Microsoft Power Platform

Power BI- Adv DAX

Lab 04

Multiple methods of measure creation

Overview

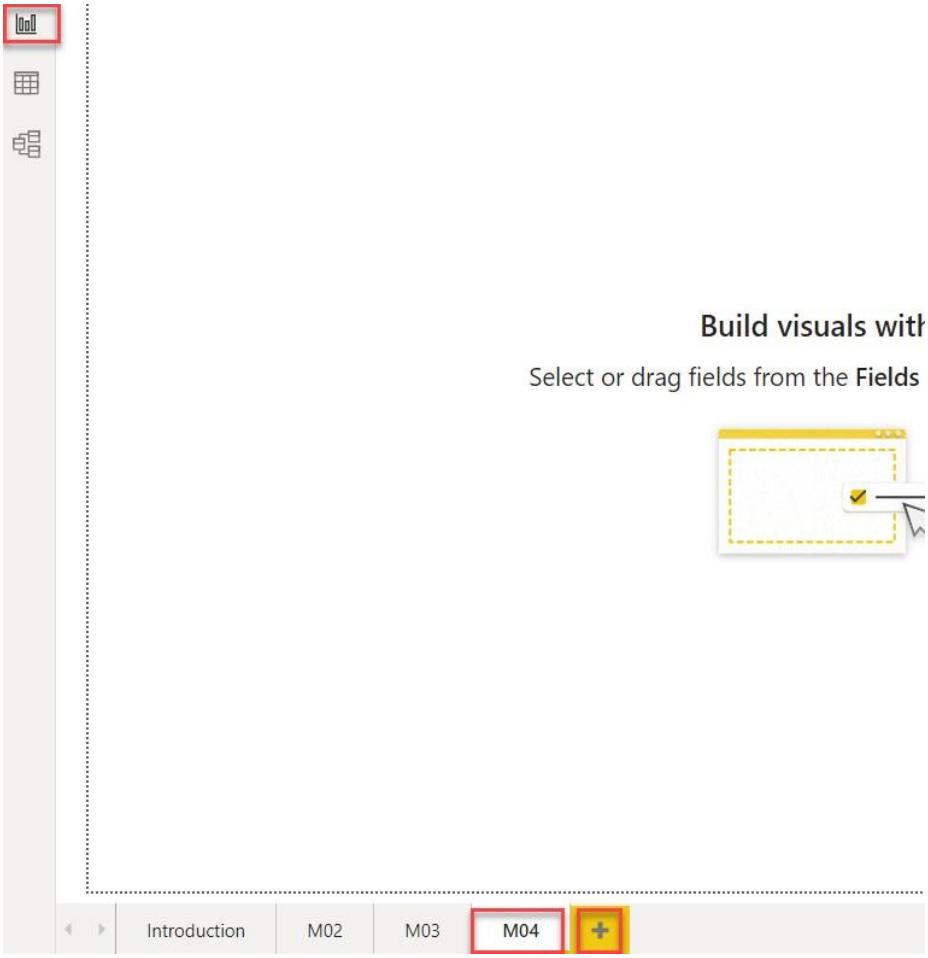
The estimated time to complete this lab is: 15 minutes

Exercise 1 – Add Implicit measure to a report.

