

# PROJECT DEVELOPMENT PHASE

## SPRINT-III

Team ID	PNT2022TMID41405
Project Name	Global Sales Data Analytics

## DATA PREPARATION

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

IBM Cognos Analytics with Watson

Hello. Welcome to Cognos Analytics with Watson.

You can get started right away by taking a look at our introduction video, product tour and Getting Started tab.

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**Quick launch**

- Upload data**  
Upload or drag and drop spreadsheets, csv files, and other data sources.
- Prepare data**  
Use data modules to clean and connect data from multiple resources.
- Exploration**  
Quickly find unbiased answers by identifying trends in your data with data exploration.
- Present data**  
Create sophisticated, multi-page, multi-query dashboards, reports, or stories.

Understanding the...pdf Prepare the data...pdf Show all

IBM Cognos Analytics with Watson

Maintenance: Scheduled maintenance completed. Click More Info for details and to subscribe to future events

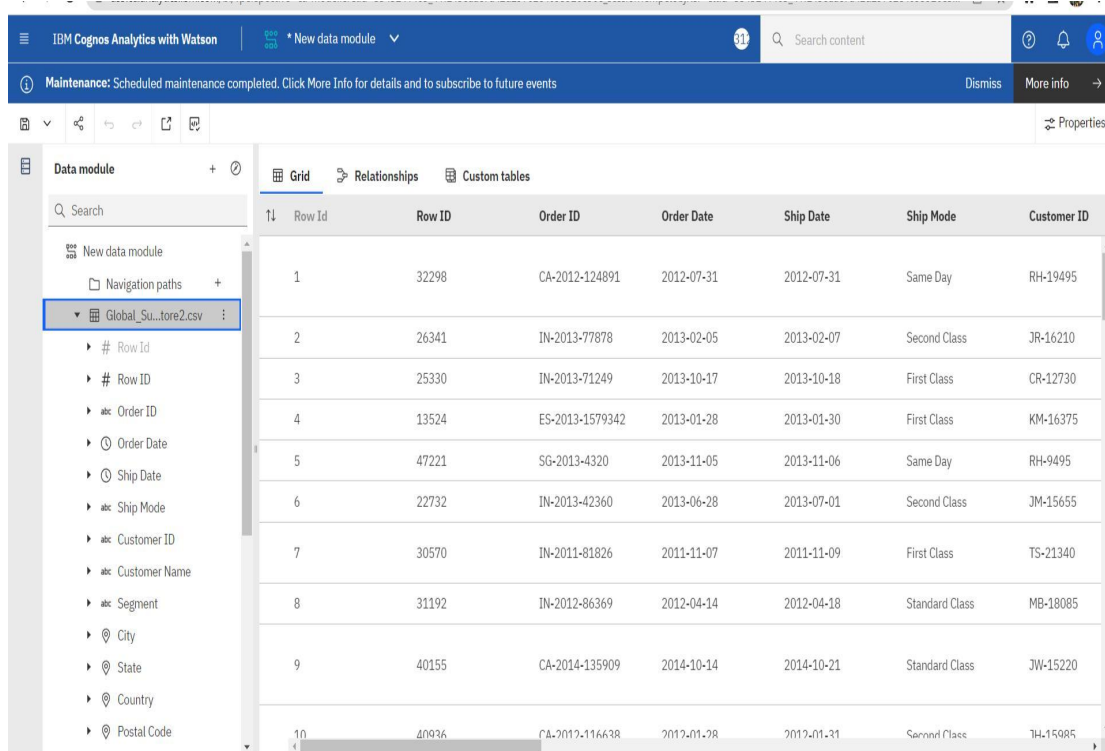
Content

My content Team content Samples

1 item selected

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

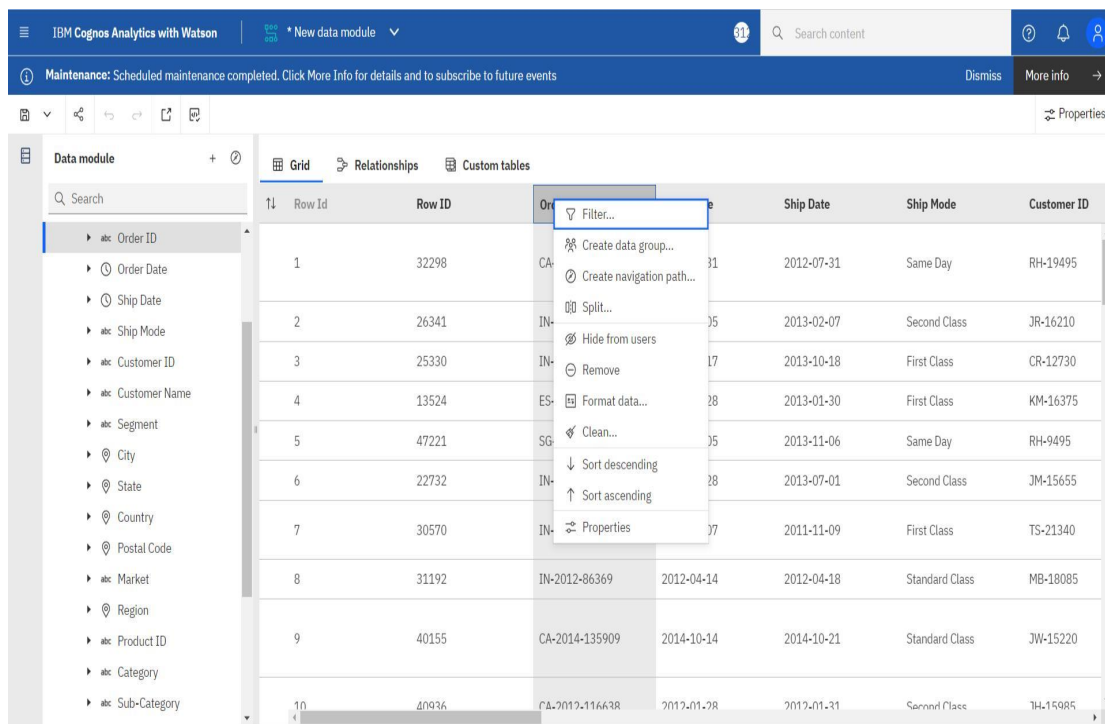
2. Since there is only single file, there need not be relationships or custom tables for the data.



The screenshot shows the IBM Cognos Analytics interface. The top navigation bar includes the logo, a search bar, and a user profile icon. Below the navigation bar, a maintenance message is displayed. The main area is divided into a left sidebar and a central grid. The sidebar, titled 'Data module', contains 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:

