

Preparing data

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|--------------|-----------------------------|
| Team ID | PNT2022TMID13572 |
| Project Name | Global Sales Data Analytics |

Data Preparation

(Uploaded DataSet)

The screenshot shows the IBM Cognos Analytics with Watson interface. The top navigation bar includes a menu icon, the text "IBM Cognos Analytics with Watson", a user profile icon, and a search bar. Below the navigation bar, there are four main sections: "Upload data" (with an upload icon and description), "Prepare data" (with a data module icon and description), "Exploration" (with a magnifying glass icon and description), and "Present data" (with a presentation icon and description). Below these sections, there are two tabs: "Get started" and "Recent". The "Recent" tab is active, showing a list of uploaded files. The list has columns: Name, Location, Type, and Last Accessed. Two files are listed: "Global_Superstore2.csv" and "50_Startups.csv", both marked as "CSV" and "Uploaded file". A clipboard notification is visible in the bottom right corner.

| Name | Location | Type | Last Accessed |
|------------------------|------------|---------------|---------------------|
| Global_Superstore2.csv | My content | Uploaded file | 11/7/2022, 7:41 AM |
| 50_Startups.csv | My content | Uploaded file | 9/15/2022, 10:27 AM |

DataSet

The screenshot shows the IBM Cognos Analytics interface with a data grid. The left sidebar contains a "Data module" section with a search bar and a list of data fields: Row ID, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, City, State, Country, and Postal Code. The main area displays a grid of data with columns: Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The grid contains 10 rows of data.

| Row ID | Order ID | Order Date | Ship Date | Ship Mode | Customer ID |
|--------|-----------------|------------|------------|----------------|-------------|
| 1 | CA-2012-124891 | 2012-07-31 | 2012-07-31 | Same Day | BH-19495 |
| 2 | IN-2013-77878 | 2013-02-05 | 2013-02-07 | Second Class | JR-16210 |
| 3 | IN-2013-71249 | 2013-10-17 | 2013-10-18 | First Class | CR-12730 |
| 4 | ES-2013-1579342 | 2013-01-28 | 2013-01-30 | First Class | KM-16375 |
| 5 | 95-2013-4320 | 2013-11-05 | 2013-11-06 | Same Day | BH-9495 |
| 6 | IN-2013-42360 | 2013-06-28 | 2013-07-01 | Second Class | JM-15655 |
| 7 | IN-2011-01826 | 2011-11-07 | 2011-11-09 | First Class | TS-21340 |
| 8 | IN-2012-86369 | 2012-04-14 | 2012-04-18 | Standard Class | MB-18085 |
| 9 | CA-2014-135909 | 2014-10-24 | 2014-10-21 | Standard Class | JW-15220 |
| 10 | CA-2015-116618 | 2015-01-18 | 2015-01-15 | Standard Class | BL-15085 |

For Prepare the data, we verify whether the null values are present or not.

