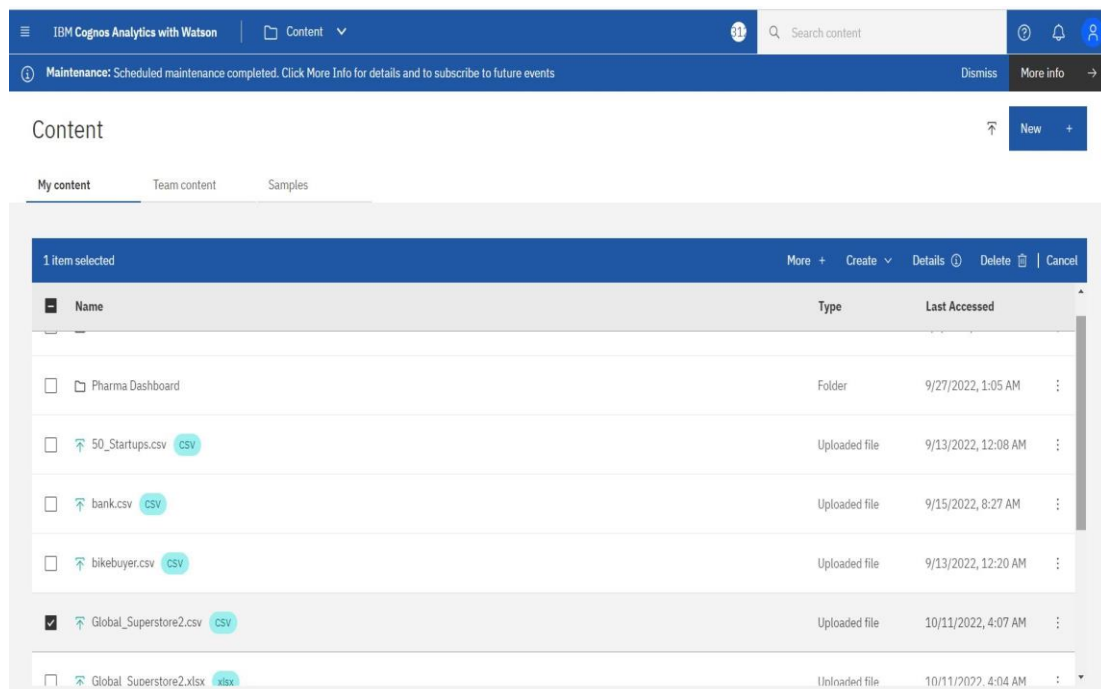
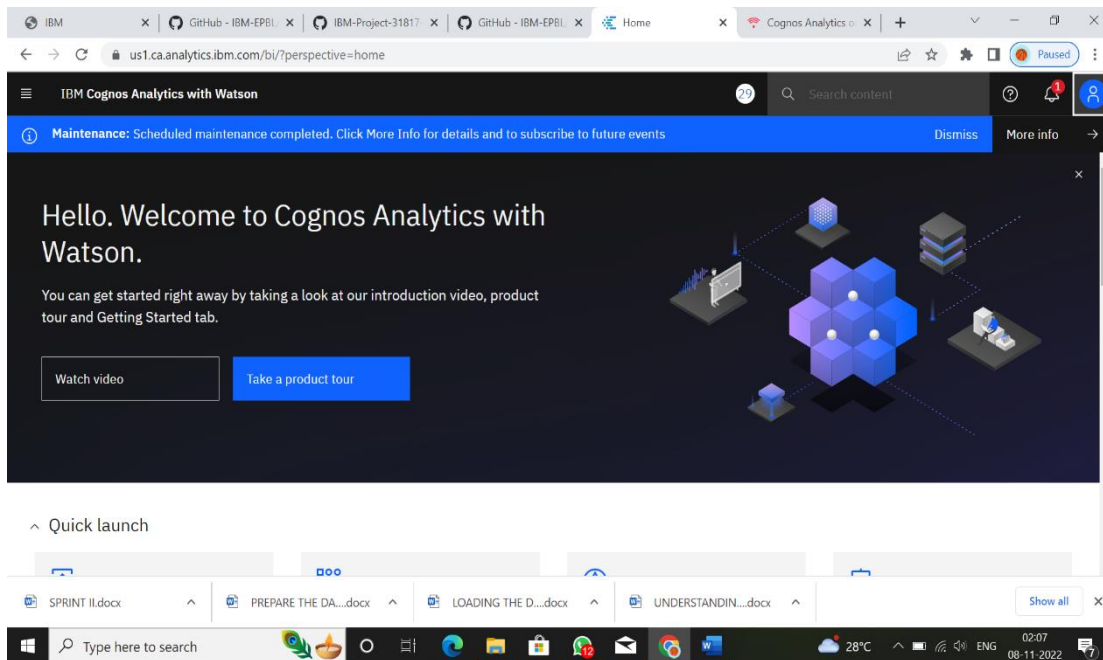