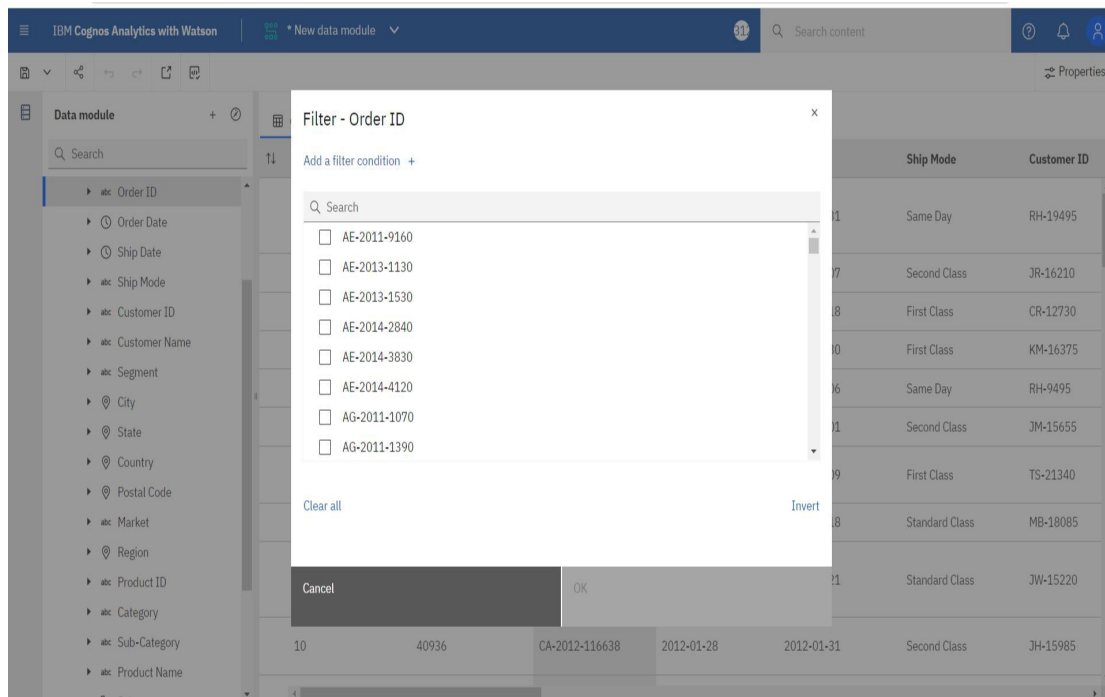
Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	CA-2012-124891	2012-07-31	2012-07-31	Same Day	RH-19495
2	IN-2013-77878	2013-02-05	2013-02-07	Second Class	JR-16210
3	IN-2013-71249	2013-10-17	2013-10-18	First Class	CR-12730
4	ES-2013-1579342	2013-01-28	2013-01-30	First Class	KM-16375
5	SG-2013-4320	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	Standard 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	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
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9	CA-2014-135909	2014-10-14	2014-10-21	Standard Class	JW-15220
10	CA-2012-116638	2012-01-28	2012-01-31	Standard Class	JH-15085

