

# FAW - Extensibility using Custom PVO via Data Augmentation & Semantic Modelling

Abhishek Bajpai | May 17, 2022

Principal Member of Tech Staff, Customer Excellence, Analytics

*With inputs from*

*Hiteshkumar Patel ,Senior Principal Product Manager*

*Manjunath Subramanian ,Senior Principal Product Manager*

*Krithika Raghavan, Director, Customer Excellence, Analytics*

*Navnit Mishra , Consulting Member Of Technical Staff, Customer Excellence, Analytics*

The following document lays out step-by-step how a Fusion Analytics Warehouse (FAW) user can go about building a completely new subject area by sourcing Fusion Apps data using data augmentation and then using the Semantic Model Extension to create reporting subject areas.

## The Business Case

The majority of FAW customers need to extend the FAW data model from data sourced from Fusion instance. We have picked up one example scenario where we are needed to extend FAW content from Fusion for **Quotes** and **Consumption** custom objects.



**Quotes data is part of the future release roadmap at the time of writing this blog. The focus of the blog is to help FAW users with a customization approach using this as one of the example data elements.**

## The Approach

Following are the steps that we have followed in this document.

1. Prerequisite for custom Public View Objects
2. Understanding our Source data
3. Data Augmentation
4. Data modeling tweaks for a star schema
5. Model using Semantic Model Extension
  - Create branch
  - Create Subject Area for Quotes
  - Create Dimensions

- Extend Dimension
  - Create Fact
  - Modify SA
  - Re-using Quotes Subject area to create Consumption SA
  - Add Dimensions in **Consumption**
  - Add Facts in **Consumption SA**
  - Create custom Subject Area referencing the Prebuilt custom Quotes SA
  - Create missing Dimensions in Consumer Subject Area
6. Publish the model
  7. Validating the model
  8. Deploying the model

### **Prerequisite for custom Public View Objects (PVO)**

FAW provides several PVO's whitelisted. However, our use case uses custom PVO. We need to get the custom PVOs whitelisted before the object is available for Data Augmentation.

### **Step -1: Understanding our Source data Model**

We need to analyze Quotes (Headers and Lines) and consumption data from Fusion. The list of objects that we need to bring via data augmentation is as follows:

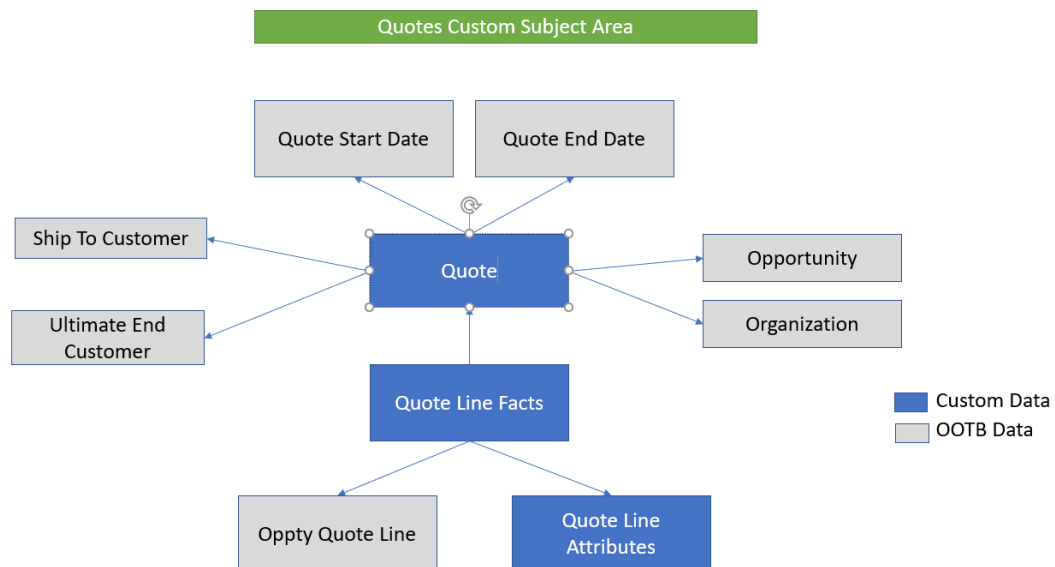
1. Quotes
2. Quote Lines
3. Consumption

On further analysis, we realized that our custom data model can be summarized and modeled in two distinct subject areas such as

**Quotes** – We would ingest data from Quotes (Header), Quotes lines Fusion objects and look to leverage the following Out of the Box (Commonly referred to as OOTB) Dimensions such as

1. Date Dimension (For Quote Start and End Date)
2. Party Dimension (Ship to, End Customer, Organization)
3. Opportunity Dimension (For Opportunities corresponding to Quote Header and Line Level)

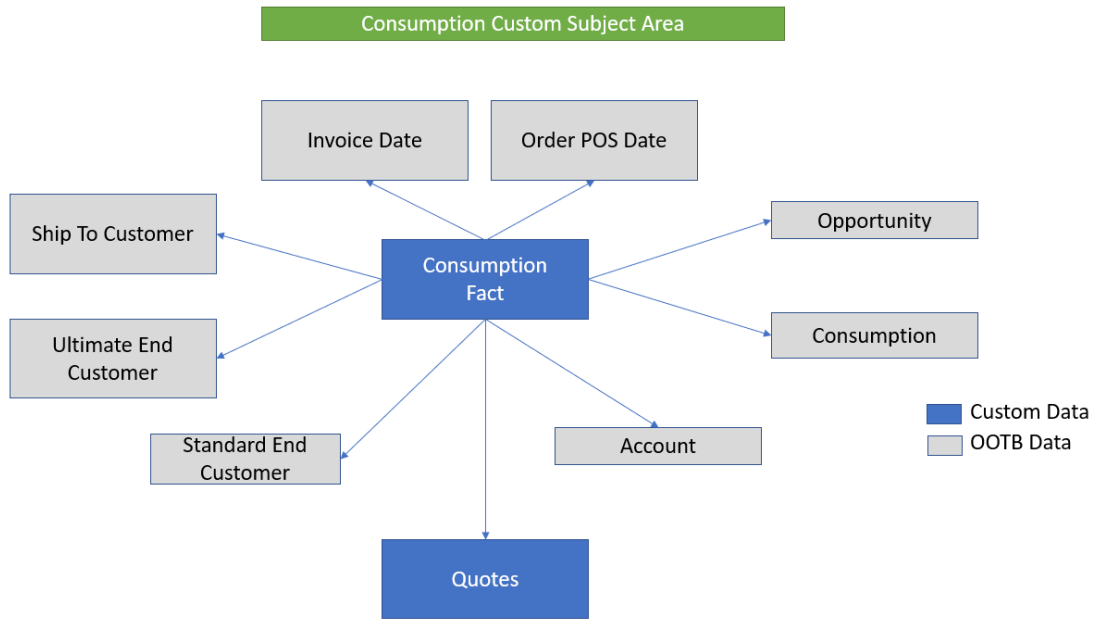
Use metrics at quote (headers and line level) as well as use attributes so our model will have them as Dimensions as well as Fact.



**Consumption** – We would ingest data from the **Consumption** Fusion object and look to leverage the following OOTB Dimensions such as:

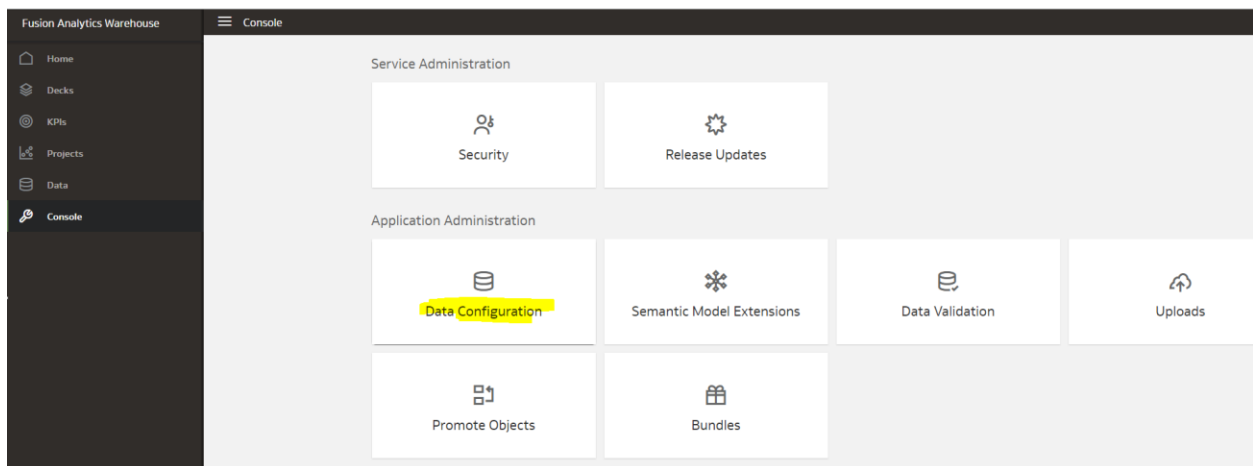
1. Date Dimension (For Invoice and Order POS Date)
2. Party Dimension (Ship to, Standard End Customer, Account, Ultimate End Customer)
3. Opportunity Dim (For consumption opportunities)

We have metrics at the Consumption level as well as attributes, so our model will have this object as a Dimension as well as a Fact.

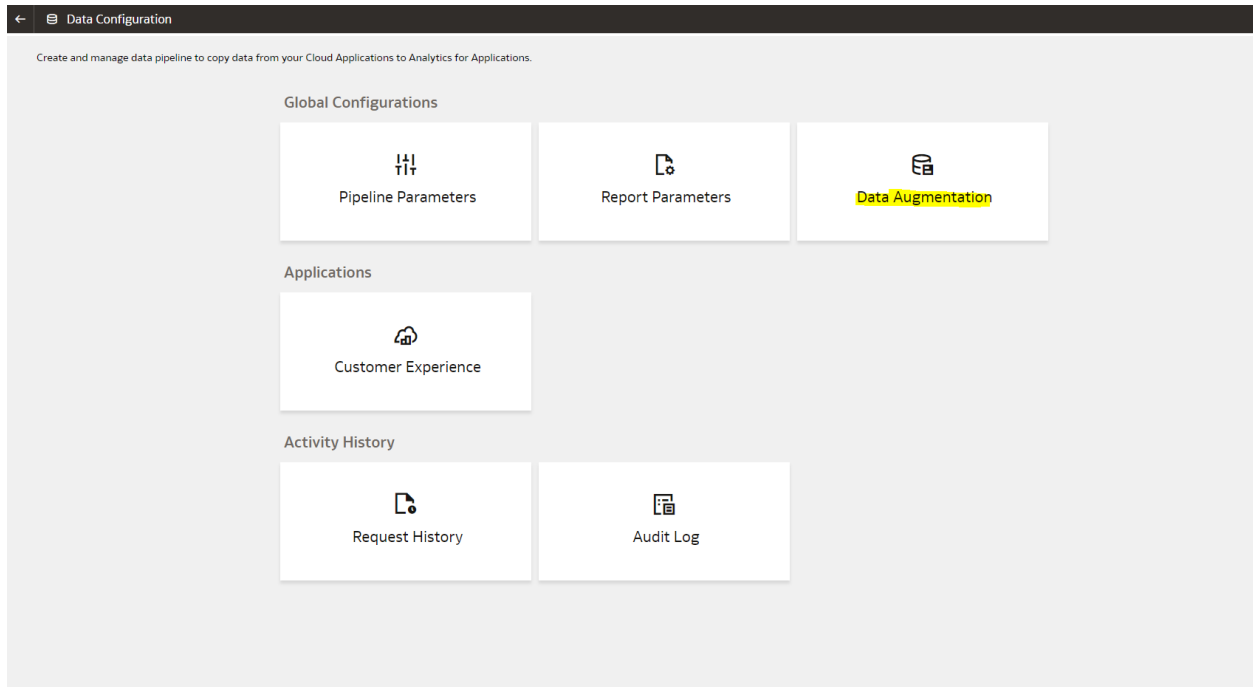


## Step 2: Data Augmentation

From the FAW URL, we navigate to Console and then to Data Configuration:



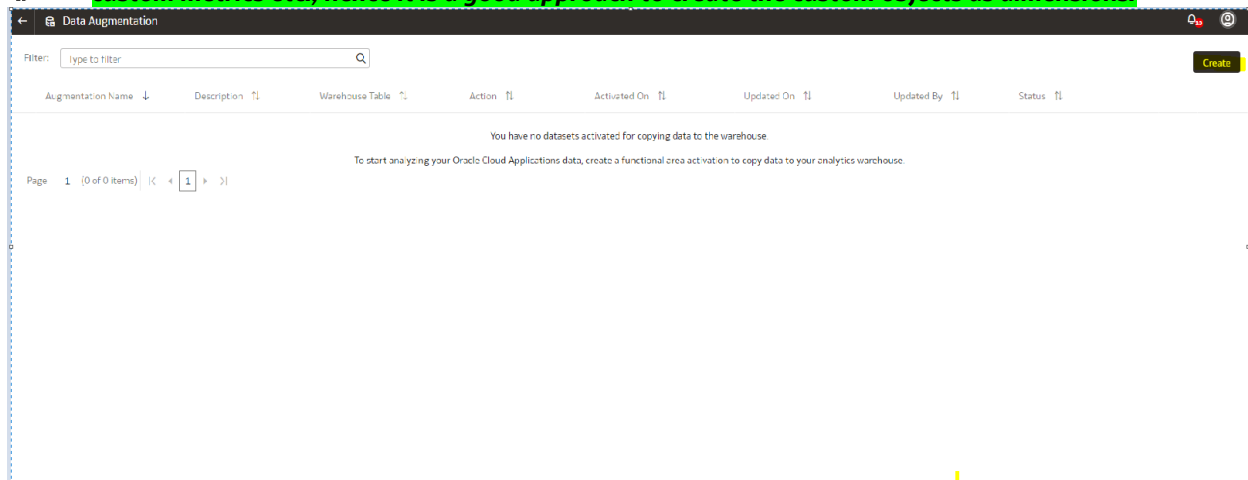
Then, we navigate from Data Configuration and then to **Data Augmentation**



