## Distribution of Parameters for Generated SQL Queries on the TPC-H Database

```
## Scenario: 1-6jp_rjjp__g_hOss_hOnss

## Scale factor: 1 GB

## The 1000-query pack was generated on: 2023-11-12

## First column ('Query parameter or value') displays either:

## - a parameter name, or

## - a value of the current parameter (only for low-cardinality parameters).

## Second column ('Descriptive statistics') displays:

## - for low cardinality parameters: frequency and proportion from total (of 1000 queries)

## - for higher cardinality parameters: [min, median, max] mean / SD
```

Query parameter or value	Descriptive statistics
SELECT_n_of_columns	[1, 9, 195] 16 / 25
SELECT_n_of_non_aggr_funcLOG	
0	847 (85%)
1	114 (11%)
2	$19 \ (1.9\%)$
3	11 (1.1%)
4	4~(0.4%)
5	3~(0.3%)
6	1~(0.1%)
$\gamma$	1~(0.1%)
SELECT_n_of_non_aggr_funcLOWER	[0.00,  0.00,  10.00]  0.60  /  1.04
SELECT_n_of_non_aggr_funcLTRIM	[0.00,  0.00,  12.00]  0.64  /  1.20
SELECT_n_of_non_aggr_funcSUBSTR	[0.00,  0.00,  10.00]  0.63  /  1.19
SELECT_n_of_non_aggr_funcUPPER	
0	594~(59%)

Query parameter or value	Descriptive statistics
1	281 (28%)
10	1 (0.1%)
2	69~(6.9%)
3	$29\ (2.9\%)$
4	15 (1.5%)
5	7 (0.7%)
6	3~(0.3%)
7	1 (0.1%)
SELECT_n_of_non_aggr_funcRTRIM	
0	596 (60%)
1	247 (25%)
2	100 (10%)
3	26~(2.6%)
4	15~(1.5%)
5	5~(0.5%)
6	6~(0.6%)
7	4~(0.4%)
8	1 (0.1%)
SELECT_n_of_non_aggr_funcROUND	
0	914 (91%)
1	74~(7.4%)
2	9~(0.9%)
3	2~(0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_funcSQRT	
0	789 (79%)
1	$154 \ (15\%)$
2	$21\ (2.1\%)$
3	$13\ (1.3\%)$
4	9 (0.9%)
5	4 (0.4%)
6	2 (0.2%)
7	5 (0.5%)
8	3~(0.3%)
SELECT_n_of_non_aggr_funcDOW	244 (2404)
0	844 (84%)
1	112 (11%)
2	24 (2.4%)
3	9 (0.9%)
4	7 (0.7%)
5	2 (0.2%)
6	1 (0.1%)
	1 (0.1%)
SELECT_n_of_non_aggr_funcFLOOR	000 (0004)
0	903 (90%)
1	80 (8.0%)

Query parameter or value	Descriptive statistics
2	15 (1.5%)
3	1 (0.1%)
4	1(0.1%)
SELECT_n_of_non_aggr_funcTRUNC	,
0	917 (92%)
1	$63\ (6.3\%)$
2	$15\ (1.5\%)$
3	4 (0.4%)
4	1(0.1%)
SELECT_n_of_non_aggr_funcYEAR	(
9	820 (82%)
1	115 (12%)
10	1 (0.1%)
2	32 (3.2%)
3	15 (1.5%)
4	10 (1.0%)
5	4 (0.4%)
6	2(0.2%)
7	1 (0.1%)
SELECT_n_of_non_aggr_funcMONTH	[0.00, 0.00, 10.00] 0.38 / 1.03
<del></del>	[0.00, 0.00, 10.00] 0.38 / 1.03
SELECT_n_of_non_aggr_funcABS	912 (91%)
1	` ,
	$75 (7.5\%) \\ 10 (1.0\%)$
3	
)	1 (0.1%)
CELECTf DAV	$2\;(0.2\%)$
SELECT_n_of_non_aggr_funcDAY	079 (0707)
9	872 (87%)
1	101 (10%)
2	15 (1.5%)
3	5 (0.5%)
	4 (0.4%)
6 ~	2 (0.2%)
	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0, 3, 75] 5 / 9
SELECT_n_of_aggr_funcCOUNT_DISTINCT	[0.00, 0.00, 12.00] $0.88 / 2.02$
SELECT_n_of_aggr_funcMAX	[0.00,  0.00,  14.00]  0.80  /  1.95
SELECT_n_of_aggr_funcSUM	2.12 (2.204)
9	948 (95%)
1	35 (3.5%)
2	13 (1.3%)
3	2(0.2%)
4	1 (0.1%)
6	1 (0.1%)
SELECT_n_of_aggr_funcMIN	[0.00,  0.00,  14.00]  0.85  /  2.04
SELECT_n_of_aggr_funcCOUNT	[0.00, 0.00, 9.00] 0.86 / 1.78

