

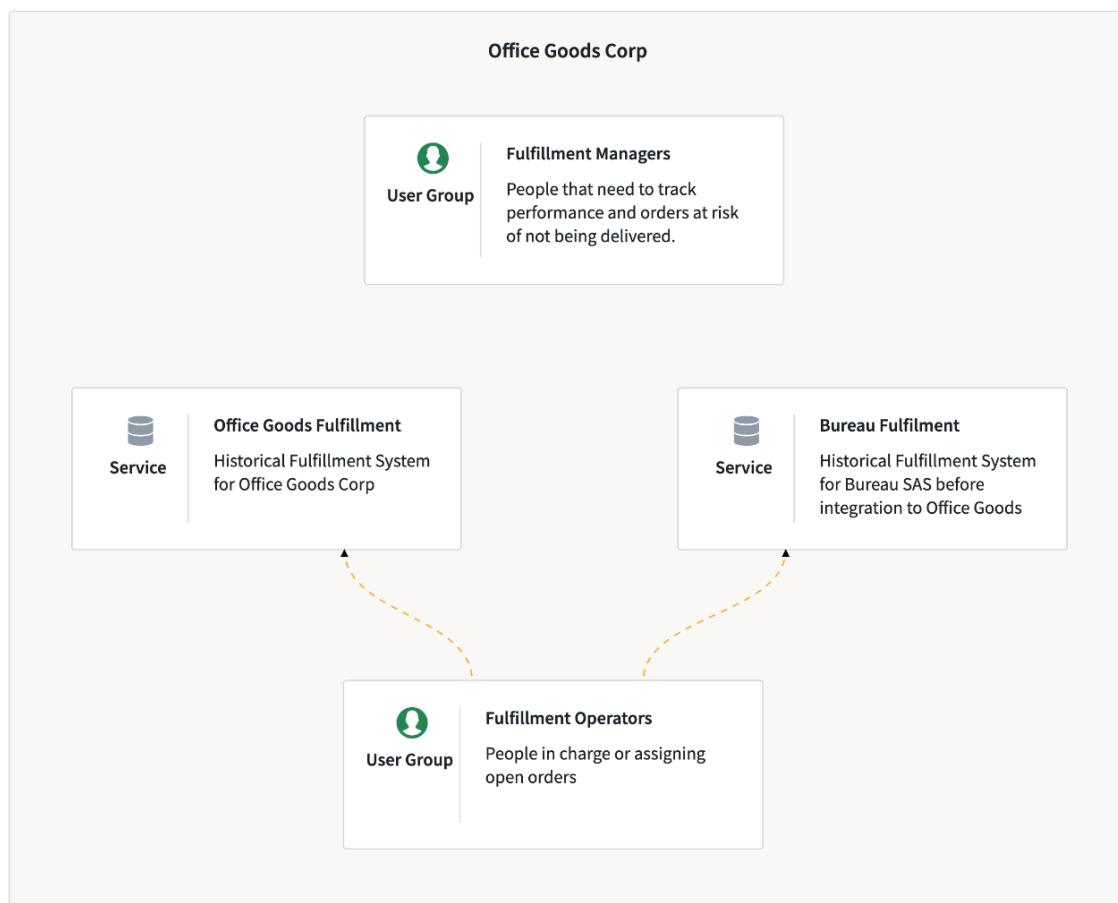
Your First E2E Workflow

Overview

The Use Case

You work for **Office Goods Corp**, a paper and office goods company. Recently, your company acquired one of its competitors, **Bureau SAS**. The IT unification project won't start for another year, which means that your colleagues are stuck tracking and managing orders on two different systems.

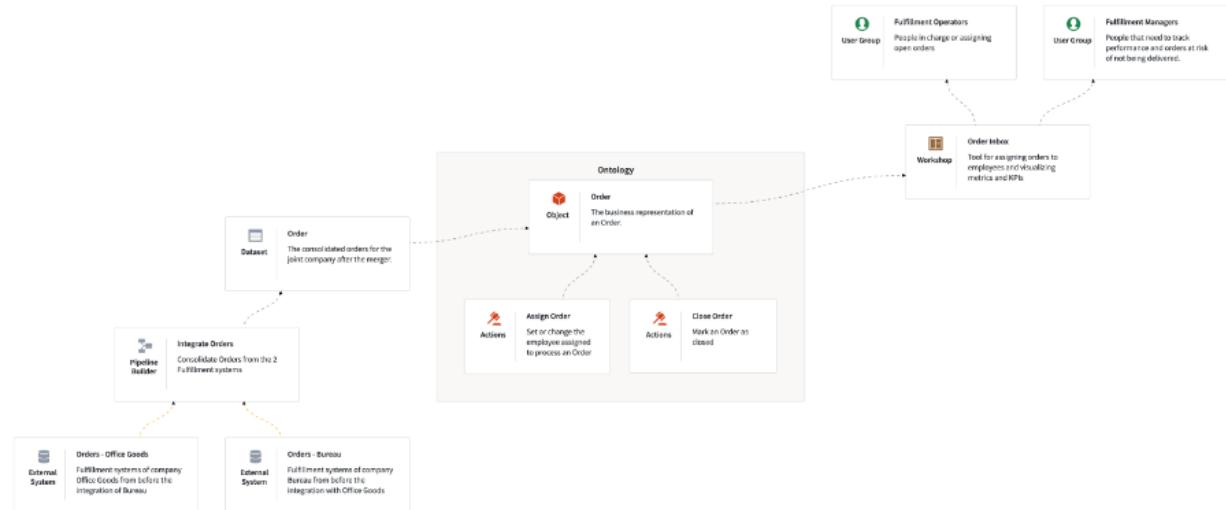
They've survived a couple months by manually stitching spreadsheet, but with demand growing, things have started to fall through the cracks. Incorrect metrics, unfulfilled orders, and unhappy customers. The fulfillment department has reached out to you for help, to see what can be done quickly ahead of the unification project.



After understanding the problem a little better, you have decided to create a simple operational tool for the fulfillment department that connects to both IT systems. It will create a single location for managers to assign orders, show what orders haven't been

assigned, and what is at risk of not being delivered. And along the way end debates about which spreadsheet is the most up-to-date!

You've sketched together the below diagram showing what you're going to build, and how it's going to work.



Setting up your Project and Folder

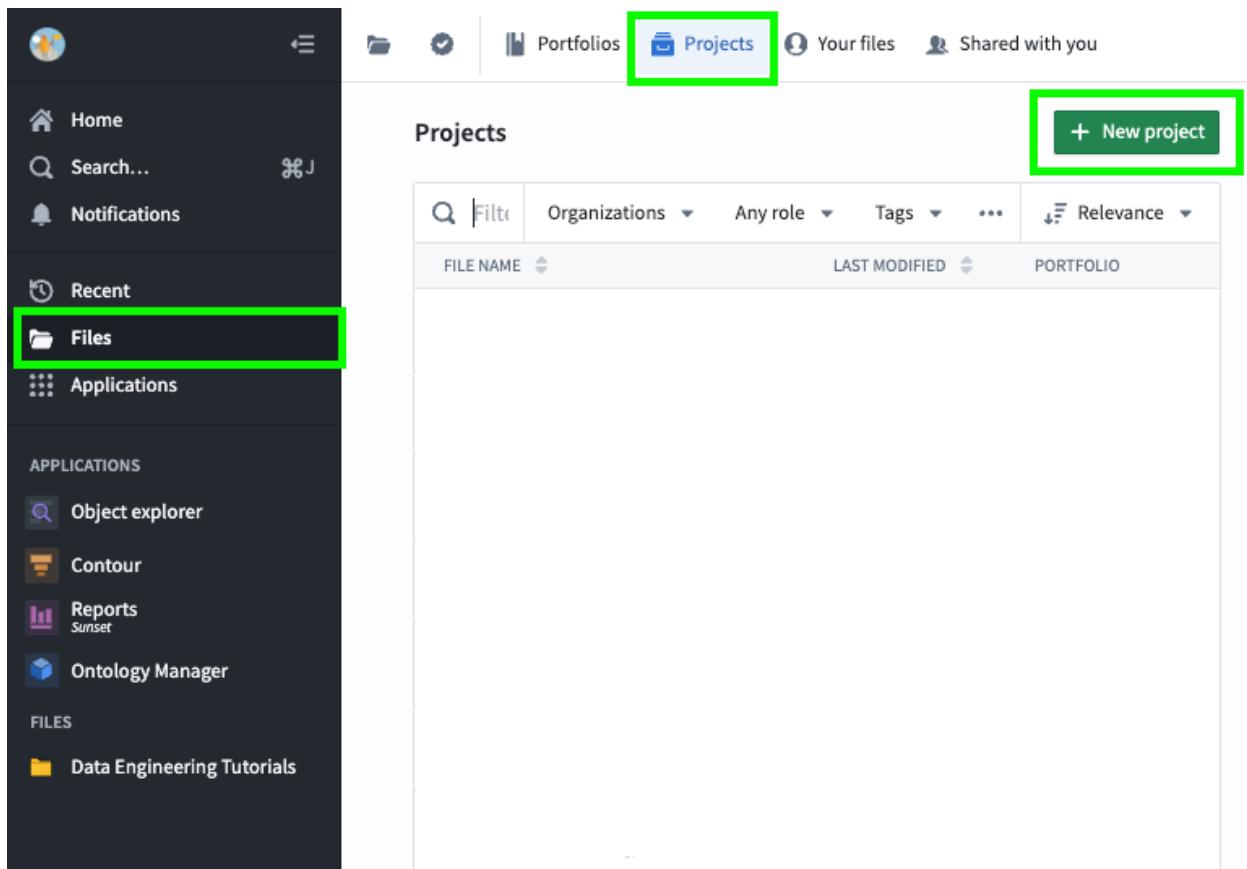
Introduction

All of the things you create in Foundry need to live inside a Project, so let's first start by creating a Project. If you already have a project you can use, feel free to skip to the "Create Folder" step. If you don't have a project, and don't have the permissions to create one, please contact your platform administrator or Palantir representative.

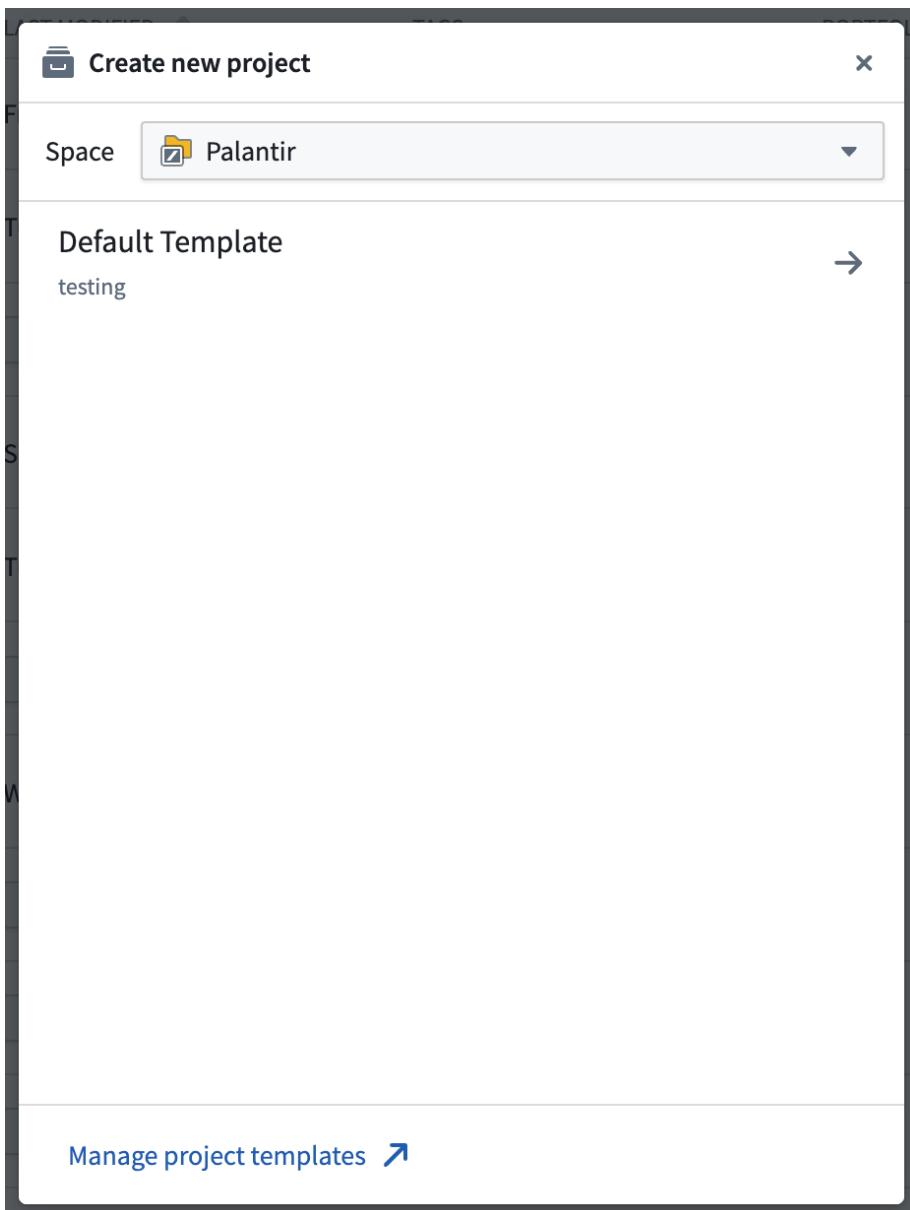
Create a Project

Step 1: Create a Project

1. Click on *Files* in the left sidebar
2. Click on *Projects* in the top bar
3. Click on *+ New Project* in the top right



4. Select your organization's space from the dropdown
5. Select the Default Template
6. Give your project a name, such as: Learning (<username>)
7. Give your project a description that would help another user understand what the project contains and is used for
8. If visible, do not select a Portfolio, as this is optional
9. In the 'Advanced' dropdown, this typically defaults to granting others the **Editor** role. To keep your training uneditable, you can change this to **Viewer**
10. Click on **Create project**



 **Create new project** X

Name
Learning <username>

Project description (optional)
Personal Learning Project for Palantir Learn courses.

Advanced
The project will be created in  Palantir. Everyone from  Palantir will be able to see its existence . They will need a role on the project to see files within it. ▼

[Back](#) ✓ Create project

Create a Course-Specific Training Folder

Step 1: Create a Folder

1. In the top left, click on the star to favorite your project. This will allow you to find it quickly later on.
2. Click on *New* in the top-right corner

3. Select Folder

The screenshot shows the 'Learning <username>' folder selected in the sidebar. A green box highlights the yellow star icon next to the folder name. The sidebar also includes 'Autosaved', 'Project Catalog' (which is checked), 'References' (with 'File references' and 'External references' sub-options), and 'Trash'.

Learning <username> ★ 1
Personal Learning Project for Palantir Learn courses.

- Files
- Autosaved
- Project Catalog
- * References i
 - File references
 - External references
- Trash

4. Name the new folder after the current learning course - "Speedrun: Your First E2E Workflow"

The screenshot shows the 'Speedrun: Your First E2E Workflow' folder listed in the main content area under the 'NAME' header. The sidebar remains the same as in the previous screenshot.

Learning <username> ★ 1
Personal Learning Project for Palantir Learn courses.

| NAME | L |
|-----------------------------------|---|
| Speedrun: Your First E2E Workflow | 1 |

- Files
- Autosaved
- Project Catalog
- * References i
 - File references
 - External references
- Trash

Ingestion: Getting Data Into Foundry

Introduction

Foundry includes a powerful **Data Connection** application. It comes with connectors for over 200 systems and databases and a flexible plugin architecture for the rest. It also has powerful DevOps tools for managing recurring batch and streaming ingestions. However, for the sake of this tutorial, we will manually upload data.

You should have access to three files below. Download these to your device by clicking the blue links below.

1. [orders_office_goods.csv](#): All the orders from Office Goods Corp., the fictional company you work for
2. [orders_bureau_transactional_system.csv](#): All the orders from Bureau SAS, the fictional company your company bought
3. [consolidated_customers.csv](#): A consolidated list of customers across both fictional companies

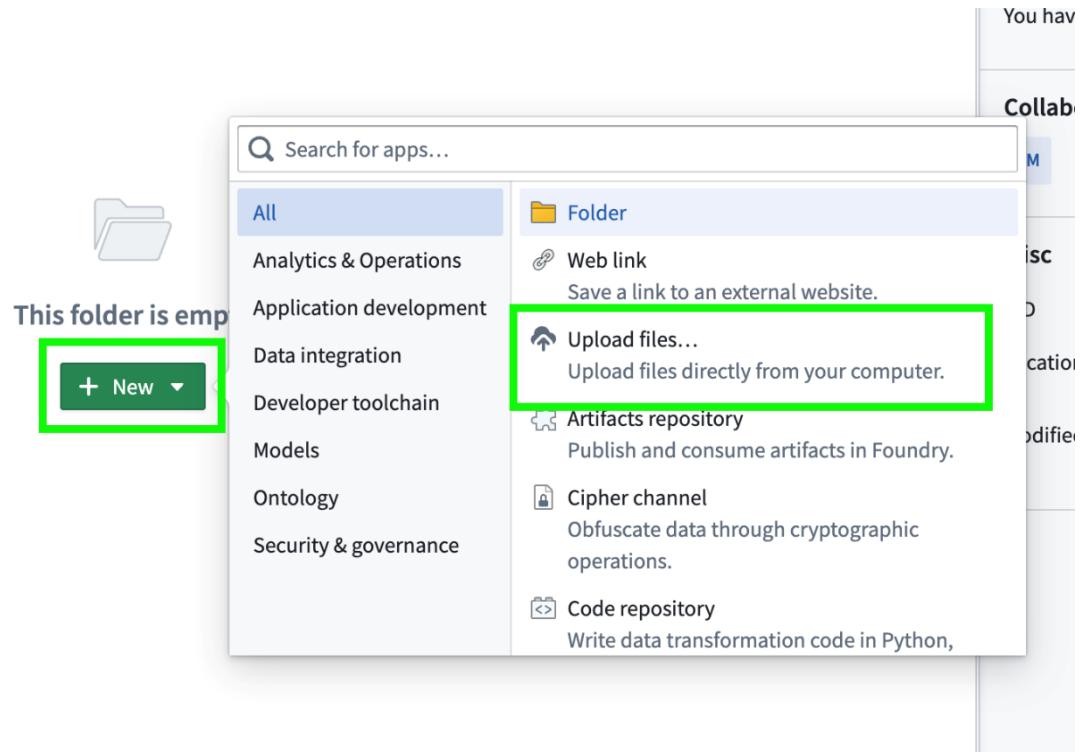
Downloads

- [orders_office_goods.csv](#)
- [orders_bureau_transactional_system.csv](#)
- [consolidated_customers.csv](#)

Manual Upload

Step 1: Upload Data

1. Open your Learning Project and click into your folder for this course
2. Click on *New*
3. Click on *Upload files...*



4. Select the file by *clicking on choose from your computer*. Do this for all three files
5. Toggle *Upload as individual structured datasets (recommended)*
6. Click on *Upload*

Tip: You can also import by dragging files directly to your folder.

Upload files

X



Drop files here or [choose from your computer](#)

| | | | |
|---|-------------------------|----------|---|
|  | orders_office_goods.csv | 95.63 KB | X |
|---|-------------------------|----------|---|

| | | | |
|---|--|-----------|---|
|  | orders_bureau_transactional_system.csv | 116.57 KB | X |
|---|--|-----------|---|

| | | | |
|---|----------------------------|---------|---|
|  | consolidated_customers.csv | 5.71 KB | X |
|---|----------------------------|---------|---|

- Upload as individual structured datasets (recommended)**
- Datasets are the most basic representation of tabular data. They can be used and transformed by many different applications. [Documentation ↗](#)

- Upload to a new media set**
- Media sets enable media-specific capabilities for media files (e.g. audio, imagery, video, and documents). [Documentation ↗](#)

- Upload to a new unstructured dataset**
- Unstructured datasets can store arbitrary files for processing and analysis. Structured data can be extracted from unstructured datasets using Pipeline Builder or Transforms. [Documentation ↗](#)

- Upload as individual raw files**
- Raw files cannot be used in data pipelines, analyses, or models.

Upload

Conclusion

You should now have three datasets in Foundry! Although we drag-and-dropped them this time, everything we are about to do in this tutorial apply equally even if we had ingested them directly from the systems via Data Connection.

The screenshot shows the Foundry Project workspace interface. On the left, there's a sidebar with options like Preview, Project workspace, Files (which is selected), Autosaved, Project Catalog, References, Trash, and Inference. The main area displays three datasets in a table:

| NAME | LAST UPDATED | TAGS |
|------------------------------------|-------------------------------|------|
| consolidated_customers | Wed, Nov 8, 2023, 12:41:44 PM | |
| orders_bureau_transactional_system | Wed, Nov 8, 2023, 12:41:44 PM | |
| orders_office_goods | Wed, Nov 8, 2023, 12:41:44 PM | |

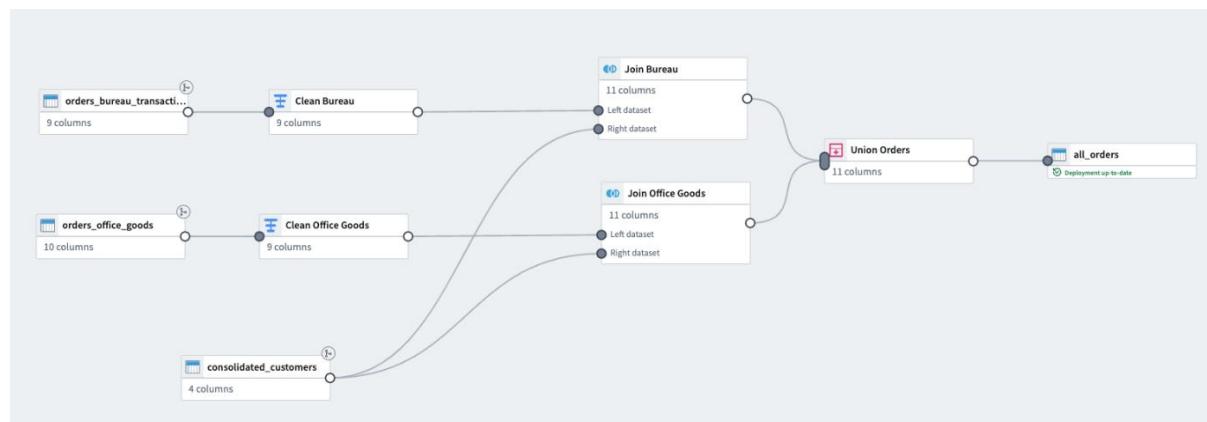
Transforming the Data

Introduction

In the next steps, we are going to clean the datasets, join them with the master customer list, and union them so that we have a single dataset containing all orders.