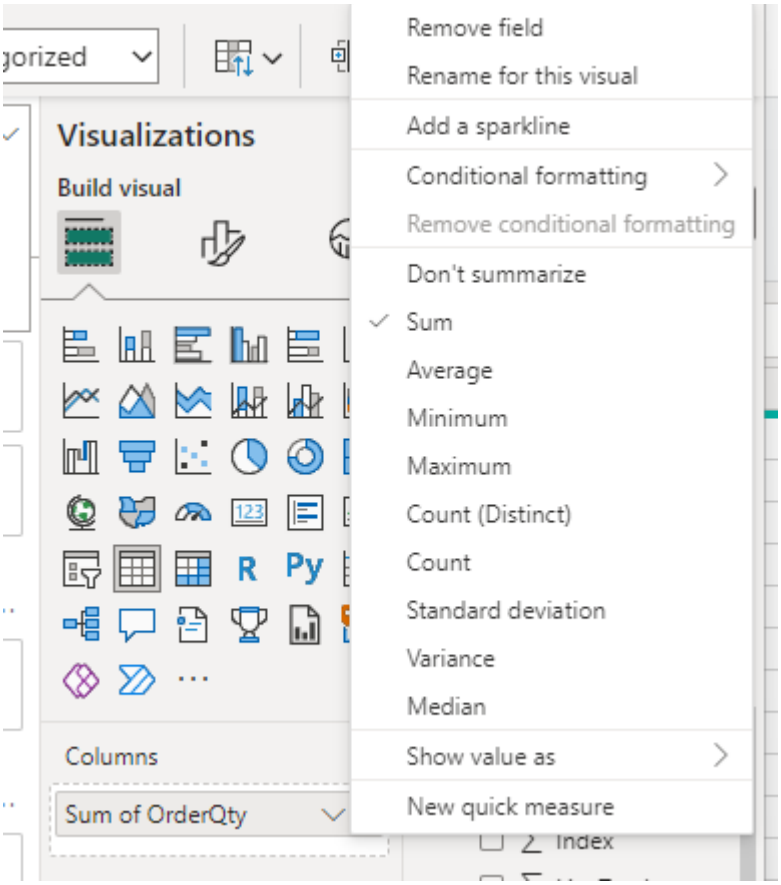
The next exercise shows how to add an Implicit measure to a report.

