

PREPARE THE DATASETS

Team ID	PNT2022TMID05235
Project Name	Global Sales Data Analytics

DATA PREPARATION

1. First understand and load the data.

The screenshot shows the IBM Cognos Analytics with Watson dashboard in a web browser. The browser tabs include IBM, My IBM, Home, (3) WhatsApp, IBM-EPBL/IBM-Proj, and IBM SkillsBuild Soft. The address bar shows the URL: us3.ca.analytics.ibm.com/bi/?perspective=home. The dashboard header is blue with the text "IBM Cognos Analytics with Watson" and a search bar. The main content area has a dark blue background with the text "Hello. Welcome to Cognos Analytics with Watson." and a "Watch video" button. To the right, there is a user profile section for Kowshika K (e16ceb7a9...) with a "Log out" button. Below the main content, there is a "Quick launch" section with four tiles: "Upload data" (Upload or drag and drop), "Prepare data" (Use data modules to clean), "Exploration" (Quickly find unbiased), and "Present data" (Create sophisticated...).

Content

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

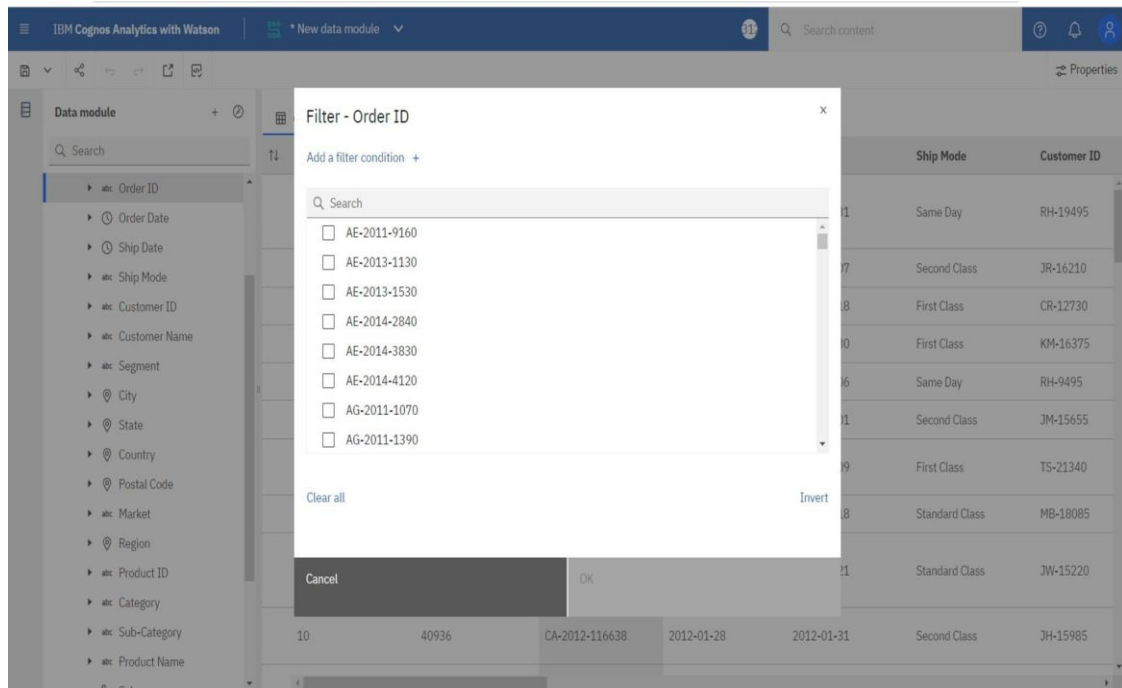
The screenshot shows the IBM Cognos Analytics interface. The top navigation bar includes the logo, a search bar, and a user profile icon. A maintenance notification is displayed below the navigation bar. The main area is divided into a left sidebar and a central grid. The sidebar shows a 'Data module' 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 loaded from a file named 'Global_Store2.csv'.

