



INTERNAL

SAP Data Warehouse Cloud hands-on exercises

This document will guide you step by step on the process of creating a Data Flow.

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DISCLAIMER

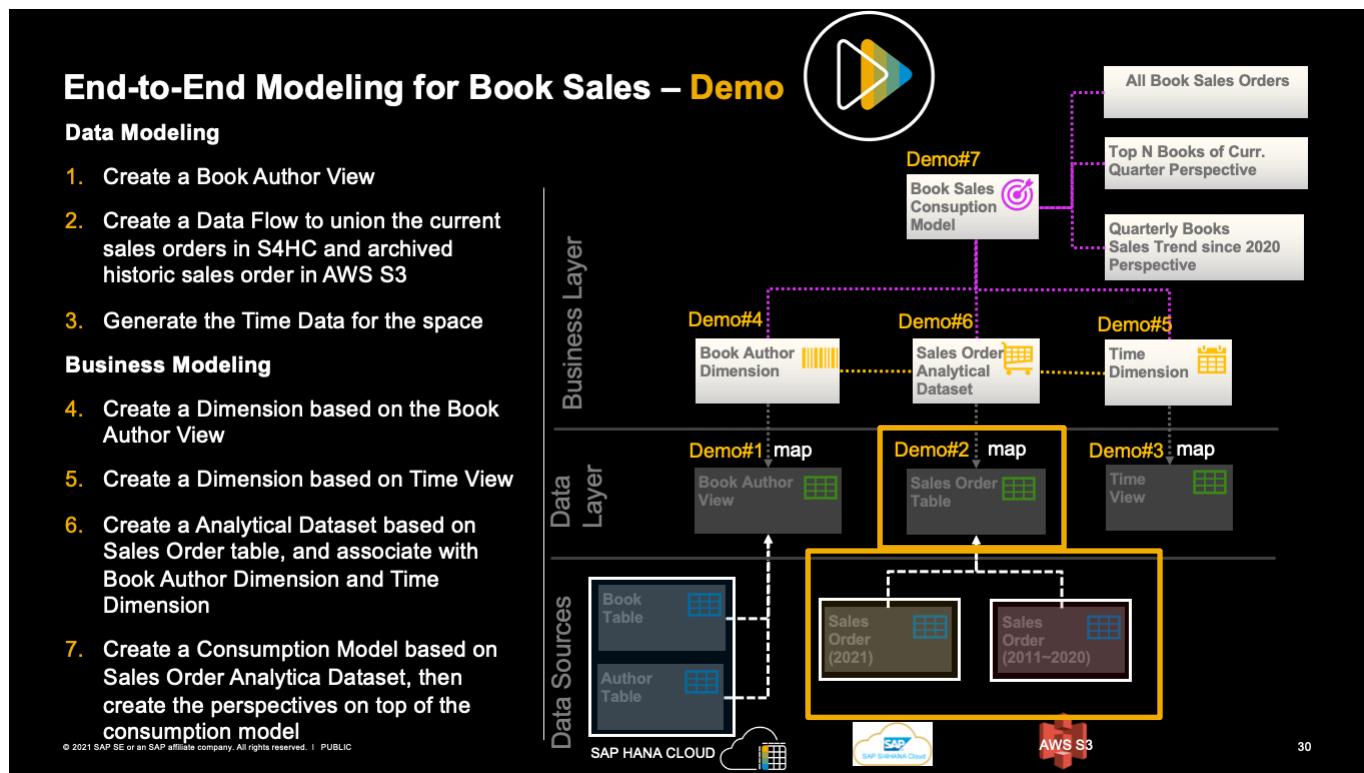
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OBJECTIVE

The objective of this exercise is to provide the steps needed to create a Data flow using S/4 HANA Cloud and Amazon S3 as source.

SCENARIO

In this session we will use the scenario as seen in Demo #2 in the below image



In this session we will create a Data Flow View using Data Builder. We will use the SAP S/4 HANA Cloud connection and Amazon S3 connection. The CDS View C_SALESDOCUMENTITEMDEX_1 from S/4 HANA Cloud will provide us Sales Order Data and the Amazon S3 will provides us Archived Sales Order Data.

ENVIRONMENT ACCESS – SAP DATA WAREHOUSE CLOUD

Please use the Tenant details and Login Credentials provided to you.

In this session you will use,
SAP Data Warehouse Cloud

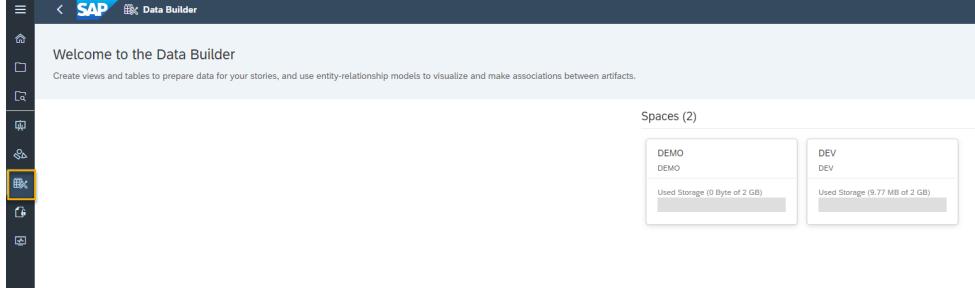
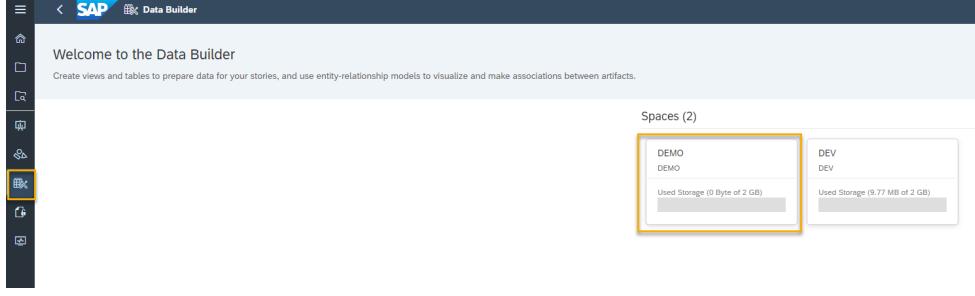
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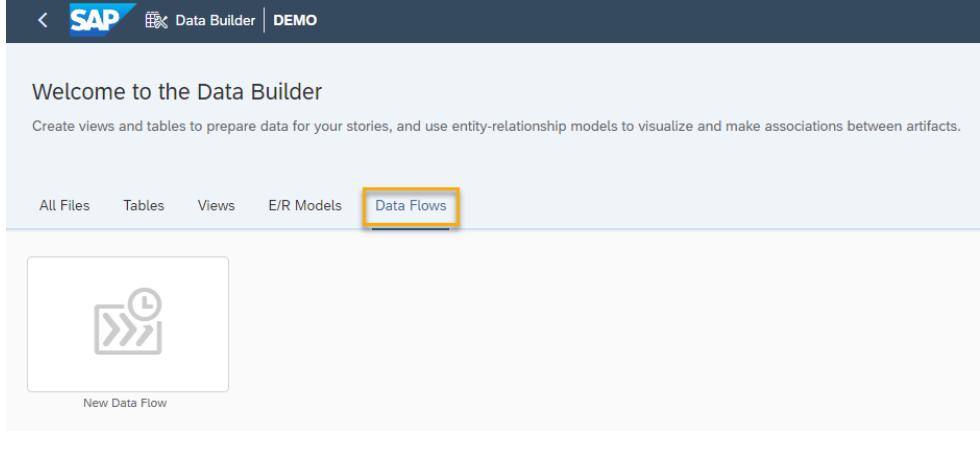
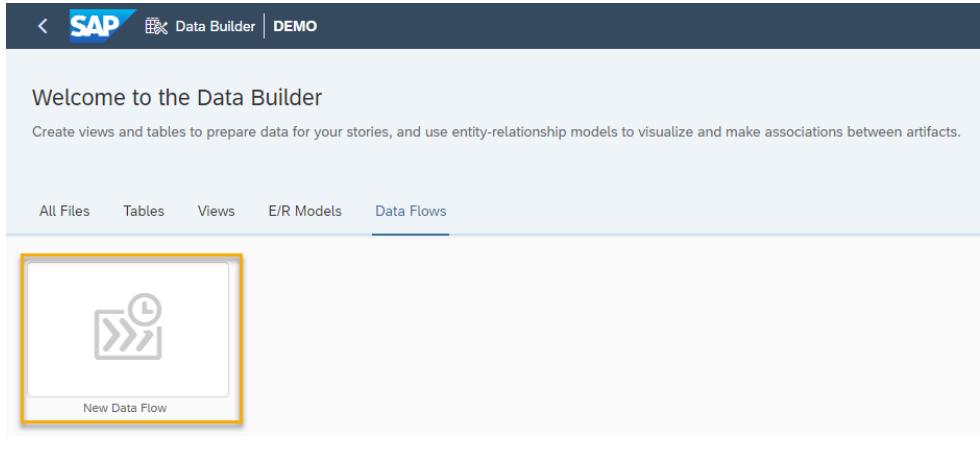
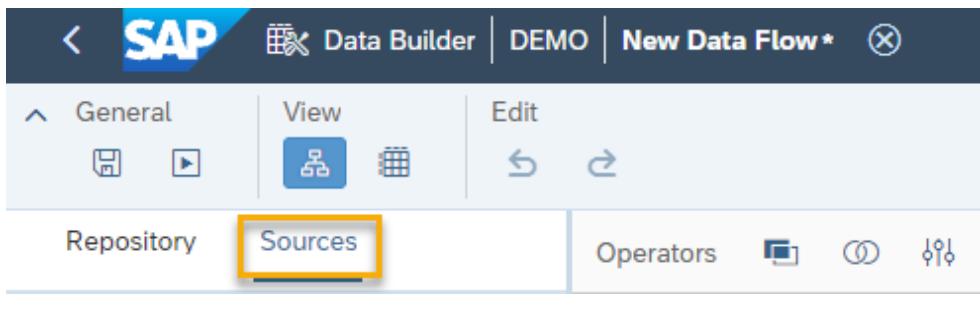
Space Name

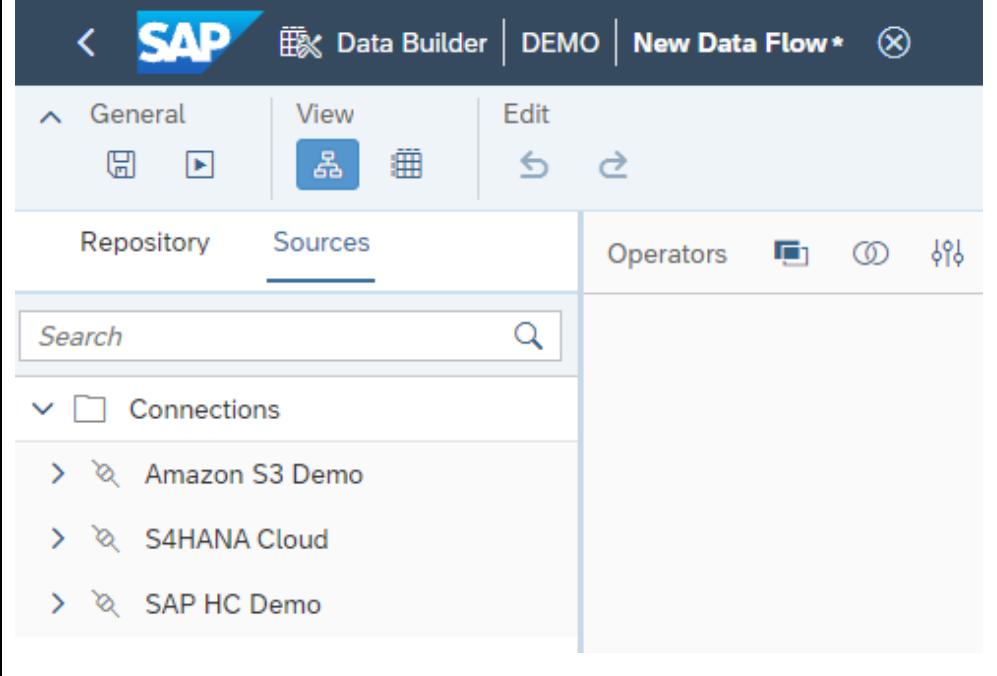
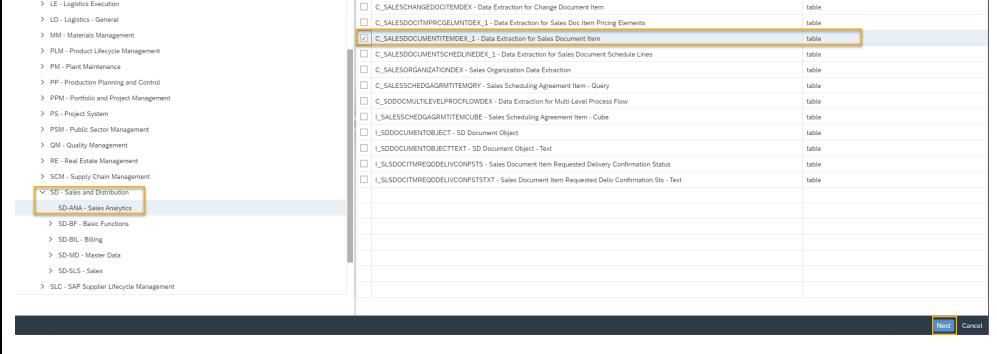
Username

