

PREPARE THE DATASETS

Team ID	PNT2022TMID40233
Project Name	Global Sales Data Analytics

DATA PREPARATION

1. First understand and load the data.

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Quick launch

- Upload data**
Upload or drag and drop spreadsheets, csv files, and other data sources.
- Prepare data**
Use data modules to clean and connect data from multiple resources.
- Exploration**
Quickly find unbiased answers by identifying trends in your data with data explor...
- Present data**
Create sophisticated, multi-page, multi-query dashboards, reports, or stori...

IBM Cognos Analytics with Watson

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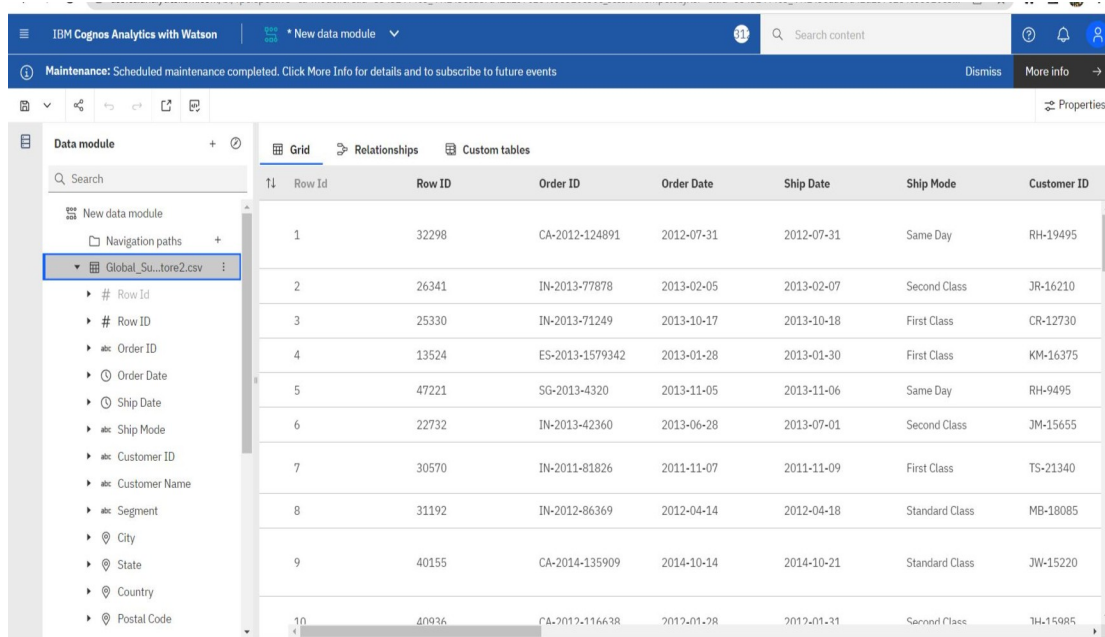
Content

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1 item selected

Name	Type	Last Accessed
<input type="checkbox"/> Pharma Dashboard	Folder	9/27/2022, 1:05 AM
<input type="checkbox"/> 50_Startups.csv	Uploaded file	9/13/2022, 12:08 AM
<input type="checkbox"/> bank.csv	Uploaded file	9/15/2022, 8:27 AM
<input type="checkbox"/> bikebuyer.csv	Uploaded file	9/13/2022, 12:20 AM
<input checked="" type="checkbox"/> Global_Superstore2.csv	Uploaded file	10/11/2022, 4:07 AM
<input type="checkbox"/> Global Superstore2.xlsx	Unloaded file	10/11/2022, 4:04 AM