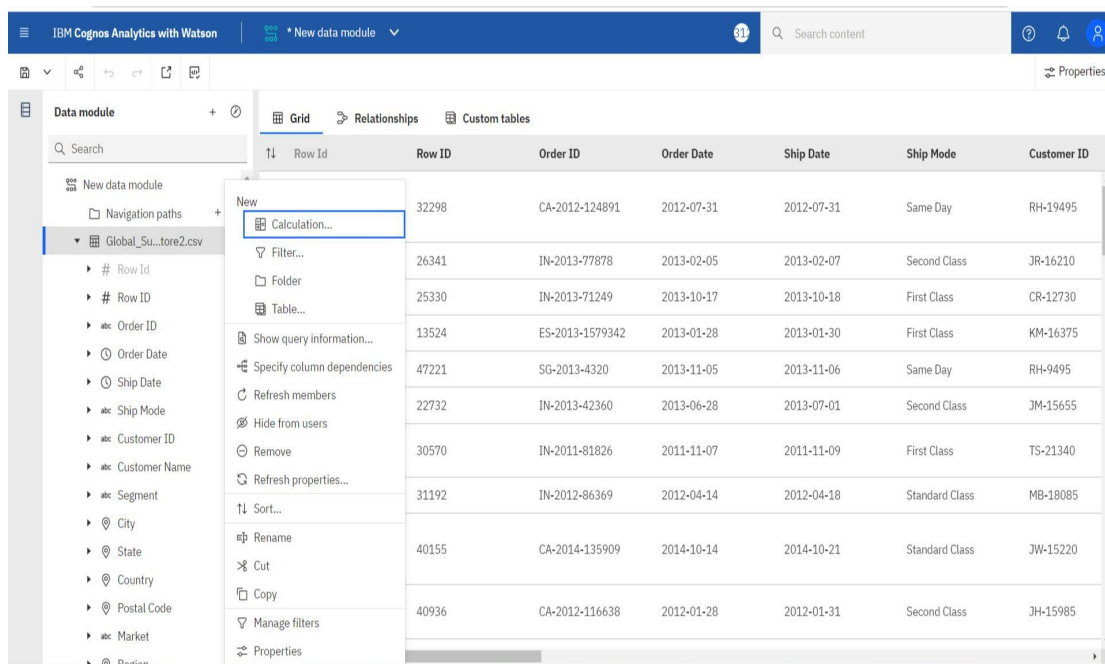


2. Once cleaned, the data is saved.

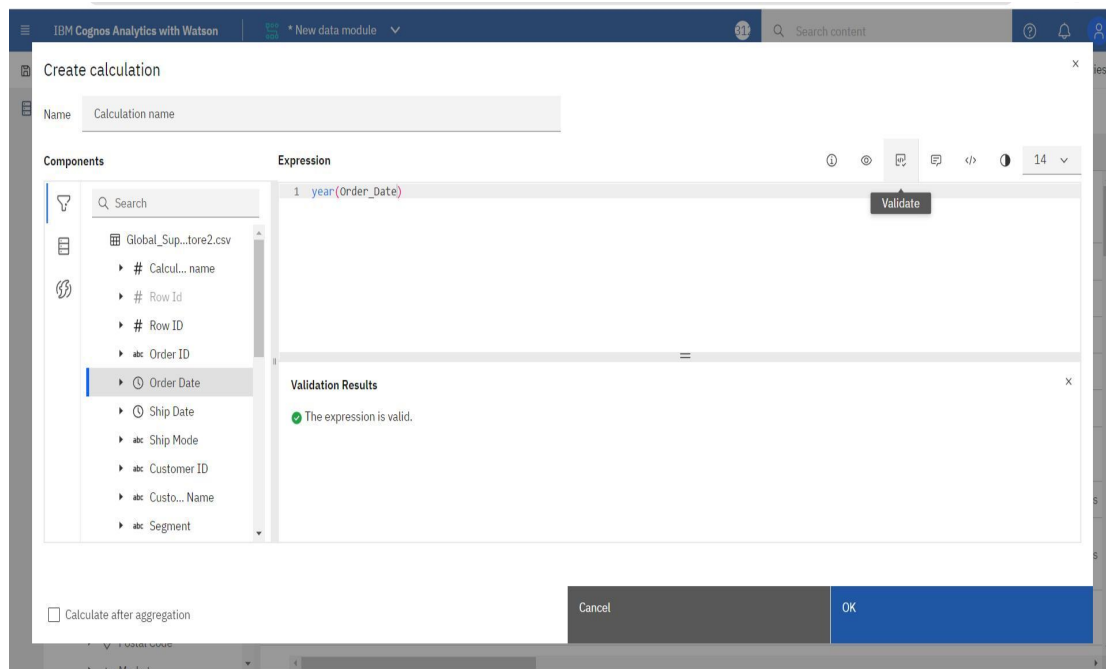
## DATE CALCULATIONS AND NAVIGATION PATHS

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

