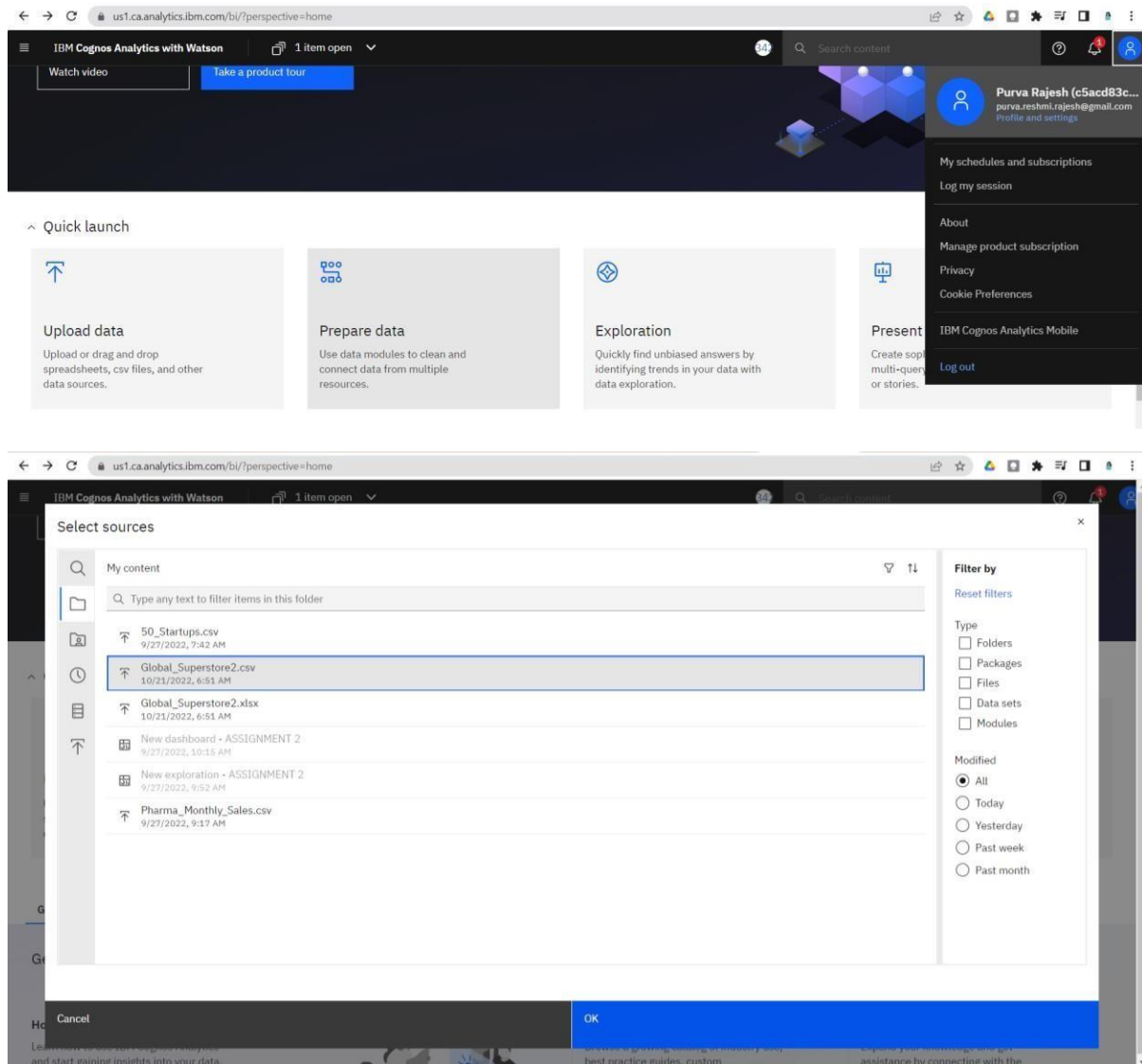


PREPARE THE DATASET

PROJECT: Global Data Sales Analytics