Properties

Data module

Grid

Relationships

Custom tables

Search

Order ID

Order Date

Ship Date

Ship Mode

Customer ID

Customer Name

Segment

City

State

Country

Postal Code

Market

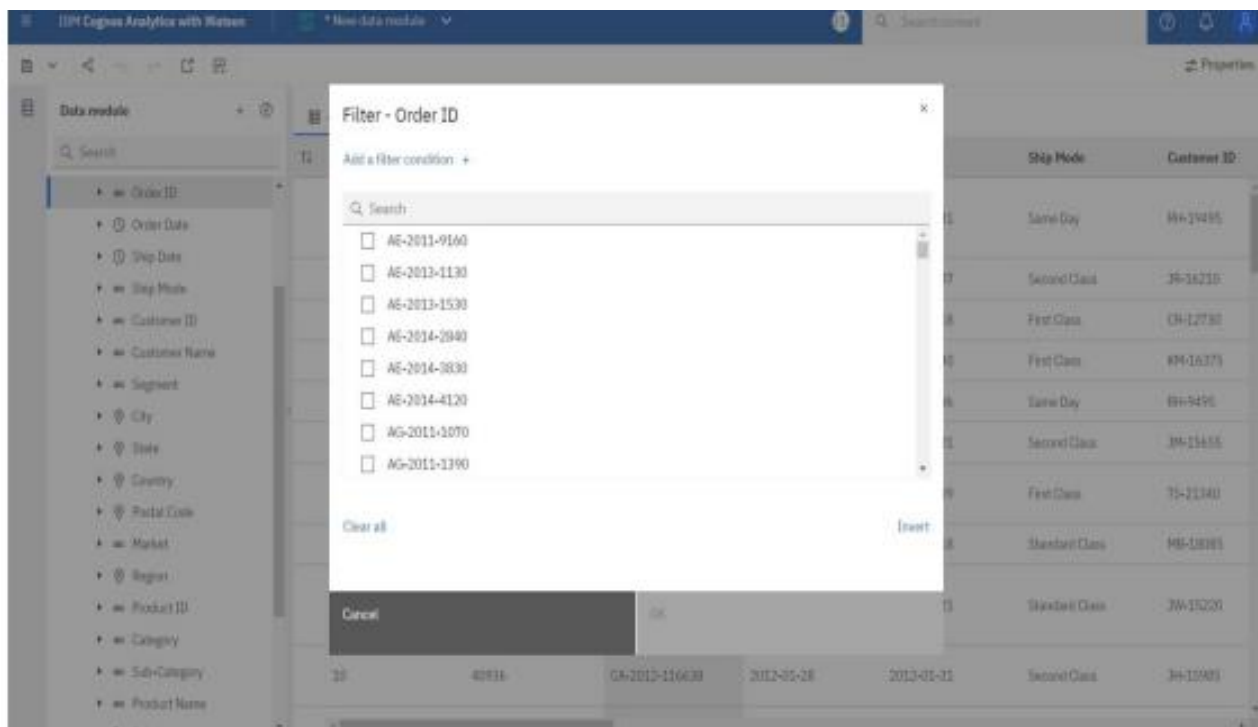
Region

Product ID

Category

Sub-Category

| Row ID | Order ID | Order Date | Ship Date | Ship Mode | Customer ID | |
|--------|----------|----------------|------------|--------------|----------------|----------|
| 1 | 32298 | CA | 2012-07-31 | Same Day | BA-19495 | |
| 2 | 26341 | BA | 2013-02-07 | Second Class | JA-16210 | |
| 3 | 25130 | BA | 2013-10-18 | First Class | CR-12730 | |
| 4 | 13524 | ES | 2013-01-30 | First Class | KH-16375 | |
| 5 | 47221 | SG | 2013-11-06 | Same Day | BA-9495 | |
| 6 | 22732 | BA | 2013-07-01 | Second Class | JM-15655 | |
| 7 | 30570 | BA | 2011-11-09 | First Class | TS-21340 | |
| 8 | 11192 | BA-2012-06309 | 2012-04-14 | 2012-04-18 | Standard Class | MB-18085 |
| 9 | 40155 | CA-2014-139009 | 2014-10-14 | 2014-10-21 | Standard Class | JW-15220 |
| 10 | 87816 | CA-2013-116638 | 2013-05-18 | 2013-05-11 | Second Class | JA-10985 |



The screenshot shows the Power BI Desktop interface with a 'Filter - Order ID' dialog box open. The dialog box has a search bar and a list of Order IDs with checkboxes. The list includes: AE-2011-9160, AE-2013-1130, AE-2013-1530, AE-2014-2040, AE-2014-3830, AE-2014-4120, AG-2015-1070, and AG-2015-1190. There are 'Clear all', 'Insert', 'Cancel', and 'OK' buttons at the bottom.