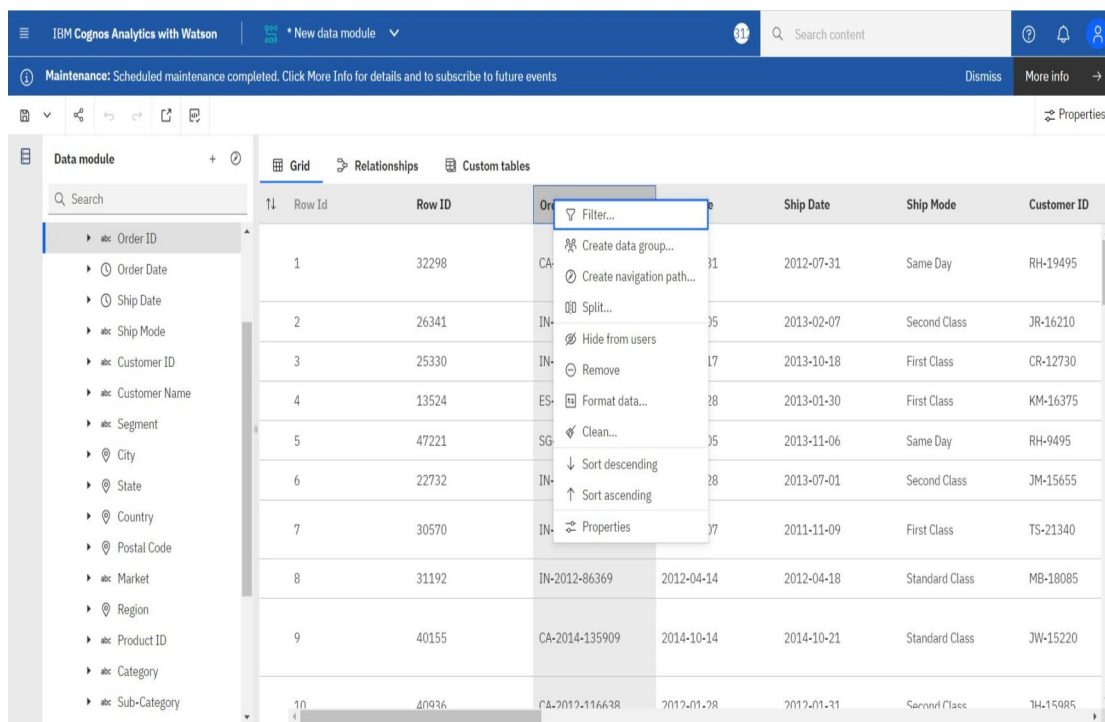
2. Since there is only single file, there need not be relationships or custom tables for the data.



The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' sidebar lists the data source 'Global_Su...tore2.csv' and its columns: Row Id, Row ID, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, City, State, Country, and Postal Code. The main grid view displays the data with the following columns: Row Id, Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The data is as follows:

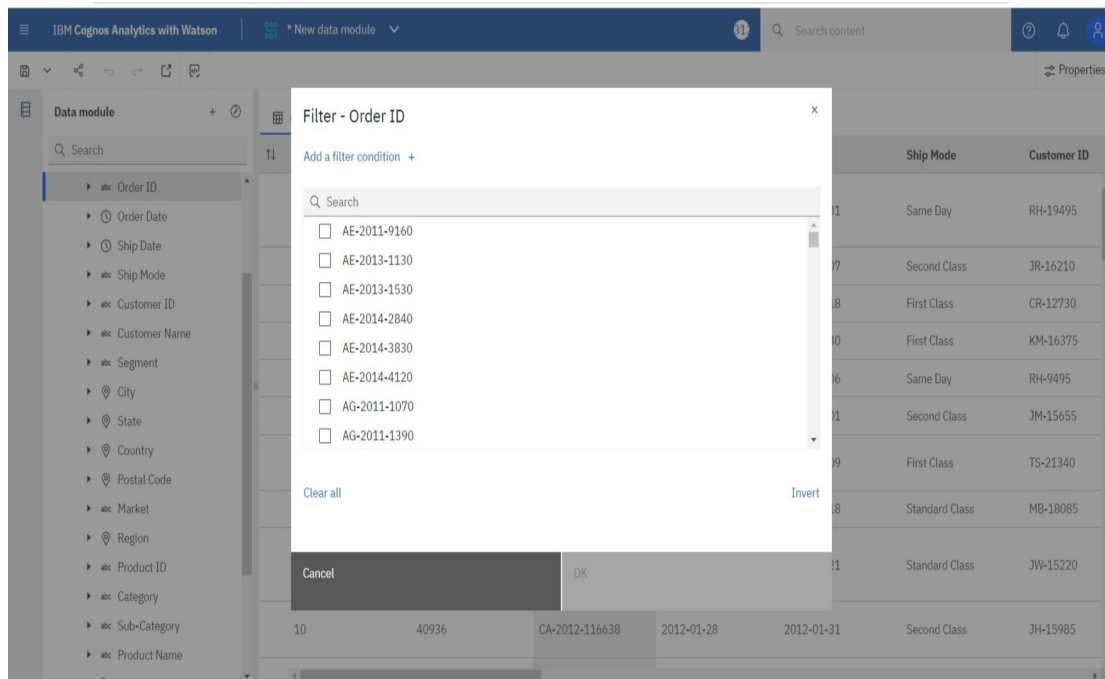
Row Id	Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	2012-07-31	Same Day	RH-19495
2	26341	IN-2013-77878	2013-02-05	2013-02-07	Second Class	JR-16210
3	25330	IN-2013-71249	2013-10-17	2013-10-18	First Class	CR-12730
4	13524	ES-2013-1579342	2013-01-28	2013-01-30	First Class	KM-16375
5	47221	SG-2013-4320	2013-11-05	2013-11-06	Same Day	RH-9495
6	22732	IN-2013-42360	2013-06-28	2013-07-01	Second Class	JM-15655
7	30570	IN-2011-81826	2011-11-07	2011-11-09	First Class	TS-21340
8	31192	IN-2012-86369	2012-04-14	2012-04-18	Standard Class	MB-18085
9	40155	CA-2014-135909	2014-10-14	2014-10-21	Standard Class	JW-15220
10	40936	CA-2012-116638	2012-01-28	2012-01-31	Second Class	JH-15085