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	26926	CA-2012-116638	2012-01-28	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	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	Same Day	RH-19495
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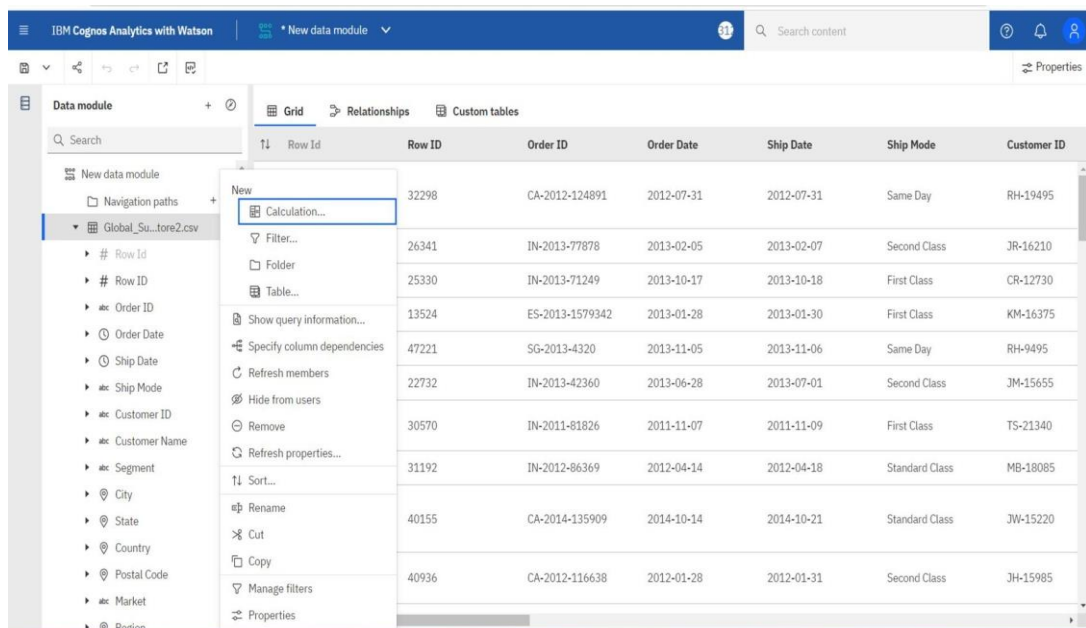
3. Once cleaned, the data is saved.

DATE CALCULATIONS AND NAVIGATION PATHS

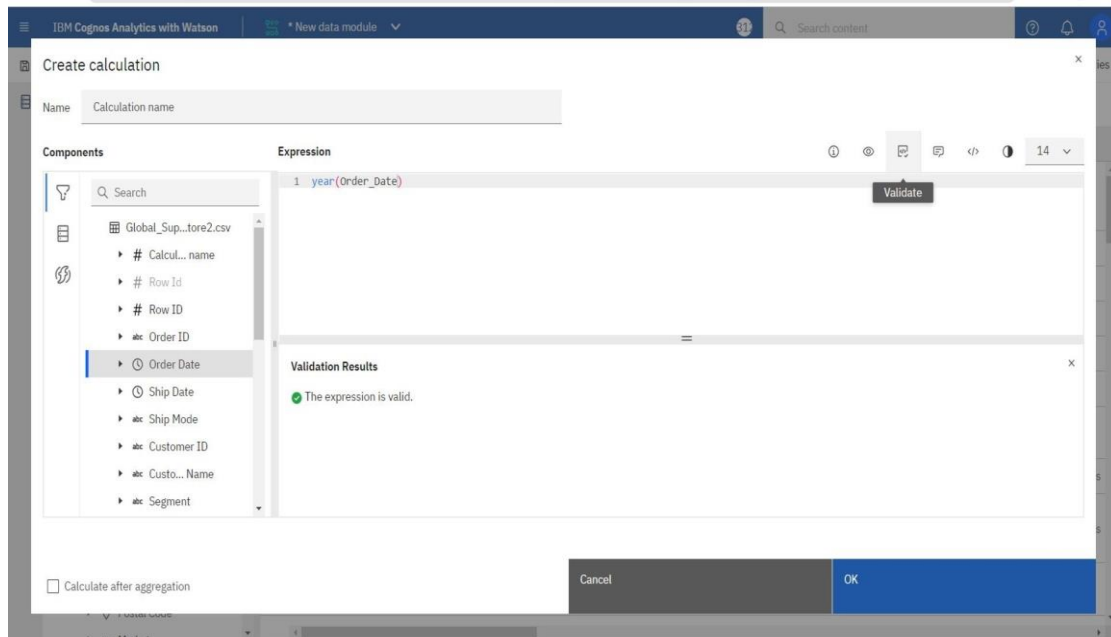
Once you load the data, we need to Prepare the data.