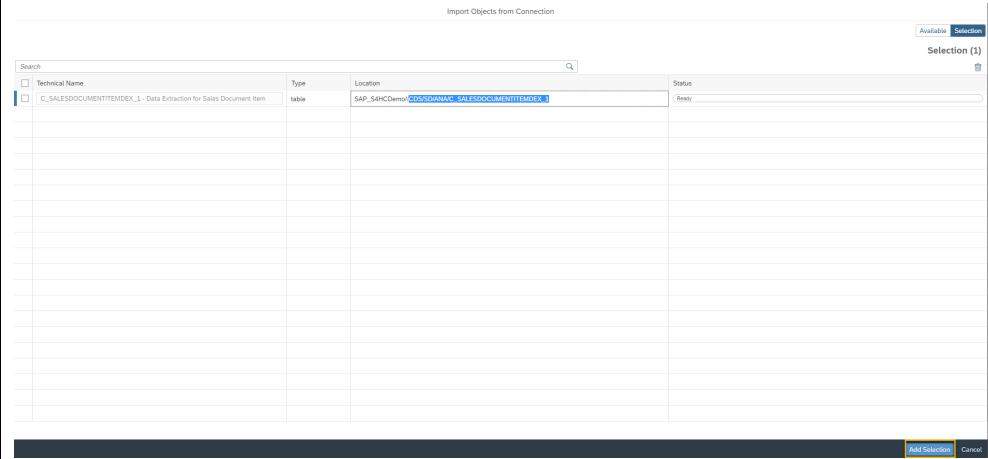
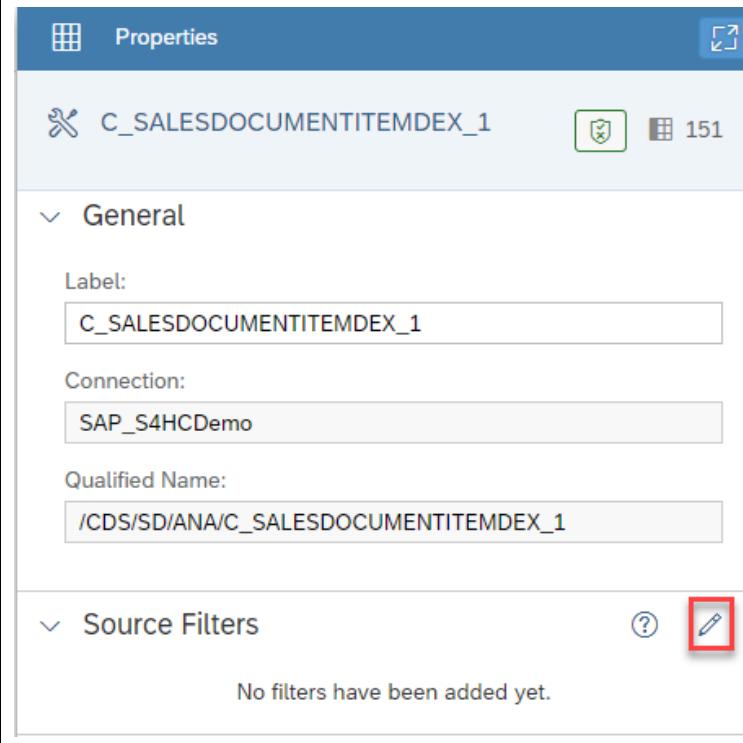
Password

Prerequisites – SAP S/4 HANA Cloud and Amazon S3 connections are active.

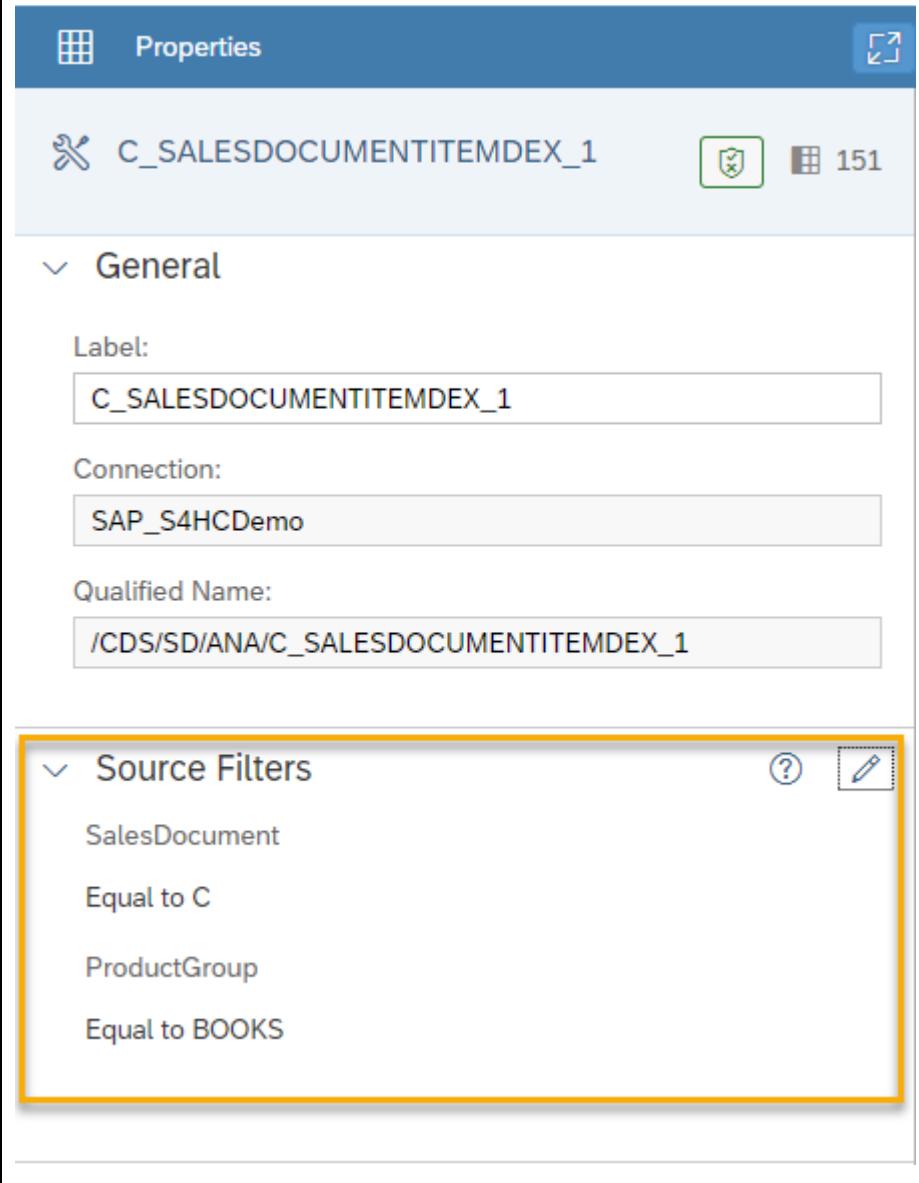
| Explanation | Screenshot |
|---|--|
| You are Logged in to SAP Data Warehouse Cloud and are in the home page |  |
| Click on the Data Builder icon, you see the space that you are assigned to. |  |
| Click on the Space |  |

| Explanation | Screenshot |
|-----------------------|---|
| Click on Data Flows |  <p>Welcome to the Data Builder</p> <p>Create views and tables to prepare data for your stories, and use entity-relationship models to visualize and make associations between artifacts.</p> <p>All Files Tables Views E/R Models Data Flows</p> <p>New Data Flow</p> |
| Select New Data Flows |  <p>Welcome to the Data Builder</p> <p>Create views and tables to prepare data for your stories, and use entity-relationship models to visualize and make associations between artifacts.</p> <p>All Files Tables Views E/R Models Data Flows</p> <p>New Data Flow</p> |
| Navigate to Sources |  <p>< SAP Data Builder DEMO New Data Flow* X</p> <p>General View Edit</p> <p>Repository Sources Operators</p> |

| Explanation | Screenshot |
|---|--|
| Open the Connections |  |
| Open the Connection(S4HANA Cloud) Click on Import connection using the icon shown |  |
| In the popup window. Navigate to SD- Sales and Distribution→ SD-ANA- Sales Analysis | |
| On the Right side select the CDS view C_SALESDOCUMENTITEMDEX_1 → Click Next |  |

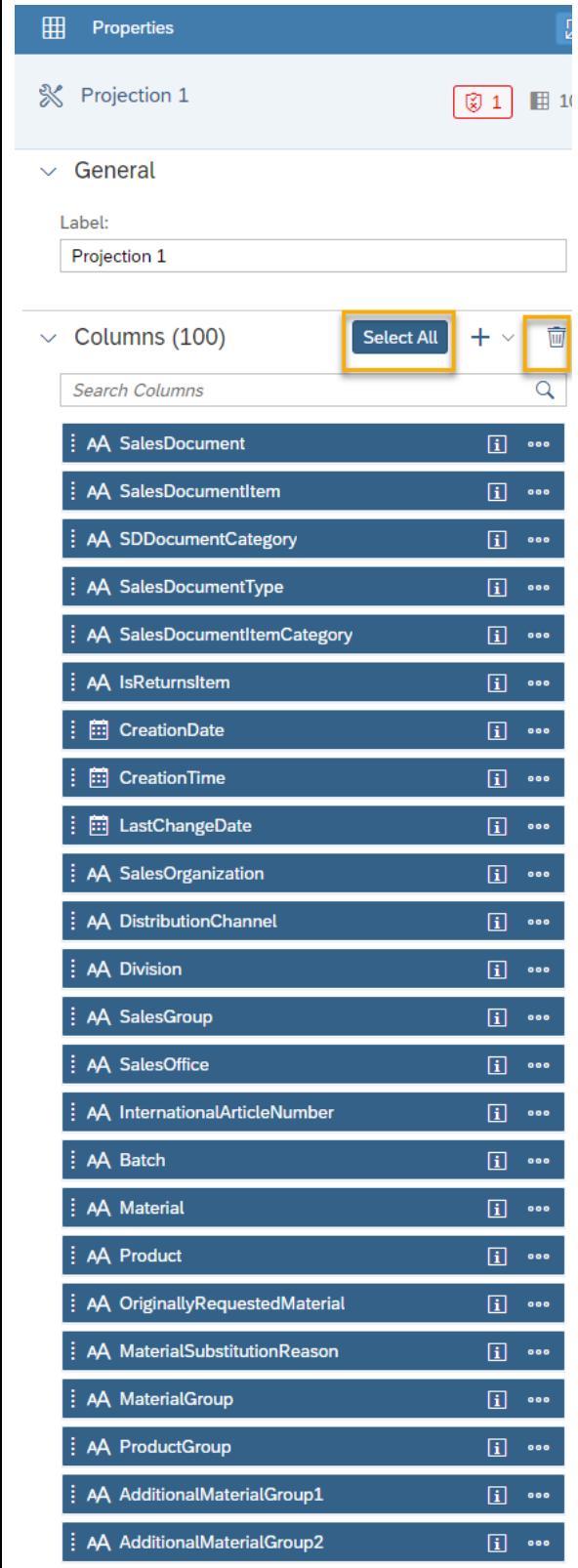
| Explanation | Screenshot |
|--|---|
| We can leave the proposed name and choose Add Selection |  |
| Once the object is imported you will see that on the central canvas |  |
| <p>We only need the data that has the below status SDDocumentCategory = 'C' ProductGroup = 'BOOKS' We will set a filter for this restrictions</p> | <p>Select the Object on Central Canvas and Edit the Properties</p>  |

