WEEK 8 CHALLENGE

A. Explain Table manipulation functions – CROSSJOIN, EXCEPT, INTERSECT with examples

CROSSJOIN

Cross Join:

Returns a table that contains the Cartesian product of all rows from all tables in the arguments. The columns in the new table are all the columns in all the argument tables.

Syntax:

CROSSJOIN(<table>, <table>[, <table>]…)

Parameters:

- Term Definition
- table Any DAX expression that returns a table of data

Return value: A table that contains the Cartesian product of all rows from all tables in the arguments. Insert the tables which you want to combine then go to data view select new table option then type crossjoin ('Table1','Table2').

EXCEPT

Except:

Returns the rows of one table which do not appear in another table. Left table determines the column names.

Syntax:

EXCEPT(<table_expression1>, <table_expression2>

Parameters:

- Term Definition
- Table_expression Any DAX expression that returns a table.

Return value: A table that contains the rows of one table minus all the rows of another table.

INTERSECT

Intersect:

Returns the row intersection of two tables, retaining duplicates.

Syntax:

INTERSECT(<table_expression1>, <table_expression2>)

Parameters:

- Term Definition
- Table_expression Any DAX expression that returns a table.

Return value: A table that contains all the rows in table_expression1 that are also in table_expression2

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B. Explain Relationship functions – RELATED, RELATEDTABLE and USERELATIONSHIPS with examples.

<div align="center">RELATED</div>

RELATED   : Returns a related value from another table.

Syntax   **:** RELATED(<column>)

Parameters:

- Term   Definition
- column The column that contains the values you want to retrieve.

Return value:

A single value that is related to the current row.

<div align="center">RELATEDTABLE</div>

RELATEDTABLE : Evaluates a table expression in a context modified by the given filters.

Syntax : RELATEDTABLE(<tableName>)

Parameters : Term Definition tableName The name of an existing table using standard DAX syntax. It cannot be an expression.

Return value : A table of values.

<div align="center">USERELATIONSHIPS</div>

USERELATIONSHIP : Specifies the relationship to be used in a specificcalculation as the one that exists between columnName1 and columnName2.

Syntax   **:** USERELATIONSHIP(<columnName1>,<columnName2>)

Parameters:

Term	Definition

columnName1 : The name of an existing column, using standard DAX syntax and fully qualified, that usually represents the many side of the relationship to be used; if the arguments are given in reverse order the function will swap them before using them. This argument cannot be an expression.

columnName2 : The name of an existing column, using standard DAX syntax and fully qualified, that usually represents the one side or lookup side of the relationship to be used; if the arguments are given in reverse order the function will swap them before using them. This argument cannot be an expression.

Return :

value The function returns no value; the function only enables the indicated relationship for the duration of the calculation

WEEK 8 CHALLENGE

C. Create an automated calendar table using Order table and add column like Month and Year and apply date formatting

CALENDAR

Returns a table with a single column named "Date" that contains a contiguous set of dates. The range of dates is from the specified start date to the specified end date, inclusive of those two dates.

Syntax

CALENDAR(<start_date>, <end_date>)

Parameters

Term Definition

- start_date Any DAX expression that returns a datetime value.
- end_date Any DAX expression that returns a datetime value.

Return value

Returns a table with a single column named "Date" containing a contiguous set of dates. The range of dates is from the specified start date to the specified end date, inclusive of those two dates.

CALENDAR AUTO Returns a table with a single column named "Date" that contains a contiguous set of dates. The range of dates is calculated automatically based on data in the model.

Syntax: CALENDARAUTO([fiscal_year_end_month])

Parameters

Term   Definition

fiscal_year_end_month   Any DAX expression that returns an integer from 1 to 12. If omitted, defaults to the value specified in the calendar table template for the current user, if present; otherwise, defaults to 12.

Return value : Returns a table with a single column named "Date" that contains a contiguous set of dates. The range of dates is calculated automatically based on data in the model.