

PREPARE THE DATASETS

Team ID	PNT2022TMI49356
Project Name	Global Sales Data Analytics

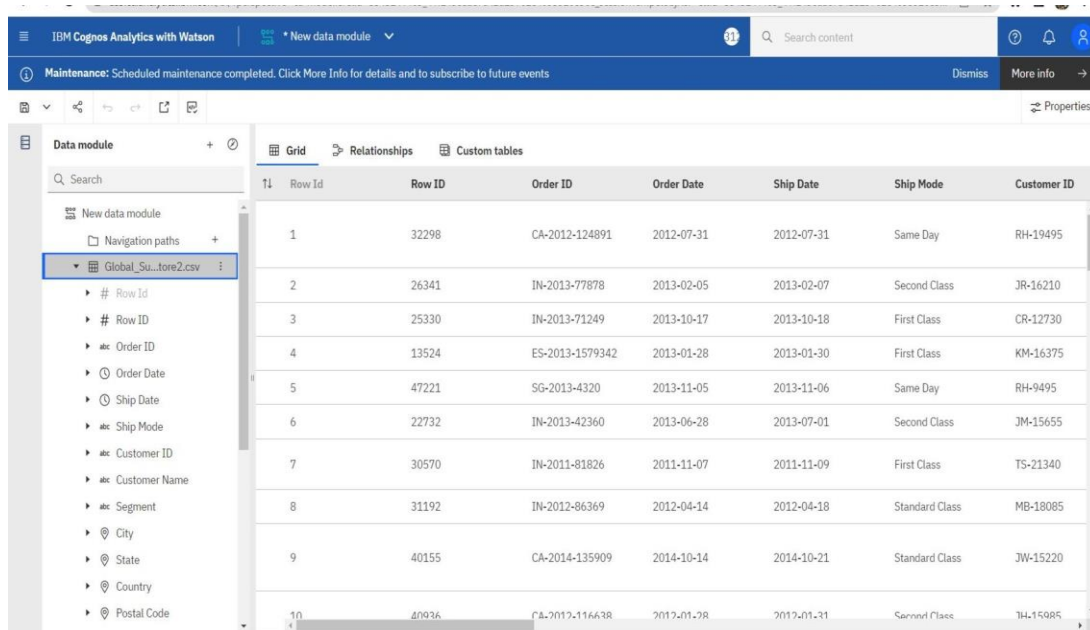
DATA PREPARATION

The screenshot displays the IBM Cognos Analytics 'Content' page. At the top, a blue header bar contains the text 'IBM Cognos Analytics with Watson', a 'Content' dropdown menu, a search bar with the placeholder 'Search content', and user profile icons. Below the header, a blue banner indicates 'Maintenance: Scheduled maintenance completed. Click More Info for details and to subscribe to future events'. The main section is titled 'Content' and includes tabs for 'My content', 'Team content', and 'Samples'. A 'New +' button is visible in the top right. Below the tabs, a table lists the content items. The table has columns for 'Name', 'Type', and 'Last Accessed'. The first item is 'Pharma Dashboard' (Folder, 9/27/2022, 1:05 AM). The second item is '50_Startups.csv' (Uploaded file, 9/13/2022, 12:08 AM). The third item is 'bank.csv' (Uploaded file, 9/15/2022, 8:27 AM). The fourth item is 'bikebuyer.csv' (Uploaded file, 9/13/2022, 12:20 AM). The fifth item is 'Global_Superstore2.csv' (Uploaded file, 10/11/2022, 4:07 AM), which is selected with a checkbox. The sixth item is 'Global_Superstore2.xlsx' (Unloaded file, 10/11/2022, 4:04 AM). A blue bar at the top of the table indicates '1 item selected' and provides action buttons: 'More +', 'Create', 'Details', 'Delete', and 'Cancel'.

