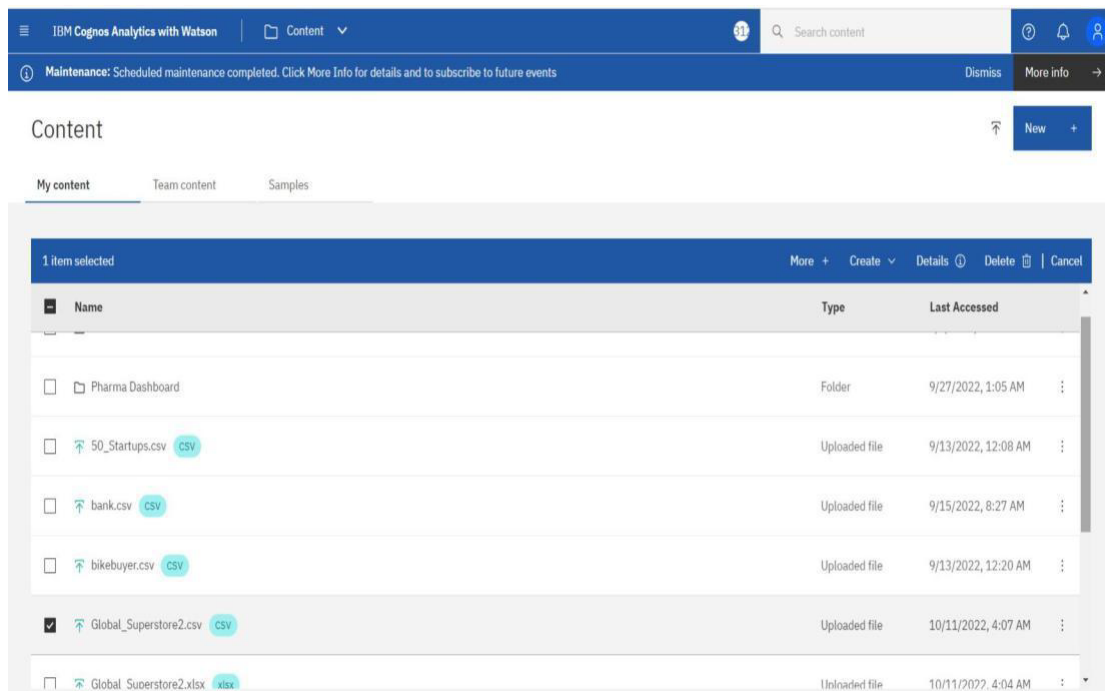
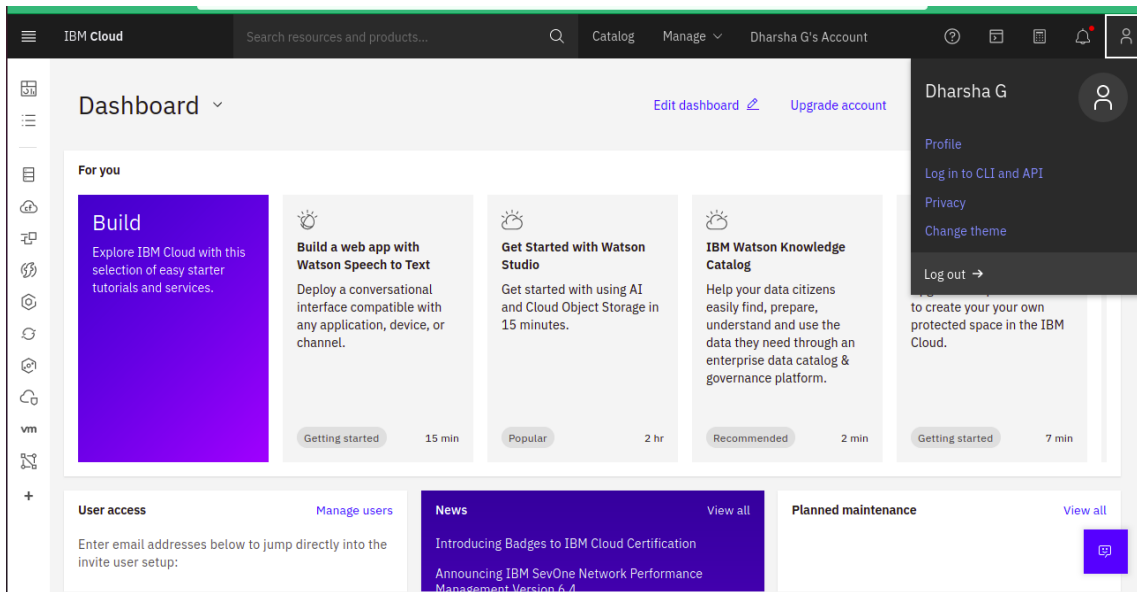


