Power BI

DAX

Summary

Date & Time Functions

TODAY(): Returns the current date
Example: TODAY() → 17-06-2025

NOW(): Returns the current date and time
Example: NOW() → 17-06-2025 17:22

YEAR(date): Extracts year from a date
Example: YEAR('Sales'[Order Date]) → 2025

MONTH(date): Extracts month number from a date
Example: MONTH('Sales'[Order Date]) → 6

DAY(date): Extracts day from a date
Example: DAY('Sales'[Order Date]) → 17

DATEDIFF(start_date, end_date, interval): Calculates difference between two dates
Example: DATEDIFF('Sales'[Order Date], 'Sales'[Delivery Date], DAY) → 5

EOMONTH(date, months): Returns end of month
Example: EOMONTH('Sales'[Order Date], 0) → 30-06-2025

Aggregation Functions

SUM(column): Adds up all values in a column
Example: SUM('Sales'[Amount]) → ₹1,00,000

AVERAGE(column): Returns average of values
Example: AVERAGE('Sales'[Profit]) → ₹2,350

MIN(column): Returns the minimum value
Example: MIN('Sales'[Quantity]) → 1

MAX(column): Returns the maximum value
Example: MAX('Sales'[Discount]) → 30

COUNT(column): Counts non-blank values
Example: COUNT('Customer'[Customer ID]) → 2300

COUNTA(column): Counts non-empty values (text + numbers)
Example: COUNTA('Customer'[Email]) → 2265

COUNTROWS(table): Counts rows in a table
Example: COUNTROWS('Orders') → 10,000

Text Functions

CONCATENATE(text1, text2): Joins two text values
Example: CONCATENATE('Customer'[First Name], " ", 'Customer'[Last Name]) → "Apoorva Iyer"

LEFT(text, num_chars): Returns first N characters
Example: LEFT('Product'[Product Code], 3) → "PRO"

RIGHT(text, num_chars): Returns last N characters
Example: RIGHT('Product'[Product Code], 4) → "1002"

LEN(text): Returns number of characters
Example: LEN('Customer'[Email]) → 22

SEARCH(find_text, within_text): Finds position of text
Example: SEARCH("Gold", 'Customer'[Membership]) → 1

Logical Functions

IF(condition, true, false): Returns different values based on condition
Example: IF('Sales'[Amount] > 1000, "High", "Low")

SWITCH(expression, value1, result1, ..., else): Replaces multiple IFs
Example: SWITCH('Sales'[Region], "East", 1, "West", 2, "Others")

AND(cond1, cond2): Returns TRUE if all conditions are true
Example: AND('Sales'[Amount] > 500, 'Sales'[Profit] > 0)

OR(cond1, cond2): Returns TRUE if any condition is true
Example: OR('Sales'[Discount] > 20, 'Sales'[Quantity] > 5)

NOT(condition): Reverses logic
Example: NOT('Sales'[Is Returned])

Filtering Functions

CALCULATE(expression, filters): Changes context
Example: CALCULATE(SUM('Sales'[Amount]), 'Region'[Name] = "South")

FILTER(table, condition): Filters rows of a table
Example: FILTER('Sales', 'Sales'[Profit] < 0)

ALL(column/table): Removes all filters
Example: CALCULATE(SUM('Sales'[Amount]), ALL('Sales'))

ALLEXCEPT(table, column): Removes filters except on one column
Example: CALCULATE(SUM('Sales'[Amount]), ALLEXCEPT('Sales', 'Sales'[Region]))

SELECTEDVALUE(column): Returns selected value or blank
Example: SELECTEDVALUE('Product'[Category])

ALLSELECTED(column): Keeps only report-level filters
Example: CALCULATE(SUM('Sales'[Amount]), ALLSELECTED('Sales'[Region]))

Time Intelligence Functions

TOTALYTD(expr, dates, filter): Year-to-date total
Example: TOTALYTD(SUM('Sales'[Amount]), 'Date'[Date])

SAMEPERIODLASTYEAR(dates): Same period last year
Example: CALCULATE(SUM('Sales'[Amount]), SAMEPERIODLASTYEAR('Date'[Date]))

DATEADD(dates, number, interval): Moves date forward/backward
Example: CALCULATE(SUM('Sales'[Amount]), DATEADD('Date'[Date], -1, MONTH))

Time Intelligence Functions

PARALLELPERIOD(dates, number, interval): Parallel date period
Example: PARALLELPERIOD('Date'[Date], -1, YEAR)

DATESYTD(dates): Returns all dates YTD
Example: DATESYTD('Date'[Date])

DATESMTD(dates): Returns all dates MTD
Example: DATESMTD('Date'[Date])

DATESQTD(dates): Returns all dates QTD
Example: DATESQTD('Date'[Date])

Ranking Functions

RANKX(table, expression): Rank values
Example: RANKX(ALL('Sales'[Product]), SUM('Sales'[Amount]), , DESC)

TOPN(n, table, expression, order): Returns top N rows
Example: TOPN(5, 'Sales', 'Sales'[Amount], DESC)

