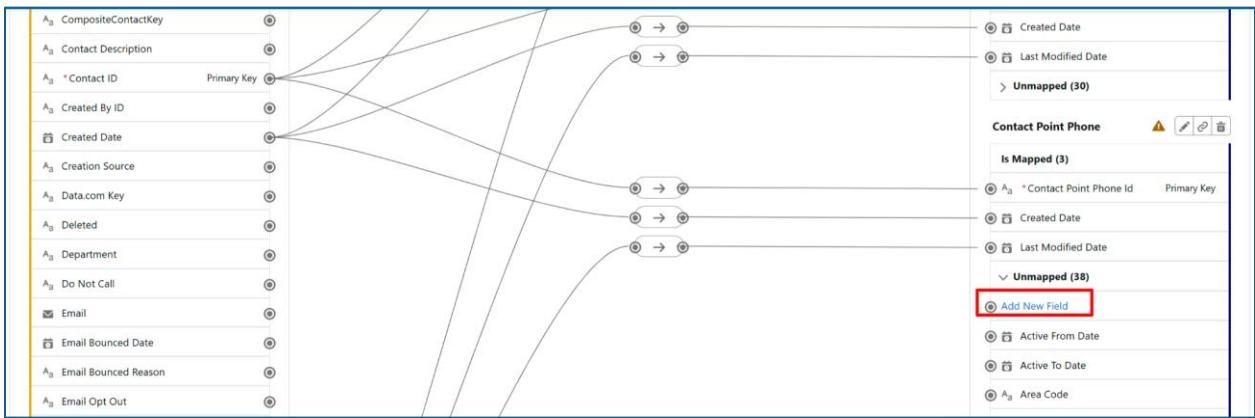
Click the + button in front of **Contact Point Address**, **Contact Point Email**, **Contact Point Phone**.



- Drag your Contact ID field into the **Contact Point Address Id, Contact Point Email Id, Contact Point Phone Id**



- Add New Field **Contact Point**



Add New Attribute

* Field Label

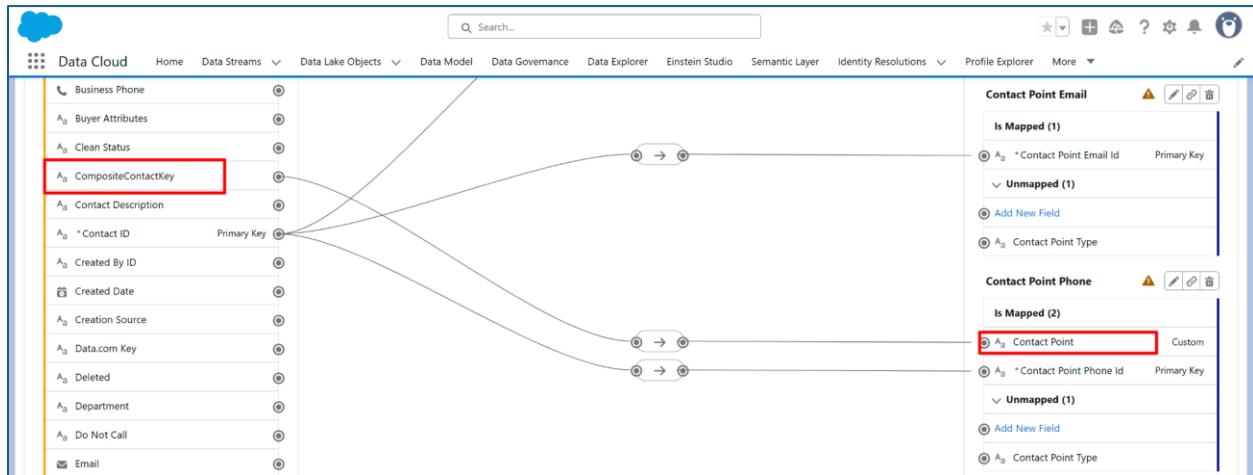
* Field API Name

* Data Type

Enable Value Suggestion

Cancel
Save

- Drag your CompositeContactKey field into the **Contact Point** section.



- Now **Save & Close**.

Part 2: Connect & Map Data

1. Navigate to Data Model

From App Launcher → Data Cloud → Data Stream.

The screenshot shows the Data Cloud interface with the 'Data Streams' tab selected. The 'Recently Viewed' section lists three items: 'sample_web_events.csv', 'Contact_Home', and 'Lead_Home'. Each item has a checkbox, connector type (File Upload or Salesforce CRM), stream type (Ingest), last run status (Success), active status, total records (10, 0, 0 respectively), and last refreshed time (10/2/2025, 5:53 PM, 10/2/2025, 6:14 PM). The interface includes a search bar, a toolbar with New, Delete Data Stream, and Update Status buttons, and various navigation and filtering options.