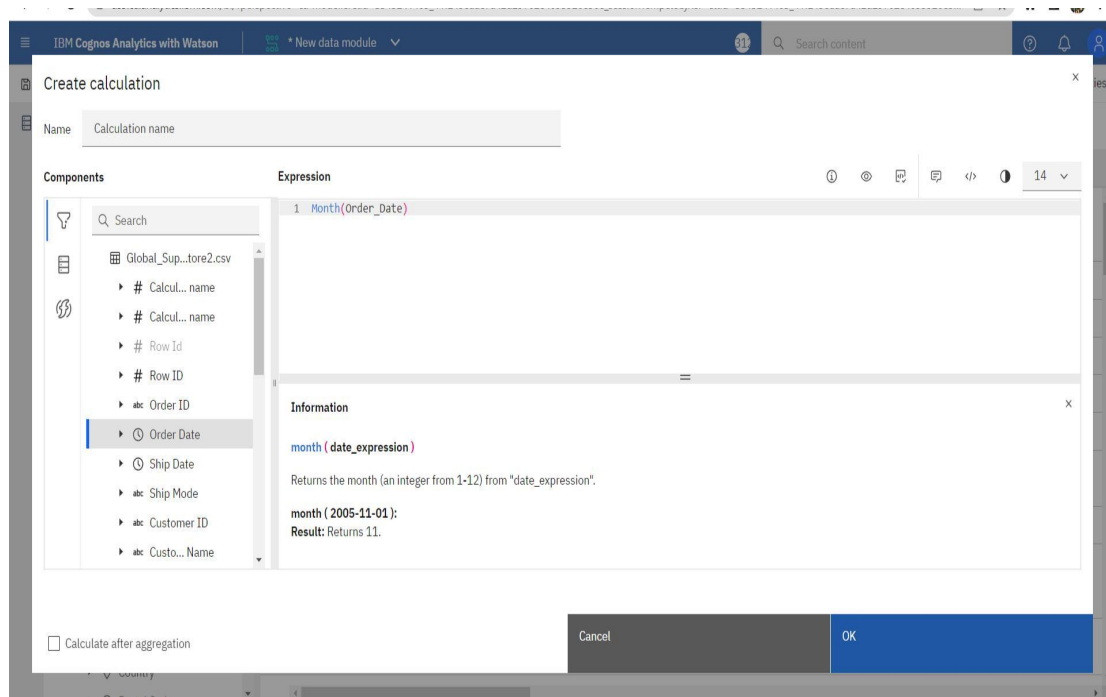
- Prepare Calculations of Year, Month, Day fields and also the related Navigation path**
- Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.