## PREPARE THE DATASETS

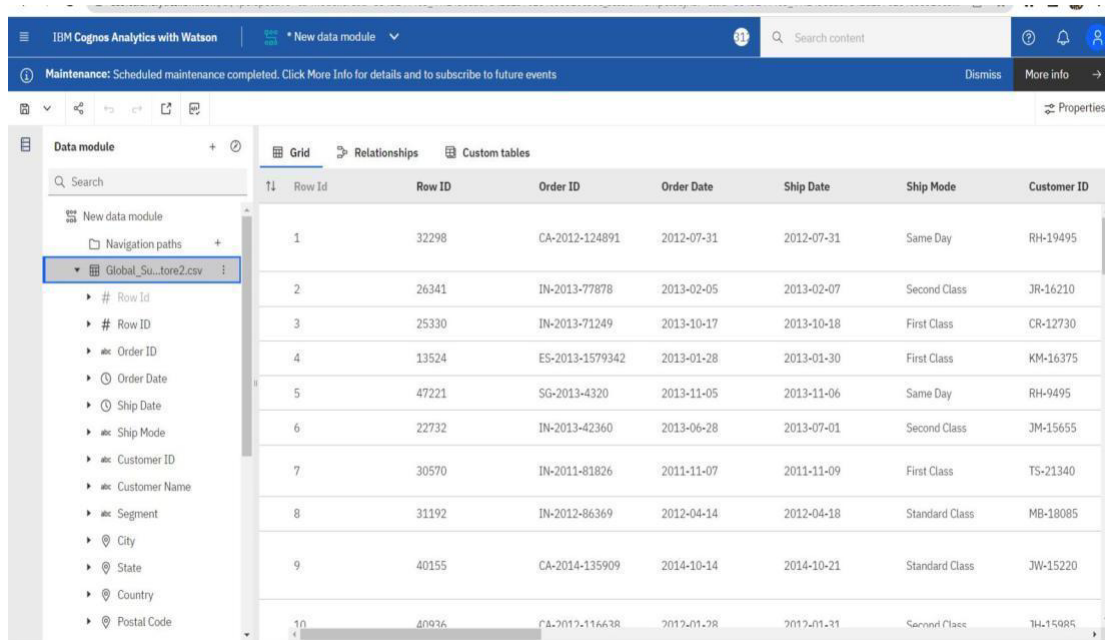
Team ID	PNT2022TMID35428
Project Name	Global Sales Data Analytics

