How to Create a Basic Analytical Report in SAP S/4HANA Public Cloud - Part-1

August 29, 2026 | SAP, RAP, ABAP, Analytical Report, Public Cloud, ABAP

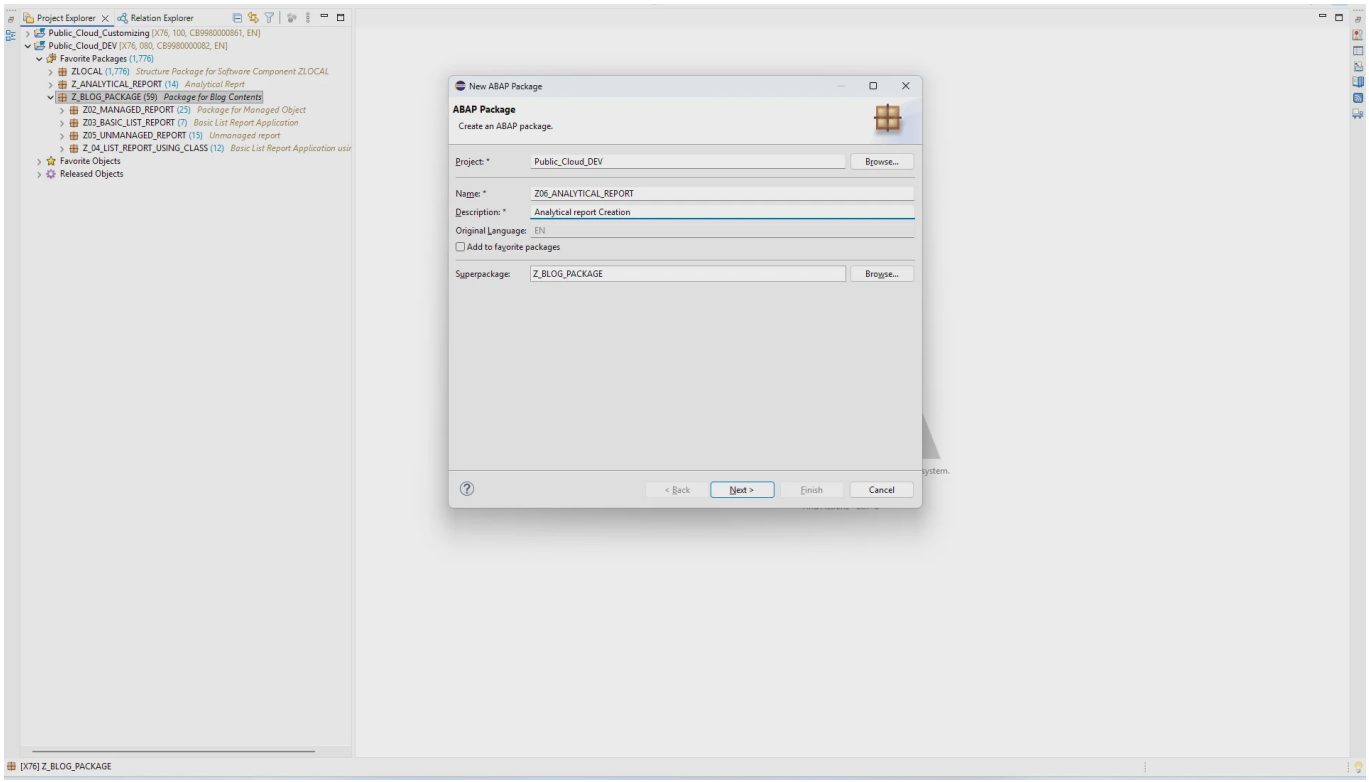


Introduction

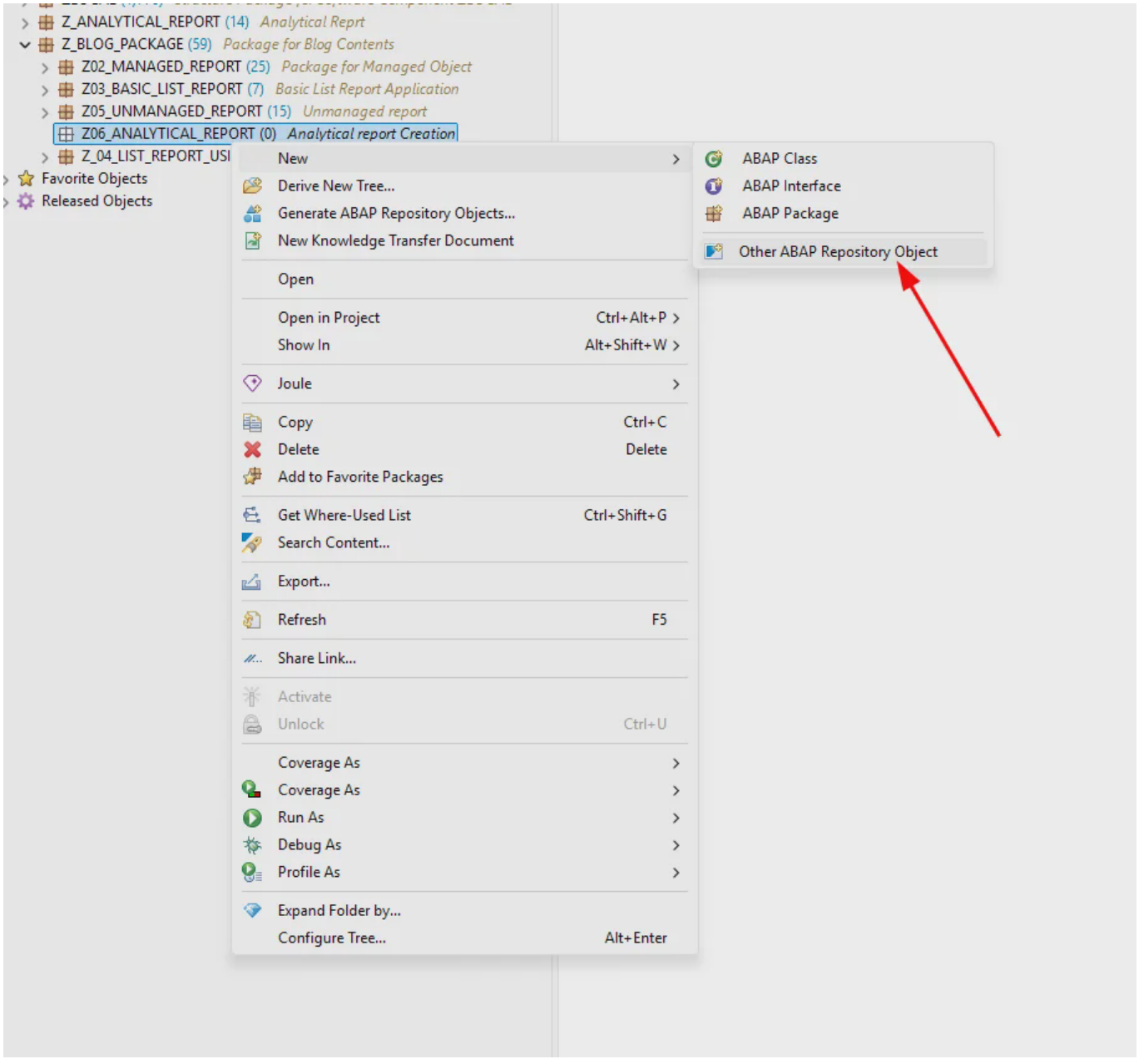
In this post, we'll build an analytical RAP report -- a report that includes aggregation, giving us running totals at the bottom of the list. This is a common client requirement: showing totals for amount fields directly in the list report, rather than requiring users to calculate them manually.

Step 1: Create the Package

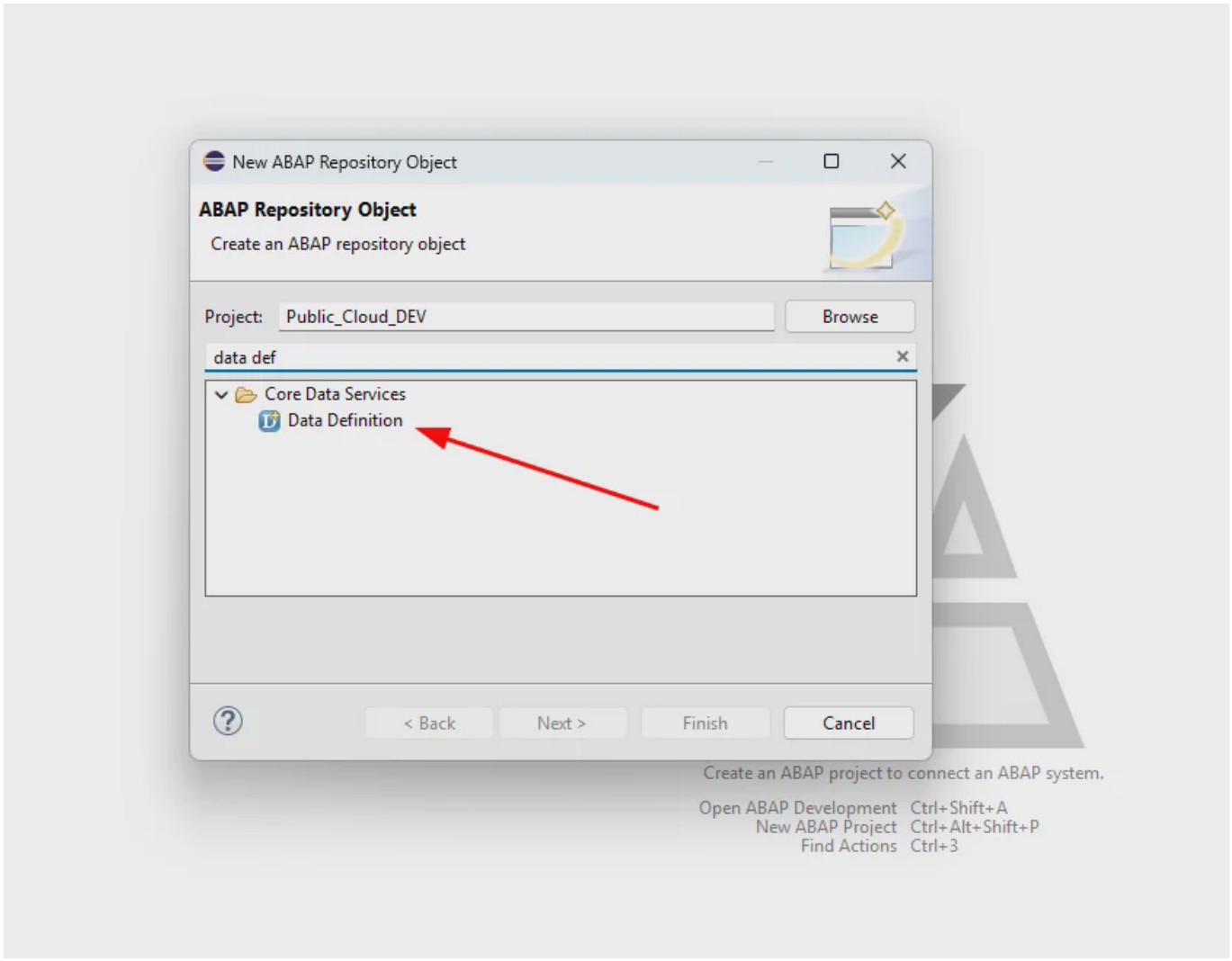
As always, we'll start by creating a new ABAP package (you can reuse an existing one if you prefer).



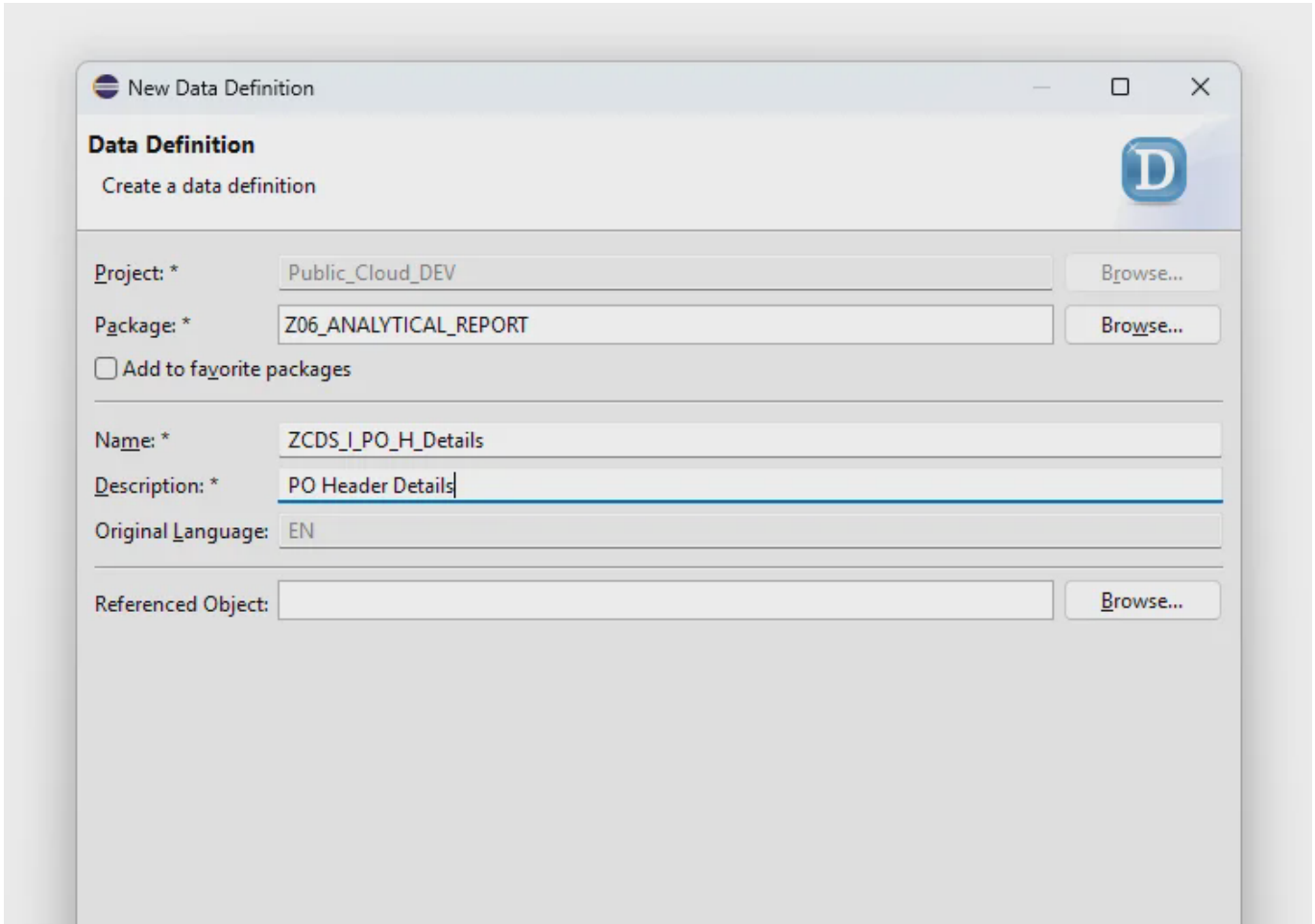
As in my previous post, we'll begin with a new data definition for our interface view.



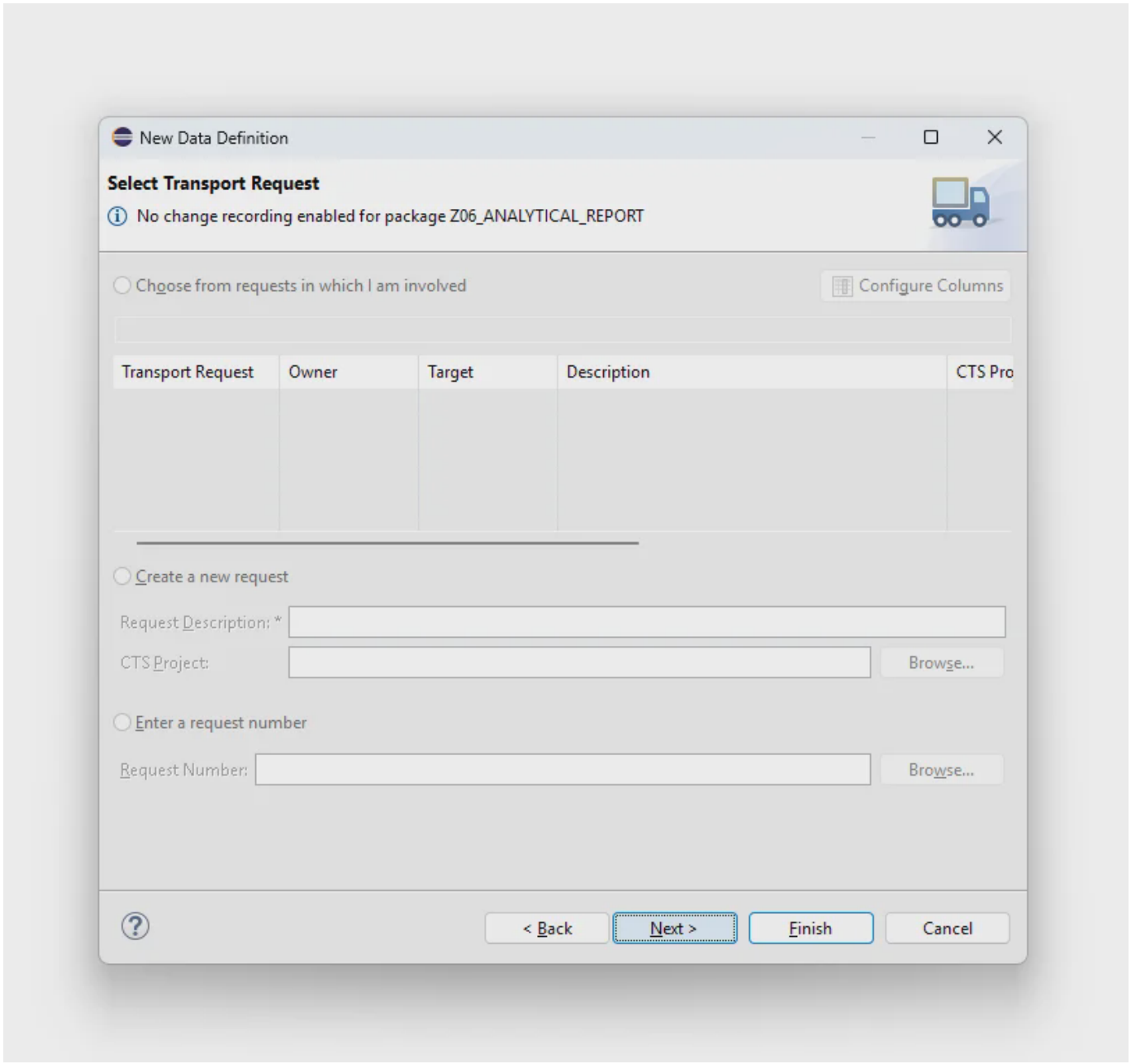
Search for **Data Definition**.



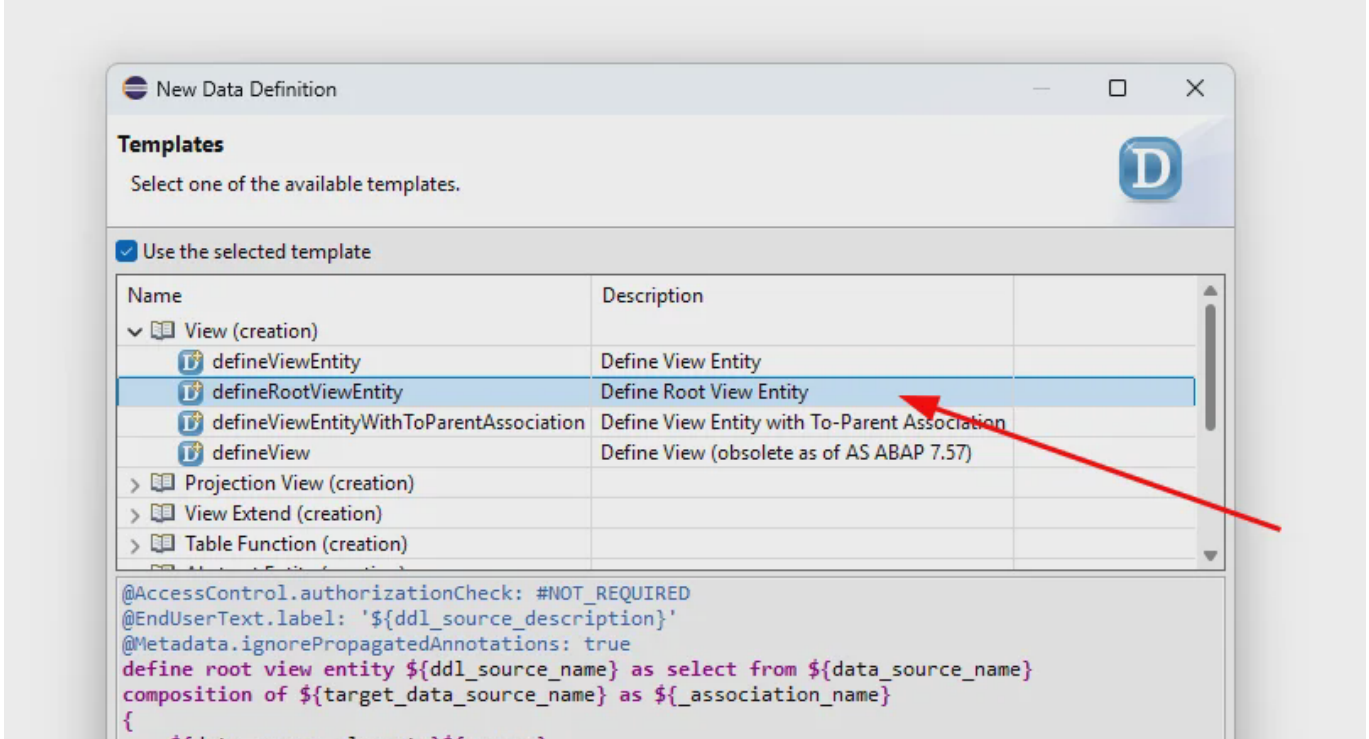
Enter a name and description.