1. Open the **Adventure Works DW 2020 M03.pbix** Power BI Desktop file.

2. In the Report view, add a new page and name it M04.

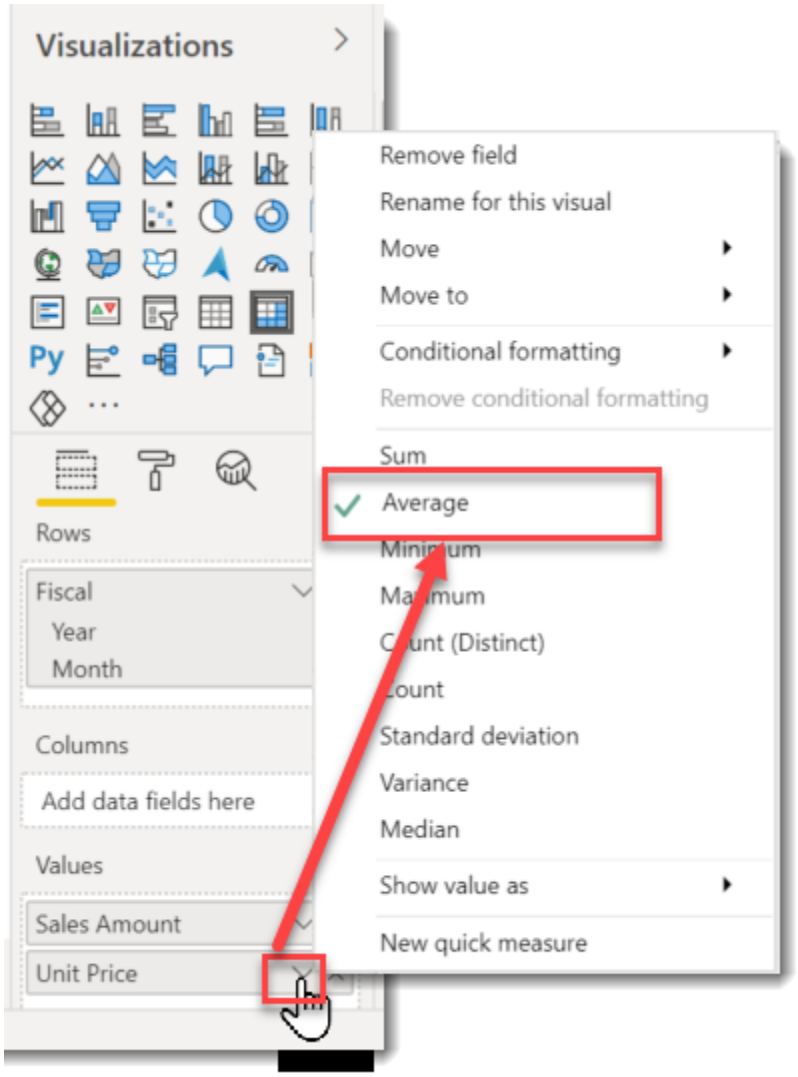


3. Add the **OrderQty** field to the matrix visual by first selecting the matrix visual and then dragging the **OrderQty** column from the **Fields** pane to the **Values** well in the **Visualization** pane. Also add Fiscal hierarchy from Due Date to rows.
4. To determine how the column is summarized, in the visual fields pane, for the **OrderQty** field, select the arrow and then review the context menu options.



5. Notice the Sum aggregation has a check mark next to it

6. Next add the UnitPrices field to the matrix visual and check the default summarization type.



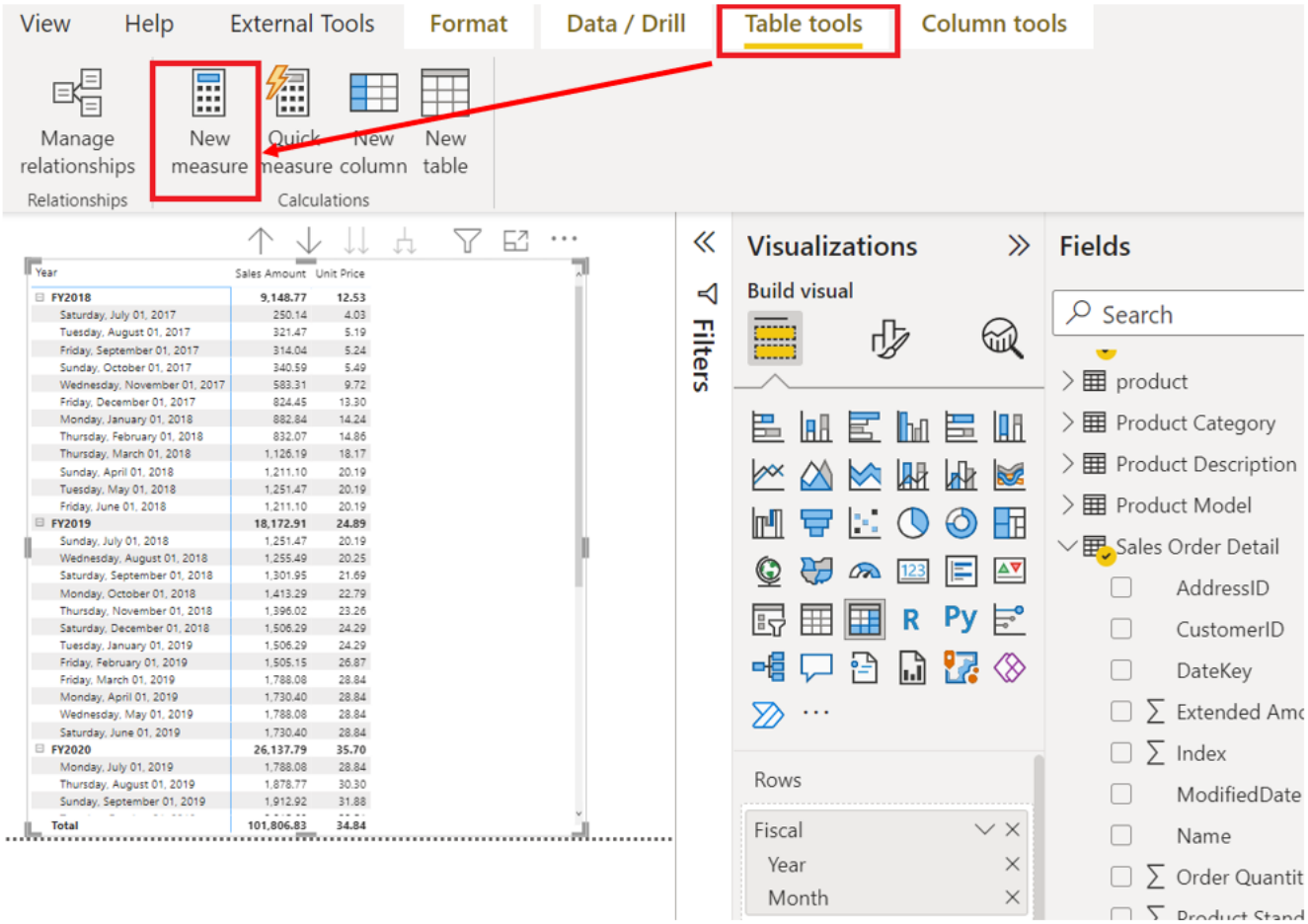
Exercise 2– Add Explicit measure to a report.