## PREPARE THE DATASETS

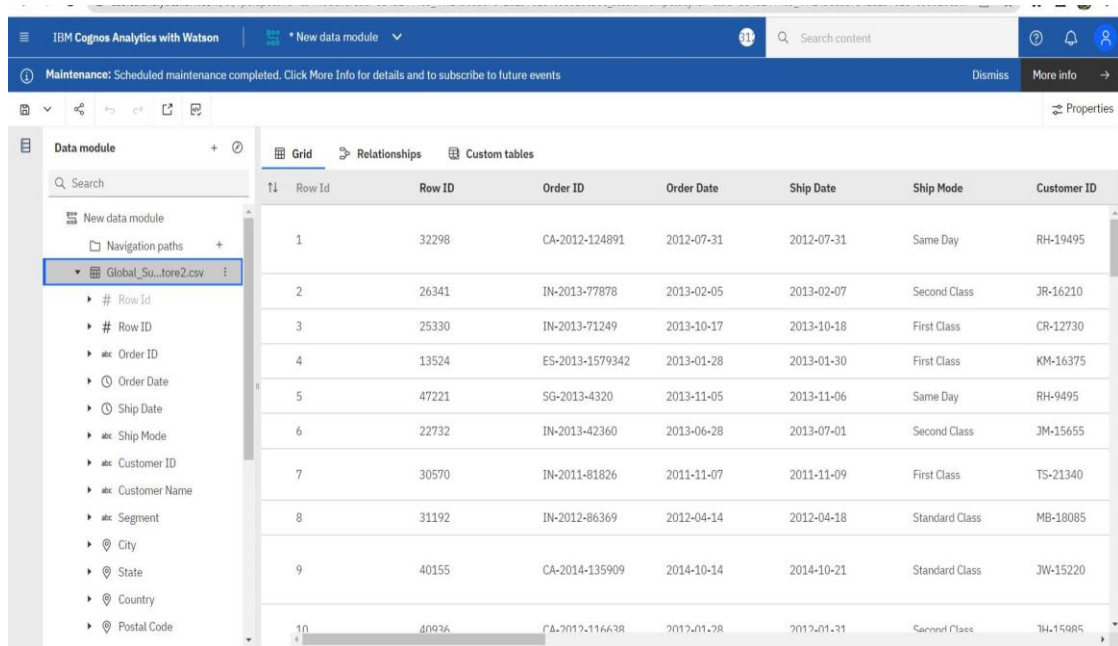
Team ID	PNT2022TMID19484
Project Name	Global Sales Data Analytics