### DATA PREPARATION

#### 1. First understand and load the data.



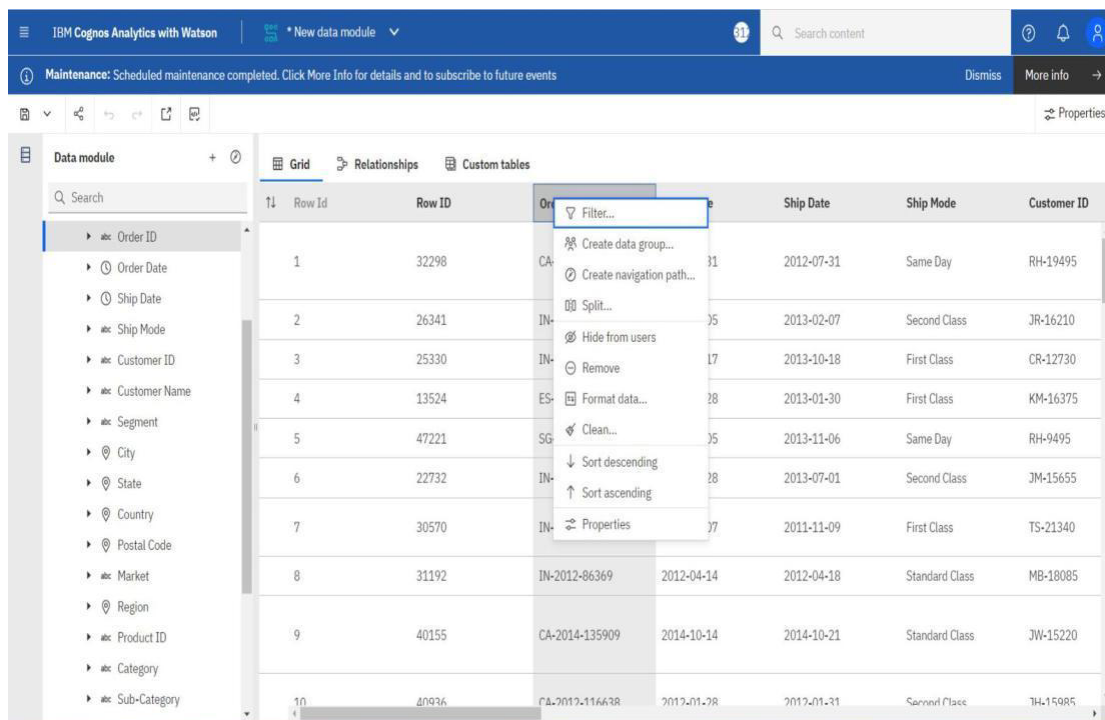
2. Since there is only single file, there need not be relationships or custom tables for the data.



The screenshot shows the IBM Cognos Analytics interface. The top navigation bar includes the title 'IBM Cognos Analytics with Watson', a dropdown for 'New data module', a search bar, and a maintenance notification. The left sidebar shows the 'Data module' section with a search bar and a list of fields: 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 area displays a grid view of data from the file 'Global\_Su...fore2.csv'. The grid has columns for Row Id, Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The data is organized into 10 rows.

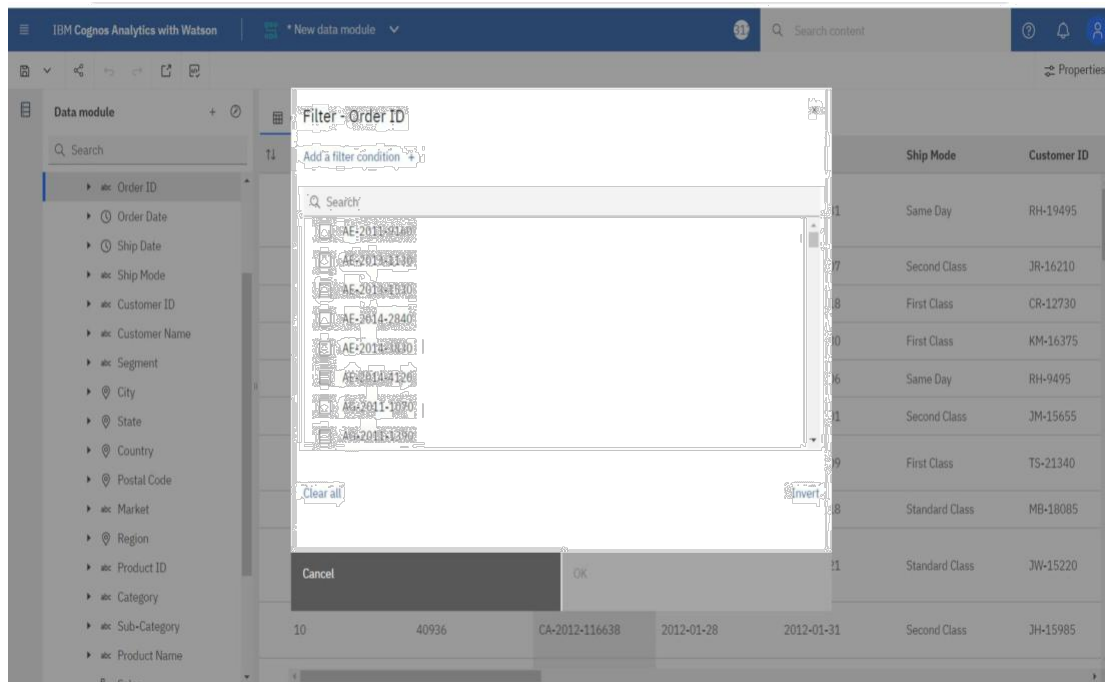
Row Id	Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	2012-07-31	Same Day	RH-19495
2	26341	IN-2013-77878	2013-02-05	2013-02-07	Second Class	JR-16210
3	25330	IN-2013-71249	2013-10-17	2013-10-18	First Class	CR-12730
4	13524	ES-2013-1579342	2013-01-28	2013-01-30	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	40926	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 include: 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
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
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10	40926	CA-2012-116638	2012-01-28	2012-01-31	Second Class	JH-15085

