

Filtering and counting with DAX

DAX FUNCTIONS IN POWER BI



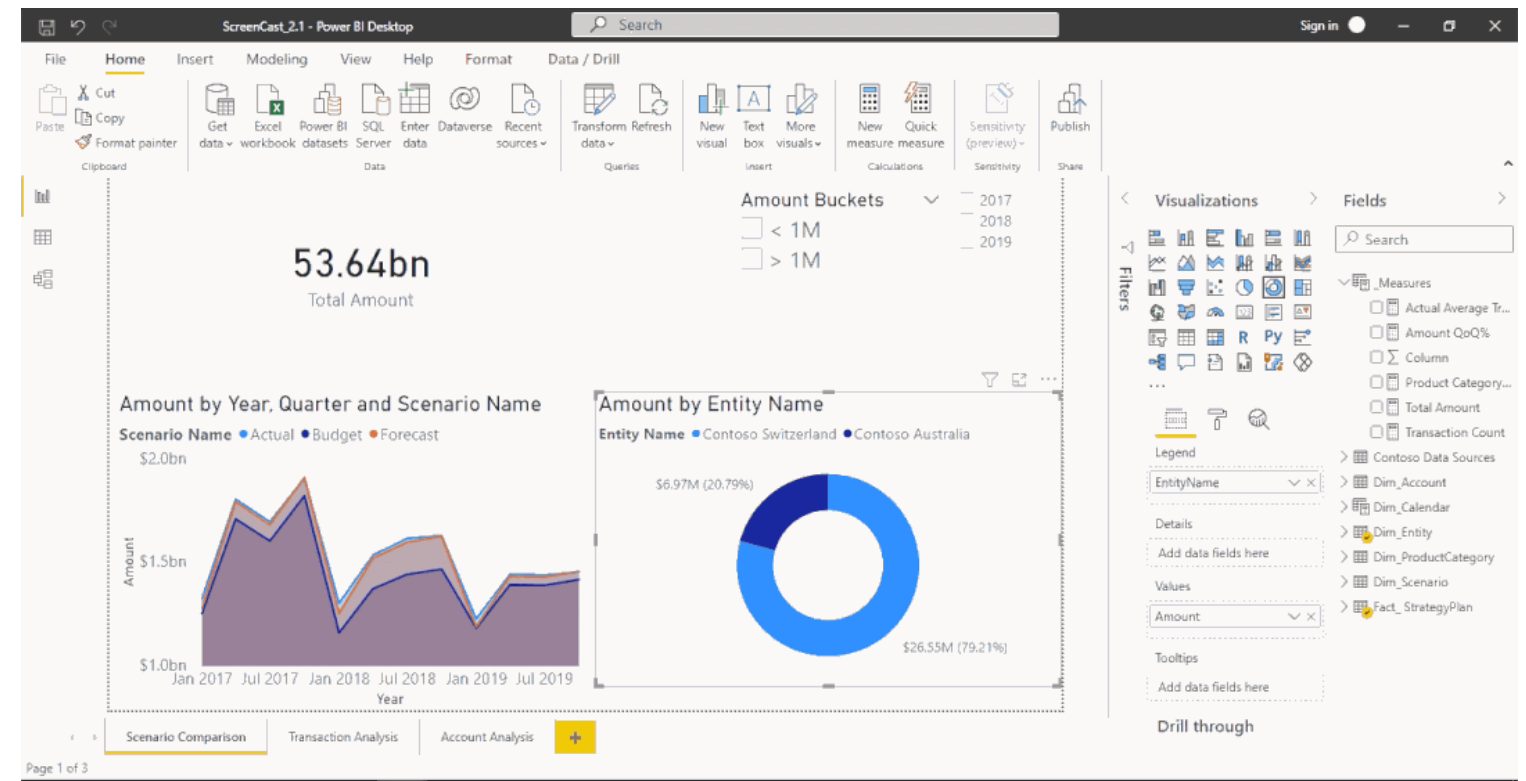
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Filter functions

- Filters are applied on the filter context
- Filters take precedence over any visual

Total Sales = SUM(Orders[Sales])



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```
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```

```
CALCULATE(<expression>,  
          <filter1> , [<filter2> [, ...]])
```

- Used with intermediate functions

```
Total Sales ALL = CALCULATE(  
                    [Total Sales],  
                    ALL(Orders))
```