### DATA PREPARATION

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



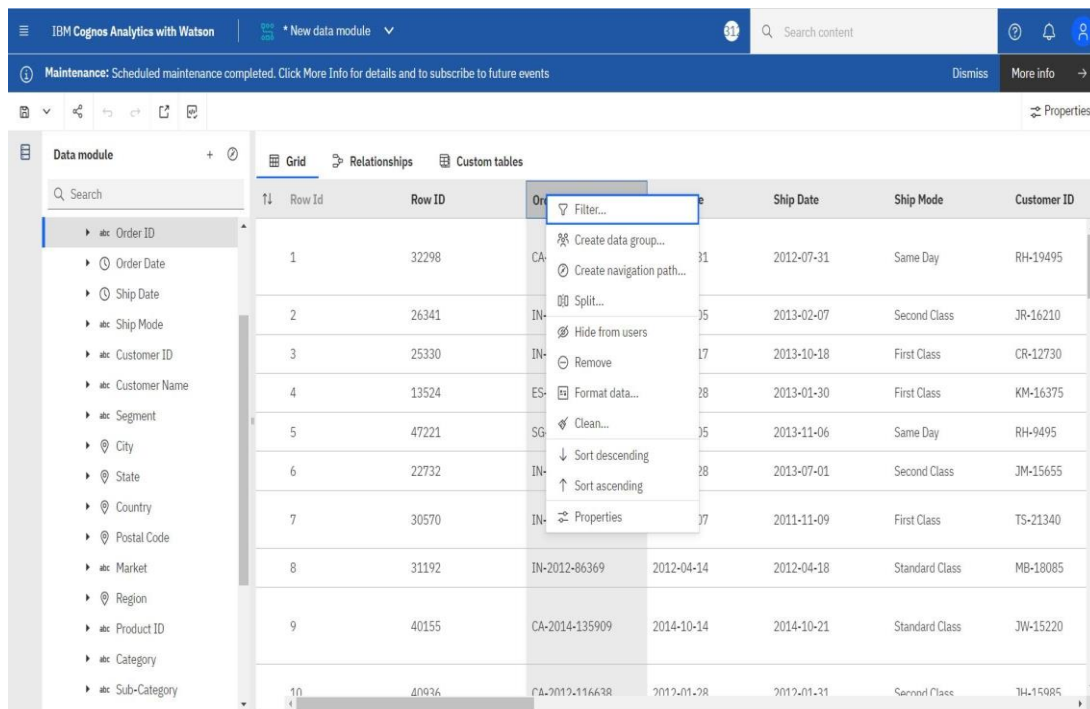
2. Since there is only single file, there need not be relationships or custom tables for the data.



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 contains a 'Data module' section 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:

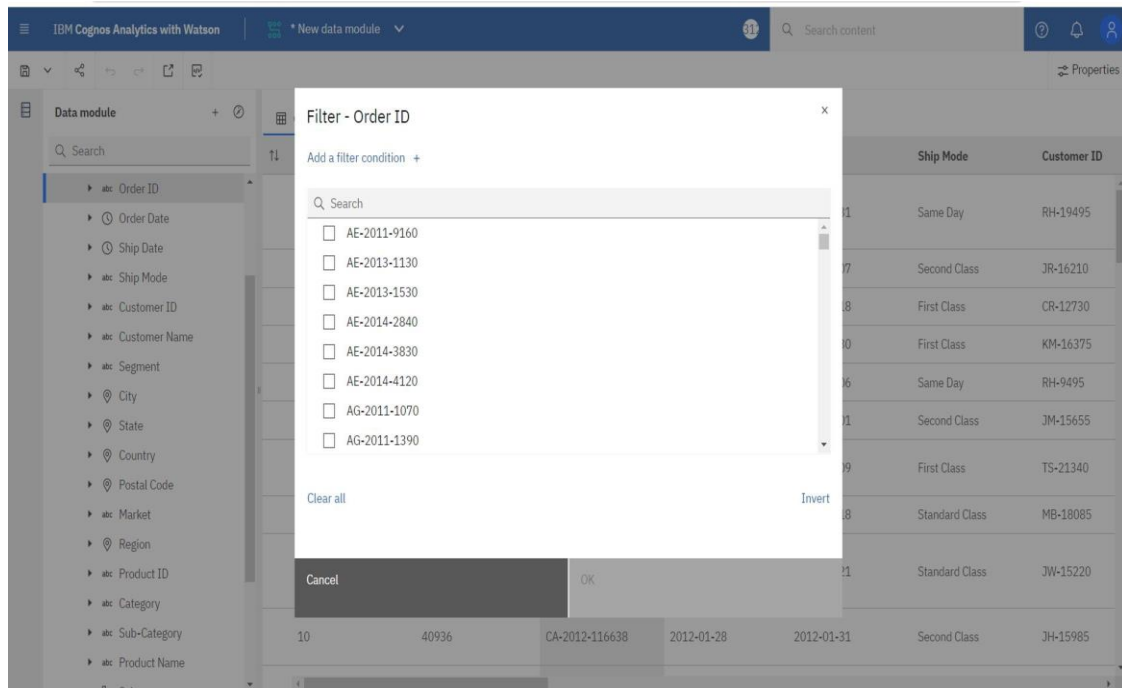
Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID
1	32298	CA-2012-124891	2012-07-31	Same Day	RH-19495
2	26341	IN-2013-77878	2013-02-05	Second Class	JR-16210
3	25330	IN-2013-71249	2013-10-17	First Class	CR-12730
4	13524	ES-2013-1579342	2013-01-28	First Class	KM-16375
5	47221	SG-2013-4320	2013-11-05	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	40936	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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10	40936	CA-2012-116638	2012-01-28	Second Class	TH-15085