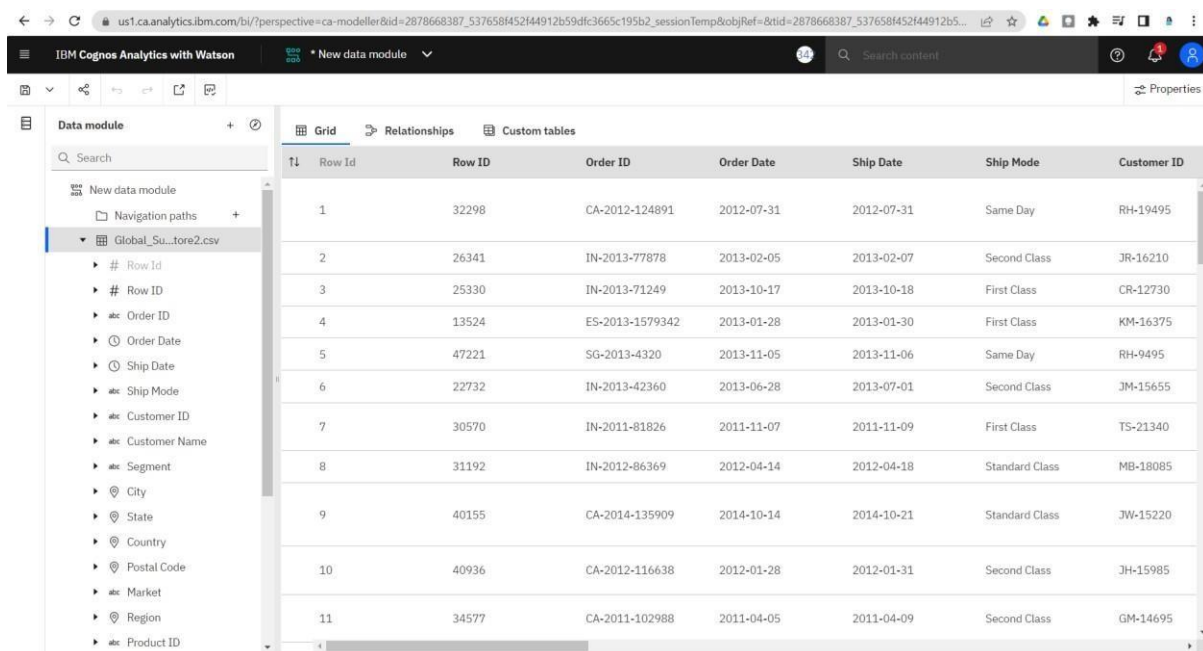
DATA PREPARATION

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.