In Data Augmentation we click the option to create **Data Augmentation**, now we proceed to create various entities



**We intend to use Semantic model Extension to curate our Subject Area (referred to as SA) and create custom metrics etc., hence it is a good approach to create the custom objects as dimensions.**

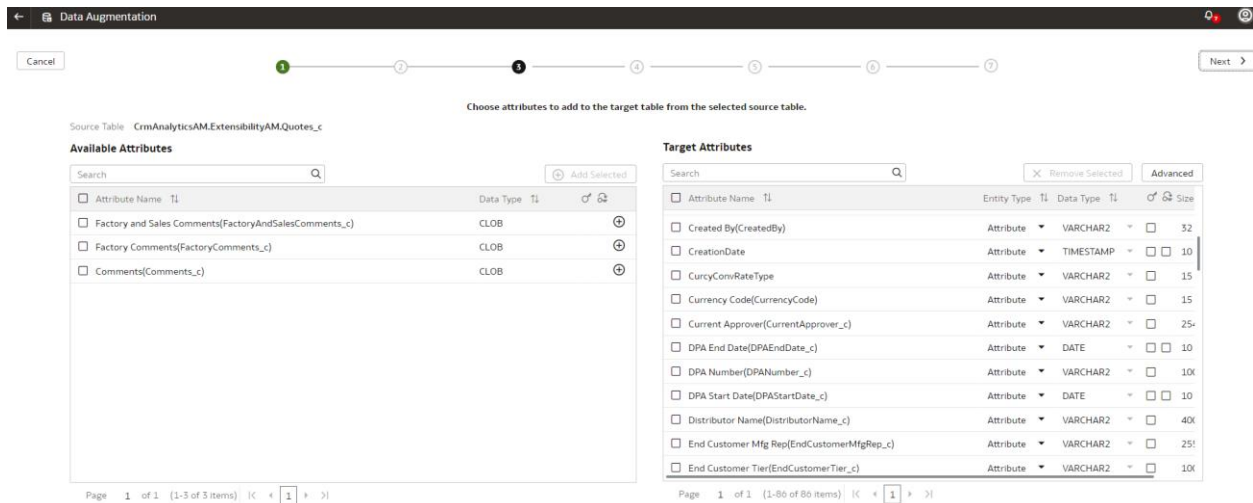


**Adding Quotes** (headers),we get the following interface.

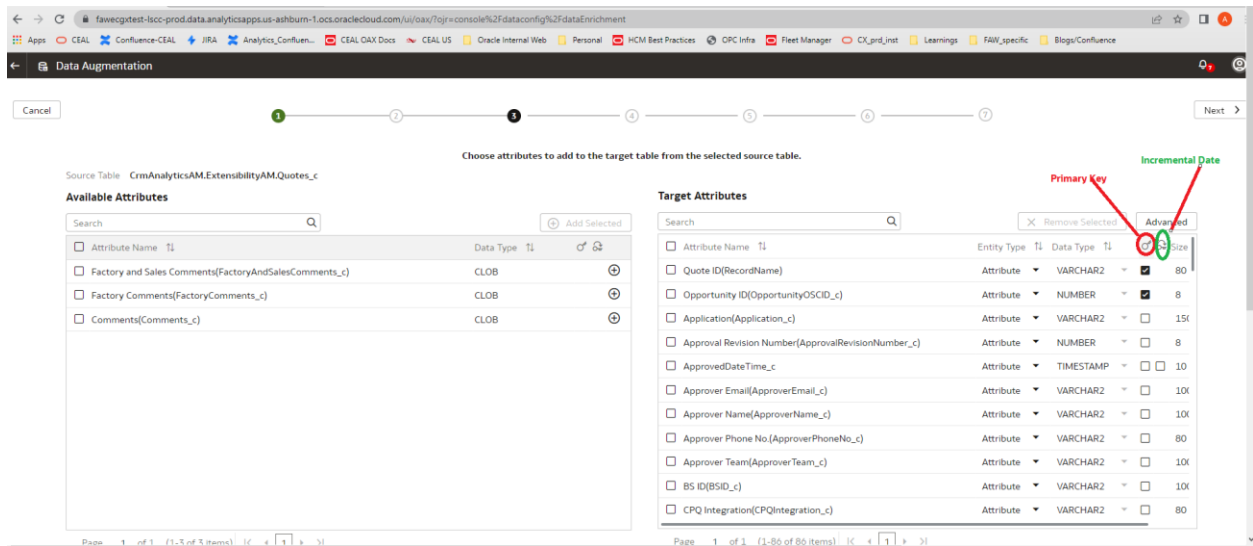
We see three options, and, as mentioned, we select the Create **Dimension** option.

We then select the pillar corresponding to PVO and the name of PVO.

Select the attributes required. Currently,FAW supports only up to 100 attributes.



We select **Primary Key**, then we select **Incremental Date** as shown below on the screen. This is critical for this source object to be completed by daily incremental schedules.



Our Fusion PVO's has the **Last Update Date** attribute which we choose as an incremental key.

← Data Augmentation

Cancel 1 2 3 4 5 6 7 Next

Choose attributes to add to the target table from the selected source table.

Source Table CrmAnalyticsAM.ExtensibilityAM.Quotes\_c

**Available Attributes**

| Attribute Name                                        | Data Type |  |
|-------------------------------------------------------|-----------|--|
| Factory And Sales Comments(FactoryAndSalesComments_c) | CLOB      |  |
| Factory Comments(FactoryComments_c)                   | CLOB      |  |
| Comments(Comments_c)                                  | CLOB      |  |

Page 1 of 1 (1-3 of 3 items) |< 1 >|

**Target Attributes**

| Attribute Name                                 | Entity Type | Data Type | Size |
|------------------------------------------------|-------------|-----------|------|
| Factory Duration(FactoryDuration_c)            | Attribute   | NUMBER    | 8    |
| Factory Level Approver(FactoryLevelApprover_c) | Attribute   | VARCHAR2  | 80   |
| Factory Status(FactoryStatus_c)                | Attribute   | VARCHAR2  | 255  |
| Factory Submitted Date_c                       | Attribute   | TIMESTAMP | 10   |
| Field Duration(FieldDuration_c)                | Attribute   | NUMBER    | 8    |
| Field Level Approver(FieldLevelApprover_c)     | Attribute   | VARCHAR2  | 80   |
| Record ID(Id)                                  | Attribute   | NUMBER    | 8    |
| Last Update Date                               | Attribute   | TIMESTAMP | 10   |
| Last Update Login                              | Attribute   | VARCHAR2  | 32   |
| Last Updated By(LastUpdatedBy)                 | Attribute   | VARCHAR2  | 32   |
| Opportunity Name(OpportunityName_Id_c)         | Attribute   | NUMBER    | 8    |

Page 1 of 1 (1-86 of 86 items) |< 1 >|

We provide a meaningful target table name suffix and FAW prefixes **DW\_FA\_X** on the name.

← Data Augmentation

Cancel 1 2 3 4 5 6 7 Finish

Save and schedule your Data Augmentation.

Source Table CrmAnalyticsAM.ExtensibilityAM.Quotes\_c

Augmentation Name DW\_FA\_X\_QUOTES

Target Table Name Suffix QUOTES

Target Table Name DW\_FA\_X\_QUOTES

Description Quotes\_Data

Extending Subject Areas

After selecting on Finish the Augmentation is scheduled and once complete, we see the status as **Activation Complete**.

← Data Augmentation

Filter: DW\_FA\_X\_QUOTES X Delete Selected Add to Bundle Create

| Augmentation Name | Description | Warehouse Table | Action           | Activated On         | Updated On            | Updated By | Status              |
|-------------------|-------------|-----------------|------------------|----------------------|-----------------------|------------|---------------------|
| DW_FA_X_QUOTES    | Quotes_Data | DW_FA_X_QUOTES  | Create Dimension | 5/2/2022, 1:01:41 PM | 5/6/2022, 10:44:06 AM | FAWAdmin   | Activation Complete |

Page 1 of 1 (1 of 1 items) |< 1 >|

Similarly, we add Quote Lines.



← Data Augmentation

Cancel

1 — 2 — 3 — 4 — 5 — 6 — 7

Select a pillar and a source table to add a data augmentation to the warehouse.

Select an Augmentation Type: Create Dimension

Source Dataset Type: REGULAR

Pillar: Customer Experience

Source Table: CrmAnalyticsAM.ExtensibilityAM.QuoteLineItems\_c

Next >

And we see the status as **Activation Complete** after activation.

← Data Augmentation

Filter: DW\_FA\_X\_QUOTE\_LINE

Delete Selected Add to Bundle Create

| Augmentation Name                           | Description        | Warehouse Table    | Action           | Activated On         | Updated On            | Updated By | Status              |
|---------------------------------------------|--------------------|--------------------|------------------|----------------------|-----------------------|------------|---------------------|
| <input type="checkbox"/> DW_FA_X_QUOTE_LINE | DW_FA_X_QUOTE_LINE | DW_FA_X_QUOTE_LINE | Create Dimension | 5/5/2022, 4:46:57 PM | 5/6/2022, 10:43:20 AM | FAWAdmin   | Activation Complete |

Page 1 of 1 (1 of 1 items) < 1 >

Similarly, we add the **Consumption** object.

← Data Augmentation

Cancel

1 — 2 — 3 — 4 — 5 — 6 — 7

Select a pillar and a source table to add a data augmentation to the warehouse.

Select an Augmentation Type: Create Dimension

Source Dataset Type: REGULAR

Pillar: Customer Experience

Source Table: CrmAnalyticsAM.ExtensibilityAM.Consumption\_c

Next >

Now we finally add a Fact for opportunity.

← Data Augmentation

Cancel

1 — 2 — 3 — 4 — 5 — 6 — 7

Select a pillar and a source table to add a data augmentation to the warehouse.

Select an Augmentation Type: Create Fact

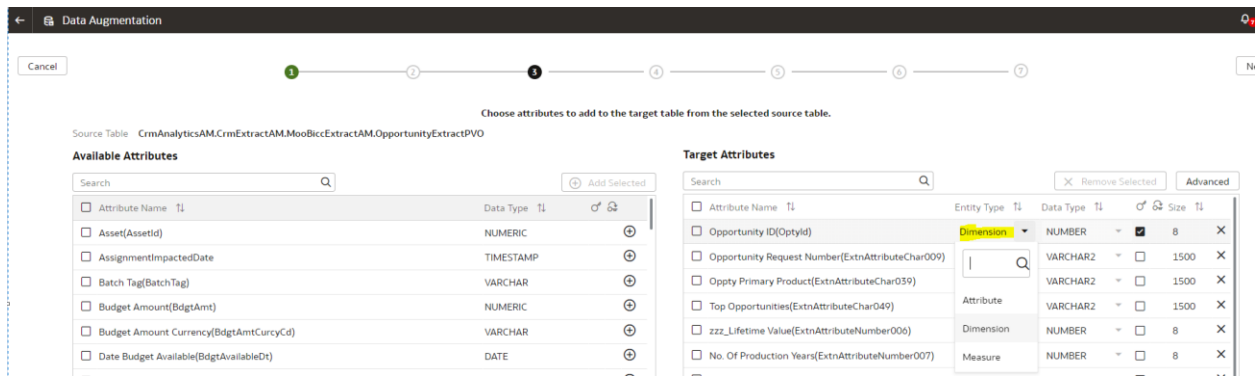
Source Dataset Type: REGULAR

Pillar: Customer Experience

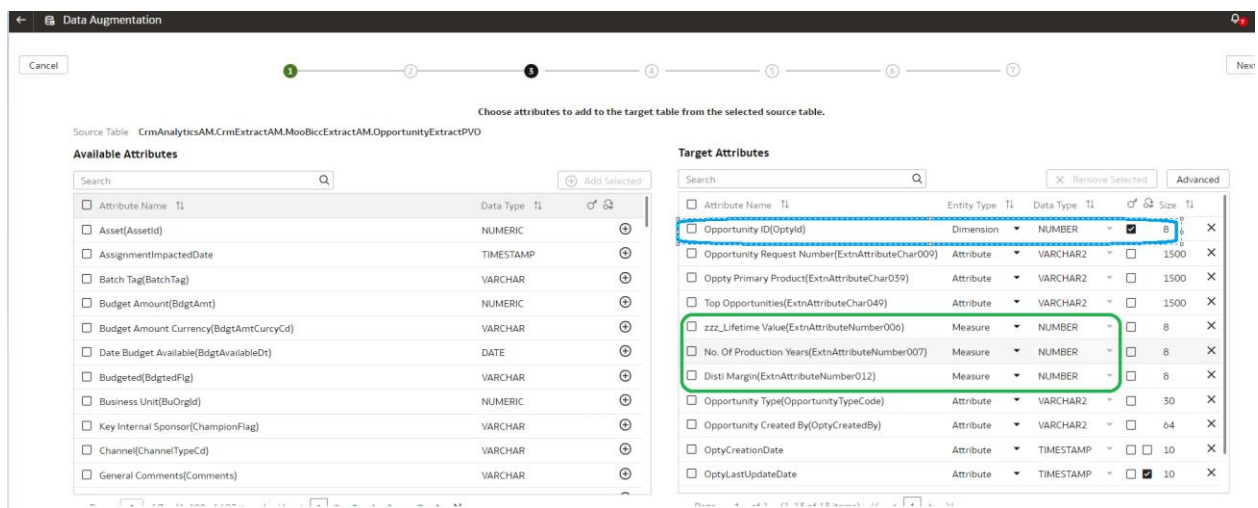
Source Table: CrmAnalyticsAM.CrmExtractAM.MooBiccExtractAM.OpportunityExtra...