Foundry has several ways to do this. In this tutorial, we will use **Pipeline Builder**, which is a flexible low-code/no-code app for rapidly prototyping and building production-grade pipelines.

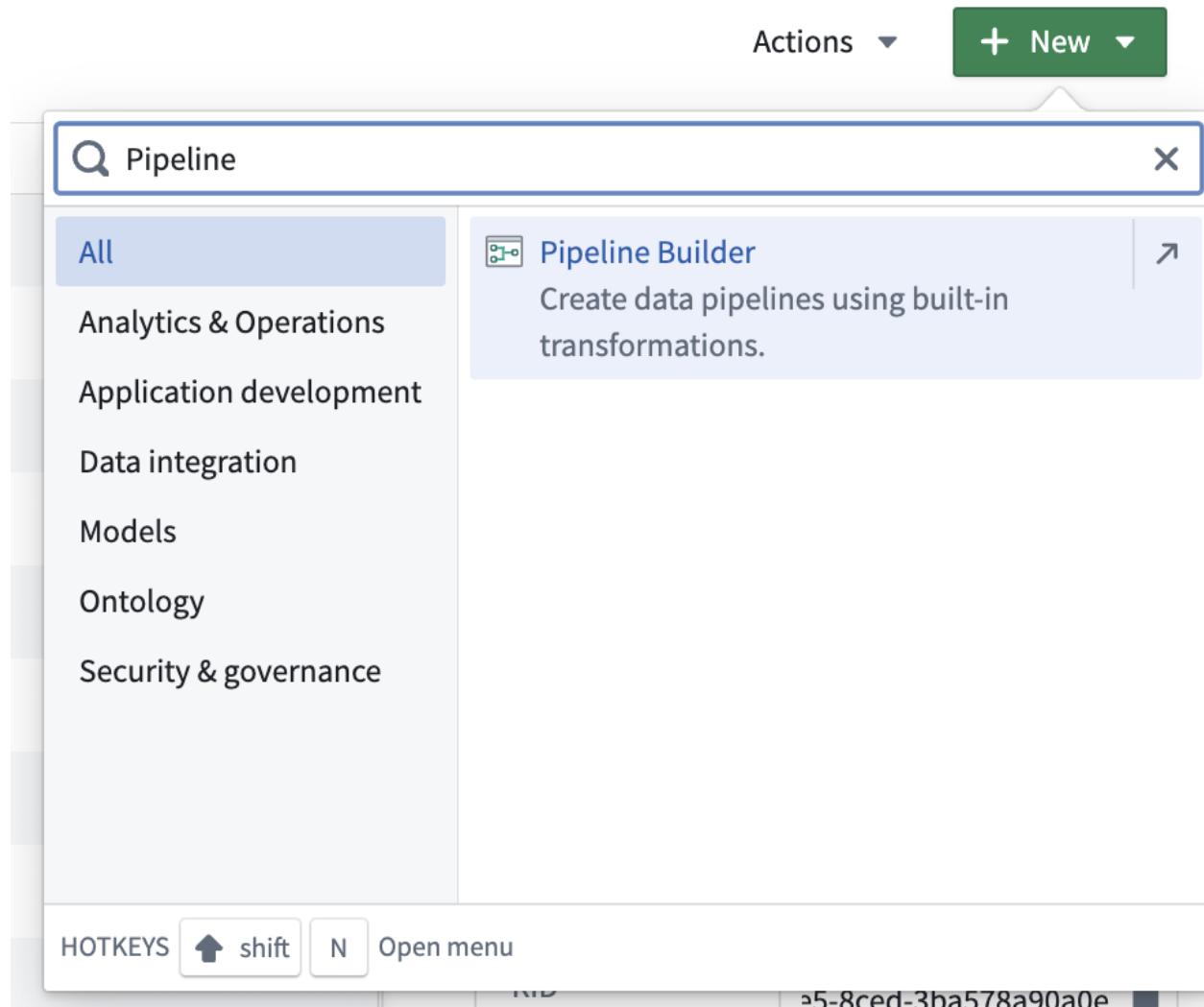
By the end of this section, you will have created the following pipeline and outputs:



Create a new Pipeline and add data

Step 1: Create a Pipeline

1. Navigate to your folder for this training course
2. Click + New in the top right
3. Search and select *Pipeline Builder*



4. Give your pipeline a name like Orders Pipeline
5. Click on *Batch Pipeline* and *Standard*. We do not need the high-frequency updates of a streaming pipeline, or the fast executions of a lightweight pipeline for this use case
6. Click on *Create Pipeline*

Configuration

Batch pipeline
Builds and transforms entire datasets on each deploy. For data that is ingested periodically.

Streaming pipeline
Transforms data continuously as new data is made available. For high frequency ingestion.

Select batch compute

Standard Default
Build your pipelines with full expression support.

Lightweight Beta
Speed up your builds with limited expressions.
[Learn More](#)

External Beta
Use external compute platforms, limited expressions.

[← Back](#)

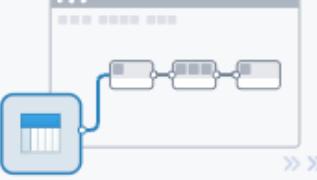
[Create pipeline](#)

Step 2: Import Data

1. On the next screen, click *Add Foundry data*

Welcome to Pipeline Builder
Get started by adding datasets, then define transform logic to derive target outputs.

[Take a tour](#)



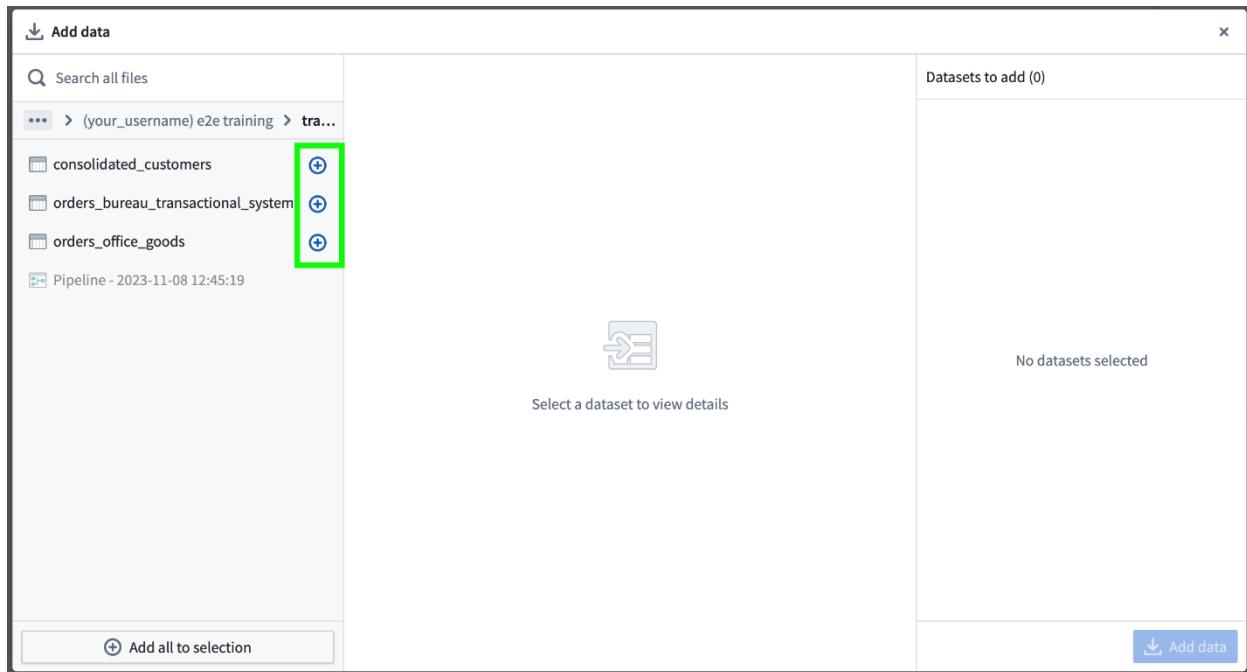
↓ Add Foundry data
Recommended if you have already ingested data into Foundry.

⌚ Add data to Foundry
Import data from outside Foundry and start using it now

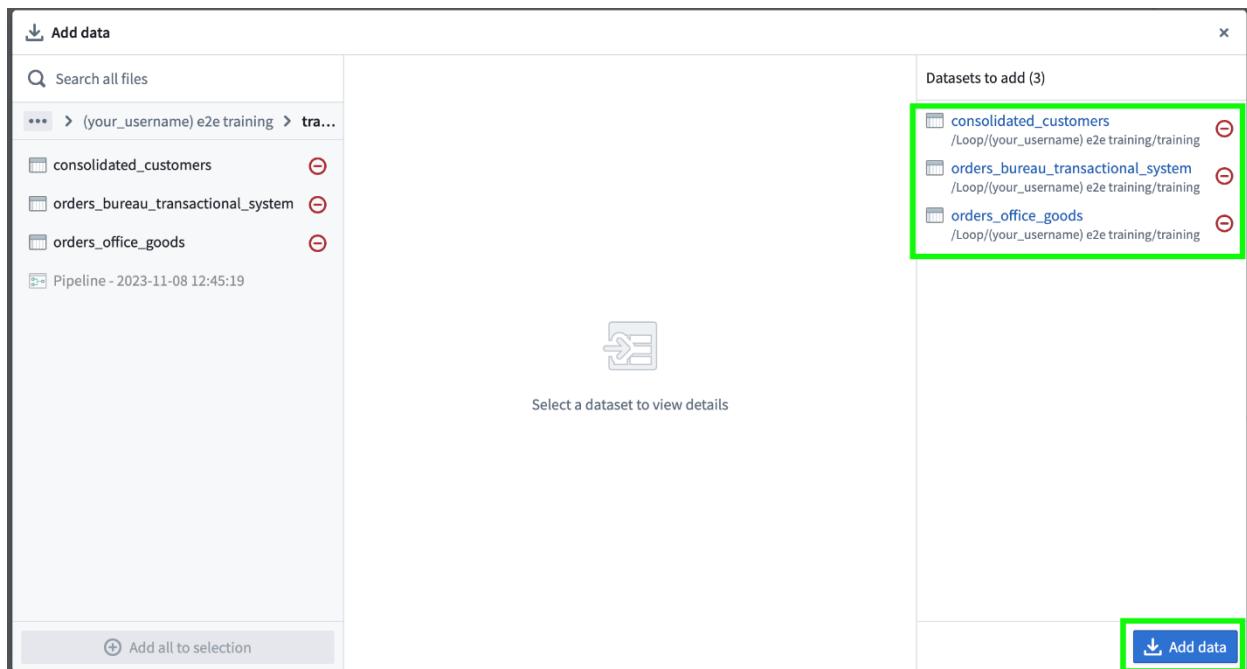
⬆ Upload from your computer
Recommended if you have sample data available locally.

✍ Manually enter data
Recommended if you do not have data available to import.

2. Add each of the three datasets previously imported by using + icon



3. Click *Add Data*

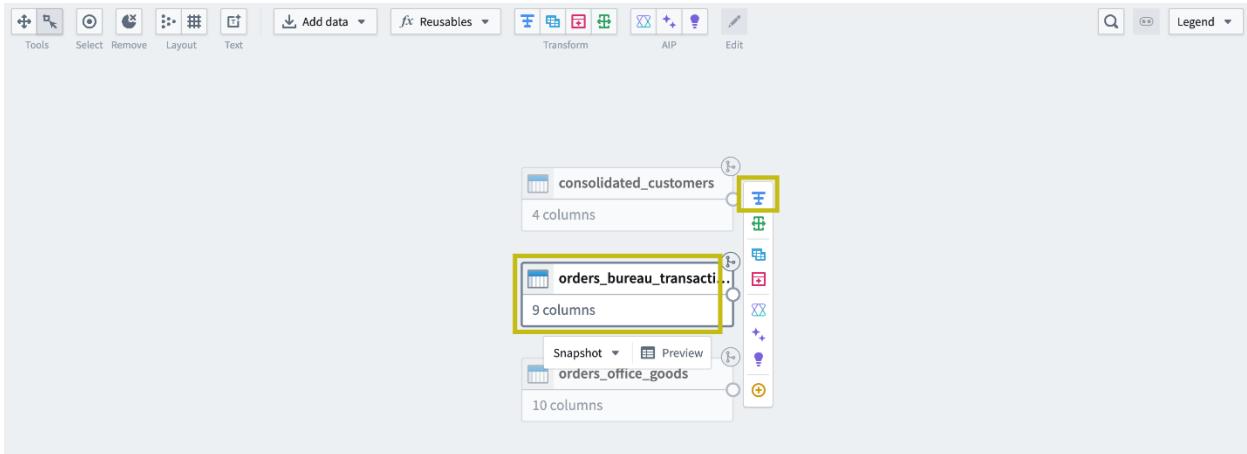


Clean Bureau SAS

Step 1: Open Transform

Your screen should now show three rectangular nodes representing each of your three imported datasets.

1. Click on *order_bureau_transactional*
2. Click on *Transform* (the three blue lines icon)

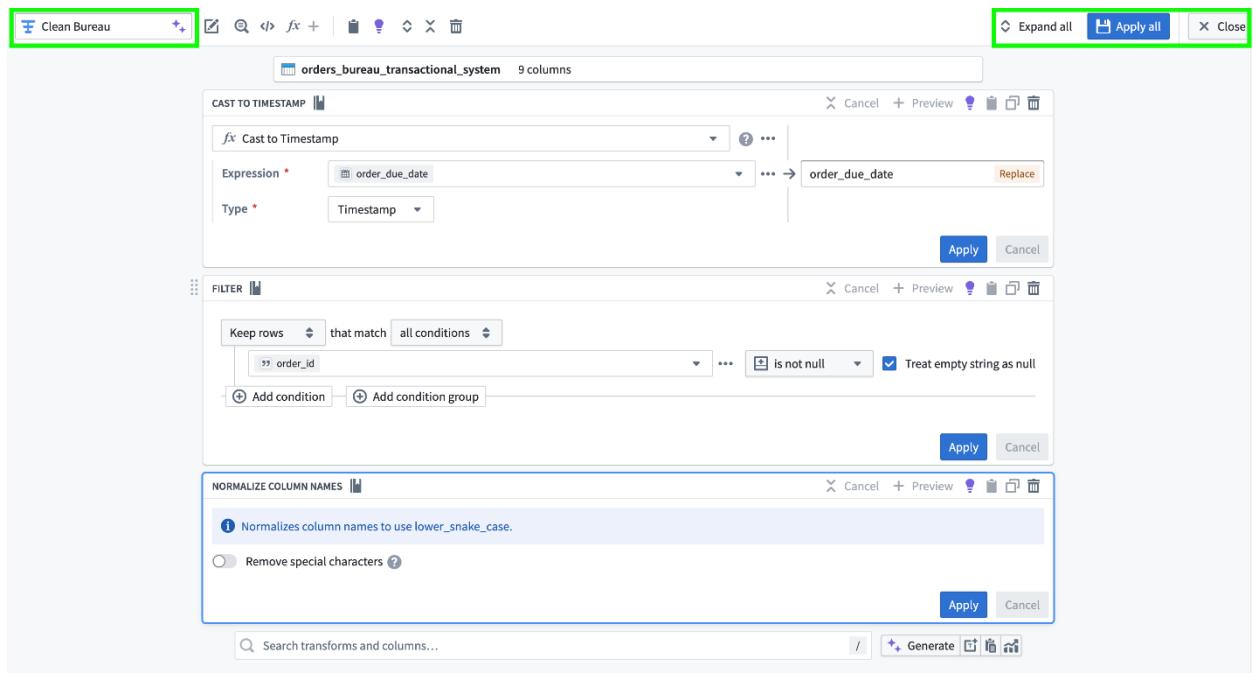


Step 2: Clean Data

In this step, we'll start to clean the Bureau transaction data. Refer to the screenshot and green boxes below for help navigating the transform window.

The cleaning tasks below standardizes date formats into timestamps, removes orders without a proper primary key identifier (*order_id*), and normalizes the format of our column names.

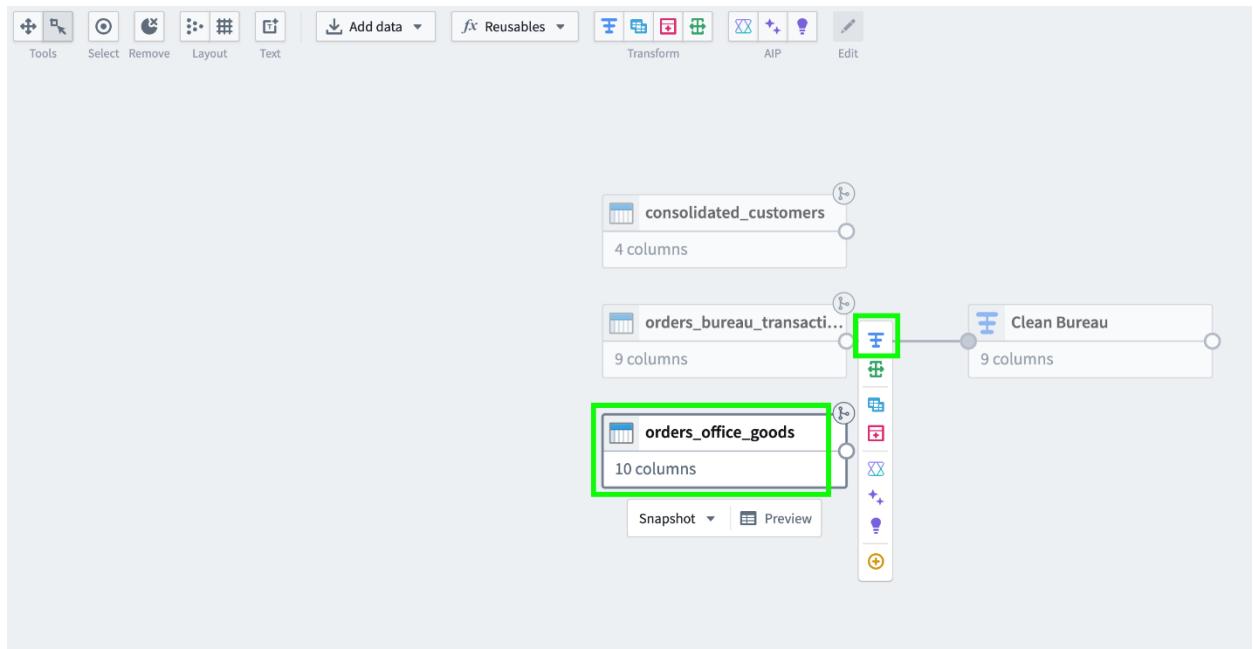
1. In the top left, rename the transform to Clean Bureau
2. Search Cast in the *Search transforms and column...* search bar
 1. Cast *order_due_date* from Date to Timestamp
 2. Click *Apply*
3. Search Filter Rows
 1. Filter rows on the column *order_id* set to *is not null* and select the box for *Treat empty string as null*
 2. Click *Apply*
4. Search Normalize column names
 1. Leave the default settings
 2. Click *Apply*
5. Click on *Apply all changes* in the top right (if everything is already applied, this will be greyed out, and you can proceed to the next step)
6. Click *Close* in the top right



Clean Office Goods Corp

Step 1: Open Transform

1. Click on *orders_office_goods*
2. Click on *Transform*

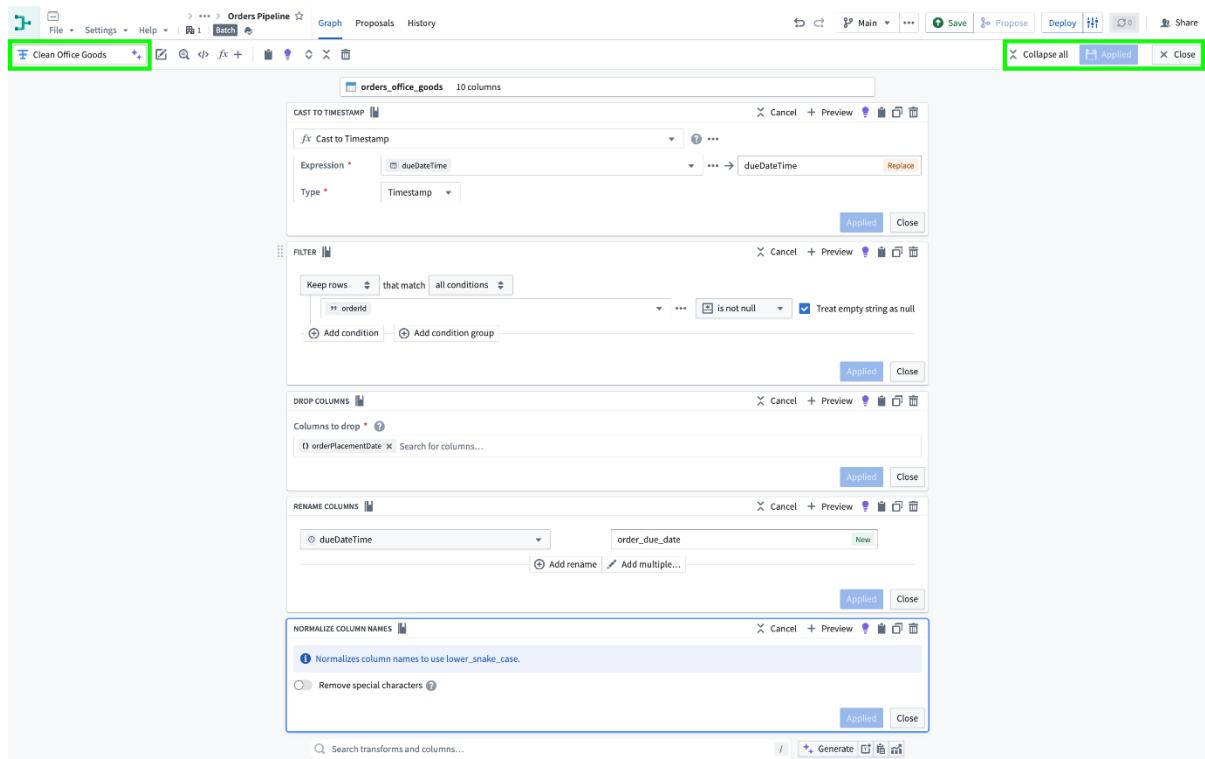


Step 2: Clean Data

In these steps, we'll start to clean the Office Goods data. Refer to the screenshot and green boxes below for help navigating the transform window.

Similar to the cleaning steps we took on the Bureau data, the steps below standardize date formats into timestamps, remove orders without a proper primary key identifier (orderId), remove an unnecessary column, rename a column, and normalize the format of our column names.