| Order ID |
|--------------|
| AE-2011-9160 |
| AE-2013-1130 |
| AE-2013-1530 |
| AE-2014-2040 |
| AE-2014-3830 |
| AE-2014-4120 |
| AG-2015-1070 |
| AG-2015-1190 |

| Row ID | Order ID | Order Date | Ship Date | Ship Mode | Customer ID |
|--------|-----------------|------------|------------|----------------|-------------|
| 32298 | CA-2012-124891 | 2012-07-31 | 2012-07-31 | Same Day | BA-19405 |
| 26341 | BA-2013-77878 | 2013-02-05 | 2013-02-07 | Second Class | BA-16210 |
| 25330 | BA-2013-71249 | 2013-05-17 | 2013-05-18 | First Class | CA-12730 |
| 13524 | ES-2013-1579342 | 2013-01-28 | 2013-01-30 | First Class | BA-16375 |
| 47221 | SG-2013-4320 | 2013-11-05 | 2013-11-06 | Same Day | BA-9495 |
| 22732 | BA-2013-42360 | 2013-06-38 | 2013-07-01 | Second Class | BA-15455 |
| 30570 | BA-2011-81828 | 2011-11-07 | 2011-11-09 | First Class | TS-21340 |
| 31192 | BA-2012-86389 | 2012-04-14 | 2012-04-18 | Standard Class | MB-18085 |
| 40155 | CA-2014-18909 | 2014-10-14 | 2014-10-21 | Standard Class | BA-15220 |
| 40936 | CA-2012-116638 | 2012-01-28 | 2012-01-31 | Second Class | BA-15985 |

Calculations of Year, Month, Day fields and also the related Navigation path :

Right click -> calculation -> type expression -> validate -> Set Name as 'Order_Year'

Create calculation

Name:

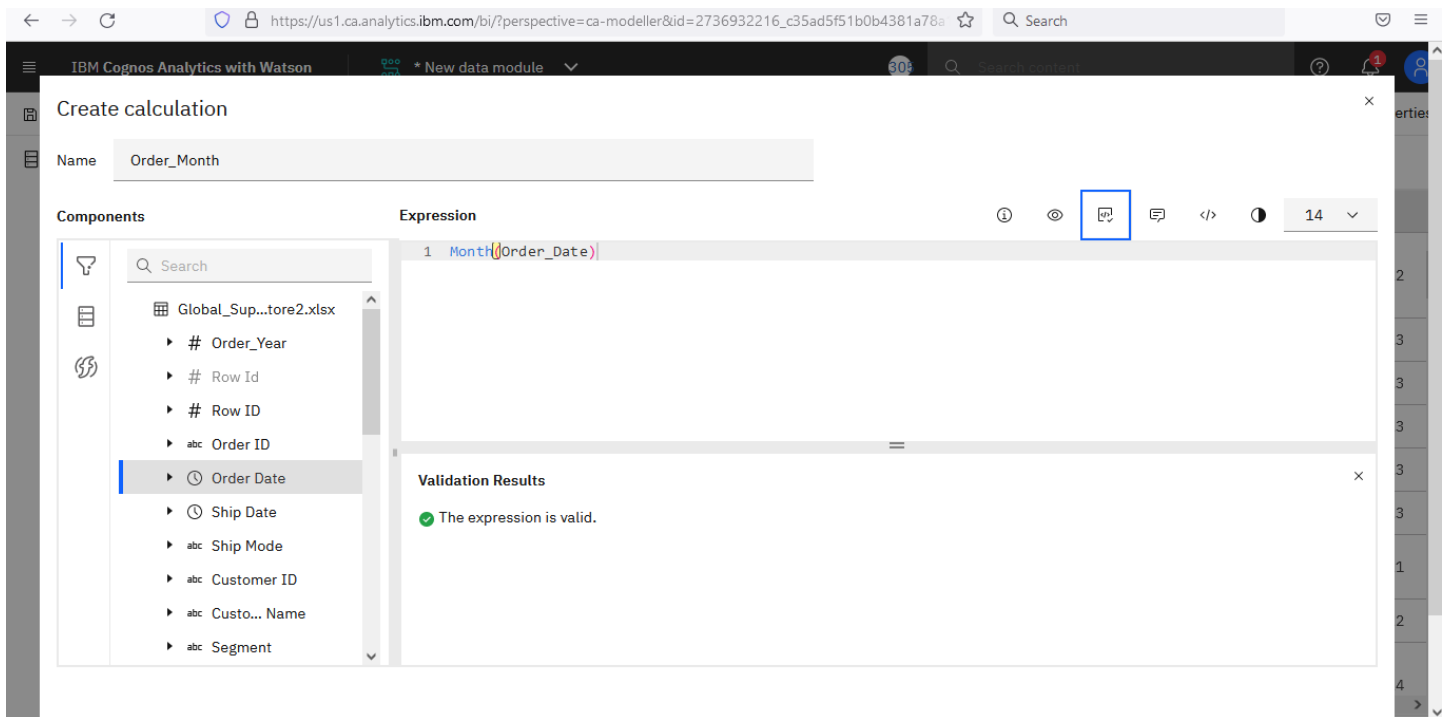
Components:

- Global_Sup...tore2.xlsx
 - # Row ID
 - # Row ID
 - abc Order ID
 - 🕒 Order Date
 - 🕒 Ship Date
 - abc Ship Mode
 - abc Customer ID
 - abc Custo... Name
 - abc Segment
 - 📍 City

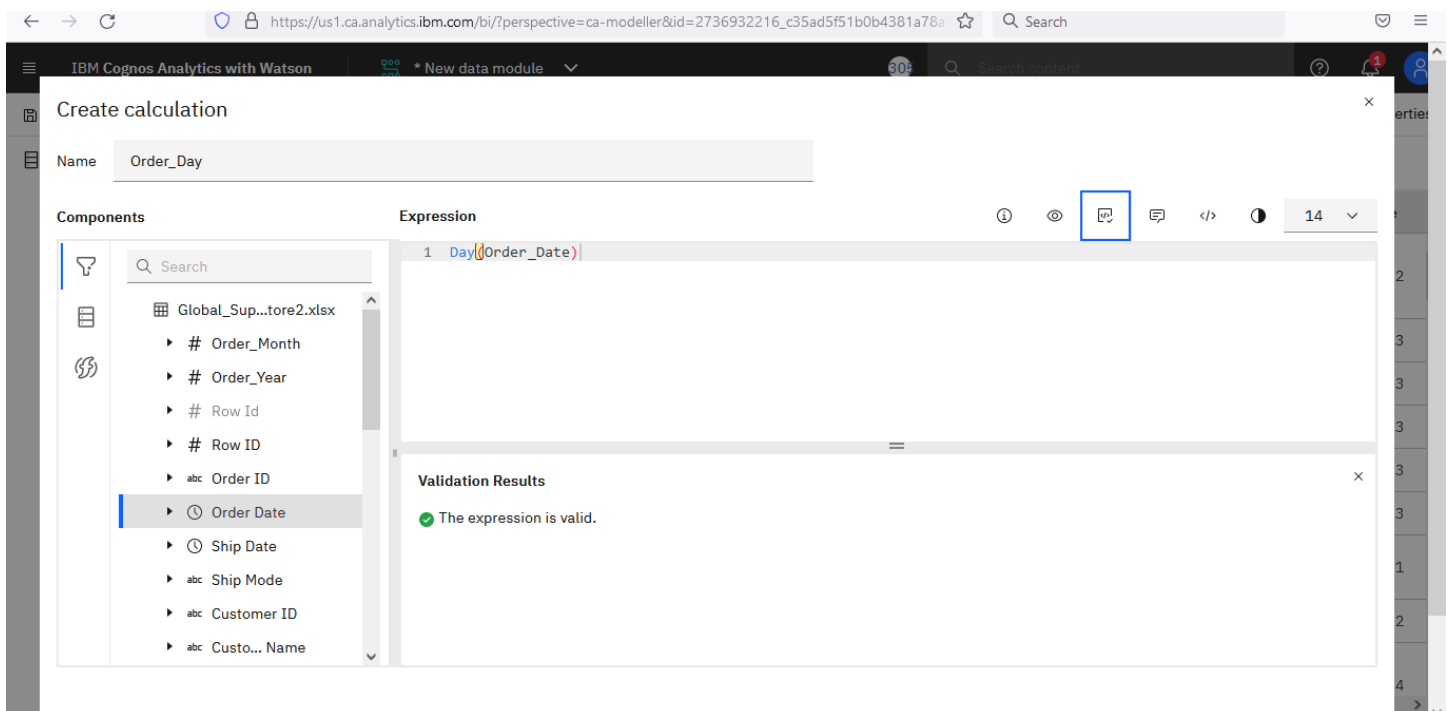
