

Adding Business Logic with Calculated Columns and Measures



Eugene Meidinger

DATABASE DEVELOPER

@sqlgene www.sqlgene.com



Overview



Adding Meaning

- Calculated columns
- Measures (aggregates)



Data, by itself, is meaningless.

Your job is to add meaning.



How Do We Add Meaning?

Calculated Columns

“Expands” a table by adding columns defined by a defined

Measures

“Summarizes” all of the data into a single value



Deciding Which To Use



Calculated Columns

Ideal for operational, detailed information



Measures

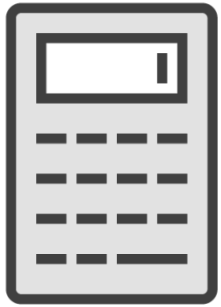
Ideal for analytical, summary information



Calculated Columns



What are Calculated Columns?



An expression
producing a
column



Computed at
the time of
refresh



Stored with the
table



Limited by a
row context

Calculating Gross Sales

```
Gross Sales =  
[Price] * [Quantity]  
      * ( 1 - [Discount] )
```



Calculated Columns

Price	Quantity	Discount	Gross Sales



Demo



Creating calculated columns

Using calculated columns

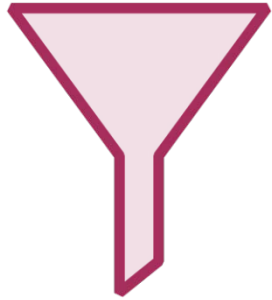
Accessing other tables using the
RELATED function



Measures



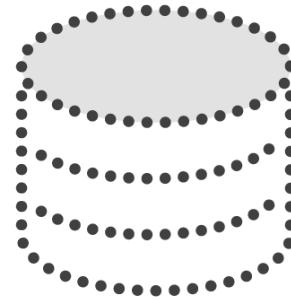
What are Measures?



An expression
summarizing the
data



Computed at
time runtime



Stored
temporarily



Limited by a
filter context



Summarizing Gross Sales

```
Total Gross Sales :=  
SUM ( Sales[Gross Sales] )
```



Measures

Price	Quantity	Discount	Gross Sales
\$5	2	10%	\$9
\$15	2	33%	\$20
\$40	1	24%	\$30

Total Gross Sales



Demo



Creating a measure

Displaying a measure

Viewing implicit measures



Summary



How to add meaning to the data model

How to expand a table with calculated columns

How to summarize the data with measures

When to use which method