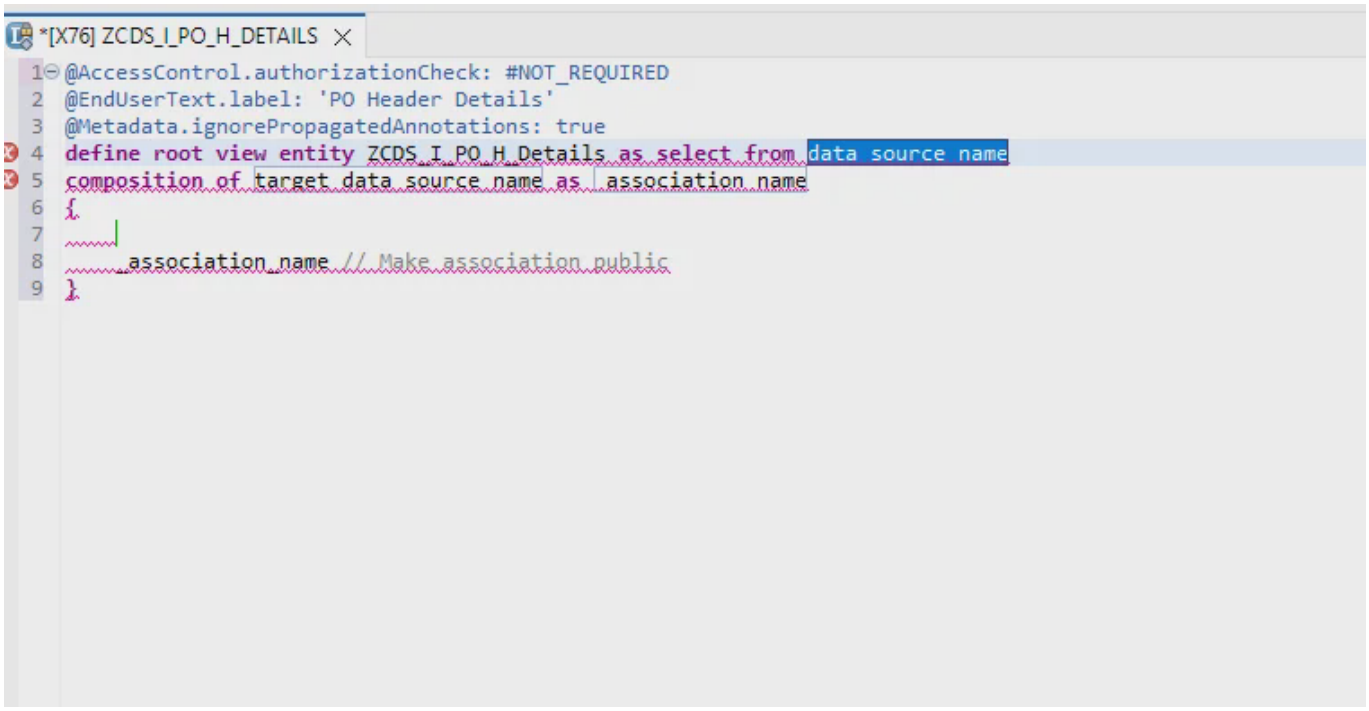
Select your transport request.



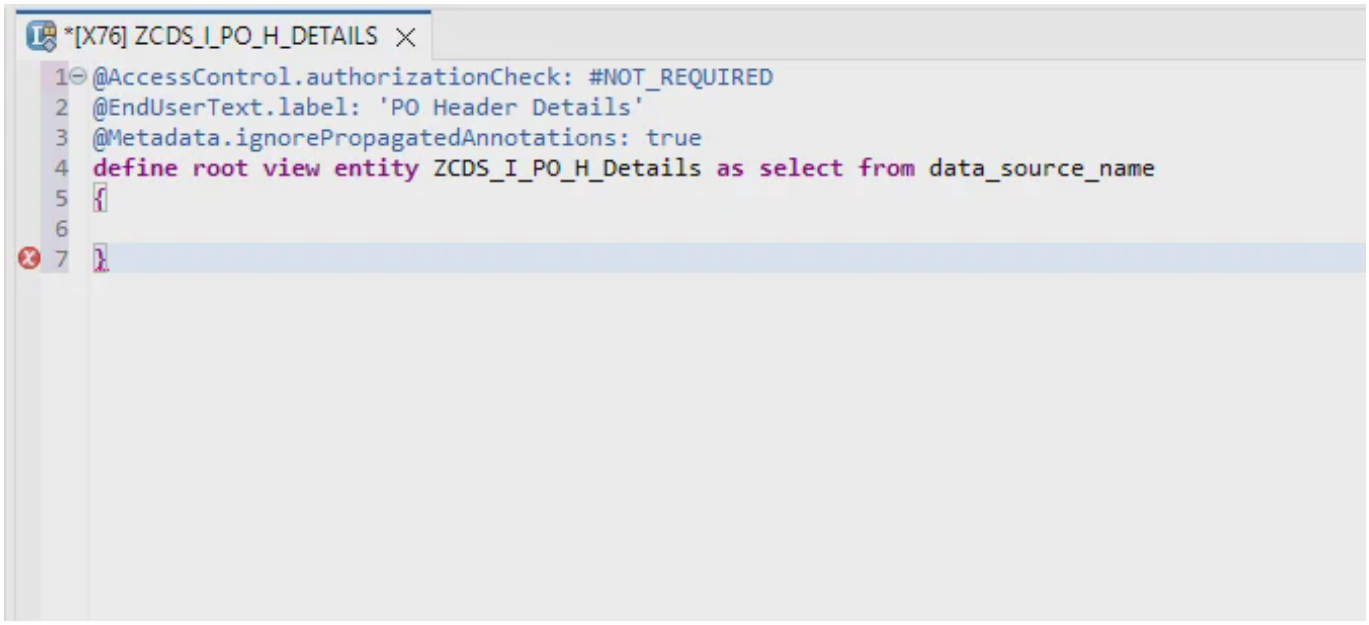
Click **Next** and select **Root View Entity**.



This generates boilerplate code for us to work from.



Remove the parts we don't need.

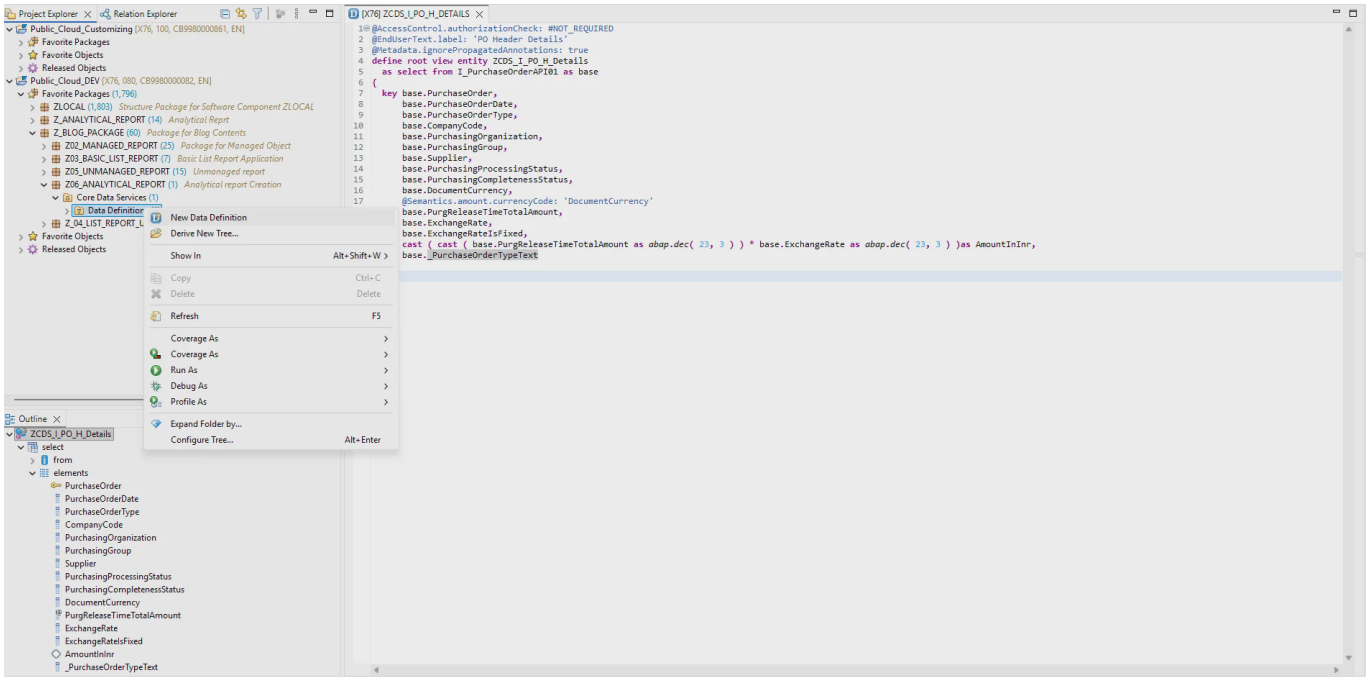


Add the required fields and activate the CDS view.

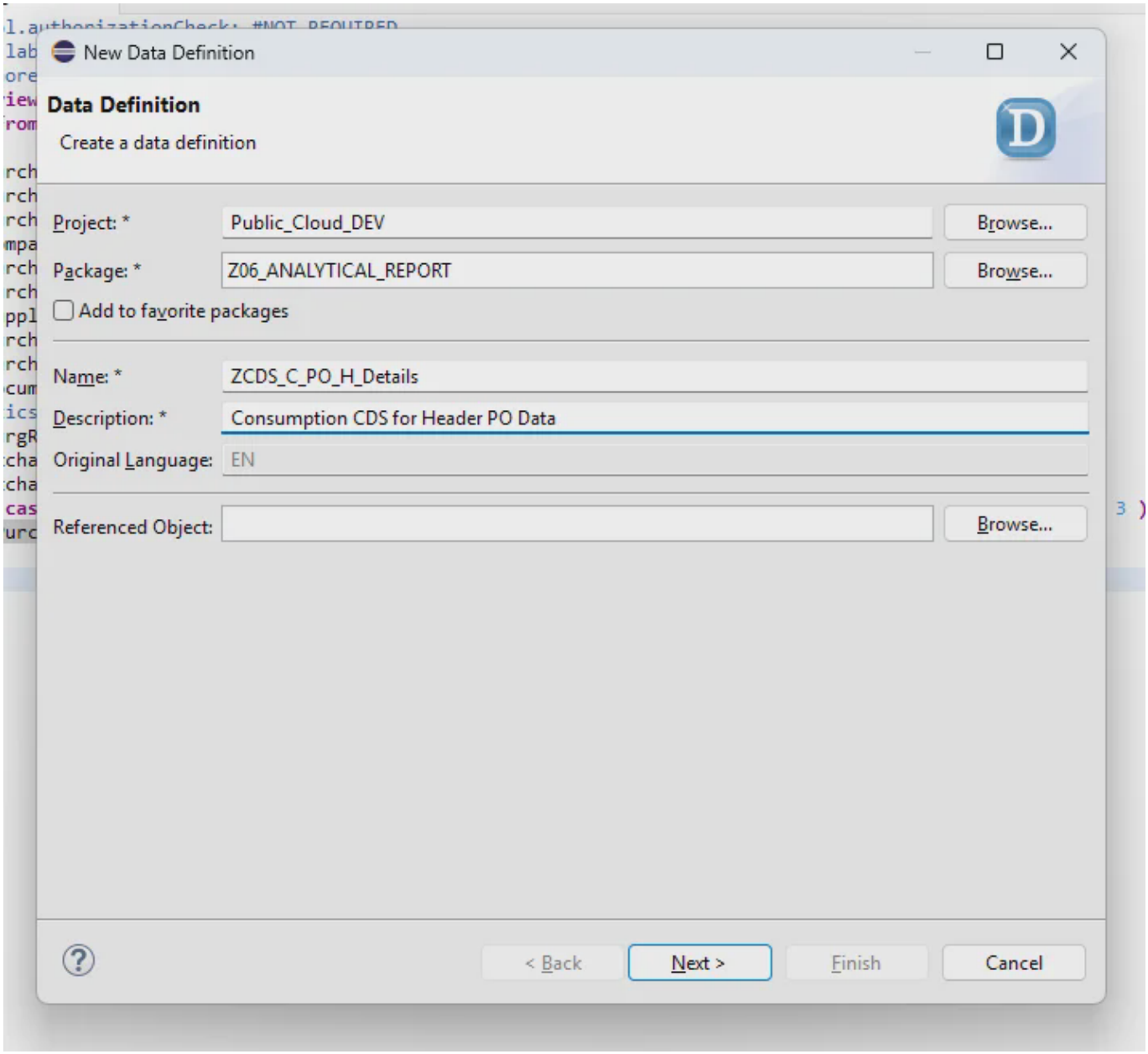
```
*[X76] ZCDS_I_PO_H_DETAILS
@AccessControl.authorizationCheck: #NOT_REQUIRED
@EndUserText.label: 'PO Header Details'
@Metadata.ignorePropagatedAnnotations: true
define root view entity ZCDS_I_PO_H_Details
  as select from I_PurchaseOrderAPI01 as base
{
  key base.PurchaseOrder,
      base.PurchaseOrderDate,
      base.PurchaseOrderType,
      base.CompanyCode,
      base.PurchasingOrganization,
      base.PurchasingGroup,
      base.Supplier,
      base.PurchasingProcessingStatus,
      base.PurchasingCompletenessStatus,
      base.DocumentCurrency,
      @Semantics.amount.currencyCode: 'DocumentCurrency'
      base.PurgReleaseTimeTotalAmount,
      base.ExchangeRate,
      base.ExchangeRateIsFixed,
      cast ( cast ( base.PurgReleaseTimeTotalAmount as abap.dec( 23, 3 ) ) * base.ExchangeRate as abap.dec( 23, 3 ) )as AmountInInr,
      base._PurchaseOrderTypeText
}
```

Step 2: Create the Consumption View

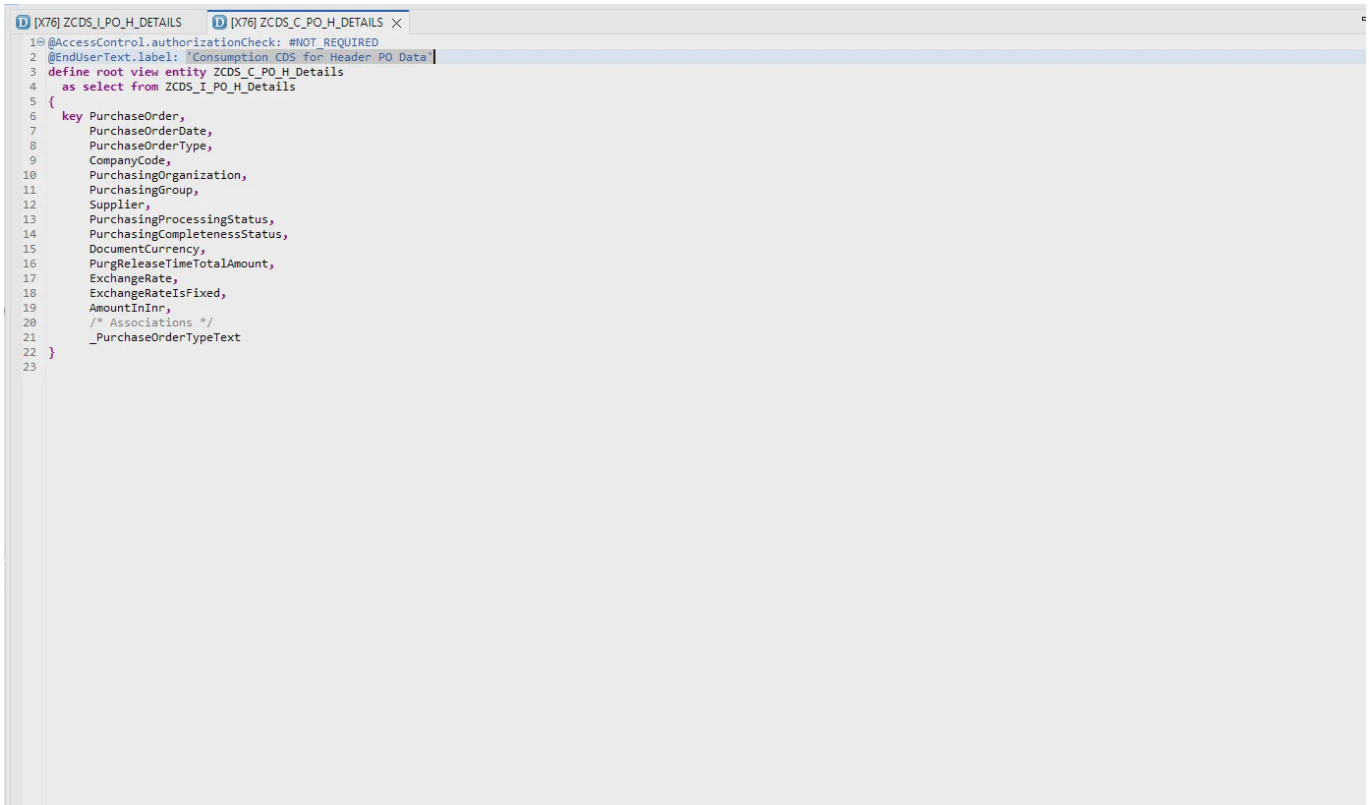
Next, create the consumption view.



Fill in the details.

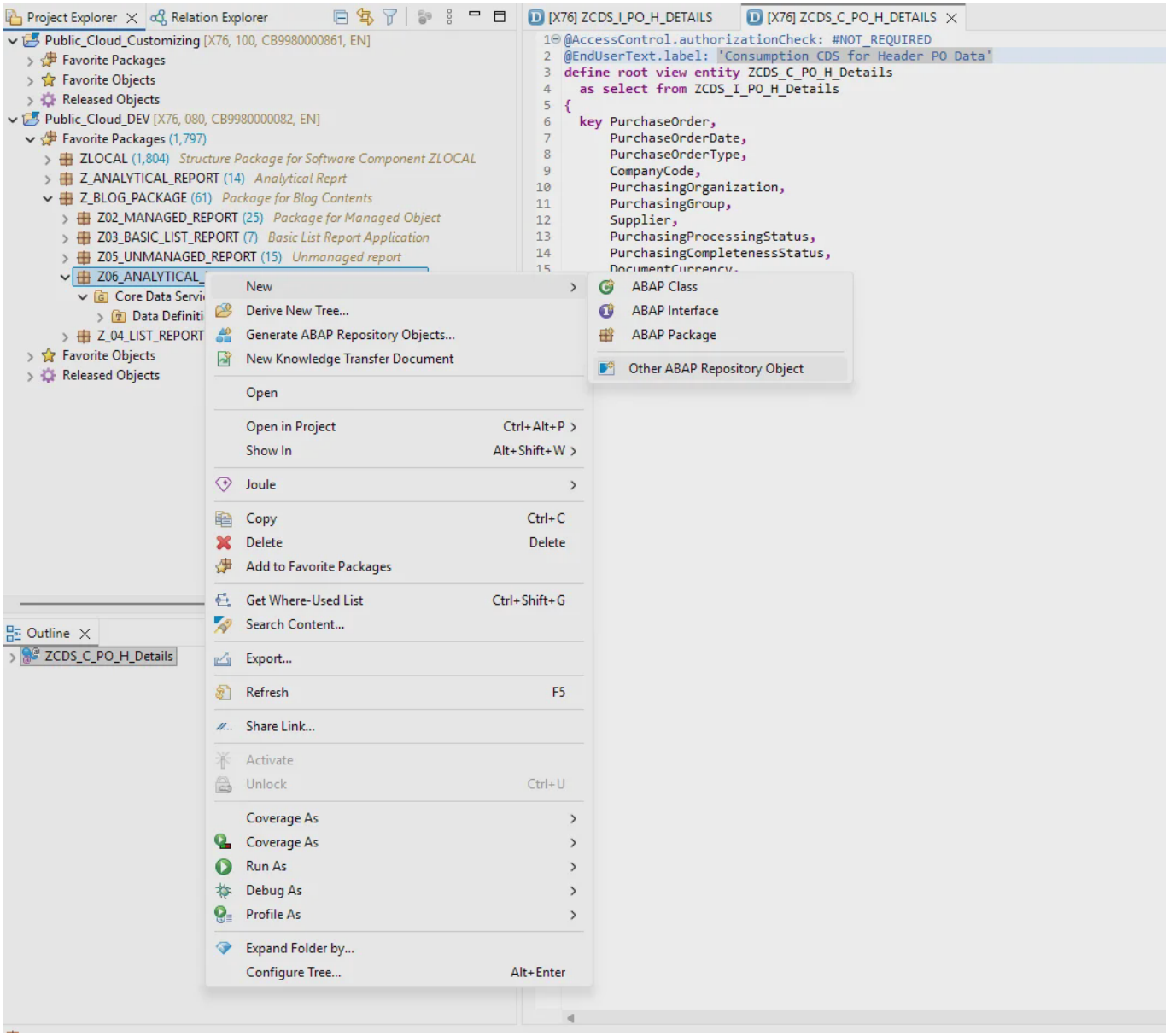


Add all the required elements.