3. To Prepare the data, we need to verify it is clean. There must be no null values. If there are null values, there will be empty data.



The screenshot shows the IBM Cognos Analytics interface with a context menu open over the 'Order ID' column. The menu options are: Filter..., Create data group..., Create navigation path..., Split..., Hide from users, Remove, Format data..., Clean..., Sort descending, Sort ascending, and Properties. The data table is the same as in the previous screenshot.

Row Id	Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	2012-07-31	Same Day	RH-19495
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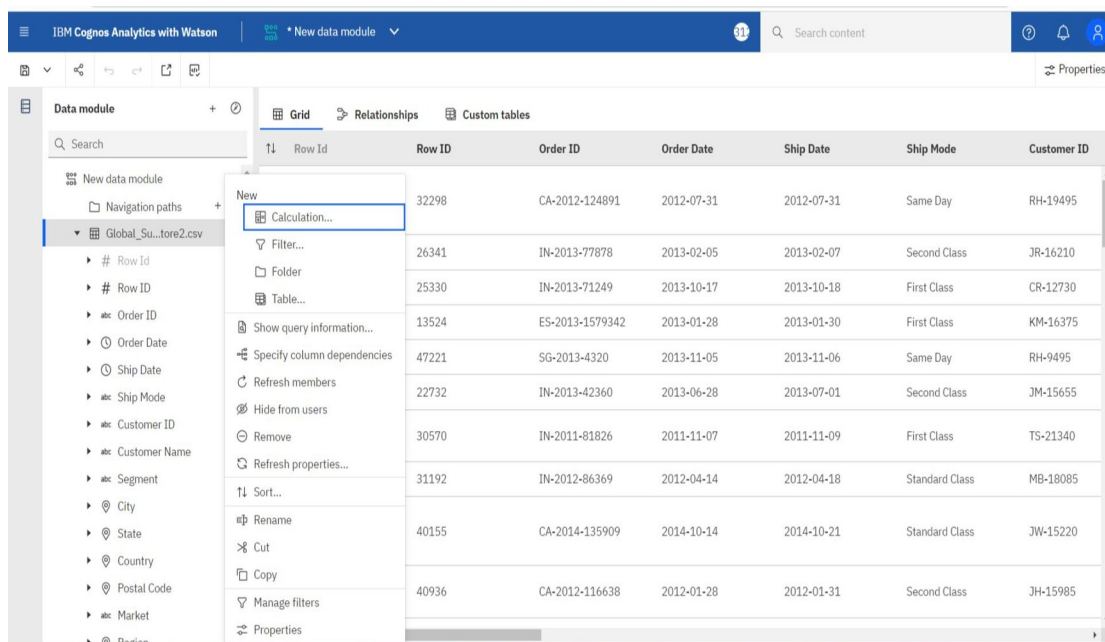


