PowerBI Report 3

## CONTENTS

1. 1. CREATING SIMPLE DAX EXPRESSIONS

1.1. CALCULATED COLUMN

1. Open the report created in Lab work 01-03.
2. Switch to Data View. Select DimDate table
3. Click on New Column button in the ribbon:
4. Paste the following formula to the formula bar: Year Month Label = FORMAT([FullDateAlternateKey], "YYYY - MMM")
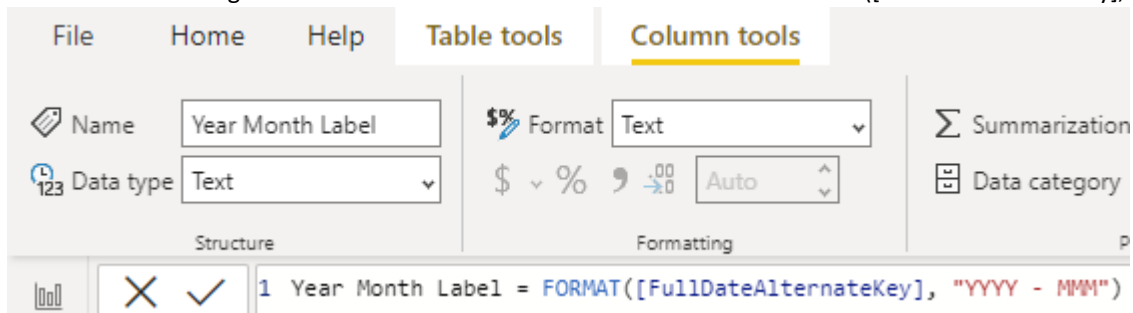

5. Now let's switch to Report view, add one more page to the report and add a line graph that displays Sales by Date.
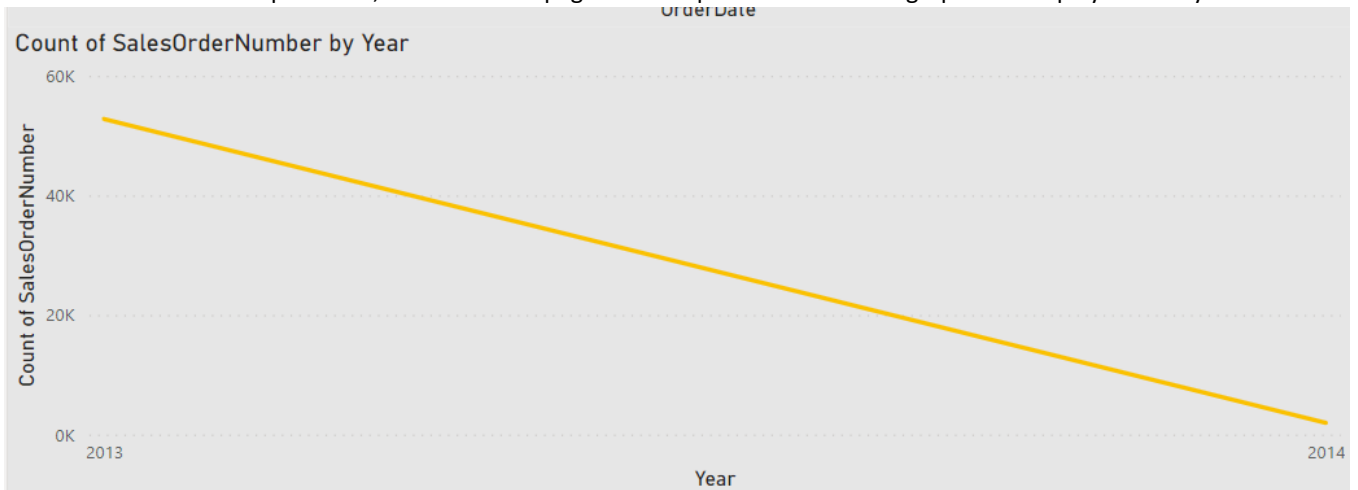
6. If you just need to show data by month, it is better to prepare a special column with month-year label (as we did in step #4) and use it for X-axis:
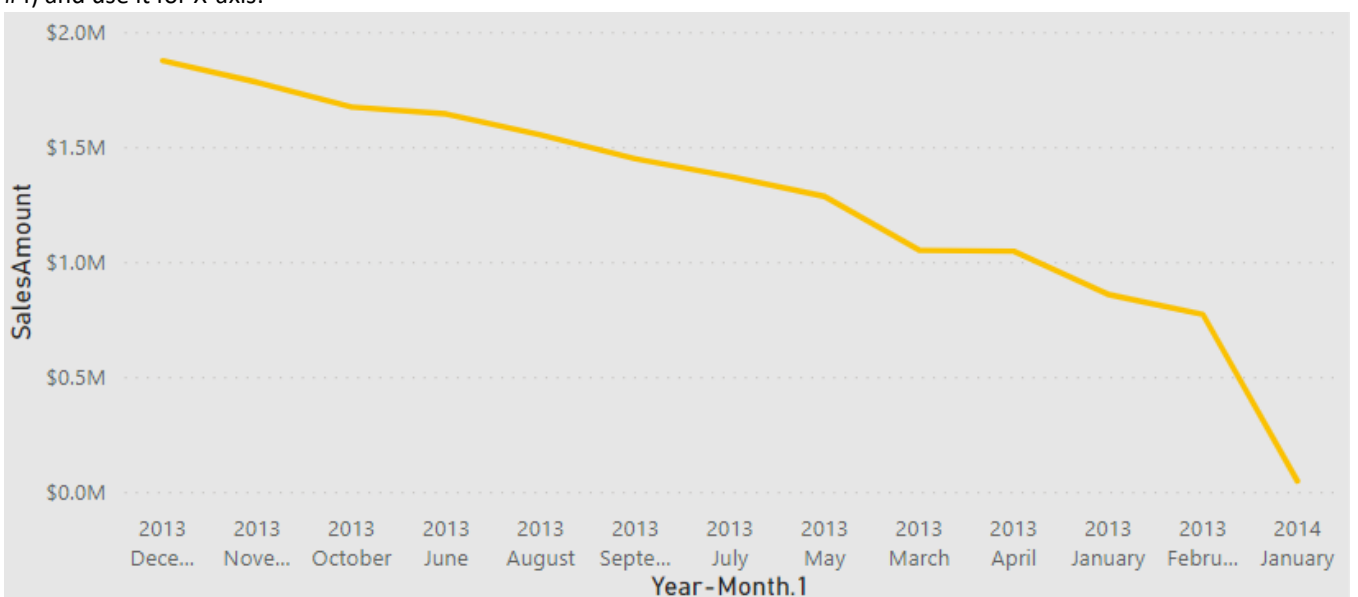