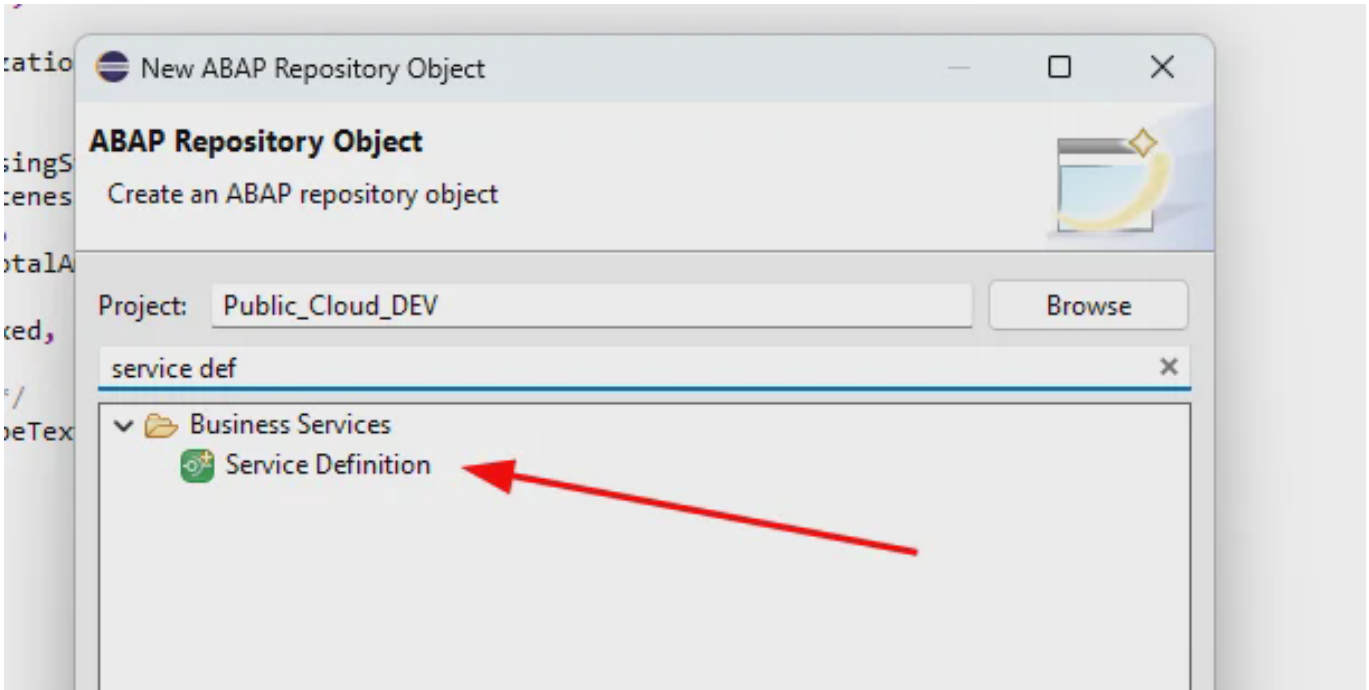


Step 3: Create a Service Definition and Preview the App

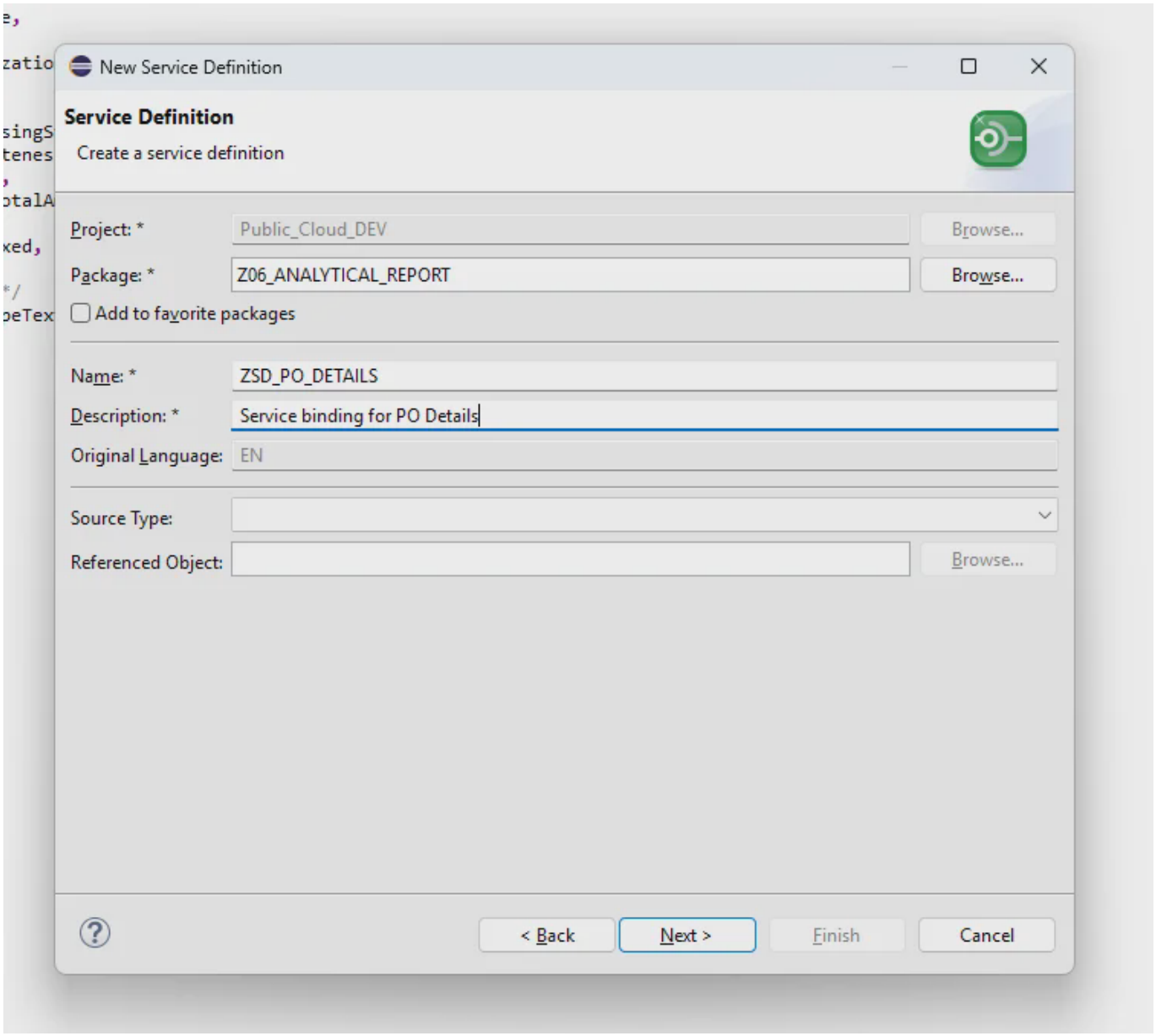
To preview our work so far, let's quickly create a service definition.



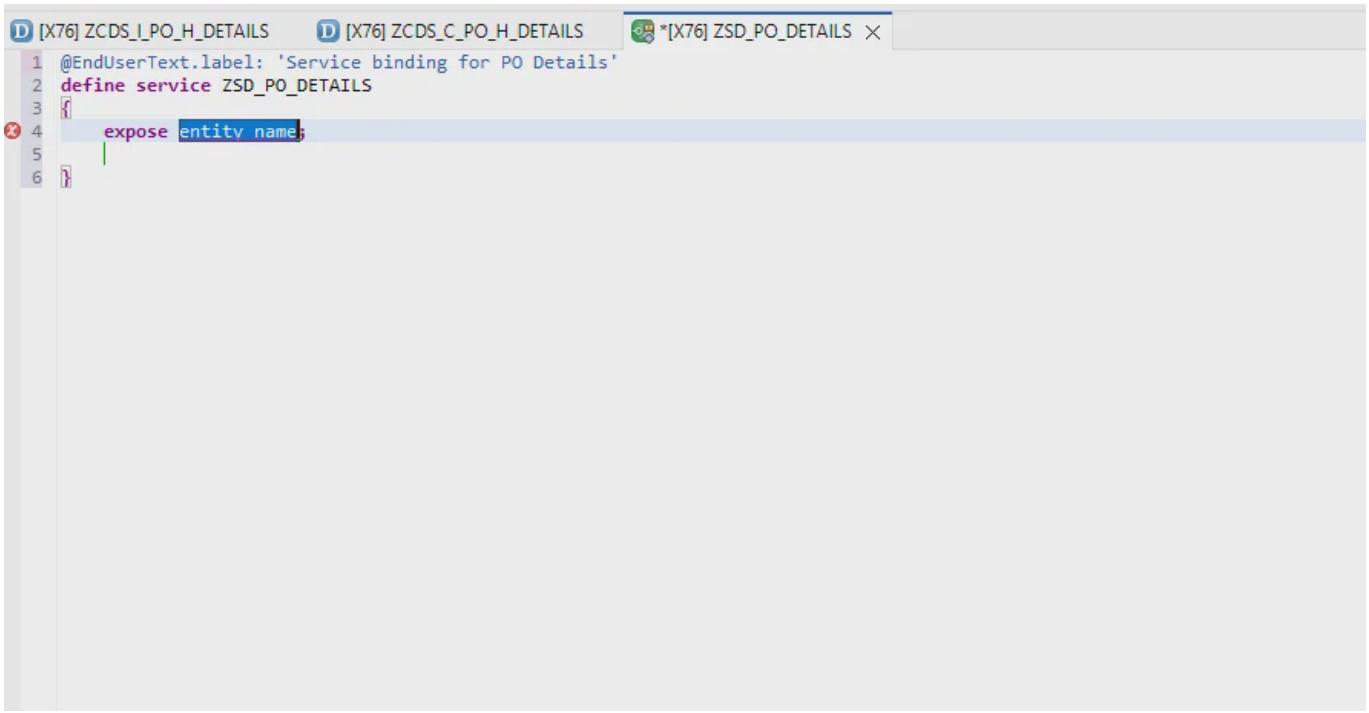
Select **Service Definition**.



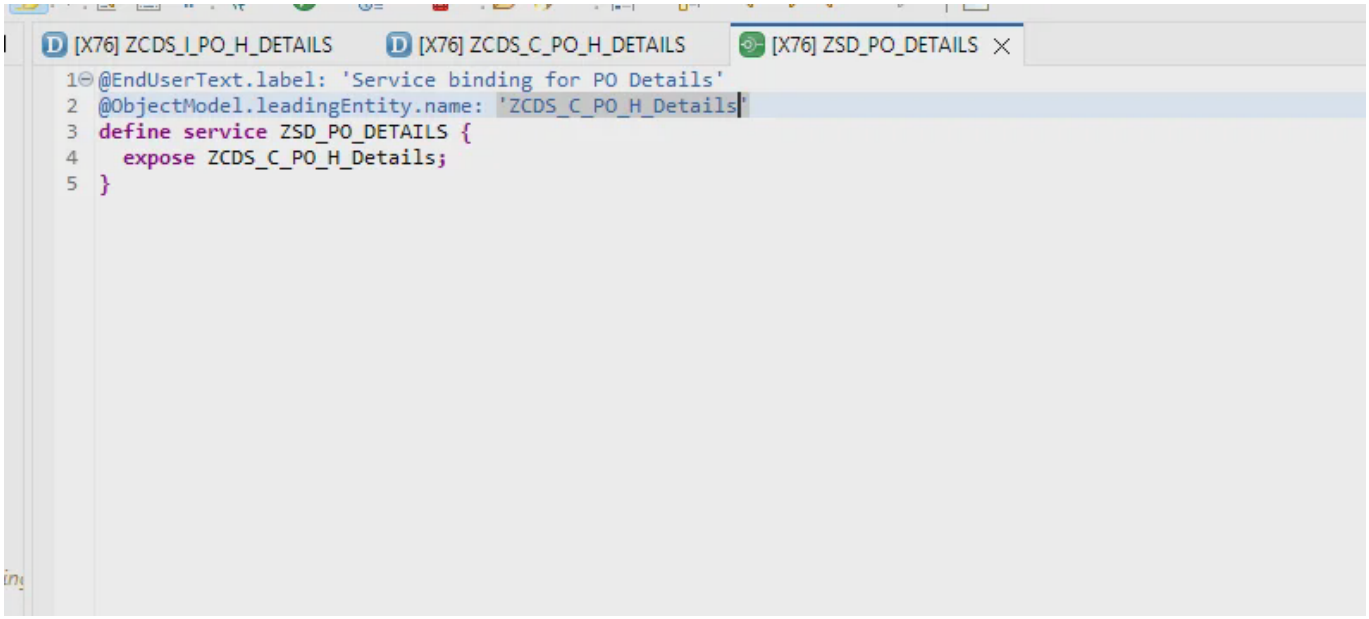
Fill in the details.



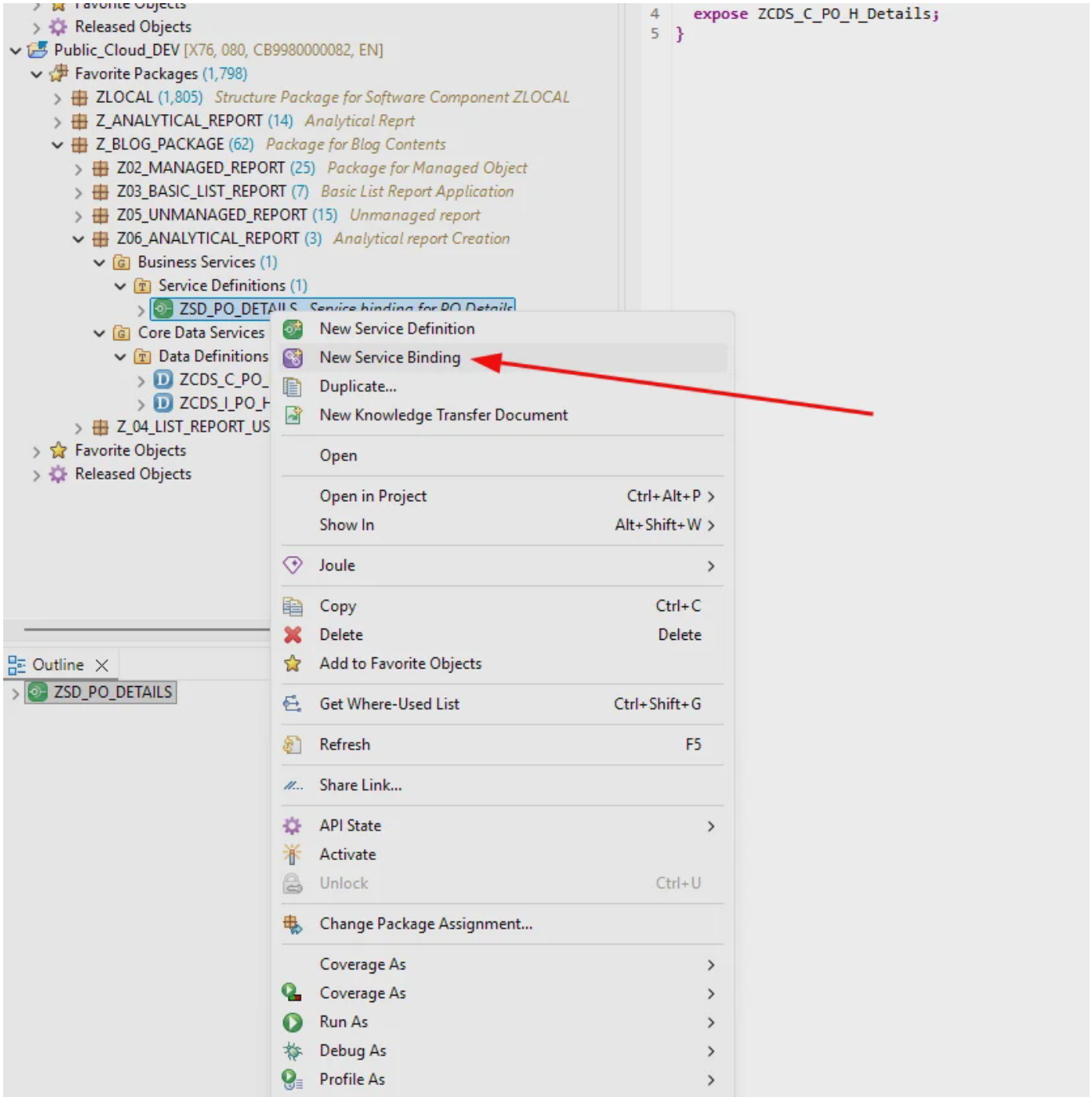
This gives us boilerplate code to start from.



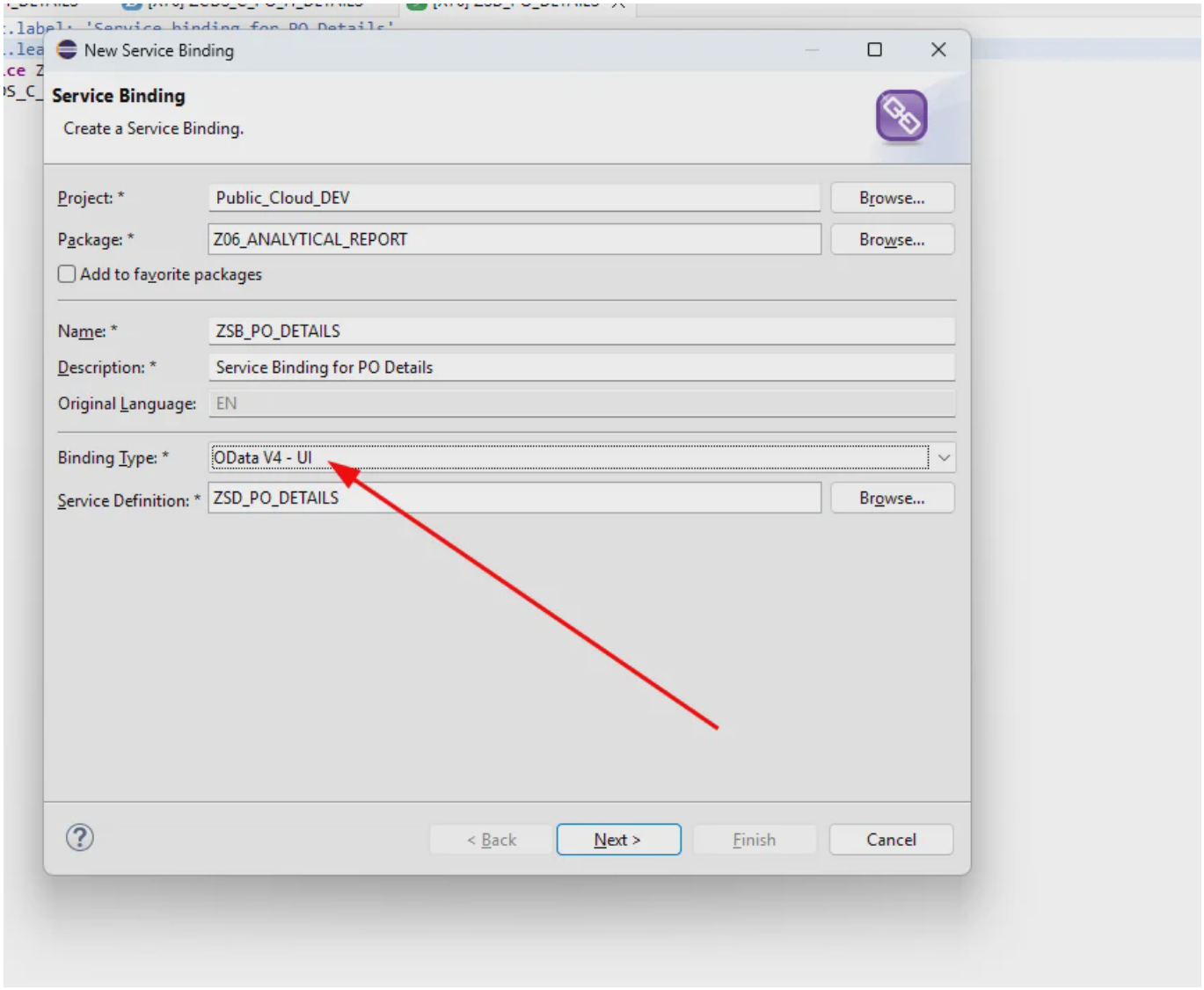
Add our CDS view and set it as the leading entity. The leading entity matters when multiple CDS views are exposed through the same service definition -- it defines which one acts as the default.



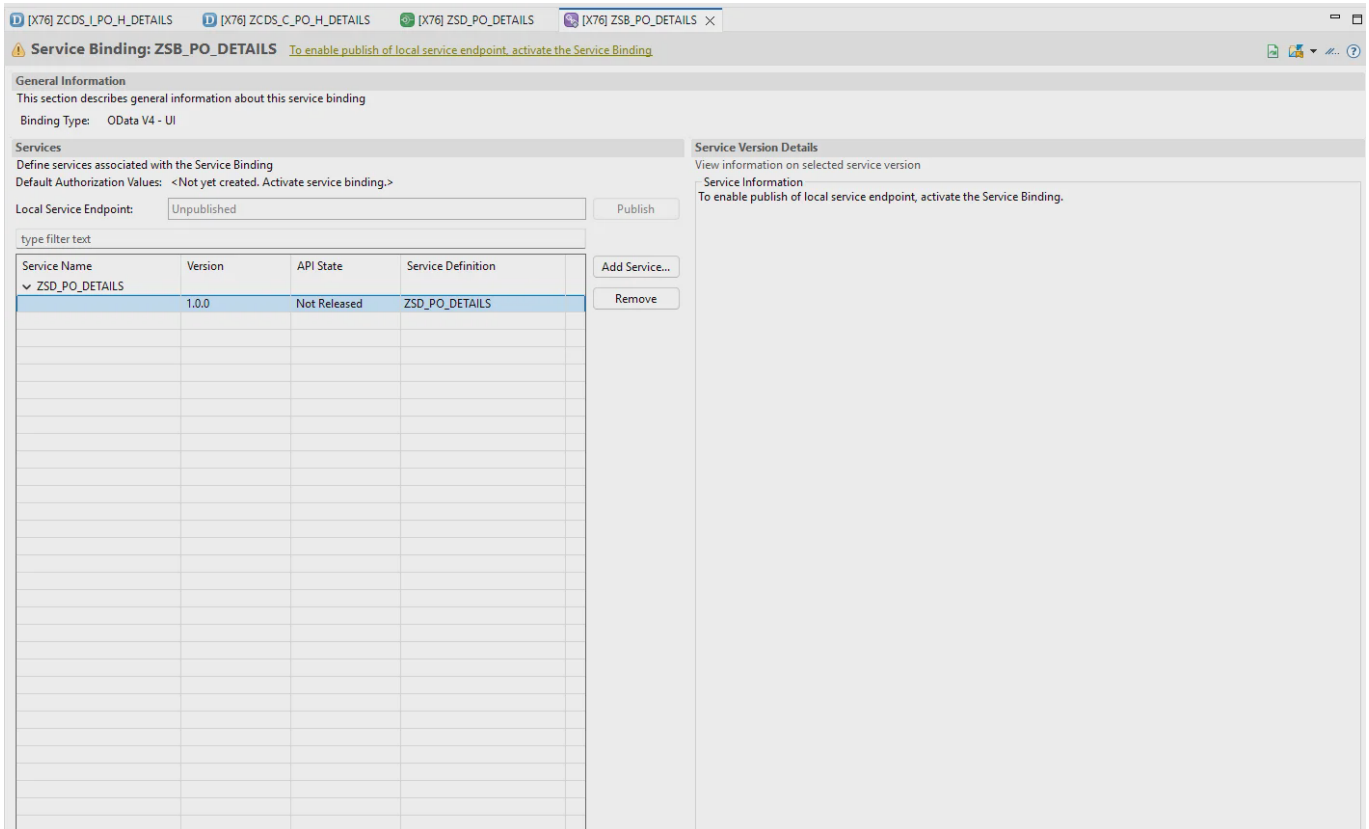
Right-click the service definition and create a service binding.