Name	Type	Last Accessed
Pharma Dashboard	Folder	9/27/2022, 1:05 AM
50_Startups.csv	Uploaded file	9/13/2022, 12:08 AM
bank.csv	Uploaded file	9/15/2022, 8:27 AM
bikebuyer.csv	Uploaded file	9/13/2022, 12:20 AM
Global_Superstore2.csv	Uploaded file	10/11/2022, 4:07 AM
Global_Superstore2.xlsx	Unloaded file	10/11/2022, 4:04 AM

1. First understand and load the data

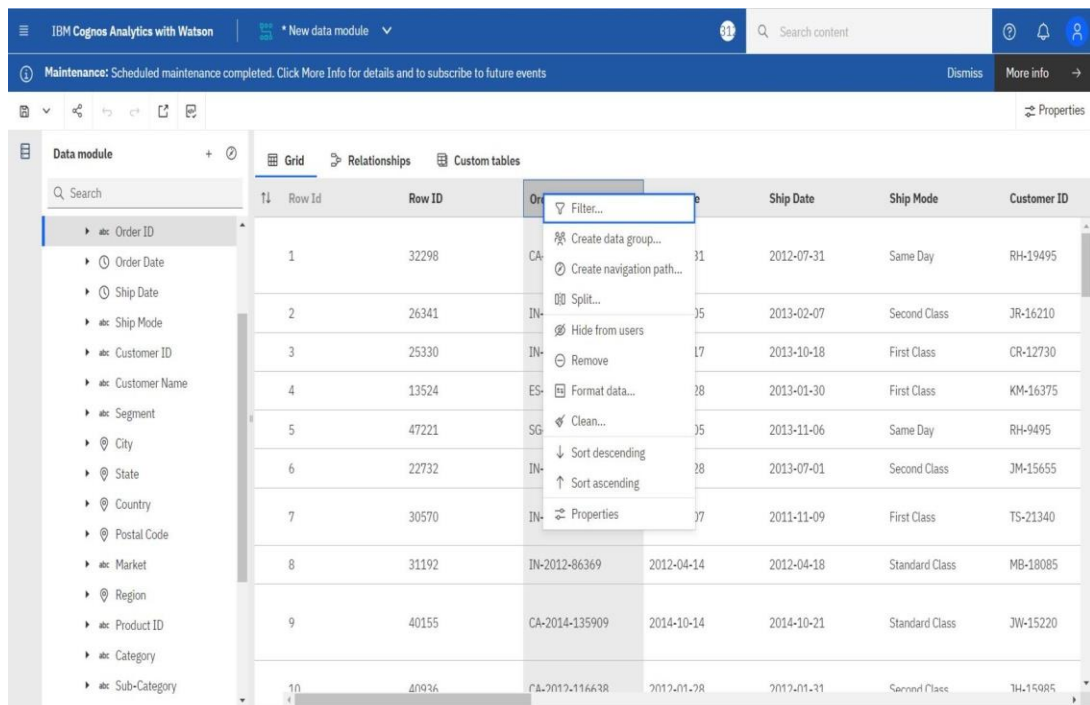
2. Since there is only single file, there need not be relationships or custom tables for the data.



The screenshot shows the IBM Cognos Analytics interface. The top navigation bar includes the logo, a search bar, and a user profile icon. A maintenance message is displayed below the navigation bar. The main area is divided into a left sidebar and a central grid. The sidebar shows a 'Data module' with a search bar and a list of fields: Row ID, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, City, State, Country, and Postal Code. The central grid displays a table with 10 rows and 7 columns: Row ID, Order ID, Order Date, Ship Date, Ship Mode, and Customer ID. The data is as follows:

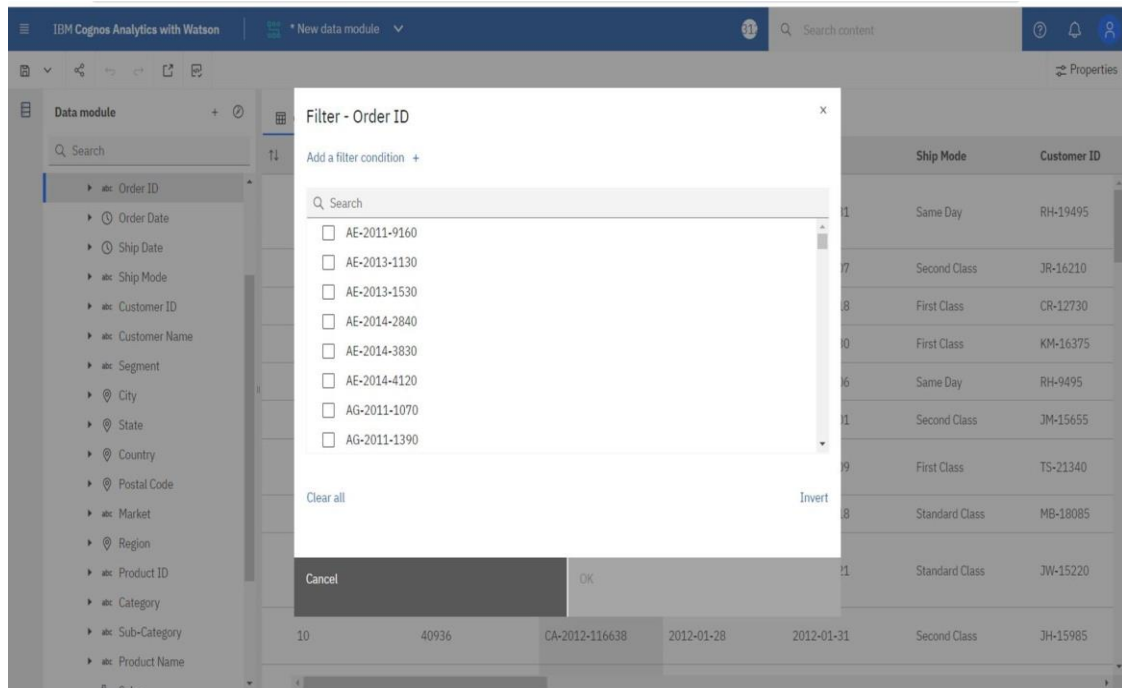
Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	Same Day	RH-19495
2	26341	IN-2013-77878	2013-02-05	Second Class	JR-16210
3	25330	IN-2013-71249	2013-10-17	First Class	CR-12730
4	13524	ES-2013-1579342	2013-01-28	First Class	KM-16375
5	47221	SG-2013-4320	2013-11-05	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	20926	CA-2012-116638	2012-01-28	Second Class	TH-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	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
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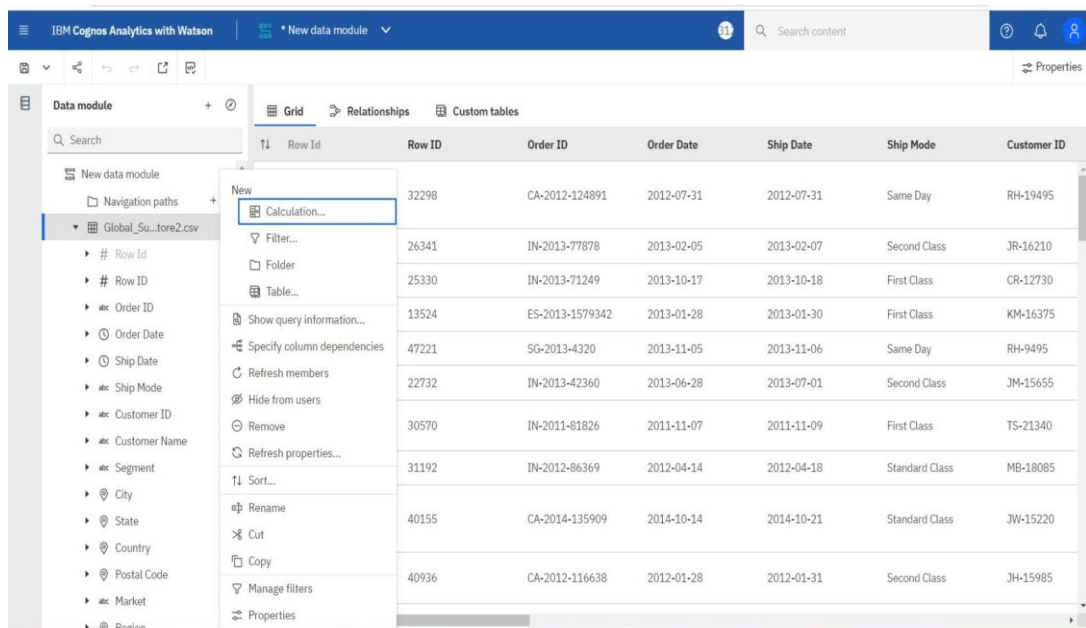
3. Once cleaned, the data is saved.