1. In the top left, rename the transform to Clean Office Goods
2. Search Cast
 1. Cast *dueDateTime* from Date to Timestamp
 2. Click *Apply*
3. Search Filter Rows
 1. Filter *orderId* to *is not null*. Select the box for *Treat empty string as null*
 2. Click *Apply*
4. Search Drop columns
 1. Type in and select the *orderPlacementDate* column
 2. Click *Apply*
5. Search Rename columns
 1. Select the *dueDateTime* column and rename to *order_due_date*
 2. Click *Apply*
6. Search Normalize column names
 1. Click *Apply*
7. Click *Apply all changes* (if everything is already applied, this will be greyed out, and you can proceed to the next step)
8. Click *Close*

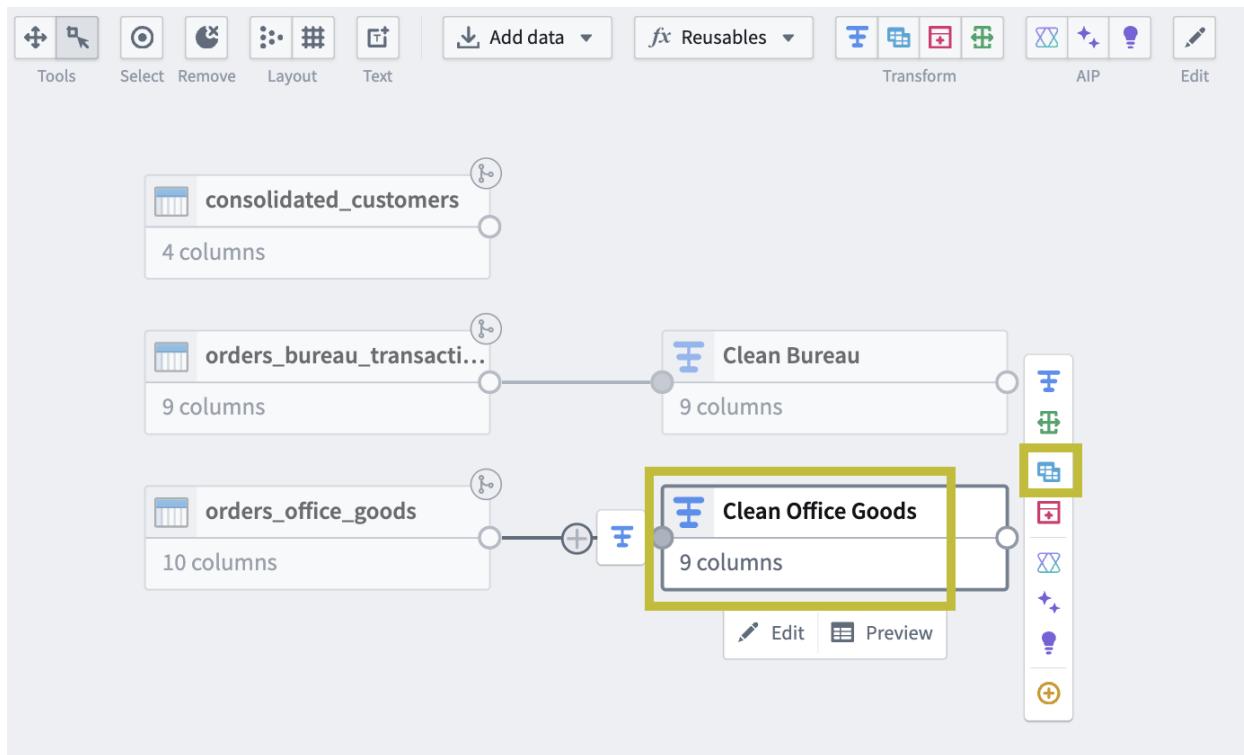


Join Clean Office Goods with Customer List

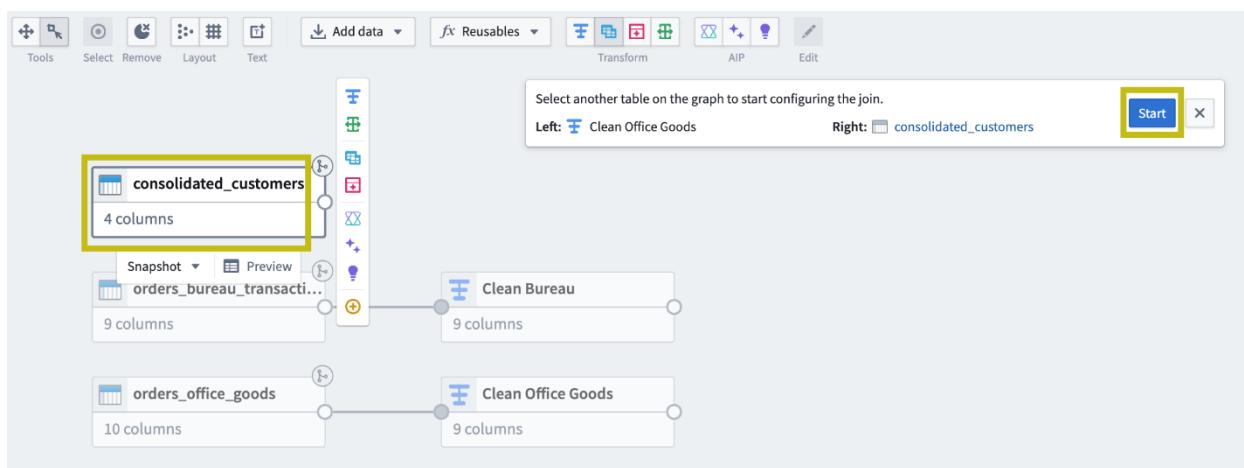
Step 1: Select Datasets to Join

In the following steps, we will join the Office Goods and Customers data together in order to pull customer-specific information into our Office Goods dataset. If you have not yet, ahead of these steps is a good time to explore the data that is in each of these datasets.

1. Navigate to the graph view
2. Click on *Clean Office Goods*
3. Click on *Join* (the two rectangle icon)



4. Click on *consolidated_customers*
5. Click on *Start*



Step 2: Select Join Properties

1. In the top left, rename join to Join Office Goods
2. Set your match condition as: *customer_id is equal to officegoods_customer_id*
3. On the right hand side, deselect *officegoods_customer_id* and *bureau_customer_id*
4. Click on *Apply*
5. Click on *Close*

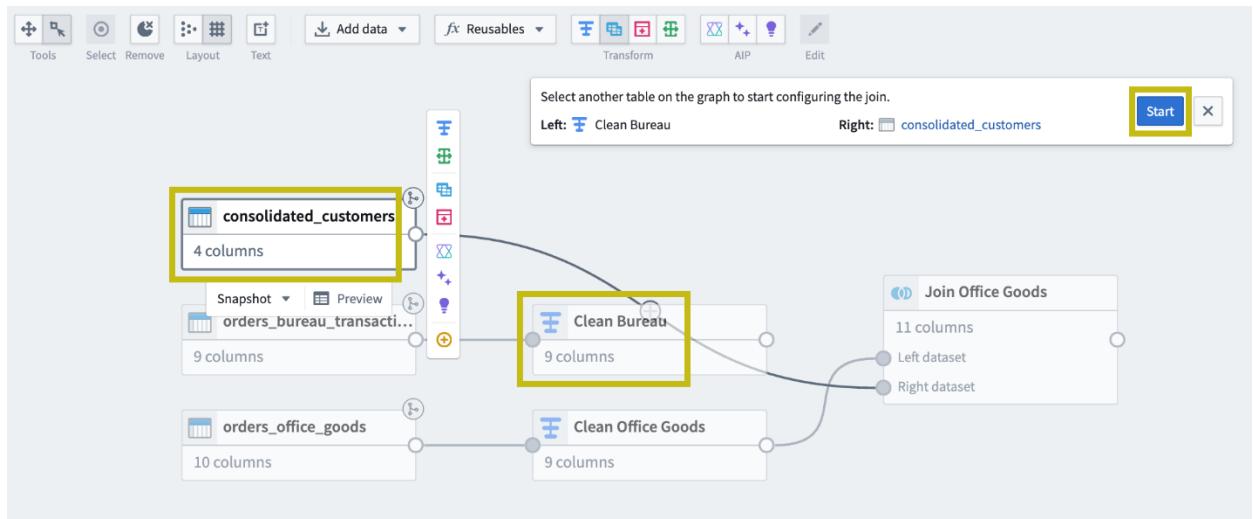
The screenshot shows the 'Join Office Goods' configuration dialog. At the top, there's a title bar with 'Join Office Goods', a 'Description' field, and buttons for 'Applied' (highlighted with a green box) and 'Close'. Below the title bar, the 'Join type' is set to 'Left join'. The 'Match condition' section shows a dropdown for 'rows that match all conditions' with two fields: 'customer_id' and 'is equal to' 'officegoods_customer_id'. There's also a 'Basic' tab and an 'Advanced' tab. Under 'Select columns', the 'Left' section has 'Auto-select all left columns' checked and lists columns: 'order_due_date' (Timestamp), 'order_id' (String), 'customer_id' (String), 'status' (String), 'assignee' (String), and 'quantity' (Integer). The 'Right' section has 'Prefix right columns' unchecked and lists columns: 'officegoods_customer_id' (String), 'bureau_customer_id' (String), 'consolidated_customer_id' (String), and 'customer_name' (String). The 'customer_name' column has a green box around its 'Selected' checkbox.

Join Clean Bureau with Customer List

Step 1: Select Datasets to Join

Similar to the previous step, here we will join the Bureau orders dataset and the Customers data together in order to pull customer-specific information into our Bureau orders dataset.

1. From the graph, click on *Clean Bureau*
2. Click on *Join*
3. Click on *consolidated_customers*
4. Click *Start*



Step 2: Select the Join Properties

1. In the top left, rename the join node to *Join Bureau*
2. Set the match condition to *customer_id is equal to bureau_customer_id*
3. On the right hand side, deselect *officegoods_customer_id* and *bureau_customer_id*
4. Click on *Apply*
5. Click on *Close*

| Match condition | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> customer_id | <input type="checkbox"/> is equal to |
| <input type="checkbox"/> Add match condition | |

| Right: consolidated_customers | |
|---|--------------------------------------|
| <input checked="" type="checkbox"/> customer_name | <input type="checkbox"/> customer_id |
| <input type="checkbox"/> bureau_customer_id | <input type="checkbox"/> deselected |

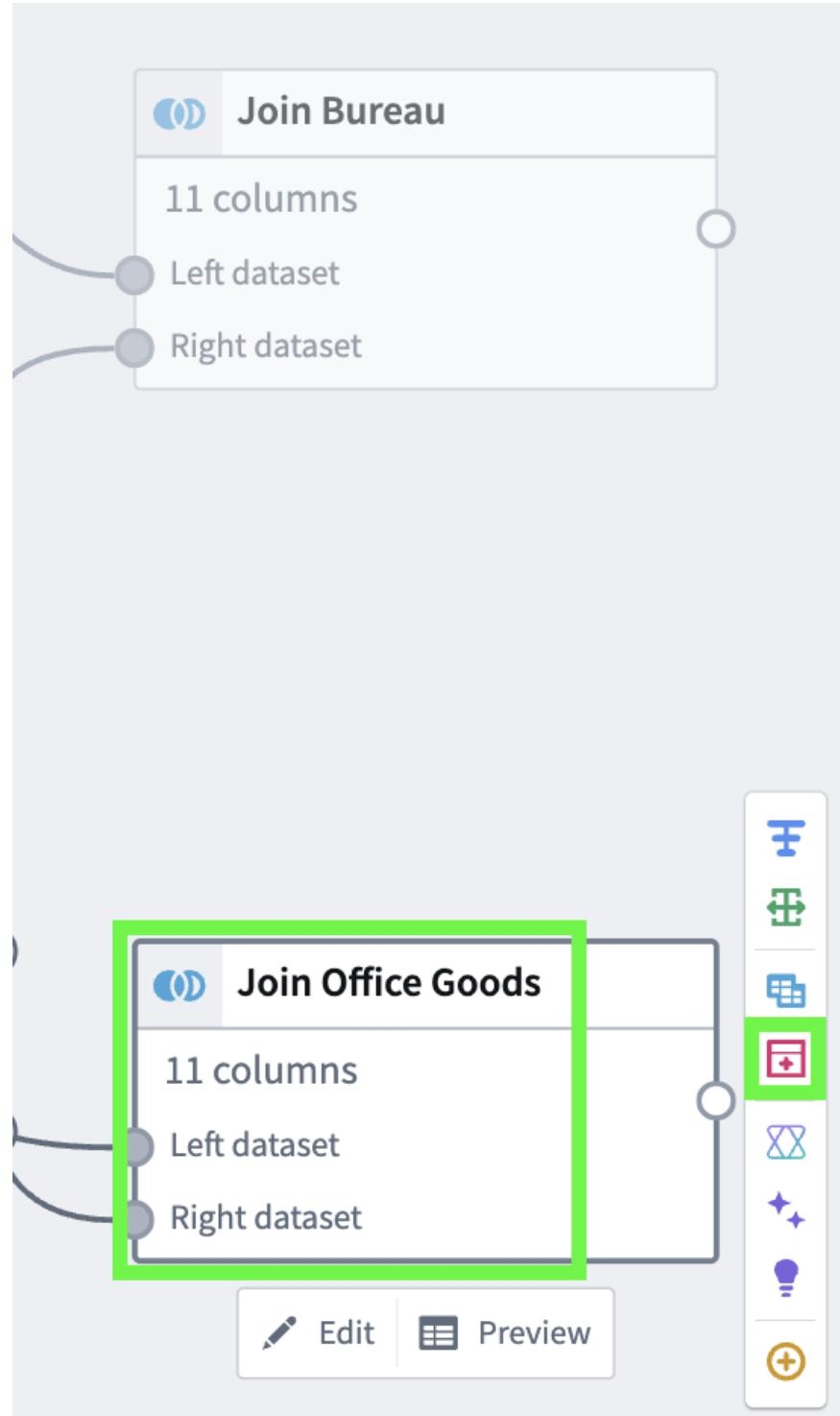
Union Datasets

Step 1: Select Datasets

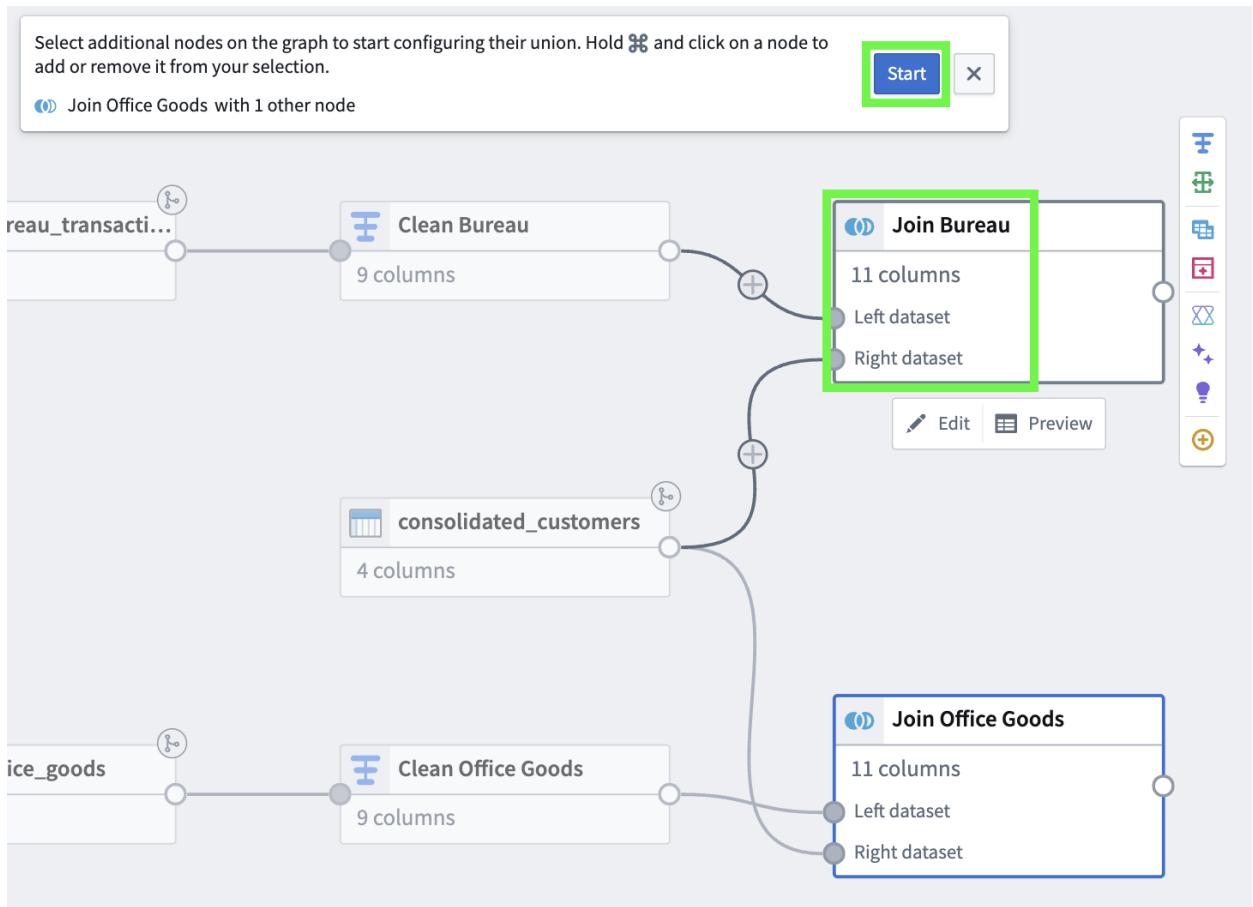
In the following steps, we will union the two orders datasets into one master dataset. This will provide us with one source-of-truth for orders and their related customer information. Note that in order to union datasets together they need to have the exact

same schema (column types). Our previous cleaning steps have allowed us to normalize the datasets and union them.

1. Click on *Join Office Goods*
2. Click on *Union* (the red square icon)



3. Click on *Join Bureau*
4. Click on *Start*



Step 2: Select Union

1. In the top left, rename to Union Orders
2. Click on *Create union*
3. Click *Close*

Union Orders Description

Inputs

- Join Office Goods
- Join Bureau

Output

Union type

Union by name

Create union transform to preview the output

- Click on the *Union Orders* node to explore the data. There should be 11 columns, resembling the screenshot below
- Click on *Close*

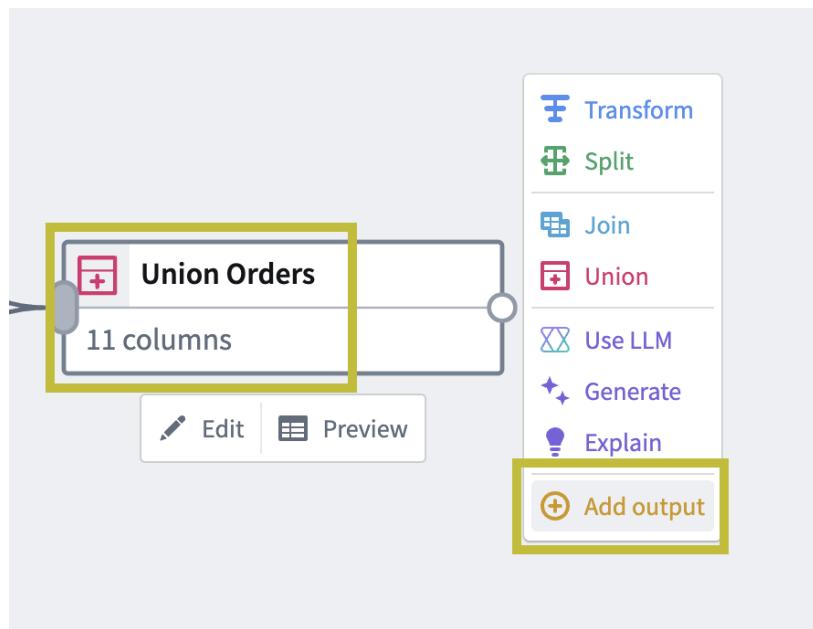
The screenshot shows the 'Orders Pipeline' interface in Foundry. The 'Graph' tab is active. A 'Union Orders' node is selected, displaying a preview of 500 rows. The columns are: order_due_date, order_id, customer_id, status, assignee, item_name, unit_price, days_until_due, consolidated_customer_id, customer_name, and a timestamp column labeled 'No inputs sampled'. The data rows show various order details and assignees like Kristen Mohr, Alfredo Bins, and John Dooley.

Set a Dataset Output

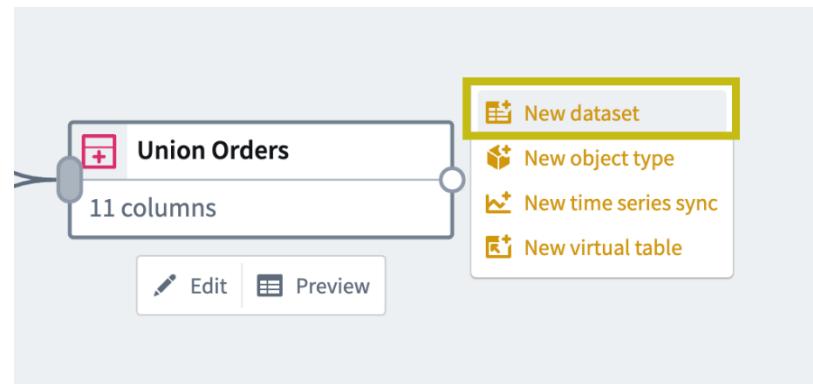
Step 1: Add Output

In the following steps, we will create a dataset where our transformed data can be written to and accessed by other applications in Foundry. Note that the dataset previews we've seen at each step of the pipeline are not actually saved in the platform outside of this pipeline - we need to manually define a dataset and deploy it to be accessible outside the pipeline.

- Click on *Union Orders*
- Click on *Add output*



3. Click on *New dataset*



4. Rename *New dataset [date]...* to all_orders

A screenshot of the pipeline interface showing the results of the previous steps. The "Union Orders" node is connected to a new dataset node labeled "New dataset Mon, Jun 16...". The status of this new dataset is "Not yet deployed". On the right side of the screen, there is a panel titled "Back to outputs" which shows a message: "New dataset Mon, Jun 16, 2025, 11:11:42 AM" and "Output will be created after first build". Below this message, there is a green checkmark followed by the text "11/11 columns mapped". There are also two dropdown menus: "Configure expectations" and "Configure write mode".