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

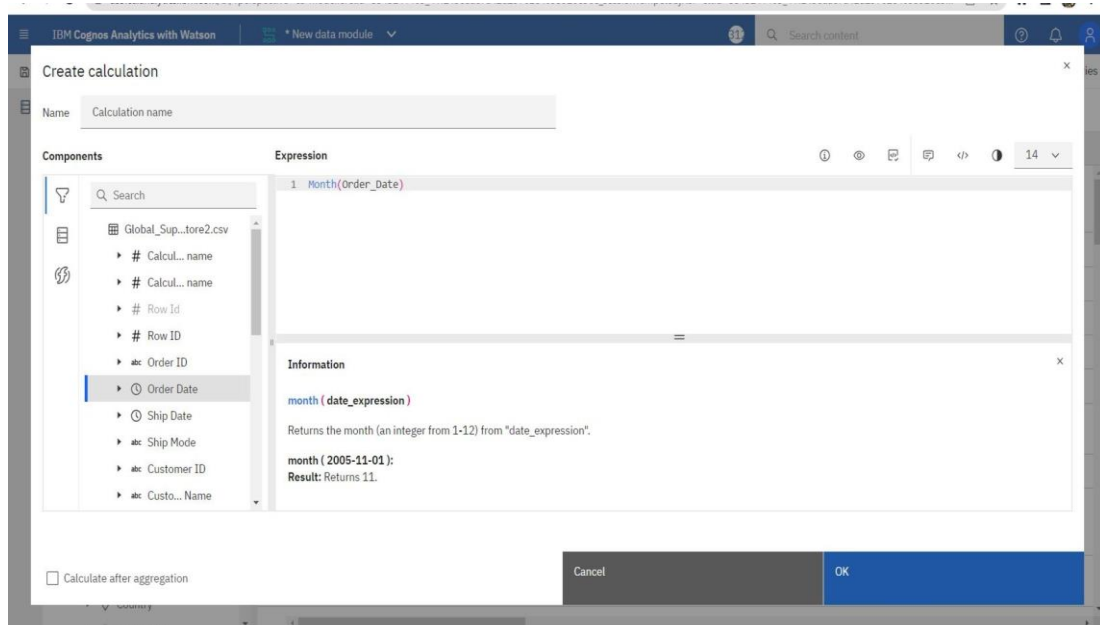
b. Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.



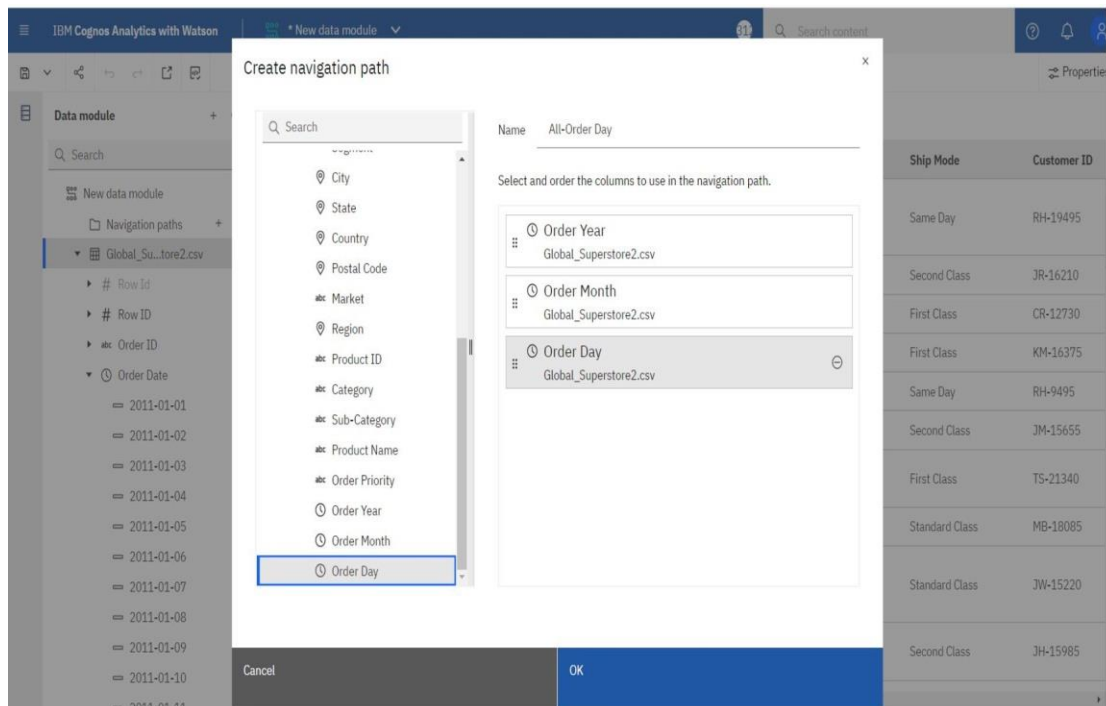
1. Right click> calculation> type expression> validate> Set Name as 'Order Year'