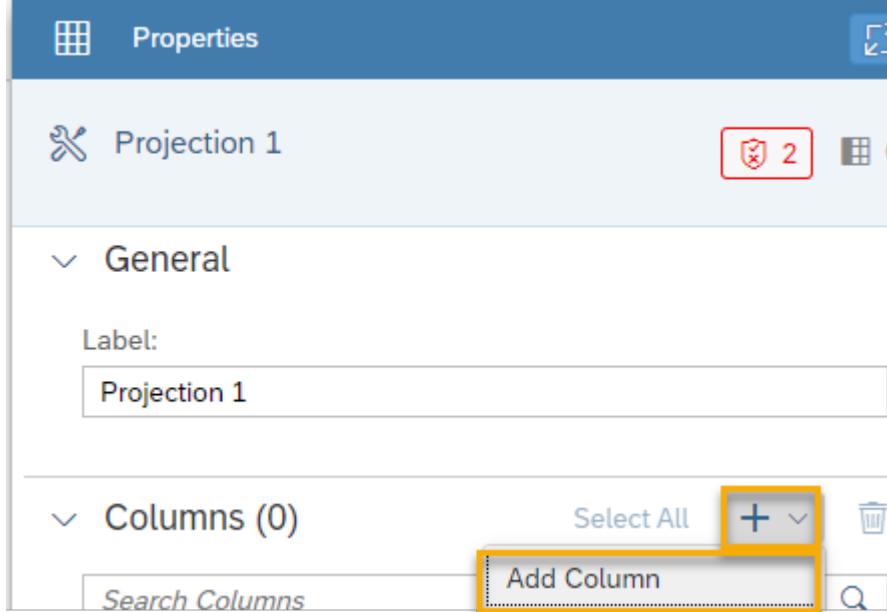
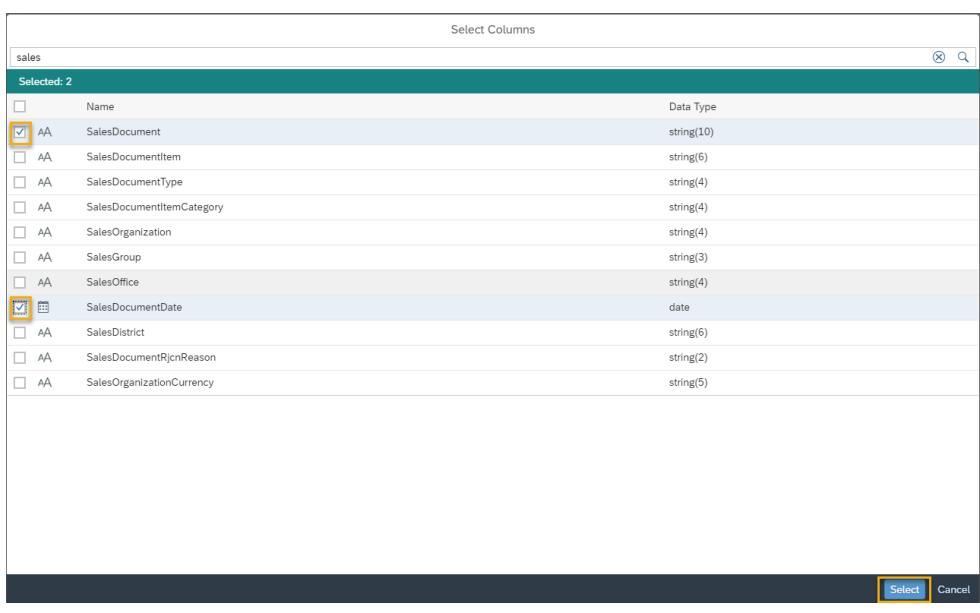
| Explanation | Screenshot | | | | | | | | | |
|---|--|--------|-----------|-------|---------------|----------|---|--------------|----------|-------|
| Select the 1 st Restriction on SalesDocumentCategory | <p>Source Filters</p> <p>Reset</p> <table border="1"> <thead> <tr> <th data-bbox="510 361 584 382">Column</th> <th data-bbox="731 361 804 382">Condition</th> <th data-bbox="984 361 1033 382">Value</th> </tr> </thead> <tbody> <tr> <td data-bbox="510 413 706 445">SalesDocum...</td> <td data-bbox="755 413 951 445">Equal to</td> <td data-bbox="1000 413 1033 445">C</td> </tr> </tbody> </table> <p>OK Cancel</p> | Column | Condition | Value | SalesDocum... | Equal to | C | | | |
| Column | Condition | Value | | | | | | | | |
| SalesDocum... | Equal to | C | | | | | | | | |
| <p>Click  to add another restriction</p> | <p>Source Filters</p> <p>Reset</p> <table border="1"> <thead> <tr> <th data-bbox="510 1041 584 1062">Column</th> <th data-bbox="755 1041 829 1062">Condition</th> <th data-bbox="984 1041 1033 1062">Value</th> </tr> </thead> <tbody> <tr> <td data-bbox="510 1094 706 1125">SalesDocum...</td> <td data-bbox="755 1094 951 1125">Equal to</td> <td data-bbox="1000 1094 1033 1125">C</td> </tr> <tr> <td data-bbox="510 1157 706 1189">ProductGroup</td> <td data-bbox="755 1157 951 1189">Equal to</td> <td data-bbox="1000 1157 1082 1189">BOOKS</td> </tr> </tbody> </table> <p>OK Cancel</p> | Column | Condition | Value | SalesDocum... | Equal to | C | ProductGroup | Equal to | BOOKS |
| Column | Condition | Value | | | | | | | | |
| SalesDocum... | Equal to | C | | | | | | | | |
| ProductGroup | Equal to | BOOKS | | | | | | | | |

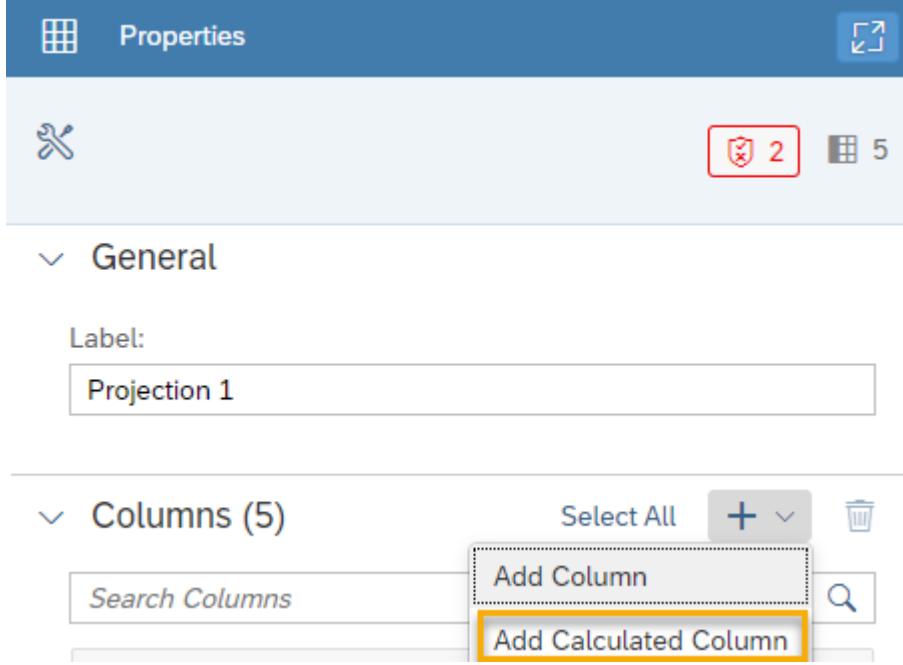
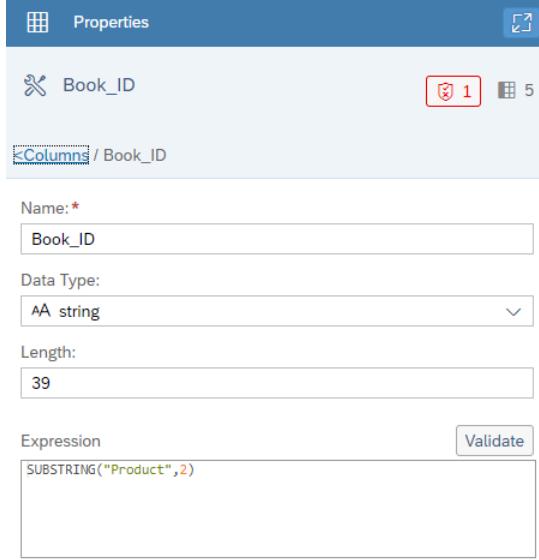
| Explanation | Screenshot |
|---|--|
| <p>You should see the restrictions under the Source Filters section</p> |  <p>The screenshot shows the SAP Fiori Properties dialog for a model element named C_SALESDOCUMENTITEMDEX_1. The dialog is divided into sections: General, Source Filters, and a bottom section for annotations. The Source Filters section is highlighted with a yellow border.</p> <p>General Section:</p> <ul style="list-style-type: none"> Label: C_SALESDOCUMENTITEMDEX_1 Connection: SAP_S4HCDemo Qualified Name: /CDS/SD/ANA/C_SALESDOCUMENTITEMDEX_1 <p>Source Filters Section:</p> <ul style="list-style-type: none"> SalesDocument: Equal to C ProductGroup: Equal to BOOKS |

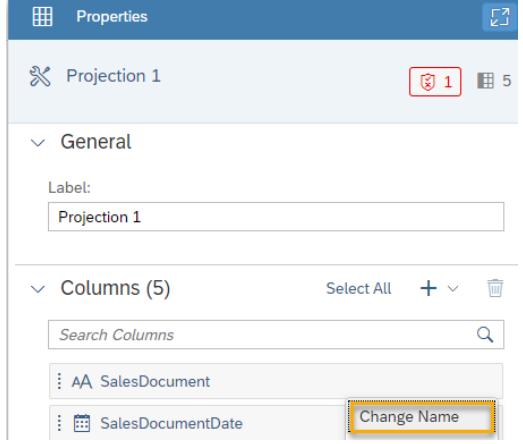
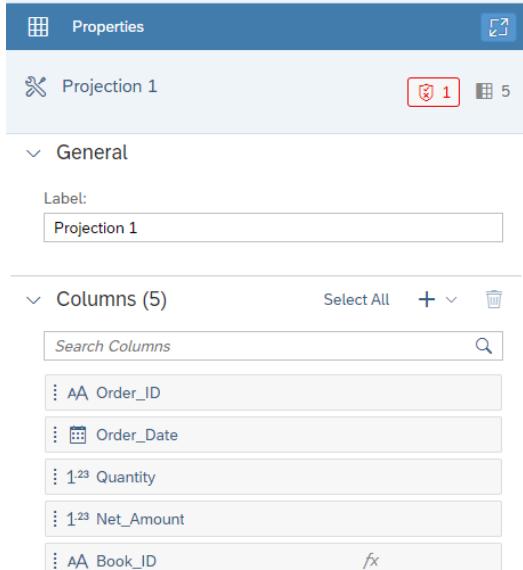
| Explanation | Screenshot |
|---|---|
| <p>Navigate to the Advanced section and set the Chunk size to 1000.</p> |  <p>The screenshot shows the 'Properties' window with the 'Advanced' section expanded. The 'Chunk Size (Number of Rows)' field is highlighted with a yellow box and contains the value '1000'.</p> |
| <p>We do not need all fields so we will apply a Projection and select the required fields (5). At the top of the central canvas choose projection in the Operators window</p> |  <p>The screenshot shows the Operators window with the projection operator (Π) highlighted with a yellow box.</p> |
| <p>Drag the Projection operator on the central canvas</p> |  <p>The screenshot shows the central canvas with a 'Source' component and a 'Projection 1' component. A red box labeled '1' is over the Source component, and a red box labeled '2' is over the Projection component.</p> |