Maths Functions

ROUND(number, digits): Rounds number
Example: ROUND('Sales'[Profit], 2) → 234.67

DIVIDE(numerator, denominator, alt): Safe division
Example: DIVIDE('Sales'[Profit], 'Sales'[Amount], 0)

ABS(number): Absolute value
Example: ABS('Sales'[Profit])

MOD(number, divisor): Remainder
Example: MOD('Product'[ID], 2)

POWER(number, power): Exponentiation
Example: POWER('Sales'[Quantity], 2)

INT(number): Converts to integer
Example: INT('Sales'[Amount])

Relationship Functions

RELATED(column): Fetches value from related table
Example: RELATED('Customer'[Customer Name])

RELATEDTABLE(table): Returns related rows
Example:
COUNTROWS(RELATEDTABLE('Orders'))

Context & Evaluation Functions

HASONEVALUE(column): Checks if one value is selected
Example: HASONEVALUE('Product'[Category])

ISFILTERED(column): Returns TRUE if filtered
Example: ISFILTERED('Sales'[Region])

ISCROSSFILTERED(column): Cross-filter check
Example: ISCROSSFILTERED('Product'[Category])

ISINSCOPE(column): Grouping or hierarchy check
Example: ISINSCOPE('Date'[Month])

VALUES(column): Unique values
Example: VALUES('Customer'[Region])

Statistical & Counting Functions

DISTINCTCOUNT(column): Unique value count
Example: DISTINCTCOUNT('Sales'[Customer ID]) → 1024

COUNTBLANK(column): Blank count
Example: COUNTBLANK('Orders'[Ship Date]) → 78

PERCENTILE.INC(column, k): Inclusive percentile
Example: PERCENTILE.INC('Sales'[Amount], 0.90) → ₹9800

PERCENTILE.EXC(column, k): Exclusive percentile
Example: PERCENTILE.EXC('Sales'[Amount], 0.90) → ₹9600

MEDIAN(column): Middle value
Example: MEDIAN('Sales'[Discount]) → 10

GEOMEAN(column): Geometric mean
Example: GEOMEAN('Sales'[Growth Rate])

Information Functions

ISBLANK(value): Checks if blank
Example: ISBLANK([Profit Margin]) → TRUE

ISNUMBER(value): Checks if number
Example: ISNUMBER('Sales'[Quantity])

ISTEXT(value): Checks if text
Example: ISTEXT('Customer'[Name])

ISEVEN(number): Even number check
Example: ISEVEN('Sales'[Order ID])

ISODD(number): Odd number check
Example: ISODD('Sales'[Order ID])

Advanced Filtering & Context

REMOVEFILTERS(column): Removes filters
Example: CALCULATE(SUM('Sales'[Amount]),
REMOVEFILTERS('Sales'[Region]))

KEEPFILTERS(filter): Keeps existing filters
Example: CALCULATE(SUM('Sales'[Amount]),
KEEPFILTERS('Sales'[Category] = "Furniture"))

CROSSFILTER(col1, col2, direction): Sets filter direction
Example: CROSSFILTER('Customer'[Customer ID], 'Sales'[Customer ID], None)

TREATAS(table, column): Applies values as filters
Example:
TREATAS(VALUES('Region_Filter'[Region]), 'Sales'[Region])

USERELATIONSHIP(col1, col2): Enables inactive relationship
Example: CALCULATE(SUM('Sales'[Amount]), USERELATIONSHIP('Date'[Date], 'Sales'[Ship Date]))

Iterator Functions

SUMX(table, expression): Row-wise sum
Example: SUMX('Sales', 'Sales'[Quantity] * 'Sales'[Unit Price])

AVERAGEX(table, expression): Row-wise average
Example: AVERAGEX('Sales', 'Sales'[Amount])

MAXX(table, expression): Row-wise maximum
Example: MAXX('Products', 'Products'[Discount])

MINX(table, expression): Row-wise minimum
Example: MINX('Products', 'Products'[Discount])

COUNTX(table, expression): Row-wise count
Example: COUNTX('Sales', 'Sales'[Profit])

Table Functions

SUMMARIZE(table, groupBy_column, ...): Groups table
Example: SUMMARIZE('Sales', 'Sales'[Region], "Total", SUM('Sales'[Amount]))

ADDCOLUMNS(table, name, expression): Adds calculated column
Example: ADDCOLUMNS('Sales', "Profit%", DIVIDE('Sales'[Profit], 'Sales'[Amount]))

CROSSJOIN(table1, table2): Cartesian join
Example: CROSSJOIN('Product', 'Region')

UNION(table1, table2): Appends tables
Example: UNION('Returns2024', 'Returns2025')

EXCEPT(table1, table2): Table difference
Example: EXCEPT('FullList', 'BlockedList')

Financial Functions

XIRR(values, dates): Internal rate of return
Example: XIRR('CashFlow'[Amount], 'CashFlow'[Date])

XNPV(rate, values, dates): Net present value
Example: XNPV(0.1, 'CashFlow'[Amount], 'CashFlow'[Date])