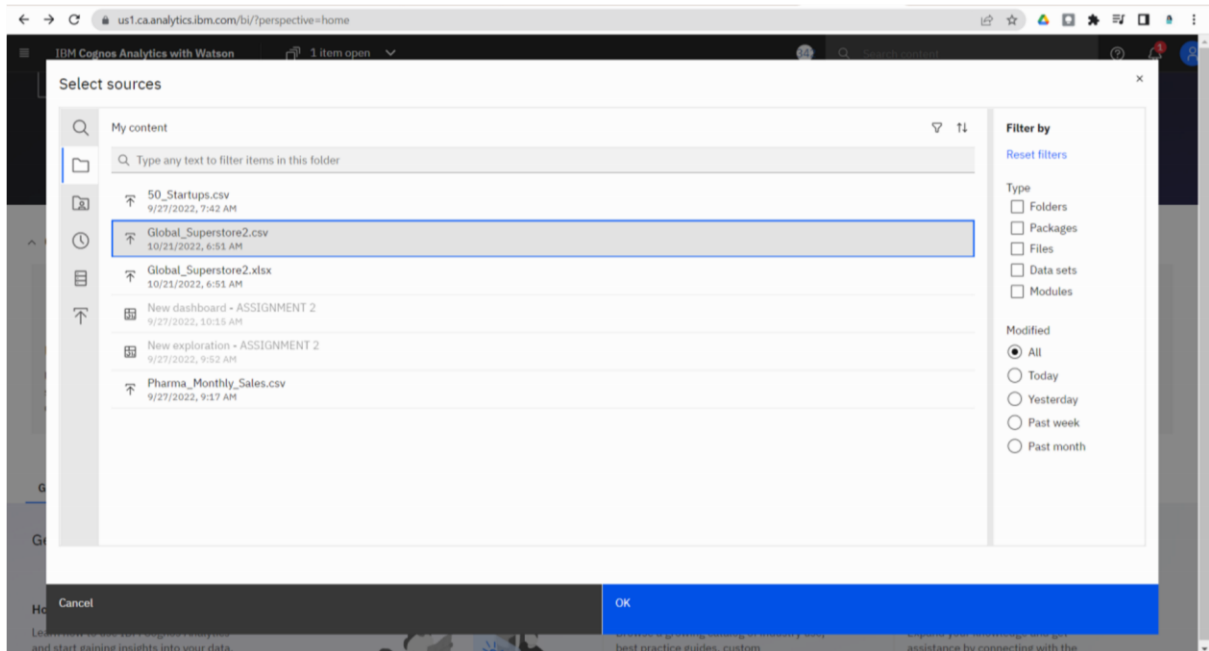
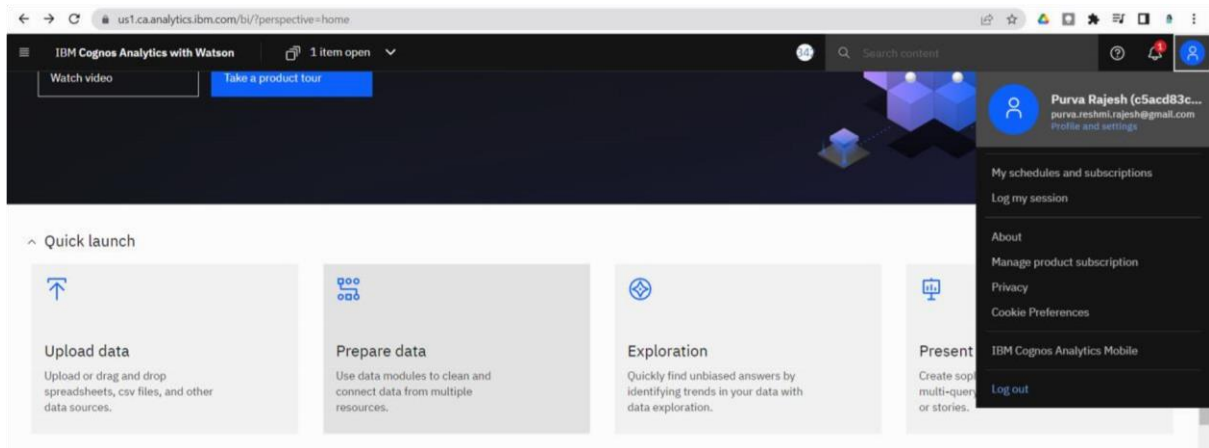