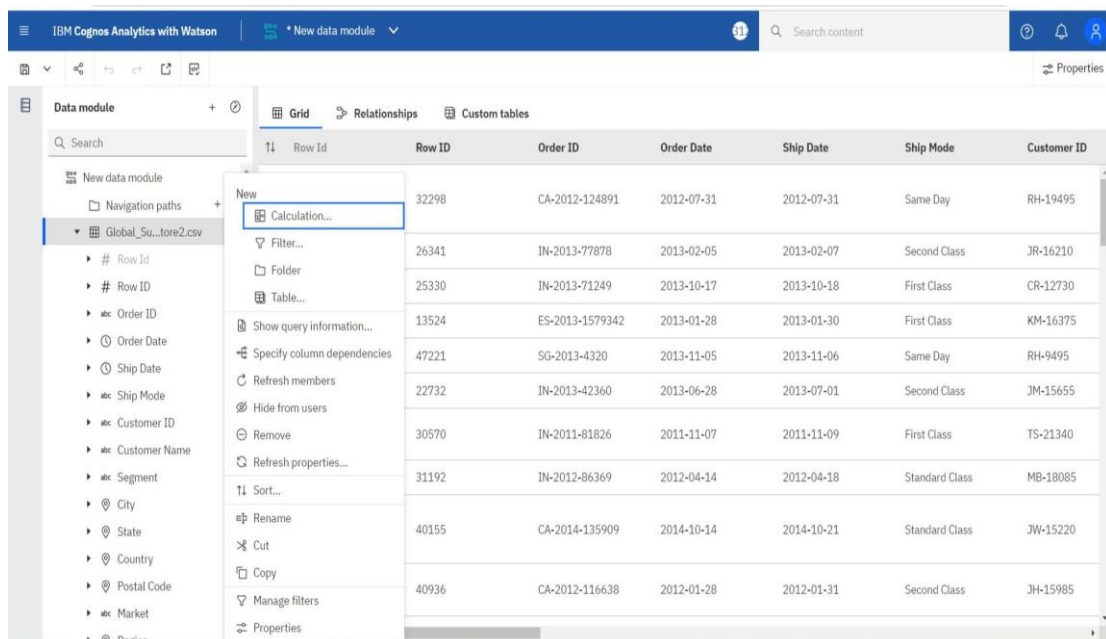


3. Once cleaned, the data is saved.

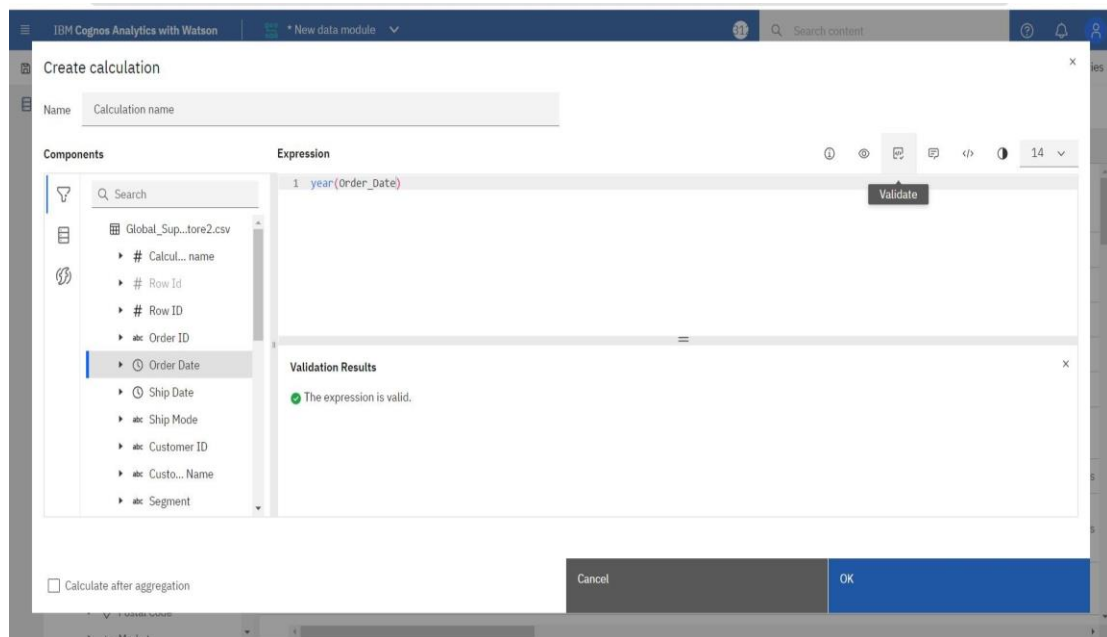
## DATE CALCULATIONS AND NAVIGATION