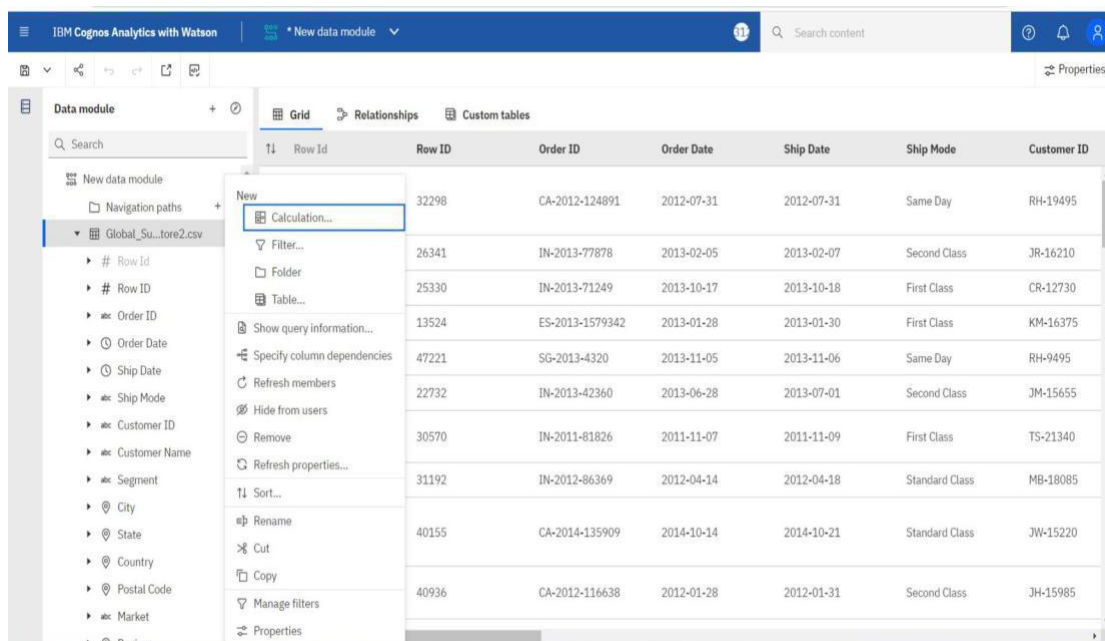


3. Once cleaned, the data is saved.

## DATE CALCULATIONS AND NAVIGATION PATHS

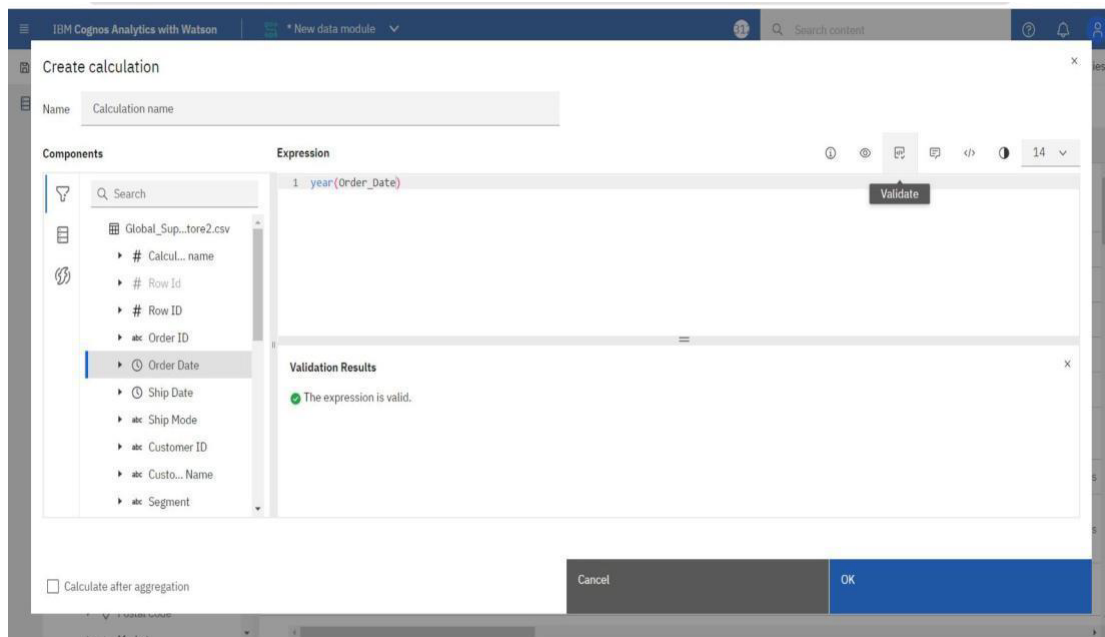
Once you load the data, we need to Prepare the data.