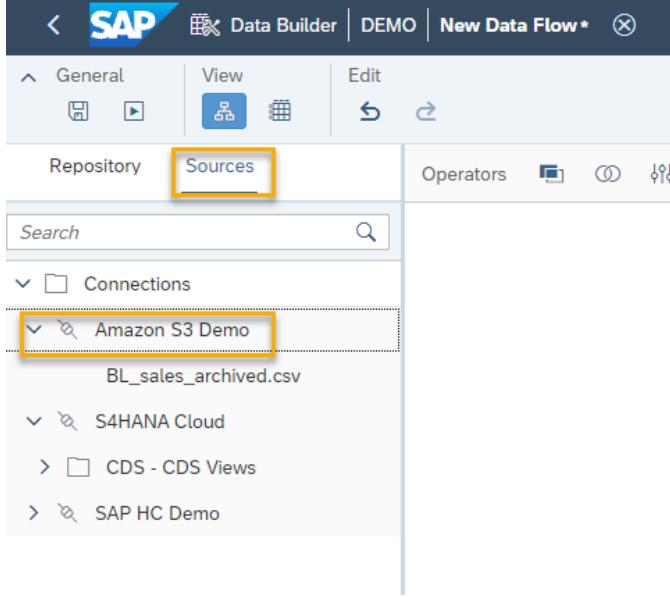
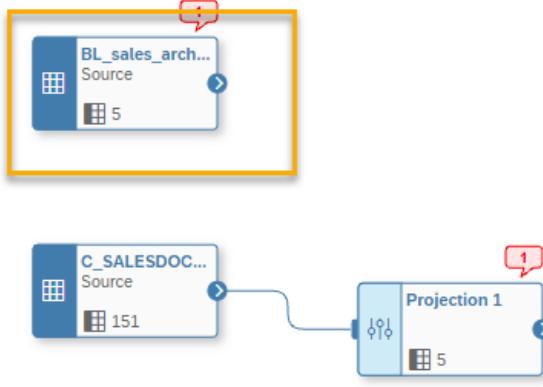
| Explanation | Screenshot |
|---|---|
| <p>Drag the arrow from source to target to link the source with the operator.</p> |  <p>The screenshot shows a data flow diagram with two main components: a 'C_SALESDOC...' Source and a 'Projection 1' operator. A blue arrow connects the output of the Source to the input of the Projection operator. The Source component has a red callout bubble with the number '1'. The Projection operator has a red callout bubble with the number '2'.</p> |

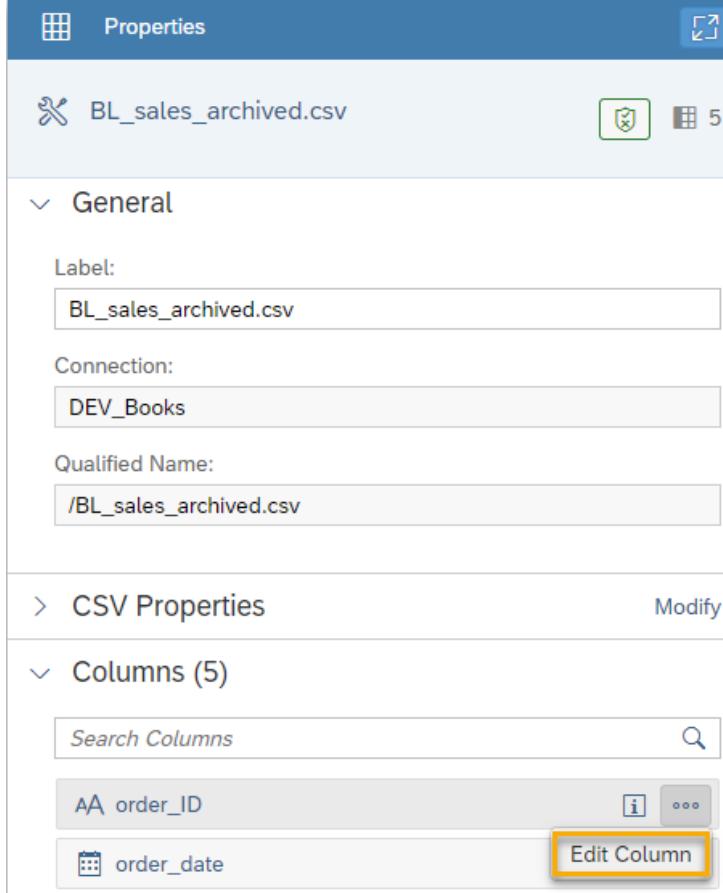
| Explanation | Screenshot | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-------------|--------|------------------|---------|----------------------|---------|-----------------------|---------|----------------------|---------|------------------------------|---------|------------------|---------|--------------|---------|--------------|---------|----------------|---------|----------------------|---------|------------------------|---------|-------------|---------|---------------|---------|----------------|---------|-------------------------------|---------|----------|---------|-------------|---------|------------|---------|--------------------------------|---------|-------------------------------|---------|------------------|---------|-----------------|---------|-----------------------------|---------|-----------------------------|---------|
| <p>We have to do bulk removals so we will select all and then delete</p> |  <p>The screenshot shows the SAP Fiori Properties interface for a projection named "Projection 1". The "General" section has a "Label" field set to "Projection 1". The "Columns (100)" section is expanded, showing a list of 100 columns. The "Select All" button and the trash can icon for deleting selected items are highlighted with orange boxes.</p> <table border="1"> <thead> <tr> <th>Column Name</th> <th>Action</th> </tr> </thead> <tbody> <tr><td>AA SalesDocument</td><td>[i] ...</td></tr> <tr><td>AA SalesDocumentItem</td><td>[i] ...</td></tr> <tr><td>AA SDDocumentCategory</td><td>[i] ...</td></tr> <tr><td>AA SalesDocumentType</td><td>[i] ...</td></tr> <tr><td>AA SalesDocumentItemCategory</td><td>[i] ...</td></tr> <tr><td>AA IsReturnsItem</td><td>[i] ...</td></tr> <tr><td>CreationDate</td><td>[i] ...</td></tr> <tr><td>CreationTime</td><td>[i] ...</td></tr> <tr><td>LastChangeDate</td><td>[i] ...</td></tr> <tr><td>AA SalesOrganization</td><td>[i] ...</td></tr> <tr><td>AA DistributionChannel</td><td>[i] ...</td></tr> <tr><td>AA Division</td><td>[i] ...</td></tr> <tr><td>AA SalesGroup</td><td>[i] ...</td></tr> <tr><td>AA SalesOffice</td><td>[i] ...</td></tr> <tr><td>AA InternationalArticleNumber</td><td>[i] ...</td></tr> <tr><td>AA Batch</td><td>[i] ...</td></tr> <tr><td>AA Material</td><td>[i] ...</td></tr> <tr><td>AA Product</td><td>[i] ...</td></tr> <tr><td>AA OriginallyRequestedMaterial</td><td>[i] ...</td></tr> <tr><td>AA MaterialSubstitutionReason</td><td>[i] ...</td></tr> <tr><td>AA MaterialGroup</td><td>[i] ...</td></tr> <tr><td>AA ProductGroup</td><td>[i] ...</td></tr> <tr><td>AA AdditionalMaterialGroup1</td><td>[i] ...</td></tr> <tr><td>AA AdditionalMaterialGroup2</td><td>[i] ...</td></tr> </tbody> </table> | Column Name | Action | AA SalesDocument | [i] ... | AA SalesDocumentItem | [i] ... | AA SDDocumentCategory | [i] ... | AA SalesDocumentType | [i] ... | AA SalesDocumentItemCategory | [i] ... | AA IsReturnsItem | [i] ... | CreationDate | [i] ... | CreationTime | [i] ... | LastChangeDate | [i] ... | AA SalesOrganization | [i] ... | AA DistributionChannel | [i] ... | AA Division | [i] ... | AA SalesGroup | [i] ... | AA SalesOffice | [i] ... | AA InternationalArticleNumber | [i] ... | AA Batch | [i] ... | AA Material | [i] ... | AA Product | [i] ... | AA OriginallyRequestedMaterial | [i] ... | AA MaterialSubstitutionReason | [i] ... | AA MaterialGroup | [i] ... | AA ProductGroup | [i] ... | AA AdditionalMaterialGroup1 | [i] ... | AA AdditionalMaterialGroup2 | [i] ... |
| Column Name | Action | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA SalesDocument | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA SalesDocumentItem | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA SDDocumentCategory | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA SalesDocumentType | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA SalesDocumentItemCategory | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA IsReturnsItem | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CreationDate | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CreationTime | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LastChangeDate | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA SalesOrganization | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA DistributionChannel | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA Division | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA SalesGroup | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA SalesOffice | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA InternationalArticleNumber | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA Batch | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA Material | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA Product | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA OriginallyRequestedMaterial | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA MaterialSubstitutionReason | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA MaterialGroup | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA ProductGroup | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA AdditionalMaterialGroup1 | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA AdditionalMaterialGroup2 | [i] ... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Explanation | Screenshot | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|-----------|---------------|---------------|-------------------|-------------|-------------------|------------|---------------------------|-----------|-------------------|--|---------------|-----------|-------------|-----------|-------------------|-------------|---------------|-----------|-------------------------|-----------|---------------------------|-----------|
| Next we will add the 5 columns that we need | <table border="1"> <thead> <tr> <th data-bbox="523 255 796 287">Source</th><th data-bbox="796 255 997 287">Target</th><th data-bbox="997 255 1400 287">Change</th></tr> </thead> <tbody> <tr> <td data-bbox="523 297 796 329">SalesDocument</td><td data-bbox="796 297 997 329">Order_ID</td><td data-bbox="997 297 1400 329">Name Change</td></tr> <tr> <td data-bbox="523 340 796 371">SalesDocumentDate</td><td data-bbox="796 340 997 371">Order_Date</td><td data-bbox="997 340 1400 371">Name Change</td></tr> <tr> <td data-bbox="523 382 796 413">Product</td><td data-bbox="796 382 997 413">Book_ID</td><td data-bbox="997 382 1400 445">Derived using Expression SUBSTRING("Product",2)</td></tr> <tr> <td data-bbox="523 456 796 487">OrderQuantity</td><td data-bbox="796 456 997 487">Quantity</td><td data-bbox="997 456 1400 487">Name Change</td></tr> <tr> <td data-bbox="523 498 796 530">NetAmount</td><td data-bbox="796 498 997 530">Net_Amount</td><td data-bbox="997 498 1400 530">Name Change</td></tr> </tbody> </table> | Source | Target | Change | SalesDocument | Order_ID | Name Change | SalesDocumentDate | Order_Date | Name Change | Product | Book_ID | Derived using Expression SUBSTRING("Product",2) | OrderQuantity | Quantity | Name Change | NetAmount | Net_Amount | Name Change | | | | | | |
| Source | Target | Change | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDocument | Order_ID | Name Change | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDocumentDate | Order_Date | Name Change | | | | | | | | | | | | | | | | | | | | | | | |
| Product | Book_ID | Derived using Expression SUBSTRING("Product",2) | | | | | | | | | | | | | | | | | | | | | | | |
| OrderQuantity | Quantity | Name Change | | | | | | | | | | | | | | | | | | | | | | | |
| NetAmount | Net_Amount | Name Change | | | | | | | | | | | | | | | | | | | | | | | |
| To add a column, Click on + icon and then select Add Column |  | | | | | | | | | | | | | | | | | | | | | | | | |
| Select the fields as shown in the table above |  <table border="1"> <thead> <tr> <th data-bbox="523 1248 556 1269">Name</th><th data-bbox="523 1290 1237 1311">Data Type</th></tr> </thead> <tbody> <tr> <td data-bbox="523 1322 670 1343">SalesDocument</td><td data-bbox="523 1343 1237 1364">string(10)</td></tr> <tr> <td data-bbox="523 1364 687 1385">SalesDocumentItem</td><td data-bbox="523 1385 1237 1406">string(6)</td></tr> <tr> <td data-bbox="523 1406 687 1427">SalesDocumentType</td><td data-bbox="523 1427 1237 1448">string(4)</td></tr> <tr> <td data-bbox="523 1448 736 1469">SalesDocumentItemCategory</td><td data-bbox="523 1469 1237 1491">string(4)</td></tr> <tr> <td data-bbox="523 1491 670 1512">SalesOrganization</td><td data-bbox="523 1512 1237 1533">string(4)</td></tr> <tr> <td data-bbox="523 1533 654 1554">SalesGroup</td><td data-bbox="523 1554 1237 1575">string(3)</td></tr> <tr> <td data-bbox="523 1575 654 1596">SalesOffice</td><td data-bbox="523 1596 1237 1617">string(4)</td></tr> <tr> <td data-bbox="523 1617 687 1638">SalesDocumentDate</td><td data-bbox="523 1638 1237 1660">date</td></tr> <tr> <td data-bbox="523 1660 654 1681">SalesDistrict</td><td data-bbox="523 1681 1237 1702">string(6)</td></tr> <tr> <td data-bbox="523 1702 719 1723">SalesDocumentRjcnReason</td><td data-bbox="523 1723 1237 1744">string(2)</td></tr> <tr> <td data-bbox="523 1744 719 1765">SalesOrganizationCurrency</td><td data-bbox="523 1765 1237 1786">string(5)</td></tr> </tbody> </table> | Name | Data Type | SalesDocument | string(10) | SalesDocumentItem | string(6) | SalesDocumentType | string(4) | SalesDocumentItemCategory | string(4) | SalesOrganization | string(4) | SalesGroup | string(3) | SalesOffice | string(4) | SalesDocumentDate | date | SalesDistrict | string(6) | SalesDocumentRjcnReason | string(2) | SalesOrganizationCurrency | string(5) |
| Name | Data Type | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDocument | string(10) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDocumentItem | string(6) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDocumentType | string(4) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDocumentItemCategory | string(4) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesOrganization | string(4) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesGroup | string(3) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesOffice | string(4) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDocumentDate | date | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDistrict | string(6) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesDocumentRjcnReason | string(2) | | | | | | | | | | | | | | | | | | | | | | | | |
| SalesOrganizationCurrency | string(5) | | | | | | | | | | | | | | | | | | | | | | | | |