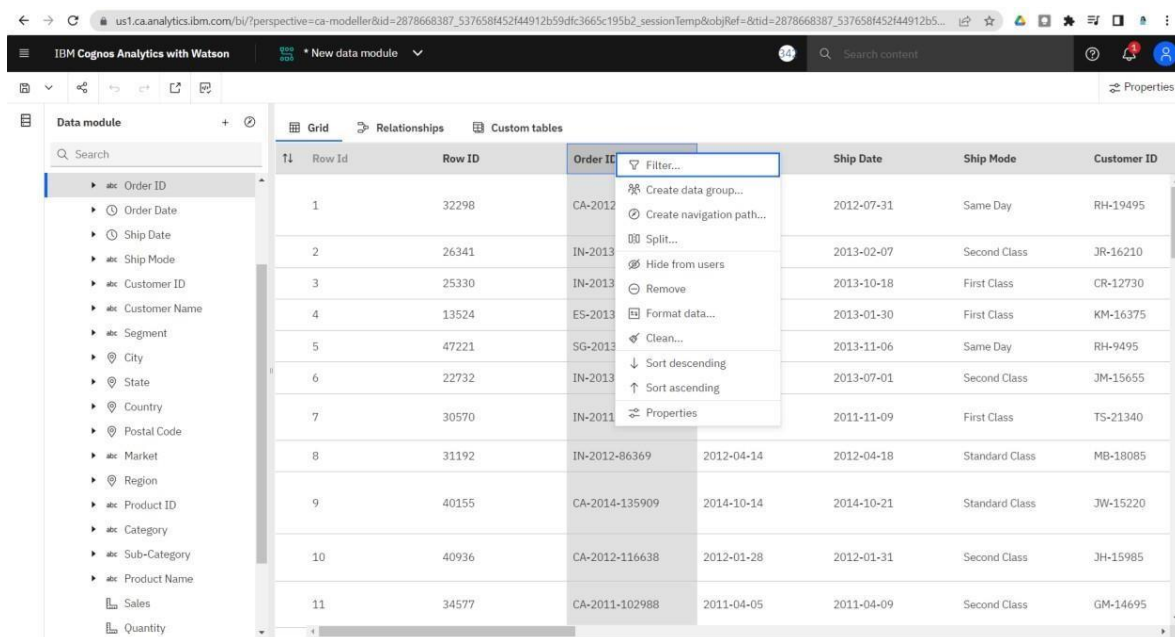
PROJECT ID: PNT2022TMID50563



The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists various fields from a CSV file named 'Global_Store2.csv'. The main area displays a 'Grid' view of the data. The table has columns for Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The data is sorted by Row ID in ascending order.

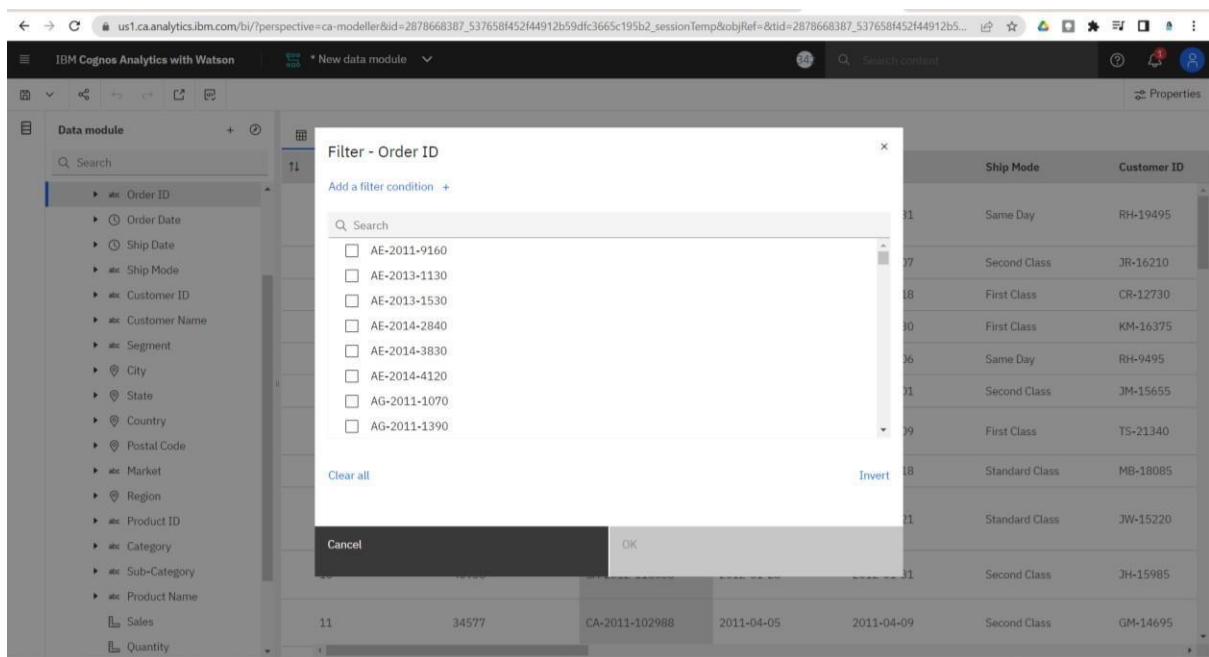
Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	CA-2012-124891	2012-07-31	2012-07-31	Same Day	RH-19495
2	IN-2013-77878	2013-02-05	2013-02-07	Second Class	JR-16210
3	IN-2013-71249	2013-10-17	2013-10-18	First Class	CR-12730
4	ES-2013-1579342	2013-01-28	2013-01-30	First Class	KM-16375
5	SG-2013-4320	2013-11-05	2013-11-06	Same Day	RH-9495
6	IN-2013-42360	2013-06-28	2013-07-01	Second Class	JM-15655
7	IN-2011-81826	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	2014-10-14	2014-10-21	Standard Class	JW-15220
10	CA-2012-116638	2012-01-28	2012-01-31	Second Class	JH-15985
11	CA-2011-102988	2011-04-05	2011-04-09	Second Class	GM-14695