- 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.



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

Name as

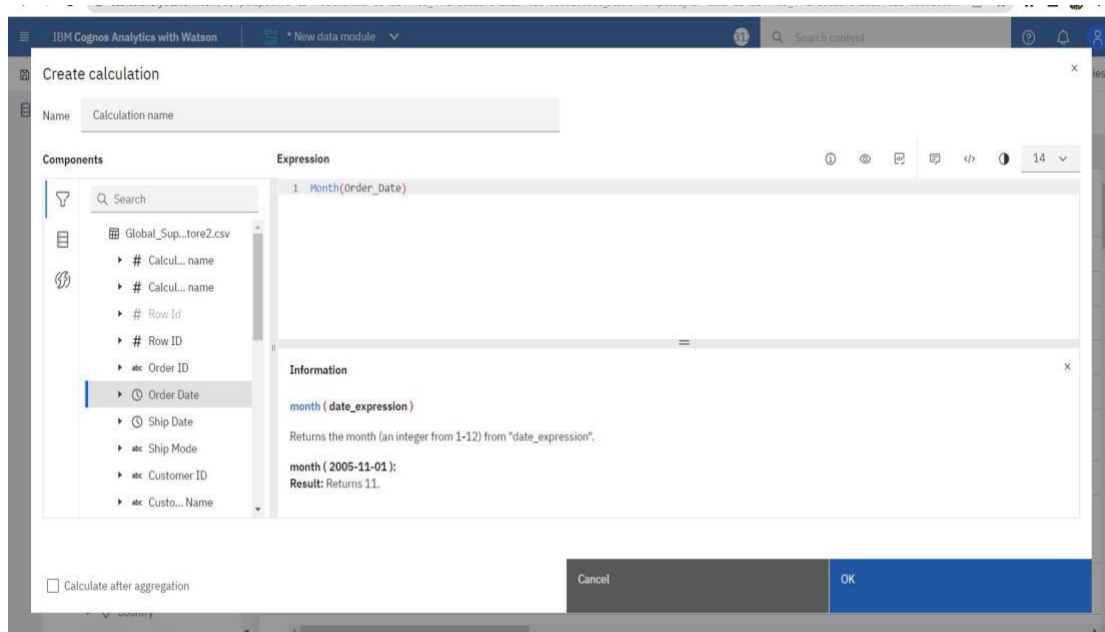


2. Similarly, 'OrderMonth', 'OrderDay' and  
'All' OrderYear -> Year (Order\_Date)

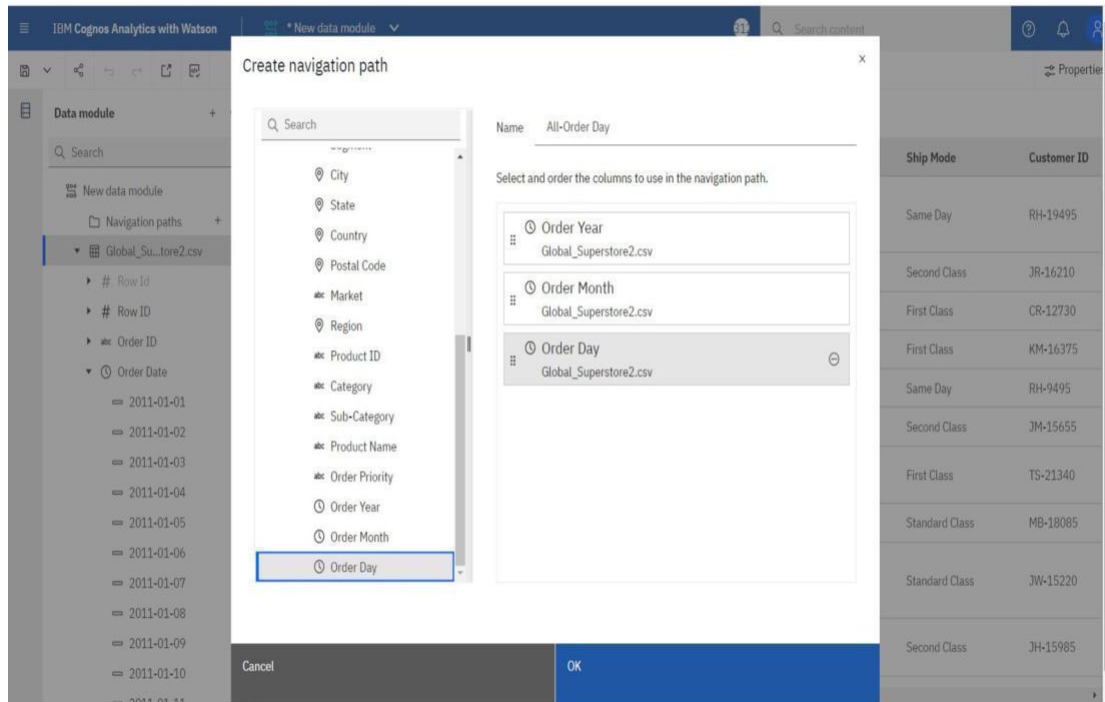
OrderMonth -> Month (Order\_Date)

OrderDay -> Day (Order\_Date)