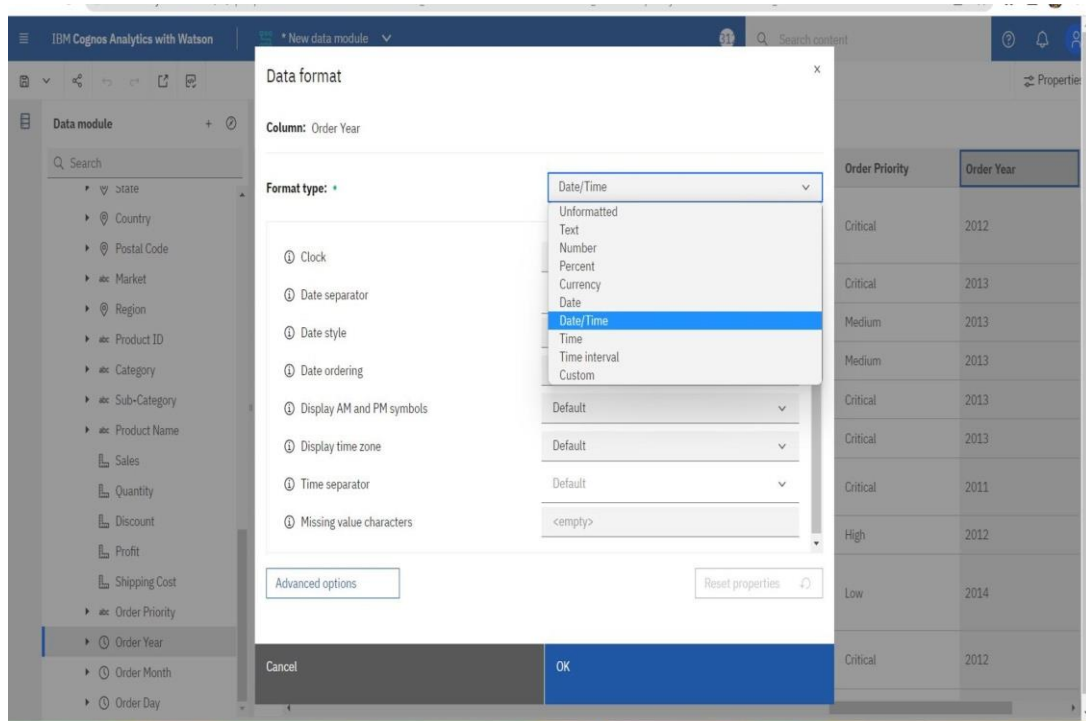
2. Similarly, 'OrderMonth', 'OrderDay' and 'All'
OrderYear -> Year (Order_Date)
OrderMonth -> Month (Order_Date)
OrderDay -> Day (Order_Date)
All -> All



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

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 of data with columns: Profit, Shipping Cost, Order Priority, Order Year, and Ord. The grid contains 10 rows of data. On the right is a 'Properties' panel for the 'Order Year' field. The 'General' tab is active, showing the label 'Order Year', a 'Hide from users' toggle, and an 'Expression' field with a 'View or edit' link. The 'Usage' dropdown is set to 'Attribute', and the 'Date' dropdown is set to 'Year'. The 'Description' field is empty.

