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

```
## Scenario: 1-6jp_rjjp__g_hOss_hOnss

## Scale factor: 5 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, 168] 17 / 26
SELECT_n_of_non_aggr_funcLOG	
0	864 (86%)
1	98 (9.8%)
2	$23\ (2.3\%)$
3	8 (0.8%)
4	2~(0.2%)
5	4~(0.4%)
$\gamma$	1 (0.1%)
SELECT_n_of_non_aggr_funcDOW	
0	847 (85%)
1	111 (11%)
2	20~(2.0%)
3	$12\ (1.2\%)$
4	4 (0.4%)

Query parameter or value	Descriptive statistics
5	3 (0.3%)
6	$2\ (0.2\%)$
8	$1\ (0.1\%)$
SELECT_n_of_non_aggr_funcLTRIM	[0.00,  0.00,  9.00]  0.63  /  1.13
SELECT_n_of_non_aggr_funcRTRIM	
0	606~(61%)
1	258~(26%)
2	82 (8.2%)
3	$27 \ (2.7\%)$
4	$12 \ (1.2\%)$
5	6~(0.6%)
6	5~(0.5%)
$\gamma$	4~(0.4%)
SELECT_n_of_non_aggr_funcSQRT	
$\theta$	796 (80%)
1	145~(15%)
2	$30 \ (3.0\%)$
3	11 (1.1%)
4	9 (0.9%)
5	4 (0.4%)
6	1 (0.1%)
7	2(0.2%)
8 CELECIE C CHECE	$2\;(0.2\%)$
SELECT_n_of_non_aggr_funcSUBSTR	ann (a1M)
0	608 (61%)
1	275 (28%)
10	2(0.2%)
2	66 (6.6%)
3	29 (2.9%)
4 5	$8 \ (0.8\%) \ 3 \ (0.3\%)$
6	6 (0.6%)
7	3 (0.3%)
SELECT_n_of_non_aggr_funcUPPER	3 (0.370)
0	617 (62%)
1	275 (28%)
2	55 (5.5%)
3	23 (2.3%)
4	15 (1.5%)
5	7 (0.7%)
6	2~(0.2%)
7	5 (0.5%)
8	1 (0.1%)
SELECT_n_of_non_aggr_funcYEAR	$[0.00, 0.00, 10.00] \ 0.30 \ / \ 0.89$
SELECT_n_of_non_aggr_funcLOWER	[0.00, 0.00, 9.00] $[0.63 / 1.07]$
SELECT_n_of_non_aggr_funcTRUNC	•

Query parameter or value	Descriptive statistics
0	919 (92%)
1	$64 \ (6.4\%)$
2	$14\ (1.4\%)$
3	$3\ (0.3\%)$
SELECT_n_of_non_aggr_funcABS	,
0	924 (92%)
1	$62 \; (6.2\%)$
2	11 (1.1%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_funcDAY	( ,
0	866 (87%)
1	100 (10%)
2	19 (1.9%)
3	7 (0.7%)
4	4 (0.4%)
<del>1</del> 5	3 (0.3%)
6	1 (0.1%)
SELECT_n_of_non_aggr_funcMONTH	1 (0.170)
9	802 (80%)
1	121 (12%)
10	121 (12%) $1 (0.1%)$
2	35 (3.5%)
2 3	19 (1.9%)
	9 (0.9%)
4	` /
	6 (0.6%)
6 7	5 (0.5%)
•	2(0.2%)
SELECT_n_of_non_aggr_funcROUND	000 (000/)
0	929 (93%)
1	59 (5.9%)
2	9 (0.9%)
3	1 (0.1%)
	$2 \; (0.2\%)$
SELECT_n_of_non_aggr_funcFLOOR	001 (0007)
0	921 (92%)
1	65 (6.5%)
2	11 (1.1%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0.0, 3.0, 77.0] $5.1 / 8.5$
SELECT_n_of_aggr_funcCOUNT	[0.00, 0.00, 14.00] 0.91 / 2.08
SELECT_n_of_aggr_funcMAX	[0.00,  0.00,  11.00]  0.87  /  2.02
SELECT_n_of_aggr_funcAVG	
0	922~(92%)
1	47~(4.7%)

Query parameter or value	Descriptive statistics
2	21 (2.1%)
3	8 (0.8%)
4	2(0.2%)
SELECT_n_of_aggr_funcMIN	[0.00,0.00,13.00]0.91/2.14
SELECT_n_of_aggr_funcCOUNT_DIST	INCT [0.00, 0.00, 14.00] 0.77 / 1.80
SELECT_n_of_aggr_funcSUM	
0	$939 \ (94\%)$
1	41 (4.1%)
2	$16 \ (1.6\%)$
3	1~(0.1%)
4	3~(0.3%)
SELECT_n_of_all_aggr_func	$[0.0,\ 3.0,\ 15.0]\ 3.7\ /\ 3.3$
$FROM_n_of_join_paths$	
1	154~(15%)
2	173 (17%)
3	165~(17%)
4	166 (17%)
5	172~(17%)
6	170 (17%)
FROM_n_of_super_joinsFULL	
0	531 (53%)
1	$336 \ (34\%)$
2	112 (11%)
3	20~(2.0%)
4	1 (0.1%)
FROM_n_of_super_joinsRIGHT	
0	559~(56%)