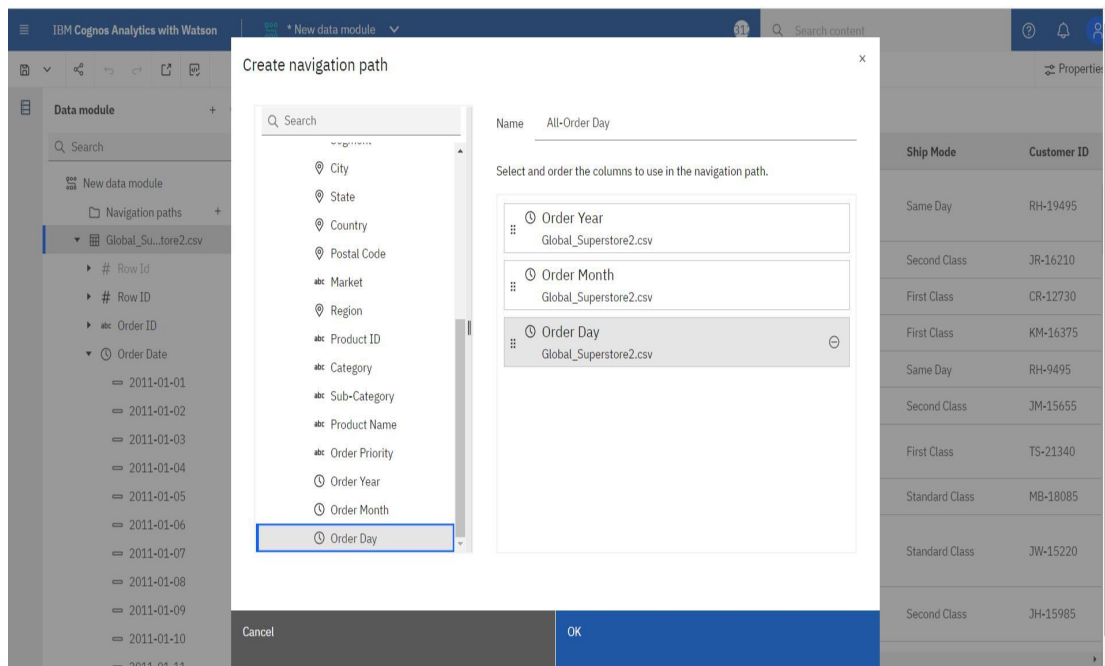
1. Right click> calculation> type expression> validate> Set Name as 'Order Year'