PATHS

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'



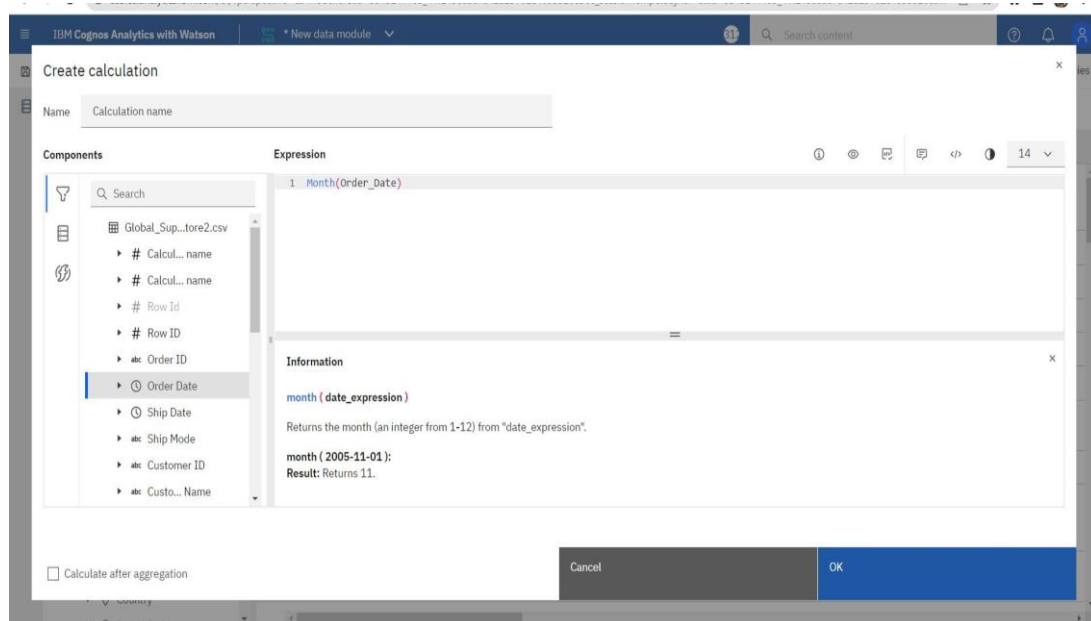
2. Similarly, 'OrderMonth', 'OrderDay' and 'All'