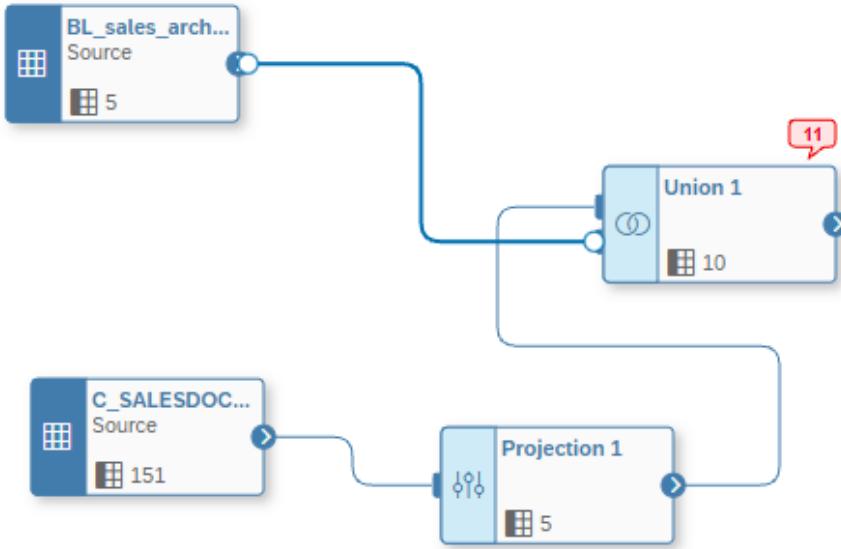
| Explanation | Screenshot |
|-------------------------------------|---|
| Repeat for OrderQuantity, NetAmount | |
| Add a Calculated column for Book ID |  <p>The screenshot shows the 'Properties' dialog for a calculated column. The 'Label' field is set to 'Projection 1'. In the 'Columns (5)' section, there is a button labeled 'Add Calculated Column' which is highlighted with a yellow box.</p> |
| Enter the Properties as shown |  <p>The screenshot shows the 'Properties' dialog for a column named 'Book_ID'. The 'Name:' field is set to 'Book_ID', 'Data Type:' is 'string', 'Length:' is 39, and the 'Expression' field contains 'SUBSTRING("Product",2)'. The 'Validate' button is visible next to the expression field.</p> |
| Click on the icon for the column |  <p>The screenshot shows the column properties bar for 'SalesDocument'. The 'More' icon (three dots) is highlighted with a yellow box.</p> |

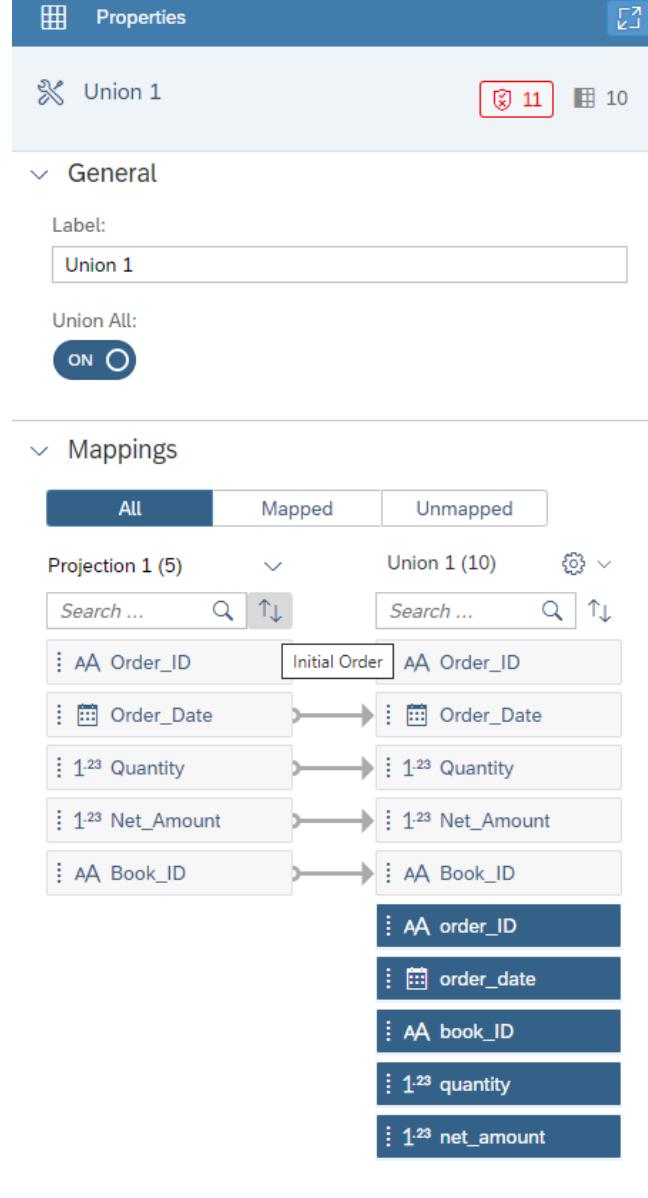
| Explanation | Screenshot | | | | | | | | | | |
|--|---|--------|---------------|----------|-------------------|------------|---------------|----------|-----------|------------|--|
| <p>Choose Change Name.</p> <p>Repeat for following source fields.</p> <table border="1" data-bbox="127 382 507 593"> <thead> <tr> <th>Source</th><th>Target</th></tr> </thead> <tbody> <tr> <td>SalesDocument</td><td>Order_ID</td></tr> <tr> <td>SalesDocumentDate</td><td>Order_Date</td></tr> <tr> <td>OrderQuantity</td><td>Quantity</td></tr> <tr> <td>NetAmount</td><td>Net_Amount</td></tr> </tbody> </table> | Source | Target | SalesDocument | Order_ID | SalesDocumentDate | Order_Date | OrderQuantity | Quantity | NetAmount | Net_Amount |  <p>The screenshot shows the 'Properties' pane for 'Projection 1'. Under the 'General' tab, the label is set to 'Projection 1'. In the 'Columns' section, there are five columns listed. The second column, 'SalesDocument', has its name changed to 'Change Name', indicated by a yellow box around the text field.</p> |
| Source | Target | | | | | | | | | | |
| SalesDocument | Order_ID | | | | | | | | | | |
| SalesDocumentDate | Order_Date | | | | | | | | | | |
| OrderQuantity | Quantity | | | | | | | | | | |
| NetAmount | Net_Amount | | | | | | | | | | |
| <p>Now you should have the 5 fields as shown</p> |  <p>The screenshot shows the 'Properties' pane for 'Projection 1'. Under the 'General' tab, the label is set to 'Projection 1'. In the 'Columns' section, there are five columns listed with their new names: 'Order_ID', 'Order_Date', 'Quantity', 'Net_Amount', and 'Book_ID'.</p> | | | | | | | | | | |