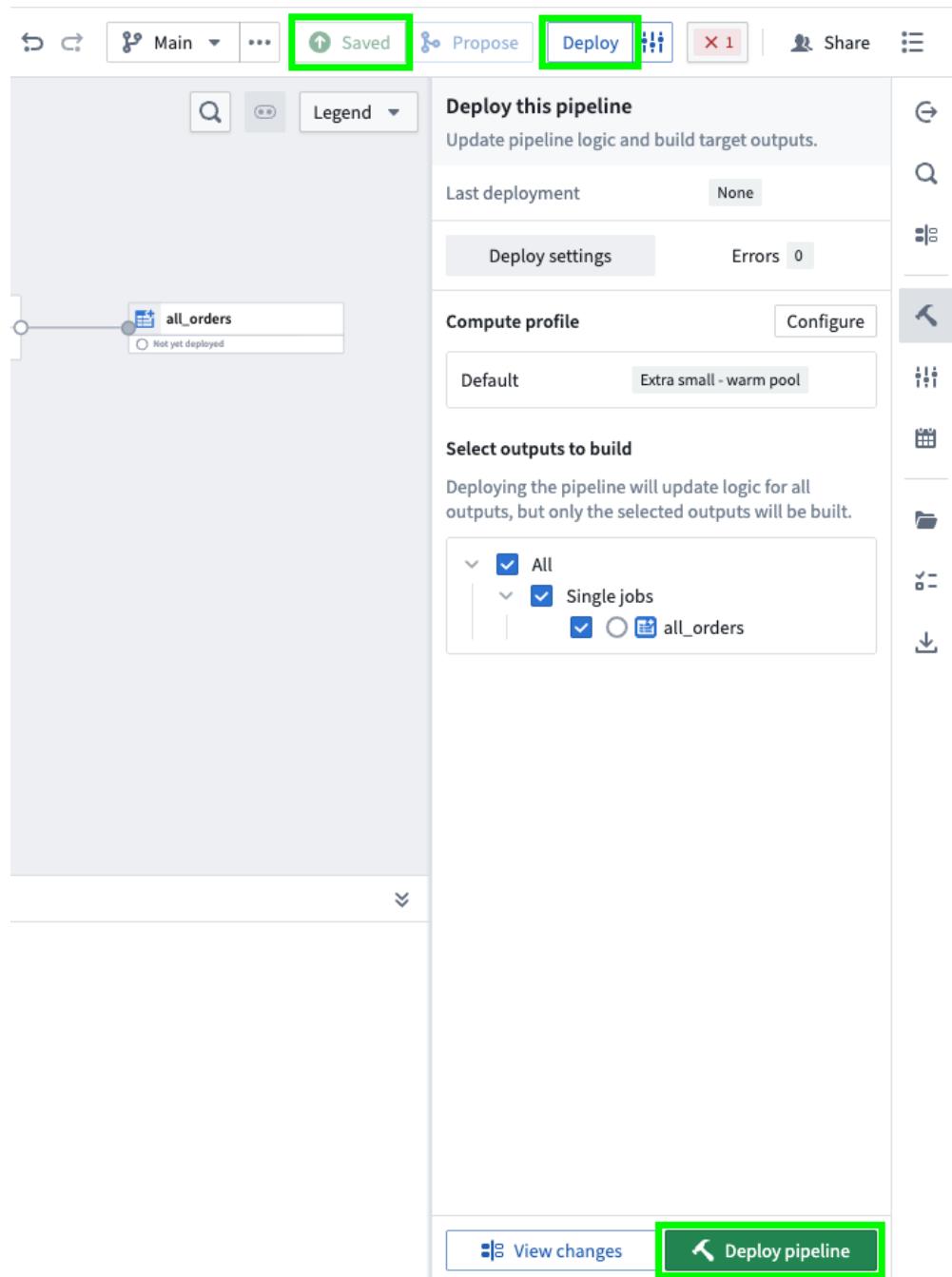
For this example, we will keep all columns to remain in our deployed dataset, but note you could deselect columns here to be removed

Finalize and Run Pipeline

Step 1: Deploy Pipeline

In the step below, we'll deploy the pipeline and output which writes the new `all_orders` dataset to Foundry. This creates a dataset file in Foundry we can use in other applications in the platform.

1. Navigate to the far right of your screen
2. Click on `Save`
3. Click on `Deploy`
4. Click on `Deploy pipeline` (this may take 1-2 minutes to complete)



Creating the Ontology

Introduction

We now need to make the `all_orders` dataset expressive and queryable, which is done through the **Ontology**.

The Ontology is a relational “digital twin” of your business comprised of **Objects**.

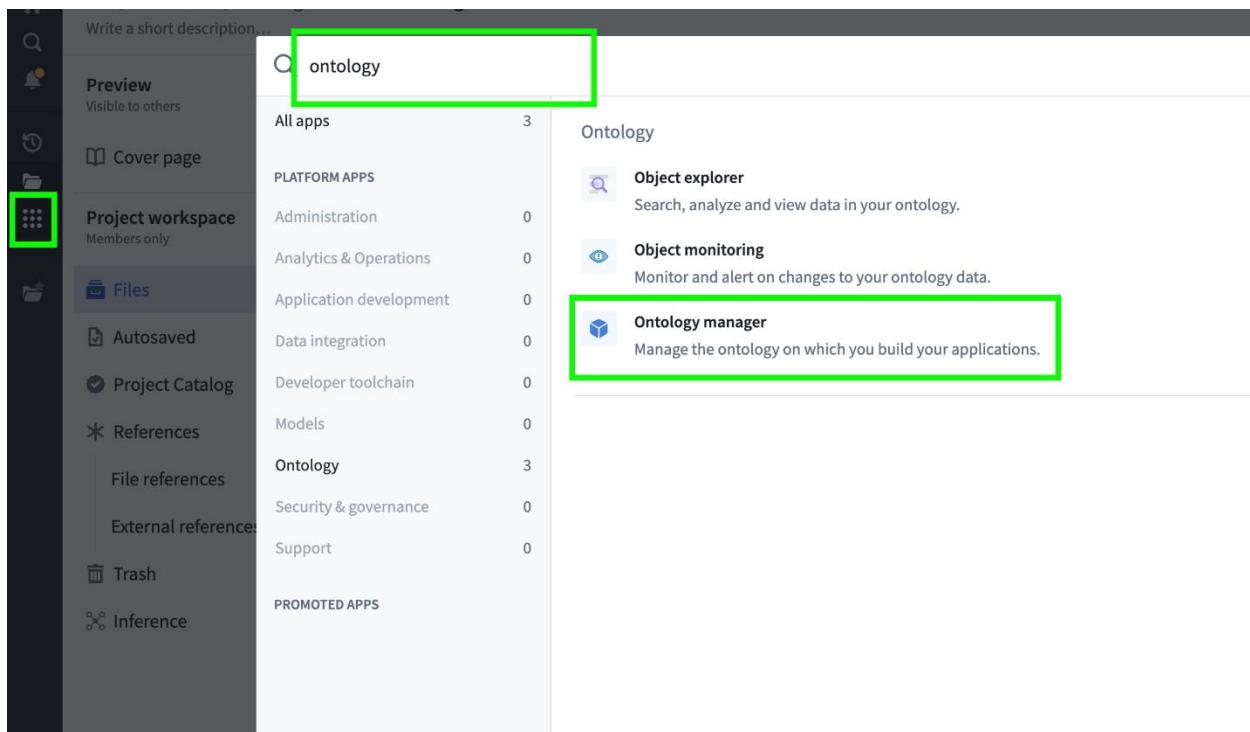
The Ontology is a compounding asset: Once you build the Objects for one use case, you can reuse them for other use cases and avoid reinventing the wheel. You can even create API bindings so that your applications outside of Foundry can interact with the Ontology in a first-class way.

We will define the Order object by using the **Ontology Manager App**.

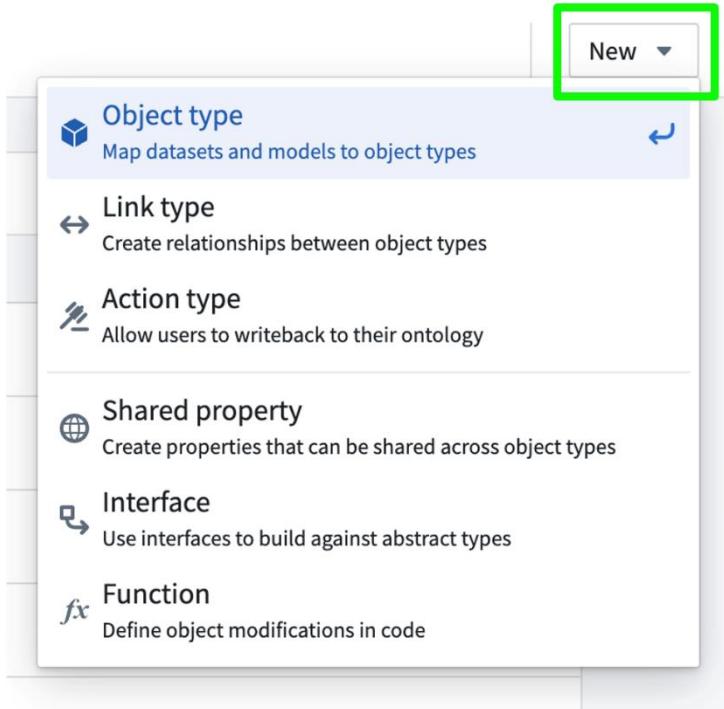
Create your Object

Step 1: Navigate to Ontology Manager

1. From the left-hand sidebar, select Applications
2. Search for Ontology manager



3. Click on *New* in the top right corner. If you're not able to select the *New* button proceed to steps 1b and 1c below.
4. Choose *Object Type*

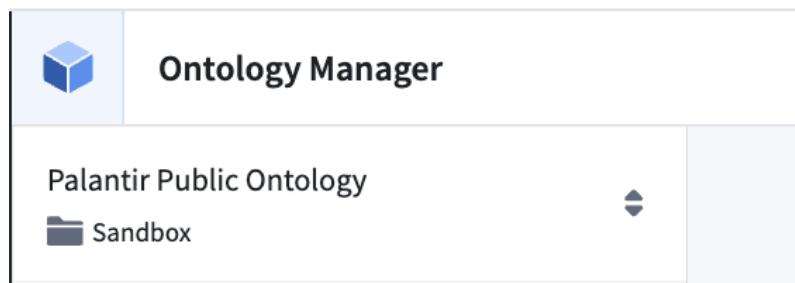


The following steps are only relevant for users where the **New** button is not selectable. You can skip to 'Step 2' below if you are able to select the **New** button.

Step 1b: Select a new Ontology

Your organization may have multiple Ontologies with differing permissions. By default, users may view an Ontology where they do not have create permissions.

1. In Ontology Manager, navigate to the left-side of the screen and note if there is a drop-down toggle to select Ontologies. If you do not have this toggle, proceed to Step 1c below.



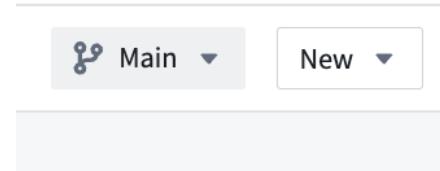
2. Toggle to an Ontology where the **New** button described in the steps above becomes selectable. You may need to contact your organization's Foundry administrator to find out which Ontology is preferred for training purposes.
3. Click **New**
4. Move on to Step 2 below.

Step 1c: Create an Ontology Branch

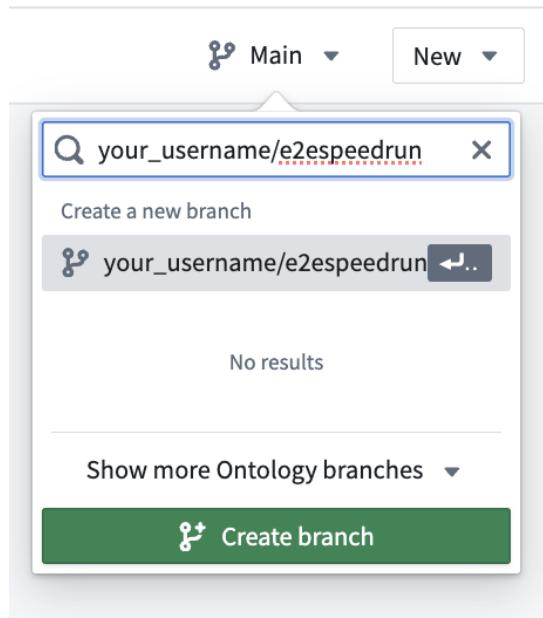
Note that some Organizations limit edits to the production Ontology via Ontology Proposals. If the 'New' button in the screenshot above is not clickable, you may need to create a custom branch of the Ontology for the following steps and seek approval from your Organization's Administrator for merging in the changes to the Main branch of the Ontology.

If you can not directly edit the Main Ontology, you can continue by creating a custom branch of the Ontology with the steps below. At the end of the 'Creating the Ontology' module, you will need to seek approval for merging in your changes to the Main Ontology before continuing.

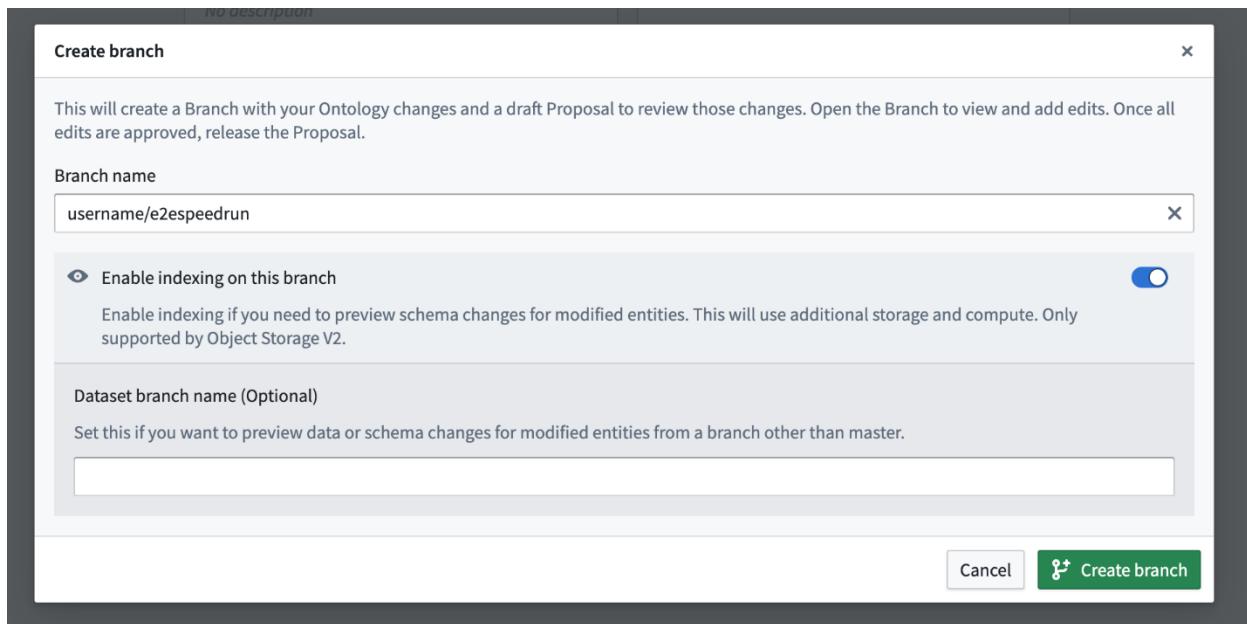
1. Click the *Main* button in the top right of your screen next to the *New* button



2. Type the name for your custom branch like [username]/e2espeedrun
3. Click *Create branch*

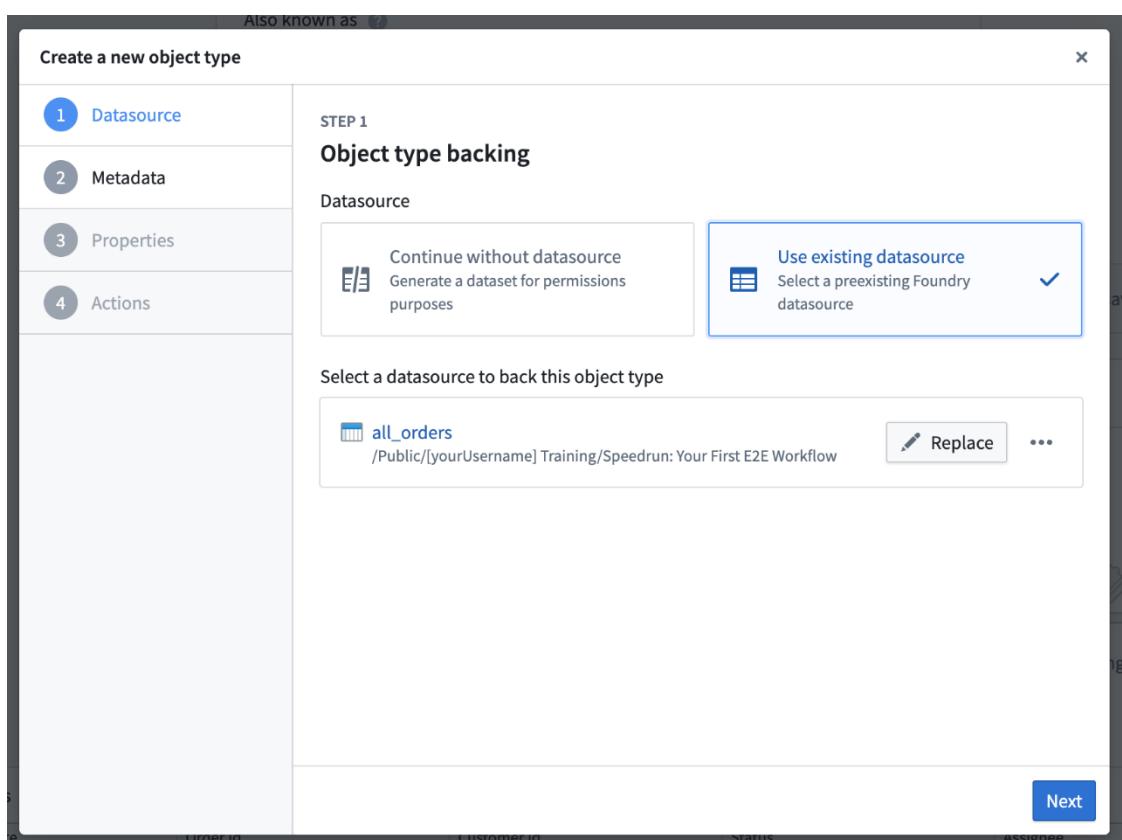


4. If you have the *Enable indexing* toggle available on your Foundry instance, select the toggle on and proceed to the next steps. Do not populate the *Optional* section.
5. If you do not have the toggle available, you will need to have your branch merged into the Main Ontology branch in order to proceed with the following steps. Contact your organization's Foundry Platform Administrator or Palantir representative for assistance.
6. Click *Create Branch*

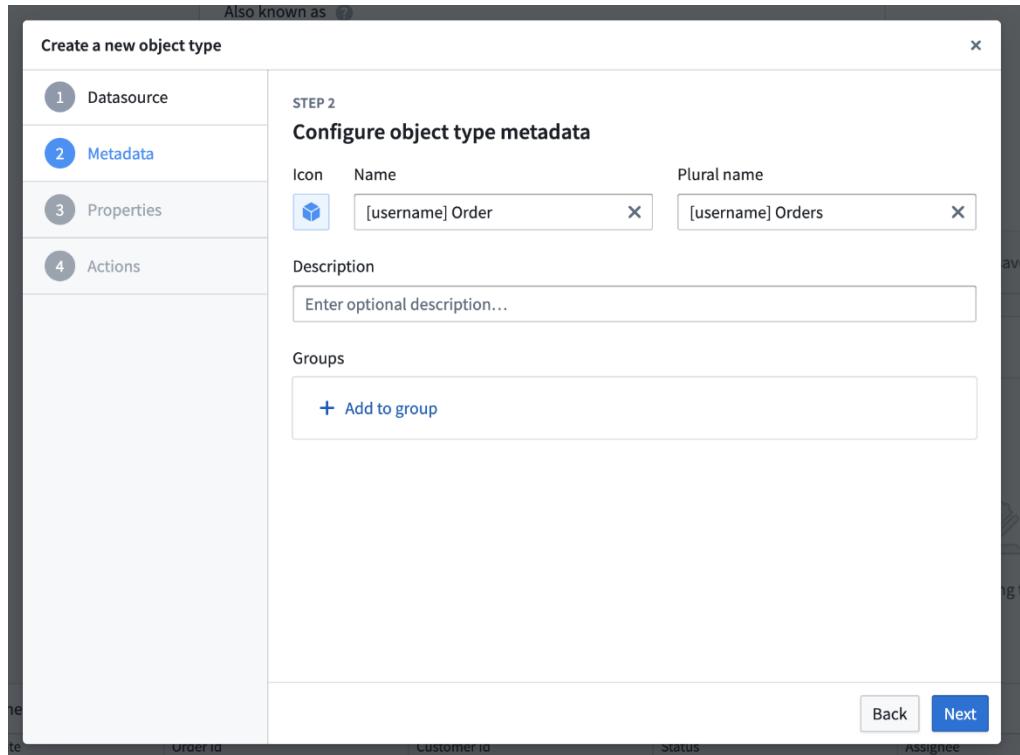


Step 2: Define Object Properties

1. In the *Create a new object type* window, select *Use existing datasource*
2. Click *Select datasource* and select your `all_orders` dataset you deployed in the previous steps
3. Click *Next*



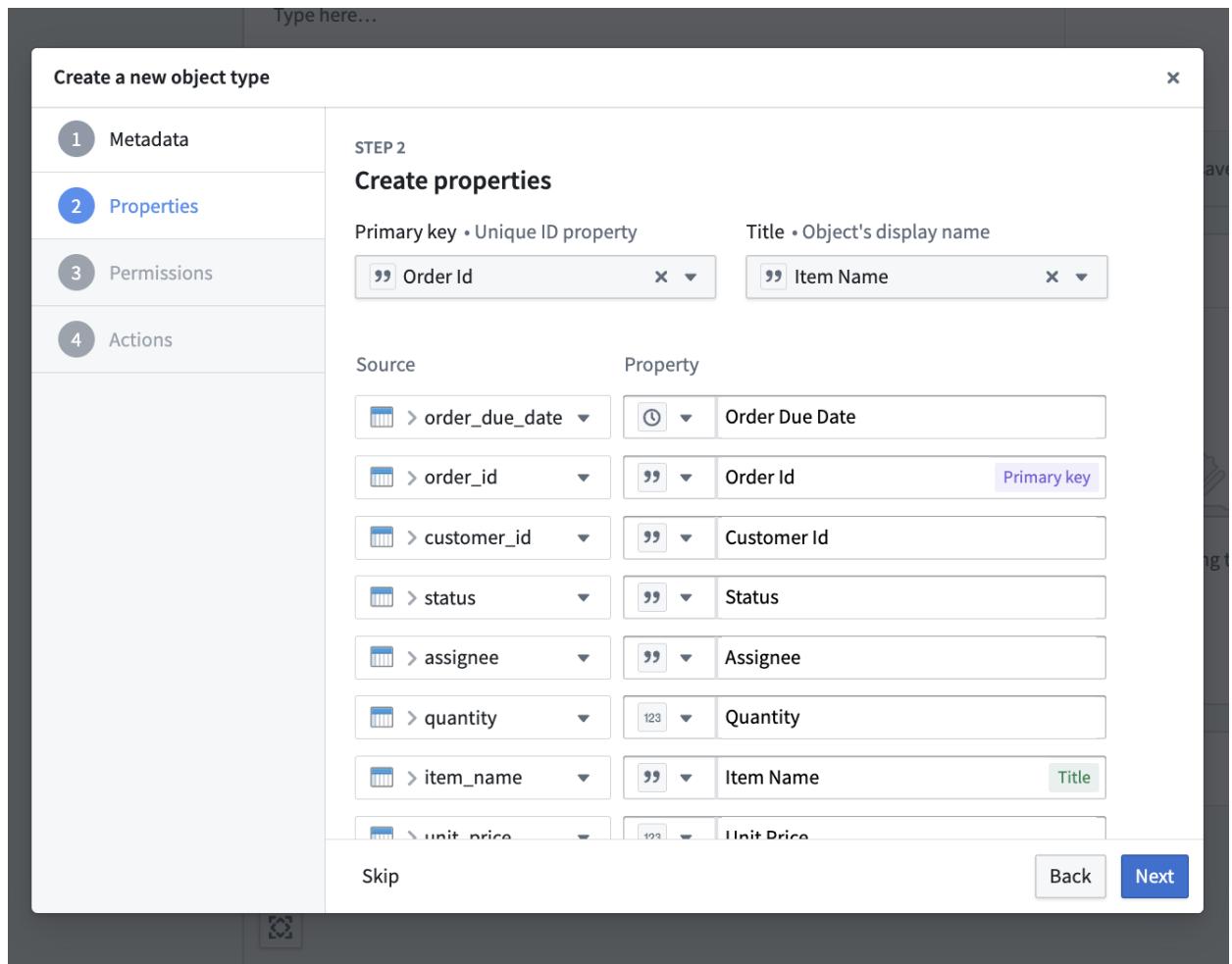
4. In the Name field, input [username] Order. The *Plural name* field should auto-populate
5. Click *Next*



6. Select *Order Id* as the primary key of the new Object; this serves as each Object's unique identifier
7. Select *Item Name* as the title of the new Object; this serves as the name of the Object that will be displayed across the platform

Note that all columns of the backing dataset were mapped to Object properties when we selected the "all_orders" dataset to back the Order Object Type. On this tab, you could remove or add additional properties to be mapped. For the purpose of this training, we will keep all properties that were auto-mapped as-is.