1	$296 \; (30\%)$
2	112 (11%)
3	$30 \ (3.0\%)$
4	2~(0.2%)
5	1~(0.1%)
FROM_n_of_super_joinsLEFT	
0	529~(53%)
1	$326 \; (33\%)$
2	119~(12%)
3	$23 \; (2.3\%)$
4	2~(0.2%)
5	1 (0.1%)
FROM_n_of_joinsINNER	[0.00,  3.00,  12.00]   3.29  /   2.49
FROM_n_of_joinsRIGHT	[0.00,  3.00,  13.00]   3.40  /   2.53
	$5,\ 46,500,091,\ 227,999,584]\ 59,940,429\ /\ 49,179,672$
WHERE_n_of_predicates	[0.00,  3.00,  13.00]   3.84  /   2.97
WHERE_n_of_attribs_of_typecharacter	,
0	663 (66%)
1	238~(24%)

76 (7.6%) 19 (1.9%) 3 (0.3%) 1 (0.1%)  368 (37%) 271 (27%) 177 (18%) 115 (12%) 42 (4.2%) 17 (1.7%) 10 (1.0%)  366 (37%) 287 (29%) 191 (19%)
19 (1.9%) 3 (0.3%) 1 (0.1%) 368 (37%) 271 (27%) 177 (18%) 115 (12%) 42 (4.2%) 17 (1.7%) 10 (1.0%) 366 (37%) 287 (29%)
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94 (9.4%)
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12 (1.2%)
6 (0.6%)
1 (0.1%)
= (0.=,0)
588 (59%)
275 (28%)
93 (9.3%)
36 (3.6%)
7 (0.7%)
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176 (18%)
34 (3.4%)
6 (0.6%)
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= (0.=,0)
523 (52%)
326 (33%)
105 (11%)
36 (3.6%)
8 (0.8%)
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I (U.170)
1 (0.1%) 1 (0.1%)
1 (0.1%)
` ,
1 (0.1%)

Query parameter or value	Descriptive statistics
2	117 (12%)
3	$46 \ (4.6\%)$
4	$12 \ (1.2\%)$
5	4~(0.4%)
WHERE_n_of_operatorsgreater_or_less WHERE_n_of_operatorslike	$[0.00, 1.00, 9.00] \ 1.42 \ / \ 1.43$
0	777 (78%)
1	183 (18%)
2	36 (3.6%)
3	4 (0.4%)
WHERE_n_of_operatorsin	,
0	542 (54%)
1	298 (30%)
2	114 (11%)
3	$33 \ (3.3\%)$
4	$10 \ (1.0\%)$
5	$3\;(0.3\%)$
WHERE_n_of_non_aggr_funcFLOOR	(
0	960 (96%)
1	$40 \ (4.0\%)$
WHERE_n_of_non_aggr_funcROUND	0.69 (0.604)
0	962 (96%)
WHERE_n_of_non_aggr_funcSQRT	38 (3.8%)
0	874 (87%)
1	119 (12%)
2	7 (0.7%)
WHERE n_of_non_aggr_funcTRUNC	(01170)
0	950 (95%)
1	49 (4.9%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcLOG	,
0	916 (92%)
1	80 (8.0%)
2	$3\;(0.3\%)$
3	$1\;(0.1\%)$
WHERE_n_of_non_aggr_funcDOW	4
0	965 (97%)
1	$35 \; (3.5\%)$
WHERE_n_of_non_aggr_funcABS	046 (0604)
0	956 (96%)
1	42 (4.2%)
WHERE p of non agen tune MONTH	$2\;(0.2\%)$
WHERE_n_of_non_aggr_funcMONTH 0	057 (06%)
<i>0 1</i>	$957 \ (96\%) \ 42 \ (4.2\%)$
1	42 (4.2/0)

Query parameter or value	Descriptive statistics
2	1 (0.1%)
WHERE n_of_non_aggr_funcDAY	,
0	968 (97%)
1	28 (2.8%)
2	4 (0.4%)
WHERE_n_of_non_aggr_funcYEAR	,
0	969~(97%)
1	30~(3.0%)
2	1 (0.1%)
WHERE_n_of_all_non_aggr_func	
0	607 (61%)
1	271~(27%)
2	$97 \ (9.7\%)$
3	$21\ (2.1\%)$
4	4~(0.4%)
GROUP_BY_n_of_columns	[0.00,  2.00,  13.00]   3.14  /   2.94
HAVING_n_of_main_predicates	
0	$450 \ (45\%)$
1	179 (18%)
2	193~(19%)
3	178 (18%)
ORDER_BY_n_of_columns	
0	284~(28%)
1	349 (35%)
2	242~(24%)
3	82~(8.2%)
4	25~(2.5%)
5	10 (1.0%)
6	6~(0.6%)
8	2 (0.2%)
limit	[1, 497, 1,000] 491 / 289
offset	[0, 7, 1,000] 256 / 329