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

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## Scenario: 1-6jp_ujjp__g_hOss_hOnss

## Scale factor: 50 GB

## The 1000-query pack was generated on: 2023-11-10

## 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, 158] 16 / 23	
SELECT_n_of_non_aggr_funcLOWER	$[0.00,0.00,13.00]\;0.59\;/\;1.06$	
SELECT_n_of_non_aggr_funcLTRIM		
0	621~(62%)	
1	243~(24%)	
2	96~(9.6%)	
3	$21\ (2.1\%)$	
4	8~(0.8%)	
5	7 (0.7%)	
6	3~(0.3%)	
8	1 (0.1%)	
SELECT_n_of_non_aggr_funcDAY	, ,	
0	882 (88%)	
1	96 (9.6%)	
2	$13\ (1.3\%)$	

Query parameter or value	Descriptive statistics
3	6 (0.6%)
4	3(0.3%)
SELECT_n_of_non_aggr_funcFLOOR	, ,
0	923~(92%)
1	65~(6.5%)
2	11 (1.1%)
3	1~(0.1%)
SELECT_n_of_non_aggr_funcMONTH	
0	802~(80%)
1	$142 \ (14\%)$
2	31 (3.1%)
3	$13 \ (1.3\%)$
4	3~(0.3%)
5	5~(0.5%)
6	3~(0.3%)
7	1~(0.1%)
SELECT_n_of_non_aggr_funcRTRIM	
0	640 (64%)
1	247~(25%)
2	73~(7.3%)
3	$21 \ (2.1\%)$
4	$9\;(0.9\%)$
5	8~(0.8%)
6	2~(0.2%)
SELECT_n_of_non_aggr_funcSQRT	4
0	817 (82%)
1	126 (13%)
2	$33 \ (3.3\%)$
3	10 (1.0%)
4	8 (0.8%)
5	3 (0.3%)
	3~(0.3%)
SELECT_n_of_non_aggr_funcUPPER	204 (20M)
0	624 (62%)
1	268 (27%)
2	67 (6.7%)
3	23 (2.3%)
4	8 (0.8%)
5	8 (0.8%)
6	1 (0.1%)
	1 (0.1%)
SELECT_n_of_non_aggr_funcDOW	057 (0607)
0	857 (86%)
1	102 (10%)
2	26 (2.6%)
3	8 (0.8%)

Query parameter or value	Descriptive statistics
4	6 (0.6%)
5	1 (0.1%)
SELECT_n_of_non_aggr_funcYEAR	
0	827 (83%)
1	135 (14%)
2	$21\ (2.1\%)$
3	10 (1.0%)
4	4~(0.4%)
5	2~(0.2%)
7	1 (0.1%)
SELECT_n_of_non_aggr_funcSUBSTR	
0	627~(63%)
1	267 (27%)
2	67 (6.7%)
3	17(1.7%)
4	7 (0.7%)
5	9 (0.9%)
6	3~(0.3%)
γ	1 (0.1%)
g	2(0.2%)
SELECT_n_of_non_aggr_funcABS	,
0	923~(92%)
1	67 (6.7%)
2	9~(0.9%)
4	1~(0.1%)
SELECT_n_of_non_aggr_funcLOG	
0	863~(86%)
1	105 (11%)
2	23~(2.3%)
3	7 (0.7%)
4	1~(0.1%)
5	1~(0.1%)
SELECT_n_of_non_aggr_funcROUND	
0	909 (91%)
1	78 (7.8%)
2	$12\ (1.2\%)$
3	1 (0.1%)
SELECT_n_of_non_aggr_funcTRUNC	
0	939 (94%)
1	55 (5.5%)
2	5~(0.5%)
3	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0.0, 3.0, 70.0] 4.6 / 6.8
SELECT_n_of_aggr_funcMIN	[0.00, 0.00, 10.00] 0.77 / 1.81
SELECT_n_of_aggr_funcCOUNT	[0.00, 0.00, 14.00] 0.86 / 2.01
SELECT_n_of_aggr_funcCOUNT_DISTINCT	[0.00, 0.00, 13.00] 0.88 / 1.98

Query parameter or value	Descriptive statistics
SELECT_n_of_aggr_funcMAX	[0.00, 0.00, 14.00] 0.94 / 2.11
$SELECT_n_of_aggr_func__SUM$	
0	936 (94%)
1	38 (3.8%)
2	19~(1.9%)
3	6~(0.6%)
4	1~(0.1%)
SELECT_n_of_aggr_funcAVG	
0	$920 \ (92\%)$
1	48 (4.8%)
2	19 (1.9%)
3	10 (1.0%)
4	2 (0.2%)
5	1~(0.1%)
SELECT_n_of_all_aggr_func	$[0.0, \ 3.0, \ 15.0] \ 3.7 \ / \ 3.2$
FROM_n_of_join_paths	
1	167 (17%)
2	$159 \ (16\%)$
3	166 (17%)
4	171 (17%)
5	181 (18%)
6	156 (16%)
FROM_n_of_super_joinsRIGHT	
0	521~(52%)
1	329 (33%)
2	124~(12%)
3	$25 \; (2.5\%)$
4	1~(0.1%)
FROM_n_of_super_joinsFULL	
0	561~(56%)
1	301 (30%)
2	$117 \ (12\%)$
3	18 (1.8%)
4	$3\;(0.3\%)$
FROM_n_of_super_joinsLEFT	
0	530~(53%)
1	336 (34%)
2	110 (11%)
3	$22\;(2.2\%)$
4	$2\;(0.2\%)$
FROM_n_of_joinsINNER	[0.00, 3.00, 13.00] 3.22 / 2.42
FROM_n_of_joinsRIGHT	[0.00, 3.00, 13.00] $[0.33]$ $[0.33]$ $[0.33]$
FROM_n_of_processed_rows	[5, 471,712,935, 2,165,059,023] $596,450,918$ /
	493,730,670
WHERE_n_of_predicates	[0.00, 3.00, 13.00] 3.85 / 2.97
WHERE_n_of_attribs_of_typecharact	ter varying