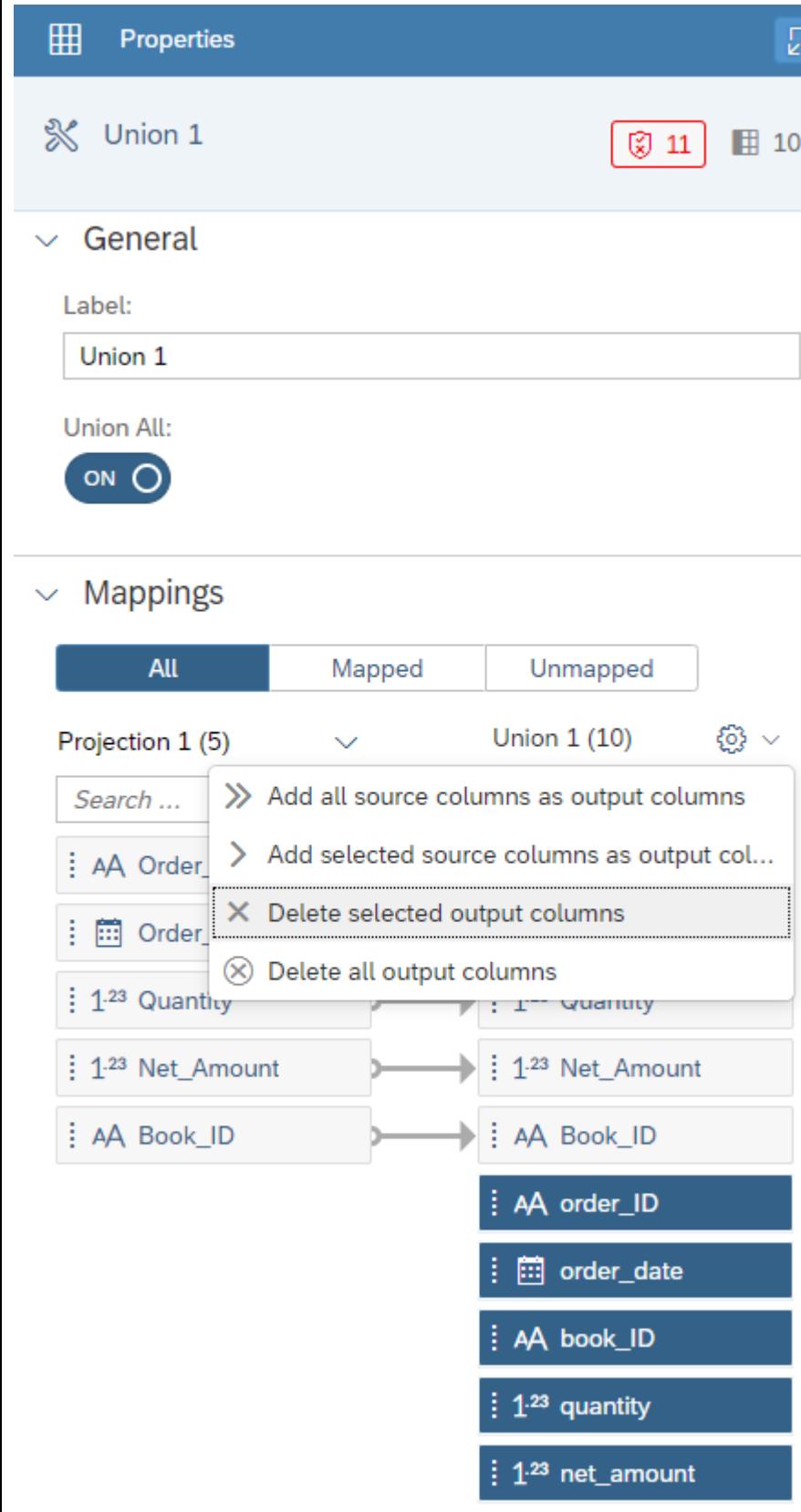
| Explanation | Screenshot | | | | | | | | | | | | | | | |
|--|--|---------------|--------------------|---------------|----------|-------|------------|---------|-------|------------|----------|-------|---------------|------------|-------|---------------|
| <p>Navigate to Connections→ Select Amazon S3 connection (Amazon S3 Demo)</p> |  | | | | | | | | | | | | | | | |
| <p>Drag the BL_sales_archived.csv file to central canvas</p> |  | | | | | | | | | | | | | | | |
| <p>Change the Datatypes for the BL_Sales_Archived data set as shown here</p> | <table border="1" data-bbox="518 1465 1188 1717"> <thead> <tr> <th data-bbox="518 1465 719 1543">Column Name</th><th data-bbox="719 1465 1008 1543">Existing Data Type</th><th data-bbox="1008 1465 1188 1543">New Data Type</th></tr> </thead> <tbody> <tr> <td data-bbox="518 1543 719 1586">Order_ID</td><td data-bbox="719 1543 1008 1586">int32</td><td data-bbox="1008 1543 1188 1586">String(10)</td></tr> <tr> <td data-bbox="518 1586 719 1628">Book_ID</td><td data-bbox="719 1586 1008 1628">int32</td><td data-bbox="1008 1586 1188 1628">String(39)</td></tr> <tr> <td data-bbox="518 1628 719 1670">Quantity</td><td data-bbox="719 1628 1008 1670">int32</td><td data-bbox="1008 1628 1188 1670">Decimal(15,3)</td></tr> <tr> <td data-bbox="518 1670 719 1712">Net_Amount</td><td data-bbox="719 1670 1008 1712">int32</td><td data-bbox="1008 1670 1188 1712">Decimal(15,2)</td></tr> </tbody> </table> | Column Name | Existing Data Type | New Data Type | Order_ID | int32 | String(10) | Book_ID | int32 | String(39) | Quantity | int32 | Decimal(15,3) | Net_Amount | int32 | Decimal(15,2) |
| Column Name | Existing Data Type | New Data Type | | | | | | | | | | | | | | |
| Order_ID | int32 | String(10) | | | | | | | | | | | | | | |
| Book_ID | int32 | String(39) | | | | | | | | | | | | | | |
| Quantity | int32 | Decimal(15,3) | | | | | | | | | | | | | | |
| Net_Amount | int32 | Decimal(15,2) | | | | | | | | | | | | | | |

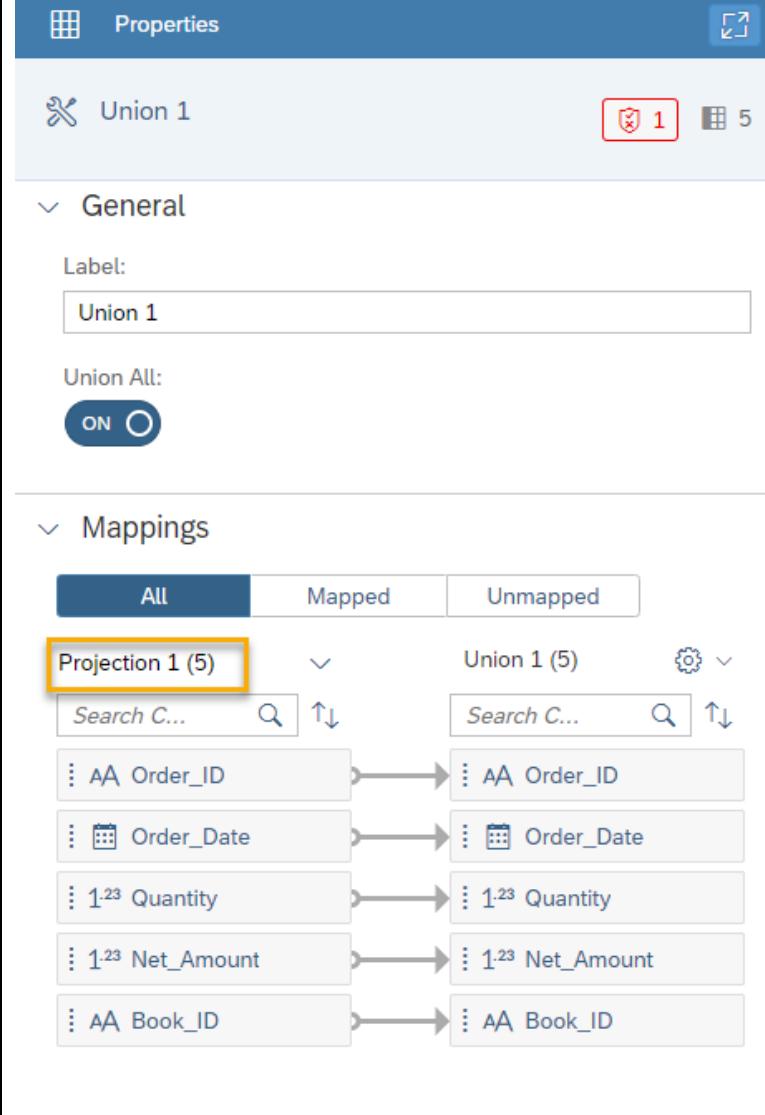
| Explanation | Screenshot |
|---|------------|
| <p>Click on the column and select the icon as shown below and</p>  | |
| <p>Navigate to Operators section and choose UNION operator</p>  | |

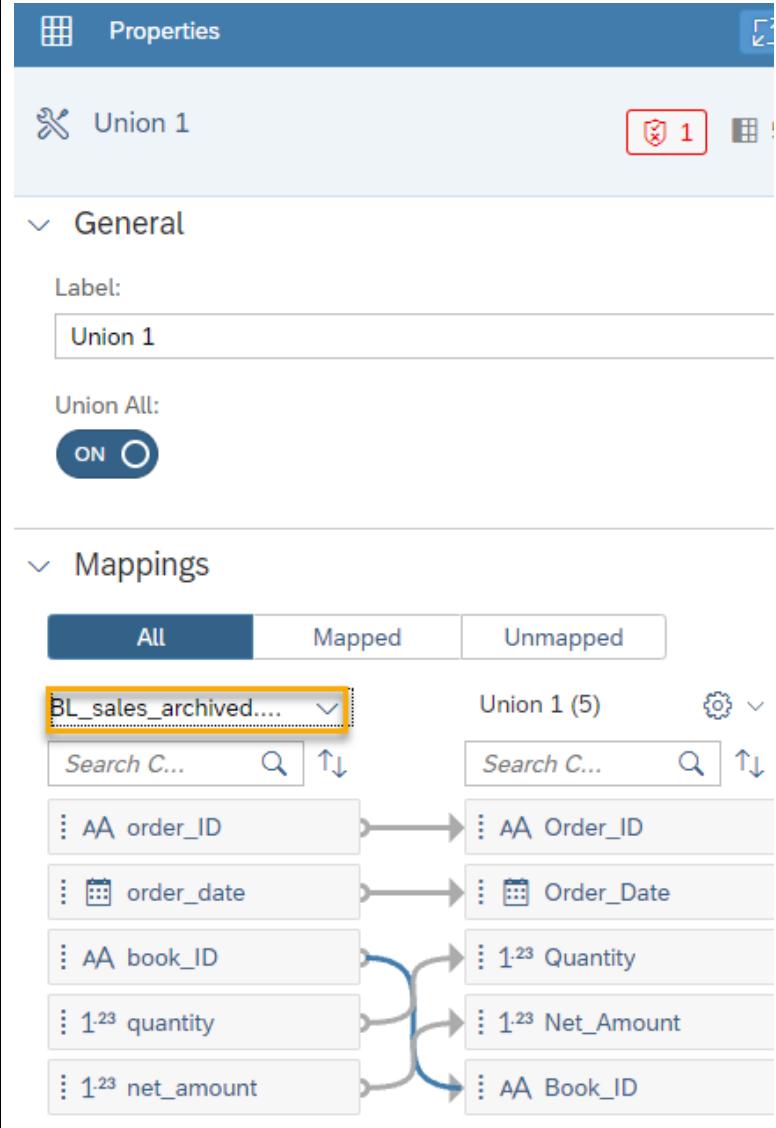
| Explanation | Screenshot |
|--|--|
| Drag the operator to the central canvas | <p>The screenshot shows a data flow diagram with two source nodes: "BL_sales_arch..." and "C_SALESDOC...". Both sources have a count of 5 and 151 respectively. A "Union 1" operator (highlighted with a red box and labeled 1) is connected to both sources. The output of the Union operator is connected to a "Projection 1" operator (highlighted with a red box and labeled 2). The "Projection 1" operator has a count of 5.</p> |
| Click on Projection 1 and select the arrow to drag to the Union operator | <p>The screenshot shows the same data flow diagram as the previous step. The arrow from the "C_SALESDOC..." source to the "Union 1" operator is highlighted with a red box and labeled 1, indicating it is being selected or dragged.</p> |

| Explanation | Screenshot |
|---|--|
| <p>Repeat it for the Archived dataset</p> |  <pre> graph TD S1[Source BL_sales_arch... 5] --> U1[Union 1 10] S2[Source C_SALESDOC... 151] --> P1[Projection 1 5] U1 --> P1 </pre> |