Next >

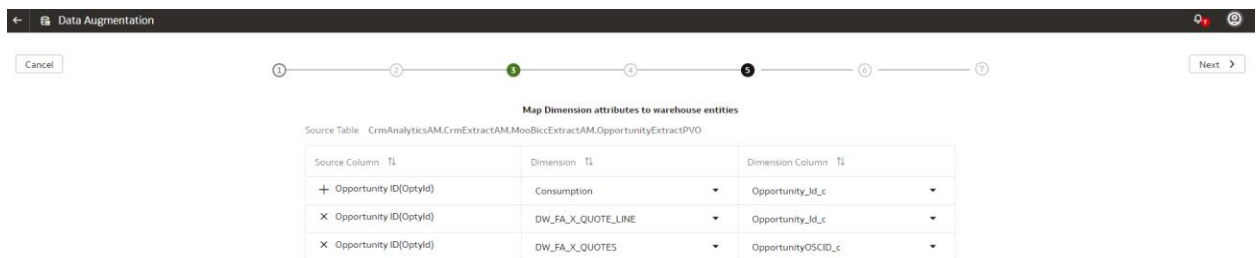
We select the attributes needed. Our Fact will join to Dimensions we created in earlier steps. We have the option of identifying keys for this and selecting Entity Type as **Dimension**.



Our **Fact** table does need some attributes which can be measures.



We use the **Keys** we identified to join to Dimensions we added earlier.



For measures we identified, we selected the appropriate Aggregation function applicable.

Cancel

1 2 3 4 5 6 7

Next

Map Measure attributes to warehouse entities

Source Table CrmAnalyticsAM.CrmExtractAM.MooBiccExtractAM.OpportunityExtractPVO

| Source Column                               | Aggregation |
|---------------------------------------------|-------------|
| zzz_Lifetime Value[ExtnAttributeNumber0...] | Count       |
| No. Of Production Years[ExtnAttributeNu...] | Sum         |
| Disti Margin[ExtnAttributeNumber012]        | Max         |

Then, we provide the subject area name.

Cancel

1 2 3 4 5 6 7

Finish

Save and schedule your Data Augmentation.

Source Table CrmAnalyticsAM.CrmExtractAM.MooBiccExtractAM.OpportunityEx

Augmentation Name OPP\_FACT

Target Table Name Suffix OPP\_FACT

Target Table Name DW\_FA\_X\_OPP\_FACT

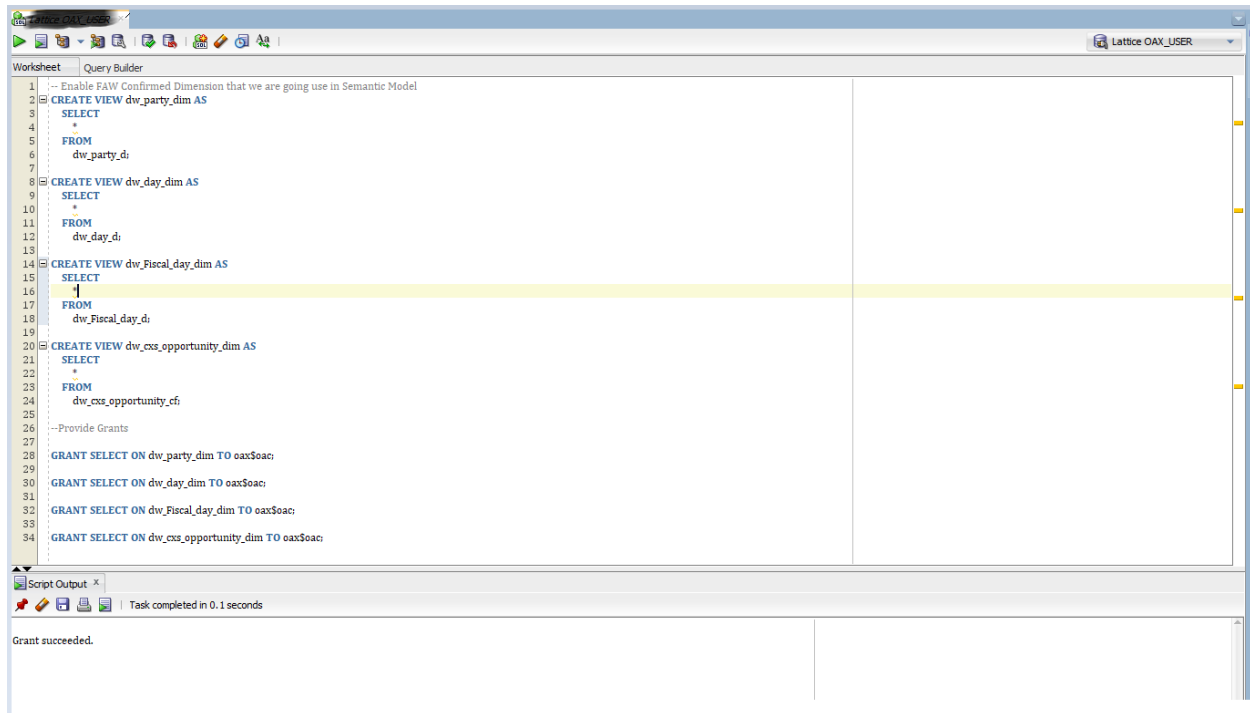
Description OPP\_FACT

Extending Subject Areas CX\_OPP\_CUST\_FACT X

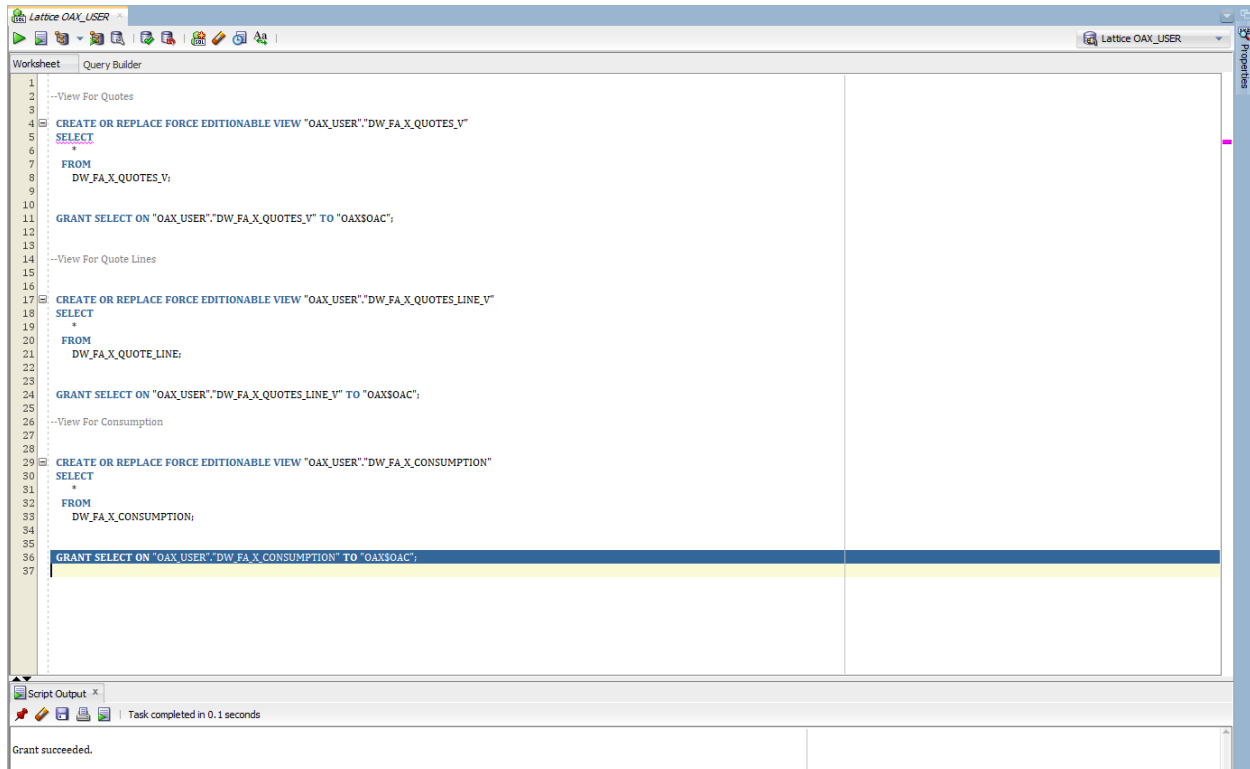
### Step 3: Data modeling tweaks for a star schema

The best flexibility FAW provides is the highly descriptive pre-modeled content that can be used as confirmed Dimensions in our case. Also, this content is part of managed services and hence the responsibility of the data pipeline team. We do not have direct access to these Dimensions; hence we have to create custom views with necessary grant privilege as shown in the screen below before we can use them in our semantic model. We have the following OOTB Dimensions we are looking to use.

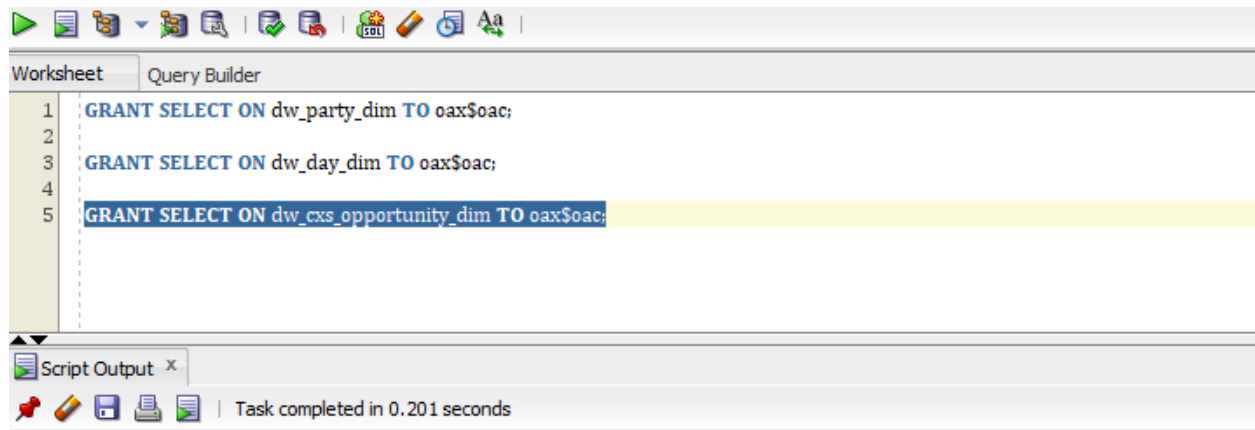
1. *DW\_DAY\_D – For Normal Calendar*
2. *DW\_FISCAL\_DAY\_D – For Enterprise Calendar*
3. *DW\_PARTY\_D – For various role-playing dimensions*
4. *DW\_CXS OPPORTUNITY\_CF – For Opportunity specific metadata.*



Next, we focus on the objects that we created by our data augmentation. We follow the same approach.

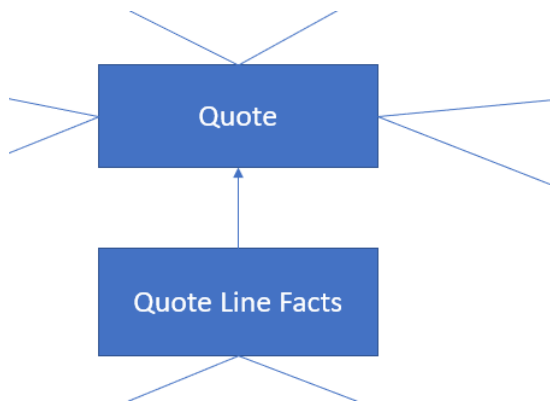


Grant as shown here.



Grant succeeded.

Our last issue is that our data model has Dimensions joining at both quotes header and Line level. Since the two tables are logically related, it is much easier to build this relationship at the database level.