7. Let's also reduce the number of values by adding a filter by Year. Drag a 'Calendar Year' filed from 'DimDate' table to Filters on this Visual pane and set the filtering as on the screenshot below:

SalesAmount by Year-Month.1
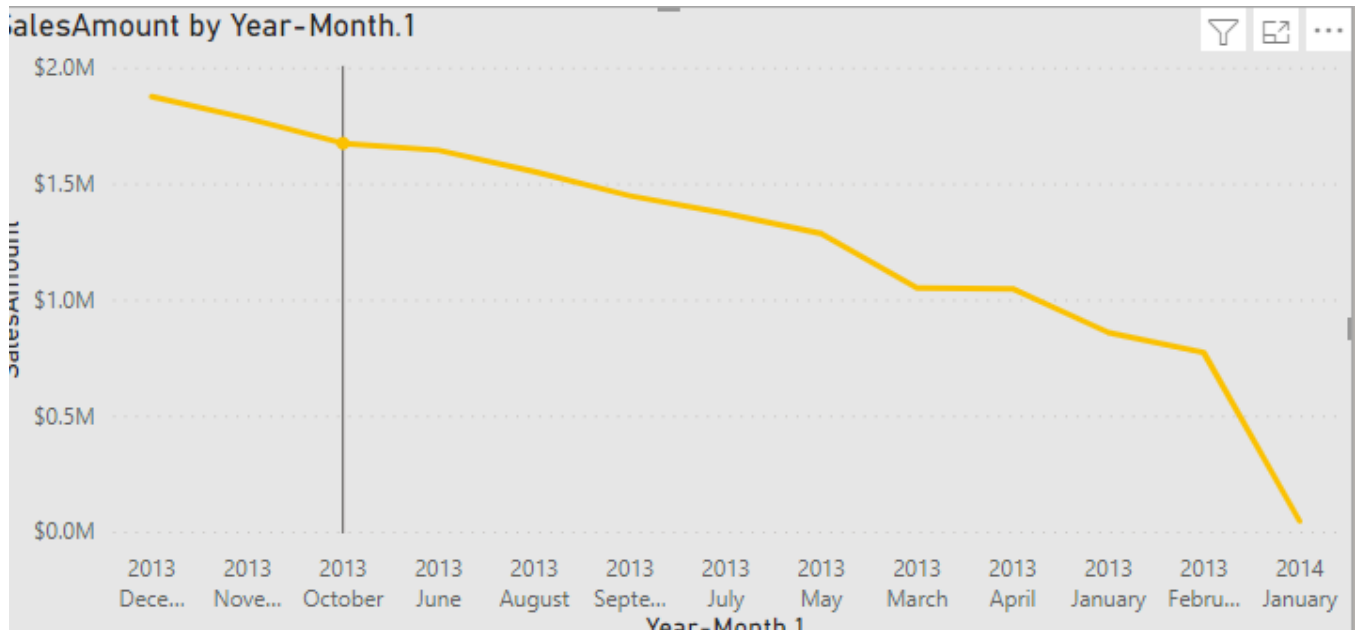
8. As you can see the Months are going in the alphabetic order instead of historical order. To change this switch back to the Data view, and add one more column: Year Month Int = FORMAT([FullDateAlternateKey], "YYYYMM")