Query parameter or value	Descriptive statistics
SELECT_n_of_aggr_funcAVG	
0	931 (93%)
1	$42\ (4.2\%)$
2	19 (1.9%)
3	7 (0.7%)
4	1 (0.1%)
SELECT_n_of_all_aggr_func	$[0.0, 3.0, 14.0] \ 3.6 \ / \ 3.2$
FROM_n_of_join_paths	
1	161 (16%)
2	177 (18%)
3	163 (16%)
4	163 (16%)
5	176 (18%)
6	160 (16%)
FROM_n_of_super_joinsFULL	` ,
0	546 (55%)
1	329(33%)
2	94 (9.4%)
3	$29\ (2.9\%)$
4	2(0.2%)
FROM_n_of_super_joinsLEFT	
0	548 (55%)
1	320 (32%)
2	107 (11%)
3	$23\ (2.3\%)$
4	1 (0.1%)
5	1~(0.1%)
FROM_n_of_super_joinsRIGHT	,
0	550 (55%)
1	301 (30%)
2	116 (12%)
3	$29\ (2.9\%)$
4	3(0.3%)
5	1 (0.1%)
FROM_n_of_joinsINNER	[0.00,  3.00,  12.00]   3.29  /   2.50
FROM_n_of_joinsRIGHT	[0.00, 3.00, 15.00] $[0.49]$ $[0.54]$
FROM_n_of_processed_rows	[5, 9,405,689, 44,913,661] 12,066,898 / 9,757,362
WHERE_n_of_predicates	[0.00, 3.00, 13.00] 3.74 / 2.98
WHERE_n_of_attribs_of_typecharacte	
0 $=$ $=$ $=$ $=$ $=$ $=$ $=$ $=$ $=$ $=$	371 (37%)
1	294 (29%)
2	188 (19%)
3	79 (7.9%)
4	41 (4.1%)
5	21 (2.1%)
6	6 (0.6%)
~	0.070)

Query parameter or value	Descriptive statistics
WHERE_n_of_attribs_of_typeinteger	
0	386 (39%)
1	277 (28%)
2	$193\ (19\%)$
$\vec{3}$	86 (8.6%)
4	41 (4.1%)
5	11 (1.1%)
$\stackrel{\circ}{6}$	6 (0.6%)
WHERE_n_of_attribs_of_typenumeric	0 (0.070)
0	596 (60%)
1	260 (26%)
2	107 (11%)
$\frac{2}{3}$	27 (2.7%)
	, ,
4	5 (0.5%)
5 WHIEDE C 44 12 C 4 2 L 4	5~(0.5%)
WHERE_n_of_attribs_of_typecharacter	OFF (CCOT)
0	655 (66%)
1	243 (24%)
2	79 (7.9%)
3	20 (2.0%)
4	3~(0.3%)
WHERE_n_of_attribs_of_typedate	
0	772~(77%)
1	183~(18%)
2	37 (3.7%)
3	8~(0.8%)
WHERE_n_of_pkey_attribs	
0	541 (54%)
1	296 (30%)
2	$122\ (12\%)$
3	$32\ (3.2\%)$
4	9 (0.9%)
WHERE n of connect OR	[0.00, 1.00, 12.00] $[2.16]$ $[2.45]$
WHERE_n_of_operatorsin	, , ,
0 = -1	554~(55%)
1	284 (28%)
2	108 (11%)
3	41 (4.1%)
4	12 (1.2%)
<del>7</del> 5	1 (0.1%)
WHERE_n_of_operators like	1 (0.170)
0	802 (80%)
<i>0</i> 1	168 (17%)
2	` /
$rac{z}{3}$	28 (2.8%)
	$2\;(0.2\%)$
WHERE_n_of_operatorsgreater_or_less	

Query parameter or value	Descriptive statistics
0	338 (34%)
1	283 (28%)
2	178 (18%)
3	99 (9.9%)
4	58 (5.8%)
5	25~(2.5%)
6	$16 \ (1.6\%)$
7	3~(0.3%)
WHERE_n_of_operatorsbetween	(
0	547 (55%)
1	275 (28%)
2	120 (12%)
3	43 (4.3%)
4	11 (1.1%)
5 6	$egin{array}{ccc} 2 & (0.2\%) \ 1 & (0.1\%) \end{array}$
7	1 (0.1%) 1 (0.1%)
WHERE n_of_non_aggr_funcABS	1 (0.170)
0	957 (96%)
1	43 (4.3%)
WHERE_n_of_non_aggr_funcMONTH	13 (1.570)
0	950 (95%)
1	49(4.9%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcTRUNC	
0	965~(97%)
1	34 (3.4%)
2	1~(0.1%)
WHERE_n_of_non_aggr_funcSQRT	000 (000)
0	862 (86%)
1	125 (13%)
WHERE is of non-agent time. BOUND	13 (1.3%)
WHERE_n_of_non_aggr_funcROUND 0	968 (97%)
1	31 (3.1%)
2	1 (0.1%)
WHERE n_of_non_aggr_func_DAY	1 (0.170)
0	966 (97%)
1	34 (3.4%)
WHERE_n_of_non_aggr_funcYEAR	
0	960 (96%)
1	$38\ (3.8\%)$
2	$2\;(0.2\%)$
$WHERE\_n\_of\_non\_aggr\_func\_\_DOW$	
0	968 (97%)
1	$30 \ (3.0\%)$

Query parameter or value	Descriptive statistics
2	2 (0.2%)
WHERE_n_of_non_aggr_funcLOG	
0	929~(93%)
1	$64 \ (6.4\%)$
2	7 (0.7%)
WHERE_n_of_non_aggr_funcFLOOR	
0	957 (96%)
1	$39 \ (3.9\%)$
2	4~(0.4%)
WHERE_n_of_all_non_aggr_func	
0	625~(63%)
1	249~(25%)
2	84 (8.4%)
3	36 (3.6%)
4	6~(0.6%)
GROUP_BY_n_of_columns	[0.00, 3.00, 12.00] 3.17 / 2.88
$HAVING\_n\_of\_main\_predicates$	
$\theta$	450 (45%)
1	186 (19%)
2	170 (17%)
3	194 (19%)
ORDER_BY_n_of_columns	
0	307 (31%)
1	310 (31%)
2	249~(25%)
3	100 (10%)
4	19 (1.9%)
5	7 (0.7%)
6	$8 \; (0.8\%)$
limit	[2, 518, 1,000] 508 / 289
offset	$[0,\ 0,\ 1{,}000]\ 246\ /\ 324$