Expression: `1 Year([Order_Date])`

Validation Results: ✔ The expression is valid.

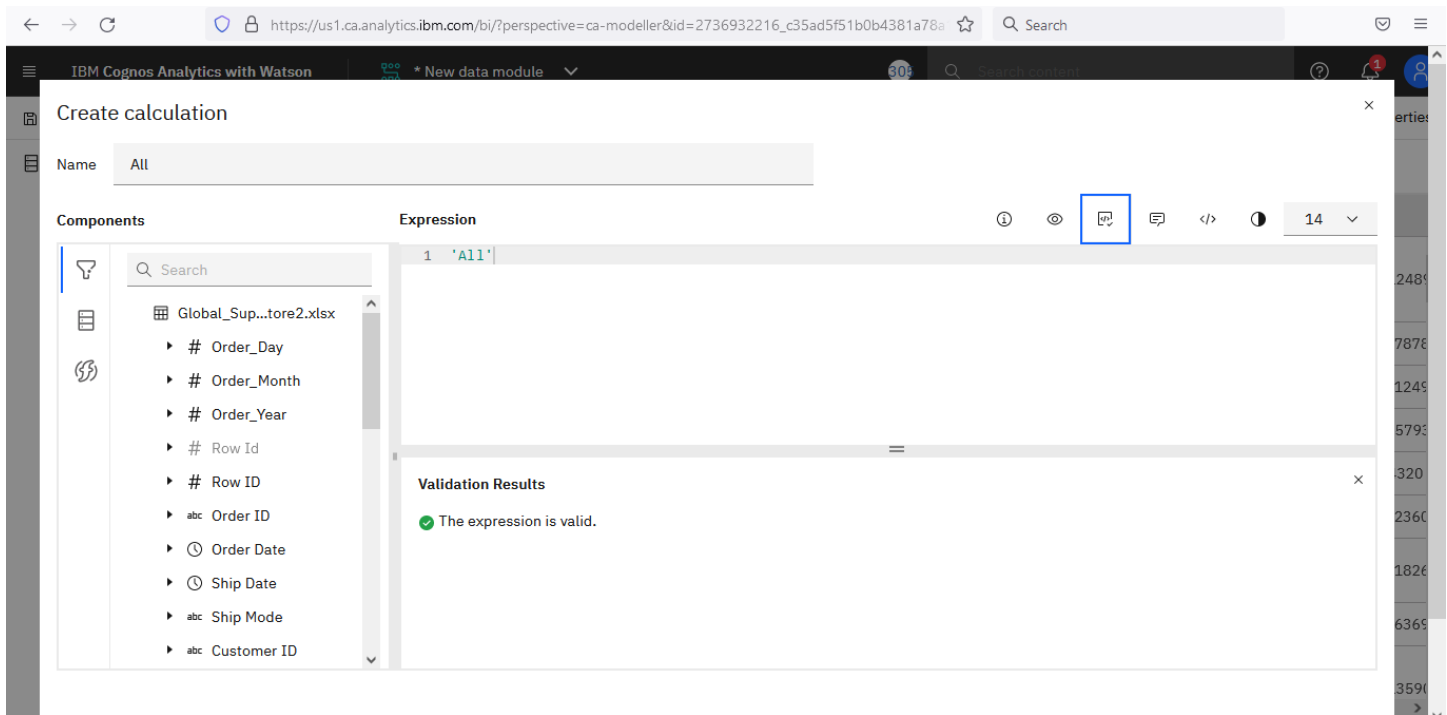
Right click -> calculation -> type expression -> validate -> Set Name as 'Order_Month'



