2022 

MS SQL New Functions, Syntaxes, Tips & Tricks

Damir Matešić

Senior database developer

Span d.d.



Damir Matešić



Senior database developer
Span d.d.

 linkedin.com/in/dmatesic

 dmatesic@gmail.com

 blog.matesic.info

Microsoft Data Platform MVP
Senior Database Developer @Span
SQL Server UG Croatia – Lead
#DataSaturdayCroatia Director
#DataWeekender
MCT



MS SQL New Functions, Syntaxes, Tips & Tricks – MSSQL2022

- STRING_SPLIT
- DATE_BUCKET
- GENERATE_SERIES
- The WINDOW Clause
- FIRST_VALUE, LAST_VALUE
- TRIM, LTRIM, RTRIM
- IS NOT DISTINCT
- GREATEST() & LEAST()
- Approximate Percentile Functions
- JSON enhancements
- DATETRUNC

STRING_SPLIT – SQL 2016

STRING_SPLIT (string , separator)

- table-valued function
- splitting string values by a separator

STRING_SPLIT

STRING_SPLIT (string , separator [, enable_ordinal])

DATE_BUCKET

DATE_BUCKET(<datepart>, <bucket_width>, <input date/time>
[, <origin>])

datePart

day

week

month

quarter

year

hour

minute

second

millisecond

Abbreviations

dd, d

wk, ww

mm, m

qq, q

yy, yyyy

hh

mi, n

ss, s

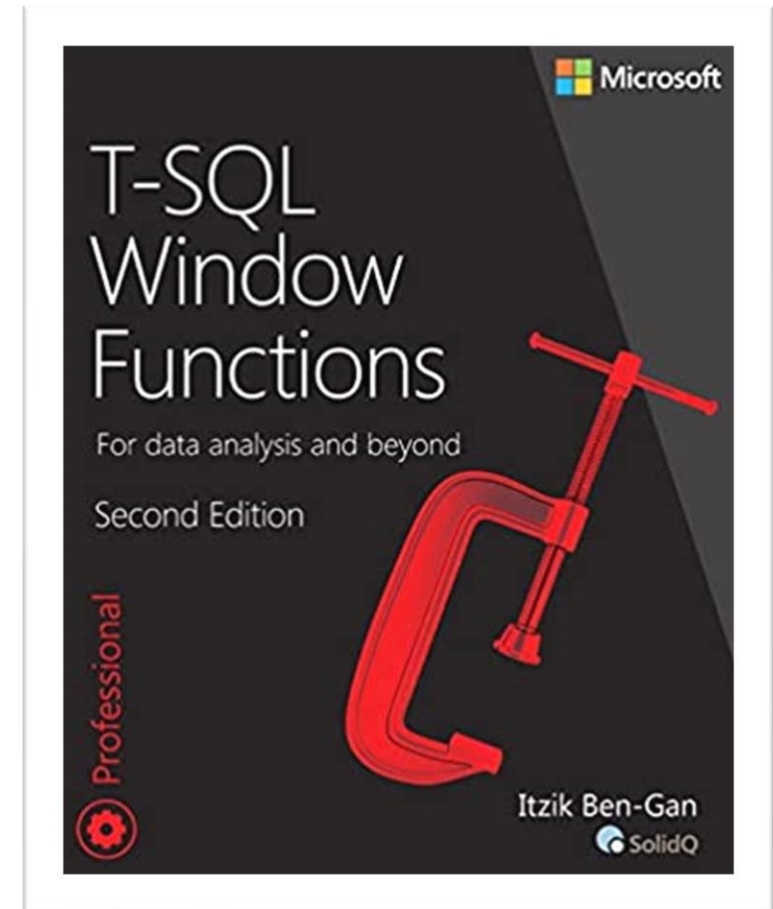
ms

GENERATE_SERIES

GENERATE_SERIES(<start>, <stop> [, STEP = <step>])

WINDOW

Itzik Ben-Gan



The WINDOW Clause

```
WINDOW window_name AS (  
    [ reference_window_name ]  
    [ <PARTITION BY clause> ]  
    [ <ORDER BY clause> ]  
    [ <ROW or RANGE clause> ]  
)
```

```
SELECT  
FROM  
WHERE  
GROUP BY  
HAVING  
WINDOW  
ORDER BY
```

FIRST_VALUE, LAST_VALUE

FIRST/LAST_VALUE ([scalar_expression])

OVER (

[partition_by_clause] order_by_clause [rows_range_clause]

)

TRIM, LTRIM, RTRIM

TRIM ([LEADING | TRAILING | BOTH] [characters FROM] string)

LTRIM (character_expression , [characters])

RTRIM (character_expression , [characters])

IS NOT DISTINCT (The Distinct Predicate)

IS [NOT] DISTINCT FROM

```
DECLARE @dt AS DATE = '20220212';  
SELECT orderid, shippeddate  
FROM Sales.Orders  
WHERE shippeddate = @dt;
```

```
DECLARE @dt AS DATE = NULL; ??
```

GREATEST() & LEAST()

GREATEST/LEAST (expression1 [,...expressionN])

- same data type or [implicitly convert](#)
- NULL
- Types not supported for comparison: varchar(max), varbinary(max) or nvarchar(max) exceeding 8,000 bytes, cursor, geometry, geography, image, non-byte-ordered user-defined types, ntext, table, text, and xml.

Approximate Percentile Functions

SQL Server 2005+:

PERCENTILE_CONT &
PERCENTILE_DISC

SQL Server 2022:

APPROX_PERCENTILE_CONT &
APPROX_PERCENTILE_DISC

JSON enhancements

SQL 2016

- Functions - ISJSON, JSON_VALUE, JSON_QUERY, JSON_MODIFY
- Operators - FOR JSON i OPENJSON

JSON enhancements

SQL 2016

- Functions - ISJSON, JSON_VALUE, JSON_QUERY, JSON_MODIFY
- Operators - FOR JSON i OPENJSON

SQL 2022

- ISJSON
- JSON_PATH_EXISTS
- JSON_OBJECT
- JSON_ARRAY

DATETRUNC

DATETRUNC (datepart, date)



DEMO

Thank you

Damir Matešić

[linkedin.com/in/dmatesic](https://www.linkedin.com/in/dmatesic)

dmatesic@gmail.com



Session evaluation

Your feedback is important to us



Evaluate this session at:

www.PASSDataCommunitySummit.com/evaluation