9. Now select the 'Year Month Label' column and click on the 'Sort by Column' button in the ribbon. Select the recently created column (Year Month Int) as a reference for sorting:

10. Switch to the report view and check if the sorting is correct now. If not – try to remove and add again the Year Month Label column.

1.2. MEASURE

1. Let's create a very simple measure. In the report view click on the Measure icon. In the formula bar type the following expression: Today Date = TODAY()

2. After you click Enter the measure will appear in one of the tables (either the first one of the one that was selected before you clicked the button):
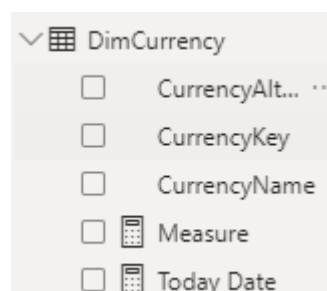
3. Now let's display the date in the report. Add a Card visualization and add the Today Date measure to the fields list:

4/12/2022
12:00:00 AM
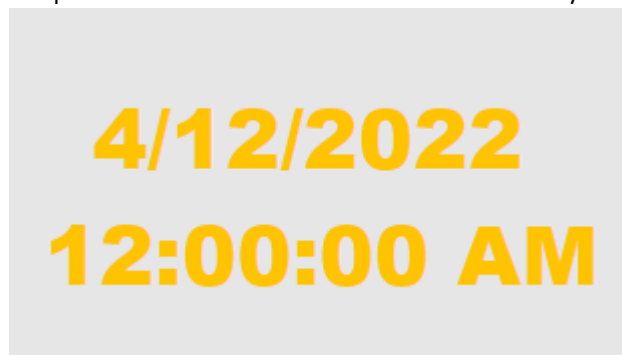
4. We can work a bit on the appearance of the card, but the date format is not the best one. Select the measure in the fields list and change the date format to a shorter one:

5. Now we can put the today's date as a footer in the report - just resize the card and move to the bottom right corner of your report:

6. Now let's start working on a more complex calculation. First, let's add a simple one : Order Quantity = SUM('FactInternetSales'[OrderQuantity])

7. To understand the results better, create a simple table visualization with a date column and keep adding all the measures created:

| FullDateAlternateKey	Order Quantity	Order Quantity YTD
1/1/2013	9	9
1/2/2013	11	20
1/3/2013	9	29
1/4/2013	8	37
1/5/2013	13	50
1/6/2013	13	63
1/7/2013	7	70
1/8/2013	10	80
1/9/2013	35	115
1/10/2013	42	157
1/11/2013	64	221
1/12/2013	58	279
1/13/2013	39	318
Total	**55050**	**3853**

