
**Information technology — Guidance
for the use of database language
SQL —**

Part 9:
**Online analytic processing (OLAP)
capabilities (Guide/OLAP)**

*Langages de bases de données utilisés dans les technologies de
l'information — Recommandations pour l'utilisation du langage de
base de données SQL —*

*Partie 9: Capacités de traitement analytique en ligne (OLAP), (Guide/
OLAP)*

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Contents	Page
Foreword.....	vii
Introduction.....	ix
1 Scope.....	1
2 Normative references.....	2
3 Terms and definitions.....	3
4 Example data.....	4
4.1 Introduction to example data.....	4
4.2 Table sales history.....	4
4.3 Table stock1.....	5
4.4 Table stocks.....	6
4.5 Table homes.....	6
5 Windows.....	8
5.1 Introduction to windows.....	8
5.2 Window definitions.....	8
5.2.1 Introduction to window definitions.....	8
5.2.2 Window partitioning.....	9
5.2.3 Window ordering.....	10
5.2.3.1 Introduction to window ordering.....	10
5.2.3.2 Null ordering and treatment.....	11
5.2.4 Window frames.....	12
5.2.4.1 Introduction to window frames.....	12
5.2.4.2 Physical window frames.....	13
5.2.4.3 Logical window frames.....	15
5.2.4.3.1 Introduction to logical window frames.....	15
5.2.4.3.2 RANGE window frames.....	15
5.2.4.3.3 GROUPS window frames.....	16
5.2.4.4 Window frame exclusions.....	17
5.3 Explicit vs. implicit window definitions.....	18
5.4 Multiple window definitions.....	19
6 Window functions.....	20
6.1 Introduction to window functions.....	20
6.2 Rank functions.....	20
6.3 Distribution functions.....	21
6.4 Row number function.....	22
6.5 Window aggregate functions.....	23
6.6 Ntile function.....	26
6.7 LEAD and LAG functions.....	27
6.8 FIRST_VALUE and LAST_VALUE functions.....	29

6.9	NTH_VALUE function.....	30
6.10	Null treatment.....	32
7	Nested window functions.....	33
7.1	Introduction to nested window functions.....	33
7.2	Row markers.....	34
7.3	Offsets.....	35
7.4	FRAME_ROW.....	36
7.5	Nested ROW_NUMBER function.....	37
7.6	Effects of EXCLUDE.....	38
8	Enhanced aggregate functions.....	40
8.1	Introduction to enhanced aggregate functions.....	40
8.2	Unary statistical aggregate functions.....	40
8.3	Binary statistical aggregate functions.....	41
8.4	Hypothetical rank and distribution aggregate functions.....	44
8.5	Inverse distribution functions.....	45
	Bibliography.....	47
	Index.....	48

Tables

Table	Page
1 Table sales_history.	4
2 Table stock1.	5
3 Table stocks.	6
4 Table homes.	6
5 Result of window clause.	10
6 Result of window clause ordering.	11
7 Result of physical window frame, UNBOUNDED PRECEDING to CURRENT ROW.	13
8 Result of physical window frame, 2 PRECEDING to 1 FOLLOWING.	14
9 Result of logical window frame with RANGE.	15
10 Result of logical window frame with GROUPS.	16
11 Result of window frame exclusion 1.	17
12 Result of window frame exclusion 2.	18
13 Result of RANK and DENSE_RANK function.	21
14 Result of PERCENT_RANK and CUME_DIST functions.	22
15 Result of ROW_NUMBER function.	23
16 Result of aggregate function (SUM) ordered.	24
17 Result of aggregate function (SUM) unordered.	24
18 Result of aggregate function (AVG).	25
19 Result of aggregate function (NTILE) with partitioned query.	26
20 Result of aggregate function (NTILE) in non-partitioned query.	27
21 Result of aggregate function (LEAD).	28
22 Result of aggregate function (LAG).	28
23 Result of aggregate function (FIRST_VALUE).	29
24 Result of aggregate function (LAST_VALUE).	30
25 Result of aggregate function (NTH_VALUE).	31
26 Result of row markers.	34
27 Result of row markers (offsets).	35
28 Result of window frames with row markers.	36
29 Result of EXCLUDE.	38
30 Result of hypothetical aggregate functions.	44
31 Result of inverse distribution functions.	45
32 Result of inverse distribution functions with ordering.	46