We create a Fact with a left outer join since all **Quote lines** would correspond to **Quotes** but not necessarily vice versa. FAW users can modify the approach depending upon their specific use case. A full outer join though is not recommended for performance reasons.

```

Welcome Page Lattice OAX_USER
Worksheet Query Builder
1 create view dw_fa_x_quotes_line_FACT as
2 SELECT
3 AS
4 SELECT
5 q.id quote_id,
6 q.shipcustomername_id_c quote_ship_to_cust,
7 q.ultimateendcustomer_id_c quote_ultimate_to_cust,
8 q.opportunityname_id_c quote_oppty_id,
9 q.startdate_c quote_start_dt,
10 q.enddate_c quote_end_dt,
11 q.opportunitytype_c quote_oppty_typ,
12 q.opportunity_c quote_oppty_id,
13 q.standardendcustomer_c quote_cust,
14 q.theatre_c quote_theatre,
15 q.source_record_id quote_key,
16 qline.*
17 FROM
18 dw_fa_x_quotes_line_mv qline,
19 dw_fa_x_quotes_mv q
20 WHERE
21 q.id (+) = qline.quotes_id_c;
22
23 grant select on DW_FA_X_QUOTES_LINE_MV to OAX$OAC;

```

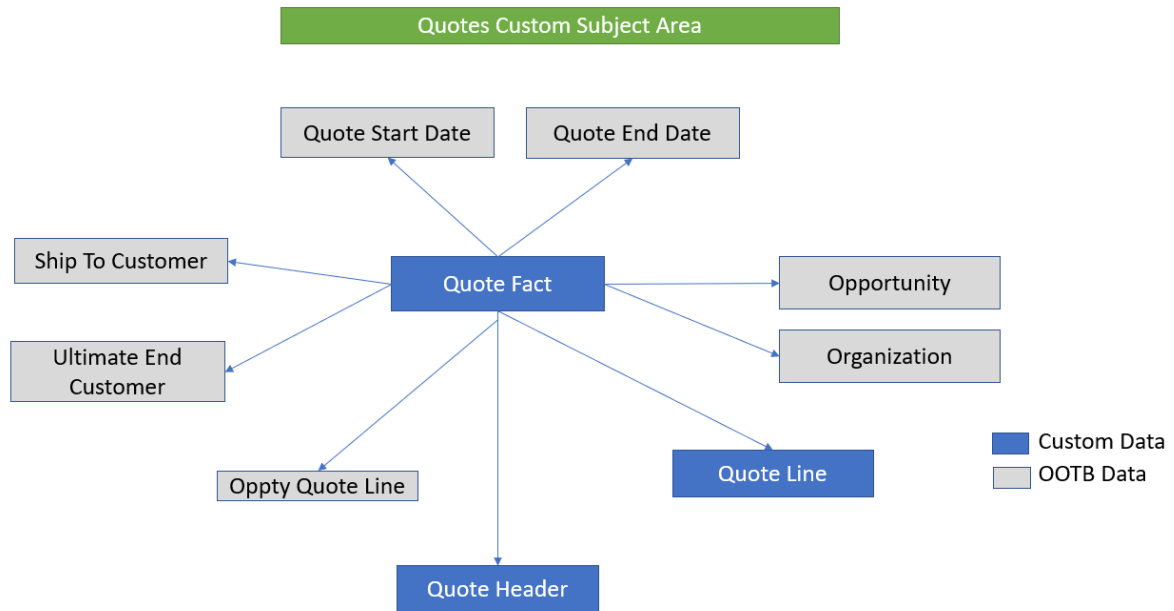
We now check and validate the data in the Fact table.

| QUOTE_ID        | QUOTE_RECORD_ID | QUOTE_SHIP_TO_CUST | QUOTE_ULTIMATE_TO_CUST | QUOTE_OPPTY_ID  | QUOTE_START_DT | QUOTE_END_DT | QUOTE_OPPTY_TYP  | QUOTE_OPPTY_ID |
|-----------------|-----------------|--------------------|------------------------|-----------------|----------------|--------------|------------------|----------------|
| 300000019282040 | 300000019282040 | (null)             | 100000042708020        | 300000018499519 | 08-APR-16      | 07-JUL-16    | Registration     |                |
| 300000019282088 | 300000019282088 | 100000042705370    | 100000042705370        | 300000018636333 | 19-MAY-16      | 17-AUG-16    | Registration     |                |
| (null)          | (null)          | (null)             | (null)                 | (null)          | (null)         | (null)       | (null)           | (null)         |
| 300000019282340 | 300000019282340 | 100000042704322    | 100000042706384        | 300000018311513 | 02-JUN-16      | 31-AUG-16    | Registration     |                |
| 300000019282644 | 300000019282644 | 100000042703362    | 100000042703362        | 300000018772528 | 29-APR-16      | 28-JUL-16    | Registration     |                |
| 300000019293650 | 300000019293650 | 100000042704617    | 100000042704617        | 300000018446189 | 07-JUN-16      | 05-SEP-16    | Registration     |                |
| 300000019294904 | 300000019294904 | 100000042704385    | 100000042706411        | 300000018572212 | 13-JUN-16      | 11-SEP-16    | Registration     |                |
| 300000019297364 | 300000019297364 | 100000042888827    | 100000042888827        | 300000018927920 | 26-MAR-15      | 31-DEC-16    | Registration     |                |
| 300000019297696 | 300000019297696 | 100000042890259    | 100000042890259        | 300000018848002 | 24-FEB-14      | 31-DEC-16    | Registration     |                |
| 300000020921351 | 300000020921351 | 100000042710516    | 100000042710516        | 300000018734923 | 25-AUG-16      | 23-NOV-16    | Registration     |                |
| 300000020922297 | 300000020922297 | 100000042888995    | 100000042888995        | 300000019581383 | 03-DEC-12      | 31-DEC-16    | Fulfillment      |                |
| (null)          | (null)          | (null)             | (null)                 | (null)          | (null)         | (null)       | (null)           | (null)         |
| 300000021445918 | 300000021445918 | 100000042703558    | (null)                 | 300000018169704 | 12-SEP-16      | 11-DEC-16    | Non-Registration |                |
| 300000021455069 | 300000021455069 | 100000053632986    | 100000053632986        | 300000021008442 | 13-SEP-16      | 12-DEC-16    | Non-Registration |                |
| (null)          | (null)          | (null)             | (null)                 | (null)          | (null)         | (null)       | (null)           | (null)         |
| (null)          | (null)          | (null)             | (null)                 | (null)          | (null)         | (null)       | (null)           | (null)         |
| 300000021965055 | 300000021965055 | 100000042704368    | 100000042703565        | 300000021864464 | 05-OCT-16      | 03-JAN-17    | Fulfillment      |                |
| (null)          | (null)          | (null)             | (null)                 | (null)          | (null)         | (null)       | (null)           | (null)         |
| 300000022022672 | 300000022022672 | 100000042710631    | 100000042710631        | 300000021904229 | 12-OCT-16      | 10-JAN-17    | Fulfillment      |                |
| (null)          | (null)          | (null)             | (null)                 | (null)          | (null)         | (null)       | (null)           | (null)         |
| 300000022060525 | 300000022060525 | 300000019835522    | 300000021433358        | 300000021962369 | 13-OCT-16      | 11-JAN-17    | Fulfillment      |                |
| 300000022869945 | 300000022869945 | 100000042709068    | 100000042709068        | 300000018620916 | 28-OCT-16      | 26-JAN-17    | Registration     |                |



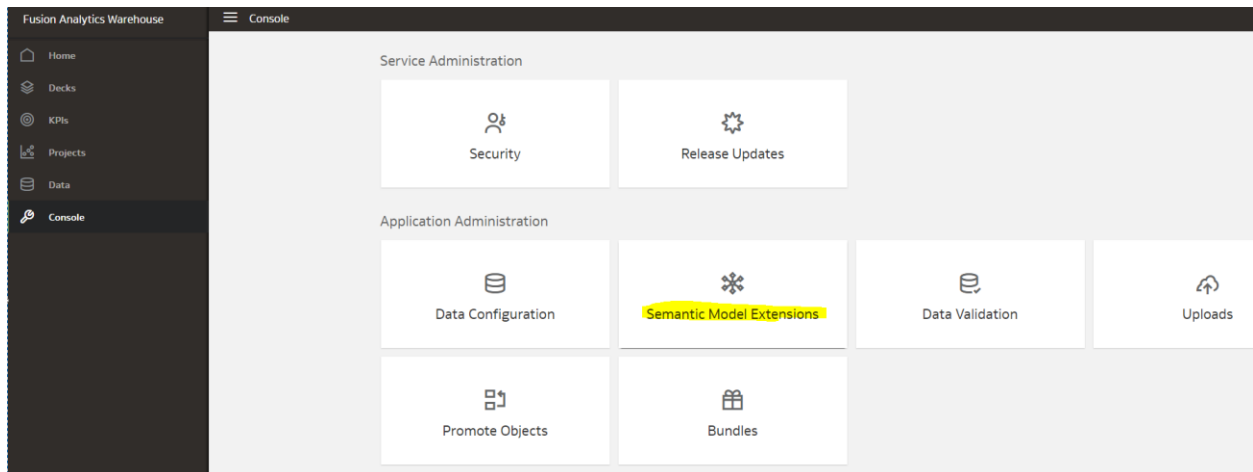
**It is always a good practice to test out all the entity relationships in the database and confirm the results with business before proceeding to model them in the FAW.**

Our new star schema is logically summarized below:

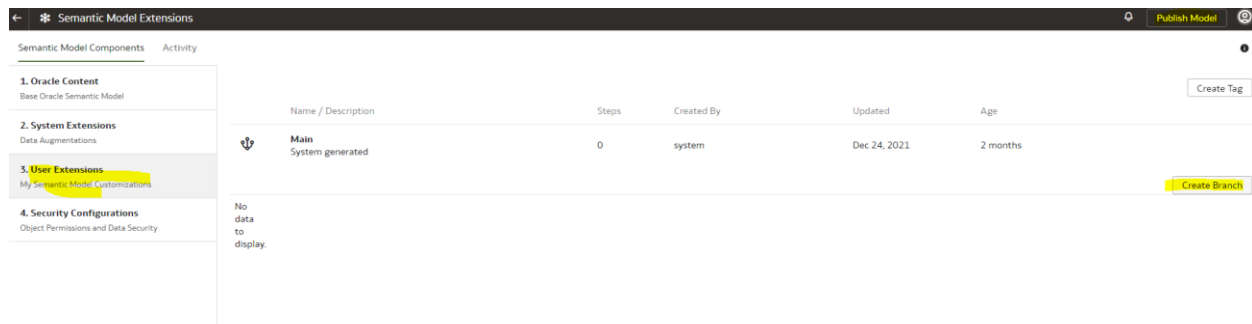


#### Step 4: Model using Semantic Model Extensions

We navigate from Console to **Semantic Model Extensions**, here:

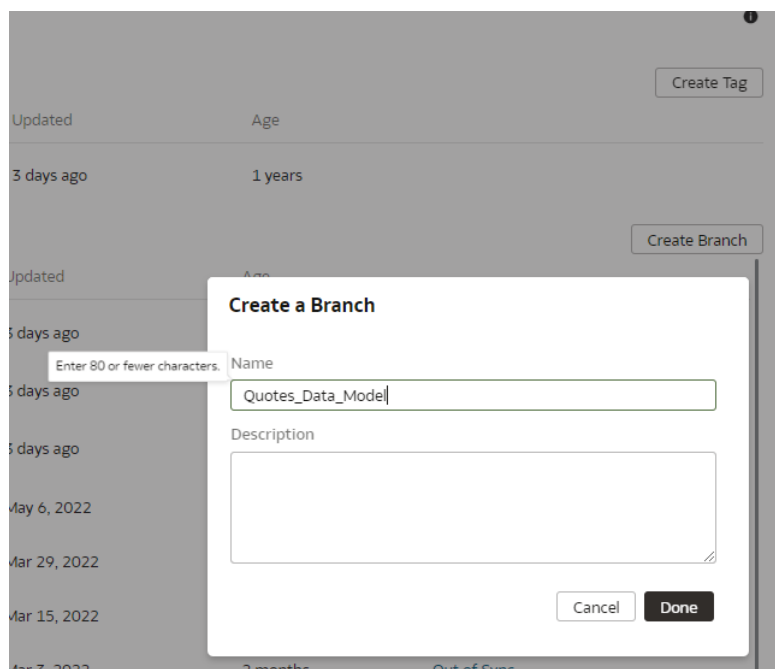


Our interface for the semantic model appears as follows and the left panel has several options, we would click on **User Extensions**:

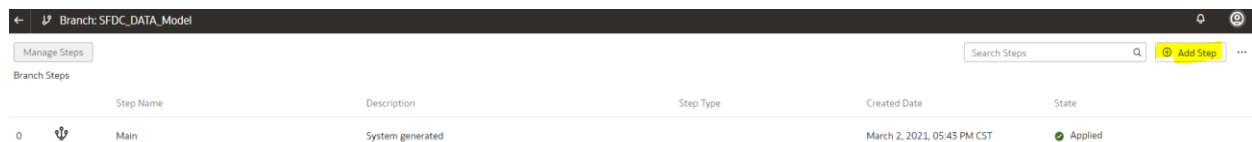


Our first step is to **Create a Branch**. This is exactly like various source versioning software where an individual developer has an option of versioning. During the customizations in the branch, the changes can be published (option **Publish Model** as seen in the screenshot) and tested and after successful validation and due diligence, the changes could be finalized.

**4.1. Create a Branch** – Click on the option and name the branch by a distinct name

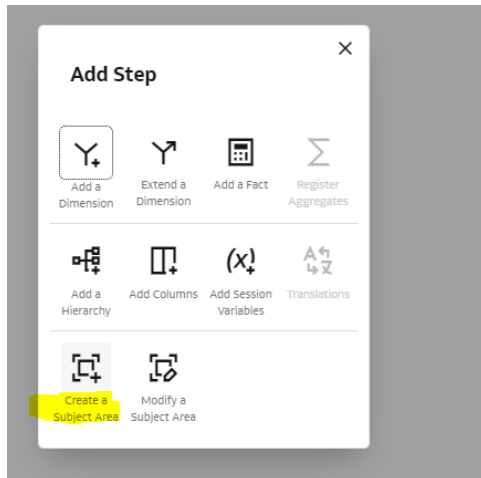


We now see a screen like below, select **Add Step**:



We see several options – We select **Create a Subject Area** for customization:





We are presented with two options:

- I. **Create a Subject Area** – If we want to create a subject area from scratch.
- II. **Create a Subject Area based on the existing one** – In case we want to leverage some confirmed dimensions from OUT OF BOX i.e. – *Date, Currency, Ledger, Operating Unit*

We will use **Create a Subject Area**:

**Create a Subject Area - Quote SA**

Cancel [Progress Bar: 1, 2, 3, 4] Next >

Create a Subject Area.

\* Step Name: Quote SA

Step Description: Quotes SA

Create your subject area.

☒ Create a subject area.

☐ Create a subject area based on an existing one.

Choose a subject area: [Dropdown]

\* New Subject Area Name: CX - Custom Quotes

Subject Area Description: CX Custom Quotes

Click on **Next** and then we'll see the screen where to select **Finish**:

**Create a Subject Area - Quote SA**

Cancel < Back [Progress Bar: 1, 2, 3, 4] Finish

Click Finish to create a subject area.