The next exercise shows how to add an Implicit measure to a report.

1. Continue to use the file used from exercise 1.

2. In the Report view, click to select the **Sales Order Detail** table.

3. Click the Table tools contextual menu and then click the New measure button



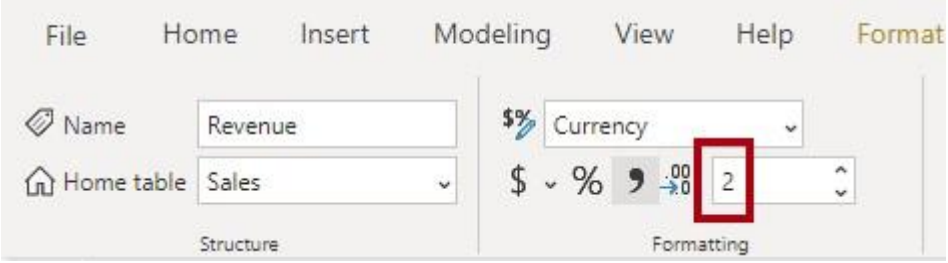
4. In the formula box, enter the following measure definition and then press the **Enter** key.

```
1 Revenue =
2     SUM(salesorderdetail[UnitPrices]) * SUM(salesorderdetail[OrderQty])
```

   a A detaile-oriented reader will notice the above code will not quite return the correct result. How might we re-write this to get a more accurate output?

5. Click to highlight the new **Revenue** measure in the Fields list.

6. On the **Measure tools** contextual ribbon, inside the **Formatting** group, set the decimal places to **2.**

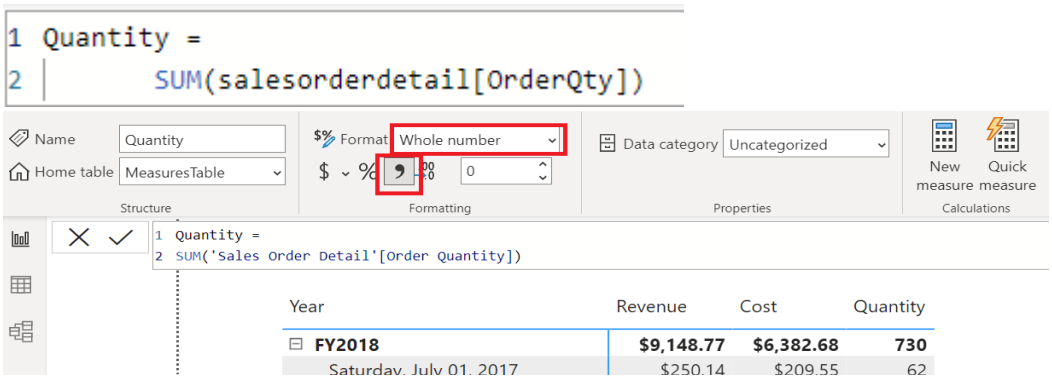


7. Add the **Revenue** measure to the matrix visual. Drag the **Revenue** measure from the **Sales Order Detail** table in the **Fields** pane to the Values well in the **Visualizations** pane.