Right click -> calculation -> type expression -> validate -> Set Name as 'Order_Day'



Right click -> calculation -> type expression -> validate -> Set Name as 'All'



Properties -> Usage-> Attribute

Aggregate -> Count Distinct

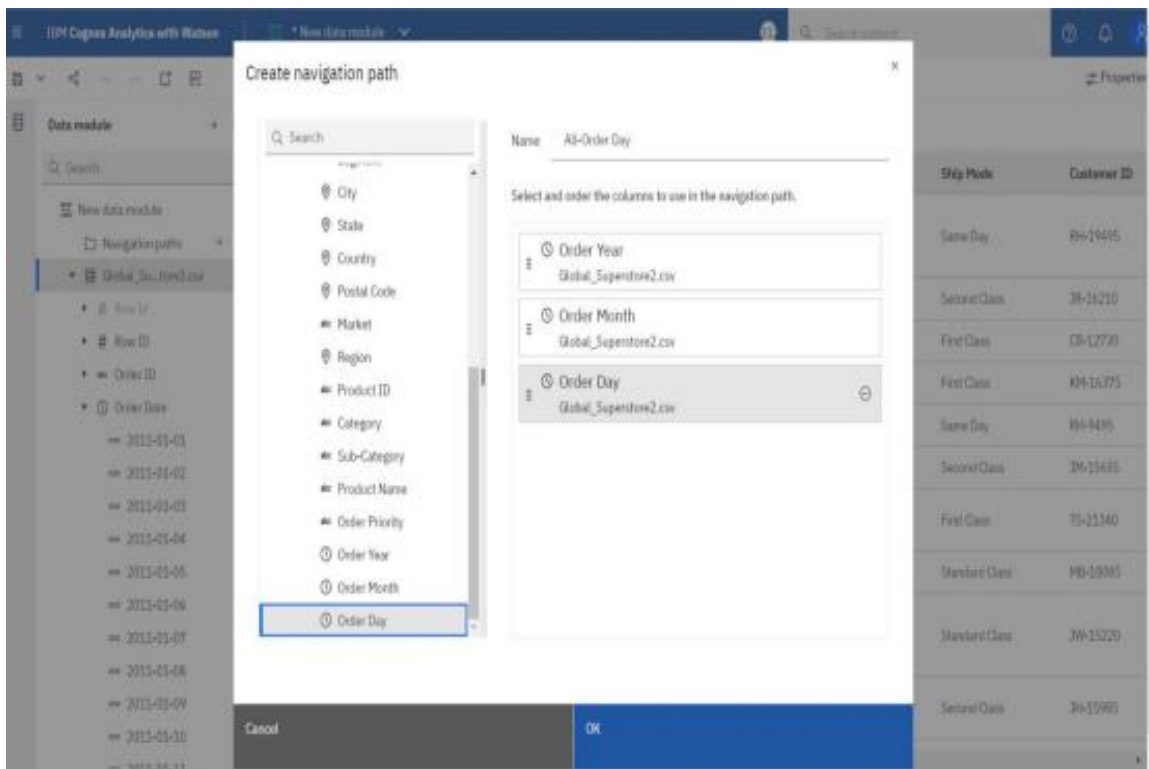
Data Type -> Integer

Represents -> Time, (Year, Month, Day Respectively)