Region	Total Sales
Central	\$501,239.89
East	\$678,781.24
South	\$391,721.91
West	\$725,457.82
TOTAL	\$2,297,200.86

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          <filter1> , [<filter2> [, ...]])
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South	\$391,721.91	\$2,297,200.86
West	\$725,457.82	\$2,297,200.86
TOTAL	\$2,297,200.86	\$2,297,200.86

More filter options

- `FILTER(<table>, <filter>)`
 - *Returns a filtered table*

```
Total Sales Chuck =  
CALCULATE(  
    [Total Sales],  
    FILTER(Fact_Orders,  
        RELATED(Dim_Sales[Salesperson]) = "Chuck"))
```

More filter options

- `FILTER(<table>, <filter>)`
 - *Returns a filtered table*

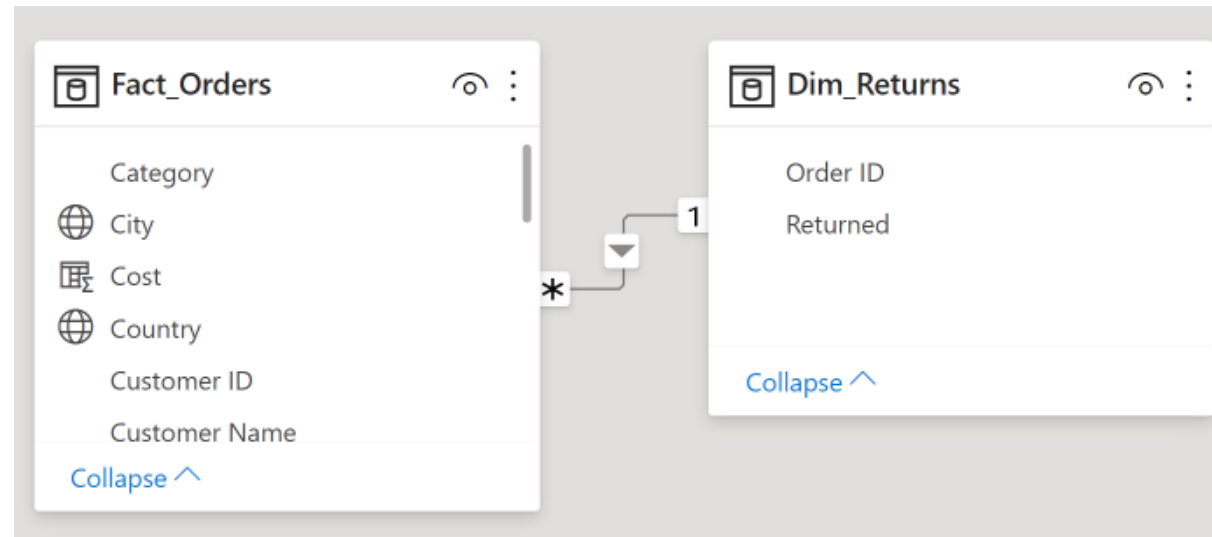
```
Total Sales Chuck =  
CALCULATE(  
    [Total Sales],  
    FILTER(Fact_Orders,  
        RELATED(Dim_Sales[Salesperson]) = "Chuck"))
```

Total Sales	Total Sales Chuck
\$2,297,200.86	\$235,856.05

- `RELATED()` is used to return values from another table

More filter options

- `CROSSFILTER(<col1>, <col2>, <direction>)`
 - *Specifies the cross-filtering direction between two columns*



```
CROSSFILTER(Dim_Returns[Order ID],  
            Fact_Orders[Order ID],  
            Both)
```

- Overrides relationship direction of data model

The benefits of filtering in DAX

- Improves performance
 - Filter out unnecessary data
 - Define specific relationships between tables
- Reusability
 - Refer to other calculated measures
- More complex computations
 - Concise syntax

Counting

- `COUNT(<column>)`
 - *Returns the amount of rows with numbers, dates, or strings in a column*
- `COUNTA(<column>)`
 - *Returns the amount of rows with numbers, dates, strings, or booleans in a column*
- `COUNTBLANKS(<column>)`
 - *Returns the amount of blank rows*
- `DISTINCTCOUNT(<column>)`
 - *Returns the amount of distinct values in a column*
- `COUNTROWS(<table>)`
 - *Returns the amount of rows with numbers, dates, and strings in a table*

Let's practice!

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Using different filters with DAX

DAX FUNCTIONS IN POWER BI



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