Examples

Example	Page
1 Window clause.	9
2 Window clause ordering.	11
3 Physical window frame, UNBOUNDED PRECEDING to CURRENT ROW.	13
4 Physical window frame, 2 PRECEDING to 1 FOLLOWING.	14
5 Logical window frame with RANGE.	15
6 Logical window frame with GROUPS.	16
7 Window frame exclusion 1.	17
8 Window frame exclusion 2.	17
9 Explicit window definition.	18
10 Implicit window definition.	19
11 Multiple window definitions.	19
12 Rank functions with explicit window.	20
13 Rank functions with implicit window.	21
14 Distribution functions.	22
15 Row number function.	23
16 Window aggregate function (SUM) ordered.	23
17 Window aggregate function (SUM) unordered.	24
18 Window aggregate moving average.	25
19 NTILE in partitioned query.	26
20 NTILE in non-partitioned query.	26
21 LEAD function.	28
22 LAG function.	28
23 FIRST_VALUE function.	29
24 LAST_VALUE function.	30
25 NTH_VALUE function usage.	31
26 Equivalent NTH_VALUE function usage.	31
27 Null treatment with LEAD function.	32
28 Null treatment with FIRST_VALUE function.	32
29 Null treatment with LAST_VALUE function.	32
30 Q1: CASE expression in a window query.	33
31 Q2: Complex join.	33
32 Q3: VALUE_OF function usage.	34
33 Q4: frame_row and current_row in value_of function.	37
34 Weight function.	38
35 Hypothetical aggregate function.	44
36 Inverse distribution function.	45
37 Inverse distribution function ordered.	46

Foreword

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Introduction

This document discusses the syntax and semantics for including online analytic processing (OLAP) capabilities in SQL, as defined in ISO/IEC 9075-2.

The organization of this document is as follows:

- 1) **Clause 1, “Scope”**, specifies the scope of this document.
- 2) **Clause 2, “Normative references”**, identifies standards that are referenced as part of requirements by this document.
- 3) **Clause 3, “Terms and definitions”**, defines the terms and definitions used in this document.
- 4) **Clause 5, “Windows”**, discusses Feature T611, “Elementary OLAP operations” and Feature T612, “Advanced OLAP operations”, introducing the concept of a window in an SQL query.
- 5) **Clause 6, “Window functions”**, further discusses Feature T611, “Elementary OLAP operations” and Feature T612, “Advanced OLAP operations”, as well as Feature T614, “NTILE function”, Feature T615, “LEAD and LAG functions”, Feature T616, “Null treatment option for LEAD and LAG functions”, Feature T617, “FIRST_VALUE and LAST_VALUE functions”, and Feature T618, “NTH_VALUE function”.
- 6) **Clause 7, “Nested window functions”**, discusses the additional window functionality in Feature T619, “Nested window functions”.
- 7) **Clause 8, “Enhanced aggregate functions”**, discusses Feature T621, “Enhanced numeric functions” and its introduction of enhanced aggregate functions in SQL.

Information technology — Guidance for the use of database language SQL —

Part 9:

Online analytic processing (OLAP) capabilities (Guide/OLAP)

1 Scope

This document discusses the syntax and semantics for including online analytic processing (OLAP) capabilities in SQL, as defined in [ISO/IEC 9075-2](#).

It discusses the following features regarding OLAP capabilities of the SQL language:

- Feature T611, “Elementary OLAP operations”,
- Feature T612, “Advanced OLAP operations”,
- Feature T614, “NTILE function”,
- Feature T615, “LEAD and LAG functions”,
- Feature T616, “Null treatment option for LEAD and LAG functions”,
- Feature T617, “FIRST_VALUE and LAST_VALUE functions”,
- Feature T618, “NTH_VALUE function”,
- Feature T619, “Nested window functions”,
- Feature T620, “WINDOW clause: GROUPS option”,
- Feature T621, “Enhanced numeric functions”

2 Normative references

There are no normative references in this document.

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