# Filtering and counting with DAX

DAX FUNCTIONS IN POWER BI



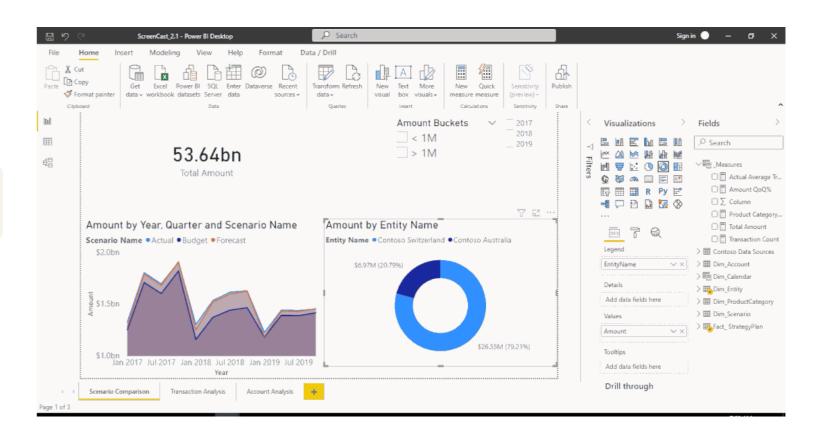
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#### Filter functions

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

```
Total Sales = SUM(Orders[Sales])
```



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```
Total Sales = SUM(Orders[Sales])

CALCULATE(<expression>,
```

<filter1> , [<filter2> [, ...]])

Used with intermediate functions

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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Used with intermediate functions

Region	Total Sales	Total Sales ALL
Central	\$501,239.89	\$2,297,200.86
East	\$678,781.24	\$2,297,200.86
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(, <filter>)
  - Returns a filtered table

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

#### More filter options

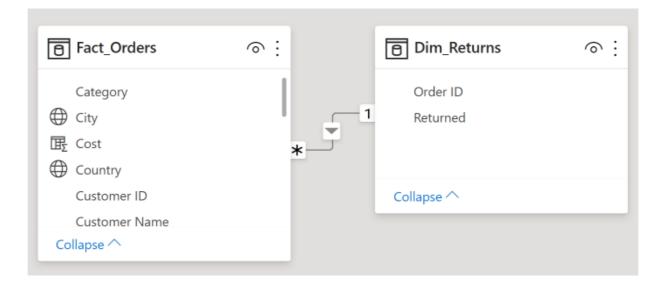
- FILTER(, <filter>)
  - Returns a filtered table

<b>Total Sales</b>	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



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()
  - Returns the amount of rows with numbers, dates, and strings in a table

## Let's practice!

DAX FUNCTIONS IN POWER BI



## Using different filters with DAX

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