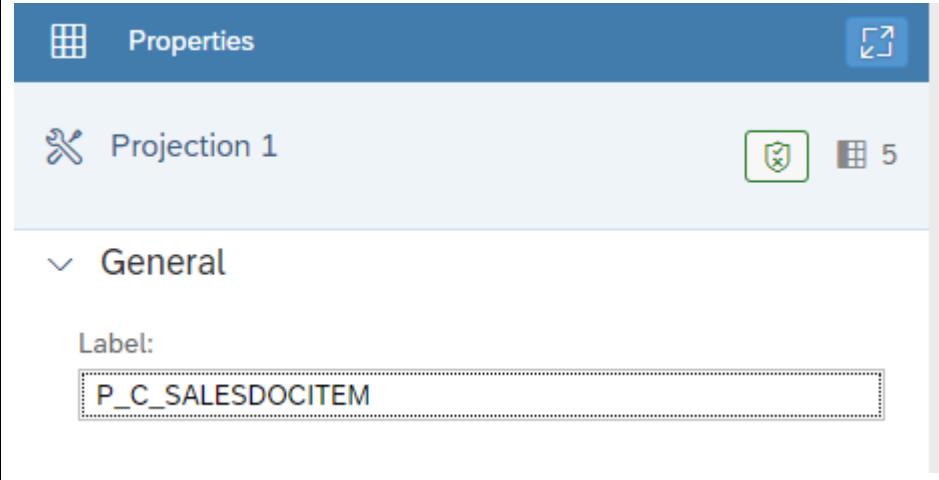
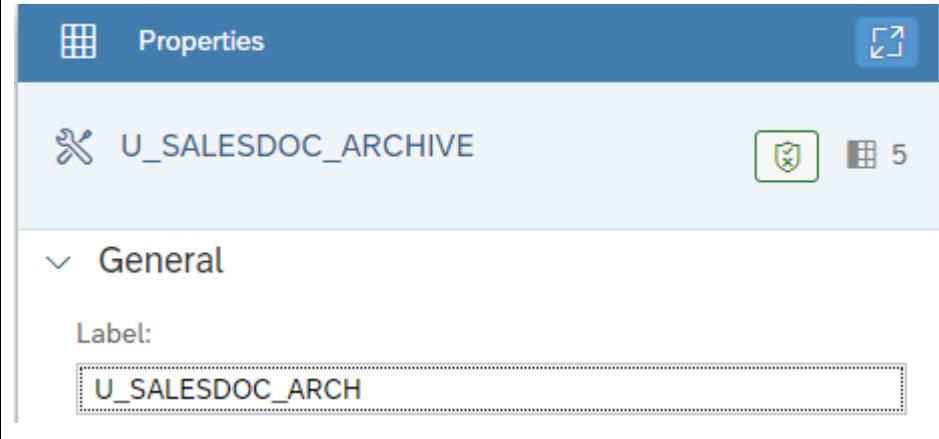
| Explanation | Screenshot | | | | | | | | | | | | |
|---|--|------------------|--------------|----------|---------------|------------|------------|----------|----------|------------|------------|---------|---------|
| <p>Select the columns on the right as shown</p> |  <p>The screenshot shows the Alteryx Properties pane for a 'Union 1' component. The top bar displays the component name 'Union 1' and its status (11 inputs, 10 outputs). The 'General' section includes a 'Label' input set to 'Union 1' and a 'Union All:' switch set to 'ON'. The 'Mappings' section shows a comparison between 'Projection 1 (5)' on the left and 'Union 1 (10)' on the right. Arrows indicate the mapping of columns from the left projection to the right union output. The mapped columns are: Order_ID (Initial Order), Order_Date, Quantity, Net_Amount, and Book_ID.</p> <table border="1"> <thead> <tr> <th>Projection 1 (5)</th> <th>Union 1 (10)</th> </tr> </thead> <tbody> <tr> <td>Order_ID</td> <td>Initial Order</td> </tr> <tr> <td>Order_Date</td> <td>Order_Date</td> </tr> <tr> <td>Quantity</td> <td>Quantity</td> </tr> <tr> <td>Net_Amount</td> <td>Net_Amount</td> </tr> <tr> <td>Book_ID</td> <td>Book_ID</td> </tr> </tbody> </table> | Projection 1 (5) | Union 1 (10) | Order_ID | Initial Order | Order_Date | Order_Date | Quantity | Quantity | Net_Amount | Net_Amount | Book_ID | Book_ID |
| Projection 1 (5) | Union 1 (10) | | | | | | | | | | | | |
| Order_ID | Initial Order | | | | | | | | | | | | |
| Order_Date | Order_Date | | | | | | | | | | | | |
| Quantity | Quantity | | | | | | | | | | | | |
| Net_Amount | Net_Amount | | | | | | | | | | | | |
| Book_ID | Book_ID | | | | | | | | | | | | |

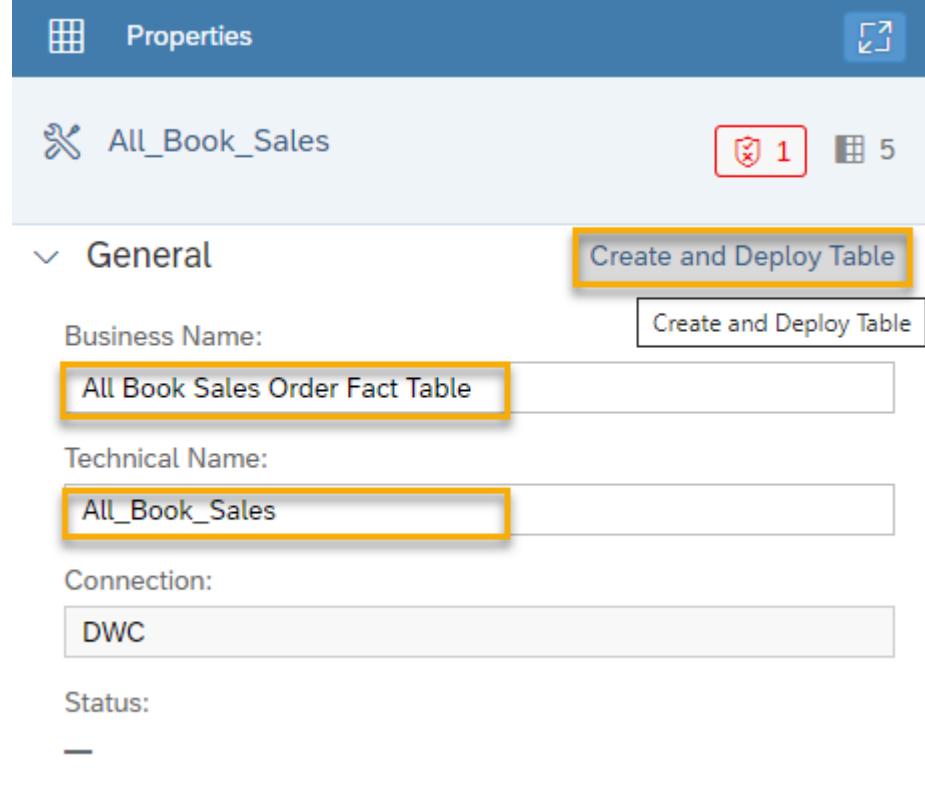
| Explanation | Screenshot | | | | | | | | |
|--|--|---------------|---------------|----------------|----------------|------------------|------------------|------------|------------|
| <p>Delete the columns as shown using the option Delete selected output columns</p> |  <p>The screenshot shows the 'Properties' pane for a 'Union 1' object. At the top right, there are two status indicators: a shield icon with '11' and a grid icon with '10'. Below these, under the 'General' section, is a 'Label' input field containing 'Union 1'. Under 'Union All:', there is a toggle switch labeled 'ON'. In the 'Mappings' section, there are three tabs: 'All' (selected), 'Mapped', and 'Unmapped'. A dropdown menu shows 'Projection 1 (5)' and 'Union 1 (10)'. A context menu is open over the 'Delete selected output columns' option, listing four choices: 'Add all source columns as output columns', 'Add selected source columns as output col...', 'Delete selected output columns' (which is highlighted with a dashed border), and 'Delete all output columns'. Below the menu, the mapping table shows three existing mappings between source columns and target columns.</p> <table border="1"> <thead> <tr> <th>Source Column</th> <th>Target Column</th> </tr> </thead> <tbody> <tr> <td>1..23 Quantity</td> <td>1..23 quantity</td> </tr> <tr> <td>1..23 Net_Amount</td> <td>1..23 net_amount</td> </tr> <tr> <td>AA Book_ID</td> <td>AA Book_ID</td> </tr> </tbody> </table> <p>The bottom part of the screenshot shows a list of available output columns:</p> <ul style="list-style-type: none"> AA order_ID AA order_date AA book_ID 1..23 quantity 1..23 net_amount | Source Column | Target Column | 1..23 Quantity | 1..23 quantity | 1..23 Net_Amount | 1..23 net_amount | AA Book_ID | AA Book_ID |
| Source Column | Target Column | | | | | | | | |
| 1..23 Quantity | 1..23 quantity | | | | | | | | |
| 1..23 Net_Amount | 1..23 net_amount | | | | | | | | |
| AA Book_ID | AA Book_ID | | | | | | | | |

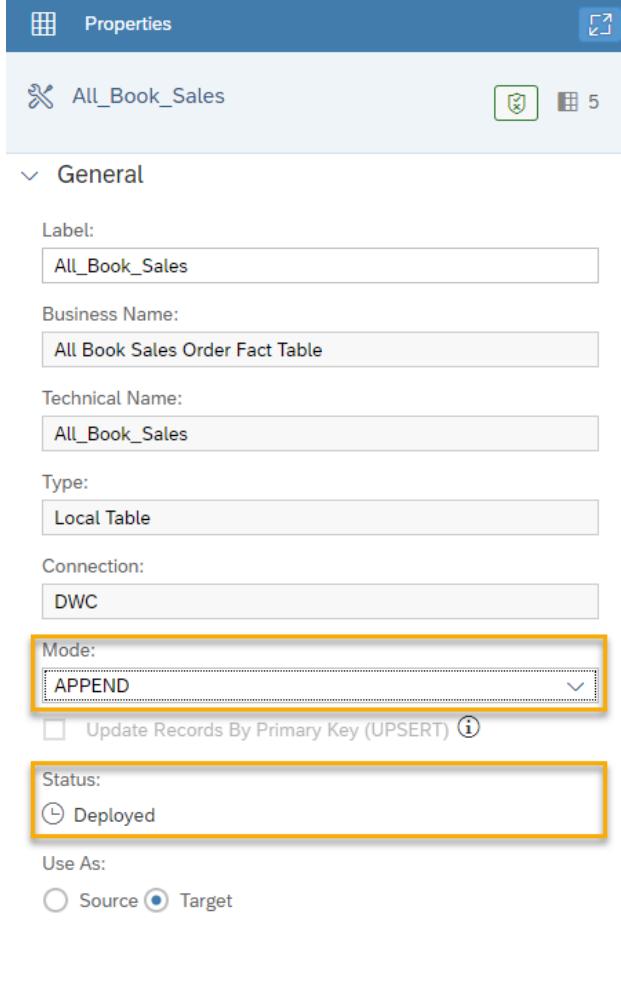
| Explanation | Screenshot | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----------|--------|----------|------------------|-------------|--|--|--|--|-------------|-------------|--|------------|------------|--|--------------------------|--------------------------|--|----------------------------|----------------------------|--|------------|------------|--|
| <p>The output should be as seen here</p> |  <p>The screenshot shows the 'Properties' dialog for 'Union 1'. The 'General' tab is selected, displaying the label 'Union 1' and the 'Union All' setting (ON). The 'Mappings' tab is also visible, showing a comparison between 'Projection 1 (5)' and 'Union 1 (5)'. Arrows indicate a one-to-one mapping between corresponding fields from both sides.</p> <table border="1"> <thead> <tr> <th>All</th> <th>Mapped</th> <th>Unmapped</th> </tr> </thead> <tbody> <tr> <td>Projection 1 (5)</td> <td>Union 1 (5)</td> <td></td> </tr> <tr> <td>Search C... <input type="text"/> ↑↓</td> <td>Search C... <input type="text"/> ↑↓</td> <td></td> </tr> <tr> <td>AA Order_ID</td> <td>AA Order_ID</td> <td></td> </tr> <tr> <td>Order_Date</td> <td>Order_Date</td> <td></td> </tr> <tr> <td>1²³ Quantity</td> <td>1²³ Quantity</td> <td></td> </tr> <tr> <td>1²³ Net_Amount</td> <td>1²³ Net_Amount</td> <td></td> </tr> <tr> <td>AA Book_ID</td> <td>AA Book_ID</td> <td></td> </tr> </tbody> </table> | All | Mapped | Unmapped | Projection 1 (5) | Union 1 (5) | | Search C... <input type="text"/> ↑↓ | Search C... <input type="text"/> ↑↓ | | AA Order_ID | AA Order_ID | | Order_Date | Order_Date | | 1 ²³ Quantity | 1 ²³ Quantity | | 1 ²³ Net_Amount | 1 ²³ Net_Amount | | AA Book_ID | AA Book_ID | |
| All | Mapped | Unmapped | | | | | | | | | | | | | | | | | | | | | | | |
| Projection 1 (5) | Union 1 (5) | | | | | | | | | | | | | | | | | | | | | | | | |
| Search C... <input type="text"/> ↑↓ | Search C... <input type="text"/> ↑↓ | | | | | | | | | | | | | | | | | | | | | | | | |
| AA Order_ID | AA Order_ID | | | | | | | | | | | | | | | | | | | | | | | | |
| Order_Date | Order_Date | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 ²³ Quantity | 1 ²³ Quantity | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 ²³ Net_Amount | 1 ²³ Net_Amount | | | | | | | | | | | | | | | | | | | | | | | | |
| AA Book_ID | AA Book_ID | | | | | | | | | | | | | | | | | | | | | | | | |