DATE CALCULATIONS AND NAVIGATION PATHS

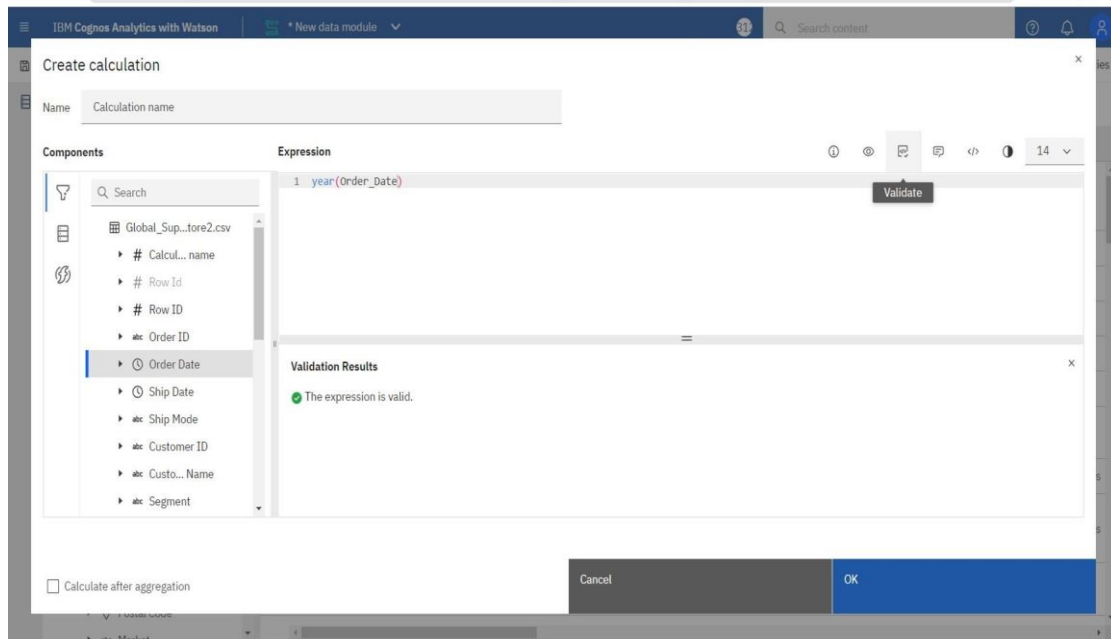
Once you load the data, we need to Prepare the data.

a. Prepare Calculations of Year, Month, Day fields and also the related Navigation path

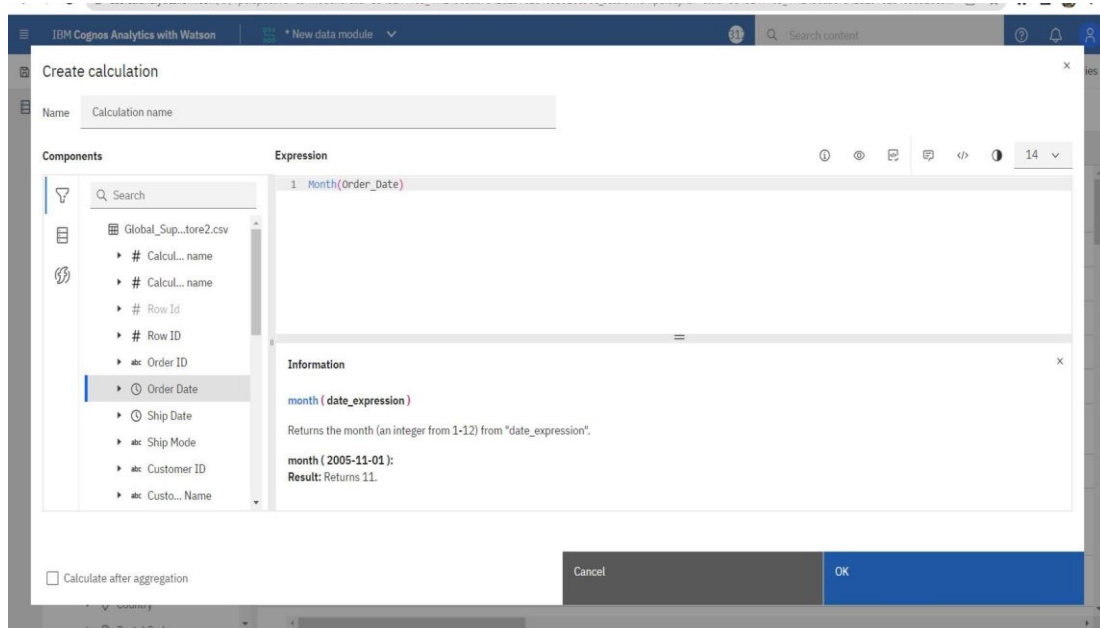
b. Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.