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 same IBM Cognos Analytics interface, but 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 visible in the background.

Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	CA-2012-124891	2012-07-31	2012-07-31	Same Day	RH-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	SG-2013-4320	2013-11-05	2013-11-06	Same Day	RH-9495
6	IN-2013-42360	2013-06-28	2013-07-01	Second Class	JM-15655
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8	IN-2012-86369	2012-04-14	2012-04-18	Standard Class	MB-18085
9	CA-2014-135909	2014-10-14	2014-10-21	Standard Class	JW-15220
10	CA-2012-116638	2012-01-28	2012-01-31	Second Class	JH-15985
11	CA-2011-102988	2011-04-05	2011-04-09	Second Class	GM-14695

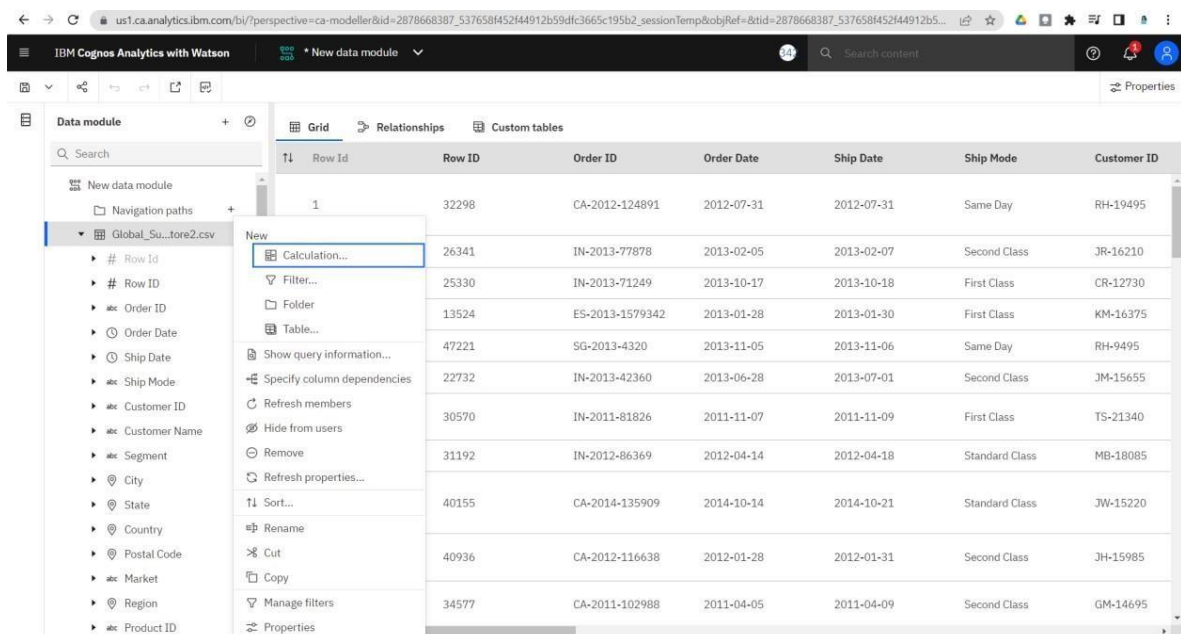


4. Once cleaned, the data is saved.

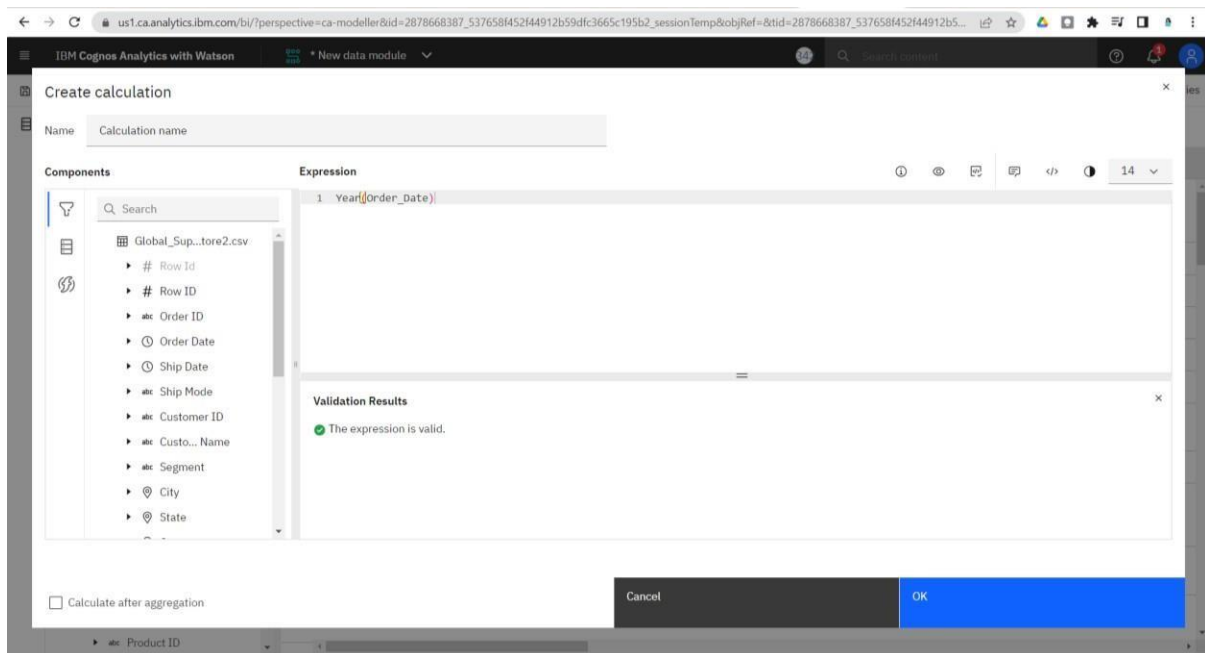
DATE CALCULATIONS AND NAVIGATION PATHS

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'