OrderYear -> Year (Order\_Date)

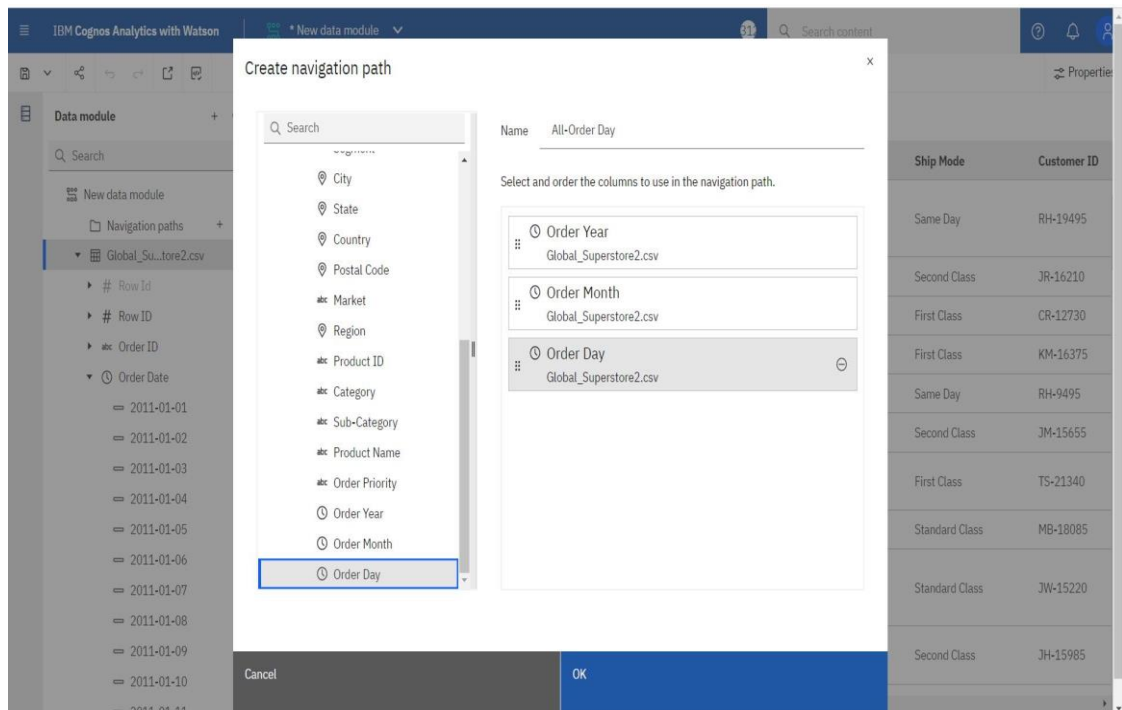
OrderMonth -> Month (Order\_Date)

OrderDay -> Day (Order\_Date)