8. Click *Next*



The "Actions" tab allows you to set the type of commonly-used Actions that can be taken upon the new Object Type, and what users are allowed to make these Actions. You can create these Actions now, or manually create them in Ontology Manager later. We will create an Action manually and cover the topic more in-depth further along in this training.

9. Leave all of the Actions types deselected
10. Click the green *Create* button

Also known as [?](#)

Create a new object type

STEP 4
Generate action types

Select action types to generate [?](#)

-  **Create [username] Order**
Set [Order Due Date](#), [Order Id](#), [Customer Id](#), and 8 more properties
-  **Modify [username] Order**
Modify [Order Due Date](#), [Customer Id](#), [Status](#), and 7 more properties
-  **Delete [username] Order**
Allows deleting object instances and all of their properties

Select who can execute these action types [?](#)

Search users or groups...

[Back](#) [Create](#)

Step 3: Save to Ontology

1. Your Object is now created, but needs to be saved to the Ontology
2. Click **Save** in the top right of the screen
3. On the following window, click **Save to Ontology**

[Search resources...](#) 88 K 76 edits  1 [Save](#)

| | | |
|--|--|---|
| <p>Name * [yourUsername] Order</p> <p>Also known as ?</p> <p>Add aliases...</p> <p>Description Type here...</p> <p>+ Add to group</p> | <p>Plural Name * [your Username] Orders</p> | <p>Status Experimental</p> <p>Visibility Normal</p> <p>Index status Disabled</p> <p>Edits Enabled</p> |
| ID <code>your-username-order</code> i | API <code>YourUsernameOrder</code> | RID <input type="checkbox"/> Set on save |

Note that it may take a few minutes for your Object Type to index, which essentially creates all the individual Objects from your backing dataset. You won't be able to select your Objects in Workshop in the next step until the indexing is complete.

You can check the status of Object indexing on the Object overview page in the top left. Refreshing the page should pull up the current status of the indexing, and you should see the number of Objects increase above zero. Once the indexing is complete, you can move on to the next steps.

The screenshot shows the 'Ontology Manager' interface. On the left, there's a sidebar with a blue cube icon and the text 'Ontology Manager'. Below it is a back button labeled 'Back home'. In the center, there's a section for '[yourUsername] Order' with a blue cube icon, a warning icon, and a circular progress bar indicating '0 objects'. To the right, a large box displays the 'Status' as 'Running initial sync'. It also shows 'Started by objects-data-funnel'. At the bottom of this box is a link 'View index status' with a right-pointing arrow. The overall background is white with blue and grey accents.

Building the Workshop Application

Introduction

The next step is to create a tool that solves the Fulfillment Department's problems. **Workshop** is a tool in Foundry for rapidly prototyping and creating powerful applications that leverage the Ontology.

By the end of this section, you will have created a classic dashboard with basic KPIs, charts, and filtering capabilities. Later on, we will make this interactive and collaborative by allowing you to modify who is assigned to an order.

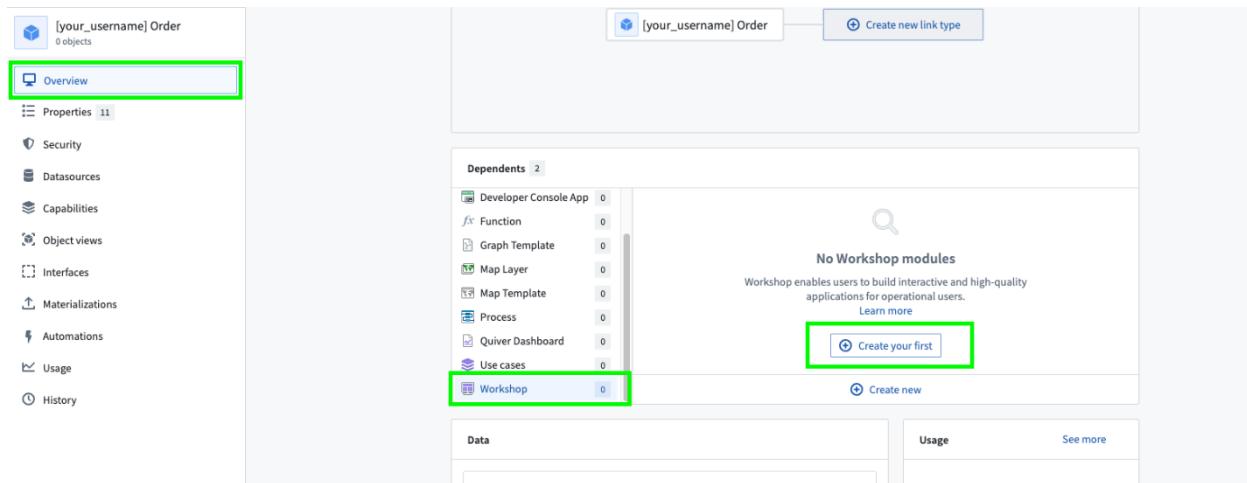
The screenshot shows a 'Workshop' application interface. At the top, there's a header with a blue cube icon and the text '(your username) Orders Inbox'. To the right is a 'Call-to-Action Button'. Below the header, there's a 'Charts' section containing a pie chart and a bar chart. The pie chart shows 'closed: 42%', 'assigned: 4%', and 'open: ...'. The bar chart shows the count of orders by 'Days Until Due'. To the right of the charts is a detailed table of 'All Orders' with columns for Item Name, Assignee, Consolidated Customer Id, Customer Id, Customer Name, Days Until Due, Order Due Date, Order Id, Quantity, and Status. Each row in the table has a 'View full details' button. To the right of the table is a large search panel with various filters: 'Filter (your username) Orders', 'ITEM NAME', 'ASSIGNEE', 'CONSOLIDATED CUSTOMER ID', 'CUSTOMER ID', 'CUSTOMER NAME', 'DAYS UNTIL DUE', 'ORDER DUE DATE', 'ORDER ID', 'QUANTITY', and 'STATUS'. Each filter has dropdown menus and search fields.

Create the Workshop Module

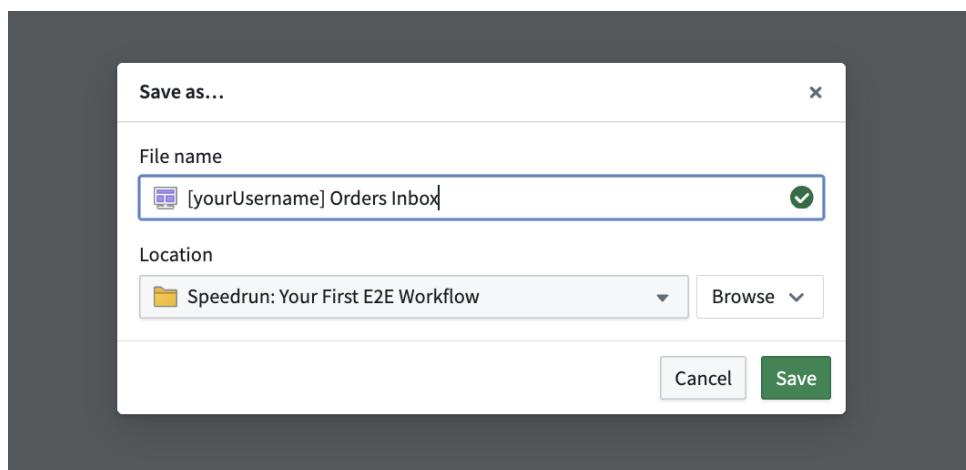
Step 1: Create Workshop Module

Ensure you've saved your previous changes to the Ontology before moving on to these steps.

1. Open your [username] Orders object in Ontology Manager
2. Click on *Overview*
3. Scroll down to *Dependents*
4. Select *Workshop*
5. Click on *Create your first*



1. Under *File name* name your Workshop App [username] Orders Inbox
2. Select your course-specific training folder
3. Click *Save*



Add Workshop Title

Step 1: Rename Header

1. Select the *Section* at the top of the Workshop
 - o Alternatively, open the *Layout* tab in the left, and select *Header*
2. In the edit-window on the right, rename the *Title* to *(your username) Orders Inbox*
3. Under *Icon*, search for and select *Cube*
4. Set *Color* to *Blue 4*

The screenshot shows the Foundry interface with the 'Header' component selected. On the left, the 'Layout' tab is active, showing the 'Header' section. The main area displays the header configuration with the title '(your username) Orders Inbox'. The 'ICON' dropdown is set to 'Cube', and the 'COLOR' dropdown is set to 'Blue 4'. Both the title and the icon/color settings are highlighted with green boxes.

Create an Object Table

Step 1: Add Object Table Widget

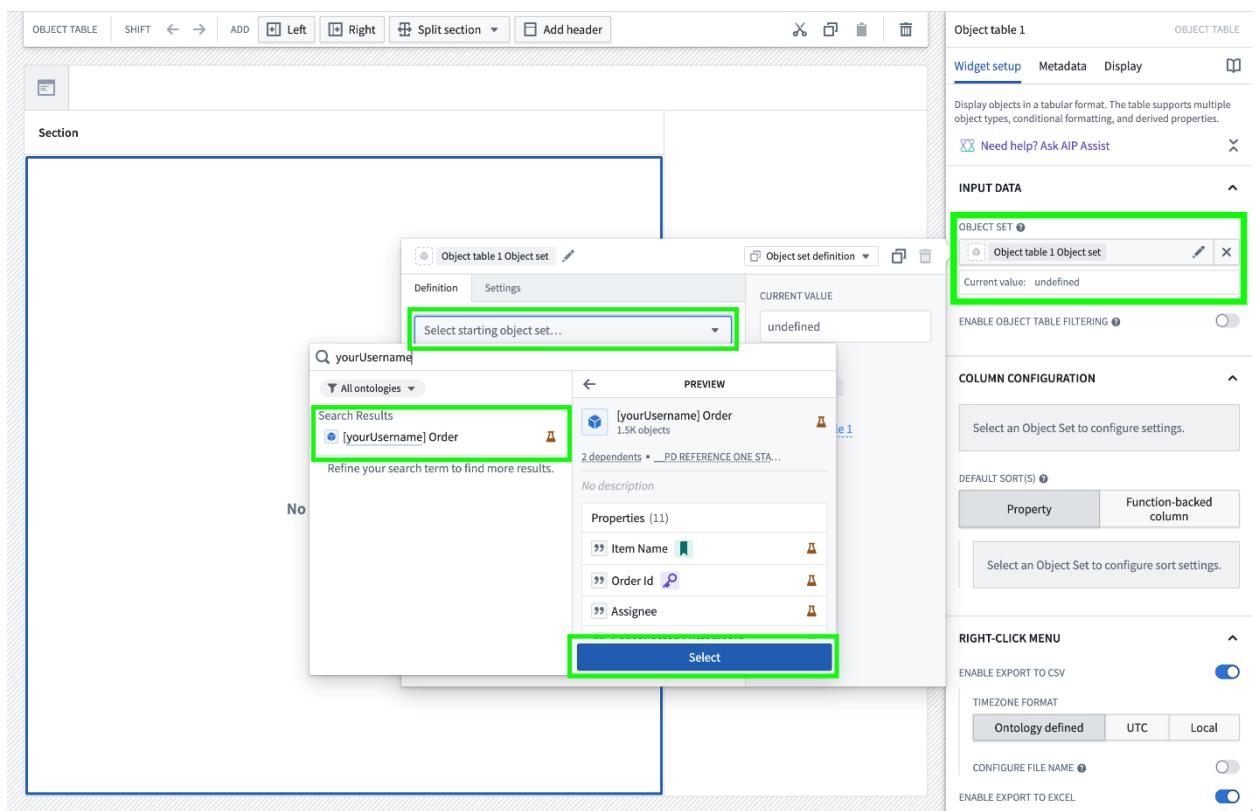
1. In the Section on the left, click the *Add widget* option

The screenshot shows the Foundry interface with the 'Object types' section selected. A modal dialog titled '+ Add section inside' is open, showing two options: '+ Add widget' and 'Set layout'. The '+ Add widget' button is highlighted with a green box.

- Search for the *Object table* widget and click it to add it

Step 2: Add the object set

- A new edit window should have opened on the far-right of the screen. Locate the *Input Data* section and under *Object Set* click the *Select object set variable...* dropdown.
- You will need to create a new variable to hold your *Order* object set. Select *New object set variable*
- Click *Select starting object set...*
- Search for your *Order* object set and *Select* it



- You can also rename the variable that holds your *Order* object set to help keep track of your variables. Click the *pen* icon next to the variable name and enter a new name e.g. *Order Object set*

The screenshot shows the 'Order Object set' configuration window. At the top, there's a toolbar with a 'Definition' tab selected and a 'Settings' tab. Below the tabs, the title is '[yourUsername] Order'. A dropdown menu is open, showing options: '+ On a property', '(x) Using a variable', and 'On a link'. Another dropdown under 'Traverse to' shows 'Get linked objects'. There's also a section for 'Combine with another object set'. To the right, a sidebar displays the current value: '1492 [yourUsername] ...' followed by a list of objects including Printer, Office Desk, File Folders, 30" Monitor, Multifunction Printer, and others. Below this is a 'VARIABLE USAGE' section showing 'Widgets 1' and 'USED IN Object table 1'.

Step 3: Add properties to the Object Table

1. Under the *Column Configuration* section, select *Add all properties*
2. You can reorganize the order of the columns in the object table by dragging the properties up and down in the edit window using the 6 dots to the left of the property name.
3. To sort objects by *Item name*, scroll down in the edit window to find the *default sort* and click *select a property to sort by* and choose *Item name*

Object table 1

Widget setup Metadata Display

COLUMNS

- Title
- Assignee
- Consolidated Customer Id
- Customer Id
- Customer Name
- Days Until Due
- Order Due Date
- Order Id
- Quantity

Add all properties | Remove all properties

ENABLE INLINE EDITING

DEFAULT SORT(S)

| Section | Section |
|-------------|--------------------|
| 30" Monitor | Gail Weber |
| 30" Monitor | Latoya Gulgowski |
| 30" Monitor | No value |
| 30" Monitor | Gail Weber |
| 30" Monitor | John Dooley |
| 30" Monitor | No value |
| 30" Monitor | Kristen Mohr |
| 30" Monitor | Lorraine Bahringer |
| 30" Monitor | Kristen Mohr |
| 30" Monitor | Alfredo Bins |
| 30" Monitor | Laverne Koss |
| 30" Monitor | No value |
| 30" Monitor | Lela Kemmer |
| 30" Monitor | Taylor Hill |
| 30" Monitor | No value |
| 30" Monitor | Laverne Koss |
| 30" Monitor | No value |

4. Rename the *Title* property to *Item Name* by clicking the arrow next to the *Title* property in the edit window and entering in the new column name

COLUMN CONFIGURATION

[yourUsername] Order

COLUMNS

- Title

COLUMN NAME Use variable

Title

COLUMN CONFIGURATION

[yourUsername] Order

COLUMNS

- Item Name

COLUMN NAME Use variable

Item Name

Step 4: Configure the section dimensions

1. Click the *Layout* icon on the far left
2. Select the *Section* containing the *Object table*

3. Under *Dimensions*, change the *Column Width* to *Flex* and change the number to 2

The screenshot shows the UI builder interface. On the left, there's a sidebar with a tree view of components: Header, Page (DEFAULT), Section, Object table 1, and Section. The 'Section' node under 'Object table 1' is selected and highlighted with a green box. In the center, there's a table component with two rows. The first row has columns for Item Name, Quantity, Order Due Date, Days Until Due, and Consolidated Customer. The second row contains entries for 'Printer' and 'Office Desk'. On the right, there's a 'Section' panel with a 'DIMENSIONS' section. This section has a dropdown menu for 'COLUMN WIDTH' set to 'Flex', and a numeric input field set to '2'. A green box highlights this entire 'DIMENSIONS' area.

Create Filter

Step 1: Add Filter widget

1. In the section on the right, click *Add widget*

The screenshot shows a 'Section' component on the right side of the UI builder. It contains a list of items and two buttons at the bottom: '+ Add widget' and 'Set layout'. A green box highlights the entire 'Section' component area.

2. Search for *Filter list*, or click the *Filter* tab under the search bar, and add it by clicking it

Search widgets...

All Properties & links Visualize Filter Writeback Foundry & custom apps

Filter list
Visualize a high-level summary of objects data (e.g., histograms, distribution charts...)

Object dropdown
Allow the user to choose an object from a list of objects.

Objects selector
Provide a multi-select picker for objects.

Exploration Search Bar
Exploration Search bar

Exploration Filter Pills
Exploration Filter Pills

Free-form analysis
Conduct AIP enabled independent investigations and exploratory analyses o...

Step 2: Add the object set

1. This time, you can select the variable you created when adding the object set to the *object table*

Section

Filter list
Select this widget to edit configuration.

Widget setup **Metadata** **Display**

Display and update a filter variable that can be used to dynamically filter downstream object set variables.

Need help? Ask AIP Assist

INPUT DATA

OBJECT SET Order Object set
Current value: 1492 [yourUsername] Orders

FILTERS CONFIGURATION

FILTER LIST Add, reorder and rename filters
+ Add filter

ALLOW USERS TO ADD AND REMOVE FILTERS

LAYOUT

Vertical Pills

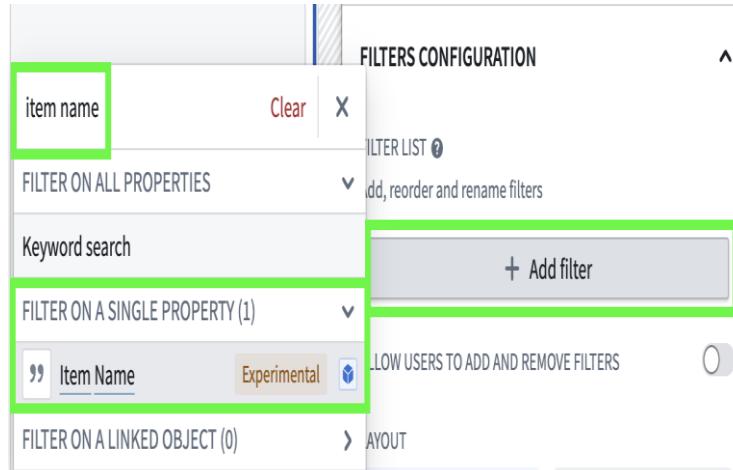
OUTPUT DATA

FILTER OUTPUT Filter list 1 Filter output
Current value: No filters

Step 3: Add filters

1. In the *Filter Configuration* section scroll down to the *Add filter* option under the *Filter List*

2. Search for and add *Item Name*



3. Once the filter has been added, click the arrow to the right of the filter name, and change the *filter component* to a *Multi-select dropdown*

The screenshot shows the 'FILTERS CONFIGURATION' panel with the 'Item Name' filter selected. The 'FILTER COMPONENT' dropdown is set to 'Multi-select dropdown', which is highlighted with a green box. Other settings visible include 'Applies to [yourUsername] Order', 'ORDER Ascending', and 'CLEAR TEXT INPUT ON SELECTION'.

4. Repeat steps 2-3 for each other property name. Some properties will not have the option of a *Multi-select dropdown* in the *filter component*, in this case, just leave them as default.

5. Toggle on *Allow users to add and remove filters*

The screenshot shows the 'FILTERS CONFIGURATION' panel. On the left, there are several filter definitions with their respective configurations and visualizations:

- ORDER DUE DATE:** A histogram showing the distribution of order due dates from June to July 2023. It includes input fields for 'Start date' and 'End date'.
- ORDER ID:** A dropdown search field labeled 'Search...'. It includes an 'Add filter' button.
- QUANTITY:** A histogram showing the distribution of quantities. It includes input fields for 'Min value' and 'Max value'.
- STATUS:** A dropdown search field labeled 'Search...'. It includes an 'Add filter' button.

On the right, the 'FILTER LIST' is displayed as a list of filter names, each with a dropdown arrow:

- Item Name
- Assignee
- Consolidated Customer Id
- Customer Id
- Customer Name
- Days Until Due
- Order Due Date
- Order Id
- Quantity
- Status

Below the filter list is a button labeled '+ Add filter'.

At the bottom of the configuration panel is a green-bordered section containing the text 'ALLOW USERS TO ADD AND REMOVE FILTERS' with a blue toggle switch.

Step 4: Apply filters to object table

1. Rename the *Filter Output* to *Order Filters*

The screenshot shows the configuration of an object table. At the top, the 'Order Filters' output is highlighted with a green box.

The 'CURRENT VALUE' section displays the JSON configuration for the filter output:

```
{
  "and": {
    "filters": []
  },
  "type": "and"
}
```

Below this is a 'Set current value as default' button.