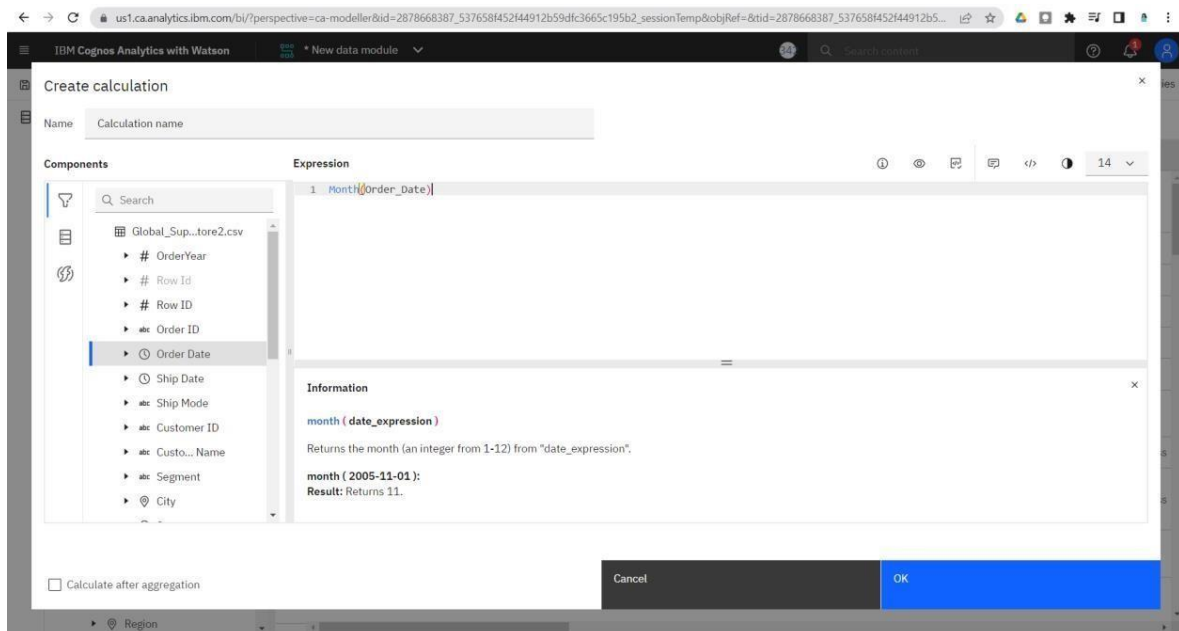
2. Similarly, 'OrderMonth', 'OrderDay' and 'All'

OrderYear -> Year (Order_Date)

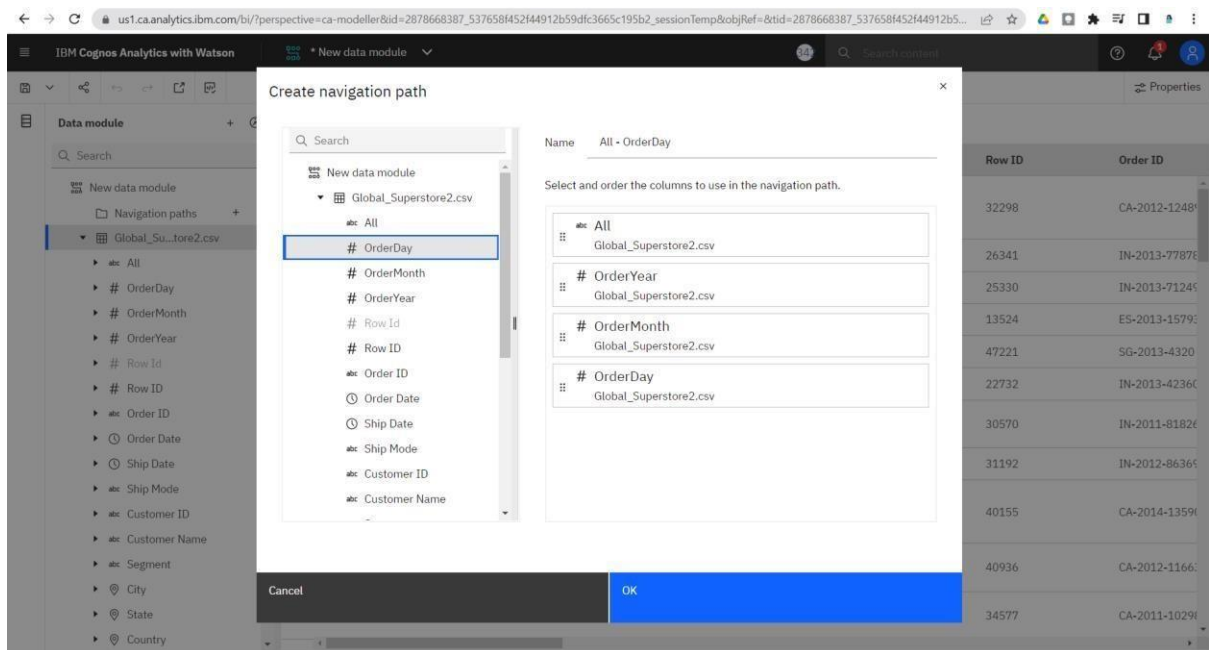
OrderMonth -> Month (Order_Date)