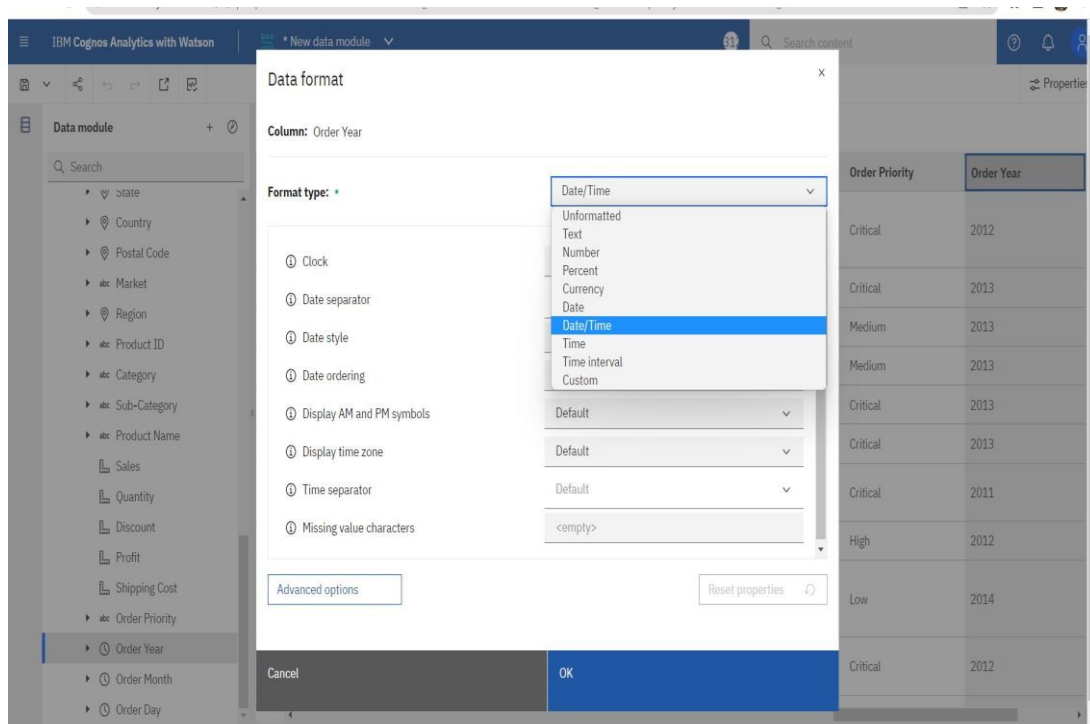
All -> All



### 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

The screenshot shows the IBM Cognos Analytics interface. On the left is the 'Data module' pane with a search bar and a list of fields 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 data grid with columns: Profit, Shipping Cost, Order Priority, Order Year, and Ord. The grid contains 10 rows of data. On the right, the 'Properties' panel is open for the 'Order Year' field. It shows the 'General' tab with fields for Label, Hide from users, Expression, Usage, and Description. The 'Usage' dropdown is set to 'Attribute', and the 'Date' dropdown is set to 'Year'.

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.**

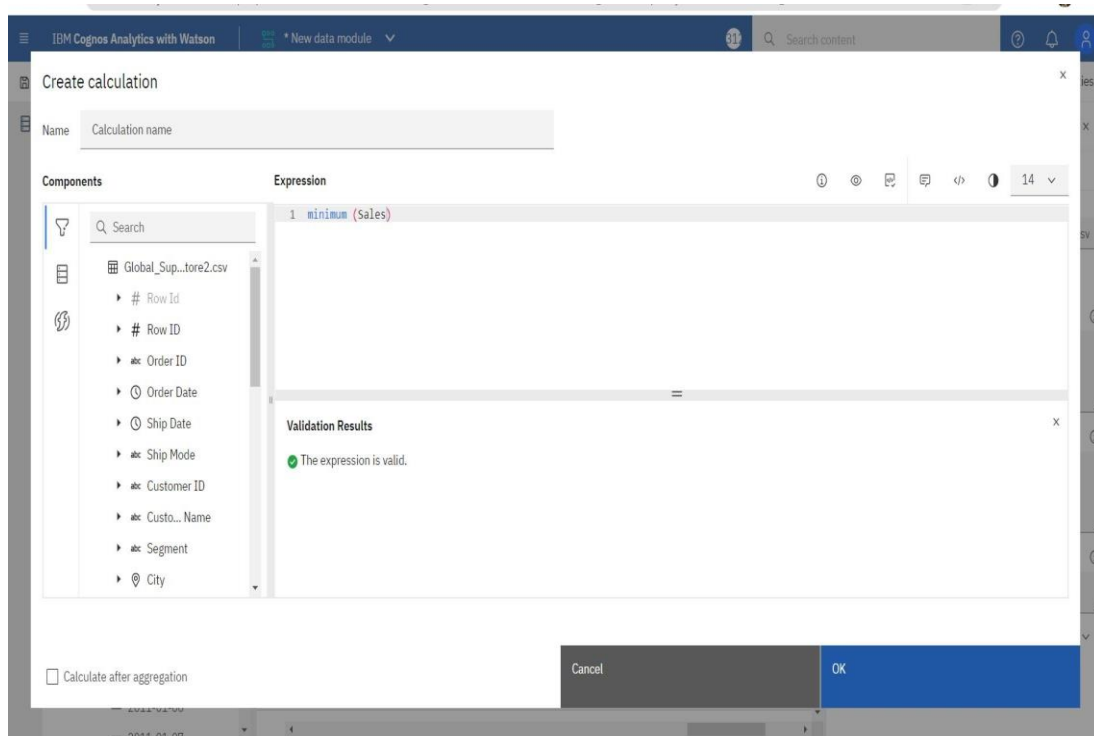
7. Similarly, calculations for Target sales, Min sales, Max Sales and Middle range sales are done