The 'VARIABLE USAGE' section shows 'Widgets 1' and 'OUTPUT FROM Filter list 1'.

On the right side, there are layout options for 'Vertical' and 'Pills'.

At the bottom, the 'OUTPUT DATA' section shows the 'FILTER OUTPUT' configuration, which has also been highlighted with a green box. It contains the same JSON configuration as the 'CURRENT VALUE' section:

```
{
  "and": {
    "filters": []
  },
  "type": "and"
}
```

2. Click on the *Variables* icon on the far left of the screen

3. Click on the *Plus* icon next to the *Variables*

4. Select *Object set*

5. Select *Object set definition*

The screenshot shows the SAP Fiori Launchpad interface with the variable editor open. On the left, there's a sidebar with icons for variables, objects, and filters. The 'Variables (3)' section is selected, showing three items: 'Object table 1 Active' (highlighted with a green box), 'Output from Object table', and 'Order Filters'. A '+' button is at the top of this list. A dropdown menu is open over the 'Object table 1 Active' item, listing various variable types: String, Boolean, Numeric, Date, Timestamp, Array, Struct, Object set (highlighted with a green box), and Object set filter. The 'Object set' option leads to a sub-menu where 'Object set definition' is highlighted with a green box. The sub-menu description reads: 'Define an object set with filters and linked object traversals'.

6. As before, search for and select your *Order* object set as the starting object set

7. Then click *Using a variable* next to *Filter*

8. Select *Order*

Filter

The screenshot shows the 'Object set definition' configuration screen. At the top, there's a search bar with 'var1' and a pencil icon. To the right are buttons for 'Object set definition' (with a dropdown arrow), 'New', 'Delete', and 'X'. Below the search bar, there are tabs for 'Definition' and 'Settings', with 'Definition' selected. The main area shows the 'Definition' tab with the object set name '[yourUsername] Order'. It includes a 'Filter...' button, a 'Traverse to...' button, and a 'Combine with another object set' button. A dropdown menu is open over the 'Filter...' button, showing options: '+ On a property', '(x) Using a variable' (highlighted with a green box), and 'Search...'. Under 'Using a variable', there's a sub-menu for 'Order Filters' with the option 'Output from Filter list 1'. To the right, there's a 'CURRENT VALUE' section showing '1492 [yourUsername] ...' and a list of objects: Printer, Office Desk, File Folders, 30" Monitor, Multifunction Printer, 30" Monitor, File Folders, Office Chair, Paper Clips, Multifunction Printer, and '+ 1482 more'. At the bottom, there's a 'VARIABLE USAGE' section.

9. Rename the filter from *var1* to *Filtered [username] Orders*

10. Click anywhere on your object table

11. In the edit window on the far right, under *Input Data*, click the X next to the *Object set*
12. Add the new *Filtered [username] Orders* variable

INPUT DATA

OBJECT SET ?

Current value: 1492 [yourUsername] Orders

ENABLE OBJECT TABLE FILTERING ?

Step 5: Configure filter display

1. At the top of the *Filter list* edit window, change to the *Display* tab
2. Change the *Background Color* to *Light gray 4*

Filter list 1

FILTER LIST

Widget setup Metadata

DIMENSIONS

ROW HEIGHT

Auto (max) Absolute Flex 1

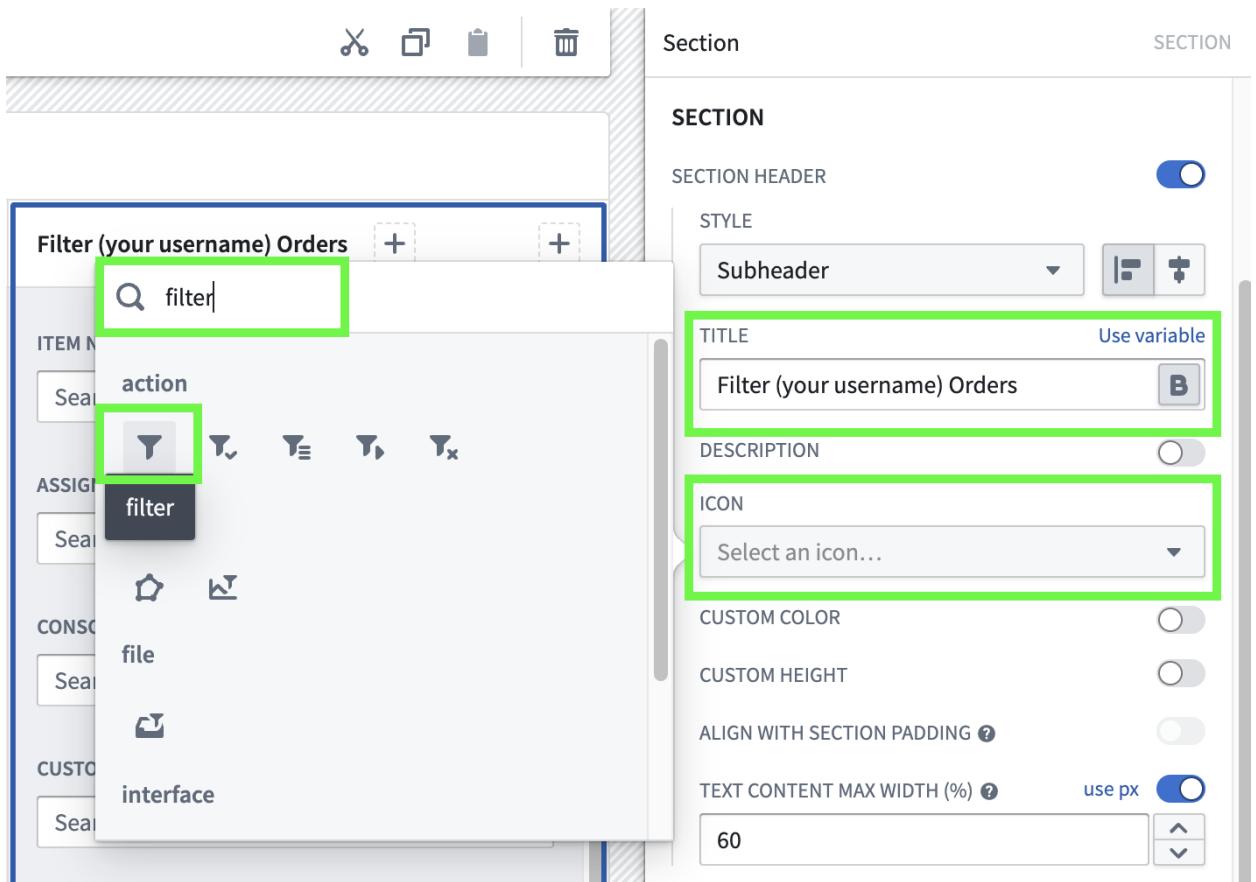
OVERRIDE SECTION WIDTH

FORMATTING

BACKGROUND COLOR

/ Light gray 4

3. Select the section containing the *Filter list* widget (either by clicking the Section header above the *Filter list* widget or via the *Layout* tab on the far left)
4. Under *Section*, rename the *Title* from *Section* to *Filter (your username) Orders*
5. Under *Icon*, select the dropdown and search for the *Filter* icon



6. Toggle on *Collapsible*
7. Under the *Collapsible* options, change the *Icon to expand* to be *Menu closed*
8. Under the *Collapsible* options, change the *Icon to collapse* to be *Menu open*
9. Change the *Header format* to *Contained*
10. Change the *Background Colour* to *Light Gray 4*

The screenshot shows the configuration of a section component in the MuleSoft Anypoint Studio interface. The left side displays a preview of the section with various filter fields like 'ITEM NAME', 'ASSIGNEE', etc. The right side shows the configuration panel with the following settings:

- Section**: SECTION
- COLLAPSIBLE**: Opened (highlighted with a green border)
- SECTION IS**: open (initially)
- VARIABLE-BASED COLLAPSE STATE (OPTIONAL)**: Select boolean variable...
- ICON TO EXPAND**: Menu closed (highlighted with a green border)
- ICON TO COLLAPSE**: Menu open (highlighted with a green border)
- ENABLE TABS**: Off
- FORMATTING**
- HEADER FORMAT**: Title (highlighted with a green border)
- BACKGROUND COLOR**: Blue (highlighted with a green border)

Add Object Details

Step 1: Add a New Section

1. Click on the Object Table
2. Along the bar at the top of the screen, you should see the option to *Split section*, click this button
3. You will see some options on where to place the new section. If you mouse over each option, a green highlighted area will show you where the new section will go. Select *New section on Right*

The screenshot shows a table editor interface. At the top, there's a toolbar with various icons like 'MOVE', 'ADD', 'Split section', etc. A context menu is open over a row, with the 'New section on right' option highlighted. To the right of the table, there's a sidebar with a filter input 'Filter (your username) Orders'.

| Item Name | Assignee | Consolidated Customer Id | Customer Id | Customer Name | Days Until Due | Order Due Date | Order Id |
|-------------|--------------------|----------------------------|----------------------------|----------------------------------|----------------|----------------|-----------------------------|
| 30" Monitor | Gail Weber | 6fd6e8ab-3b15-4970-98af... | A60051695 | Bartell, Farrell and Breitenberg | 45 | Jul 16, 2023 | A70587176-fb778d8b-9a3... |
| 30" Monitor | Latoya Gulowski | 6bf2afa9-1cda-484f-8d0c... | A56613925 | Watcica, Turner and Toy | 58 | Jul 29, 2023 | A73728056-fb778d8b-9a3... |
| 30" Monitor | No value | 942be52-5a85-4110-b887-... | A46828545 | Feil Group | 17 | Jun 18, 2023 | A5233958-fb778d8b-9a3... |
| 30" Monitor | Gail Weber | b38352f4-2e78-4530-a94f... | 44fe3e28-105a-4827-9860... | King, Feeney and Kutch | 52 | Jul 23, 2023 | c59ffbc4-1b62-4955-a606-... |
| 30" Monitor | John Dooley | 94df2d20-8f92-4b02-a97b... | 73e4c1b7-b550-4ca2-9f22... | Boyer LLC | 7 | Jun 8, 2023 | d965875f-a44d-4a00-a3a2... |
| 30" Monitor | No value | 66676808-7c9e-11ee-b962... | 40c8-9413... | ACME Consolidated ... | 41 | Jul 12, 2023 | a2f33a4d-1227-4104-ad75... |
| 30" Monitor | Kristen Mohr | 3c474b5a-e256-4f65-a2f0... | 4293c972-2f51-4f5f-a1e1... | Schamberger - Medhurst | 2 | Jun 3, 2023 | 4728feb7-c0c3-447f-bcae... |
| 30" Monitor | Lorraine Bahlinger | abb464b4-5b6e-47e6-868e... | e82fc04c-a3fe-4f23-9352... | Brekke, Hahn and Stroman | 8 | Jun 9, 2023 | 309328ae-9fab-4615-9a98... |
| 30" Monitor | Kristen Mohr | b38352f4-2e78-4530-a94f... | A41637514 | King, Feeney and Kutch | 46 | Jul 17, 2023 | A7052693-fb778d8b-9a3... |
| 30" Monitor | Alfredo Bins | 9079871a-e79f-49df-a6ec... | 208184c5-d8a4-4b7b-9de8... | Howe Group | 38 | Jul 9, 2023 | d650c3f7-6054-48d7-9f9a... |
| 30" Monitor | Laverne Koss | 6a0f29f5-5c51-479f-a1de... | A16737082 | ACME Consolidated ... | 24 | Jun 25, 2023 | A48463354-fb778d8b-9a3... |
| 30" Monitor | No value | b38352f4-2e78-4530-a94f... | 44fe3e28-105a-4827-9860... | King, Feeney and Kutch | 34 | Jul 5, 2023 | aec8bed9-9227-4993-90c0... |
| 30" Monitor | Lela Kemmer | f9d48f25-46b6-4c8f-bc0a... | fd5a7d6b-5bab-4bb3-a293... | Buckridge Inc | 24 | Jun 25, 2023 | ae7ec2da-69fb-411a-87a0... |
| 30" Monitor | Taylor Hill | c412823e-a899-4a2a-8f27... | 755b4e9f-a377-4f06-916a... | Hegmann and Sons | 38 | Jul 9, 2023 | 6d07ef2b-1eb2-4bb5-9dca... |
| 30" Monitor | No value | c412823e-a899-4a2a-8f27... | A16929361 | Hegmann and Sons | 7 | Jun 8, 2023 | A37969534-fb778d8b-9a3... |
| 30" Monitor | Laverne Koss | 9c5e0213-1b3f-43d7-9e73... | e3c8cfb-f6104-44ee-b177... | Purdy, Jakubowski a... | 57 | Jul 28, 2023 | 56047e55-1d27-456b-8d17... |

4. Click the newly created section, and in the edit window on the right, under *Section*, toggle on the *Section header*
5. Delete the *Title*
6. Under *Formatting*, change the *Header Format* to *Contained*

The screenshot shows the 'Section' configuration window. The 'Section' tab is active. Under 'SECTION', the 'SECTION HEADER' switch is turned on. The 'TITLE' field is empty. In the 'FORMATTING' section, the 'Header Format' dropdown is set to 'Title' and is highlighted with a green box. There are other settings like 'Custom Color' and 'Text Content Max Width (%)'.

Step 2: Add Object Set Title Widget

1. Click on the *Plus* icon at the top left of the Section



2. Search for and add *Object Set Title*
3. Set the *Input Object Set* to *Object table 1 Active object* (this variable contains the object that is currently selected in the Object Table)

A screenshot of the "Object set title 1" configuration dialog. At the top, it says "Object set title 1" and "OBJECT SET TITLE". Below that, there are tabs for "Widget setup" (which is selected), "Metadata", and "Display". There is also a "Need help? Ask AIP Assist" link. The "Widget setup" tab shows a dropdown menu titled "Select object set variable..." with a "Search for variable..." input field below it. A green box highlights this dropdown. Below this, there is a "+ New object set variable" button. Under "USE AN EXISTING VARIABLE", there is a list of variables: "Filtered Orders" (with a green box around it), "Object table 1 Active object" (also with a green box around it), and "Order object set". At the bottom of the dialog, there are "Yes" and "No" buttons.

Step 3: Add Button

1. Click *Add widget* under the *Object Set Title*
2. Search for and add the *Button group* widget
3. In the edit window, under *Display & Formatting*, toggle on *Fill Available Horizontal Space and Column Layouts*

The screenshot shows the '30" Monitor' object set edit window. On the left, there is a preview area with a blue cube icon and the text '30" Monitor'. Below it is a button labeled 'Button'. To the right is a sidebar titled 'Filter (your username) Orders'.

BUTTON TYPE

Inline Menu Two-part

BUTTON CONFIGURATION

⋮ Button 1 + Add Button

DISPLAY & FORMATTING

ORIENTATION

Horizontal Vertical

FILL AVAILABLE HORIZONTAL SPACE IN ROW AND COLUMN LAYOUTS

4. Under the Widget name, click on *Display*
5. Change the *Row Height* to *Auto (max)*

Button group 1

BUTTON GROUP

Widget setup Metadata **Display**

DIMENSIONS

ROW HEIGHT

Auto (max) Absolute Flex 600 px

OVERRIDE SECTION WIDTH

Note: We will configure this button further later in the course

Step 4: Add Property List

1. Under the *Button Group*, click *Add Section*
2. Click *Add Widget*

3. Search for and add the *Property List* widget
4. In the edit window, set the *Input Object Set* to *Object table 1 Active object*

Property list 2

PROPERTY LIST

Widget setup Metadata Display

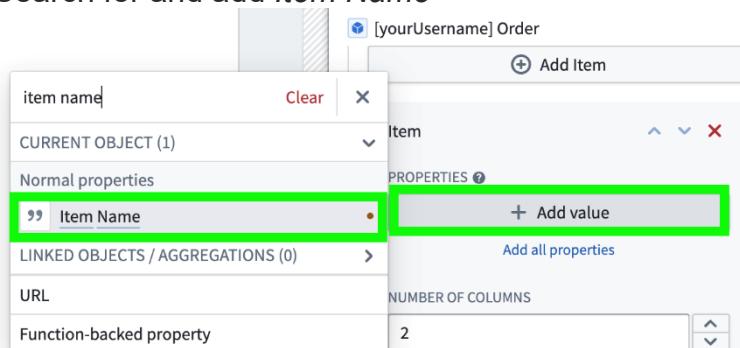
Need help? Ask AIP Assist

INPUT OBJECT SET

Object table 1 Active object

Current value: 1 [yourUsername] Order

5. Under *[yourUsername] Order* there is a square box with *Item* at the top. In this box, under *Properties*, is the option to *Add value*. Click this.
6. Search for and add *Item Name*



The screenshot shows the SAP Fiori Property List editor. At the top, it says "INPUT OBJECT SET" with a question mark icon. Below that is a search bar with "Object table 1 Active object". Underneath is a box labeled "Current value: 1" with a cube icon and "[yourUsername] Order". The main area shows a list of properties for an item named "99 Item Name". The "Item Name" property is selected. To its right, under "PROPERTIES", there is a button labeled "+ Add value" which is highlighted with a green box. Other properties listed include "LINKED OBJECTS / AGGREGATIONS (0)", "URL", and "Function-backed property". The "NUMBER OF COLUMNS" is set to 2.

7. You can add all properties in an object by clicking *Add all properties* under the *Add value* button
8. You can also delete properties from the view by clicking on the trashcan that appears when you hover over a *Property*
9. Set the *Number of Columns* to 1

The screenshot shows a property editor interface for a '30" Monitor' item. On the left, a preview card displays the item's details. On the right, a sidebar titled 'Filter (your username) Orders' contains a list of properties with dropdown menus. A green box highlights the 'Status' dropdown, which has a delete icon. Below it is a button labeled '+ Add value'. At the bottom of the sidebar, there are buttons for 'Add all properties' and 'Remove all properties', and a section for 'NUMBER OF COLUMNS' with a dropdown set to '1'.

10. Click the 'Display' tab in the Property list right sidebar
11. Set to 'Flex' and '1'

The screenshot shows the 'Property list 1' sidebar. The 'Display' tab is highlighted with a green box. Below it, under 'DIMENSIONS', is a 'ROW HEIGHT' section with a dropdown menu. The 'Flex' option is highlighted with a green box, and the value '1' is selected. There are also 'Auto (max)' and 'Absolute' options in the dropdown.

Rename the Object Table

Step 1: Rename the Object Table section

1. Open the *Layout* tab and select the *Section* above *Object table 1*
2. In the edit window, locate the settings under *Section*. Toggle on *Section Header*
3. Change the *Style* to *Header*
4. Under *Title*, rename to *All Orders*
5. Change the *Icon* to *Th*

The screenshot shows the Oracle ADF Layout editor interface. On the left, there's a tree view of components: 'Page (DEFAULT)', 'Section', 'Object table 1', 'Section', 'Header', 'Body', 'Button group 1', 'Property list 1', 'Section', 'Filter list 1'. The 'Section' node under 'Object table 1' is selected and highlighted with a green border. To its right is the main editing area. At the top of the editing area, there's a toolbar with buttons for 'SECTION', 'Add section inside', 'MOVE', 'ADD', 'Above', 'Below', 'Split section', and others. Below the toolbar is a table titled 'All Orders' with several rows of data. To the right of the table is a panel titled '30" Monitor' containing a 'Button' component. Further to the right is the 'Section' component's properties panel. The 'Title' field is set to 'All Orders' and the 'Icon' field has a 'Th' icon selected. The 'Style' dropdown is set to 'Header'. The 'Section' properties panel also includes fields for 'Section Name' (set to 'Section'), 'Dimensions' (row height set to 'Auto (max)'), and 'Override Section Width'.

Step 2: Remove section header

1. Click the *Section* title above the *All Orders* title
2. Go into the edit window and toggle off the *Section header*, so only the *All Orders* title should be seen

The screenshot shows the final state of the application. The 'Section' title above the table has been removed, leaving only the 'All Orders' title. The table and its properties remain the same as in the previous step. The 'Section' component's properties panel is still visible on the right, showing the 'Title' as 'All Orders' and the 'Icon' as 'Th'.

Configure Sections

Step 1: Split Section

1. Open the *Layout* tab and select the first *Section* under *Page* (This is the section that contains both your *Object table* and Object details panel)
2. From the bar at the top of the screen, choose to *Split section*, and then select *New section below*

The screenshot shows the Mendix Modeler's Layout tab. On the left, there is a tree view of page sections. A green box highlights the 'Section' item under the 'Page' node. On the right, there is a table titled '(your username) Orders Inbox' with a sub-section titled 'All Orders'. Above the table, a context menu is open from the 'Split section' button. A green box highlights the 'New section below' option in this menu. The table itself contains data for various monitors, such as '30" Monitor' assigned to 'Gail Weber'.

Step 2: Format Section

1. In the *Layout* tab, reselect the first *Section* under *Page* again (This is the section that contains both your *Object table*, Object details panel and the newly created section)
2. In the edit-window, under *Layout*, change the *Padding Controls* from *No Padding* to *Regular*

The screenshot shows the Mendix Modeler interface with a page titled '(your username) Orders Inbox'. A section named 'Section' is selected. Inside this section, there is a table with the following data:

| Item Name | Assignee | Consolidated Customer Id | Customer Id | Customer Name | |
|-------------|--------------------|-----------------------------|-----------------------------|---------------------------|-------------|
| 30" Monitor | Gail Weber | 6fd6e8ab-3b15-4970-98af... | A60051695 | Bartell, Farr and Breiten | 30" Monitor |
| 30" Monitor | Latoya Gulgowski | 6bf2fa9f-1cda-484f-8dc8... | A56613925 | Watsica, Tu and Toy | Button |
| 30" Monitor | No value | 942bef52-5a85-4110-0887... | A46828545 | Feil Group | |
| 30" Monitor | Gail Weber | b38352f4-2e78-4530-a94f... | 44fe3e28-105a-4827-9860... | King, Feene and Kutch | |
| 30" Monitor | John Dooley | 94dfdf2c0-b8f2-4bb2-a97b... | 73ed4c1b7-b550-4ca2-9f22... | Boyer LLC | |
| 30" Monitor | No value | 66676808-7c9e-4530-a94f... | 6781013d-a846-40e8-9413... | ACME Consolidate | |
| 30" Monitor | Kristen Mohr | 3c474b5a-e256-4f65-a2f0... | 4293c972-2f51-4f5f-aefc... | Schamberg Medihurst | |
| 30" Monitor | Lorraine Bahlinger | ab5464ba-456e-47e6-8686... | e82fc04c-a3fe-4f23-9352... | Brekke, Hal and Stroma | |
| 30" Monitor | Kristen Mohr | b38352f4-2e78-4530-a94f... | A41637514 | King, Feene and Kutch | |
| 30" Monitor | Alfredo Bins | 9079871a-e79f-49ff-fa6e... | 208184c5-d8a4-4b7b-9de8... | Howe Group | |
| 30" Monitor | Laverne Koss | 6a0f29f5-5c51-479f-a1de... | A16737082 | ACME Consolidate | |
| 30" Monitor | No value | b38352f4-2e78-4530-a94f... | 44fe3e28-105a-4827-9860... | King, Feene and Kutch | |

The 'LAYOUT' panel on the right includes sections for FORMATTING (background color, border style), PADDING CONTROLS (set to 'Regular'), INNER SECTION STYLE (optional), LAYOUT DIRECTION (set to 'Rows'), and PERFORMANCE (delay rendering until on-screen). A tip at the bottom right says: 'Do not enable this feature if this widget populates necessary variables when the module loads, such as through auto-selection.'