Subject Area Name: CX - Custom Quotes

Subject Area Description: CX Custom Quotes

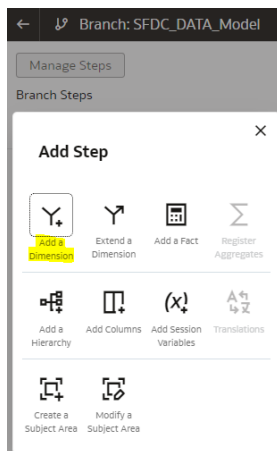
## 4.2. Add Dimensions

Always add all the Dimensions first before Fact is added so that we can correctly adjust the content level of Fact.

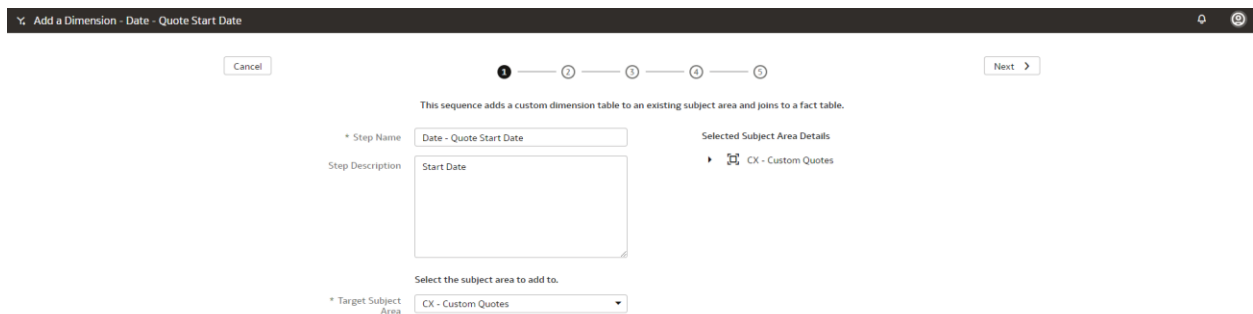


**Content level is used to identify the grain or level of detail or aggregation level at which the Fact table associates with a Dimension**

Now to **Add a Dimension**:



We define the step name, description and select the **Target Subject Area** that we created in an earlier step:



We move on to define keys, in our case the primary Dimension table is a foreign key for joining to the Fact. This is the most usual scenario, also we have an option of providing a more business-friendly display name for our columns which we have done.

Y Add a Dimension - Date - Quote Start Date

Cancel < Back

1 2 3 4 5

Next >

Name the dimension table to add to CX - Custom Quotes and choose the attributes.

Schema \* OAX\_USER

Object \* DW\_DAY\_DIM

Views Tables Synonyms

Dimension Name \* Date - Quote Start Date

Filter Selected Search Source Column Refresh Create Column

| Add Attributes                      | Use for Key                         | Source Column         | Display Name   |
|-------------------------------------|-------------------------------------|-----------------------|----------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | CAL_MONTH_LOCALE_NAME | Month Name     |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | CAL_QUARTER_ID        | Quarter Id     |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | CALENDAR_DATE         | Date           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | CAL_QUARTER_CODE      | Quarter Name   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | CAL_YEAR_CODE         | Year           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | CAL_QUARTER_NUMBER    | Quarter Number |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | CAL_MONTH_NUMBER      | Month Number   |

Since we haven't yet added the Fact table, we chose to skip joins for now.

Y Add a Dimension - Date - Quote Start Date

Cancel < Back

1 2 3 4 5

Next >

Select the fact tables to link your dimension to and define the joins.

Don't want to join a fact table now? Skip Joins

Add Fact Table

| Fact Table | Fact Key Column | Join Type | Dimension Table Key |
|------------|-----------------|-----------|---------------------|
| Select     | Select          | Inner     | Date (DATE)         |

**Skip Joins**

Existing joins that have been created in this window will be lost. Are you sure you want to proceed?

Cancel Skip Joins

We provide the Primary key and display attribute. In our case, this is the date.

Y Add a Dimension - Date - Quote Start Date

Cancel < Back

1 2 3 4 5

Next >

Assemble the product hierarchy using the attributes from this dimension.

☒ Add hierarchy to Subject Area

Hierarchy Name Level 1

Type ☐ Time ☐ Ragged ☐ Skipped Levels

**Available Data Elements**

- Date - Quote Start Date
  - Month Name
  - Quarter Id
  - Quarter Name
  - Year
  - Quarter Number
  - Month Number

**Selected Data Elements**

- Total
  - Detail
    - Date

**Properties**

**Primary Key** Date

**Display Attribute** Date

Then we click on the highlighted **Finish** button to finalize the steps that we have defined previously or use **Back** navigation if we need to re-check anything we have defined. **Cancel** would undo all the steps we did and exit from the step.

Y Add a Dimension - Date - Quote Start Date

Cancel Back

1 2 3 4 5

Choose additional subject areas to include the new dimension.

⚠ You've skipped setting the joins. The capabilities of this dimension are limited if you don't select fact tables and keys to join with.

Apply the new dimension to:

☒ CX - Custom Quotes

Apply to additional subject areas:

Search additional subject areas

☐ Common - Data Validation

☐ Common - Usage Tracking

☐ Common - Warehouse Refresh Statistics

☐ CX - Activity

☐ CX - Lead Activity

☐ CX - Leads

☐ CX - Opportunity

☐ CX - Opportunity Activity

☐ CX - Opportunity Revenue Line

☐ CX - Opportunity Stage Progression

Finish

### 4.3. Extend a Dimension

In our previous step we added the date calendar. We also need an enterprise calendar. We use the option of **Extend a Dimension** to incorporate this.

← Branch: Quotes\_Data\_Model

Manage Steps

Branch Steps

|   | Step Name              | Description            | Step Type          |
|---|------------------------|------------------------|--------------------|
| 0 | Main                   | System generated       |                    |
| 1 | Quote SA               | Quotes SA              | New Subject Area   |
| 2 | Quote Start Date       | Quote Start Date       | Add Dimension      |
| 3 | Quote End Date         | Quote End Date         | Extend a Dimension |
| 4 | Quote End Date         | Quote End Date         | Add Dimension      |
| 5 | Quote end date         | Quote end date         | Extend a Dimension |
| 6 | Quote end date         | Quote end date         | Add Dimension      |
| 7 | Quote end date         | Quote end date         | Add Dimension      |
| 8 | Opportunity Quotes     | Opportunity Quotes     | Add Dimension      |
| 9 | Opportunity Quote Line | Opportunity Quote Line | Add Dimension      |

**Add Step**

☒ Add a Dimension
 ☒ **Extend a Dimension**
☐ Add a Fact
 ☐ Register Aggregates

☐ Add a Hierarchy
 ☐ Add Columns
 ☐ Add Session Variables
 ☐ Translations

☐ Create a Subject Area
 ☐ Modify a Subject Area

Then select the Dimension that we are extending and the same folder name. This allows all our date attributes to be neatly organized.

Extend a Dimension - Extend a Dim Quote Start Date

Cancel

1

2

3

4

Next >

Select the subject area, folder, and logical table to extend the dimension.

\* Step Name

Extend a Dim Quote Start Date

Step Description

Existing Attributes in Dim - Date - Quote Start Date

Month Name

Quarter Id

Date

Quarter Name

Year

Quarter Number

Month Number

Select the dimension table to be extended.

\* Target Subject Area

CX - Custom Quotes

\* Folder

Date - Quote Start Date

\* Logical Table

Dim - Date - Quote Start Date

OOTB Dimensions usually have several attributes. It is a good practice to keep only the attributes needed for analysis. This helps easier user navigation and usage.

Extend a Dimension - Extend a Dim Quote Start Date

Cancel

< Back

1

2

3

4

Next >

Select the table and columns that you want to add.

Schema \*

OAX\_USER

Object \*

DW\_FISCAL\_DAY\_DIM

Views

Tables

Synonyms

Filter

Show All

Search Source Column

Refresh

Create Column

| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Source Column         | Display Name              |
|-------------------------------------|-------------------------------------|-----------------------|---------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | FISCAL_PERIOD_NUMBER  | Enterprise Period Number  |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | FISCAL_DAY_DATE       | Enterprise Date           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | FISCAL_YEAR_NUMBER    | Enterprise Year           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | FISCAL_DAY_CODE       | Enterprise Day Name       |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | FISCAL_PERIOD_NAME    | Enterprise Period Name    |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | FISCAL_QUARTER_CODE   | Enterprise Quarter        |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | FISCAL_QUARTER_NUMBER | Enterprise Quarter Number |

We join this extended Dimension on the date.

Extend a Dimension - Extend a Dim Quote Start Date

Cancel

< Back

1

2

3

4

Next >

Join dimension keys with extended dimension keys.

Select Join Type:

Inner

Complex Join

Dimension Key

Date (DATE)

Extended Dimension Key

FISCAL\_DAY\_DATE (DATE)

Our date now has attributes from both the calendars.

Extend a Dimension - Extend a Dim Quote Start Date

Cancel < Back

1 2 3 4

Finish

Select additional subject areas to add the dimension.

Apply the extended dimension to:

☒ CX - Custom Quotes

The same approach is applied in adding all the other Dimensions. For example in the Quotes header, we would select the **Quotes** view that we have created in the earlier step.

Add a Dimension - Quote Dim

Cancel < Back

1 2 3 4 5

Next >

Name the dimension table to add to CX - Custom Quotes and choose the attributes.

Schema \* OAX\_USER

Object \* DW\_FA\_X\_QUOTES\_V ☒ Views ☒ Tables ☒ Synonyms

Dimension Name \* Quotes - Header

Filter Show All Search Source Column Q Refresh Create Column

| <input checked="" type="checkbox"/> Add Attributes | <input type="checkbox"/> Use for Key | Source Column      | Display Name       |
|----------------------------------------------------|--------------------------------------|--------------------|--------------------|
| <input checked="" type="checkbox"/>                | <input type="checkbox"/>             | OPPORTUNITYOSCID_C | Opportunityoscid C |
| <input checked="" type="checkbox"/>                | <input type="checkbox"/>             | PRODUCTTYPE_C      | Producttype C      |
| <input checked="" type="checkbox"/>                | <input type="checkbox"/>             | STATUS_C           | Status C           |
| <input checked="" type="checkbox"/>                | <input type="checkbox"/>             | THEATRE_C          | Theatre C          |
| <input checked="" type="checkbox"/>                | <input type="checkbox"/>             | APPROVERPHONENO_C  | Approverphoneno C  |
| <input checked="" type="checkbox"/>                | <input type="checkbox"/>             | CREATEDBY          | Createdby          |
| <input checked="" type="checkbox"/>                | <input type="checkbox"/>             | CURRENTAPPROVER_C  | Currentapprover C  |

## 4.4. Add Fact Table

Now that our Dimensions are all added we add a new step for the **Fact** table.

Branch: Quotes\_Data\_Model

Manage Steps

Branch Steps

|   | Step Name | Des  |
|---|-----------|------|
| 0 | Main      | Syst |
| 1 | Quote SA  | Quo  |

Add Step

☒ Add a Dimension ☐ Extend a Dimension ☒ Add a Fact ☐ Register Aggregates

☐ Add a Hierarchy ☐ Add Columns ☐ Add Session Variables ☐ Translations

☐ Create a Subject Area ☐ Modify a Subject Area

Then provide step name /desc and choose the target Subject Area, which we created earlier.

**Add a Fact - Quote Fact**

Cancel 1 — 2 — 3 — 4 — 5 Next >

Select the subject area to add the fact.

\* Step Name:

Step Description: 

Add a Quote Fact

Selected Subject Area Details: ▶ CX - Custom Quotes

Select the subject area to receive your fact.

\* Target Subject Area:

We now have a screen where we have an option of providing a more business-friendly display name. More importantly, we need to select all the keys that our Fact is going to use while joining with the Dimensions that we created earlier. We also select all Facts (measures) that we look to aggregate.

**Add a Fact - Quote Fact**

Cancel < Back 1 — 2 — 3 — 4 — 5 Next >

Select the table and columns to be added.

Schema \*:  ⓘ

Object \*:  ☒ Views ☒ Tables ☒ Synonyms

Fact Name \*:

Filter:  Search Source Column

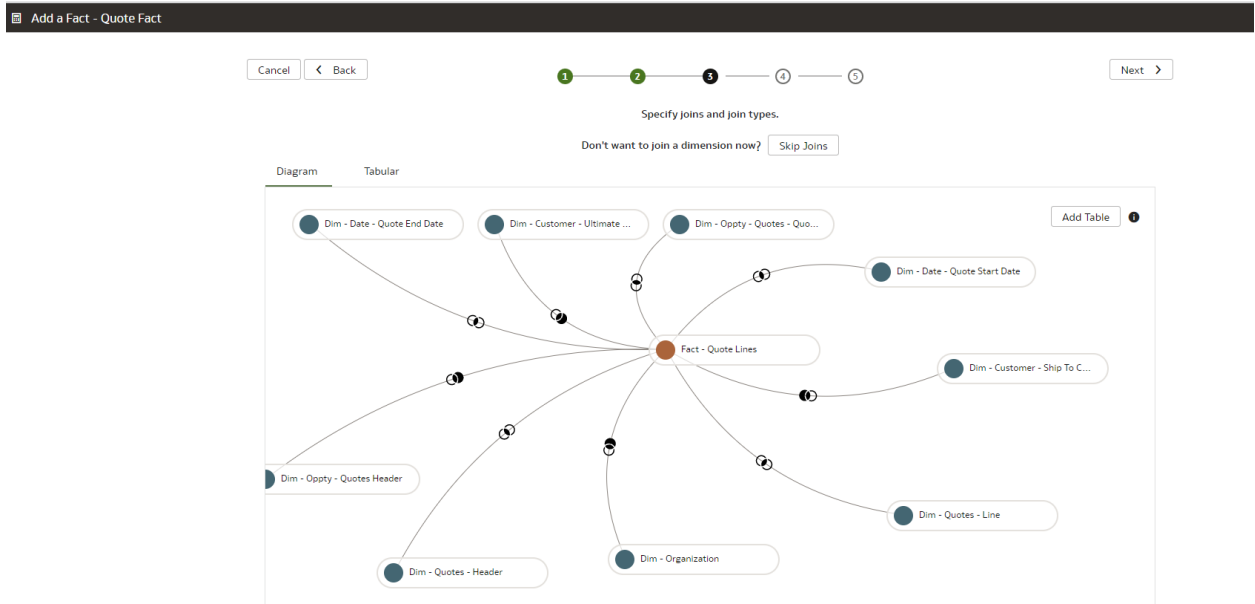
Refresh Create Column

| Select Degen Attribute   | Select Fact                         | Use for Key                         | Source Column                    | Display Name                     |
|--------------------------|-------------------------------------|-------------------------------------|----------------------------------|----------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | QUOTE_START_DT                   | Quote Start Dt                   |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | FIELDMINCOST_C                   | Fieldmincost C                   |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | PROPOSEDNETRESALE_CCURCYCONVRATE | Proposednetresale Ccurcyconvrate |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | STARTDATE_C                      | Startdate C                      |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | DISTIBOOKCOST_C                  | Distibookcost C                  |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | REQUESTEDGROSSRESALE_C           | Requestedgrossresale C           |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | TOQUANTITY_C                     | Toquantity C                     |

Now we proceed to provide all the joins between dimensions and Facts. We do this by selecting **Add Table**.