Query parameter or value	Descriptive statistics
0	335 (34%)
1	294 (29%)
2	$195\ (20\%)$
3	102 (10%)
4	48 (4.8%)
5	17(1.7%)
6	7 (0.7%)
7	1(0.1%)
8	1(0.1%)
WHERE_n_of_attribs_of_typeinteger	(
	394 (39%)
1	285 (29%)
2	176 (18%)
~ 3	96 (9.6%)
4	32 (3.2%)
4 5	15 (1.5%)
6	2(0.2%)
WHERE_n_of_attribs_of_typenumeric	2 (0.270)
9	592 (59%)
) 1	270 (27%)
2	95 (9.5%)
	, ,
3	32 (3.2%)
4	10 (1.0%)
5	1~(0.1%)
WHERE_n_of_attribs_of_typedate	770 (7704)
0	770 (77%)
1	183 (18%)
2	37 (3.7%)
3	9 (0.9%)
4	1~(0.1%)
WHERE_n_of_attribs_of_typecharacter	
9	641 (64%)
1	244~(24%)
2	93~(9.3%)
3	18 (1.8%)
4	4~(0.4%)
WHERE_n_of_pkey_attribs	
0	560~(56%)
1	283~(28%)
2	124~(12%)
3	$26\ (2.6\%)$
4	7 (0.7%)
WHERE_n_of_connect_OR	[0.00, 1.00, 10.00] $2.18 / 2.42$
WHERE_n_of_operatorsgreater_or_less	. , , , , , , , , , , , , , , , , , , ,
0	357 (36%)
1	247 (25%)

Query parameter or value	Descriptive statistics
2	178 (18%)
3	118 (12%)
4	67 (6.7%)
5	$23\ (2.3\%)$
6	6 (0.6%)
7	$3\ (0.3\%)$
8	1(0.1%)
WHERE_n_of_operatorsin	
0	519 (52%)
1	294 (29%)
2	127(13%)
3	47 (4.7%)
4	8 (0.8%)
5	5~(0.5%)
WHERE_n_of_operatorslike	
0	779 (78%)
1	183 (18%)
2	$35 \; (3.5\%)$
3	2~(0.2%)
4	1 (0.1%)
WHERE_n_of_operatorsbetween	
0	519~(52%)
1	290~(29%)
2	$133 \ (13\%)$
3	41 (4.1%)
4	15 (1.5%)
5	2 (0.2%)
WHERE_n_of_non_aggr_funcLOG	
0	913 (91%)
1	$84 \ (8.4\%)$
2	3~(0.3%)
WHERE_n_of_non_aggr_funcMONTH	
0	$960 \; (96\%)$
1	$39 \ (3.9\%)$
2	1 (0.1%)
WHERE_n_of_non_aggr_funcDAY	
θ	964~(96%)
1	35~(3.5%)
3	1~(0.1%)
WHERE_n_of_non_aggr_funcTRUNC	
0	960~(96%)
1	$40 \ (4.0\%)$
WHERE_n_of_non_aggr_funcSQRT	
0	891 (89%)
1	99 (9.9%)
2	10 (1.0%)

Query parameter or value	Descriptive statistics
WHERE_n_of_non_aggr_funcFLOOR	
0	953 (95%)
1	45 (4.5%)
2	$2\;(0.2\%)$
WHERE_n_of_non_aggr_funcROUND	
0	960 (96%)
1	40 (4.0%)
WHERE_n_of_non_aggr_funcYEAR	,
0	956 (96%)
1	44 (4.4%)
WHERE_n_of_non_aggr_funcABS	
0	962 (96%)
1	$35\ (3.5\%)$
2	$3\ (0.3\%)$
WHERE_n_of_non_aggr_funcDOW	,
0	954 (95%)
1	43 (4.3%)
2	3~(0.3%)
WHERE_n_of_all_non_aggr_func	
0 = 0 = 0	607 (61%)
1	274 (27%)
2	87 (8.7%)
3	28 (2.8%)
4	2(0.2%)
5	1~(0.1%)
6	1 (0.1%)
GROUP_BY_n_of_columns	[0.00, 3.00, 12.00] $[3.11 / 2.87]$
HAVING_n_of_main_predicates	, , ,
0	437 (44%)
1	194 (19%)
2	193 (19%)
3	176 (18%)
ORDER_BY_n_of_columns	(-, 0)
0 $=$ $=$ $=$ $=$	313 (31%)
1	292 (29%)
2	247 (25%)
3	106 (11%)
4	$25 \ (2.5\%)$
5	7 (0.7%)
6	6 (0.6%)
7	4 (0.4%)
limit	[1, 503, 999] 497 / 293
offset	[0, 0, 998] 248 / 327
	[0, 0, 000] - 20 / 021