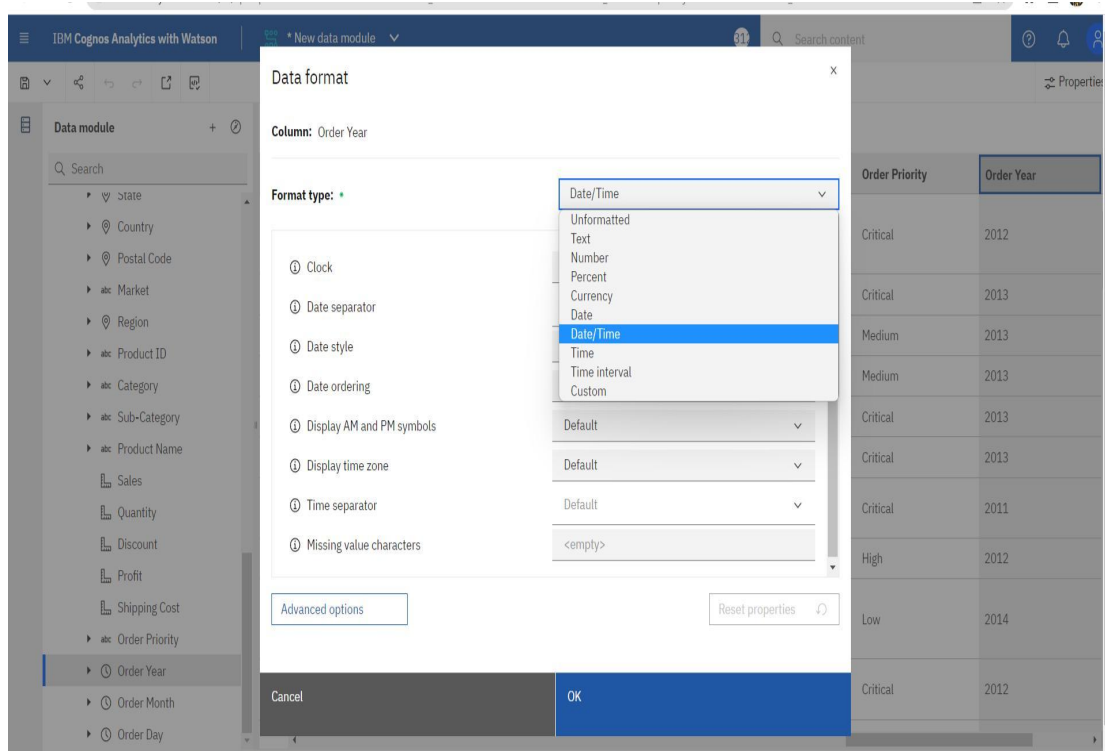
2. Similarly, 'OrderMonth', 'OrderDay' and 'All'  
OrderYear -> Year (Order\_Date)  
OrderMonth -> Month (Order\_Date)  
OrderDay -> Day (Order\_Date)  
All -> All



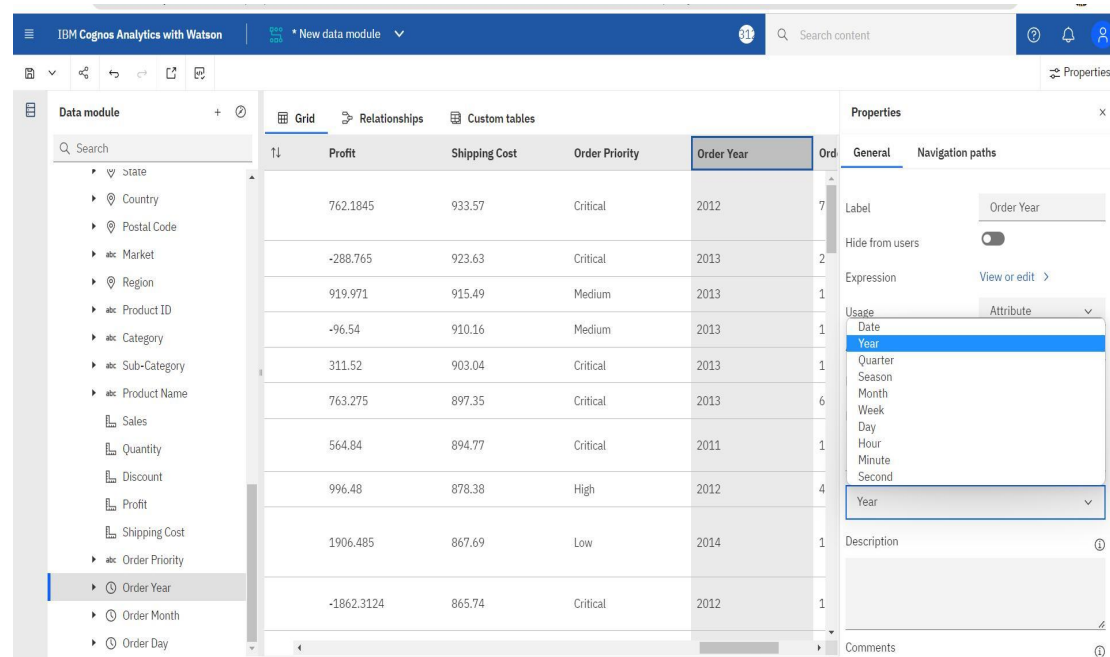
### 3. Right click on create navigation path