OrderDay -> Day (Order_Date)

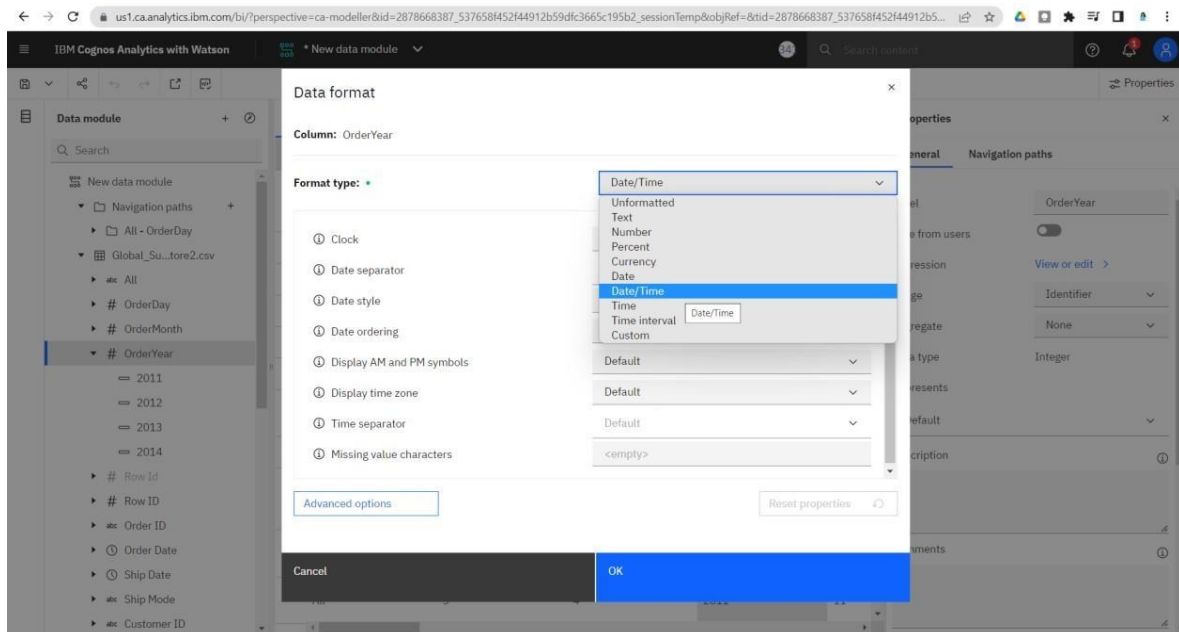
All -> All



3. Right click on create navigation path



4. Data format> Date/Time



5. Properties> Usage-> Attribute

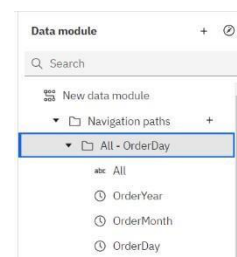
Aggregate-> Count Distinct

Data Type-> Integer

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

Display Options-> Show Members

This way it becomes a Numerical data Type



The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists various fields including OrderDay, OrderMonth, and OrderYear. The main grid displays data with columns for OrderDay, OrderMonth, OrderYear, and Row Id. The 'OrderYear' column is highlighted, and a dropdown menu is open, showing a list of time-based options: Year, Date, Year, Quarter, Season, Month, Week, Day, Hour, Minute, and Second. The 'Properties' pane on the right shows the selected field's properties, including its label, usage, and data type.

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)

The screenshot shows the 'Create calculation' dialog in IBM Cognos Analytics. The 'Name' field is set to 'MinSales'. The 'Expression' field contains the formula '1 minimum (Sales)'. The 'Components' pane on the left shows the available fields, including OrderDay, OrderMonth, OrderYear, Row Id, Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The 'Validation Results' section at the bottom shows a green checkmark and the message 'The expression is valid.'.

8. Hence the calculations for Target sales, Min sales, Max Sales and Middle range sales are completed.