PREPARE THE DATASET

PROJECT: Global Data Sales Analytics

DATA PREPARATION

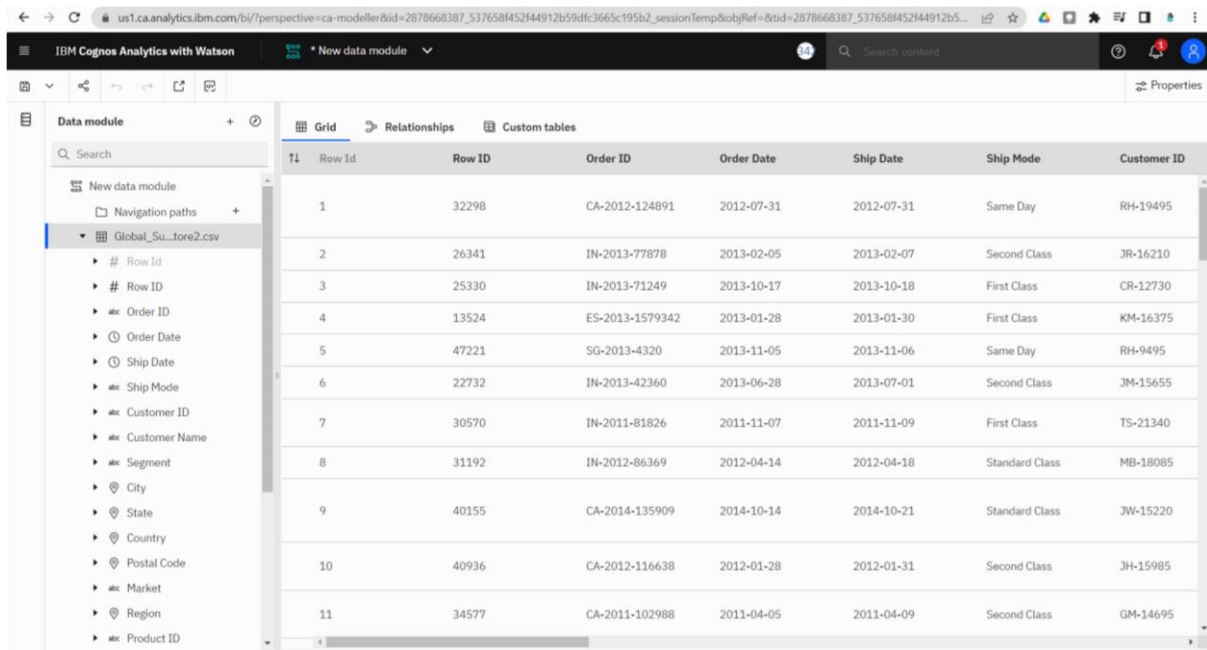
1. First understand and load the data.