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.**

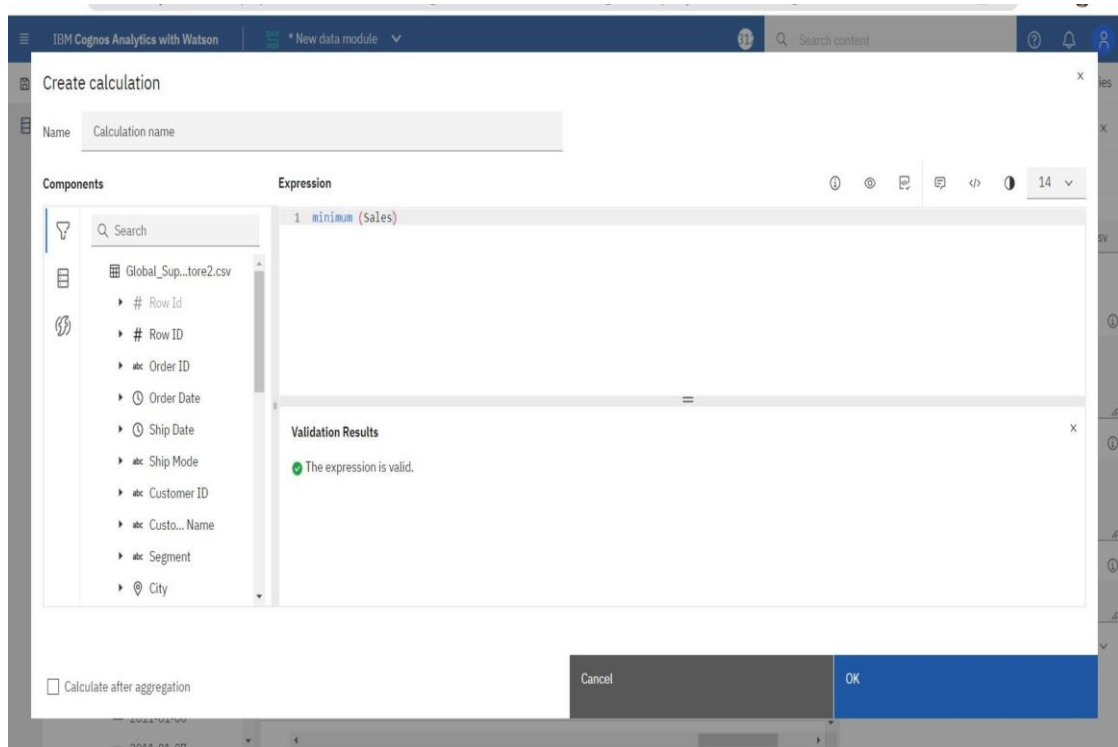
7. Similarly, calculations for Target sales, Min sales, Max Sales and Middle range sales are done

Min sales-> minimum (Sales)

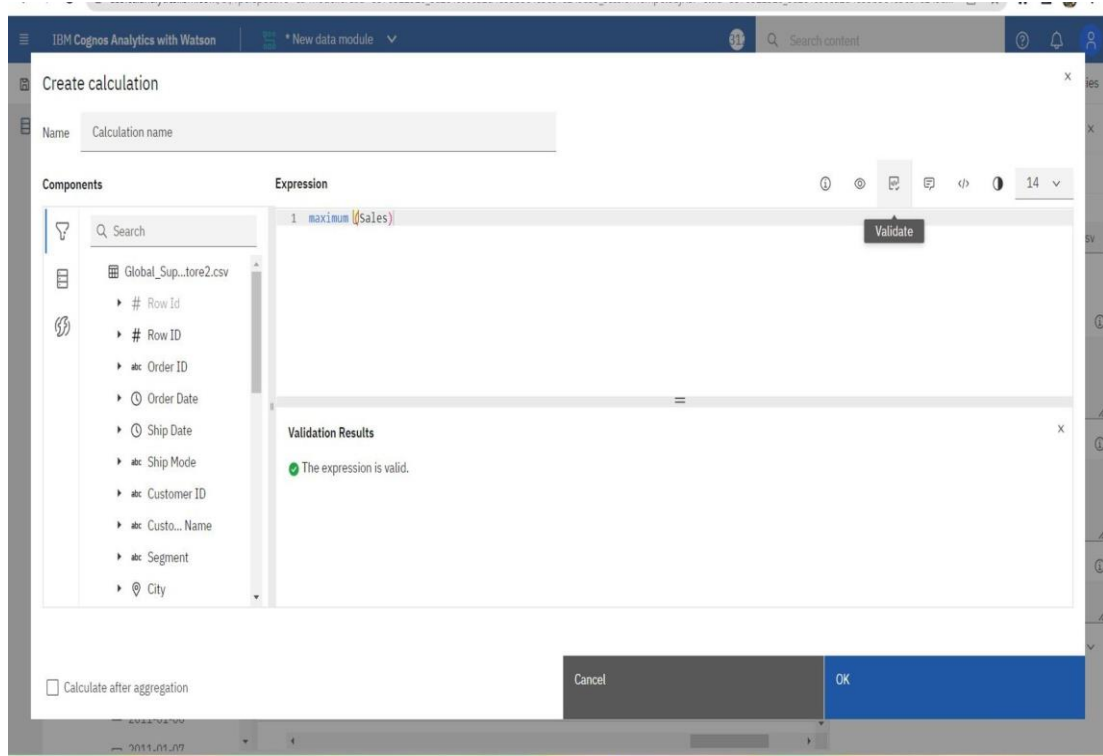
Max sales, Target sales-> maximum (Sales)

Middle range sales-> average (Sales)

Minimum(Sales)



Maximum(Sales)



Middle Range (Sales)