We can validate all of the joins we've entered by selecting the tab **Tabular** next to the diagram. If we miss any Dimension to Fact joins, this will cause our semantic model to fail.

Add a Fact - Quote Fact

Cancel < Back

1 2 3 4 5

Specify joins and join types.

Don't want to join a dimension now? Skip Joins

Diagram Tabular

| Fact - Quote Lines inner join with Dim - Date - Quote End Date   |   |          |  |  |
|------------------------------------------------------------------|---|----------|--|--|
| QUOTE_END_DT                                                     | = | Date     |  |  |
| Fact - Quote Lines inner join with Dim - Date - Quote Start Date |   |          |  |  |
| QUOTE_STARTDATE                                                  | = | Date     |  |  |
| Fact - Quote Lines inner join with Dim - Quotes - Line           |   |          |  |  |
| ID                                                               | = | Id       |  |  |
| Fact - Quote Lines inner join with Dim - Quotes - Header         |   |          |  |  |
| QUOTE_ID                                                         | = | Quote Id |  |  |

Add Join

We see several options

1. Set Aggregation rule

2. Set Hierarchy (Next to create Column) – Choose the level of detail at which Fact would join to the Dimension
3. Create Column

Cancel < Back

1 2 3 4 5

Select content level, aggregation rules, and add new measures.

Create Column

| Fact Column                       | Aggregation Rule |
|-----------------------------------|------------------|
| Stagename (VARCHAR)               | None             |
| Amount (DOUBLE)                   | Sum              |
| Probability (DOUBLE)              | Average          |
| Expectedrevenue (DOUBLE)          | Sum              |
| Totalopportunityquantity (DOUBLE) | Sum              |
| Closedate (DATE)                  | None             |
| Type (VARCHAR)                    | None             |
| Nextstep (VARCHAR)                | None             |
| Leadsource (VARCHAR)              | None             |
| Isclosed (INT)                    | None             |

Content Level

Add Dimension

| Dimension                 | Level  |
|---------------------------|--------|
| Div Cust Sfdc Contact Vlw | Detail |
| SFDC Campaign Dim         | Detail |
| Div Cust SFDC Lead        | Detail |
| SFDC Account Dim          | Detail |
| SFDC User Dim             | Detail |

Cancel OK

Once again, we have an option of adding our custom Fact to other OOTB subject areas as well. However, our dataset is independent, and we choose to skip it.

Cancel < Back

1 2 3 4 5

Finish

Select additional subject areas to add the fact.

Apply the new fact to:

☒ CX - Custom Quotes

Apply to additional subject areas:

Search additional subject areas

☐ Common - Data Validation

☐ Common - Usage Tracking

☐ Common - Warehouse Refresh Statistics

☐ CX - Activity

☐ CX - Lead Activity

☐ CX - Leads

☐ CX - Opportunity

☐ CX - Opportunity Activity

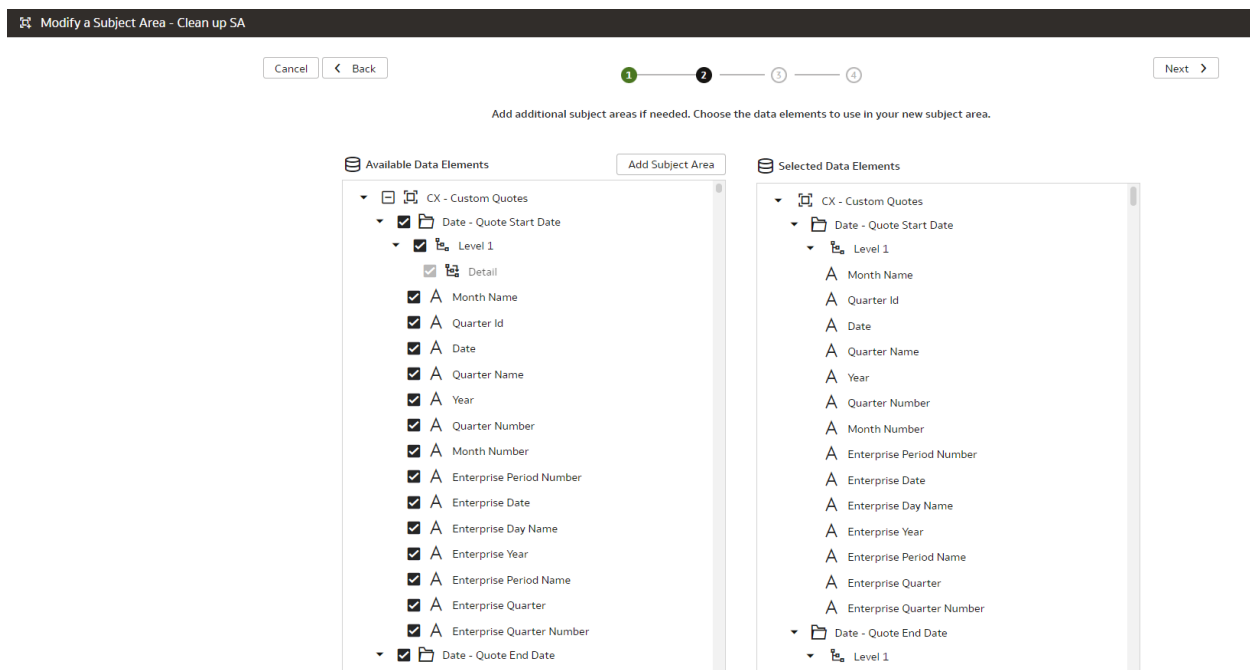
☐ CX - Opportunity Revenue Line

☐ CX - Opportunity Stage Progression

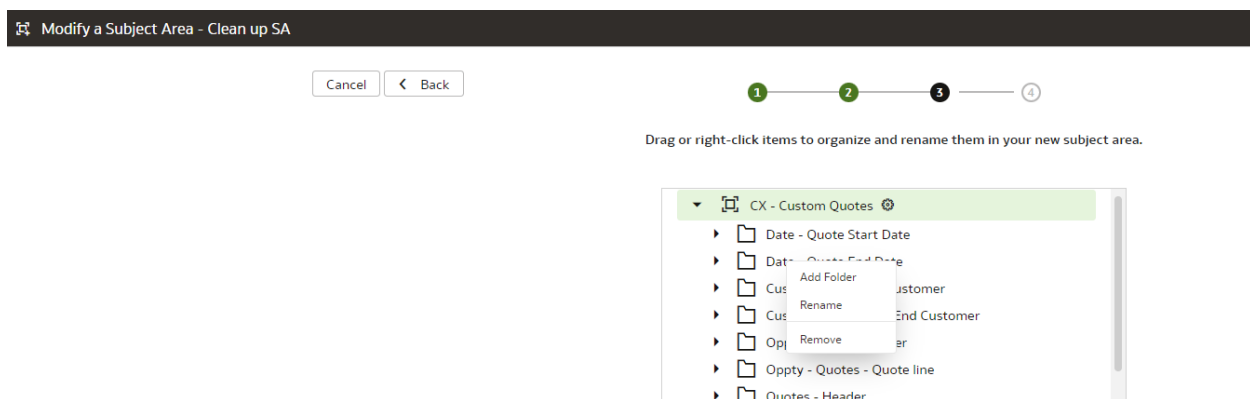
#### 4. Modify Subject Area

Add a step and select **Modify Subject Area**. This is the final step and an opportunity for us to clean up the look and feel of our subject area. In the first step, we have the option of filtering the columns we want.





After clicking on next, we get an option to **Add Folder**, **Rename** columns, or **Remove** columns.



Post some renaming we are done with **Finish!**

## 5. Create custom Subject Area referencing the Prebuilt custom Quotes SA

Our custom Consumption Subject Area leverages many Dimensions that we have already created. So we went ahead and added a step in this branch to create a Subject Area based upon Quotes SA.

Create a Subject Area - Consumption Subject Area

Cancel

1

2

3

4

Next >

Create a Subject Area.

\* Step Name

Consumption Subject Area

Step Description

Consumption Subject Area

Create your subject area.

☐ Create a subject area.
 ☒ Create a subject area based on an existing one.

CX - Custom Quotes

CX - Custom Consumption

Consumption

Selected Subject Area Details

CX - Custom Quotes

Date - Quote Start Date

Level 1

Date

Month Number

Month Name

Quarter Id

Quarter Number

Quarter Name

Year

Enterprise Date

Enterprise Day Name

Enterprise Period Number

Enterprise Period Name

Enterprise Quarter Number

Enterprise Quarter

Enterprise Year

Date - Quote End Date

Level 1

Date

We select the Dimensions applicable to our new Subject Area.

Create a Subject Area - Consumption Subject Area

Cancel

Back

1

2

3

4

Next >

Add additional subject areas if needed. Choose the data elements to use in your new subject area.

Available Data Elements

Add Subject Area

CX - Custom Quotes

Date - Quote Start Date

Date - Quote End Date

Customer - Ship To Customer

Customer - Ultimate End Customer

Oppty - Quotes Header

Oppty - Quotes - Quote line

Level 1

Detail

Campaign Owner Resource Party Id

Comments

Sales Channel Code

Creation Date

Fiscal Period Type

Primary Competitor Party Id

Opportunity Creation Timestamp

Reason Won Lost Code

Crm Currency Code

Campaign Active Flag

Deal Reason Code

Selected Data Elements

CX - Custom Quotes

Date - Quote Start Date

Level 1

Date

Month Number

Month Name

Quarter Id

Quarter Number

Quarter Name

Year

Enterprise Date

Enterprise Day Name

Enterprise Period Number

Enterprise Period Name

Enterprise Quarter Number

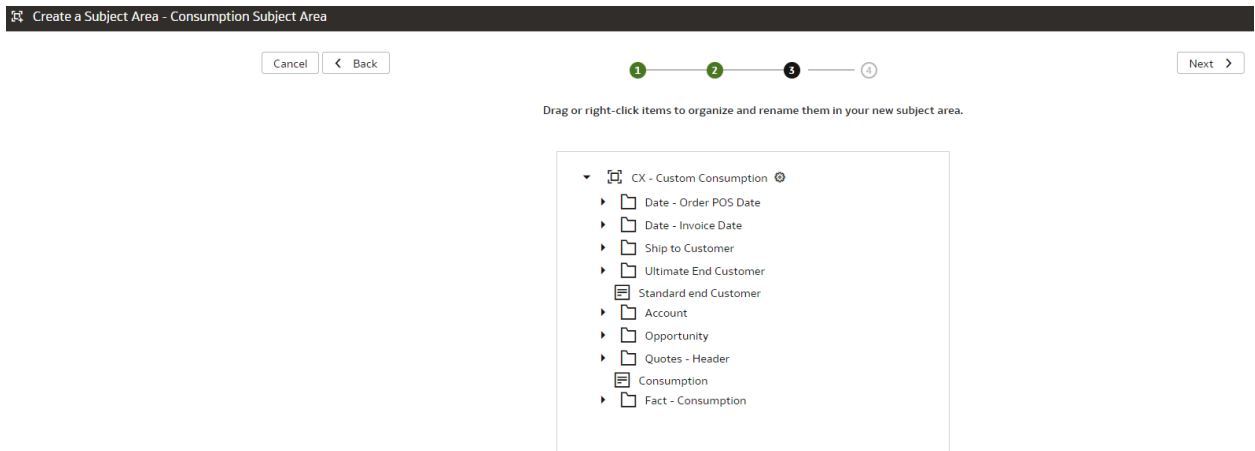
Enterprise Quarter

Enterprise Year

Date - Quote End Date

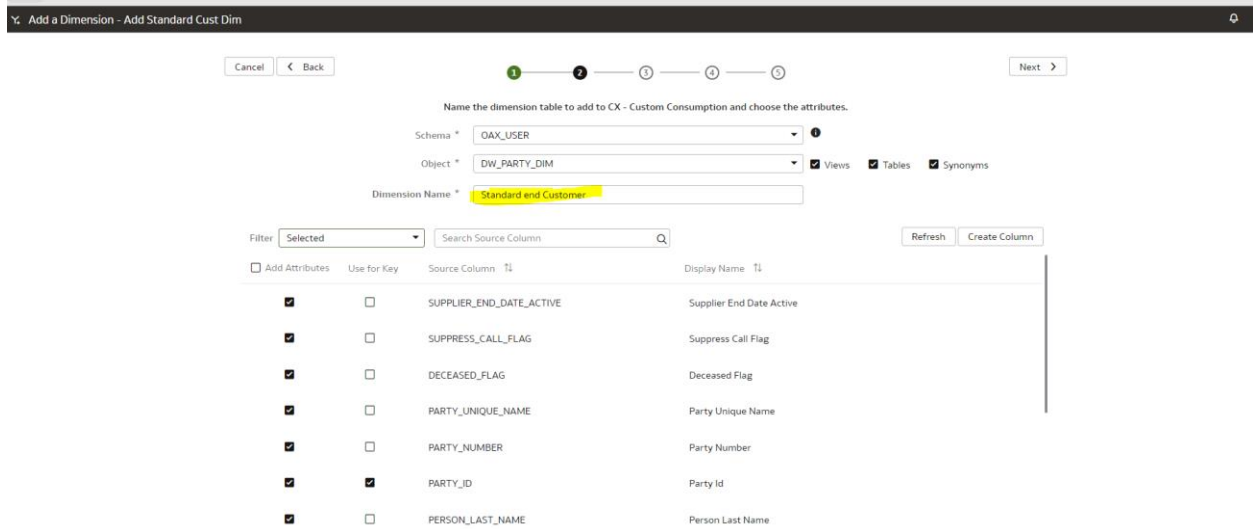
Level 1

We create folders as placeholders corresponding to the Dimensions which we are yet to create.