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

PROJECT ID: PNT2022TMID44796

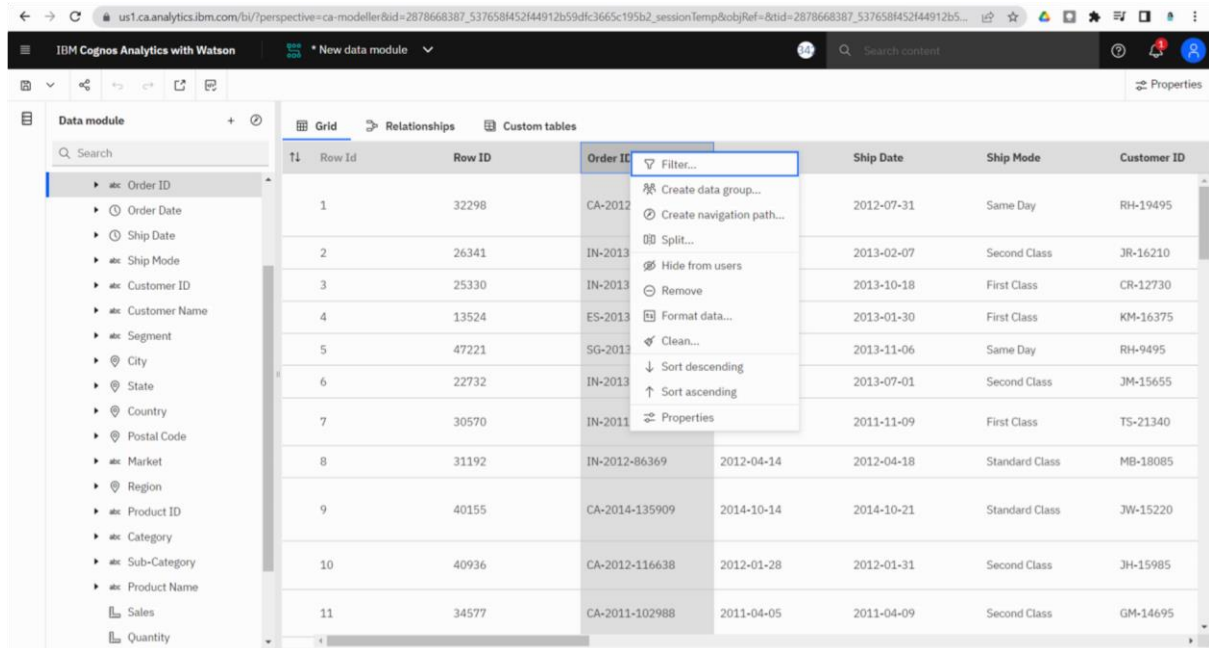
DATE: 16.11.2022



The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane displays a search bar and a list of fields from the 'Global_Su...tore2.csv' file, including Row ID, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Segment, City, State, Country, Postal Code, Market, Region, and Product ID. The main area shows a table with columns: Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The table contains 11 rows of data.

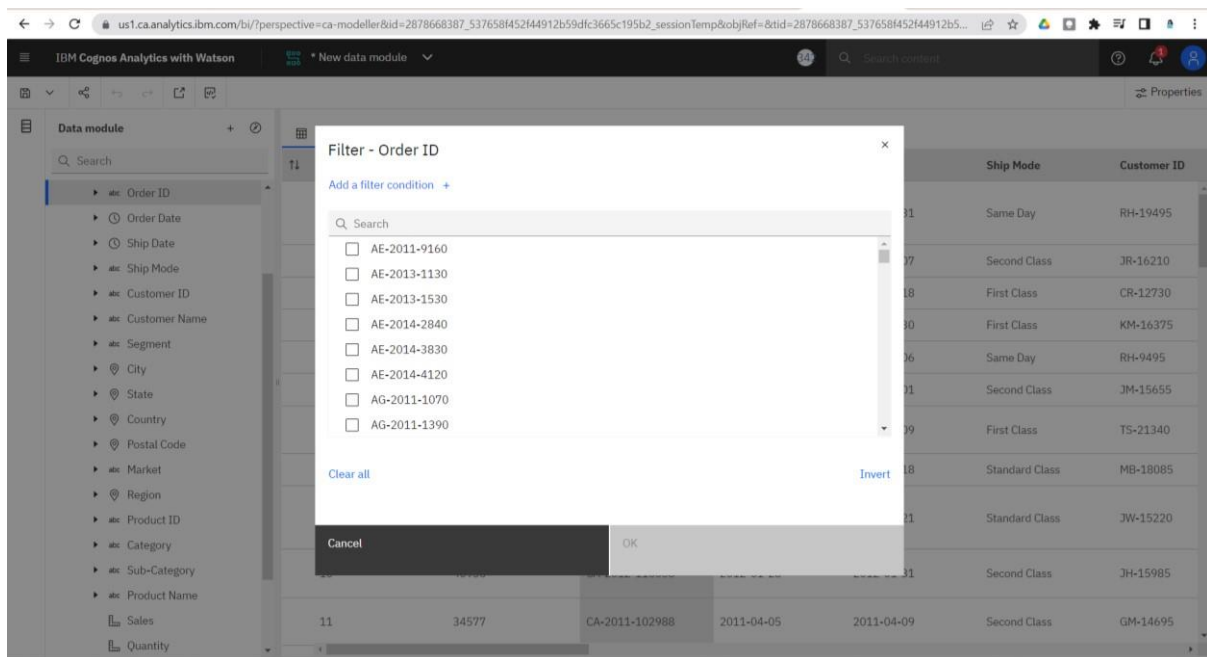
Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	Same Day	RH-19495
2	26341	IN-2013-77878	2013-02-05	Second Class	JR-16210
3	25330	IN-2013-71249	2013-10-17	First Class	CR-12730
4	13524	ES-2013-1579342	2013-01-28	First Class	KM-16375
5	47221	SG-2013-4320	2013-11-05	Same Day	RH-9495
6	22732	IN-2013-42360	2013-06-28	Second Class	JM-15655
7	30570	IN-2011-81826	2011-11-07	First Class	TS-21340
8	31192	IN-2012-86369	2012-04-14	Standard Class	MB-18085
9	40155	CA-2014-135909	2014-10-14	Standard Class	JW-15220
10	40936	CA-2012-116638	2012-01-28	Second Class	JH-15985
11	34577	CA-2011-102988	2011-04-05	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 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 table data is the same as in the previous screenshot.

Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	Same Day	RH-19495
2	26341	IN-2013-77878	2013-02-05	Second Class	JR-16210
3	25330	IN-2013-71249	2013-10-17	First Class	CR-12730
4	13524	ES-2013-1579342	2013-01-28	First Class	KM-16375
5	47221	SG-2013-4320	2013-11-05	Same Day	RH-9495
6	22732	IN-2013-42360	2013-06-28	Second Class	JM-15655
7	30570	IN-2011-81826	2011-11-07	First Class	TS-21340
8	31192	IN-2012-86369	2012-04-14	Standard Class	MB-18085
9	40155	CA-2014-135909	2014-10-14	Standard Class	JW-15220
10	40936	CA-2012-116638	2012-01-28	Second Class	JH-15985
11	34577	CA-2011-102988	2011-04-05	Second Class	GM-14695

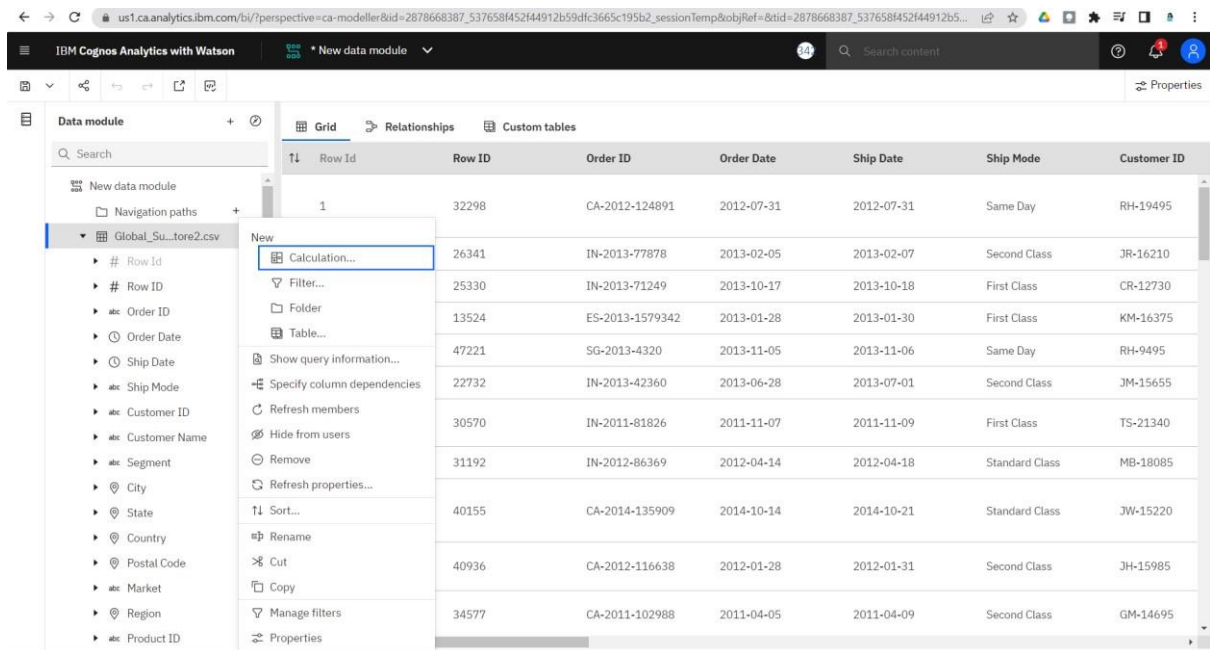


4. Once cleaned, the data is saved.

DATE CALCULATIONS AND NAVIGATION PATHS

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

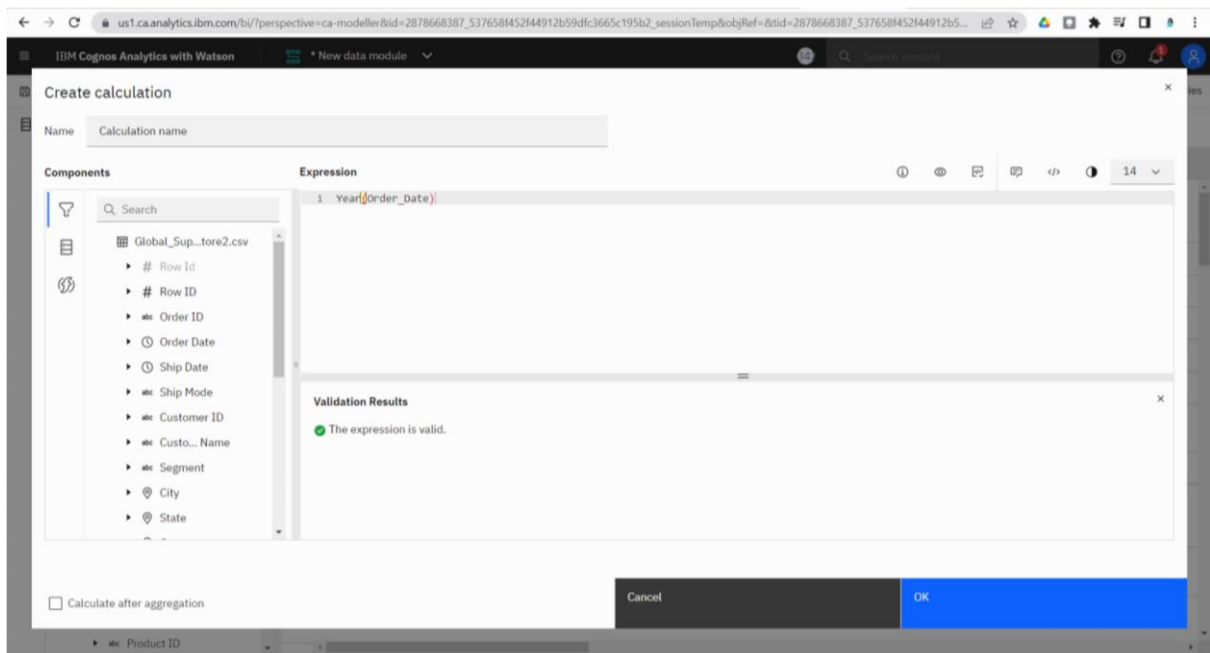
- a. Prepare Calculations of Year, Month, Day fields and also the related Navigation path
- b. Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.



The screenshot shows the IBM Cognos Analytics interface. On the left, a 'Data module' pane lists fields from a CSV file: Row Id, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Segment, City, State, Country, Postal Code, Market, Region, and Product ID. The