8. Add one more measure: Order Quantity YTD = CALCULATE([Order Quantity],DATESYTD('DimDate'[FullDateAlternateKey]))

9. After you add this measure to the table, you'll see that it summarizes Order Quantity from the beginning of the year till the row date. When the new year starts, the calculation starts all over again.
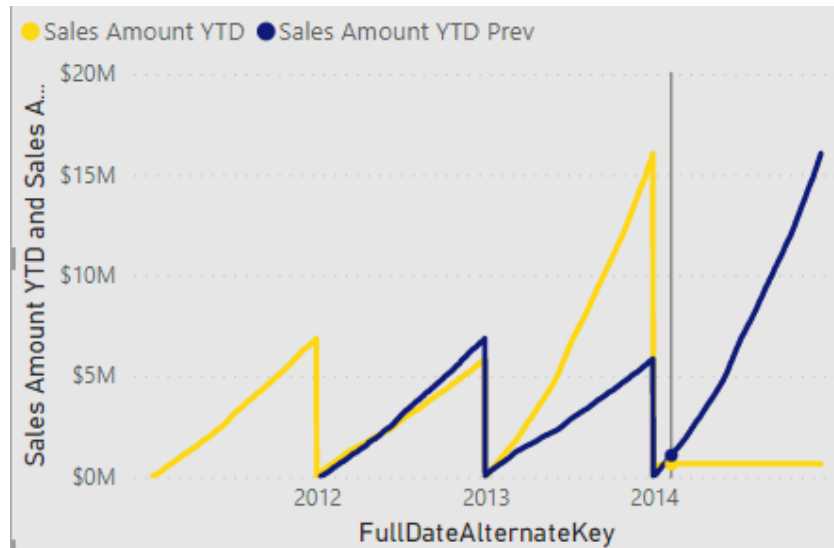
2. CREATE LAB REPORT

On the page 2 added during the lab work create a report with the following view:

1. Add ONE line chart that displays both Order Quantity YTD line and Order Quantity YTD for Previous Year. Create measures for these calculations using DAX.
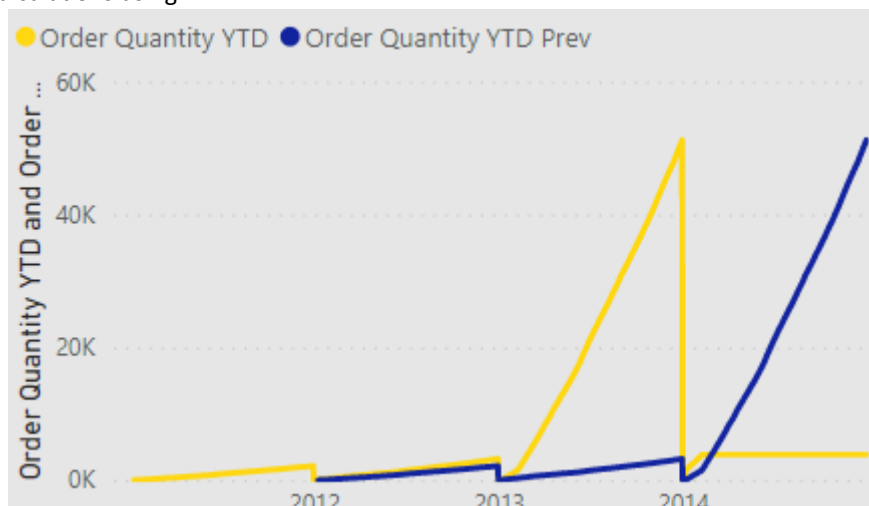
2. Add the same chart for Sales Amount.

3. On top of the report display current username and current date in the format:
 Welcome, [Current User] Current Date is: [Current Date]

4. Add a table that shows Year-Month label that was created during lab work, Product Name, Color, Order Quantity and % of total Order quantity by Year Month Label and Color (see the screenshot below).

Year Month Label	EnglishProductName	Color	OrderQuantity	Percent
2014 - Feb	All-Purpose Bike Stand	NA	6	0.02
2014 - Feb	AWC Logo Cap	Multi	31	0.01
2014 - Feb	Bike Wash - Dissolver	NA	15	0.02
2014 - Feb	Classic Vest, L	Blue	3	0.02
2014 - Feb	Classic Vest, M	Blue	6	0.03
2014 - Feb	Classic Vest, S	Blue	2	0.01
2014 - Feb	Fender Set - Mountain	NA	32	0.02
2014 - Feb	Half-Finger Gloves, L	Black	9	0.02
2014 - Feb	Half-Finger Gloves, M	Black	6	0.01
2014 - Feb	Half-Finger Gloves, S	Black	5	0.01
2014 - Feb	Hitch Rack - 4-Bike	NA	8	0.02
2014 - Feb	HL Mountain Tire	NA	13	0.01
2014 - Feb	HL Road Tire	NA	12	0.01
2014 - Feb	Hydration Pack - 70 oz.	Silver	10	0.01
2014 - Feb	LL Mountain Tire	NA	20	0.02
2014 - Feb	LL Road Tire	NA	23	0.02
2014 - Feb	Long-Sleeve Logo Jersey, L	Multi	5	0.01
2014 - Feb	Long-Sleeve Logo Jersey, M	Multi	8	0.02
2014 - Feb	Long-Sleeve Logo Jersey, S	Multi	8	0.02
Total			60398	1.00

5. Create a DAX measure and use it in a chart that always shows Sales Amount for maximum OrderDate available.