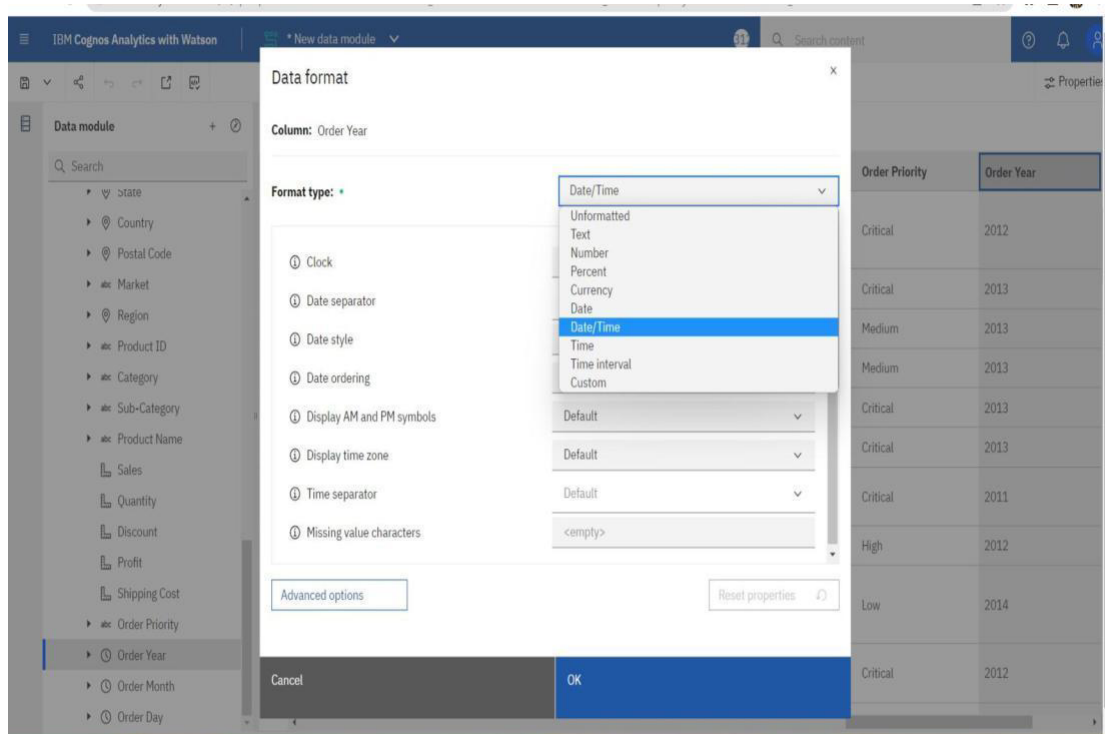
All -> All



### 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

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane displays a tree view of data sources including State, Country, Postal Code, Market, Region, Product ID, Category, Sub-Category, Product Name, Sales, Quantity, Discount, Profit, Shipping Cost, Order Priority, Order Year, Order Month, and Order Day. The 'Order Year' field is selected. The main area displays a table with columns: Profit, Shipping Cost, Order Priority, Order Year, and Ord. The table contains 10 rows of data. On the right, the 'Properties' panel is open for the 'Order Year' field. The 'General' tab is active, showing the 'Label' as 'Order