- Select an existing data stream you ingested in Module 2 (e.g., Contact_Home).

The screenshot shows the 'Contact_Home' data stream details page. It displays basic information like Stream Type (Ingest), Data Stream Status (Active), Last Run Status (Success), Last Refreshed (10/4/2025, 11:19 PM), Last Processed Records (0), and Total Records (20). The 'Fields' section lists 75 fields with columns for Field Name, Field Label, Field API Name, Data Type, Field Used As, Formula Field, and Status. The 'Data Properties' section shows Object Category (Profile) and Object API Name (Contact_Home__c). The 'Data Mapping' section indicates 7/77 fields mapped, with a 'Review' button highlighted in red. The right side of the page features a feed with posts, polls, and questions, and a search bar.

2. Map the Data Field

Click **Review**

The screenshot shows the Salesforce Data Cloud interface. At the top, there's a navigation bar with links like Home, Data Streams, Data Lake Objects, Data Model, Data Explorer, Einstein Studio, Semantic Layer, Identity Resolutions, Profile Explorer, Calculated Insights, Data Action Targets, Data Actions, Segments, and More. Below the navigation is a search bar and a toolbar with buttons for Follow, Refresh Now, Add Source Fields, and New Formula Field.

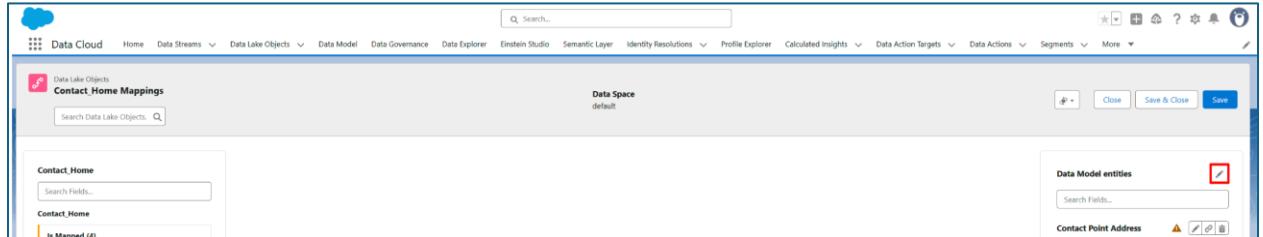
The main area displays a stream named "Contact_Home". It shows Stream Type: Ingest, Data Stream Status: Active, Last Run Status: Success, Last Refreshed: 10/4/2025, 11:19 PM, Last Processed Records: 0, Total Records: 20. There are tabs for Fields, Details, and Refresh History. Under Fields, there's a table with 75 rows, showing columns for Field Name, Field Label, Field API Name, Data Type, Field Used As, Formula Field, and Status. The first few rows include fields like "DataSource Object", "DataSource_c", "CompositeContactKey_c", "AccountID", "AssistantName", "Asst.Phone", "Birthdate", and "BuyerAttributes".

To the right, there's a "Data Mapping" section. It shows a progress bar indicating 7/77 fields mapped, with a "READY" button highlighted by a red box. Below this is a feed with posts, polls, and questions. A sidebar on the right contains a compass icon and the text "Data Model entities".

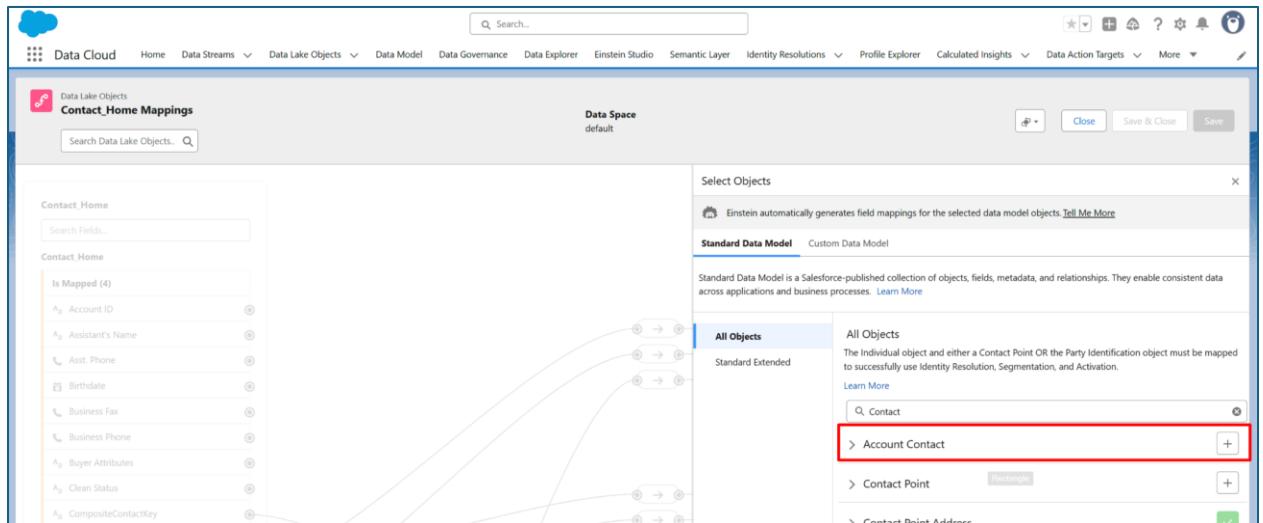
The mapping interface opens. On the right side, under **Data Model entities**, expand the **Profile** subject area.