## 6. Create missing Dimensions in Consumer Subject Area

Now we create Dimensions and fill in placeholders that we created in the previous steps. First, we create the Dimension **Standard end Customer**.



Next, we create the **Consumption Dimension**.

Branch: Quotes\_Data\_Model

Manage Steps

Search Steps

Q

Add Step

Branch Steps

|    | Step Name                   | Description                 | Step Type           | Created Date                 | State   |
|----|-----------------------------|-----------------------------|---------------------|------------------------------|---------|
| 4  | Date - Quote End Date       | Quote End Date              | Add Dimension       | April 15, 2022, 01:38 PM CDT | Applied |
| 5  | Extend a Dim Quote end date | Extend a Dim Quote end date | Extend a Dimension  | April 19, 2022, 11:37 AM CDT | Applied |
| 6  | Ship To Customer            |                             | Add Dimension       | April 15, 2022, 01:48 PM CDT | Applied |
| 7  | Ultimate End Customer       |                             | Add Dimension       | April 15, 2022, 01:50 PM CDT | Applied |
| 8  | Opportunity Quotes          | Opportunity Quotes          | Add Dimension       | April 15, 2022, 01:53 PM CDT | Applied |
| 9  | Oppty Quote Line            | Oppty Quote Line            | Add Dimension       | April 15, 2022, 02:00 PM CDT | Applied |
| 10 | Quote Dim                   | Add Quote Dim               | Add Dimension       | April 20, 2022, 11:42 AM CDT | Applied |
| 11 | Quotes - Line               | Quotes - Line               | Add Dimension       | April 25, 2022, 04:32 PM CDT | Applied |
| 12 | Org Dim                     | Add Org data                | Add Dimension       | April 21, 2022, 11:24 AM CDT | Applied |
| 13 | Quote Fact                  | Add a Quote Fact            | Add a Fact          | April 15, 2022, 01:33 PM CDT | Applied |
| 14 | Clean up SA                 |                             | Modify Subject Area | April 26, 2022, 10:39 AM CDT | Applied |
| 15 | Consumption Subject Area    | Consumption Subject Area    | New Subject Area    | May 13, 2022, 02:55 PM CDT   | Applied |
| 16 | Add Standard Cust Dim       | Add Standard Cust Dim       | Add Dimension       | May 16, 2022, 09:53 AM CDT   | Applied |
| 17 | Add consumption Dim         | Add consumption Dim         | Add Dimension       | May 16, 2022, 10:30 AM CDT   | Applied |

Finally, we add the **Consumption Fact** table from the consumption view object that we created from the Subject Area. We select all the keys for joining Dimensions and measures that we would like at aggregate.

Add a Fact - Add consumption Fact

Cancel
Back
1
2
3
4
5
Next

Select the table and columns to be added.

Schema \* OAX\_USER

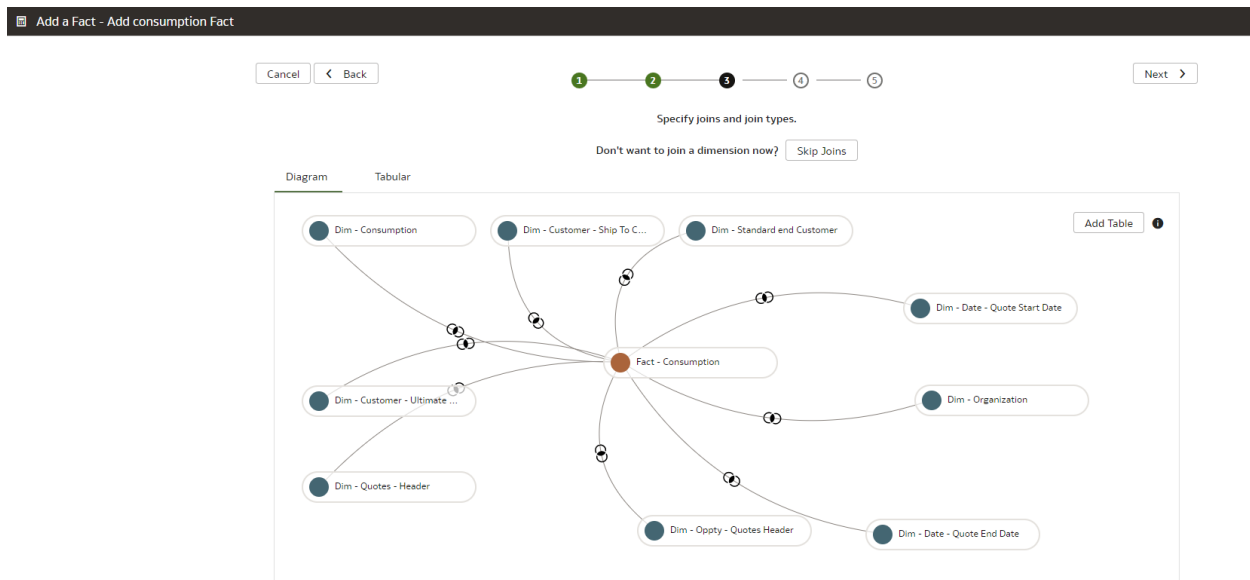
Object \* DW\_FA\_X\_CONSUMPTION\_VW
Views
Tables
Synonyms

Fact Name \* Fact - Consumption

Filter Selected Search Source Column Refresh Create Column

| Select Degen Attribute   | Select Fact                         | Use for Key                         | Source Column                 | Display Name                  |
|--------------------------|-------------------------------------|-------------------------------------|-------------------------------|-------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | ORDERPOSDATE_C                | Orderposdate C                |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | OPPORTUNITY_ID_C              | Opportunity Id C              |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | STANDARDENDCUSTOMEROSCID_ID_C | Standardendcustomeroscid Id C |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | ID                            | Id                            |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | ALLOCATEDUNITSQUANTITY_C      | Allocatedunitsquantity C      |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | QUANTITY_C                    | Quantity C                    |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | OSCQUOTEID_ID_C               | Oscquoteid Id C               |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | TOTALAMOUNTOFTHESORDER_C      | Totalamountofthesorder C      |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | APPROVED_DATE_C               | Approved Date C               |

Similarly, we've now created the star schema joining the Dimensions that we selected with the Fact table that we just added based on keys.



We now complete setting the context level for all the dimensions as in previous steps. Once we have completed, we finalize the subject area by selecting **Finish**.

Add a Fact - Add consumption Fact

Cancel < Back

1 2 3 4 5

Finish

Select additional subject areas to add the fact.

Apply the new fact to:

☒ CX - Custom Consumption

Apply to additional subject areas:

Search additional subject areas

☐ Common - Data Validation

☐ Common - Usage Tracking

☐ Common - Warehouse Refresh Statistics

☐ CX - Activity

☐ CX - Custom Quotes

☐ CX - Lead Activity

☐ CX - Leads

☐ CX - Opportunity

☐ CX - Opportunity Activity

☐ CX - Opportunity Revenue Line

☐ CX - Opportunity Stage Progression

## Step 5: Publish the Model

Our finalized model!



| Branch: Quotes_Data_Model |                               |                             |                     |                              |         |
|---------------------------|-------------------------------|-----------------------------|---------------------|------------------------------|---------|
| Manage Steps              |                               |                             |                     |                              |         |
| Branch Steps              |                               |                             |                     |                              |         |
|                           | Step Name                     | Description                 | Step Type           | Created Date                 | State   |
| 0                         | Main                          | System generated            |                     | March 1, 2022, 12:39 PM CDT  | Applied |
| 1                         | Quote SA                      | Quotes SA                   | New Subject Area    | April 15, 2022, 10:59 AM CDT | Applied |
| 2                         | Date - Quote Start Date       | Start Date                  | Add Dimension       | April 15, 2022, 01:36 PM CDT | Applied |
| 3                         | Extend a Dim Quote Start Date |                             | Extend a Dimension  | April 14, 2022, 11:31 AM CDT | Applied |
| 4                         | Date - Quote End Date         | Quote End Date              | Add Dimension       | April 15, 2022, 01:38 PM CDT | Applied |
| 5                         | Extend a Dim Quote end date   | Extend a Dim Quote end date | Extend a Dimension  | April 14, 2022, 11:37 AM CDT | Applied |
| 6                         | Ship To Customer              |                             | Add Dimension       | April 15, 2022, 01:48 PM CDT | Applied |
| 7                         | Ultimate End Customer         |                             | Add Dimension       | April 15, 2022, 01:50 PM CDT | Applied |
| 8                         | Opportunity Quotes            | Opportunity Quotes          | Add Dimension       | April 15, 2022, 01:53 PM CDT | Applied |
| 9                         | Oppty Quote Line              | Oppty Quote Line            | Add Dimension       | April 15, 2022, 02:00 PM CDT | Applied |
| 10                        | Quote Dim                     | Add Quote Dim               | Add Dimension       | April 20, 2022, 11:42 AM CDT | Applied |
| 11                        | Quotes - Line                 | Quotes - Line               | Add Dimension       | April 25, 2022, 04:32 PM CDT | Applied |
| 12                        | Orig Dim                      | Add Orig data               | Add Dimension       | April 22, 2022, 11:24 AM CDT | Applied |
| 13                        | Quote Fact                    | Add a Quote Fact            | Add a Fact          | April 15, 2022, 01:33 PM CDT | Applied |
| 14                        | Clean up SA                   |                             | Modify Subject Area | April 28, 2022, 10:39 AM CDT | Applied |
| 15                        | Consumption Subject Area      | Consumption Subject Area    | New Subject Area    | May 13, 2022, 02:55 PM CDT   | Applied |
| 16                        | Add Standard Cust Dim         | Add Standard Cust Dim       | Add Dimension       | May 14, 2022, 09:53 AM CDT   | Applied |
| 17                        | Add consumption Dim           | Add consumption Dim         | Add Dimension       | May 14, 2022, 10:30 AM CDT   | Applied |
| 18                        | Add consumption Fact          | Add consumption Fact        | Add a Fact          | May 14, 2022, 10:41 AM CDT   | Applied |

We go back to Semantic Model Extensions, and see the option **Publish Model** on the top right corner of the screen. By clicking in the popup window, we see models of all the other users as well. Under user extensions, we scroll and choose our Model and click on **Publish** button

Semantic Model Extensions

Semantic Model Components

Activity

1. Oracle Content

Base Oracle Semantic Model

2. System Extensions

Data Augmentations

3. User Extensions

My Semantic Model Customizations

4. Security Configurations

Object Permissions and Data Security

| Name / Description       | Steps | Created By | Updated      | Age      |
|--------------------------|-------|------------|--------------|----------|
| Main<br>System generated | 0     | system     | Apr 30, 2022 | 2 months |
| Customization Branches   | Steps | Created By | Updated      | Age      |
| Test                     | 19    | FAWAdmin   | 2 days ago   | 3 weeks  |
| Quotes_Data_Model        | 18    | FAWAdmin   | 3 days ago   | 1 month  |

Out of Sync

Publish Model

This action will deploy the semantic model to the target environment using these components of the semantic model:

1. Oracle Content

10.0.1

2. System Extensions

3. User Extensions

None - Unpublish custom extensions

4.5

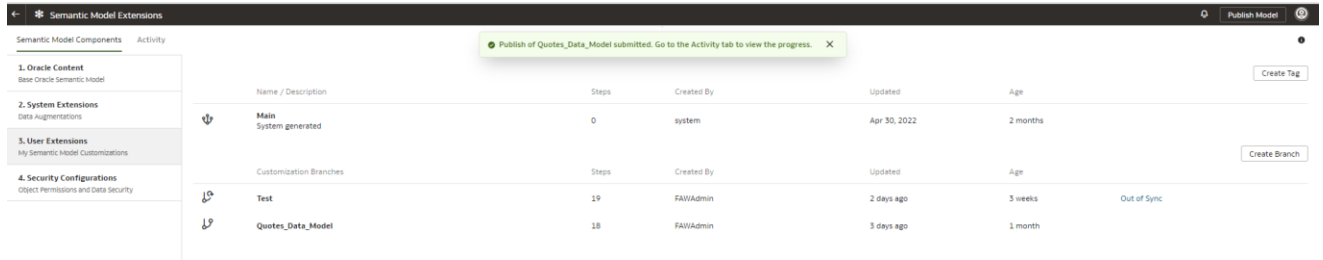
None - Unpublish custom extensions

Tags

Branches

Quotes\_Data\_Model

In the activity tab we can see the progress of publishing, and wait on **In Progress** status to turn into **Done**.