Min sales-> minimum (Sales)

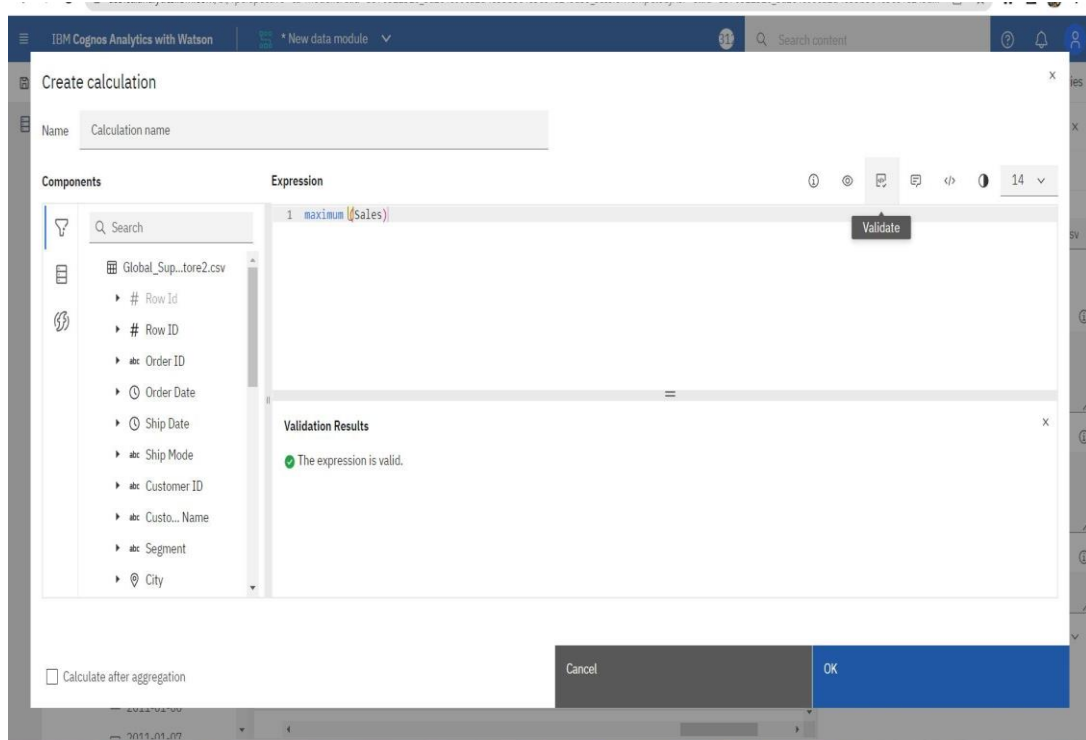
Max sales, Target sales-> maximum (Sales)

Middle range sales-> average (Sales)

**Minimum(Sales)**



## Maximum(Sales)



## Middle Range (Sales)

IBM Cognos Analytics with Watson

\* New data module

Search content

### Create calculation

Name: Calculation name

Components

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

Expression

1 average(Sales)

Validate

Validation Results

The expression is valid.

☐ Calculate after aggregation

Cancel OK