DAX:

Data Analytics Expression

Tut 1:

1. Dax Structure
2. Dax operator
3. Dax usage
4. Dax measures - implicit & explicit.

DAX Structure:

It is similar to how do we write function in excel, Dax also has predefined functions and operators which are clubbed together or used individually to create Dax formula!

For example: sum(col1)/Sum(col2)

Here two individual functions are used with the division operator! This is how Dax functions write up!

List of operators that are mainly used in Dax are:

* Arithmetic Operators:
* Addition
* Subtraction
* Multiplication
* Division
* Exponent
* Comparison Operators:
* Equal to
* Strict equal to
* Greater than
* Less than
* Greater than or equal to
* Less than or equal to
* Not equal to
* Text Concatenate Operator:
* Concatenate operator
* Logical Operator
* And
* Or
* Logical Or

Dax Usage:

Calculated Column

When we want calculations based on the row level basis then we enter Dax formula into a calculated column!

For example, I have a dataset of “PizzaSales” and in that table I have four to five columns in between them there are two column is price and sales column and from that two column we will create a new column named “Revenue” using Calculated Column measure!  
  
We will write the formula in the DAX, it will look like this!   
  
[Revenue=Price\*Sales] -- & when I hit enter to this formula it will populate my Revenue column!

Calculated Measures

* When we want calculation based on the aggregated level and do not want to measure the calculation on the basis of row level. it gets calculated with the aggregated level values!
* The calculated measure does not create any physical value in the table! which means that it doesn’t take any space in the specified table!
* Suppose in the same table we will create measure! and one more thing! the calculated measure will be created it will not physically show in the table and in the report, we use this calculated measure as (CARD, Slicer).
* This is how we will write the calculated Measure:

Revd.=sumx (Pizza, (pizza(price)\*pizza(sales))

* Here in the formula: Sumx function is used to sum up multiple columns and iterate each row and will provide the final figure!
* Pizza is my table and ‘price’, and ‘sales’ are the columns in my table!

Implicit and Explicit Measures:

Implicit measures are predefined in the power bi when we create any or visualize any data using charts it automatically creates a measure for that chart!

For example, we created a visualization of line chart! in that chart I have 2 axis that is x and y and, in that x, and y there will be two aggregated measures will be automatically created! like (Sum, Avg and more).

Explicit measure is the same as we create Calculated column and Calculated measure by itself! it is called as explicit measure.

Tut 2:

Calendar DAX & Calendar auto:

Calendar Dax: Suppose I am creating a new table, and I want to store Data on it! using calendar measure, while creating a measure we use static double quotes between them! and when we hit enter after entering start date and end date it will create me for new column with the new table!

CalenderAuto (): In this Dax function we will again create a new table and while creating a measure we just write now the CalenderAuto formula to populate the date column and one thing more the date which it will auto create it is always related to my main table ! if in my main table 2022 year is mentioned it will create me for the whole year.

Date & DateDiff & DateValue

Date: This is the function which we will create it for the specified date format!

We can use it in the combination of values like we can create a dynamic column for the date!

DateDiff: This function returns the interval or in simple word I can say differences between two specified values!

DateValue: This function Converts the date in the form of a text to a date in a datetime format!

There’s a lot of functions in DAX like now ,Weekday , Edate etc..