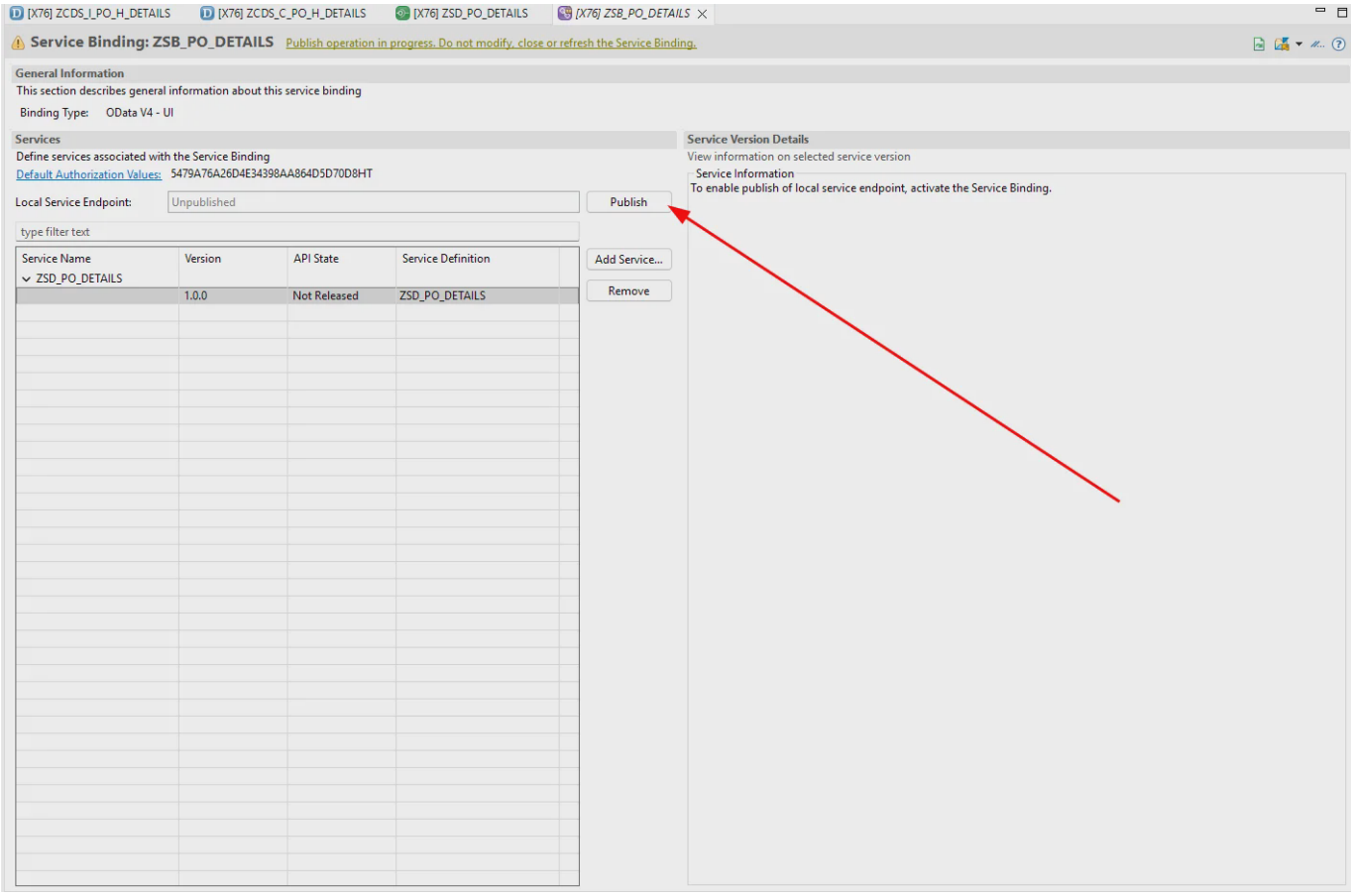
We'll select **OData V4 - UI**, since we're building a UI application. **OData V2 - UI** is also available, but V4 is the newer, more feature-complete, and better-optimized option, so it's the recommended choice.



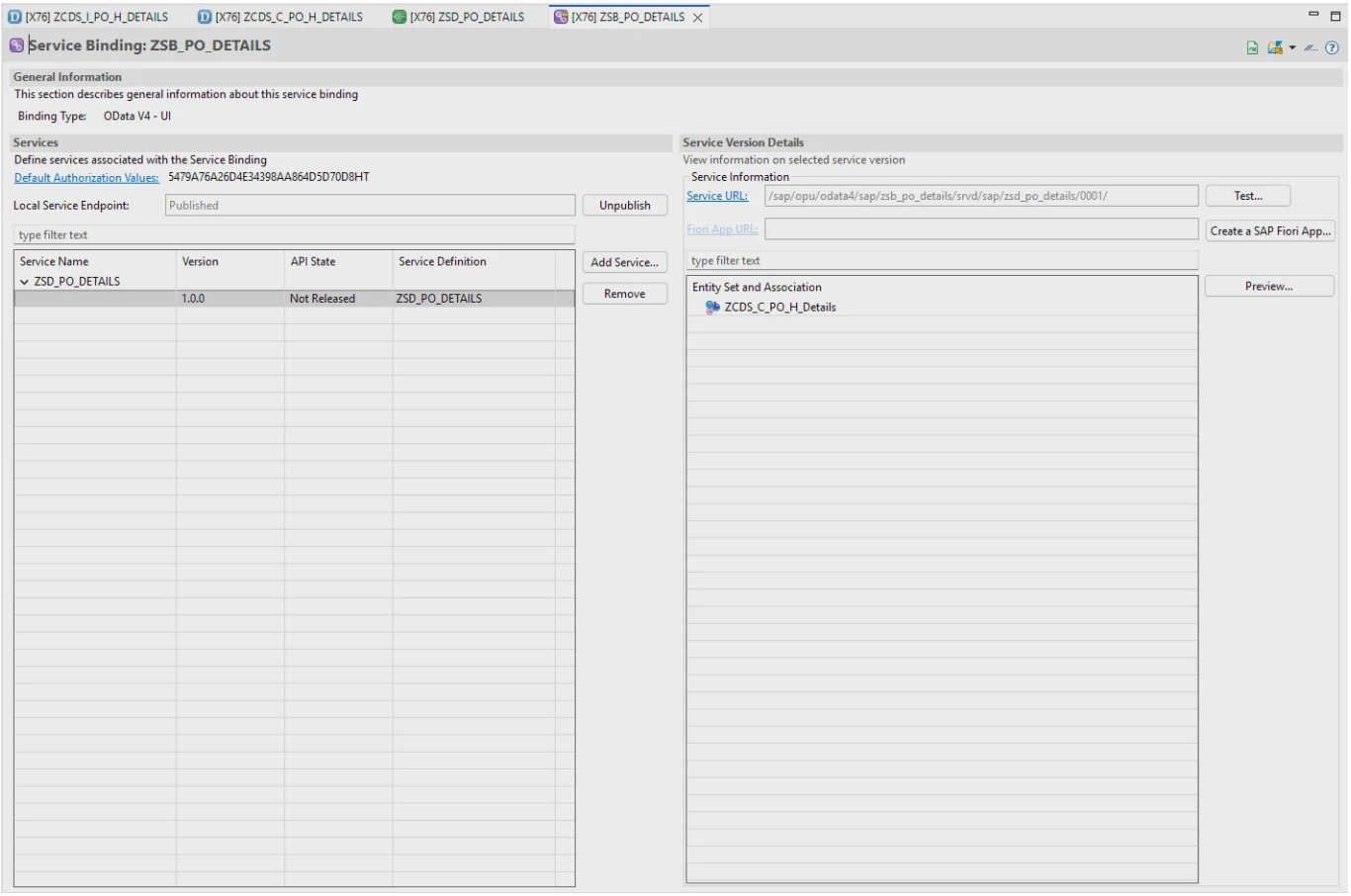
After creation, the **Publish** button will be greyed out -- this is because the service binding hasn't been activated yet.



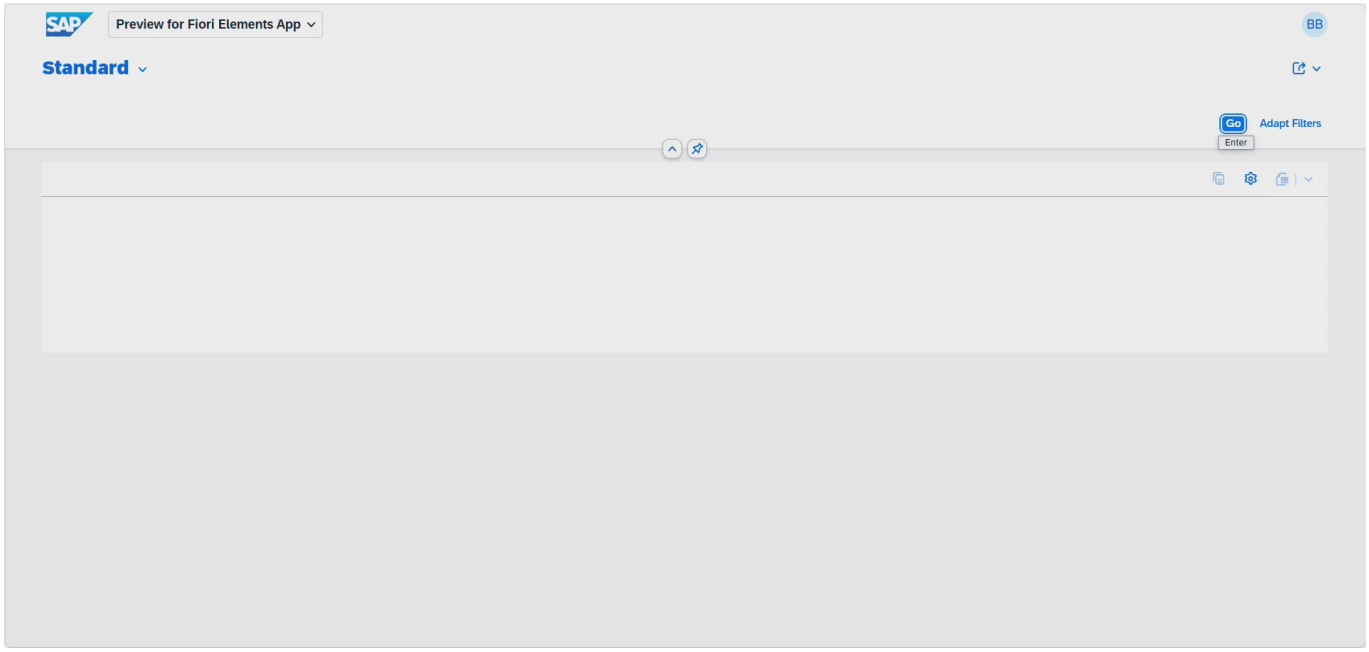
Activate the service binding and click **Publish**.



Once publishing completes, select the entity set and click **Preview**.

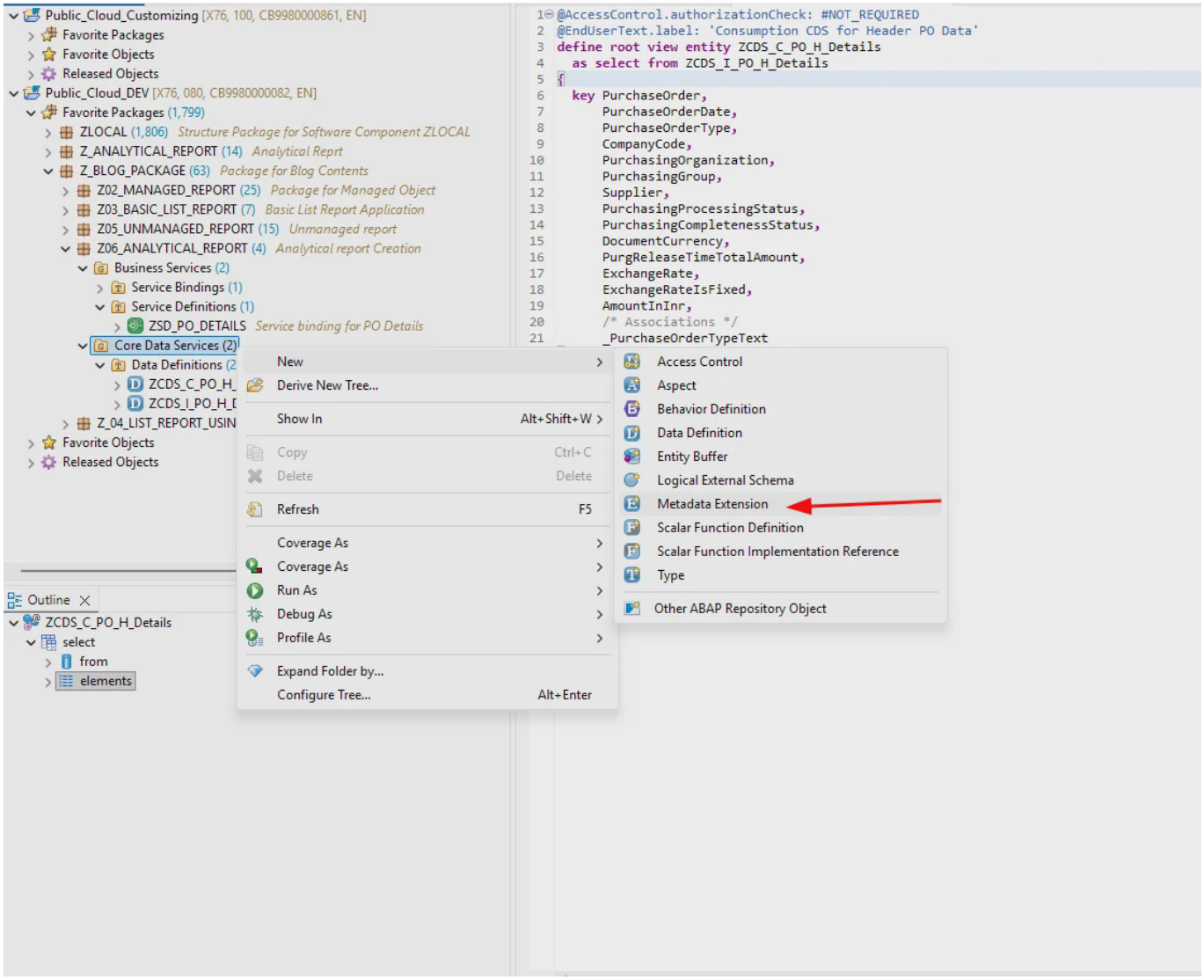


Here's what the report looks like initially, before any annotations are applied.

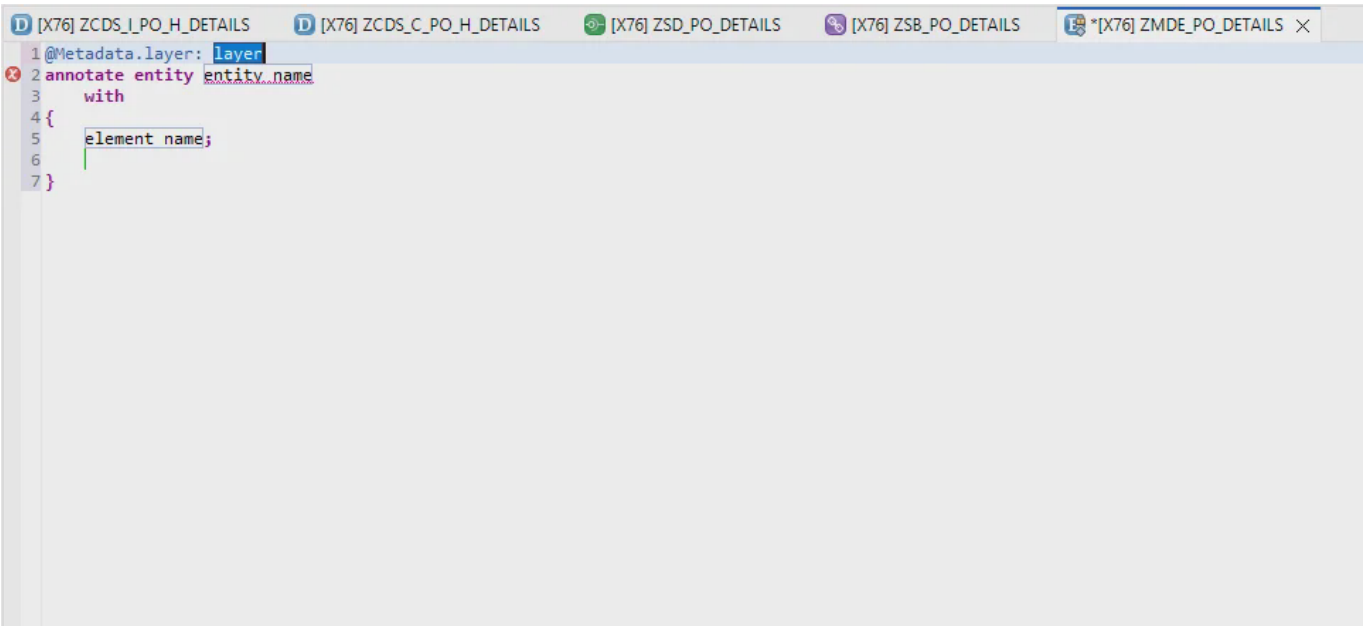


Step 4: Add Metadata Annotations

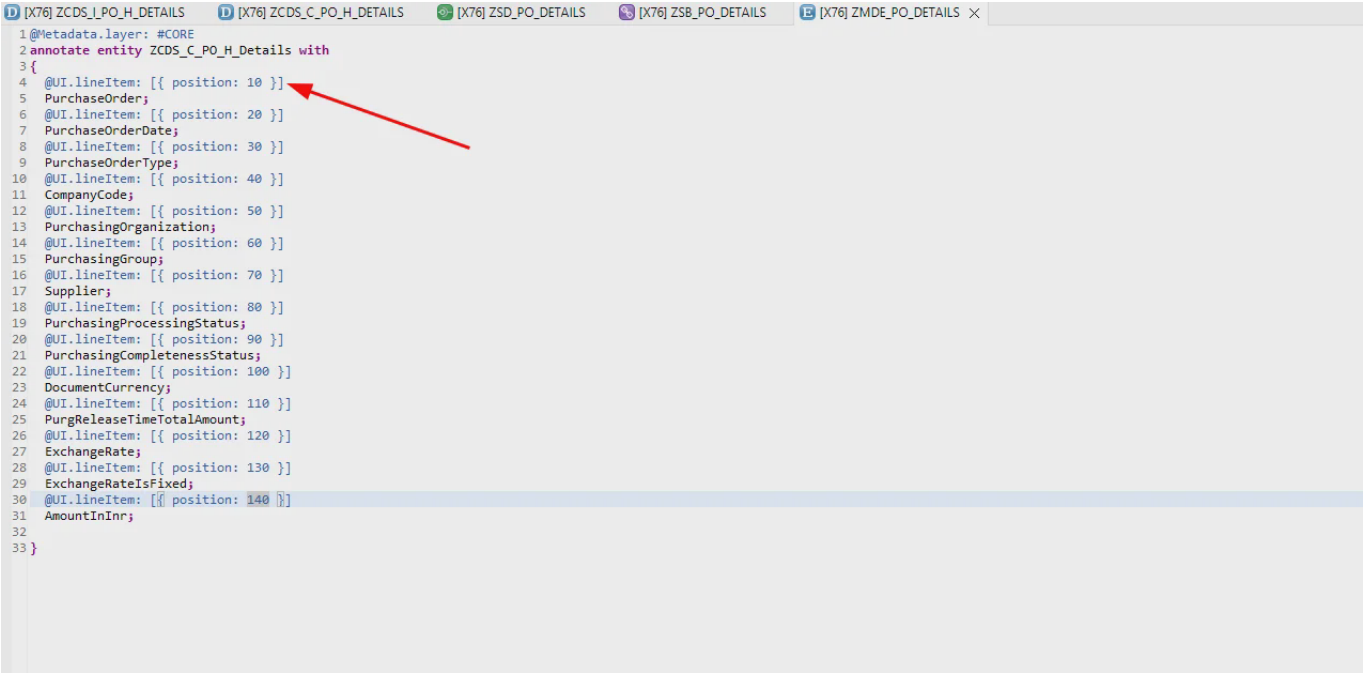
Right-click **Core Data Services** and select **Metadata Extension**.