### 4. Data format> Date/Time



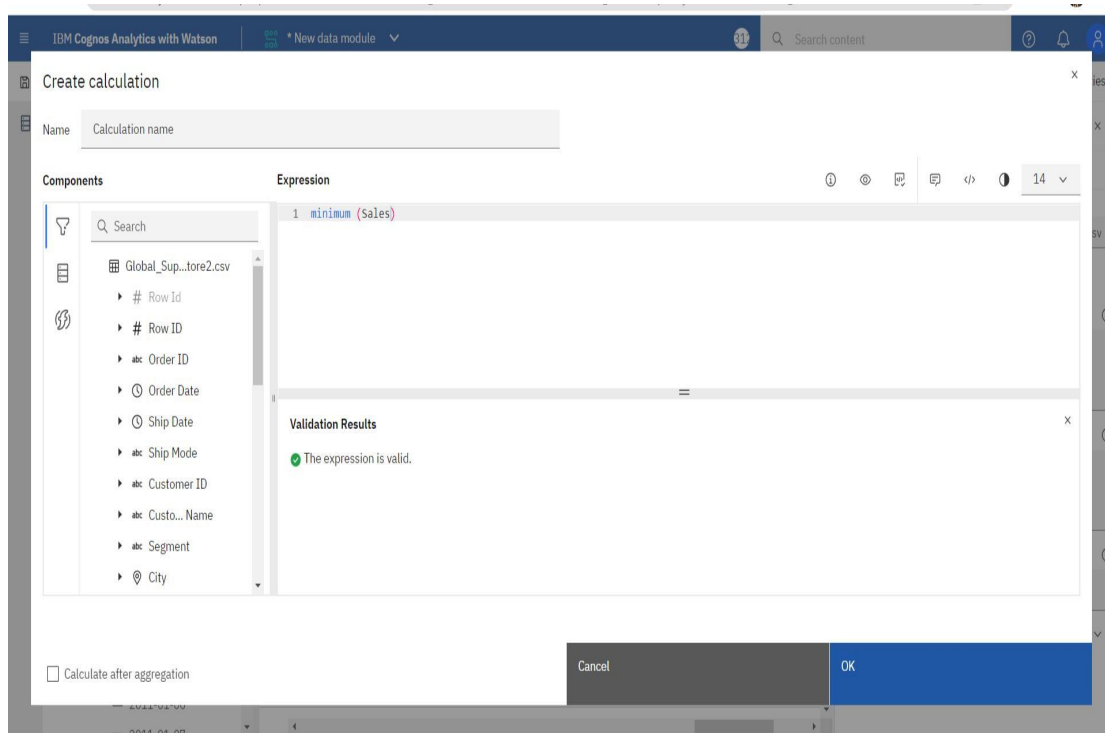
5. Properties> Usage-> Attribute  
 Aggregate-> Count Distinct  
 Data Type-> Integer  
 Represents-> Time, (Year, Month, Day Respectively)  
 Display Options-> Show Members  
 This way it becomes a Numerical data Type