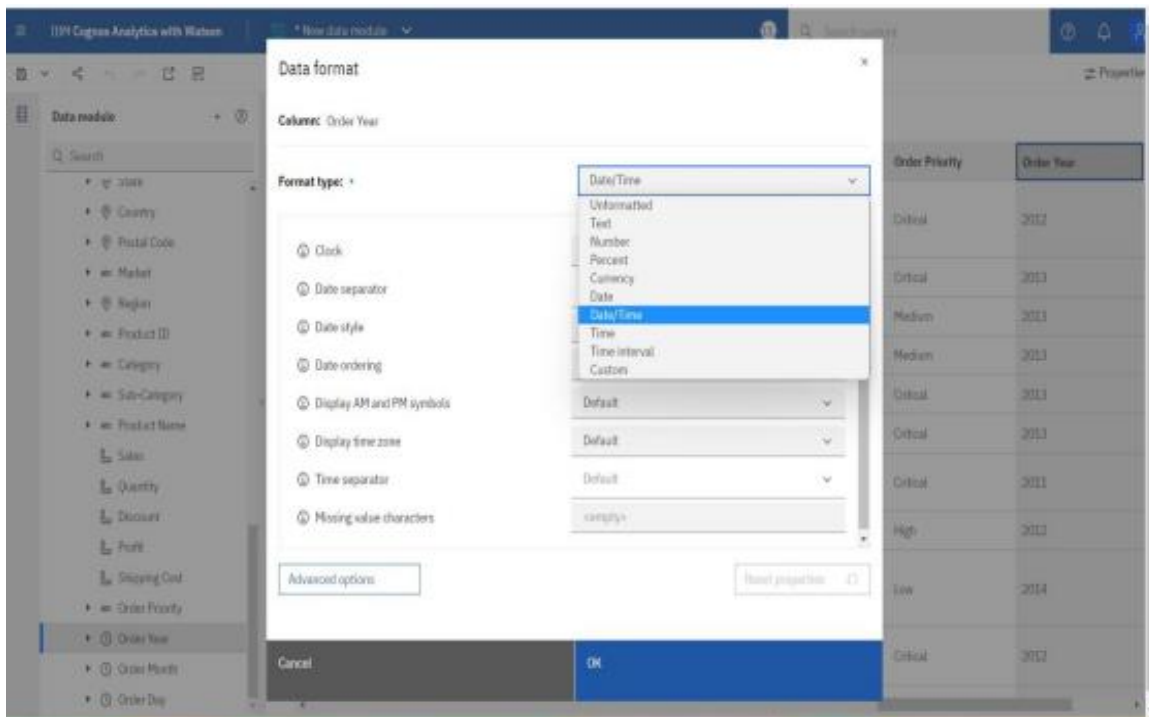
Display Options -> Show Members

This way it becomes a Numerical data Type

Right click on create navigation path



Data format> Date/Time



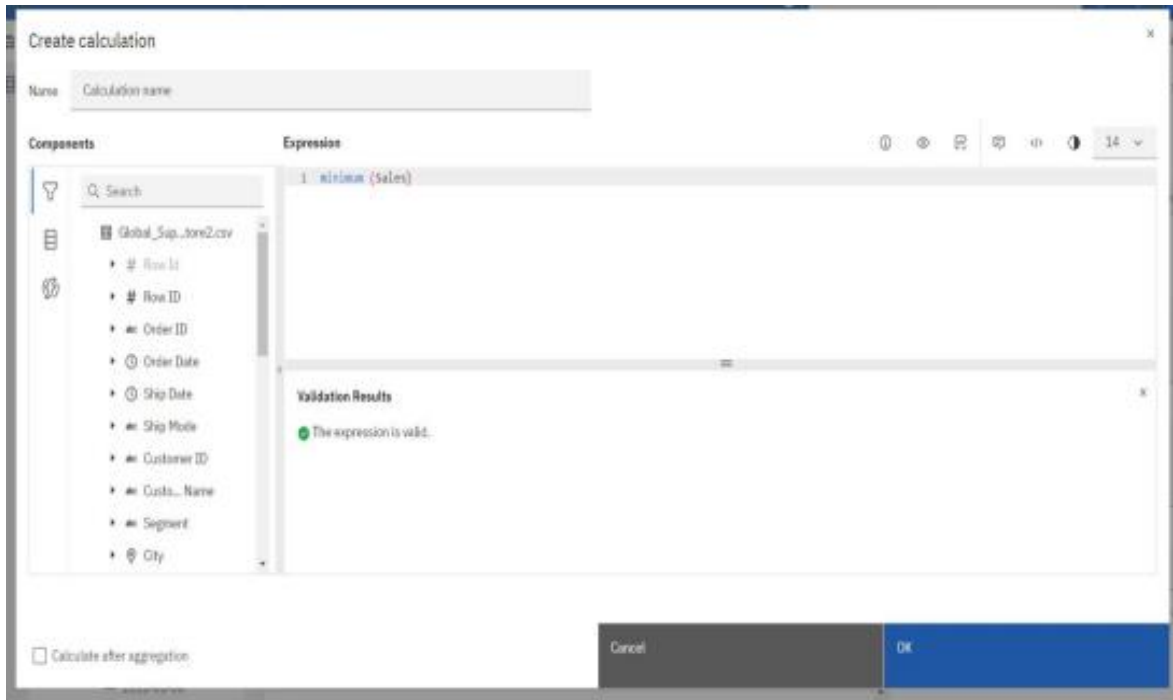
Calculations for Target sales, Min sales, Max Sales and Middle range sales