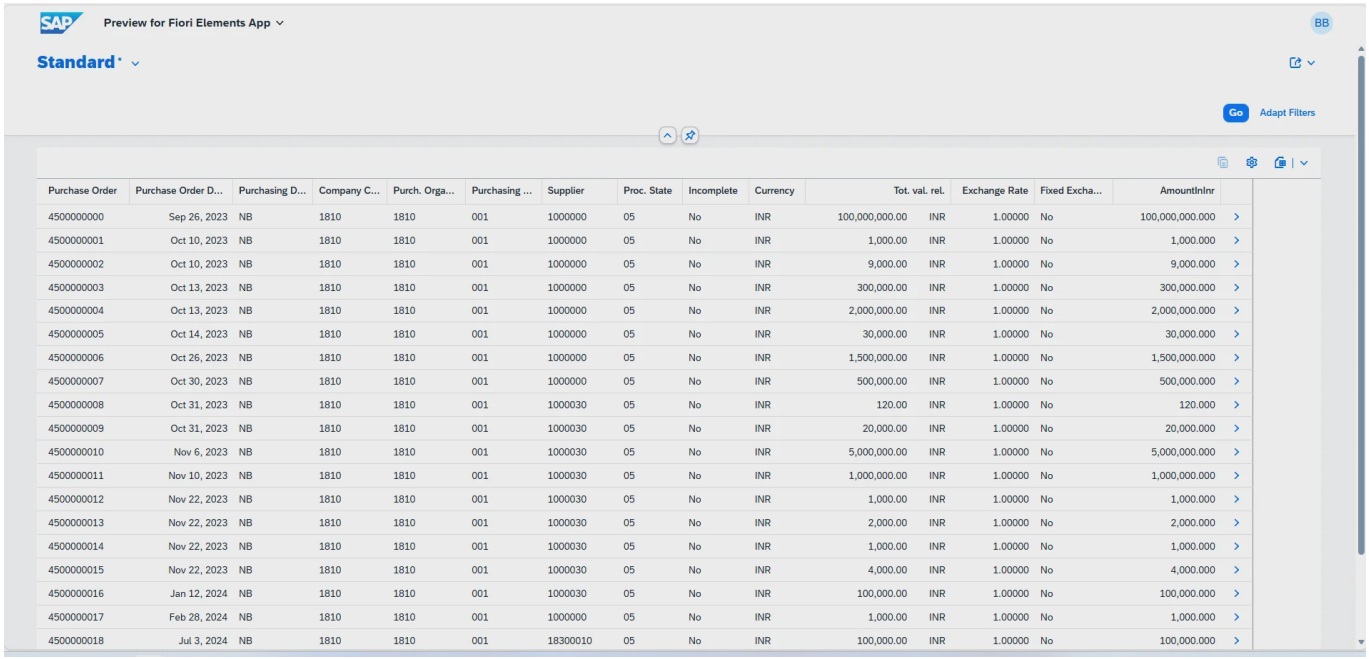
This gives us the boilerplate for the metadata extension.



Set `@Metadata.layer: #CORE` -- there are other layer options, but we'll use `CORE` for this example. Add the elements and annotate at least one of them, since a metadata extension requires a minimum of one annotation. We'll use `@UI.lineItem: [{ position: 10 }]` , which sets the default columns shown in the list. Once added and activated, refresh the preview.



Now the columns are configured by default, so users no longer need to add them manually on every load.



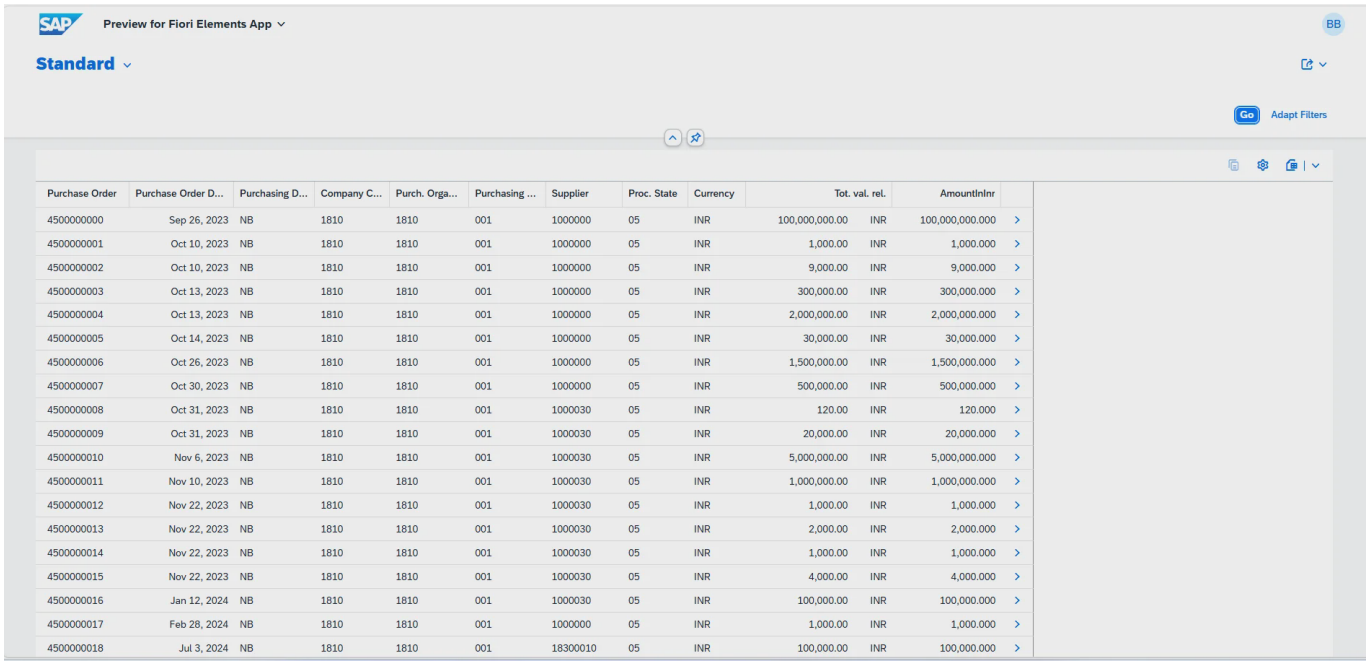
Purchase Order	Purchase Order D...	Purchasing D...	Company C...	Purch. Orga...	Purchasing ...	Supplier	Proc. State	Incomplete	Currency	Tot. val. rel.		Exchange Rate	Fixed Excha...	AmountInInr
4500000000	Sep 26, 2023	NB	1810	1810	001	1000000	05	No	INR	100,000,000.00	INR	1.00000	No	100,000,000.000
4500000001	Oct 10, 2023	NB	1810	1810	001	1000000	05	No	INR	1,000.00	INR	1.00000	No	1,000.000
4500000002	Oct 10, 2023	NB	1810	1810	001	1000000	05	No	INR	9,000.00	INR	1.00000	No	9,000.000
4500000003	Oct 13, 2023	NB	1810	1810	001	1000000	05	No	INR	300,000.00	INR	1.00000	No	300,000.000
4500000004	Oct 13, 2023	NB	1810	1810	001	1000000	05	No	INR	2,000,000.00	INR	1.00000	No	2,000,000.000
4500000005	Oct 14, 2023	NB	1810	1810	001	1000000	05	No	INR	30,000.00	INR	1.00000	No	30,000.000
4500000006	Oct 26, 2023	NB	1810	1810	001	1000000	05	No	INR	1,500,000.00	INR	1.00000	No	1,500,000.000
4500000007	Oct 30, 2023	NB	1810	1810	001	1000000	05	No	INR	500,000.00	INR	1.00000	No	500,000.000
4500000008	Oct 31, 2023	NB	1810	1810	001	1000030	05	No	INR	120.00	INR	1.00000	No	120.000
4500000009	Oct 31, 2023	NB	1810	1810	001	1000030	05	No	INR	20,000.00	INR	1.00000	No	20,000.000
4500000010	Nov 6, 2023	NB	1810	1810	001	1000030	05	No	INR	5,000,000.00	INR	1.00000	No	5,000,000.000
4500000011	Nov 10, 2023	NB	1810	1810	001	1000030	05	No	INR	1,000,000.00	INR	1.00000	No	1,000,000.000
4500000012	Nov 22, 2023	NB	1810	1810	001	1000030	05	No	INR	1,000.00	INR	1.00000	No	1,000.000
4500000013	Nov 22, 2023	NB	1810	1810	001	1000030	05	No	INR	2,000.00	INR	1.00000	No	2,000.000
4500000014	Nov 22, 2023	NB	1810	1810	001	1000030	05	No	INR	1,000.00	INR	1.00000	No	1,000.000
4500000015	Nov 22, 2023	NB	1810	1810	001	1000030	05	No	INR	4,000.00	INR	1.00000	No	4,000.000
4500000016	Jan 12, 2024	NB	1810	1810	001	1000030	05	No	INR	100,000.00	INR	1.00000	No	100,000.000
4500000017	Feb 28, 2024	NB	1810	1810	001	1000000	05	No	INR	1,000.00	INR	1.00000	No	1,000.000
4500000018	Jul 3, 2024	NB	1810	1810	001	18300010	05	No	INR	100,000.00	INR	1.00000	No	100,000.000

To include a field in the model without displaying it, use `@UI.hidden: true` .

```
@Metadata.layer: #CORE
annotate entity ZCDS_C_PO_H_Details with
{
  @UI.lineItem: [{ position: 10 }]
  PurchaseOrder;
  @UI.lineItem: [{ position: 20 }]
  PurchaseOrderDate;
  @UI.lineItem: [{ position: 30 }]
  PurchaseOrderType;
  @UI.lineItem: [{ position: 40 }]
  CompanyCode;
  @UI.lineItem: [{ position: 50 }]
  PurchasingOrganization;
  @UI.lineItem: [{ position: 60 }]
  PurchasingGroup;
  @UI.lineItem: [{ position: 70 }]
  Supplier;
  @UI.lineItem: [{ position: 80 }]
  PurchasingProcessingStatus;
  @UI.lineItem: [{ position: 90 }]
  @UI.hidden: true
  PurchasingCompletenessStatus;
  @UI.lineItem: [{ position: 100 }]
  DocumentCurrency;
  @UI.lineItem: [{ position: 110 }]
  PurgReleaseTimeTotalAmount;
  @UI.lineItem: [{ position: 120 }]
  @UI.hidden: true
  ExchangeRate;
  @UI.hidden: true
  @UI.lineItem: [{ position: 130 }]
  ExchangeRateIsFixed;
  @UI.lineItem: [{ position: 140 }]
  AmountInInr;

}
```

The hidden columns are no longer visible.



Purchase Order	Purchase Order D...	Purchasing D...	Company C...	Purch. Orga...	Purchasing ...	Supplier	Proc. State	Currency	Tot. val. rel.		AmountInInr
4500000000	Sep 26, 2023	NB	1810	1810	001	1000000	05	INR	100,000,000.00	INR	100,000,000.000
4500000001	Oct 10, 2023	NB	1810	1810	001	1000000	05	INR	1,000.00	INR	1,000.000
4500000002	Oct 10, 2023	NB	1810	1810	001	1000000	05	INR	9,000.00	INR	9,000.000
4500000003	Oct 13, 2023	NB	1810	1810	001	1000000	05	INR	300,000.00	INR	300,000.000
4500000004	Oct 13, 2023	NB	1810	1810	001	1000000	05	INR	2,000,000.00	INR	2,000,000.000
4500000005	Oct 14, 2023	NB	1810	1810	001	1000000	05	INR	30,000.00	INR	30,000.000
4500000006	Oct 26, 2023	NB	1810	1810	001	1000000	05	INR	1,500,000.00	INR	1,500,000.000
4500000007	Oct 30, 2023	NB	1810	1810	001	1000000	05	INR	500,000.00	INR	500,000.000
4500000008	Oct 31, 2023	NB	1810	1810	001	1000030	05	INR	120.00	INR	120.000
4500000009	Oct 31, 2023	NB	1810	1810	001	1000030	05	INR	20,000.00	INR	20,000.000
4500000010	Nov 6, 2023	NB	1810	1810	001	1000030	05	INR	5,000,000.00	INR	5,000,000.000
4500000011	Nov 10, 2023	NB	1810	1810	001	1000030	05	INR	1,000,000.00	INR	1,000,000.000
4500000012	Nov 22, 2023	NB	1810	1810	001	1000030	05	INR	1,000.00	INR	1,000.000
4500000013	Nov 22, 2023	NB	1810	1810	001	1000030	05	INR	2,000.00	INR	2,000.000
4500000014	Nov 22, 2023	NB	1810	1810	001	1000030	05	INR	1,000.00	INR	1,000.000
4500000015	Nov 22, 2023	NB	1810	1810	001	1000030	05	INR	4,000.00	INR	4,000.000
4500000016	Jan 12, 2024	NB	1810	1810	001	1000030	05	INR	100,000.00	INR	100,000.000
4500000017	Feb 28, 2024	NB	1810	1810	001	1000000	05	INR	1,000.00	INR	1,000.000
4500000018	Jul 3, 2024	NB	1810	1810	001	18300010	05	INR	100,000.00	INR	100,000.000

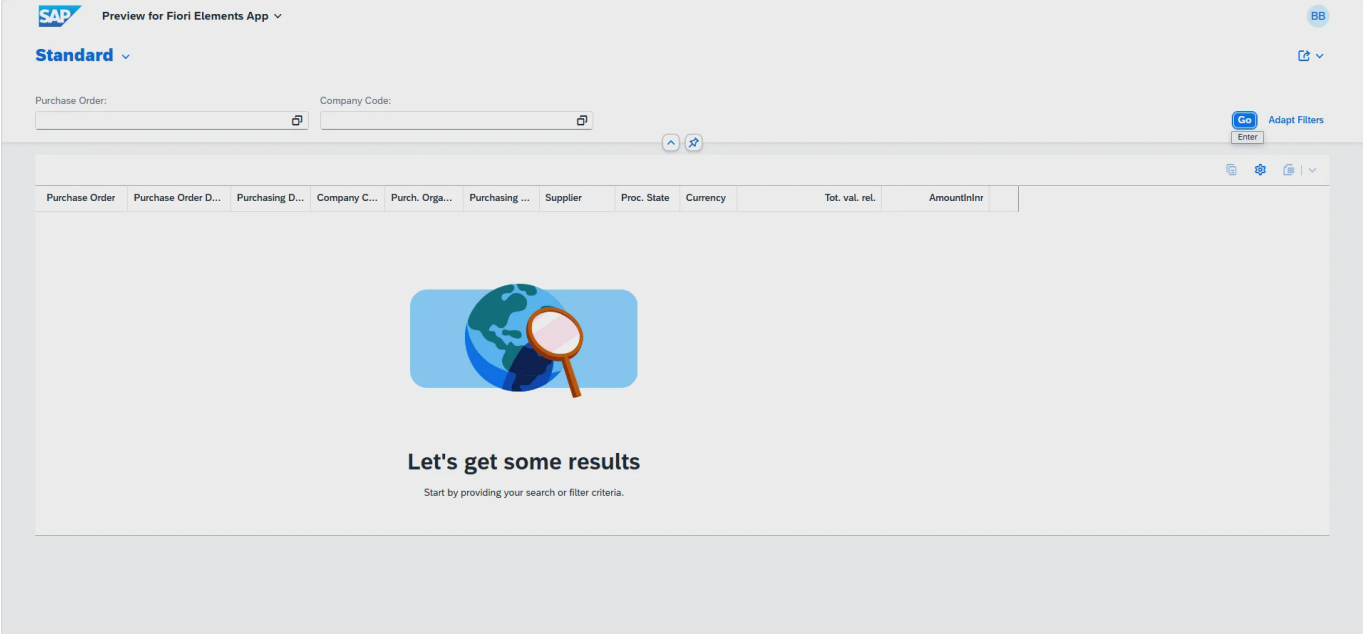
Step 5: Add Default Search Fields and Value Help

Add default search fields using `@UI.selectionField: [{ position: 10 }]` .

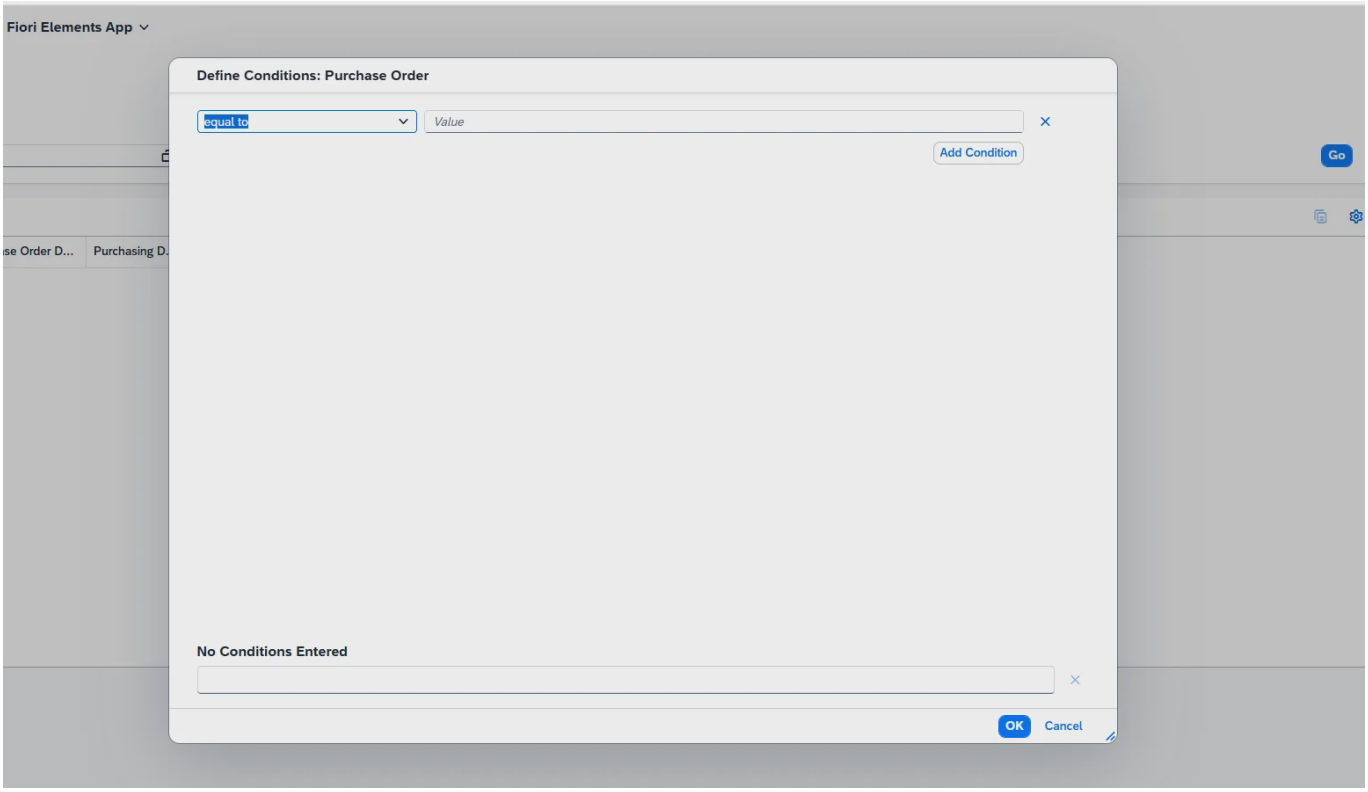
```
@Metadata.layer: #CORE
annotate entity ZCDS_C_PO_H_Details with
{
  @UI.selectionField: [{ position: 10 }]
  @UI.lineItem: [{ position: 10 }]
  PurchaseOrder;
  @UI.lineItem: [{ position: 20 }]
  PurchaseOrderDate;
  @UI.lineItem: [{ position: 30 }]
  PurchaseOrderType;
  @UI.lineItem: [{ position: 40 }]
  @UI.selectionField: [{ position: 20 }]
  CompanyCode;
  @UI.lineItem: [{ position: 50 }]
  PurchasingOrganization;
  @UI.lineItem: [{ position: 60 }]
  PurchasingGroup;
  @UI.lineItem: [{ position: 70 }]
  Supplier;
  @UI.lineItem: [{ position: 80 }]
  PurchasingProcessingStatus;
  @UI.lineItem: [{ position: 90 }]
  @UI.hidden: true
  PurchasingCompletenessStatus;
  @UI.lineItem: [{ position: 100 }]
  DocumentCurrency;
  @UI.lineItem: [{ position: 110 }]
  PurgReleaseTimeTotalAmount;
  @UI.lineItem: [{ position: 120 }]
  @UI.hidden: true
  ExchangeRate;
  @UI.hidden: true
  @UI.lineItem: [{ position: 130 }]
  ExchangeRateIsFixed;
  @UI.lineItem: [{ position: 140 }]
  AmountInInr;

}
```

These fields are now available in the filter bar by default, with no need to manually adapt the filters.



Basic search now works, but users typically won't remember exact values, so let's add value help (F4 search help).



Value help is added using `@Consumption.valueHelpDefinition: [{ entity: { name: 'I_PurchaseOrderAPI01', element: 'Purch`

.