3. Once cleaned, the data is saved.

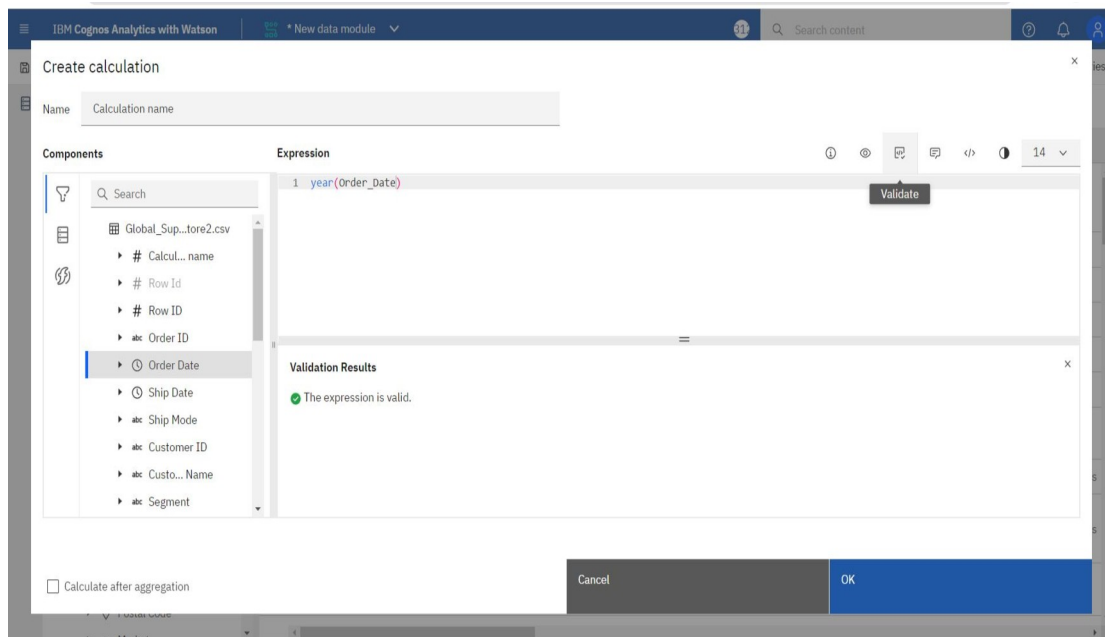
DATE CALCULATIONS AND NAVIGATION PATHS

Once you load the data, we need to Prepare the data.

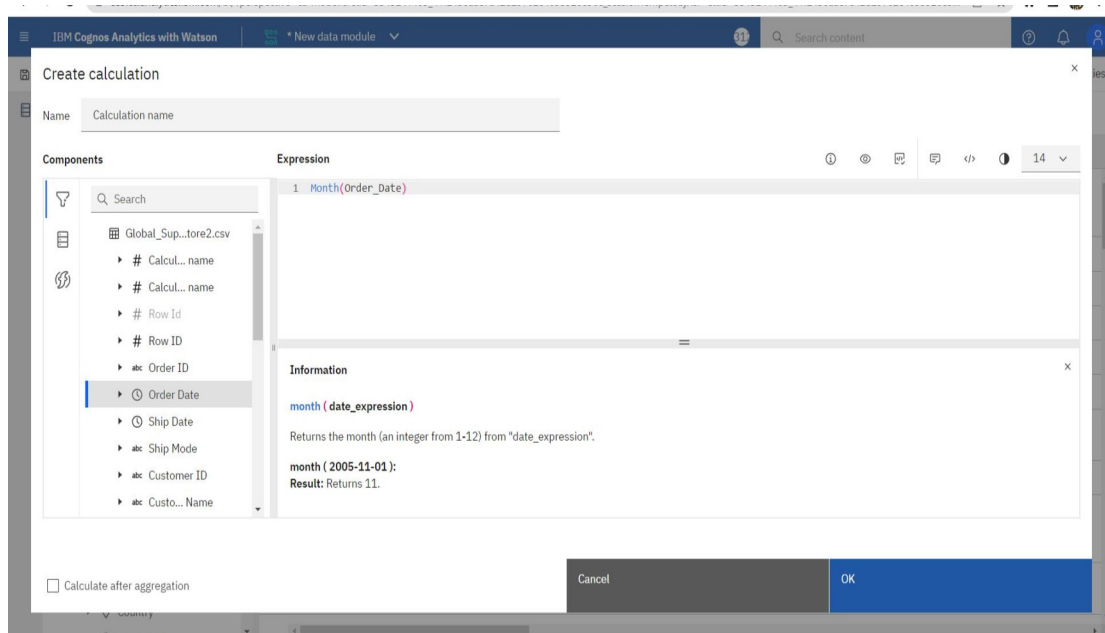
- a. **Prepare Calculations of Year, Month, Day fields and also the related Navigation path**
- b. Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.