main area displays a table with columns: Row Id, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. A context menu is open over the first row, with 'Calculation...' selected. The table contains 14 rows of data.

Row Id	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	Same Day	RH-19495
2	26341	IN-2013-77878	2013-02-05	Second Class	JR-16210
3	25330	IN-2013-71249	2013-10-17	First Class	CR-12730
4	13524	ES-2013-1579342	2013-01-28	First Class	KM-16375
5	47221	SG-2013-4320	2013-11-05	Same Day	RH-9495
6	22732	IN-2013-42360	2013-06-28	Second Class	JM-15655
7	30570	IN-2011-81826	2011-11-07	First Class	TS-21340
8	31192	IN-2012-86369	2012-04-14	Standard Class	MB-18085
9	40155	CA-2014-135909	2014-10-14	Standard Class	JW-15220
10	40936	CA-2012-116638	2012-01-28	Second Class	JH-15985
11	34577	CA-2011-102988	2011-04-05	Second Class	GM-14695

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



The screenshot shows the 'Create calculation' dialog box. The 'Name' field is set to 'Calculation name'. The 'Expression' field contains the formula 'Year(Order_Date)'. Below the expression field, a 'Validation Results' section shows a green checkmark and the text 'The expression is valid.' At the bottom, there are 'Cancel' and 'OK' buttons.