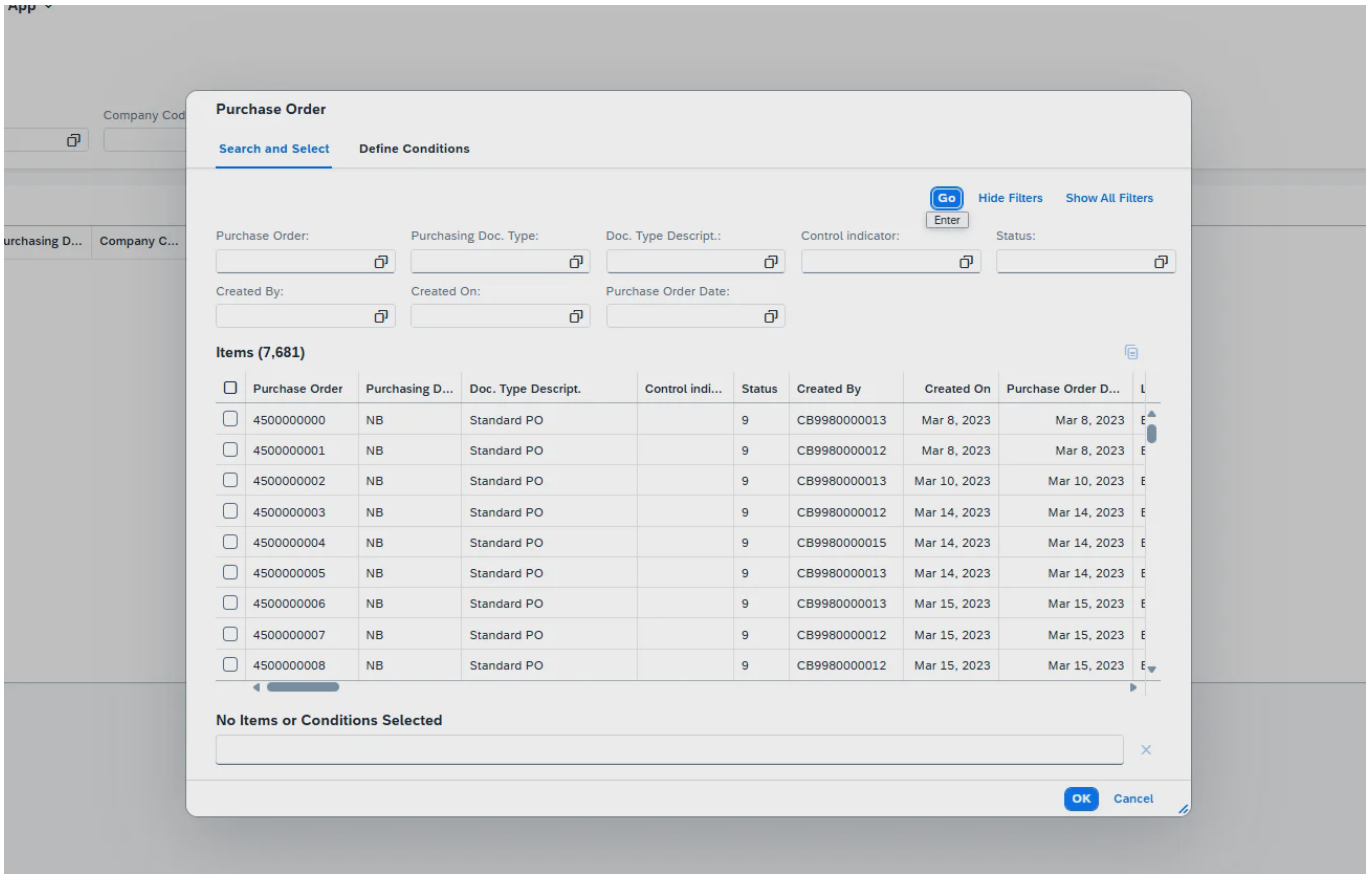
Here, `name` refers to the CDS view providing the values -- `I_PurchaseOrderAPI01` in this case -- and `element` is the field to search on, which is `PurchaseOrder` .

[X76] ZCDS_I_PO_H_DETAILS | [X76] ZCDS_C_PO_H_DETAILS | [X76] ZSD_PO_DETAILS | [X76] ZSB_PO_DETAILS | [X76] ZMDE_PO_DETAILS

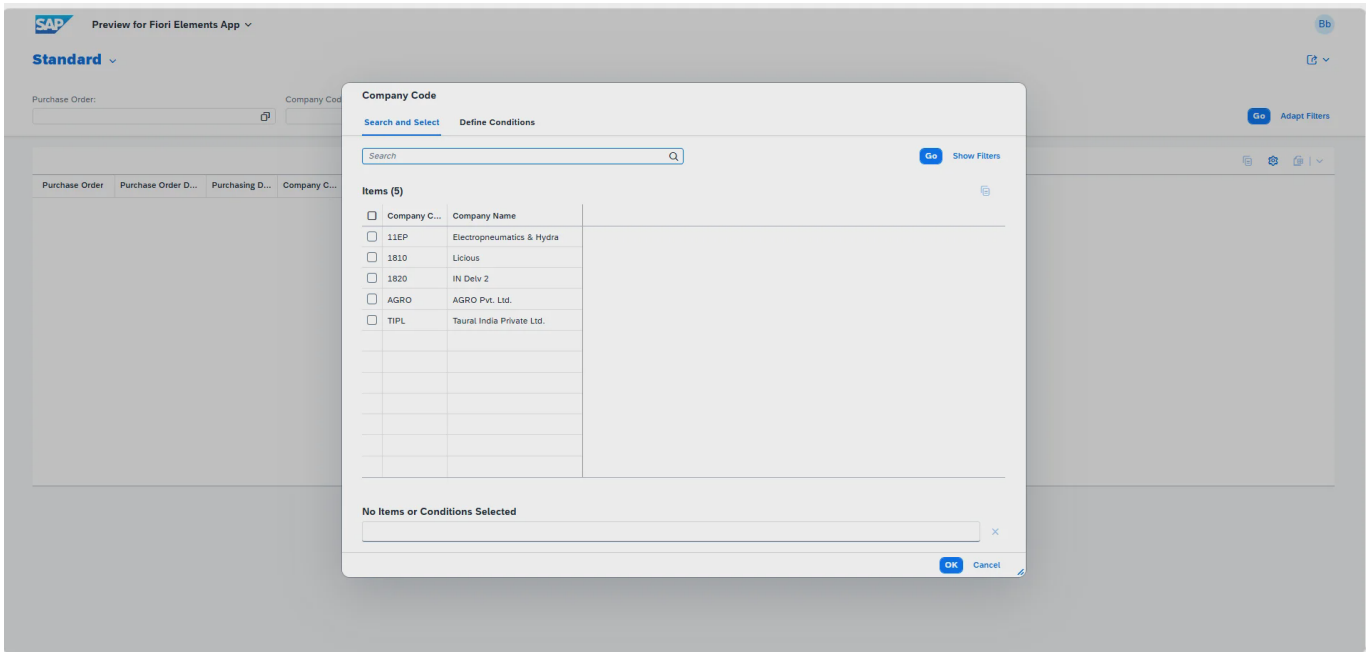
```
@Metadata.layer: #CORE
annotate entity ZCDS_C_PO_H_Details with
{
  @UI.selectionField: [{ position: 10 }]
  @UI.lineItem: [{ position: 10 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_PurchaseOrderAPI01', element: 'PurchaseOrder' }}]
  PurchaseOrder;
  @UI.lineItem: [{ position: 20 }]
  PurchaseOrderDate;
  @UI.lineItem: [{ position: 30 }]
  PurchaseOrderType;
  @UI.lineItem: [{ position: 40 }]
  @UI.selectionField: [{ position: 20 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_CompanyCodeStdVH', element: 'CompanyCode' }}]
  CompanyCode;
  @UI.lineItem: [{ position: 50 }]
  PurchasingOrganization;
  @UI.lineItem: [{ position: 60 }]
  PurchasingGroup;
  @UI.lineItem: [{ position: 70 }]
  Supplier;
  @UI.lineItem: [{ position: 80 }]
  PurchasingProcessingStatus;
  @UI.lineItem: [{ position: 90 }]
  @UI.hidden: true
  PurchasingCompletenessStatus;
  @UI.lineItem: [{ position: 100 }]
  DocumentCurrency;
  @UI.lineItem: [{ position: 110 }]
  PurgReleaseTimeTotalAmount;
  @UI.lineItem: [{ position: 120 }]
  @UI.hidden: true
  ExchangeRate;
  @UI.hidden: true
  @UI.lineItem: [{ position: 130 }]
  ExchangeRateIsFixed;
  @UI.lineItem: [{ position: 140 }]
  AmountInInr;

}
```

We now have value help for the Purchase Order field.

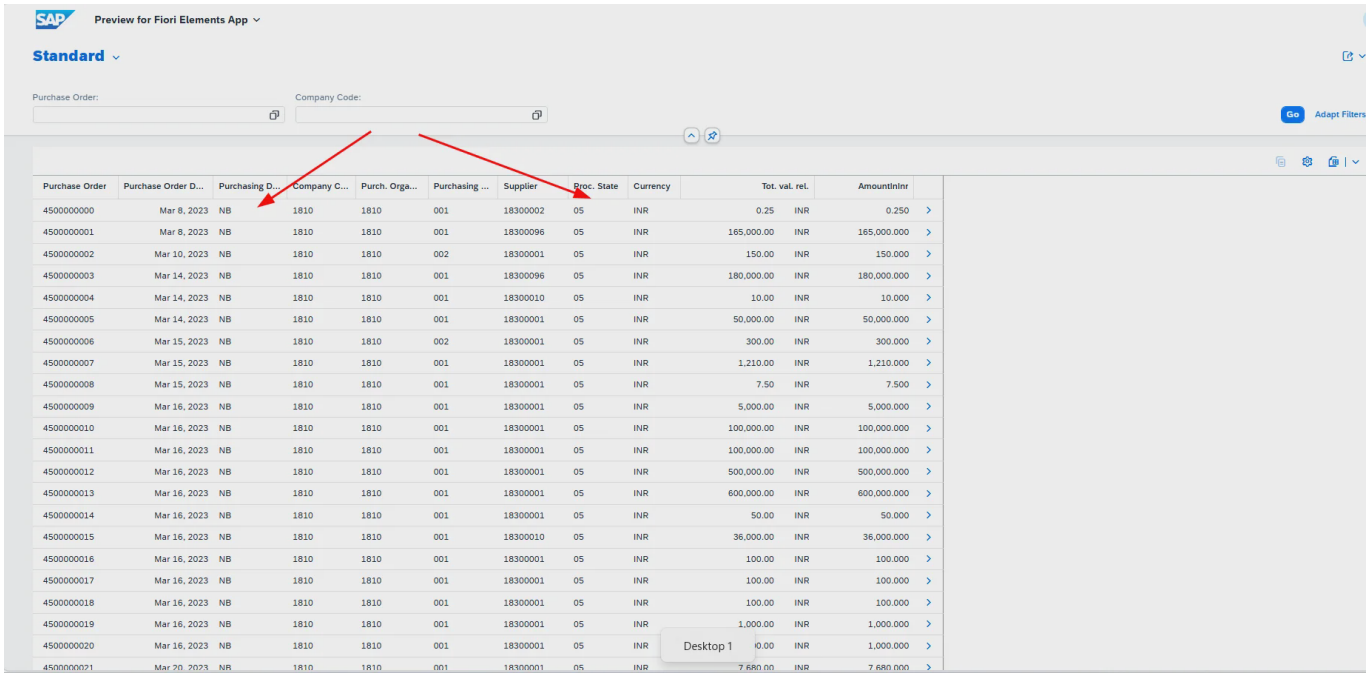


The same approach applies to the company code field.



Step 6: Make Fields Human-Readable

The report is functional, but let's improve readability. Fields like `PurchaseOrderType` and `PurchasingProcessingStatus` are stored as codes in the database, and since we're displaying them directly, they currently show as raw numbers rather than meaningful text.



To show descriptive text instead of the code, we add a text association to the field. This is done with `@ObjectModel.text.association: '_PurchaseOrderTypeText'` in the consumption view.

[X76] ZCDS_I_PO_H_DETAILS | [X76] ZCDS_C_PO_H_DETAILS | [X76] ZSD_PO_DETAILS | [X76] ZMDE_PO_DETAILS

```
@AccessControl.authorizationCheck: #NOT_REQUIRED
@EndUserText.label: 'Consumption CDS for Header PO Data'
@Metadata.allowExtensions: true
define root view entity ZCDS_C_PO_H_Details
  as select from ZCDS_I_PO_H_Details
{
  key PurchaseOrder,
      PurchaseOrderDate,
      @ObjectModel.text.association: '_PurchaseOrderTypeText'
      PurchaseOrderType,
      CompanyCode,
      PurchasingOrganization,
      PurchasingGroup,
      Supplier,
      PurchasingProcessingStatus,
      PurchasingCompletenessStatus,
      DocumentCurrency,
      PurgReleaseTimeTotalAmount,
      ExchangeRate,
      ExchangeRateIsFixed,
      AmountInInr,
      /* Associations */
      _PurchaseOrderTypeText
}
```

`_PurchaseOrderTypeText` is already available directly on `I_PurchaseOrderAPI01`, but that isn't always the case. For `PurchasingProcessingStatus`, for example, the association isn't available out of the box, so we add it ourselves in the interface view and expose it to the consumption view.

[X76] ZCDS_I_PO_H_DETAILS | [X76] ZCDS_C_PO_H_DETAILS | [X76] ZSD_PO_DETAILS | [X76] ZMDE_PO_DETAILS

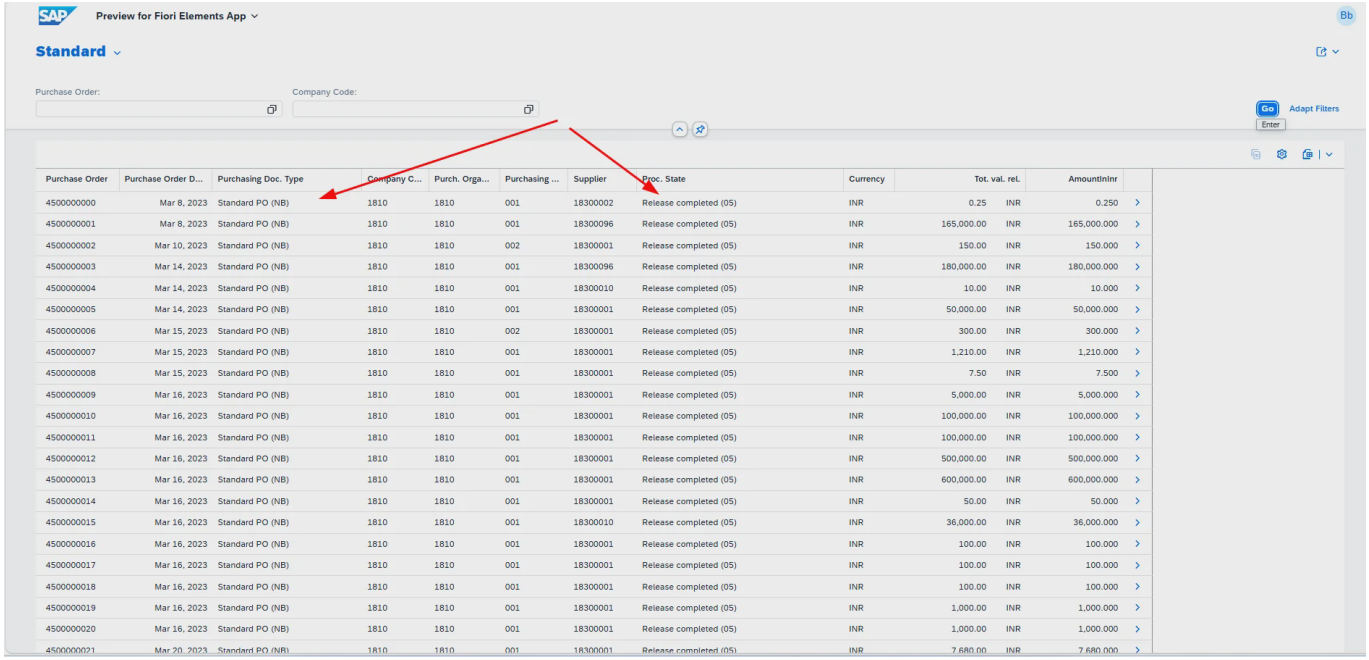
```
@AccessControl.authorizationCheck: #NOT_REQUIRED
@EndUserText.label: 'PO Header Details'
@Metadata.ignorePropagatedAnnotations: true
define root view entity ZCDS_I_PO_H_Details
  as select from I_PurchaseOrderAPI01 as base
  association [0..*] to I_PurgProcessingStatusText as _PurchasingStatusText on base.PurchasingProcessingStatus = _PurchasingStatusText.PurchasingProcessingStatus
{
  key base.PurchaseOrder,
      base.PurchaseOrderDate,
      base.PurchaseOrderType,
      base.CompanyCode,
      base.PurchasingOrganization,
      base.PurchasingGroup,
      base.Supplier,
      base.PurchasingProcessingStatus,
      base.PurchasingCompletenessStatus,
      base.DocumentCurrency,
      @Semantics.amount.currencyCode: 'DocumentCurrency'
      base.PurgReleaseTimeTotalAmount,
      base.ExchangeRate,
      base.ExchangeRateIsFixed,
      cast ( cast ( base.PurgReleaseTimeTotalAmount as abap.dec( 23, 3 ) ) * base.ExchangeRate as abap.dec( 23, 3 ) )as AmountInInr,
      base._PurchaseOrderTypeText,
      _PurchasingStatusText
}
```

We then reference it the same way in the consumption view.

```
[X76] ZCDS_I_PO_H_DETAILS | [X76] ZCDS_C_PO_H_DETAILS | [X76] ZSD_PO_DETAILS | [X76] ZMDE_PO_DETAILS

@AccessControl.authorizationCheck: #NOT_REQUIRED
@EndUserText.label: 'Consumption CDS for Header PO Data'
@Metadata.allowExtensions: true
define root view entity ZCDS_C_PO_H_Details
  as select from ZCDS_I_PO_H_Details
{
  key PurchaseOrder,
      PurchaseOrderDate,
      @ObjectModel.text.association: '_PurchaseOrderTypeText'
      PurchaseOrderType,
      CompanyCode,
      PurchasingOrganization,
      PurchasingGroup,
      Supplier,
      @ObjectModel.text.association: '_PurchasingStatusText'
      PurchasingProcessingStatus,
      PurchasingCompletenessStatus,
      DocumentCurrency,
      PurgReleaseTimeTotalAmount,
      ExchangeRate,
      ExchangeRateIsFixed,
      AmountInInr,
      /* Associations */
      _PurchaseOrderTypeText,
      _PurchasingStatusText
}
```

The report is now considerably more readable.



Purchase Order	Purchase Order D...	Purchasing Doc. Type	Company C...	Purch. Orga...	Purchasing ...	Supplier	Proc. State	Currency	Tot. val. rel.		AmountInInr
4500000000	Mar 8, 2023	Standard PO (NB)	1810	1810	001	18300002	Release completed (05)	INR	0.25	INR	0.250
4500000001	Mar 8, 2023	Standard PO (NB)	1810	1810	001	18300096	Release completed (05)	INR	165,000.00	INR	165,000.000
4500000002	Mar 10, 2023	Standard PO (NB)	1810	1810	002	18300001	Release completed (05)	INR	150.00	INR	150.000
4500000003	Mar 14, 2023	Standard PO (NB)	1810	1810	001	18300096	Release completed (05)	INR	180,000.00	INR	180,000.000
4500000004	Mar 14, 2023	Standard PO (NB)	1810	1810	001	18300010	Release completed (05)	INR	10.00	INR	10.000
4500000005	Mar 14, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	50,000.00	INR	50,000.000
4500000006	Mar 15, 2023	Standard PO (NB)	1810	1810	002	18300001	Release completed (05)	INR	300.00	INR	300.000
4500000007	Mar 15, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	1,210.00	INR	1,210.000
4500000008	Mar 15, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	7.50	INR	7.500
4500000009	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	5,000.00	INR	5,000.000
4500000010	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	100,000.00	INR	100,000.000
4500000011	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	100,000.00	INR	100,000.000
4500000012	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	500,000.00	INR	500,000.000
4500000013	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	600,000.00	INR	600,000.000
4500000014	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	50.00	INR	50.000
4500000015	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300010	Release completed (05)	INR	36,000.00	INR	36,000.000
4500000016	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	100.00	INR	100.000
4500000017	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	100.00	INR	100.000
4500000018	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	100.00	INR	100.000
4500000019	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	1,000.00	INR	1,000.000
4500000020	Mar 16, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	1,000.00	INR	1,000.000
4500000021	Mar 20, 2023	Standard PO (NB)	1810	1810	001	18300001	Release completed (05)	INR	7,680.00	INR	7,680.000

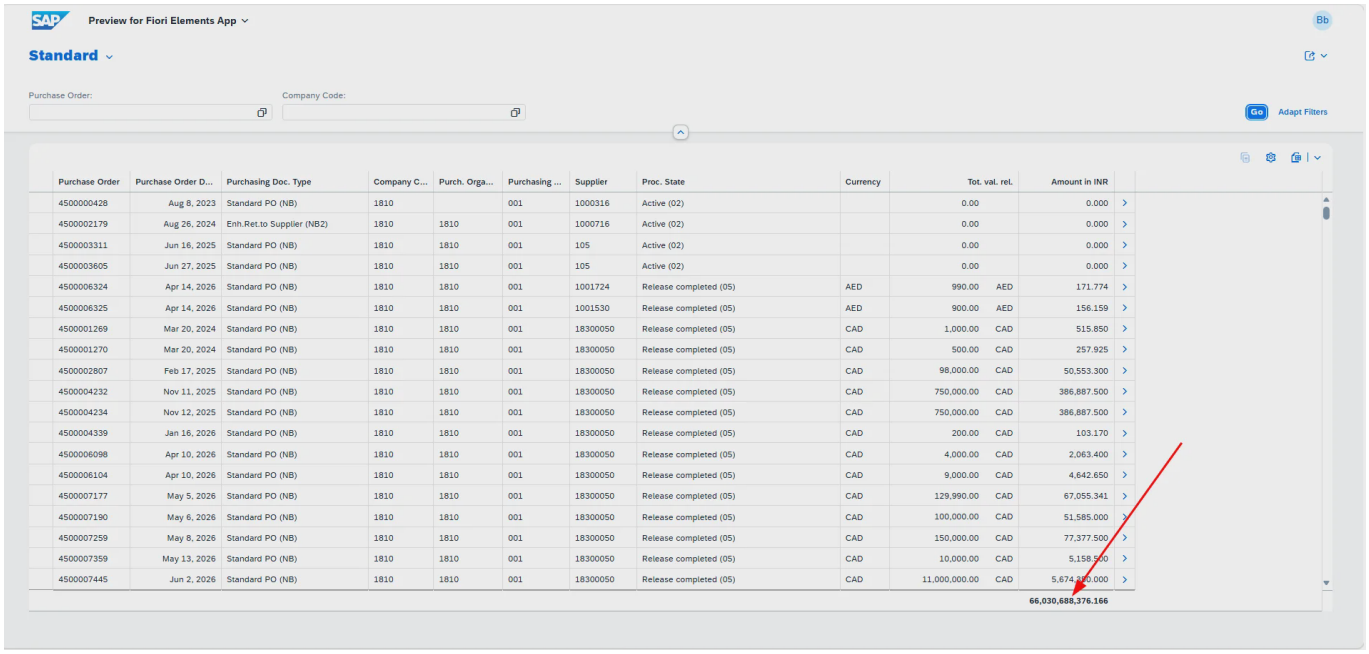
Step 7: Add Totals and Aggregation

Now for totals. First, enable aggregation support at the CDS view level with `@OData.applySupportedForAggregation: #FULL` . Then apply aggregation to the specific field -- in our case, `AmountInInr` -- using `@Aggregation.default: #SUM` to sum the column.

```
[X76] ZCDS_I_PO_H_DETAILS | [X76] ZCDS_C_PO_H_DETAILS | [X76] ZSD_PO_DETAILS | [X76] ZMDE_PO_DETAILS

@AccessControl.authorizationCheck: #NOT_REQUIRED
@EndUserText.label: Data Definition ZCDS_I_PO_H_DETAILS [X76,080] - active - Public_Cloud_DEV
@Metadata.allowExtensions: true
@OData.applySupportedForAggregation: #FULL
define root view entity ZCDS_C_PO_H_Details
  as select from ZCDS_I_PO_H_Details
{
  key PurchaseOrder,
      PurchaseOrderDate,
      @ObjectModel.text.association: '_PurchaseOrderTypeText'
      PurchaseOrderType,
      CompanyCode,
      PurchasingOrganization,
      PurchasingGroup,
      Supplier,
      @ObjectModel.text.association: '_PurchasingStatusText'
      PurchasingProcessingStatus,
      PurchasingCompletenessStatus,
      DocumentCurrency,
      PurgReleaseTimeTotalAmount,
      ExchangeRate,
      ExchangeRateIsFixed,
      @Aggregation.default: #SUM
      @EndUserText.label: 'Amount in INR'
      AmountInInr,
      /* Associations */
      _PurchaseOrderTypeText,
      _PurchasingStatusText
}
```

A total is now displayed for the field.