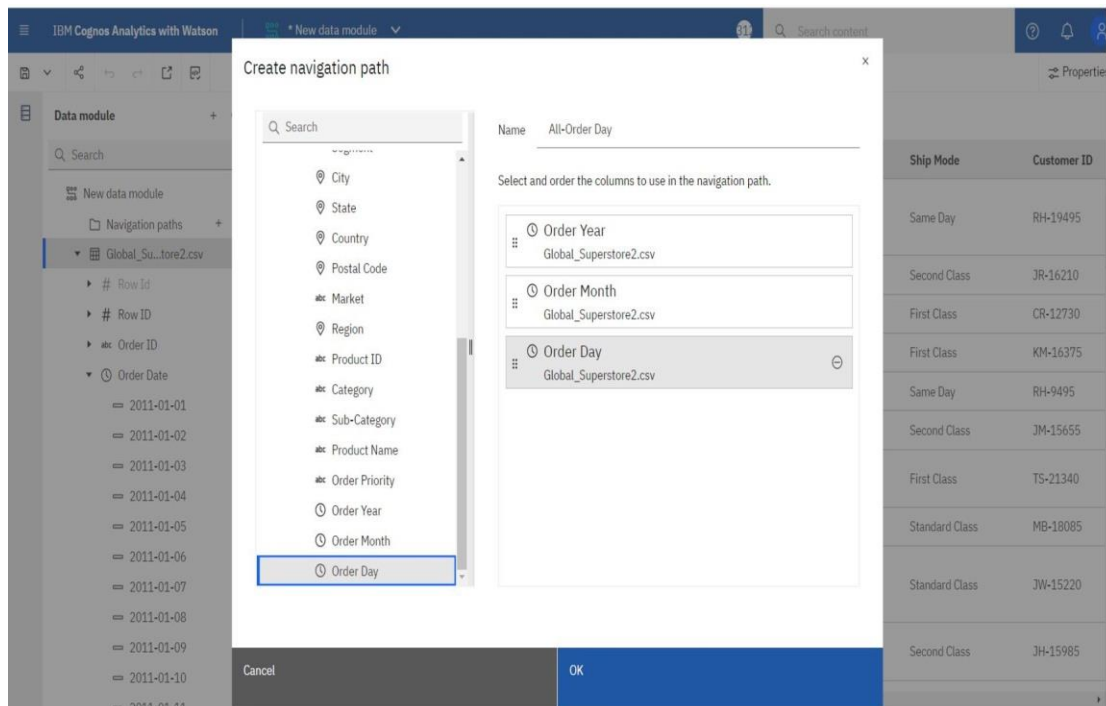
1. Right click> calculation> type expression> validate> Set Name as 'Order Year'