**Semantic Model Extensions**

**1. Oracle Content**  
Base Oracle Semantic Model

**2. System Extensions**  
Data Augmentations

**3. User Extensions**  
My Semantic Model Customizations

**4. Security Configurations**  
Object Permissions and Data Security

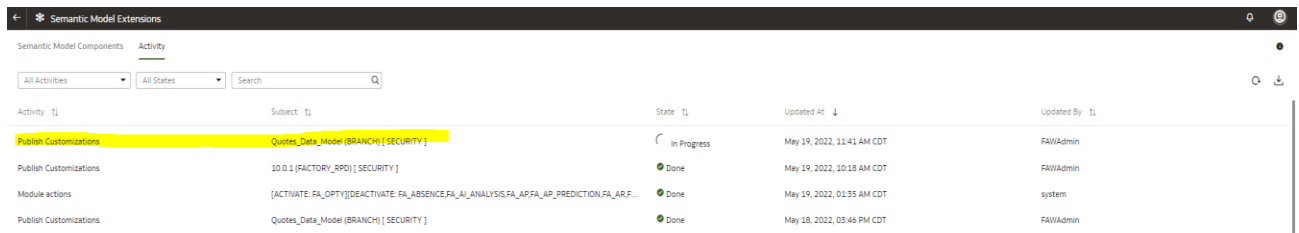
**Activity**

Publish of Quotes\_Data\_Model submitted. Go to the Activity tab to view the progress.

| Name / Description              | Steps | Created By | Updated      | Age      |                             |
|---------------------------------|-------|------------|--------------|----------|-----------------------------|
| <b>Main</b><br>System generated | 0     | system     | Apr 30, 2022 | 2 months | <a href="#">Create Tag</a>  |
| <b>Customization Branches</b>   |       |            |              |          |                             |
| <b>Test</b>                     | 19    | FAWAdmin   | 2 days ago   | 3 weeks  | <a href="#">Out of Sync</a> |
| <b>Quotes_Data_Model</b>        | 18    | FAWAdmin   | 3 days ago   | 1 month  |                             |

[Create Branch](#)

We track the status of the **Publish** process.



**Semantic Model Extensions**

**Activity**

All Activities | All States | Search

| Activity                      | Subject                                                                                  | State       | Updated At                 | Updated By |
|-------------------------------|------------------------------------------------------------------------------------------|-------------|----------------------------|------------|
| <b>Publish Customizations</b> | Quotes_Data_Model (BRANCH) [ SECURITY ]                                                  | In Progress | May 19, 2022, 11:41 AM CDT | FAWAdmin   |
| Publish Customizations        | 10.0.1 (FACTORY_RPD) [ SECURITY ]                                                        | Done        | May 19, 2022, 10:18 AM CDT | FAWAdmin   |
| Module actions                | [ACTIVATE: FA_OPTY][DEACTIVATE: FA_ABSENCE,FA_AI_ANALYSIS,FA_APF,AP_PREDICTION,FA_ARF... | Done        | May 19, 2022, 01:35 AM CDT | system     |
| Publish Customizations        | Quotes_Data_Model (BRANCH) [ SECURITY ]                                                  | Done        | May 18, 2022, 03:46 PM CDT | FAWAdmin   |

## Step 6: Validation of data model /Create custom Reports

We navigate to **Catalog** from the main menu and see the option **Create** on the top right corner of the screen. Select **Create**.



**Analytics**

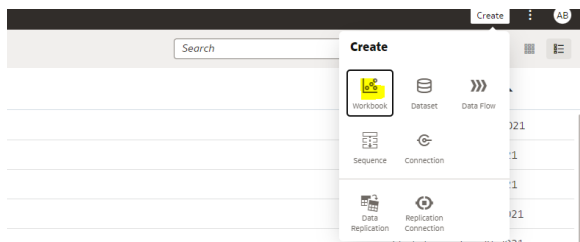
**Catalog**

My Folders | Shared Folders | Search | Sort By | Modified

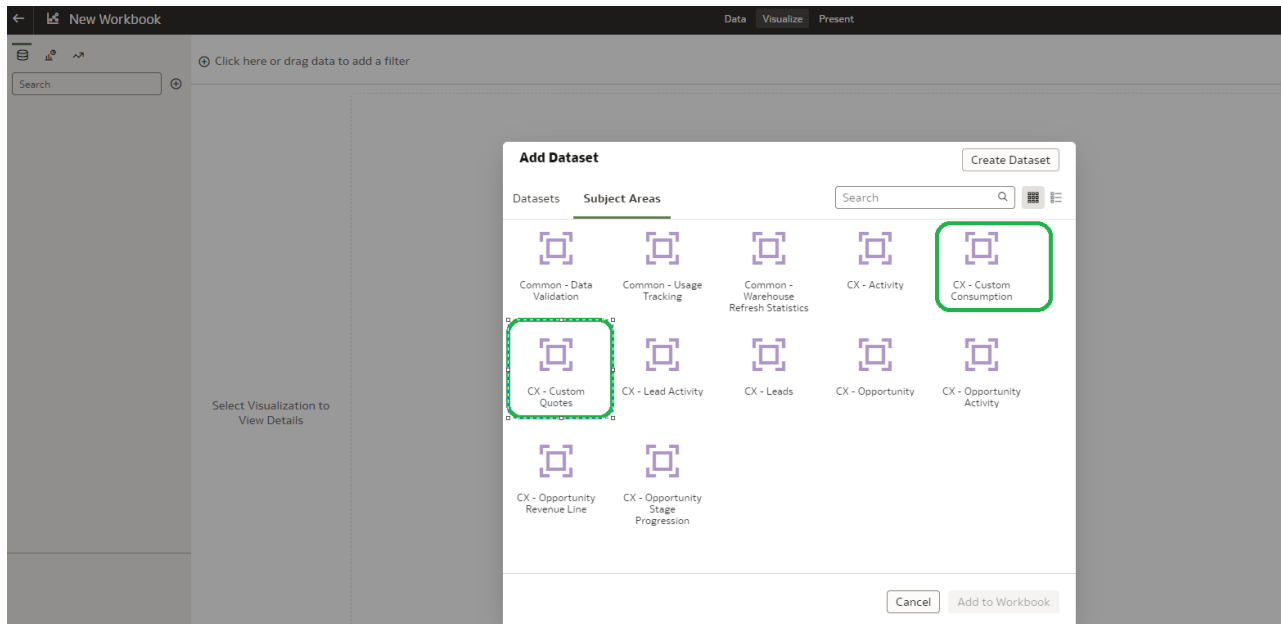
| Type | Name                       | Description                                                                                                        |
|------|----------------------------|--------------------------------------------------------------------------------------------------------------------|
| ☆    | error_details              |                                                                                                                    |
| ☆    | data_sample                |                                                                                                                    |
| ☆    | test                       |                                                                                                                    |
| ☆    | Hier_2                     |                                                                                                                    |
| ☆    | Headcount_By_Year          |                                                                                                                    |
| ☆    | Copy of Diversity Analysis | The diversity analysis detailed page provides an analysis of key metrics like headcount, promotion counts, term... |
| ☆    | test2                      |                                                                                                                    |

[Create](#)

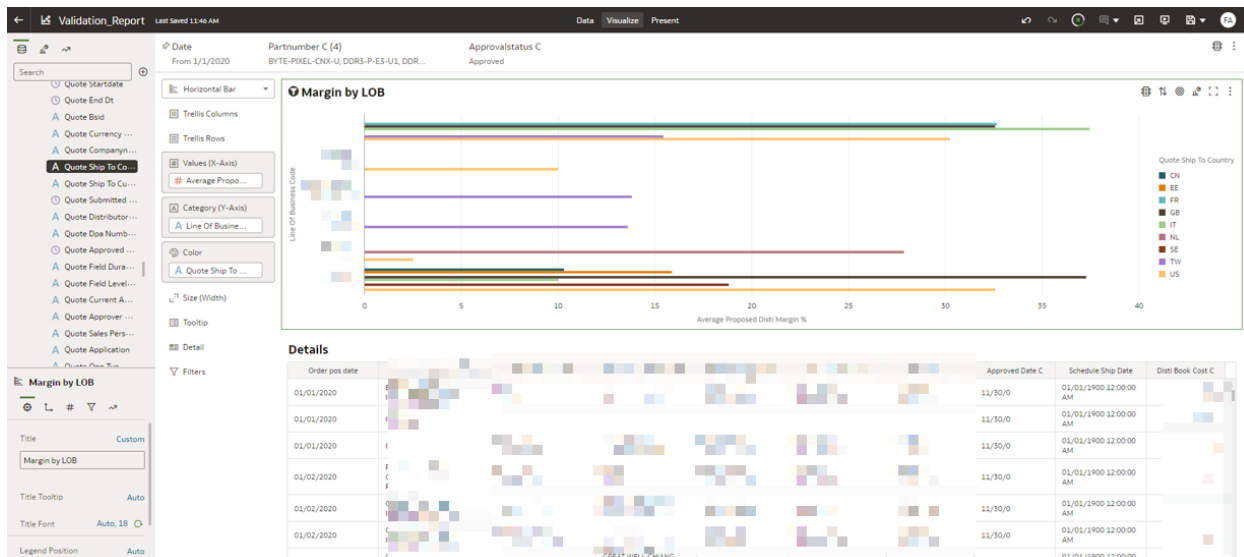
Select **Workbook** from the popup.



We get an option to select available datasets, on the right tab for Subject Areas we see our Subject Area and we select.



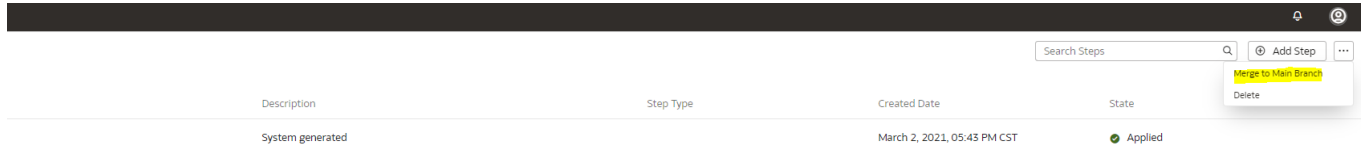
We create a small test report to validate all the Dimensions and Facts we created.



Our data model is now ready for consumption by a larger audience.

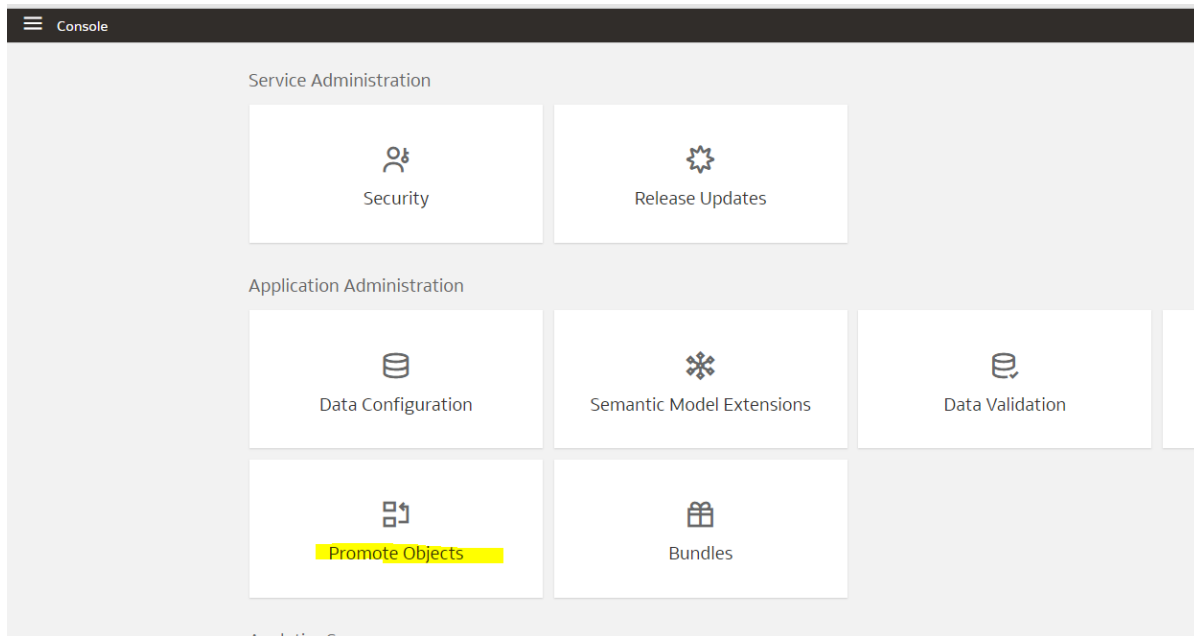
## Step 7: Deploying the model

After we are satisfied that our data model has all the entity relationships modeled and working as intended, we can merge the model that we have with the semantic repository model which FAW uses. For this, we go to our model and on the right-hand corner with the option '**Merge to Main Branch**'.



This option should be used cautiously only after we are done with all the changes since the changes cannot be reverted. We always create the model initially in the development instance and then promote it to production. Before we promote the model, we need to ensure that we have the custom data tables and the ELT data extraction jobs also promoted.

The promotion can be performed by the user with Admin privileges in FAW. There are two approaches here. We use the **Promote Objects** option.



It presents us with a simple interface that helps us select the target environment which will be our prod environment and then select the semantic model that we created from the drop-down

←

Promote Objects

Check Status

Promotion

Activity

Select options to promote your application to another environment.

Target Environment

Select

☒ Semantic Model Extensions

RaviHyperionTest

RaviHyperionTest

NewInvoiceSA

HCM\_UseCase\_V1

xyz

CustomVersionV2

CustomSecV01

☐ KPIs

☐ Roles and Mappings

☐ Object Security

☐ Data Security

Our data model is now deployed in production.

## Summary

In this article, we have attempted to showcase an example for extending a FAW content with data elements (entities) from Fusion in our FAW

To learn more about FAW, visit [Oracle.com/analytics](https://oracle.com/analytics), and follow us on [Twitter@OracleAnalytics](https://twitter.com/OracleAnalytics).