8. In the matrix visual, remove the **OrderQty** and **UnitPrices** implicit measures. Click the cross on the right-hand side of the measure names in the Values well for the matrix visual.
9. Create a **Cost** explicit measure using the following definition and set the format to two decimal places.

```
1 Cost =
2         SUM('product'[Total Product Cost])
```

10. Create a Quantity measure and format it as a whole number with the thousand's separator.



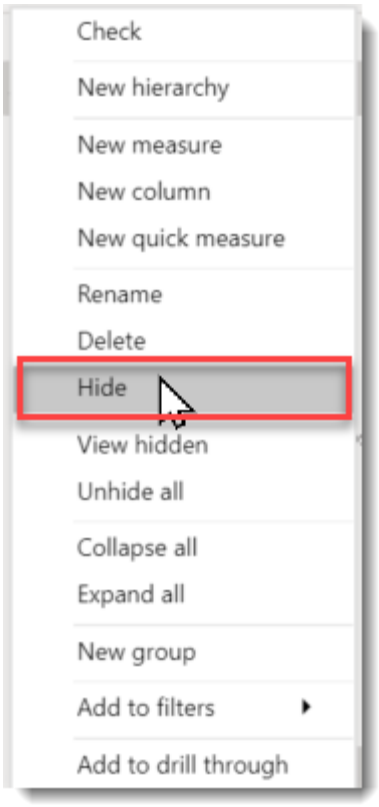
11. Create three unit price measures and then set the format of each with two decimal places.

```
Minimum Price =
MIN('Sales Order Detail'[Unit
Price])
```

```
Maximum Price =
MAX('Sales Order Detail'[Unit
Price])
```

```
Average Price =
AVERAGE('Sales Order Detail'[Unit
Price])
```

12. Hide the Unit Price column in the Fields well by right clicking the column and selecting Hide from the context menu.



13. Create the following measure, which counts the number of orders. Format the measure with zero decimal places.

```
Order Count =
DISTINCTCOUNT('Sales Order
Header'[SalesOrderNumber])
```

14. Create the Order Line Count measure as follow

```
Order Line Count =
COUNTROWS('Sales Order Detail')
```

15. Add each of the measures to the matrix visual.

Exercise 3 – Add nested measure.

The next exercise shows how to add nest one measure inside of another

1. Continue to use the file used from exercise 2.

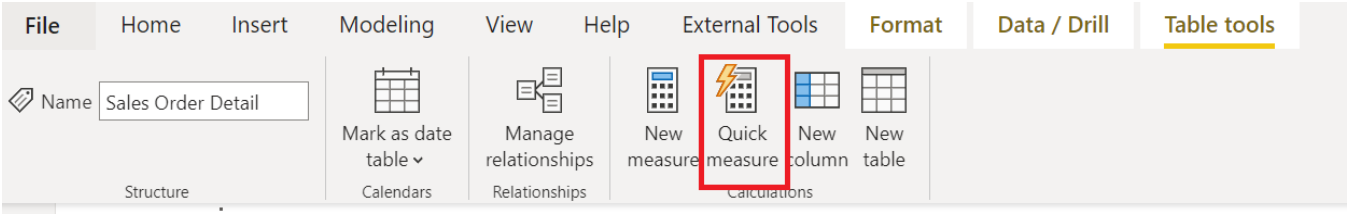
2. Modify the Profit measure by using the following measure definition. Format the measure with two decimal places.

```
Profit =
[Revenue] - [Cost]
```