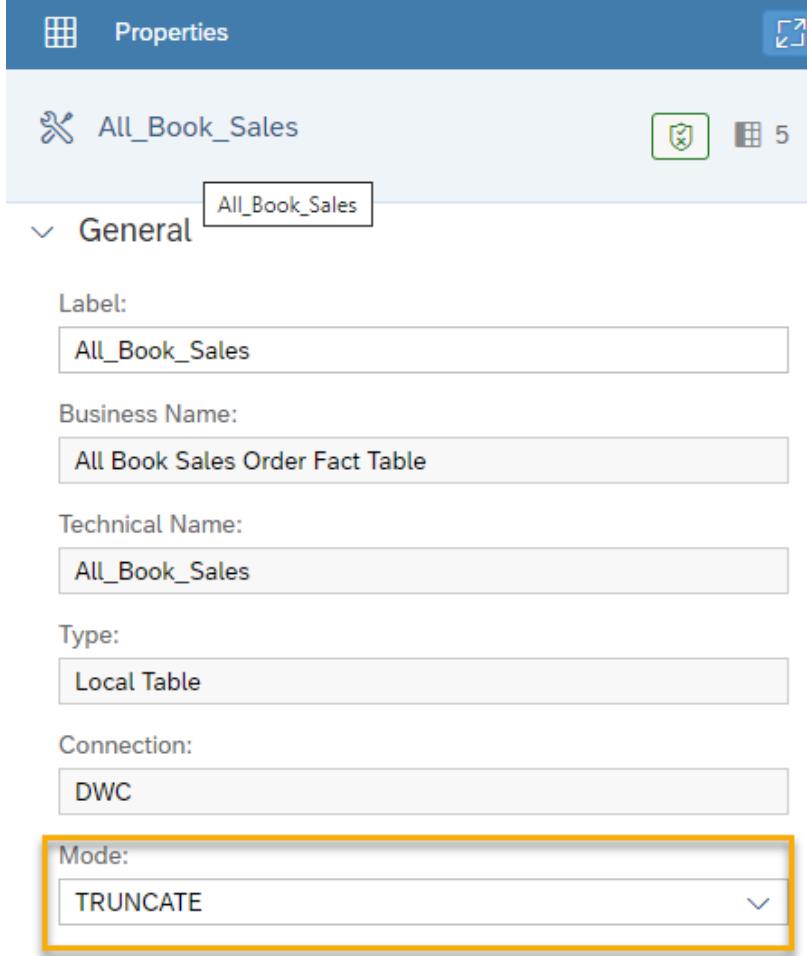
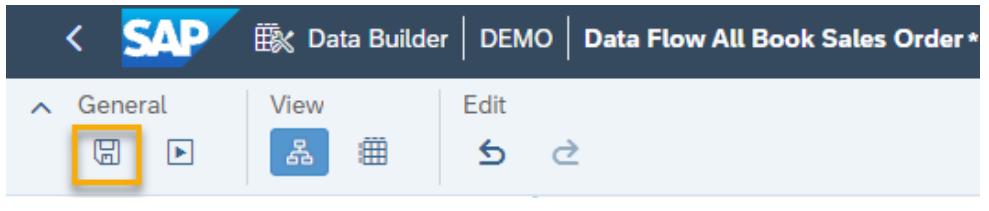
| Explanation | Screenshot |
|---|--|
| |  <p>The screenshot shows the 'Properties' window for 'Union 1'. Under the 'General' tab, the 'Label' is set to 'Union 1'. The 'Union All' option is turned 'ON'. In the 'Mappings' section, there are two tables: 'BL_sales_archived...' (left) and 'Union 1 (5)' (right). Mappings are shown for columns: 'order_ID' maps to 'Order_ID', 'order_date' maps to 'Order_Date', 'book_ID' maps to 'Quantity' (with a 1:23 ratio), 'quantity' maps to 'Net_Amount' (with a 1:23 ratio), and 'net_amount' maps to 'Book_ID'.</p> |
| Navigate to the Operator section and select Add Table |  <p>The screenshot shows the operator toolbar with various icons: Operators, Union, Intersection, Difference, Sum, Product, and a highlighted 'Add Table' icon.</p> |

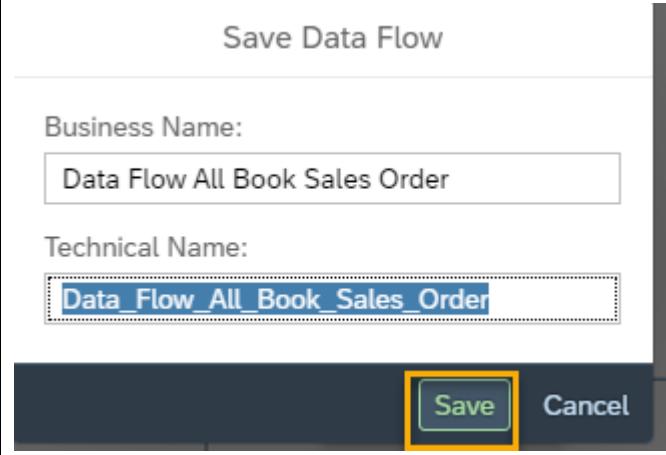
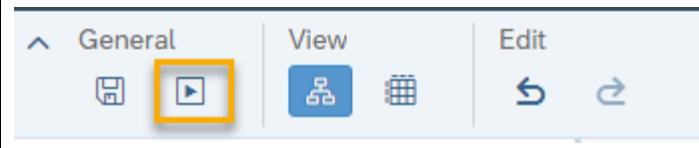
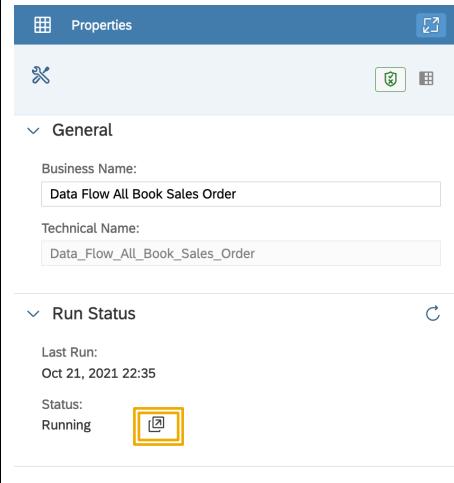
| Explanation | Screenshot |
|----------------------------------|------------|
| Drag it to the central canvas | |
| Connect the Union 1 to the Table | |
| Rename the Projection | |

| Explanation | Screenshot |
|-----------------------------|--|
| New Name P_CSalesDocItem |  <p>The screenshot shows the 'Properties' dialog for 'Projection 1'. Under the 'General' tab, the 'Label' field contains the value 'P_C_SALESDOCITEM'.</p> |
| Repeat for Union |  <p>The screenshot shows the 'Properties' dialog for 'U_SalesDoc_Archive'. Under the 'General' tab, the 'Label' field contains the value 'U_SALESDOC_ARCH'.</p> |

| Explanation | Screenshot |
|---|--|
| <p>You must Deploy the table Provide a Business Name: All Book Sales Order Fact Table and Technical name: All_Book_Sales for the Table</p> <p>Click Create and Deploy</p> |  <p>All_Book_Sales</p> <p>1 5</p> <p>General</p> <p>Business Name: All Book Sales Order Fact Table</p> <p>Technical Name: All_Book_Sales</p> <p>Connection: DWC</p> <p>Status: —</p> <p>Create and Deploy Table</p> |
| <p>Click the Create and Deploy button</p> | <p>i Information</p> <p>The target table 'All_Book_Sales' will be created and deployed in your repository with all the output columns added to the target.</p> <p>Create and Deploy Close</p> |

| Explanation | Screenshot |
|----------------------------------|---|
| <p>Check the Mode and Status</p> |  <p>The screenshot shows the 'Properties' dialog for the 'All_Book_Sales' fact table. The 'Mode' dropdown is set to 'APPEND' and is highlighted with a yellow box. The 'Status' dropdown is set to 'Deployed' and is also highlighted with a yellow box. Other visible fields include 'Label' (All_Book_Sales), 'Business Name' (All Book Sales Order Fact Table), 'Technical Name' (All_Book_Sales), 'Type' (Local Table), 'Connection' (DWC), and a checkbox for 'Update Records By Primary Key (UPSERT)'.</p> |

| Explanation | Screenshot |
|---|---|
| <p>Change the mode to TRUNCATE, which will truncate the existing records in the table before writing new records.</p> |  <p>The screenshot shows the SAP Data Builder Properties dialog for a table named 'All_Book_Sales'. The 'Mode' dropdown, located under the 'General' tab, is highlighted with a yellow box and contains the value 'TRUNCATE'. Other visible fields include 'Label' (All_Book_Sales), 'Business Name' (All Book Sales Order Fact Table), 'Technical Name' (All_Book_Sales), 'Type' (Local Table), and 'Connection' (DWC).</p> |
| Click Save |  <p>The screenshot shows the SAP Data Builder ribbon with the 'General' tab selected. The tabs shown are General, View, and Edit. The title bar indicates the current view is 'Data Flow All Book Sales Order *'.</p> |

| Explanation | Screenshot |
|--|--|
| Provide the Business and Technical Name and Click Save |  <p>Save Data Flow</p> <p>Business Name: Data Flow All Book Sales Order</p> <p>Technical Name: Data_Flow_All_Book_Sales_Order</p> <p>Save Cancel</p> |
| Check Status |  <p>Data Flow saved successfully.</p> |
| Click on the Play button Icon to execute the Data flow |  <p>General View Edit</p> <p>Play</p> |
| The status becomes Running. Click the Arrow icon next the status to navigate to Data Flow Monitor about the execution details. |  <p>Properties</p> <p>General</p> <p>Business Name: Data Flow All Book Sales Order</p> <p>Technical Name: Data_Flow_All_Book_Sales_Order</p> <p>Run Status</p> <p>Last Run: Oct 21, 2021 22:35</p> <p>Status: Running</p> |

Explanation

In the Data Flow Monitor, you see the details about historic running, and click the Refresh button to see detailed message about the execution.

Once the status become completed, the record count of the sources and target table All_Book_Sales will be listed on Metrics.

Click Open in Data Flow Builder at the top right, where you can preview the data in the target table All_Books_Sales

Select All_Book_Sales table, and click Preview Data. Then it shows 1000 records in the Data Preview.

Screenshot

The screenshot shows the SAP Data Integration Monitor interface. In the top right corner, there is a button labeled "Open in Data Flow Builder". The "Run Details" section shows a completed run from Oct 21, 2021, at 22:35, with a duration of 22:36. The "Metrics" section displays the record counts for various operators and tables:

| Operator Label | Type | Record Count |
|--------------------------|--------|--------------|
| C_SALESDOCUMENTITEMINDEX | Source | 24323 |
| All_Book_Sales | Target | 248602 |
| BL_sales_archived.csv | Source | 224279 |