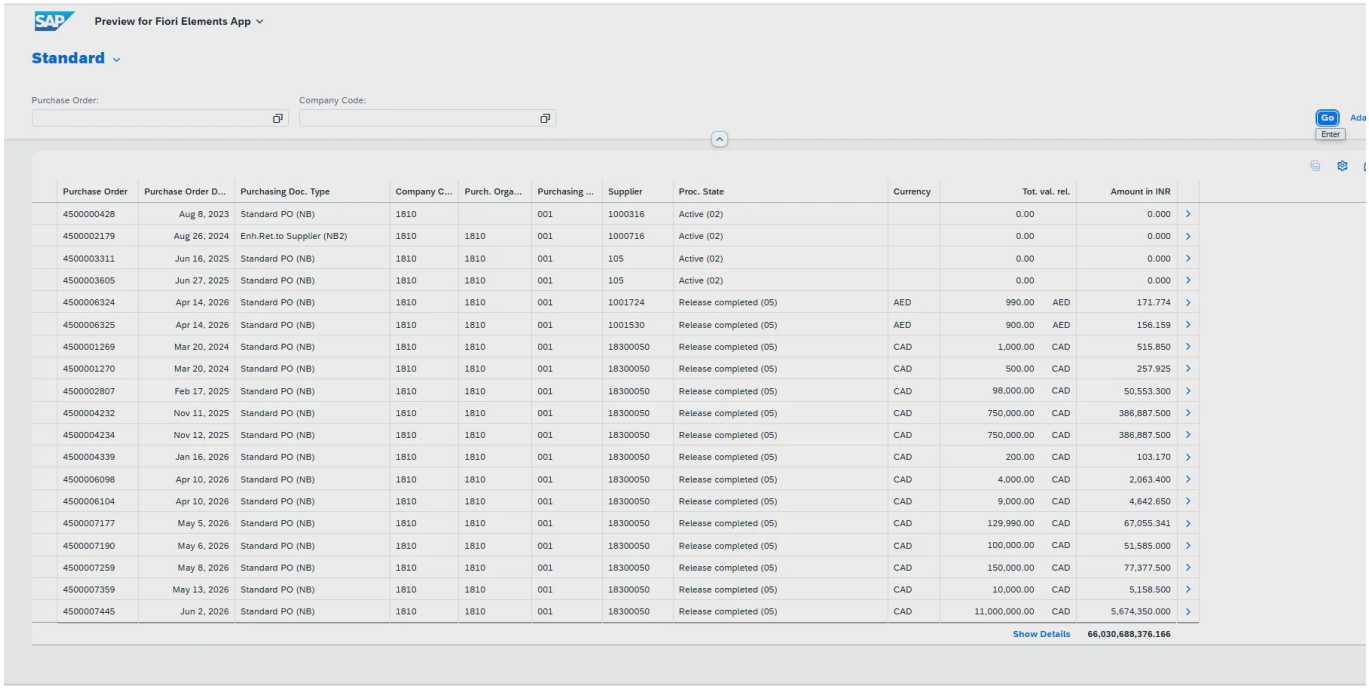


When `@Aggregation.default: #SUM` is applied to a currency field, a **Show Details** option becomes available.

[X76] ZCDS_I_PO_H_DETAILS | [X76] ZCDS_C_PO_H_DETAILS | [X76] ZSD_PO_DETAILS | [X76] ZMDE_PO_DETAILS

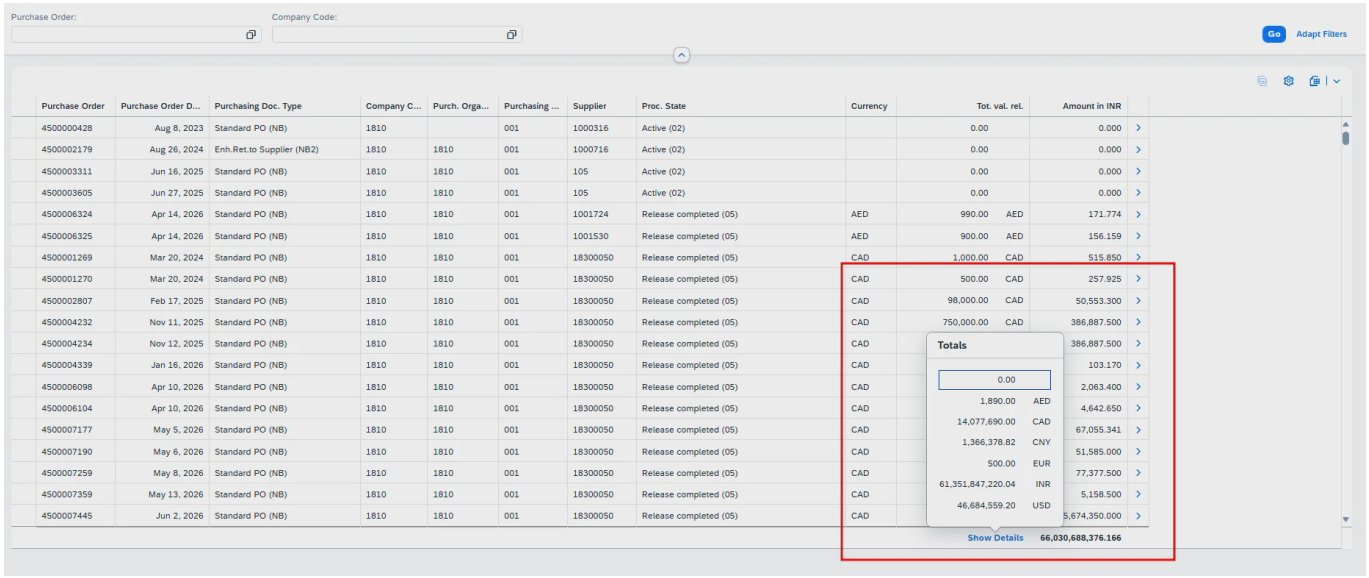
```
@AccessControl.authorizationCheck: #NOT_REQUIRED
@EndUserText.label: 'Consumption CDS for Header PO Data'
@Metadata.allowExtensions: true
@OData.applySupportedForAggregation: #FULL
define root view entity ZCDS_C_PO_H_Details
  as select from ZCDS_I_PO_H_Details
{
  key PurchaseOrder,
      PurchaseOrderDate,
      @ObjectModel.text.association: '_PurchaseOrderTypeText'
      PurchaseOrderType,
      CompanyCode,
      PurchasingOrganization,
      PurchasingGroup,
      Supplier,
      @ObjectModel.text.association: '_PurchasingStatusText'
      PurchasingProcessingStatus,
      PurchasingCompletenessStatus,
      DocumentCurrency,
      @Aggregation.default: #SUM
      PurgReleaseTimeTotalAmount,
      ExchangeRate,
      ExchangeRateIsFixed,
      @Aggregation.default: #SUM
      @EndUserText.label: 'Amount in INR'
      AmountInInr,
      /* Associations */
      _PurchaseOrderTypeText,
      _PurchasingStatusText
}
```

Clicking **Show Details** displays subtotals broken down by currency.



Purchase Order	Purchase Order D...	Purchasing Doc. Type	Company C...	Purch. Orga...	Purchasing ...	Supplier	Proc. State	Currency	Tot. val. rel.	Amount in INR
4500000428	Aug 8, 2023	Standard PO (NB)	1810		001	1000316	Active (02)		0.00	0.000
4500002179	Aug 26, 2024	Enh.Ret.to Supplier (NB2)	1810	1810	001	1000716	Active (02)		0.00	0.000
4500003311	Jun 16, 2025	Standard PO (NB)	1810	1810	001	105	Active (02)		0.00	0.000
4500003605	Jun 27, 2025	Standard PO (NB)	1810	1810	001	105	Active (02)		0.00	0.000
4500006324	Apr 14, 2026	Standard PO (NB)	1810	1810	001	1001724	Release completed (05)	AED	990.00 AED	171.774
4500006325	Apr 14, 2026	Standard PO (NB)	1810	1810	001	1001530	Release completed (05)	AED	900.00 AED	156.159
4500001269	Mar 20, 2024	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	1,000.00 CAD	515.850
4500001270	Mar 20, 2024	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	500.00 CAD	257.925
4500002807	Feb 17, 2025	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	98,000.00 CAD	50,553.300
4500004232	Nov 11, 2025	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	750,000.00 CAD	386,887.500
4500004234	Nov 12, 2025	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	750,000.00 CAD	386,887.500
4500004339	Jan 16, 2026	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	200.00 CAD	103.170
4500006098	Apr 10, 2026	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	4,000.00 CAD	2,063.400
4500006104	Apr 10, 2026	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	9,000.00 CAD	4,642.650
4500007177	May 5, 2026	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	129,990.00 CAD	67,055.341
4500007190	May 6, 2026	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	100,000.00 CAD	51,585.000
4500007259	May 8, 2026	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	150,000.00 CAD	77,377.500
4500007359	May 13, 2026	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	10,000.00 CAD	5,158.500
4500007445	Jun 2, 2026	Standard PO (NB)	1810	1810	001	18300050	Release completed (05)	CAD	11,000,000.00 CAD	5,674,350.000
									Show Details	66,030,688,376.166

The same behavior applies to quantity fields.



Step 8: Set the Default Sort Order

Clients often want the most recent entries shown first (or the oldest at the top). To control this, use a presentation variant:

```
@UI.presentationVariant: [{
    sortOrder: [{
        by: 'PurchaseOrder',
        direction: #DESC
    }],
    visualizations: [{ type: #AS_LINEITEM }]
}]
```

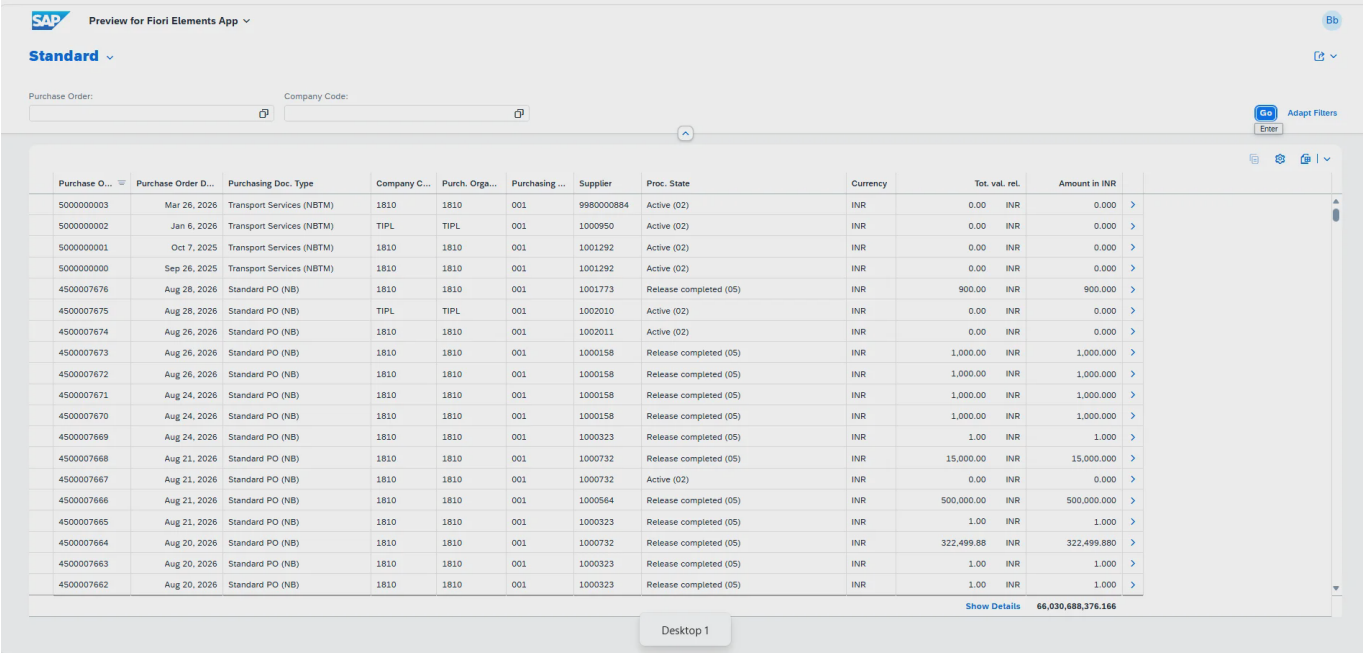
This sorts by purchase order in descending order by default.

[X76] ZCDS_I_PO_H_DETAILS | [X76] ZCDS_C_PO_H_DETAILS | [X76] ZSD_PO_DETAILS | [X76] ZMDE_PO_DETAILS

```
@Metadata.layer: #CORE

@UI.presentationVariant: [{
    sortOrder: [{
        by: 'PurchaseOrder',
        direction: #DESC
    }],
    visualizations: [{ type: #AS_LINEITEM }]
}]
annotate entity ZCDS_C_PO_H_Details with
{
  @UI.selectionField: [{ position: 10 }]
  @UI.lineItem: [{ position: 10 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_PurchaseOrderAPI01', element: 'PurchaseOrder' }}]
  PurchaseOrder;
  @UI.lineItem: [{ position: 20 }]
  PurchaseOrderDate;
  @UI.lineItem: [{ position: 30 }]
  PurchaseOrderType;
  @UI.lineItem: [{ position: 40 }]
  @UI.selectionField: [{ position: 20 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_CompanyCodeStdVH', element: 'CompanyCode' }}]
  CompanyCode;
  @UI.lineItem: [{ position: 50 }]
  PurchasingOrganization;
  @UI.lineItem: [{ position: 60 }]
  PurchasingGroup;
  @UI.lineItem: [{ position: 70 }]
  Supplier;
  @UI.lineItem: [{ position: 80 }]
  PurchasingProcessingStatus;
  @UI.lineItem: [{ position: 90 }]
  @UI.hidden: true
  PurchasingCompletenessStatus;
  @UI.lineItem: [{ position: 100 }]
  DocumentCurrency;
  @UI.lineItem: [{ position: 110 }]
  PurgReleaseTimeTotalAmount;
  @UI.lineItem: [{ position: 120 }]
  @UI.hidden: true
  ExchangeRate;
```

Here's the result.



Step 9: Add Default Grouping

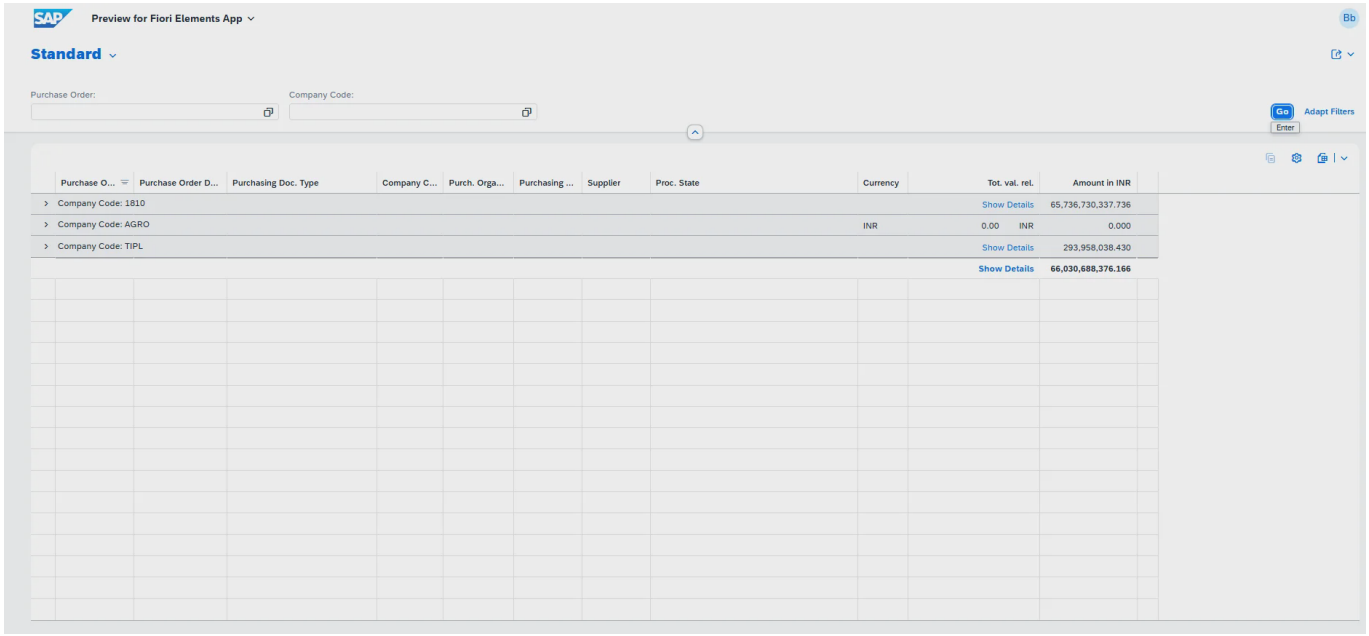
Clients often request default grouping as well, and multiple group-by fields can be configured.

