Filtering Data Using CALCULATE

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Overview

Implicit versus explicit filtering

Overriding filters with CALCULATE

Advanced filtering with FILTER

Undoing filters with ALL

Why Filtering?

Comparison by dimension

Drill downs

Period-based comparisons

Slice-of-pie comparisons

DAX is good at two things:

Aggregations and filtering.

Using CALCULATE

Implicit Versus Explicit

Implicit filtering is filtering applied by the user or the layout of the report

Explicit filtering is filtering applied by the measures

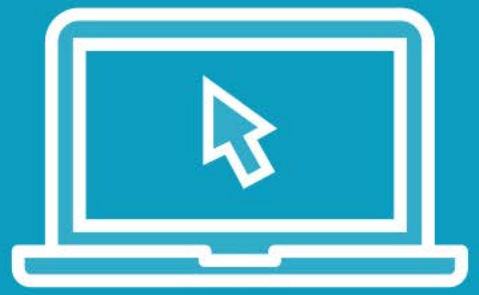
Explicit formulas override implicit filtering

CALCULATE is like 3D glasses for your measures.

Filtering an Aggregate

```
Sum of Green Products :=
CALCULATE ( SUM ( Sales[Total] ), [Color] = "Green" )
```

Demo



Applying filters based on layout

Applying filters based on slicers

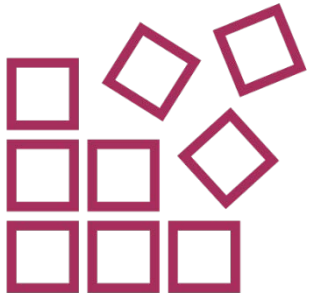
Overriding filters with CALCULATE

Using FILTER

CALCULATE is designed to be fast.

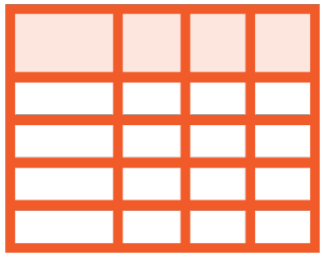
FILTER is designed to be flexible.

When to use FILTER



Evaluating on multiple columns

Comparing to an aggregate function or measure



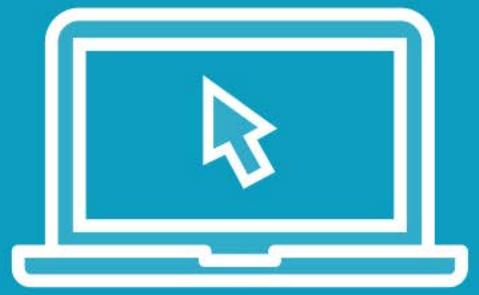
Needing to return a table

Filtering on Multiple Columns

```
Measure Name :=

CALCULATE ( SUM ( [Total] ),  FILTER (Sales, QTY * Price < 100 ) )
```

Demo

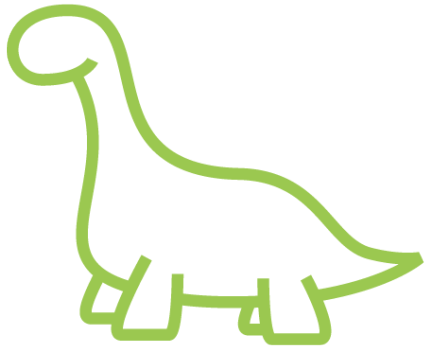


Applying multi column filters with FILTER

Viewing the results of FILTER

Using ALL

Using ALL



Historical Analysis

You want to compare to historical sales.

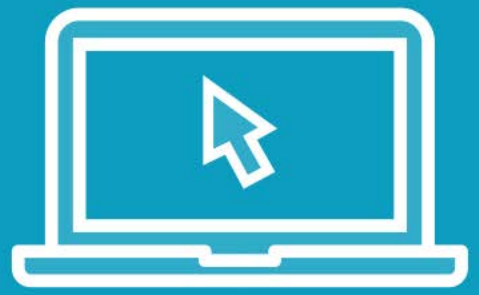
ALL() Removes Filters

You can ignore and remove any filters on your date table.

Clearing Filters on the DATE Table

```
Historical Sales :=
CALCULATE ( SUM ( [Total] ), ALL ( 'Date' ) )
```

Demo



Unapplying a column filter

Unapplying an entire table filter

Summary

- Different types of filtering
- How to override filters
- How to apply advanced filters
- How to unapply filters