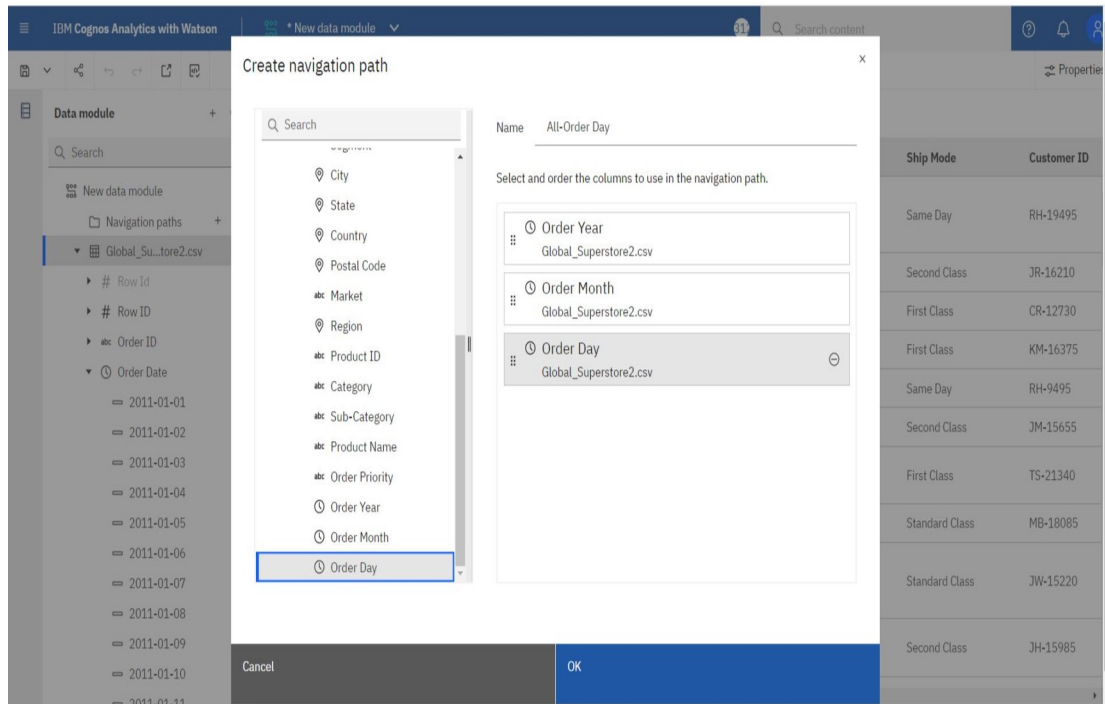
1. Right click> calculation> type expression> validate> Set Name as 'Order Year'