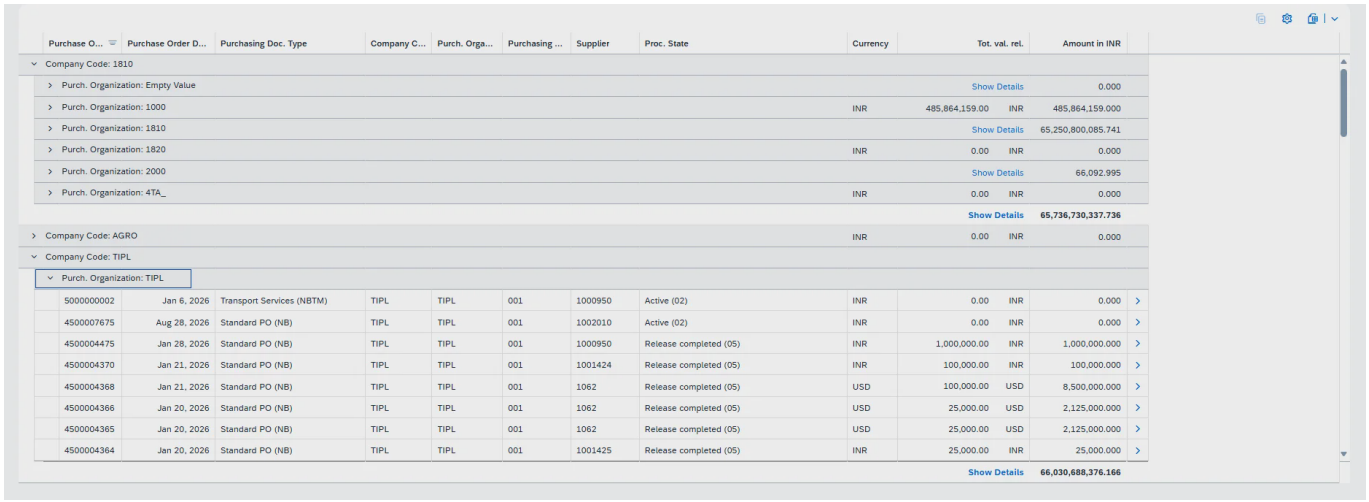
```
@Metadata.layer: #CORE

@UI.presentationVariant: [{
    sortOrder: [{
        by: 'PurchaseOrder',
        direction: #DESC
    }],
    groupBy: [ 'CompanyCode','PurchasingOrganization' ],
    visualizations: [{ type: #AS_LINEITEM }]
}]
annotate entity ZCDS_C_PO_H_Details with
{
  @UI.selectionField: [{ position: 10 }]
  @UI.lineItem: [{ position: 10 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_PurchaseOrderAPI01', element: 'PurchaseOrder' }}]
  PurchaseOrder;
  @UI.lineItem: [{ position: 20 }]
  PurchaseOrderDate;
  @UI.lineItem: [{ position: 30 }]
  PurchaseOrderType;
  @UI.lineItem: [{ position: 40 }]
  @UI.selectionField: [{ position: 20 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_CompanyCodeStdVH', element: 'CompanyCode' }}]
  CompanyCode;
  @UI.lineItem: [{ position: 50 }]
  PurchasingOrganization;
  @UI.lineItem: [{ position: 60 }]
  PurchasingGroup;
  @UI.lineItem: [{ position: 70 }]
  Supplier;
  @UI.lineItem: [{ position: 80 }]
  PurchasingProcessingStatus;
  @UI.lineItem: [{ position: 90 }]
  @UI.hidden: true
  PurchasingCompletenessStatus;
  @UI.lineItem: [{ position: 100 }]
  DocumentCurrency;
  @UI.lineItem: [{ position: 110 }]
  PurgReleaseTimeTotalAmount;
  @UI.lineItem: [{ position: 120 }]
  @UI.hidden: true
  ExchangeRate;
  @UI.hidden: true
  @UI.lineItem: [{ position: 130 }]
  ExchangeRateIsFixed;
  @UI.lineItem: [{ position: 140 }]
  AmountInInr;

}
```

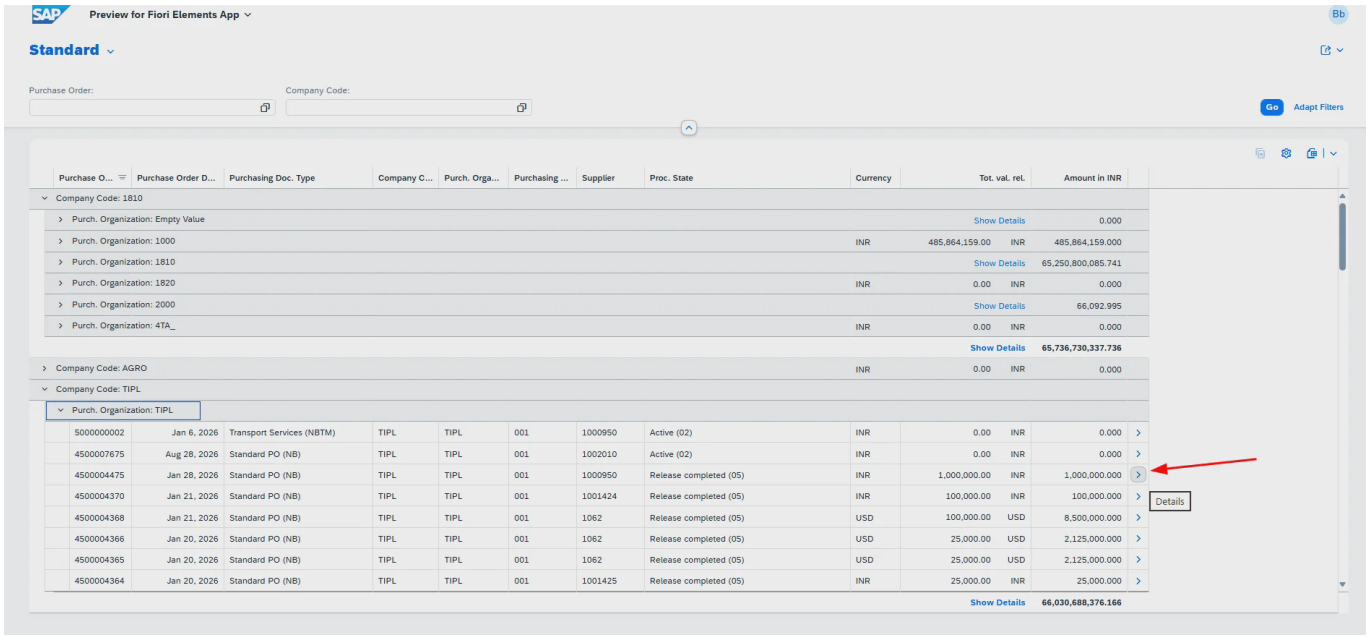
Here's what the grouped data looks like.



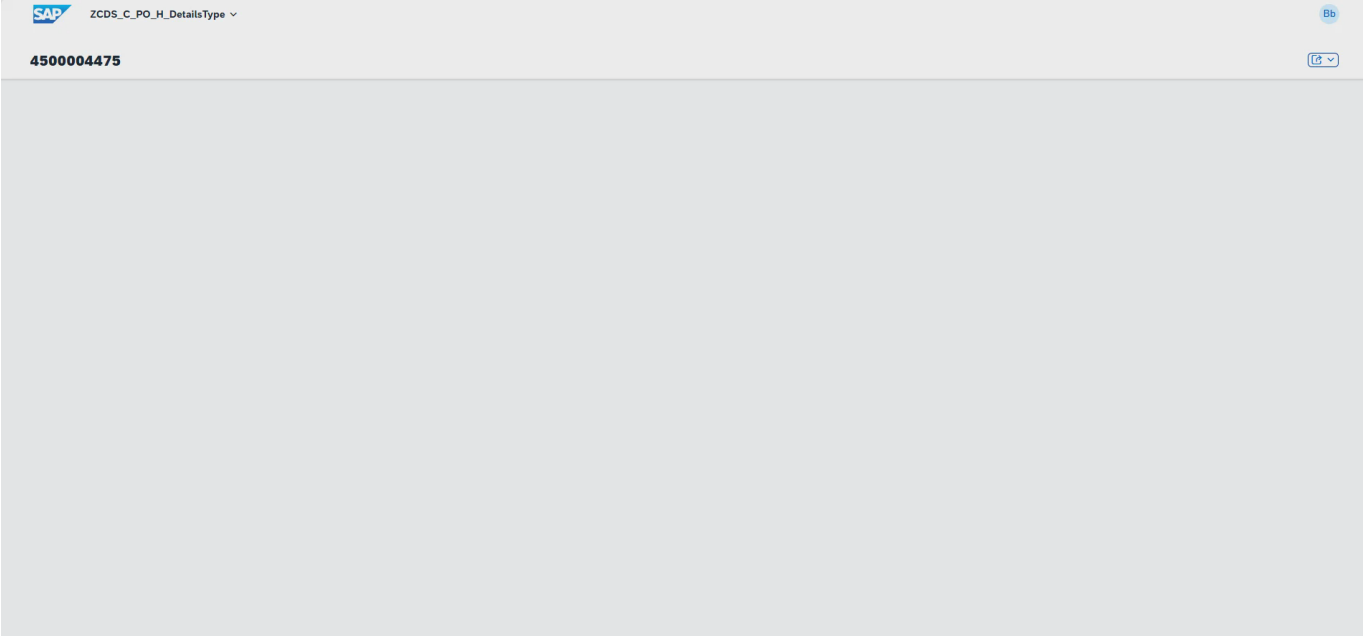


Step 10: Configure the Object Page

Next, let's look at the object page -- the detail view shown when a user wants to see more information about a single entry.



Here's the default object page.



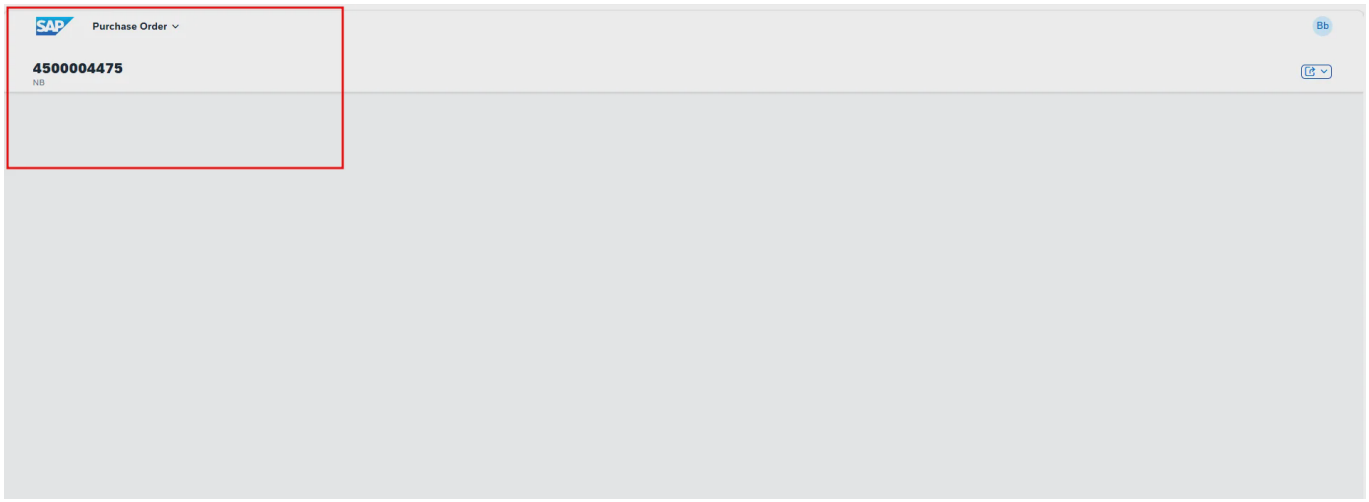
We'll format the header using the following annotation:

```
@UI.headerInfo: {
    typeName: 'Purchase Order',
    typeNamePlural: 'Purchase Orders',
    title: {
        type: #STANDARD,
        value: 'PurchaseOrder'
    },
    description: {
        label: 'PO Type',
        type: #STANDARD,
        value: 'PurchaseOrderType'
    }
}
```

```
@Metadata.layer: #CORE

@UI.presentationVariant: [{
    sortOrder: [{
        by: 'PurchaseOrder',
        direction: #DESC
    }],
    groupBy: [ 'CompanyCode','PurchasingOrganization' ],
    visualizations: [{ type: #AS_LINEITEM }]
}]
@UI.headerInfo: {
    typeName: 'Purchase Order' ,
    typeNamePlural: 'Purchase Orders' ,
    title: {
        type: #STANDARD ,
        value: 'PurchaseOrder'
    } ,
    description: {
        label: 'PO Type',
        type: #STANDARD,
        value: 'PurchaseOrderType'
    }
}
annotate entity ZCDS_C_PO_H_Details with
{
  @UI.selectionField: [{ position: 10 }]
  @UI.lineItem: [{ position: 10 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_PurchaseOrderAPI01', element: 'PurchaseOrder' }}]
  PurchaseOrder;
  @UI.lineItem: [{ position: 20 }]
  PurchaseOrderDate;
  @UI.lineItem: [{ position: 30 }]
  PurchaseOrderType;
  @UI.lineItem: [{ position: 40 }]
  @UI.selectionField: [{ position: 20 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_CompanyCodeStdVH', element: 'CompanyCode' }}]
  CompanyCode;
  @UI.lineItem: [{ position: 50 }]
  PurchasingOrganization;
```

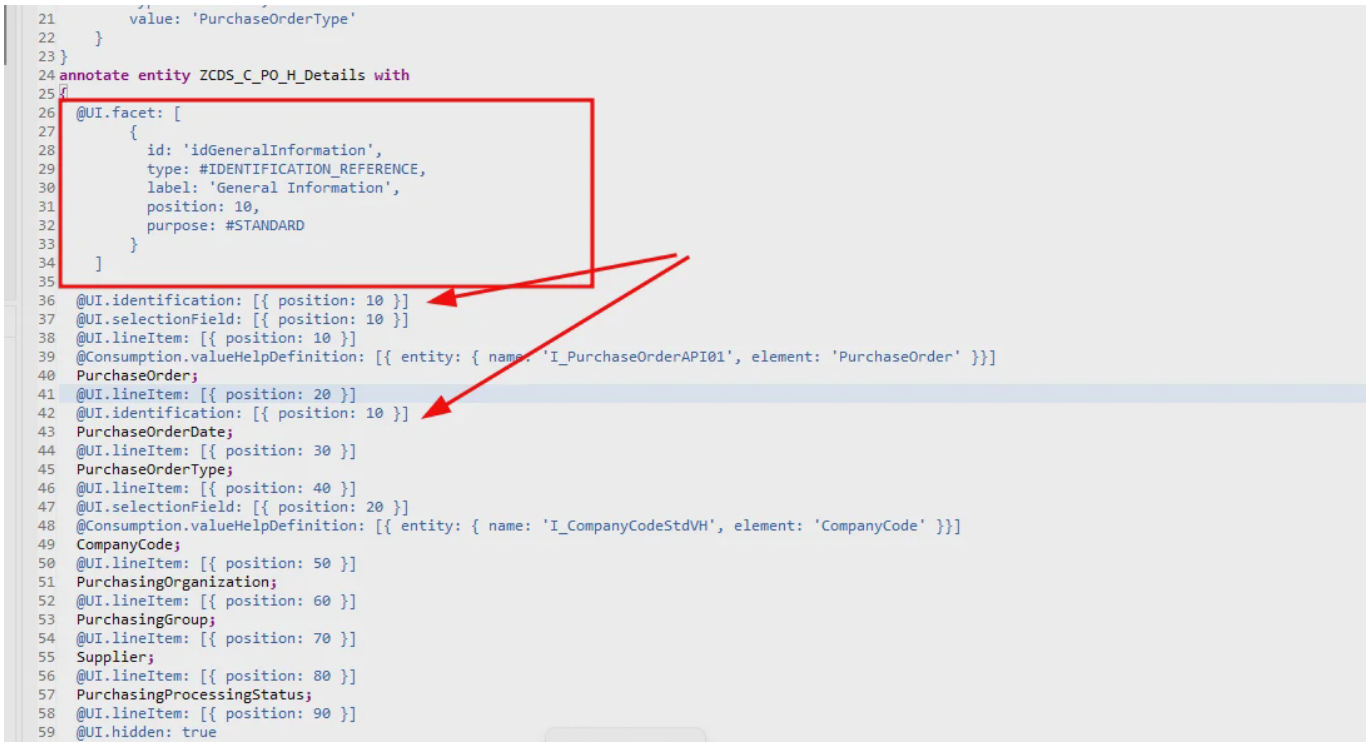
Here's the resulting header.



Now let's add a panel to display detail fields. This is done by adding a facet:

```
@UI.facet: [
    {
      id: 'idGeneralInformation',
      type: #IDENTIFICATION_REFERENCE,
      label: 'General Information',
      position: 10,
      purpose: #STANDARD
    }
]
```

And on each field, add `@UI.identification: [{ position: 10 }]` .
This is sufficient if you only need a single panel.



```
21        value: 'PurchaseOrderType'
22    }
23}
24annotate entity ZCDS_C_PO_H_Details with
25{
26  @UI.facet: [
27        {
28          id: 'idGeneralInformation',
29          type: #IDENTIFICATION_REFERENCE,
30          label: 'General Information',
31          position: 10,
32          purpose: #STANDARD
33        }
34    ]
35
36  @UI.identification: [{ position: 10 }]
37  @UI.selectionField: [{ position: 10 }]
38  @UI.lineItem: [{ position: 10 }]
39  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_PurchaseOrderAPI01', element: 'PurchaseOrder' }}]
40  PurchaseOrder;
41  @UI.lineItem: [{ position: 20 }]
42  @UI.identification: [{ position: 10 }]
43  PurchaseOrderDate;
44  @UI.lineItem: [{ position: 30 }]
45  PurchaseOrderType;
46  @UI.lineItem: [{ position: 40 }]
47  @UI.selectionField: [{ position: 20 }]
48  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_CompanyCodeStdVH', element: 'CompanyCode' }}]
49  CompanyCode;
50  @UI.lineItem: [{ position: 50 }]
51  PurchasingOrganization;
52  @UI.lineItem: [{ position: 60 }]
53  PurchasingGroup;
54  @UI.lineItem: [{ position: 70 }]
55  Supplier;
56  @UI.lineItem: [{ position: 80 }]
57  PurchasingProcessingStatus;
58  @UI.lineItem: [{ position: 90 }]
59  @UI.hidden: true
```

To separate fields into different panels, define multiple facets:

```
@UI.facet: [
    {
      id: 'idGeneralInformation',
      type: #IDENTIFICATION_REFERENCE,
```

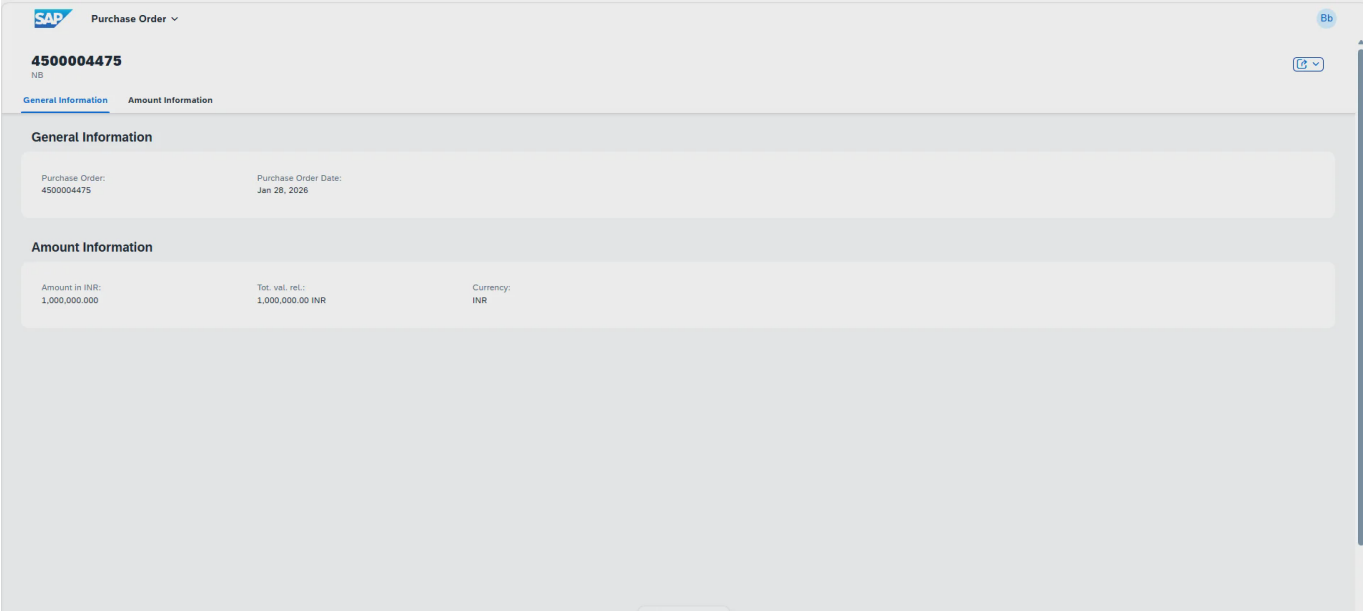
```
      label: 'General Information',
      position: 10,
      purpose: #STANDARD,
      targetQualifier: 'GeneralHeader'
    },
    {
      id: 'idAmountInformation',
      type: #IDENTIFICATION_REFERENCE,
      label: 'Amount Information',
      position: 20,
      purpose: #STANDARD,
      targetQualifier: 'AmountHeader'
    }
]
```

Then add the matching qualifier to each field, for example:
`@UI.identification: [{ position: 10, qualifier: 'GeneralHeader' }]`

```
}
annotate entity ZCDS_C_PO_H_Details with
{
  @UI.facet: [
        {
          id: 'idGeneralInformation',
          type: #IDENTIFICATION_REFERENCE,
          label: 'General Information',
          position: 10,
          purpose: #STANDARD,
          targetQualifier: 'GeneralHeader'
        },
          {
          id: 'idAmountInformation',
          type: #IDENTIFICATION_REFERENCE,
          label: 'Amount Information',
          position: 20,
          purpose: #STANDARD,
          targetQualifier: 'AmountHeader'
        }
    ]

  @UI.identification: [{ position: 10 , qualifier: 'GeneralHeader' }]
  @UI.selectionField: [{ position: 10 }]
  @UI.lineItem: [{ position: 10 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_PurchaseOrderAPI01', element: 'PurchaseOrder' }}]
  PurchaseOrder;
  @UI.lineItem: [{ position: 20 }]
  @UI.identification: [{ position: 20 , qualifier: 'GeneralHeader'}]
  PurchaseOrderDate;
  @UI.lineItem: [{ position: 30 }]
  PurchaseOrderType;
  @UI.lineItem: [{ position: 40 }]
  @UI.selectionField: [{ position: 20 }]
  @Consumption.valueHelpDefinition: [{ entity: { name: 'I_CompanyCodeStdVH', element: 'CompanyCode' }}]
  CompanyCode;
  @UI.lineItem: [{ position: 50 }]
  PurchasingOrganization;
  @UI.lineItem: [{ position: 60 }]
  PurchasingGroup;
  @UI.lineItem: [{ position: 70 }]
  Supplier;
  @UI.lineItem: [{ position: 80 }]
  PurchasingProcessingStatus;
  @UI.lineItem: [{ position: 90 }]
  @UI.hidden: true
  PurchasingCompletenessStatus;
  @UI.lineItem: [{ position: 100 }]
  @UI.identification: [{ position: 20 , qualifier: 'AmountHeader'}]
  DocumentCurrency;
  @UI.lineItem: [{ position: 110 }]
  @UI.identification: [{ position: 20 , qualifier: 'AmountHeader'}]
  PurgReleaseTimeTotalAmount;
  @UI.lineItem: [{ position: 120 }]
  @UI.hidden: true
  @UI.identification: [{ position: 20 , qualifier: 'AmountHeader'}]
  ExchangeRate;
```

This produces separate panels for each category of information, making the object page easier to navigate.



Wrapping Up

That covers the essentials of building an analytical RAP list report -- from CDS views and value help to aggregation, sorting, grouping, and a well-structured object page. In the next part of this series, we'll add a table to the object page to display purchase order line items.