Year', 'Hide from users' as a toggle switch, 'Expression' as 'View or edit >', 'Usage' as 'Attribute', and 'Date' as 'Year'. The 'Navigation paths' tab is also visible.

Profit	Shipping Cost	Order Priority	Order Year	Ord
762.1845	933.57	Critical	2012	7
-288.765	923.63	Critical	2013	2
919.971	915.49	Medium	2013	1
-96.54	910.16	Medium	2013	1
311.52	903.04	Critical	2013	1
763.275	897.35	Critical	2013	6
564.84	894.77	Critical	2011	1
996.48	878.38	High	2012	4
1906.485	867.69	Low	2014	1
-1862.3124	865.74	Critical	2012	1

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

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

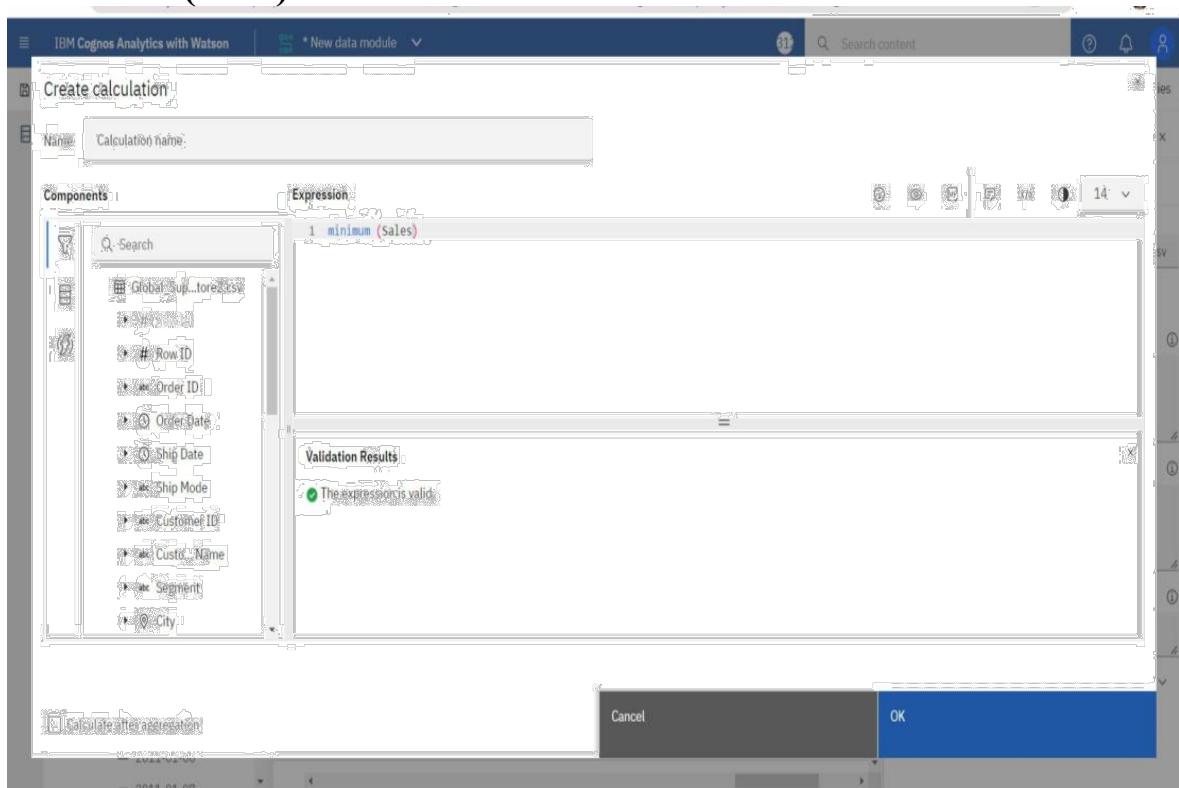
**b. Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.**

