WEEK 7 CHALLENGE

1. Explain Common DAX Functions with examples and share the power bi desktop file for review.

Ans:

DAX DEFINATION:

➢ **DAX STANDS** for "Data Analysis Expressions"

➢ It is a formula language.

➢ It is used in a formula or expression to calculated and return one or more values.

➢ DAX is a programming language, that allows the users to define custom calculations.

➢ Some of the DAX functions are same as Excel functions.

Common DAX functions:

1. Date & Time Functions:

❖ **Date/Month/Quarter/Year :**

> Returns the day of the month (1 to 31) / Returns the month as number (from I to 12) / Returns the quarter as a number from 1 to 4 / Returns the year of a date.

❖**Hour/Minute/Second :**

> Returns the hour as Number (from 0 (12:00 A.M.) to 23 (11:00 P.M.))/ Returns the minute as a number (from 0 to 59)/ Returns the seconds of a time value, as a number (from 0 to 59).

❖**Today/Now :**

> Returns the current date and time in date time format / Returns the current date.

❖ **Weekday/weeknum :**

Returns a number from 1 to 7 identifying the day / Returns the week number for the given date and year.

❖ **UTCNOW/ UTCTODAY :**

Returns the current UTC date and time / Returns the current UTC date

❖ **DATEDIFF :**

Returns the count of interval boundaries crossed between two dates

❖ **DATEVALUE :**

Converts a date in the form of text to a date in datetime format.

❖ **TIMEVALUE :**

Converts a time in text format to a time in datetime format.

2. <u>Text Functions</u> :

❖ **CONCATENATE/ COMBINE VALUES :**

Joins two / more text strings into one text string.

❖ **FIND :**

Returns the starting position one text string within another text string.

❖ **LEFT/MID/RIGHT:**

Returns the specified number of characters from the start/middle / end of a text string.

❖ **LEN:**

Returns the number of characters in a text string.

❖ **SUBSTITUTE:**

Replaces existing text with new text in a text string.

❖ **VALUE:**

Converts a text string that represents a number to a number.

3. Mathematical & statistics functions

❖ **ROUND/ROUNDDOWN/ROUNDUP :**

Rounds a number to the specified number of digits / Rounds a number down, toward zero / Rounds a number up, away from 0
(zero)

❖ **SUM :**

Adds all the numbers in a column

❖ **AVERAGE:**

Returns the average (arithmetic mean) of all the numbers in a column.

❖ **MIN/MAX:**

Returns the smallest / largest values in a column
Counts the number of cells in a column that contain numbers.

❖ **COUNT:**

Counts the number of cells in a column that are not empty.

❖ **COUNTA:**

Counts the number of blank cells in a column.
Counts the number of rows in the specified table, or in a table defined by an expression.

❖ **DISTINCTCOUNT:**

Counts the number of distinct values in a column.

4. Filter Functions

Returns a table that represents a subset of another table or expression i.e., a table containing only the filtered rows

Syntax:

FILTER(<table>,<filter>)

Example:

* Total Sales FILTER('Sales',
  RELATED('Sales' [Sales TerritoryCountry])<>"United States")