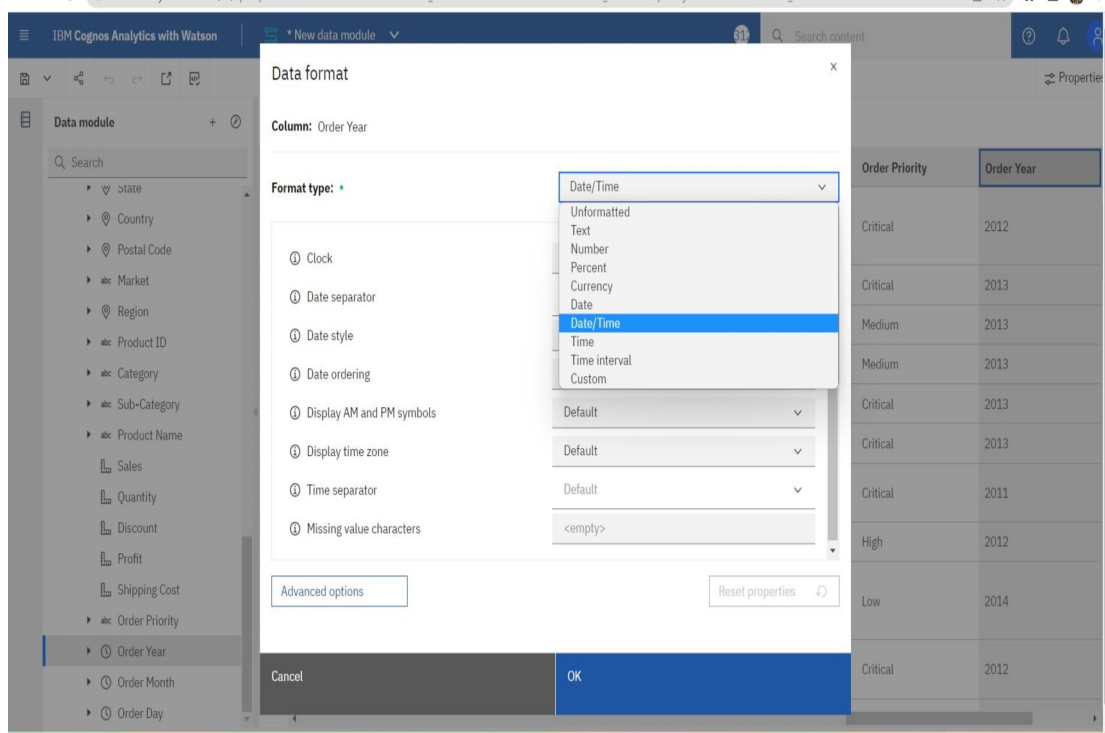
2. Similarly, 'OrderMonth', 'OrderDay' and 'All'
OrderYear -> Year (Order_Date)
OrderMonth -> Month (Order_Date)
OrderDay -> Day (Order_Date)
All -> All



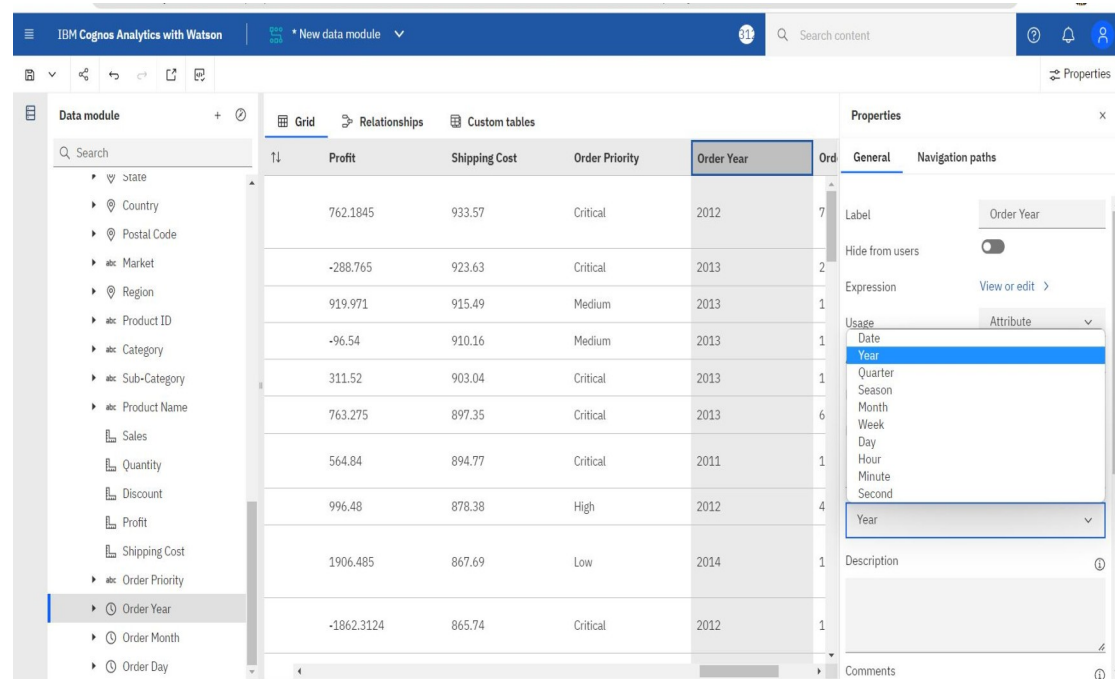
3. Right click on create navigation path