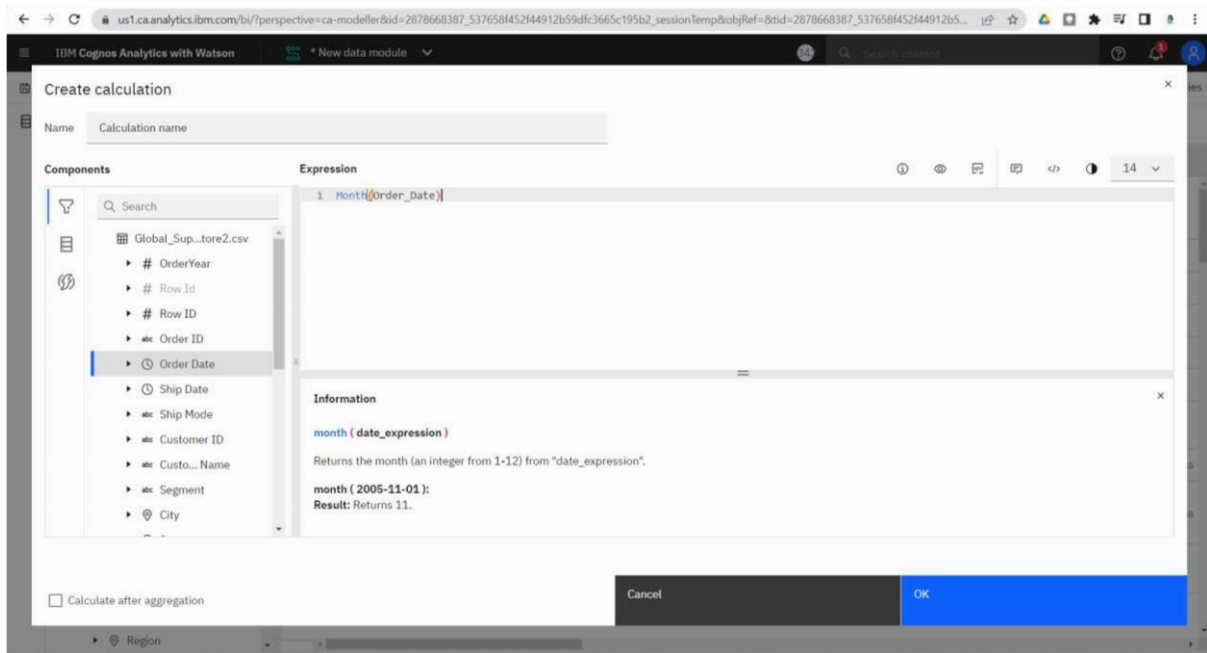
2. Similarly, 'OrderMonth', 'OrderDay' and 'All'

OrderYear -> Year (Order_Date)

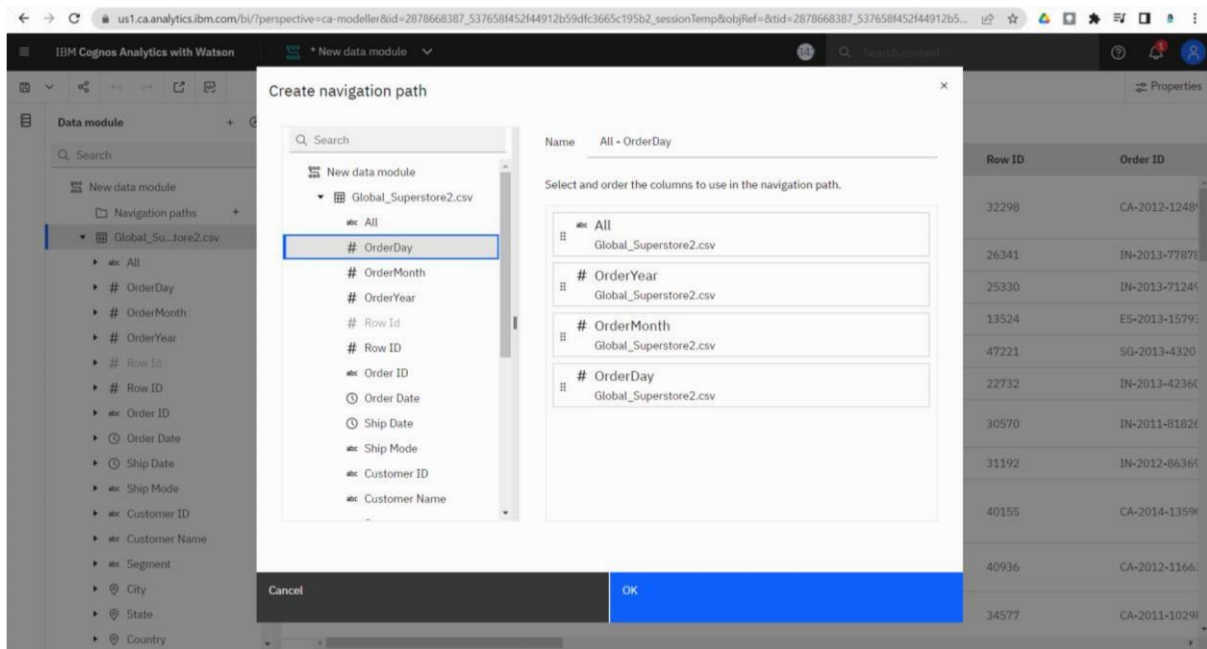
OrderMonth -> Month (Order_Date)