Min sales -> minimum (Sales)

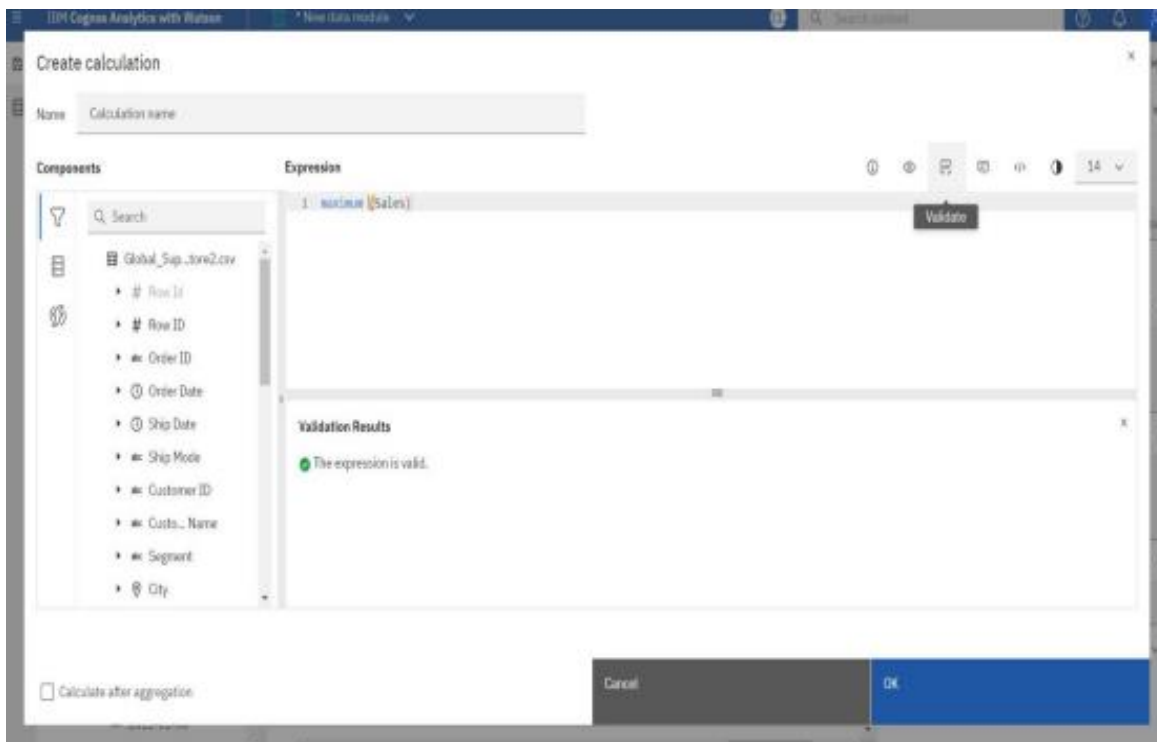
Max sales, Target sales -> maximum (Sales)

Middle range sales -> average (Sales)

Minimum sales :



Maximum Sales :



Middle Range sales :