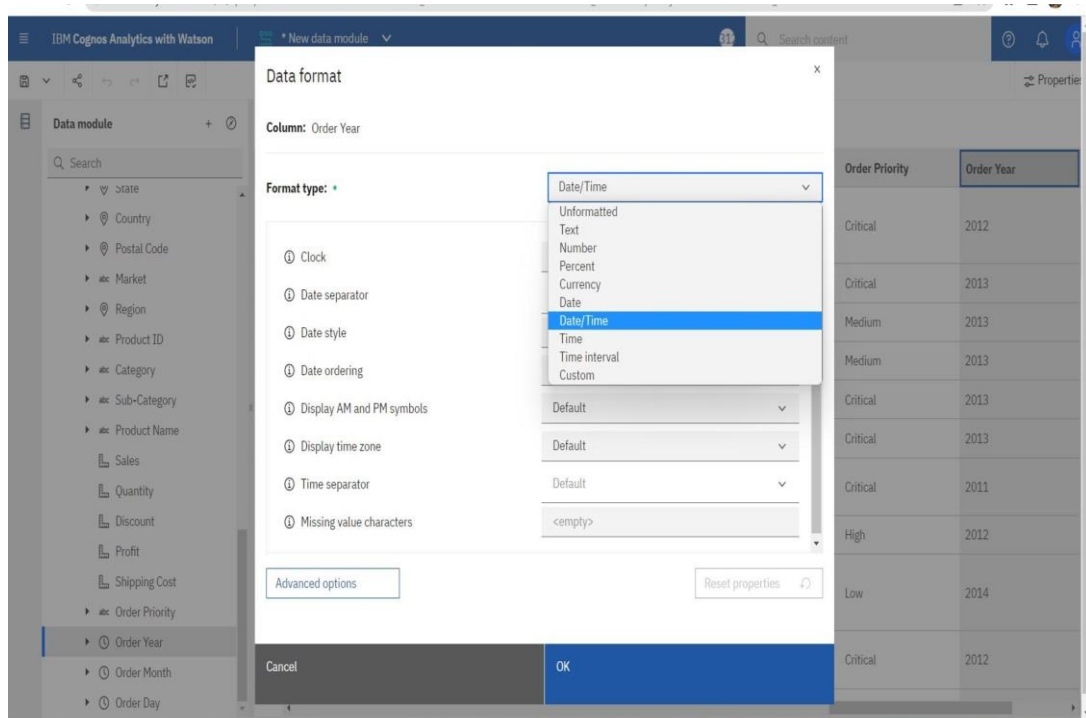
2. Similarly, 'OrderMonth', 'OrderDay' and 'All'
OrderYear -> Year (Order_Date)
OrderMonth -> Month (Order_Date)
OrderDay -> Day (Order_Date)
All -> All



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

The screenshot shows the IBM Cognos Analytics interface. On the left is a 'Data module' pane with a search bar and 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 'Grid' view of data with columns: Profit, Shipping Cost, Order Priority, Order Year, and Ord. The data rows show various values for these fields across different years and priorities. On the right, the 'Properties' panel is open, showing the 'General' tab for the 'Order Year' field. It includes options for 'Label', 'Hide from users', 'Expression', 'Usage' (set to 'Date'), and 'Attribute' (set to 'Year'). A dropdown menu is open under 'Attribute', showing options: Year, Quarter, Season, Month, Week, Day, Hour, Minute, and Second. The 'Year' option is selected.

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.

- 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.**

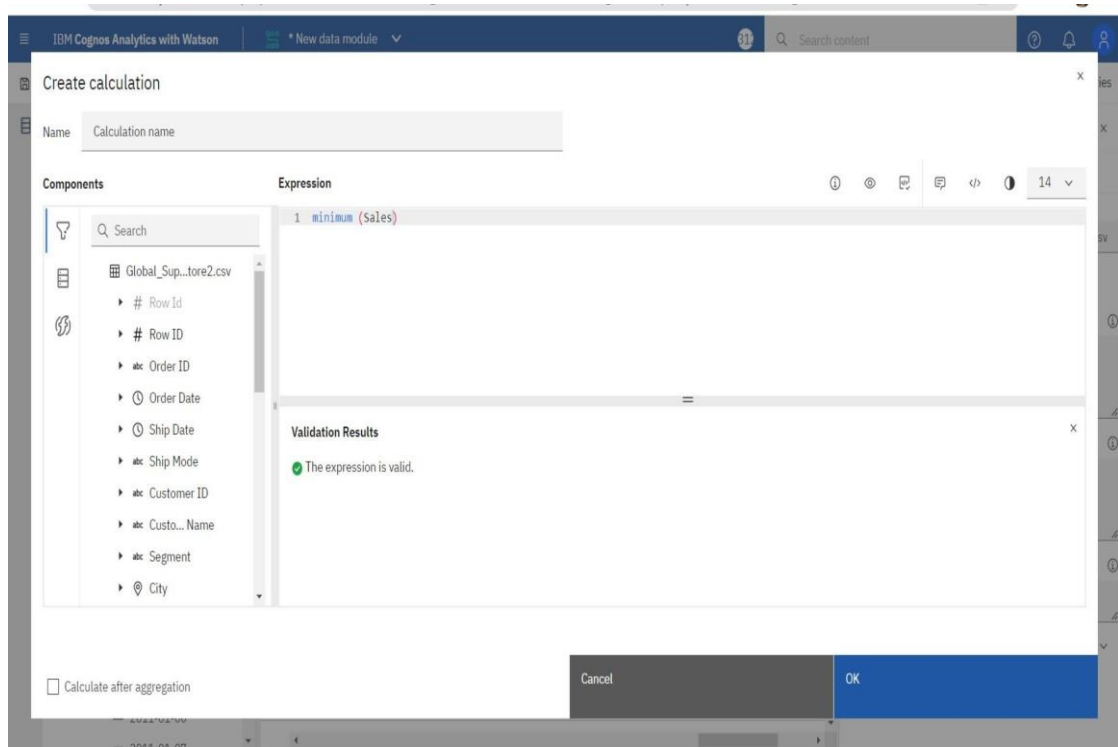
7. Similarly, calculations for Target sales, Min sales, Max Sales and Middle range sales are done