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

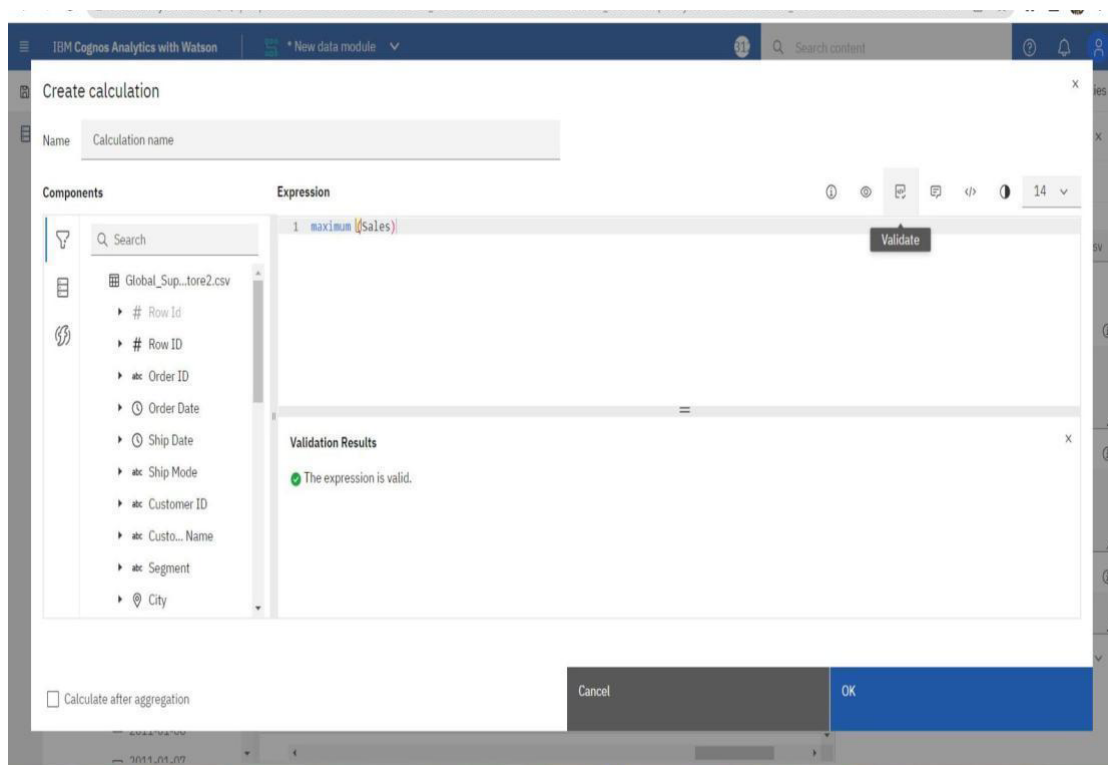
Min sales-> minimum (Sales)

Max sales, Target sales-> maximum (Sales) Middle range sales-> average (Sales)

## Minimum(Sales)



## Maximum(Sales)



## Middle Range (Sales)

IBM Cognos Analytics with Watson

New data module

Search content

14

Create calculation

Name

Calculation name

Components

Expression

Search

Global\_Sup...tore2.csv

# Row Id

# Row ID

alc Order ID

Order Date

Ship Date

alc Ship Mode

alc Customer ID

alc Custo... Name

alc Segment

City

1

average

(Sales)

Validate

Validation Results

The expression is valid.

☐ Calculate after aggregation

Cancel

OK