Step 3: Configure Sections

1. Click anywhere in the newly created section (except the *Add widget* or *Set layout* parts)
2. In the edit-window for the Section, set the *Row Height* to *Flex 1*
3. Add a *Section Header* and rename the *Title* to *Charts*
4. Click on *Set Layout*
5. Click on *Columns*

Tip: If you make a mistake, you can press Ctrl+Z to undo a change

The screenshot shows the Mendix Modeler interface with a page titled '(your username) Orders Inbox'. A section named 'Section' is selected. Inside this section, there is a table with the following data:

| Item Name | Assignee | Consolidated Customer Id | Customer Id | Customer Name | |
|-------------|------------------|-----------------------------|-----------------------------|---------------------------|-------------|
| 30" Monitor | Gail Weber | 6fd6e8ab-3b15-4970-98af... | A60051695 | Bartell, Farr and Breiten | 30" Monitor |
| 30" Monitor | Latoya Gulgowski | 6bf2fa9f-1cda-484f-8dc8... | A56613925 | Watsica, Tu and Toy | Button |
| 30" Monitor | No value | 942bef52-5a85-4110-0887... | A46828545 | Feil Group | |
| 30" Monitor | Gail Weber | b38352f4-2e78-4530-a94f... | 44fe3e28-105a-4827-9860... | King, Feene and Kutch | |
| 30" Monitor | John Dooley | 94dfdf2c0-b8f2-4bb2-a97b... | 73ed4c1b7-b550-4ca2-9f22... | Boyer LLC | |
| 30" Monitor | No value | 66676808-7c9e-4530-a94f... | 6781013d-a846-40e8-9413... | ACME Consolidate | |

The 'LAYOUT' panel on the right includes sections for SECTION NAME (set to 'Section'), DIMENSIONS (ROW HEIGHT set to 'Flex 1'), SECTION (SECTION HEADER is turned on, TITLE is set to 'Charts'), and other settings like ICON, CUSTOM COLOR, and TEXT CONTENT MAX WIDTH (%).

Create Pie Chart

Step 1: Add Pie Chart

In this section, we will add a Pie Chart to our application to display orders based on status.

1. Click on *Add Widget* in the left Section
2. Click on *Chart: Pie*. You can search for it if needed using the "Search widgets..." search bar at the top.

The screenshot shows the application's main interface. On the left, there is a table with columns 'Item Name' and 'Assignee'. Below the table is a sidebar with a 'Charts' section containing a button '+ Add widget' highlighted with a green box. In the center, there is a search bar 'Search widgets...' and a navigation bar with tabs 'All', 'Properties and links', 'Visualize', 'Filter', 'Writeback', and 'Foundry apps'. Below the navigation bar, there are several cards representing different chart types:

- Action Log Timeline**: Render the Action Logs for specific Object Types.
- Activity List**: Render a list of activities with images and links.
- Chart: Pie**: Visualize objects data as a pie or donut chart. This card is also highlighted with a green box.
- Chart: Waterfall**: Visualize objects data as a waterfall chart.
- Clips**: Entrypoints to create and browse clips on the workspace module.
- Comments**: Enables commenting on objects. Comments follow object's view permissions, if you can see the...

At the bottom of the central area, there are buttons '+ Add widget' and 'Set layout'.

4. Navigate to the right side panel where settings are configurable for the chart
5. Under *Input Object Set*, select *Filtered [username] Orders*
 1. Note the *Filtered [username] Orders* is an Object Set that represents the output of the filter section on the right-hand side of the application. By

selecting this as the input to the Pie Chart, the Orders that are visualized in the chart will be determined by the filter settings.

6. Set *Group By* to *Status*
7. Click on *Show Legend*

INPUT OBJECT SET

Filtered [username] Orders Edit X

Current value: 1492 [username] Orders

GROUP BY

Status ▼

ENABLE ONTOLOGY COLORS ?

AGGREGATION

METRIC

Count ▼

ENABLE NUMERIC FORMATTING

RADIUS

0% 99%

PADDING

None Compact Normal Large

LEGEND

SHOW LEGEND

Inside chart Next to chart

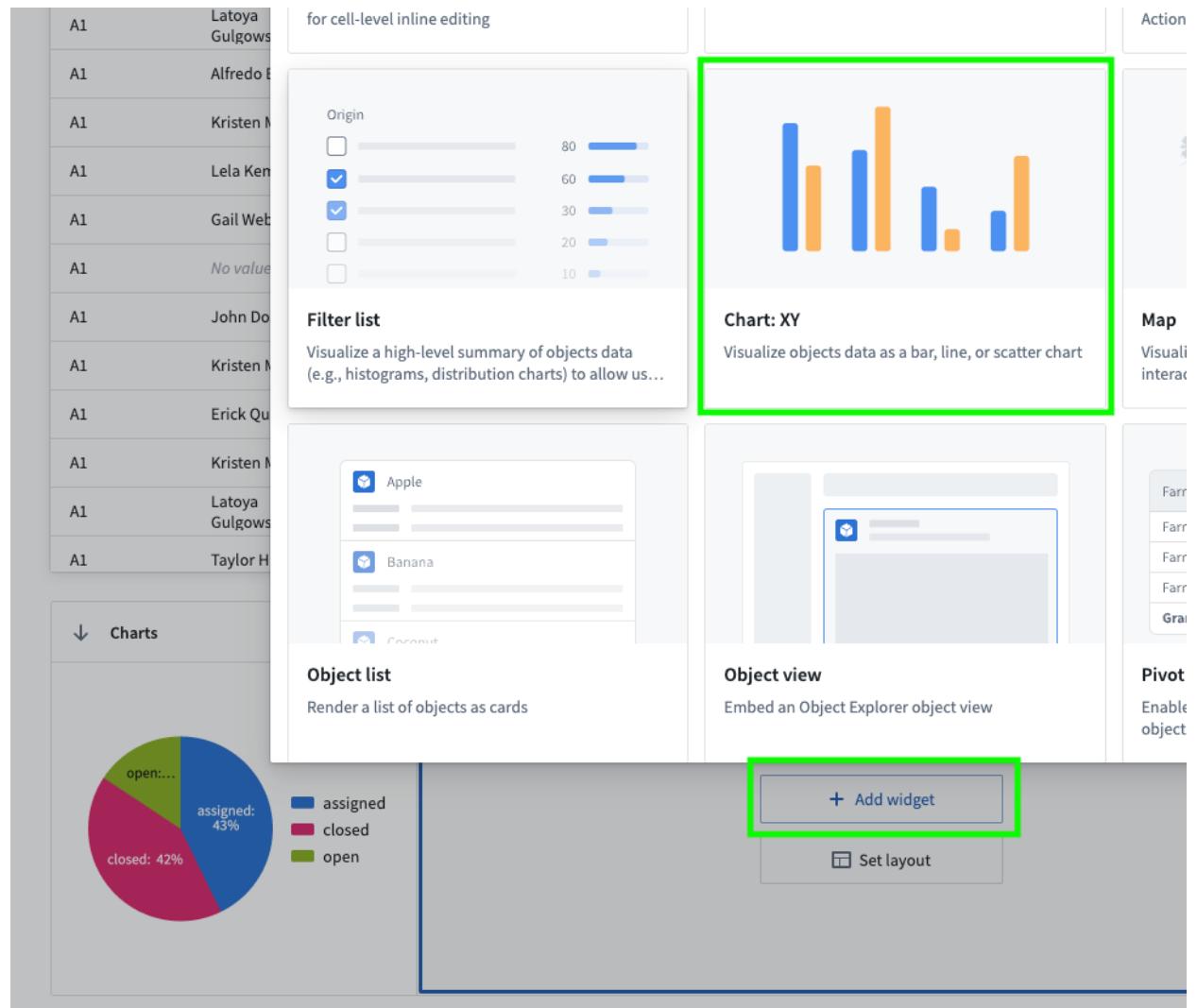
Left Right Top Bottom

Create Bar Chart

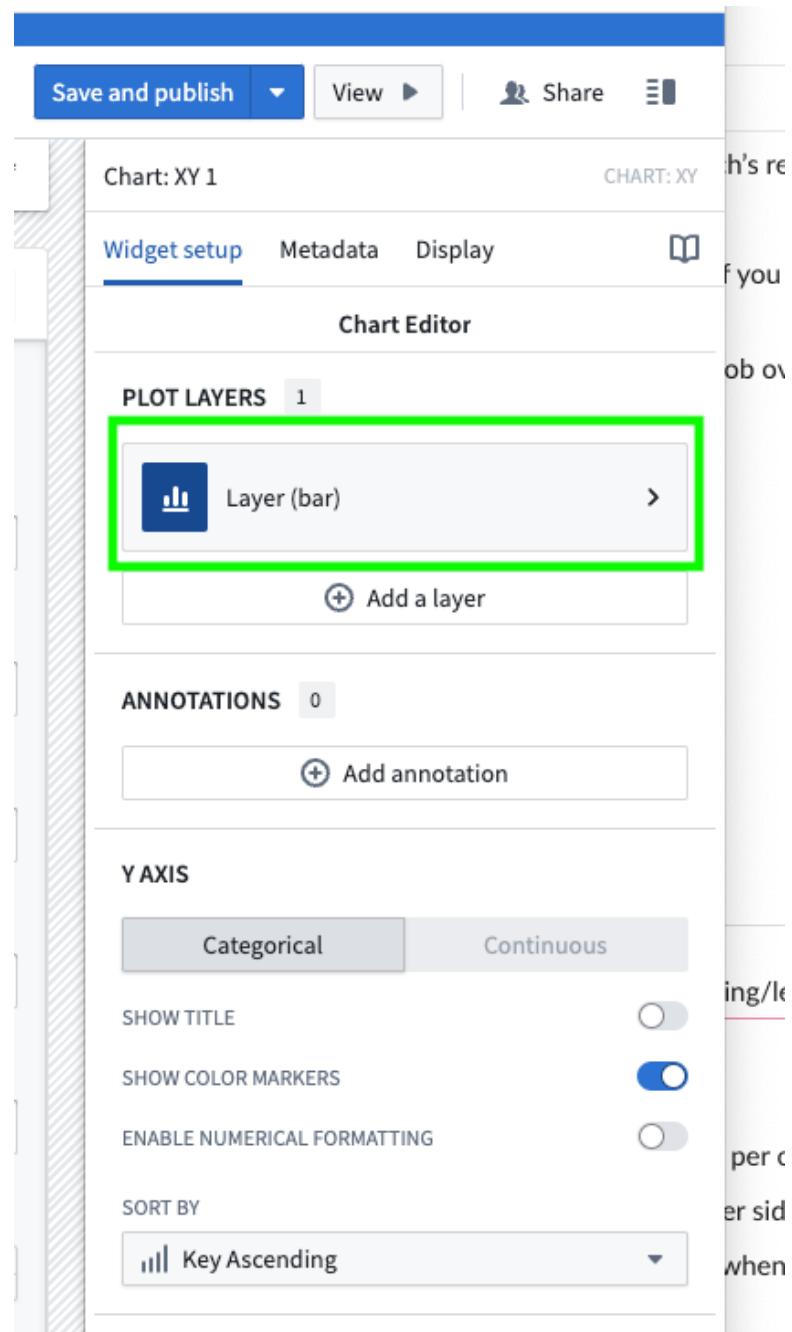
Step 1: Create Bar Chart

In this lesson we will add a Bar Chart to visualize orders by the number of days until they are due as well as their status.

1. Navigate to the empty section next to your new Pie Chart
2. Click on *Add Widget*
3. Click on *Chart: XY*



4. On the right side of the screen, click on *Plot Layers*



5. Click on *Layer (bar)*
6. Under *Data Input*, select Object set variable *Filtered [username] Orders*
7. Under *X Axis property*, select *Days Until Due*
8. Under *Bar Series and Segment By*, select *Status*
9. Scroll to the top, click *Chart Editor* to take you out of the editing mode

Hint: Don't worry if your chart looks strange -- we'll fix it!

Save and publish | View | Share |

Chart: XY 1 | CHART: XY

Widget setup | Metadata | Display |  

< Chart Editor | Layer (bar)

TITLE

Layer (bar)

DATA INPUT

Object set | Function | Time series set

Filtered (your username) Orders  
Current value: 1492  (your username) Orders

LAYER TYPE

Bar Chart  Line Chart  Scatter Chart 

SHOW LABELS 

X AXIS PROPERTY

PROPERTY

123 Days Until Due

BUCKETING

Exact Value

LIMIT 

Set category limit...  

BAR SERIES Use multiple series

→ Count

 Add step

CUMULATIVE SUM 



SEGMENT BY (OPTIONAL)

 Status  

SEGMENT DISPLAY OVERRIDES

 Add Segment

10. Scroll all the way to bottom and click on *Bar Orientation*

11. Click *Customize*

12. Select *Vertical*

The screenshot shows the configuration interface for a chart titled "Chart: XY 1". The top navigation bar includes "Save and publish" (dropdown), "View" (dropdown), "Share", and a menu icon. The "Widget setup" tab is active, with "Metadata" and "Display" tabs available. Below these are sections for "ANNOTATIONS" (0), "Y AXIS" (with "Categorical" and "Continuous" options), "X AXIS" (with "Value" selected), "ONTOMORY FORMATTING" (with "ENABLE ONTOMORY COLORS" toggle), "LEGEND" (with "SHOW LEGEND" toggle), "TOOLTIPS" (with "SHOW TOOLTIPS" toggle), "EXPORTS" (with "ALLOW EXPORTS" toggle), and "BAR ORIENTATION" (which contains the instruction "Bar Orientation settings are automatically generated by series data." and a "Customize" button). A green rectangular box highlights the "Customize" button in the "BAR ORIENTATION" section.

Move Charts to the Top

Step 1: Adjust Charts

1. Click on *Charts*
2. Click on the up arrow next to *Move*

The screenshot shows a dashboard layout with the following components:

- Top Bar:** Includes buttons for "NEW SECTION", "+ Add section inside", "MOVE" (with an up arrow highlighted in green), "ADD", "Above", "Below", and "Split section".
- Title:** "(your username) Orders Inbox".
- Section Header:** "All Orders".
- Table:** A list of order items with columns for Item Name, Assignee, and Consolidated Customer Id.
- Object Table:** A detailed view for item "A1" showing fields like Item Name, Assignee, Consolidated Customer Id, Customer Id, Customer Name, Days Until Due, Order Due Date, Order Id, Quantity, and Status.
- Chart Area:** Contains two charts:
 - A pie chart titled "Charts" showing the status distribution: assigned (43%), closed (42%), and open (15%).
 - A bar chart titled "Days Until Due" showing the count of orders for different day intervals (0-4, 4-8, etc.).
- Filter Sidebar:** On the right, it includes sections for ITEM NAME, ASSIGNEE, CONSOLIDATED CUSTOMER ID, CUSTOMER ID, CUSTOMER NAME, DAYS UNTIL DUE, ORDER DUE DATE, and a plus sign for ADD.

Configure Object Table

Step 1: Configure the Object Table

1. Click on the table of Order Objects

2. Under *Column Configuration* on the far right, ensure *Status* is one of the selected properties to be displayed

The screenshot shows a dashboard titled '(your username) Orders Inbox'. It includes two charts: a pie chart showing order status distribution (assigned: 43%, closed: 41%, open: 16%) and a bar chart showing the count of orders by days until due. Below the charts is a table titled 'All Orders' with columns: Customer Name, Item Name, Status, and Days Until Due. A green box highlights the 'Status' column. To the right is a sidebar titled 'COLUMN CONFIGURATION' for the '[your_username] Order' object. Under 'COLUMNS', 'Status' is listed and highlighted with a green box.

3. Drag the property names to reorder them so that the first five are:

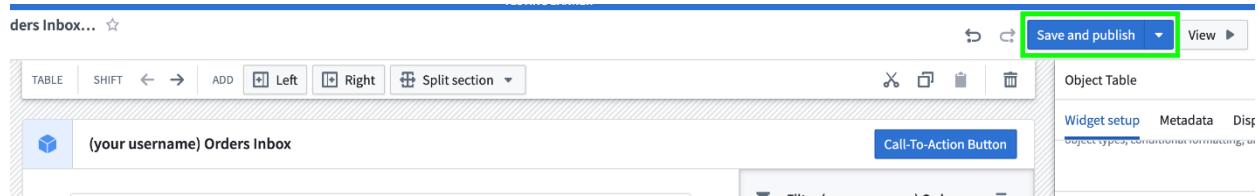
1. *Customer Name*, *Item Name*, *Status*, *Assignee*, and *Days Until Due*

The screenshot shows the 'INPUT DATA' screen. On the left, there are several dropdown menus and a date range selector. On the right, there is an 'OBJECT SET' section with a 'Filtered (your username) Orders' dropdown and a 'Current value' field showing '1492 (your username) Orders'. Below it is a 'COLUMN CONFIGURATION' sidebar for the '[your_username] Order' object. The 'COLUMNS' list contains: Customer Name, Item Name, Status, Assignee, Days Until Due, Consolidated Customer Id, and Customer Id. The 'Days Until Due' property is highlighted with a green box.

Saving and Viewing your Workshop Module

Step 1: Save Your Work

1. Click on Save and publish
2. Click on View (*Tip: Open it in a new tab*)



Configuring Actions

Introduction

We now want to make it possible to interact and edit the Ontology. We will do this by creating **Actions**. Actions are events and edits that are performed on an object or set of objects in the Ontology. For example, you might have an Action to set a status as closed, or to create a new Order, or delete an incorrect Order. You can also define API bindings for Actions so that external applications may also interact with the Ontology!

By the end of this section you will have created an “Assign Order” Action that performs two actions at once: It sets the assignee to whatever name you provide, and it automatically sets the Status to “assigned.”

Enabling edits to your object

Step 1: Enable Edits on Order Object

1. Navigate to the Ontology Manager application
2. Click on Object Types

3. Search [username] Order (*Tip: Be careful, there may be many similar objects in the Ontology. You want to select your Object you created in this course*)
4. Click on your object

5. Click on *Datasources* on the left
6. If not already enabled, toggle on *Enable Edits*. You can ignore any other toggles or settings.
7. Click *Save*
8. Click *Save to Ontology*

The screenshot shows the 'Ontology Manager' interface. On the left, a sidebar lists various sections: Discover, Overview, Properties (11), Security, Datasources (highlighted with a green box), Capabilities, Object views, Interfaces, Materializations, Automations, Usage, and History. The main panel is titled 'Backing datasource' and shows a configuration for the 'all_orders' datasource. It includes a 'Replace' button and a '+ Add new backing datasource' link. Below this is the 'Edits' section, which contains settings for 'Allow edits' (with a toggle switch highlighted with a green box) and 'Track user edit history'. The 'Conflict resolution' section follows, with a note about resolution logic and a 'Conflict resolution strategy' dropdown set to 'Apply user edits - Default'.

Create the "Assign Order" Action

Step 1: Create Action

1. Click on *Overview*
2. Click on *New* under *Action types*

The screenshot shows the 'Overview' page for the '(your_username) Order' object type. The sidebar on the left has 'Overview' selected (highlighted with a green box). The main panel displays details for the object type, including Name: '(your_username) Order', Plural Name: '(your username) Orders', Status: 'Experimental' (with a dropdown menu), and various status indicators like 'Normal' and 'Enabled'. Below this is a table with columns for 'Properties' (11) and 'Action types' (0). The 'Properties' table lists several properties: Item Name (Title), Order Id (Primary key), Status, Assignee, Consolidated Customer Id, Customer Id, Customer Name, and Days Until Due. The 'Action types' table is currently empty, with a note stating 'No action types using this object type'. A green box highlights the 'New' button for 'Action types'.

3. Click on *Modify objects* under *Object actions*
 - o If your Order object type is not selected in the dropdown, select it now.
4. Click *Next*

Create a new action type

STEP 1
Select an action type you want to configure

Enable users to make changes to the ontology by configuring actions they can execute.

Object Link Function Webhook Interface Notification

Object type
[your_username] Order Experimental

Object actions

-  Create object
Configure an action type that adds a new object instance
-  Modify object(s)
Configure an action type that edits existing object instances.
-  Modify or create object
Modify an existing instance, otherwise create a new instance.
-  Delete object(s)
Configure an action type that deletes object instances.

Skip Next

5. Click on *Add Property*
6. Select *Assignee*
7. Click on *Add Property*
8. Select *Status*

Action type

STEP 2

Map action parameters

Map the action parameters that will be used as inputs to this action

(your_username) Order

| PROPERTY | MAP TO |
|----------|----------|
| Assignee | Assignee |

+ Add property

Search...

- Consolidated Customer Id
- Customer Id
- Customer Name
- Days Until Due
- Item Name Title
- Order Due Date
- Order Id Primary key
- Status
- Other

Back Next

9. On the right hand side under *Map To*, select *Status*
10. From the drop down, select *Static value*
11. Type in assigned in the text box
12. Click *Next*

Updating the Status rule to a static value in the Action rules will always set the Status value as "assigned." Leaving the Assignee rule as-is will allow a user to input text to update the Assignee value - we'll see this later in the Action form settings.

Map action parameters

Map the action parameters that will be used as inputs to this action

(your_username) Order

| PROPERTY | MAP TO |
|----------|------------|
| Assignee | Assignee |
| Status | "assigned" |

+ Add prop

SELECT MAPPING TYPE

- Parameter
- Static value
- (your_username)... > Property
- Unique Identifier
- Current User

ENTER A STATIC VALUE

assigned

Skip

The screenshot shows a 'Map action parameters' step in a configuration tool. It lists two properties: 'Assignee' and 'Status'. The 'Status' property is being mapped to a static value 'assigned'. A dropdown menu for 'SELECT MAPPING TYPE' is open, showing options like 'Parameter', 'Static value' (which is selected and highlighted with a green box), and 'Current User'. A second dropdown for 'ENTER A STATIC VALUE' contains the text 'assigned' (also highlighted with a green box). The entire mapping row for 'Status' is also highlighted with a large green box.

13. Set Action Type Name to [username] Assign Order. Prefixing the action with your username is a useful way to avoid confusing it with others

14. Click Next

STEP 3

Configure action type metadata

Use a familiar name or helpful description to enhance this action type's discoverability.