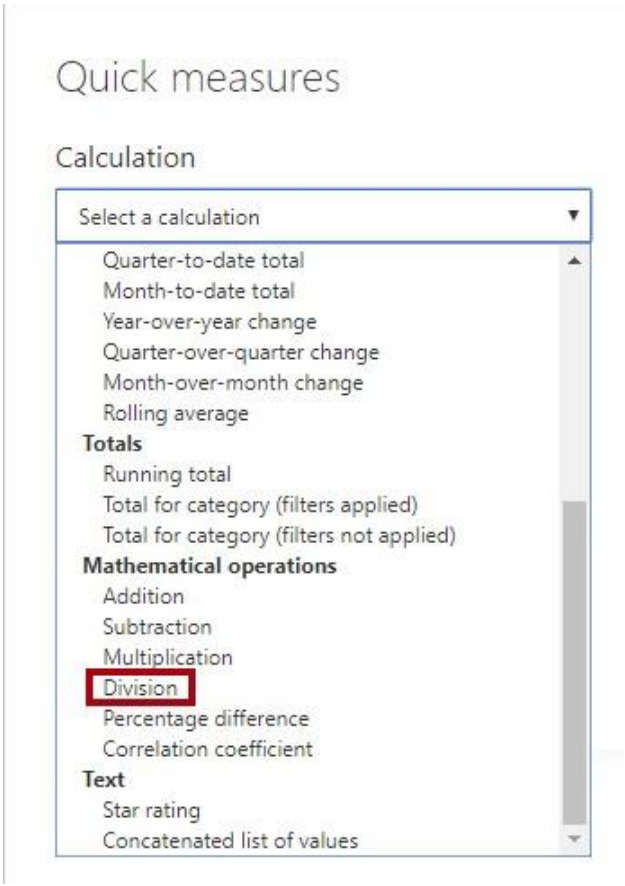
Exercise 4 – Add quick measure.

The next exercise shows how to add a quick measure to a report.

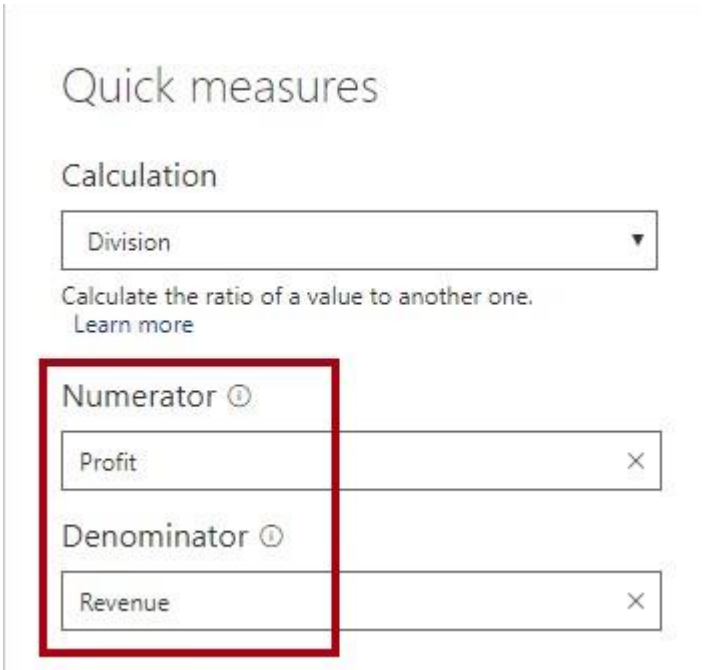
1. Continue to use the file used from exercise 3.
2. On the Table tools contextual ribbon, from inside the Calculations group, select Quick Measure



3. In the **Quick measures** window, in the **Calculation** drop-down list, locate the **Mathematical operations** group (you might need to scroll down the list) and then select **Division**



4. From the **Fields** list (in the **Quick measures** window), expand the Sales table and then drag the **Profit** measure into the **Numerator** box. Then, drag the **Revenue** measure into the **Denominator** box.



5. Select **OK**.

6. In the **Fields** pane, notice the addition of the new compound measure. In the formula bar, review the measure definition.

7. Rename the measure as **Profit Margin**, and then set the format to a percentage with two decimal places.

8. Add the **Profit Margin** measure to the matrix visual.

9. Save the Power BI File as Adventure Works M04.pbix