OrderDay -> Day (Order_Date)

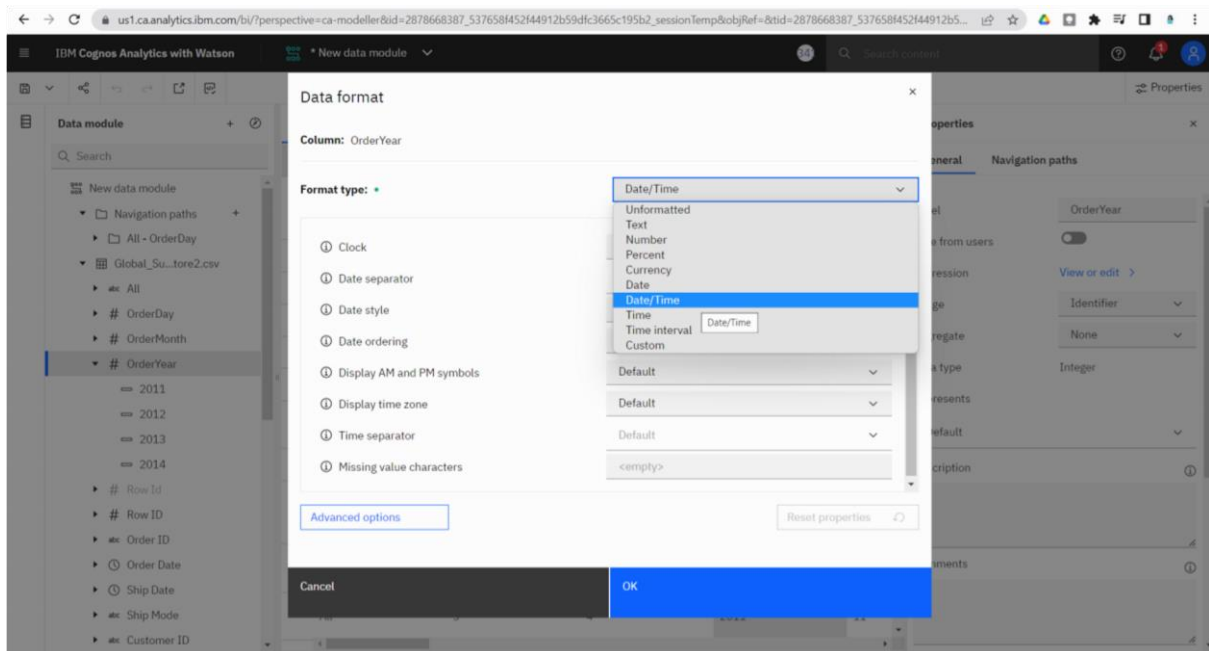
All -> All



3. Right click on create navigation path



4. Data format> Date/Time



5. Properties> Usage-> Attribute

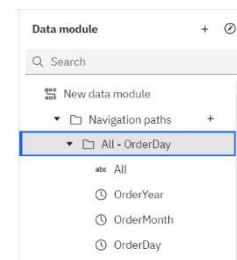
Aggregate-> Count Distinct

Data Type-> Integer

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

Display Options-> Show Members

This way it becomes a Numerical data Type



us1.xa.analytics.ibm.com/bi/?perspective=ca-modeller&id=2878668387_537658f452f44912b59dfc3665c195b2_sessionTemp&objRef= &rtid=2878668387_537658f452f44912b5...