4. Data format> Date/Time



5. 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



6. Hence calculations for day, month and year are completed.

Once you load the data, we need to Prepare the data.

- Prepare Calculations of Year, Month, Day fields and also the related Navigation path
- Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.

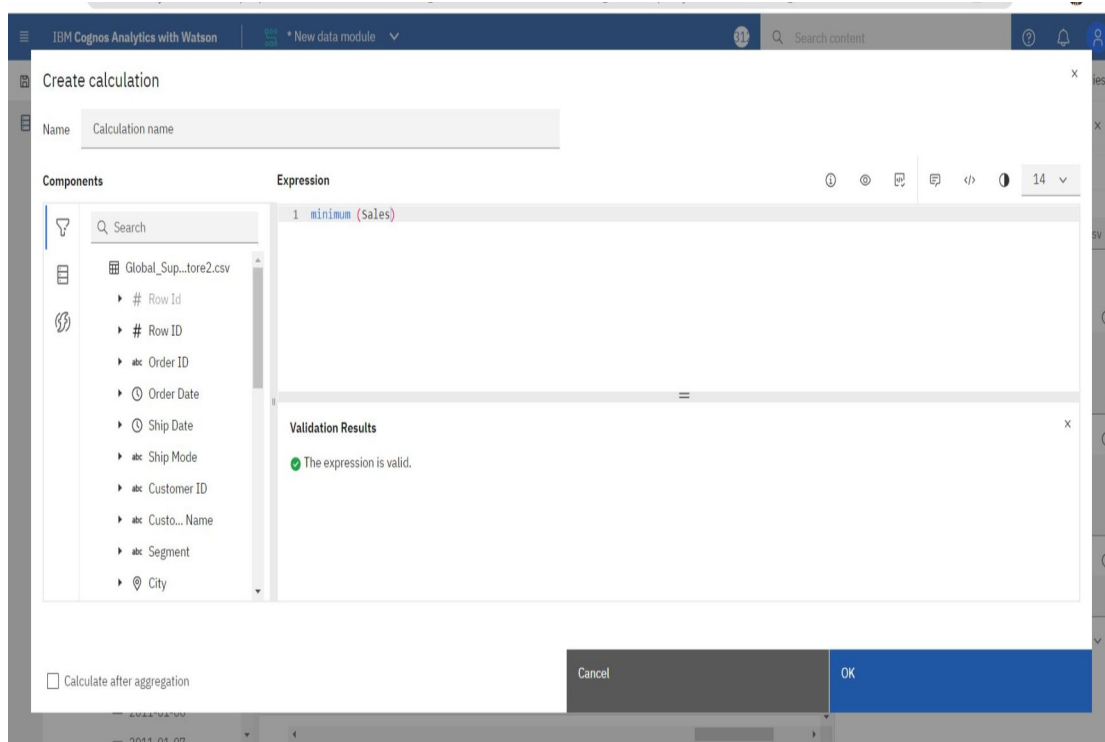
7. Similarly, calculations for Target sales, Min sales, Max Sales and Middle range sales are done

Min sales-> minimum (Sales)