Min sales-> minimum (Sales)

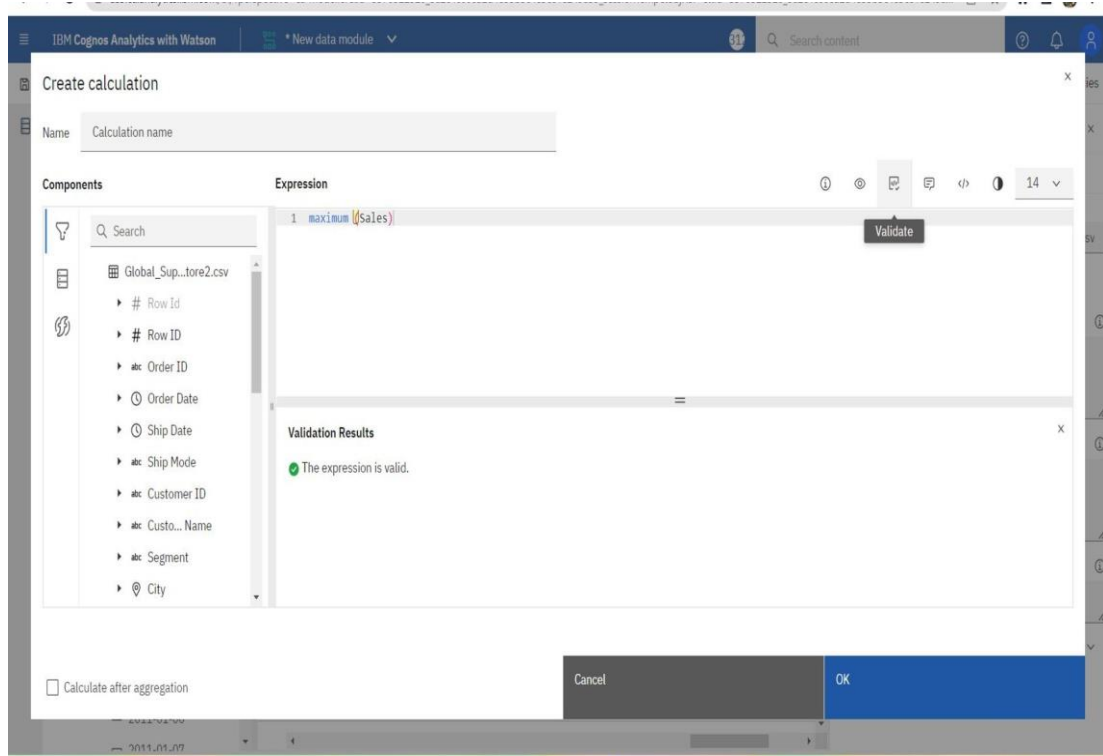
Max sales, Target sales-> maximum (Sales)

Middle range sales-> average (Sales)

Minimum(Sales)



Maximum(Sales)



Middle Range (Sales)