IBM Cognos Analytics with Watson

New data module

16

Search content

Properties

Data module

Search

New data module

- Navigation paths
 - All - OrderDay
- Global_Store2.csv
 - etc All
 - # OrderDay
 - # OrderMonth
 - OrderYear
 - # Row Id
 - # Row ID
 - etc Order ID
 - Order Date
 - Ship Date
 - etc Ship Mode
 - etc Customer ID
 - etc Customer Name
 - etc Segment
 - City
 - State

Grid

Relationships

Custom tables

T1	All	OrderDay	OrderMonth	OrderYear	Row Id
	All	14	10	2014	9
	All	28	1	2012	10
	All	5	4	2011	11
	All	19	4	2012	12
	All	27	12	2011	13
	All	13	11	2012	14
	All	6	6	2013	15
	All	31	7	2014	16
	All	3	11	2014	17
	All	8	9	2014	18
	All	31	1	2014	19
	All	5	12	2014	20

Properties

General

Navigation paths

LabelOrderYear

Hide from users

ExpressionView or edit

UsageAttribute

AggregateCount Distinct

Data typeInteger

Represents

Time

Year

Date

Year

Quarter

Season

Month

Week

Day

Hour

Minute

Second

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

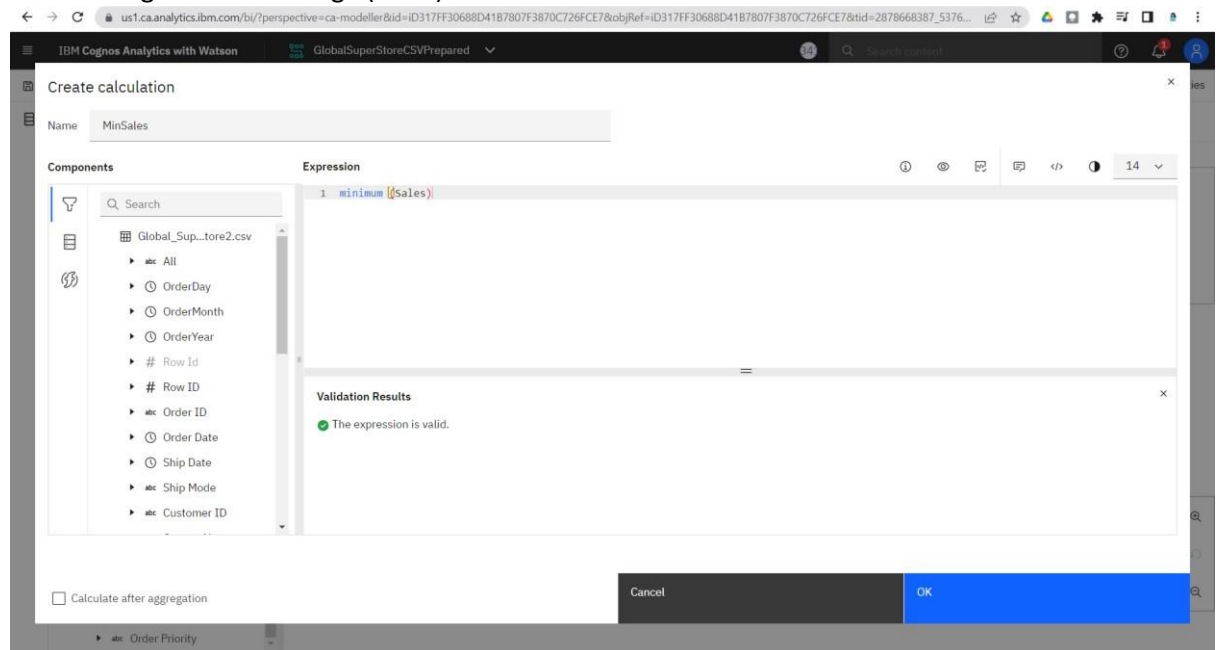
b. Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.

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)



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