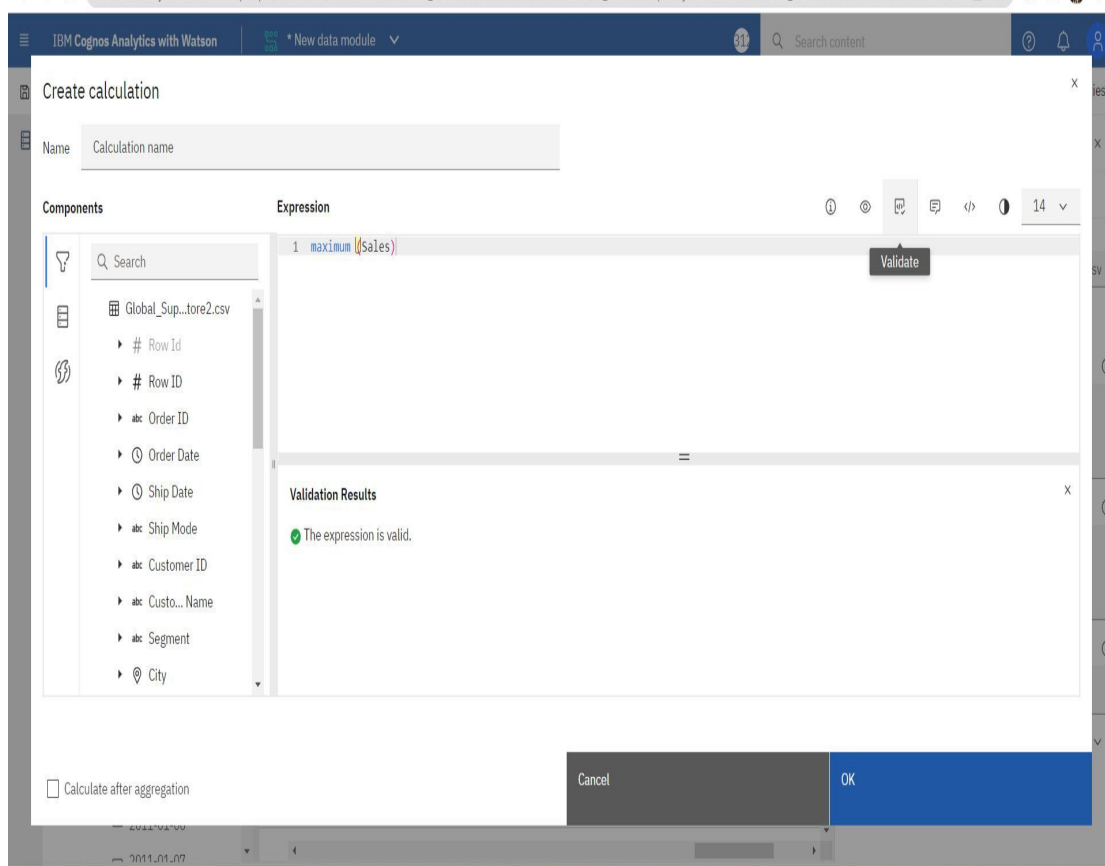
6. Hence calculations for day, month and year are completed.  
 Once you load the data, we need to Prepare the data.  
 a. Prepare Calculations of Year, Month, Day fields and also the related Navigation path  
 b. Create a Few more Calculations – Target Sales, Min Sales, Max Sales, Middle Range Sales.

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)

The screenshot shows the 'Create calculation' dialog in IBM Cognos Analytics. The 'Name' field is set to 'Calculation name'. The 'Components' pane on the left lists fields from the 'Global\_Sup...tore2.csv' dataset, including Row Id, Order ID, Order Date, Ship Date, Ship Mode, Customer ID, Customer Name, Segment, and City. The 'Expression' field contains the formula `1 average (Sales)`. A 'Validate' button is next to the expression. Below the expression, the 'Validation Results' pane shows a green checkmark and the message 'The expression is valid.' At the bottom, there is a checkbox for 'Calculate after aggregation' (which is unchecked), and 'Cancel' and 'OK' buttons.

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### Create calculation

Name: Calculation name

**Components**

- Global\_Sup...tore2.csv
  - # Row Id
  - # Row ID
  - abc: Order ID
  - Order Date
  - Ship Date
  - abc: Ship Mode
  - abc: Customer ID
  - abc: Custo... Name
  - abc: Segment
  - City

**Expression**

1 average (Sales) Validate

**Validation Results**

✓ The expression is valid.

☐ Calculate after aggregation

Cancel OK