This screenshot shows the "Data Model entities" interface. On the left, there's a list of unmapped fields from the "Contact_Home" stream: Account ID, Assistant's Name, Asst. Phone, Birthdate, Business Fax, Business Phone, Buyer Attributes, Clean Status, and CompositeContactKey. Each item has a circular icon next to it. To the right, there's a large compass icon with the text "Data Model entities". Below the compass, it says "No objects selected" and "Select standard or create custom objects to display here as mapping targets". There are "Learn More" and "Select Objects" buttons, with "Select Objects" also highlighted by a red box.

Edit Data Model Entities.

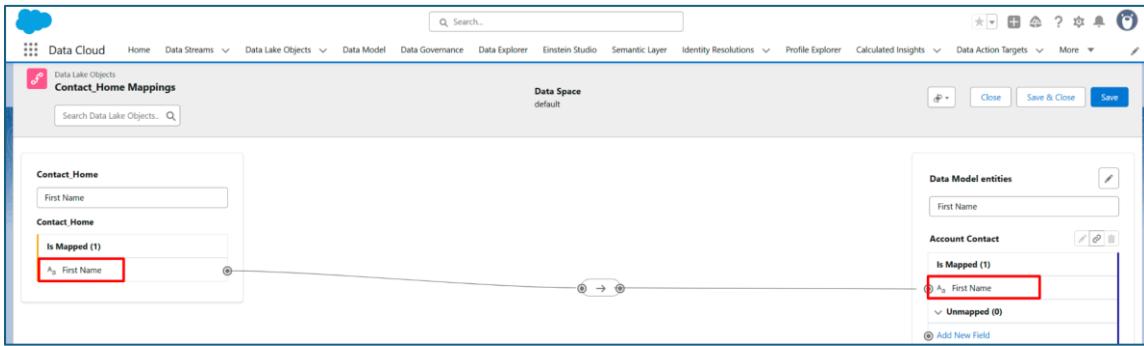


Click the + button in front of **Account Contact** and click **Done**.

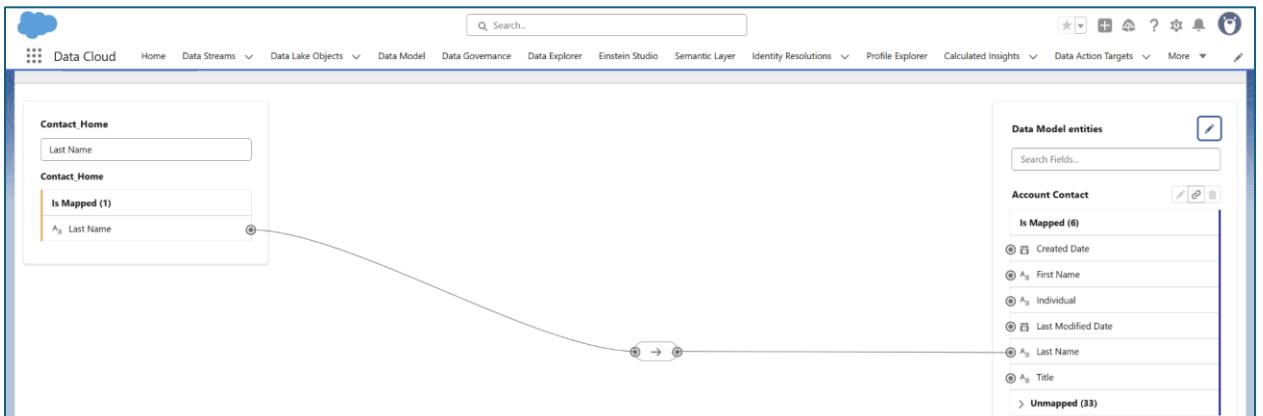


Map fields to the standard **Customer 360 DMO**:

First Name → First Name



Last Name → Last Name



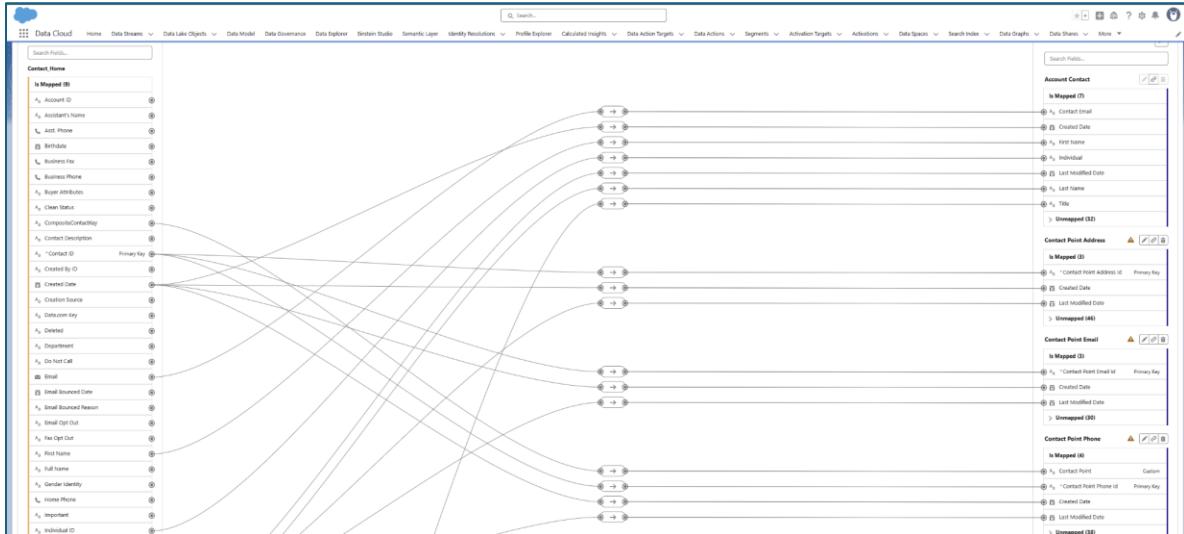
Email → Engagement → Contact Email



- Ensure required fields are mapped (highlighted fields must be filled).

3. Check Graph View

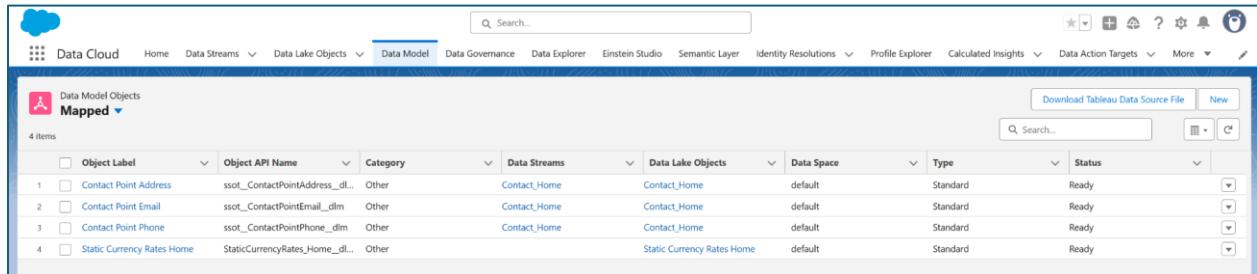
- Click **Graph View** to see relationships.
- Confirm **DLO** correctly links with **DMO**.
- Verify your formula field mapping is included.



Part 3: Validate in Data Explorer

Verify the Mapping

1. Go back to the **Data Model**.
2. You'll now see your **DMO (e.g., Contact Point Email)** showing the Data Stream name.
3. That confirms your mapping is live.



The screenshot shows the Data Cloud interface with the 'Data Model' tab selected. The main area displays a table titled 'Data Model Objects Mapped' with 4 items. The columns include Object Label, Object API Name, Category, Data Streams, Data Lake Objects, Data Space, Type, and Status. All objects listed are 'Ready'. The table rows are:

Object Label	Object API Name	Category	Data Streams	Data Lake Objects	Data Space	Type	Status
Contact Point Address	ssot_ContactPointAddress_dlm	Other	Contact_Home	Contact_Home	default	Standard	Ready
Contact Point Email	ssot_ContactPointEmail_dlm	Other	Contact_Home	Contact_Home	default	Standard	Ready
Contact Point Phone	ssot_ContactPointPhone_dlm	Other	Contact_Home	Contact_Home	default	Standard	Ready
Static Currency Rates Home	StaticCurrencyRates_Home_dlm	Other		Static Currency Rates Home	default	Standard	Ready