EIGHTH PROGRAM

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Calculations in Tableau

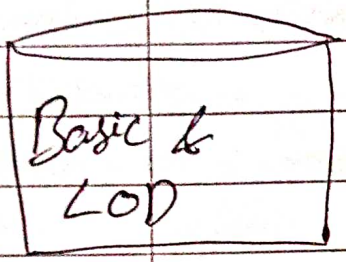
① Basic Calculations

② Table Calculations (OR) Quick Table Calculations.

③ LOD (Level of Detail Expressions).

If you have all the required fields to implement the visualization then no need to go for the Calculations.

→ Something is missing to create visualization you go for Calculations.



Calculated as part of the query on the underlying data.

Calculated using the results from the query.

When you have all the required fields to create a vizualization and after vizualization if you want to perform some kind of quick calculations based on result of your query. Then go for Table Calculations.

Basic Calculations :- Min, Max, Ceil, Floor, Round etc.

String :- Contains ([SubCategory], 'S')
Upper, Lower, Left & Right etc.

Date :- DATEADD ('day', 2, Today())
DATEDIFF ('day', [Orderdate], [ShipDate])

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Logical:- IF Sum([Sales]) >5000 THEN "Good"
ELSEIF Sum([Sales]) >2000 THEN "Avg"
ELSE "Poor"
END

Case:- IIF([Profit]>0, 'Profit', 'loss')

Table Calculations (or) Quick Table Calculations:-
which are calculated based on the o/p of Tableau.
Running Total
Difference
Percent Difference
Percent of Total
Rank etc.

Drag & Drop Category in Rows.
Double click on Sales.
Goto Analysis → Totals → Show Column grand Totals.
→ Table Calculations Select Percent of Total.

Bar graph % of Total:-
Col:- Category
Rows:- Sum(Sales) Δ → Select Percent of Total.

Ex:- Col:- order date
Rows:- Sum(Sales) Sum(Sales) Δ → select % of Total.

Marks Card change from line to Bar.

Ex:- Col:-
Rows:- Category, Subcategory ≡
Double click on Sales.

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Sales Δ → Select % of Total.

Goto Analysis → Total → Show column grand Total,
again goto Analysis → Total → Add all Sub Totals

Running Total:-

Col:-

Rows:- Month(Order date)

Double click on Sales..

Drag & Drop Sales in Rows.. and changed to Discrete format.

Sales Δ → Select Running Total,

Same above example with Bar Graph.

Col:- Month

Rows:- Sum(Sales) Sum(Sales) Δ

Select Running Total.

LOD:- Level of Detail expressions are used to run complex queries. It involves many dimensions.

There are 3 types of LOD's

① FIXED

② INCLUDE

③ EXCLUDE

FIXED:- This Level of Detail expressions Computes values using the specified dimensions without reference to any other dimensions in the view.

Ex:- Find out count of profitable Subcategories.

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Double click on profit
Double click on Subcategory
Sort in Descending order.
Now create Calculated field
Fixed LOD
{ FIXED [Sub-category] : SUM([Profit]) }
Drag & Drop fixedlod in Column Shelf
Remove sum(Profit) from pill.
Sub-category → goto Measure → Select Count(Distinct)
INCLUDE :- This Level of Detail expressions computes values using the specified dimensions in addition to whatever dimensions are in the view.
ex:- Show Regional average sales in 1 bar graph & Regional customer average sales in 2nd bar graph
Drag and drop Sales in Rows
Drag and drop Region in Columns
Changed sum(Sales) to avg(Sales)
Now create calculated field
Include LOD:-
{ INCLUDE [Customer Name] : AVG([Sales]) }
Exclude :- This level of detail expressions subtract dimensions from the view.
ex:- Show category, subcategory and Sales in the view. but computes Sales using category.
Rows :- Category, Subcategory.

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Create Calculation field

Exclude LoD :-

{ EXCLUDE [Subcategory] : Sum([Sales]) }

Drag and Drop Exclude LoD in Rows.

and changed to Discrete.

Data Aggregations in Tableau :- (Measures & Dimension

Whenever you add a measure to your view an aggregation is applied to that measure. by default sum.

→ we can able to change Average, Min, Max, Count, Count(distinct), Median, Standard deviation, Variance

→ we can aggregate a dimension.

Min, Max, Count, Count(distinct)