The Date table

INTRODUCTION TO DAX IN POWER BI



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Working with dates

Example Date: 2020/09/20 12:52

Date and Time Functions

- YEAR(<date>) > 2020
- QUARTER(<datetime>) > 3
- MONTH(<datetime>) > 9

Format Function

- Weekday: FORMAT(<date>, <"dddd">) >Friday
- Time: FORMAT(<date>, <"h:nn:ss">) > "12:52:00"

Time Intelligence Functions

- LASTDATE()
- DATESBETWEEN()
- DATEADD()

¹ https://docs.microsoft.com/en-us/dax/format-function-dax

Working with dates

- Evaluate data in time-series to spot trends and patterns i.e seasonal performance
- Out of the box features:
 - 20+ Date and Time Functions
 - 30+ Time Intelligence Functions
 - Automatically enabled date hierarchies
 - Drill-able to year, quarter, month and day

The importance of a date table

Issues of relying on only dates from transactional tables:

- Gaps in dates i.e no sales made on 20th September
- Returns wrong results when using time-intelligence functions
 - No error, wrong result
 - Difficult to troubleshoot

• A dedicated date table is highly recommended for accurate reporting using timeintelligence functions.

Benefits:

- Filter by multiple date attributes such as Year and Month
- Custom calendar view/definitions such as fiscal dates
- Use of time-intelligence features to select a time horizon (e.g Today, Yesterday, Last 30 days)

Types of Analysis:

• Revenue by Day of Week, Fiscal Performance, Public Holidays

CALENDAR()

- Syntax: CALENDAR(<start_date>, <end_date>)
- Returns a table with a single column 'date' that contains a continuous set of dates inclusive
 of the specified dates
- Example: CALENDAR('2020-01-01', '2020-12-31')

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Date

2020-01-01

2020-01-02

•••

2020-12-31

CALENDARAUTO()

- Syntax: CALENDARAUTO(<fiscal_year_end_month>)
- Returns a table with a single column 'date' that automatically takes the earliest and latest date in the model and internally calls CALENDAR().
- Example: CALENDARAUTO(12)

CALENDARAUTO()

- Syntax: CALENDARAUTO(<fiscal_year_end_month>)
- Returns a table with a single column 'date' that automatically takes the earliest and latest date in the model and internally calls CALENDAR().
- Example: CALENDARAUTO(12)

Date

2020-01-01

2020-07-31

•••

2020-12-31

Let's practice!

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Dates and Quick Measures

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Let's practice!

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Congratulations!

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Course Recap

Chapter 1

- DAX functions
- Creating calculated columns
- Creating measures

Chapter 3

- Creating calculated tables
- Date and Time, Format and Time Intelligence Functions
- Quick Measures

Chapter 2

- Row vs. filter context
- Use of variables with VAR
- Working with iterator functions
- Using CALCULATE() to filter measures

Practice makes perfect!



Become a DAX master!

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