Action type name

Assign Order

X

Description • optional

Enter description...

Icon • Autogenerated, cannot be modified



Skip

Back

Next

For this Action, we want to set yourself as the only person who can run this Action. If you were creating a workflow used by a team, you'd likely want to select a user group here or select *Allow all users in organization to execute this action*.

15. Click on *User*
16. Select your username
17. Click on *Create*

Create a new action type

STEP 4

Configure who can execute this action type

Choose who can submit this action type

Organization

Group

User

Only this user can submit

your_username You ▾

Submitting actions

Skip

Back Create

The screenshot shows a step-by-step configuration process for creating an action type. The left sidebar lists steps 1 through 4. Step 4 is currently active, titled 'Configure who can execute this action type'. It asks 'Choose who can submit this action type' and provides three options: 'Organization', 'Group', and 'User'. The 'User' option is selected and highlighted with a green box. Below this, a section says 'Only this user can submit' with a text input field containing 'your_username' and a dropdown menu set to 'You'. A green box also surrounds this section. At the bottom right, there are 'Back' and 'Create' buttons.

Finish configuring the Action

Step 1: Configure Action Fields

1. Select *User Interface* on the left sidebar
2. Select *Status* under *Field Ordering* in the middle (*If Status is not one of the parameters shown, skip to 4*)

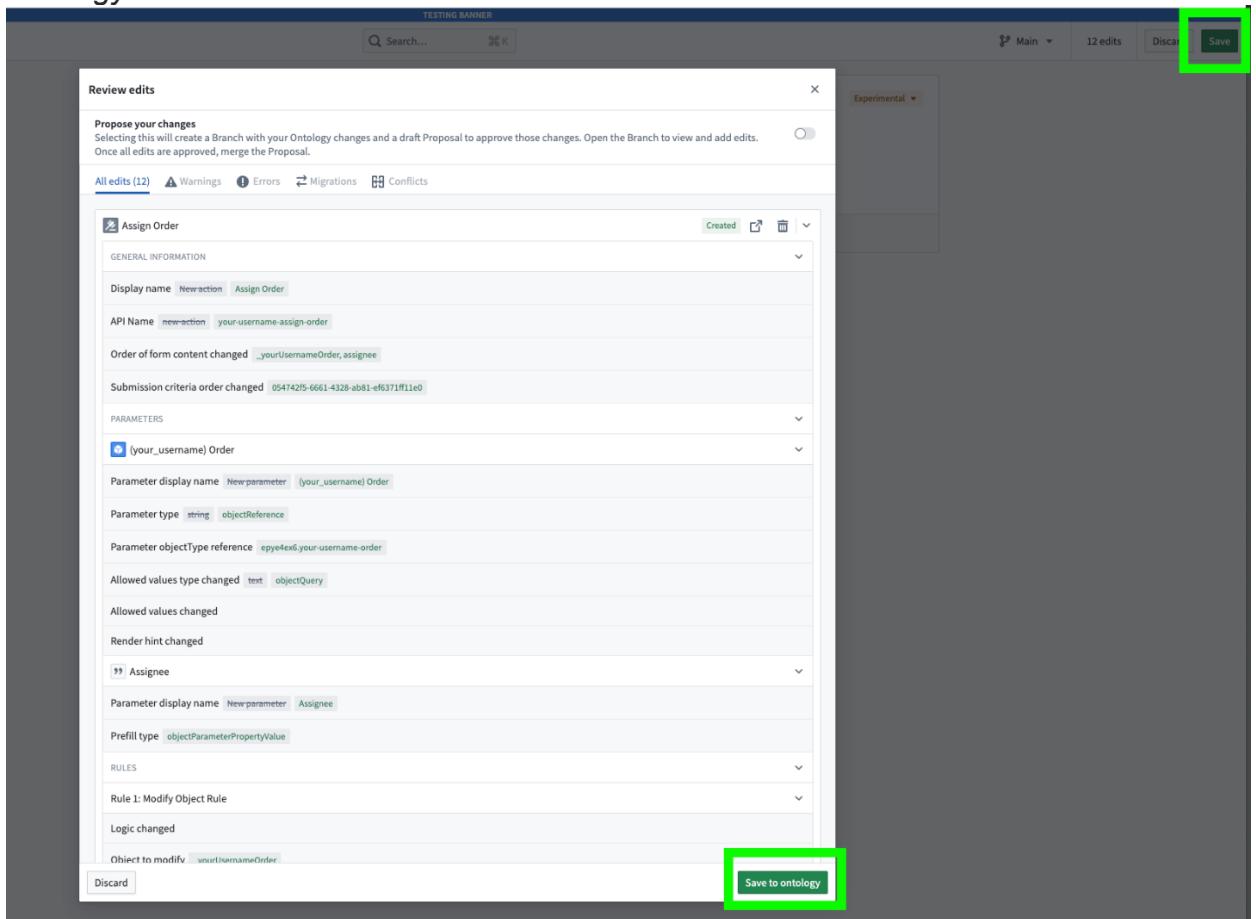
The screenshot shows the configuration interface for an 'Assign Order' action. On the left, a sidebar lists various configuration sections: Overview, Rules, Parameters, User Interface (which is highlighted with a green box), Capabilities, Security & Submission Criteria, Automations, and History. The main panel is titled 'Action layout' and contains the following information:

- Action layout**: A note stating "This configuration currently only applies to Actions in Workshop and Slate apps." It also mentions that users can further configure the layout in the 'Inline Action widget configuration'.
- Default layout**: A section where users can select between 'Form' (selected) and 'Table' layouts. There is also a toggle switch for "Allow switching between layouts".
- Field ordering**: A list of parameters:
 - [user] Order (Used in Rules)
 - Assignee (Used in Rules, New)
 - Status (New, Unused, highlighted with a green box)
- Buttons at the bottom: '+ Add new parameter' and 'Add section'.

Tip: Hide Form Preview pane on the right (to avoid clutter on next screen)

3. Delete the Status parameter
4. Click Save (on top right)

5. Click Save to ontology



Making your Workshop Application Operational

Introduction

While read-only dashboards can be very useful, it's important that multiple people and teams be able to collaborate, organize themselves, and update state. Otherwise we won't have solved the Fulfillment Department's problem!

You'll see how easy this is by adding the "Assign Order" action to the Workshop application you've built.

Open your Workshop Module

Option 1

If you still have the *View Mode* Workshop open on a tab, let's go back to *Edit Mode*.

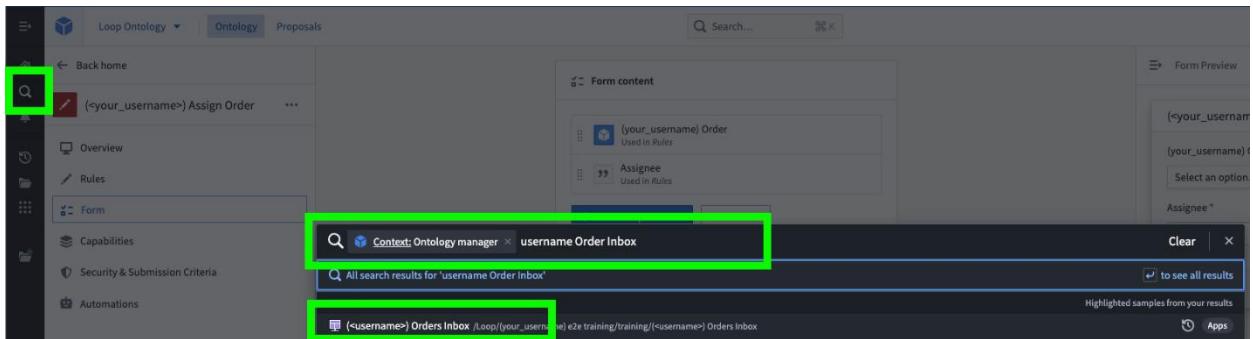
1. Click on the three grey dots at the top of the screen to reveal the dropdown
2. Click on *Edit*



Option 2

If you need to find your Workshop module by searching

1. Click on *Search* on the sidebar on the left
2. Type in the name of your Workshop module
3. Click on the correct result (*Tip: There might be several Workshop modules with similar names. Make sure you click on the right one!*)



Option 3

If you need to find your Workshop module by navigating to your folder:

1. Click on *Files* on the sidebar on the left. This will take you back to the home directory for your files
2. Navigate to your training folder and select your Workshop module

Add Actions to your Workshop

Step 1: Configure Buttons for Action

1. Earlier, we added a button to our Workshop. It should be near lower middle of the Workshop.
2. Select the button so that you see the 'Button group' right side bar
3. Click into the 'Button Configuration' (it should be called "Button 1")

Widget setup

Display buttons in a configurable layout. Buttons can trigger actions or events, export data, or link to external URLs.

Need help? Ask AIP Assist

BUTTON TYPE

- Inline
- Menu
- Two-part

BUTTON CONFIGURATION

- Button 1
- Add Button

DISPLAY & FORMATTING

Orientation

- Horizontal
- Vertical

FILL AVAILABLE HORIZONTAL SPACE IN ROW AND COLUMN LAYOUTS

Label Alignment

- Left
- Center
- Right

Style

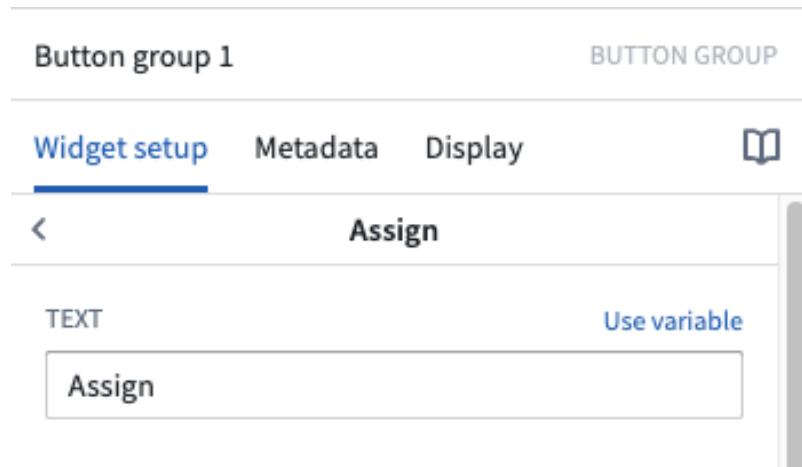
- Standard
- Outline
- Text Only
- Tag

Size

- Small
- Regular
- Large

Group Buttons

4. Set the text to Assign
5. Set *On Click to Action*
6. Search and select the [username] Assign Order Action you created earlier. You should see it is associated with your Order object
7. Under *Parameter Defaults*, select the *Parameter to configure* equal to [username] Order
8. Set the *Local Default* value: Object table 1 Active object
 1. This will automatically pass the Order selected in the Object table into the Action form rather than the user having to manually select the Order to update.
9. Scroll to the top, click *Go back* or the back arrow



scroll down if needed

Button group 1

BUTTON GROUP

Widget setup Metadata Display

CONDITIONAL VISIBILITY

ON CLICK

Action

[username] Assign Order
on [your_username] Order

Default layout

Form Table

End-user features

SWITCH LAYOUT

PARAMETER DEFAULTS

Local default values for parameters

Select parameter to configure

[your_username] Order

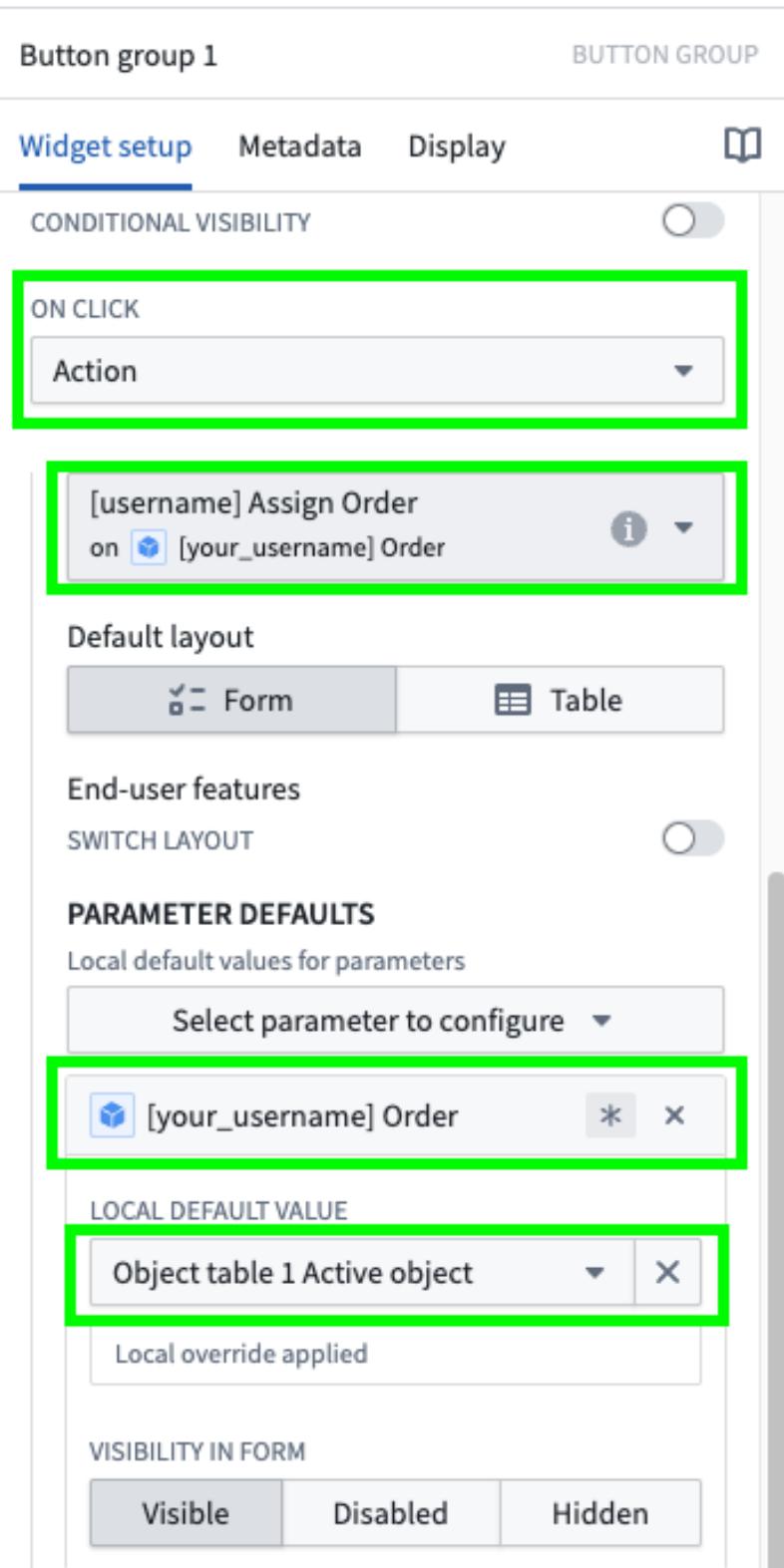
LOCAL DEFAULT VALUE

Object table 1 Active object

Local override applied

VISIBILITY IN FORM

Visible Disabled Hidden



10. Click on Save and Publish
11. Click on View (*Tip: Open it in a new tab*)
12. We'll test your new Action out in the next lesson

Test Your New Application

Step 1: Locate Order

1. Ensure your application is in View mode rather than Edit. If you're in Edit mode you'll see a View button in the top right corner and can click it to enter View mode.
2. Navigate to the Filters tool on the far right
3. Under Order ID, paste the following Order ID
 1. 8d64e941-799c-4e35-b913-d0e3475c307ec206b101-f8b3-4bbe-a1f4-c674dc3124c8
4. Select the option from the drop down. This should update your table and charts to only display a singular order

The screenshot shows a search interface with the following fields:

- ORDER DUE DATE: Start date [] End date []
- ASSIGNEE: Search... []
- CONSOLIDATED CUSTOMER ID: Search... []
- CUSTOMER ID: Search... []
- CUSTOMER NAME: Search... []
- DAYS UNTIL DUE: [] - [] (with up and down arrows)
- ITEM NAME: Search... []
- ORDER ID: A dropdown menu with the value `206b101-f8b3-4bbe-a1f4-c674dc3124c8` highlighted in blue. The entire dropdown menu is highlighted with a green box.
- STATUS: Search... []

At the bottom of the interface is a button labeled "Add filter".

5. Click on the Order in the Object table
6. Click on the Assign button

The screenshot shows a dashboard with a chart on the left and an object table on the right.

Chart:

- Legend: closed
- Y-axis: Count (0 to 1)
- X-axis: Days Until Due (0 to 1)
- Data: A single blue bar at 0 days until due with a count of 1.

All Orders Table:

| Customer Name | Item Name | Status | Assignee | Days Until Due | Order Due Date | Consolidated Customer Id | Customer Id | Order Id | Quantity | Action |
|-------------------------|-------------|--------|--------------|----------------|-----------------------|--------------------------|--------------------------|--------------------------|----------|-------------------------|
| Heaney, Mills and Mayer | Paper Clips | closed | Alfredo Bins | 0 | May 31, 2023, 8:00 PM | ca94b28a-1393-42d8-a3ad- | c40ba702-351e-41be-b07b- | 8d64e941-799c-4e35-b913- | 48 | <button>Assign</button> |

Object Details (Row 1):

| | |
|--------------------------|--------------------------|
| Order Due Date | May 31, 2023, 8:00 PM |
| Assignee | Alfredo Bins |
| Consolidated Customer Id | ca94b28a-1393-42d8-a3ad- |
| Customer Id | c40ba702-351e-41be-b07b- |
| Customer Name | Heaney, Mills and Mayer |
| Days Until Due | 0 |
| Item Name | Paper Clips |
| Order Id | 8d64e941-799c-4e35-b913- |
| Quantity | 48 |
| Status | closed |

7. In the Action form, remove *Alfredo Birns* from the Assignee and add *Gail Weber*
8. Click *Submit*

The screenshot shows an action form titled "[yourUsername] Assign Order".

Form Fields:

- ORDER ***: A dropdown menu showing "1685577600000" with a green border around it.
- ASSIGNEE ***: A text input field containing "Gail Weber" with a green border around it.
- Buttons:** "Cancel" and "Submit" (green button).

9. Back viewing your application, you should see a green pop-up at the top of your screen verifying that your Action was implemented.
10. In the Object table, also note how the name in the Assignee column has been updated.

Congrats! You've successfully updated an Object via an Action.

The screenshot shows the 'Orders Inbox' dashboard with a success message 'Edits successfully applied.' in a green box at the top right. Below it is a pie chart titled 'assigned: 100%' with a single blue slice labeled 'assigned'. To the right is a bar chart titled 'Days Until Due' with a single blue bar reaching the value of 1.

| Customer Name | Item Name | Status | Assignee | Days Until Due | Order Due Date | Consolidated Customer Id | Customer Id | Order Id | Quantity |
|-------------------------|-------------|----------|------------|----------------|-----------------------|--|--------------------------|--------------------------|----------|
| Heaney, Mills and Mayer | Paper Clips | assigned | Gail Weber | 0 | May 31, 2023, 8:00 PM | ca94b28a-1393-42d8-a3ad-410ba702-351e-4e35-b913- | c40ba702-351e-4e35-b913- | 8d64e941-799c-4e35-b913- | 48 |

On the right side, there's an 'Assign' button and a preview section showing the order details: Order Due Date: May 31, 2023, 8:00 PM; Assignee: Gail Weber.

Conclusion

The dashboard includes a pie chart showing order status distribution: assigned (43%), closed (41%), and open (16%). To its right is a histogram of 'Days Until Due' from 0 to 39. On the far right are several search and filter boxes for ORDER ID, ITEM NAME, ASSIGNEE, CUSTOMER NAME, ORDER DUE DATE, and STATUS.

| Customer Name | Item Name | Status | Assignee | Days Until Due | Consolidated Customer Id | Customer Id | Order Due Date | Order Id | Quantity |
|--------------------------|-------------|----------|-----------------|----------------|--|--|-----------------------|--|----------|
| Bartell, Farrell and ... | 30" Monitor | assigned | Gail Weber | 45 | 6fd6e8ab-3b15-4970-98af-484f-8dc8... | A60051695 | Jul 15, 2023, 7:00 PM | A60051695 | 45 |
| Watson, Turner and Toy | 30" Monitor | closed | Latoya Gutowski | 58 | 6bf2fa9-1cd4-4842-be52-5a85-4110-b887... | A56613925 | Jul 28, 2023, 7:00 PM | A56613925 | 45 |
| Feil Group | 30" Monitor | open | No value | 17 | 942be52-5a85-44fe-3e28-105a-453b-494f... | A46828545 | Jun 17, 2023, 7:00 PM | A46828545 | 45 |
| King, Feeney and Kutch | 30" Monitor | closed | Gail Weber | 52 | b3835214-2e78-4027-9860-4827-9860... | 44fe3e28-105a-453b-494f-4827-9860... | Jul 22, 2023, 7:00 PM | 44fe3e28-105a-453b-494f-4827-9860... | 45 |
| Boyer LLC | 30" Monitor | closed | John Dooley | 7 | 94dfdd2c0-bf92-4bb2-807b-4ca2-9122... | 734c11b7-b550-446c-807b-4ca2-9122... | Jun 7, 2023, 7:00 PM | 734c11b7-b550-446c-807b-4ca2-9122... | 45 |
| ACME Consolidated... | 30" Monitor | open | No value | 41 | 6667680a-7c9e-41ee-b962-40c8-9413... | 6781013d-a846-40c8-9413... | Jul 11, 2023, 7:00 PM | 6781013d-a846-40c8-9413... | 45 |
| Schamberger - Medhurst | 30" Monitor | closed | Kristen Mohr | 2 | 3c474b5a-e256-4f65-a2f0-4293-972-2f51... | 4293-972-2f51-4f65-a2f0-4293-972-2f51... | Jun 2, 2023, 7:00 PM | 4293-972-2f51-4f65-a2f0-4293-972-2f51... | 45 |

To the right of the table is a detailed view for a specific order: Item Name: 30" Monitor, Assignee: Gail Weber, Consolidated Customer Id: 6fd6e8ab-3b15-4970-98af-484f-8dc8..., Customer Id: A60051695, Order Due Date: Jul 15, 2023, 7:00 PM, Order Id: A60051695, Quantity: 45, Status: assigned. Below this is a histogram for 'Quantity' from 10 to 90.

You've now created an operational dashboard for the Fulfillment Department that serves as the single source of truth and cockpit about allocations for upcoming orders.

And it is relatively simple to make this even more useful and more secure:

- Enhance visualizations
- Send email notifications to users when assigned to an order
- Add comments section to provide status updates for each order
- Replace static data file imports with live feeds from the transactional systems
- Control who can assign and mark closed an order
- Automatically generate audit trails of who made a modification or status change

- Write back the actions (assignee, status) back to the transactional systems in real-time

You now have the basics for developing operational data applications!