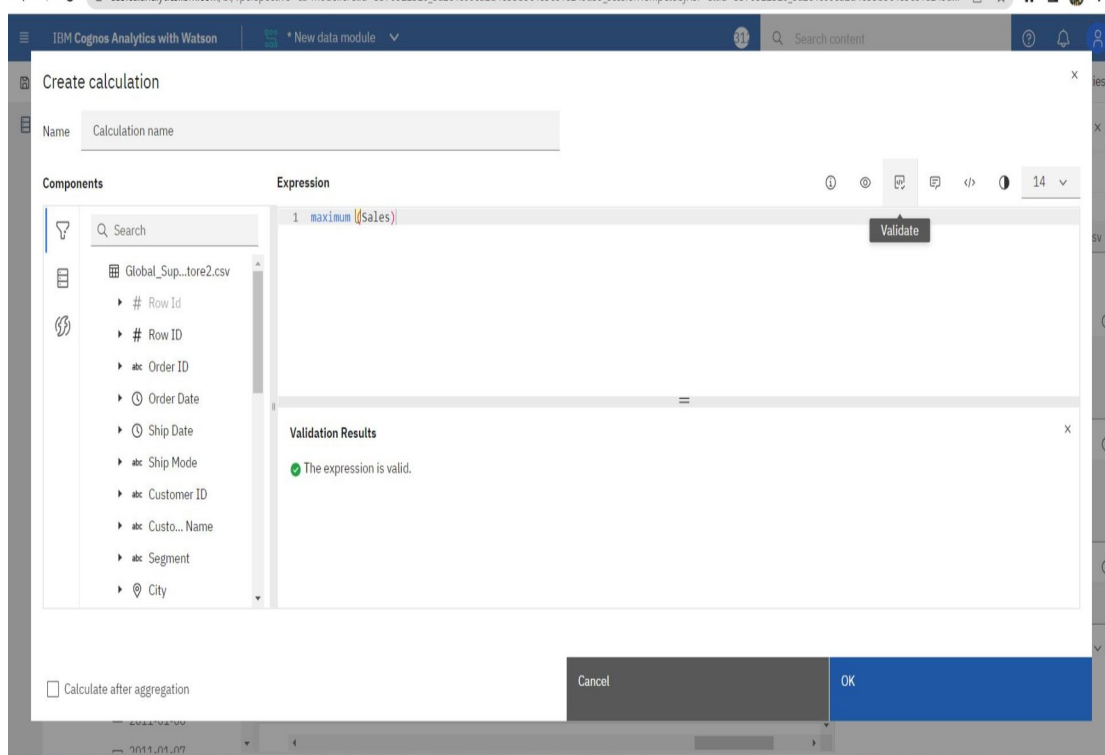
Max sales, Target sales-> maximum (Sales)

Middle range sales-> average (Sales)

Minimum(Sales)



Maximum(Sales)



Middle Range (Sales)

The screenshot shows the 'Create calculation' dialog box in IBM Cognos Analytics. The dialog has a title bar 'Create calculation' and a close button 'X'. Below the title bar, there is a 'Name' field with the text 'Calculation name'. The main area is divided into two panes: 'Components' on the left and 'Expression' on the right. The 'Components' pane has a search bar and a list of fields from the 'Global_Sup...tore2.csv' dataset, including '# Row Id', '# Row ID', 'alc Order ID', 'Order Date', 'Ship Date', 'Ship Mode', 'Customer ID', 'Custo... Name', 'Segment', and 'City'. The 'Expression' pane shows the expression '1 average (Sales)' and a 'Validate' button. Below the expression pane, a 'Validation Results' section shows a green checkmark and the text 'The expression is valid.'. At the bottom of the dialog, there is a checkbox labeled 'Calculate after aggregation' which is unchecked, and two buttons: 'Cancel' and 'OK'.

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* New data module

Search content

Create calculation

Name: Calculation name

Components

Search

Global_Sup...tore2.csv

- # Row Id
- # Row ID
- alc Order ID
- Order Date
- Ship Date
- Ship Mode
- Customer ID
- Custo... Name
- Segment
- City

Expression

1 average (Sales)

Validate

Validation Results

The expression is valid.

☐ Calculate after aggregation

Cancel OK