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

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## Scenario: 1-3jp_ujjp__g__h0-3ss_h0nss

## Scale factor: 0.01 GB

## The 1000-query pack was generated on: 2023-11-09

## 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, 6, 95] 10 / 13
SELECT_n_of_non_aggr_funcRTRIM	
0	694~(69%)
1	$236\ (24\%)$
2	37 (3.7%)
3	$21 \ (2.1\%)$
4	10~(1.0%)
6	$2\;(0.2\%)$
SELECT_n_of_non_aggr_funcUPPER	
0	694~(69%)
1	237~(24%)
2	$49 \ (4.9\%)$
3	11 (1.1%)
4	5 (0.5%)
5	3 (0.3%)

Query parameter or value	Descriptive statistics
7	1 (0.1%)
SELECT_n_of_non_aggr_funcLOWER	()
0	677 (68%)
1	257 (26%)
2	45~(4.5%)
3	$13 \ (1.3\%)$
4	7 (0.7%)
6	1~(0.1%)
SELECT_n_of_non_aggr_funcSQRT	
0	850 (85%)
1	110 (11%)
2	22 (2.2%)
3	14 (1.4%)
4	3 (0.3%)
5	1 (0.1%)
SELECT_n_of_non_aggr_funcDAY	000 (0107)
0	909 (91%)
1 2	76 (7.6%)
<i>z</i> <i>3</i>	$11 (1.1\%) \\ 2 (0.2\%)$
	2(0.2%) $2(0.2%)$
4 SELECT_n_of_non_aggr_funcLOG	2 (0.270)
0	895 (90%)
1	87 (8.7%)
2	17 (1.7%)
3	1 (0.1%)
SELECT_n_of_non_aggr_funcMONTH	,
0	849 (85%)
1	119~(12%)
2	18 (1.8%)
3	7 (0.7%)
4	4~(0.4%)
5	2~(0.2%)
6	1 (0.1%)
SELECT_n_of_non_aggr_funcSUBSTR	= 00 (= 004)
0	703 (70%)
1	218 (22%)
2	59 (5.9%)
3	11 (1.1%)
4	4 (0.4%)
5 6	4 (0.4%)
o SELECT_n_of_non_aggr_funcLTRIM	1~(0.1%)
0	679 (68%)
1	232 (23%)
2	68 (6.8%)
~	00 (0.070)

Query parameter or value	Descriptive statistics
3	16 (1.6%)
4	1 (0.1%)
5	3~(0.3%)
$\hat{\mathfrak{g}}$	1 (0.1%)
SELECT_n_of_non_aggr_funcDOW	(,
	892 (89%)
1	86 (8.6%)
	16 (1.6%)
,	4 (0.4%)
	2 (0.2%)
ELECT_n_of_non_aggr_funcFLOOR	2 (0.270)
	951 (95%)
) !	47 (4.7%)
	` ,
	2(0.2%)
SELECT_n_of_non_aggr_funcYEAR	960 (9607)
)	860 (86%)
	100 (10%)
	24 (2.4%)
)	11 (1.1%)
	$3\ (0.3\%)$
	1 (0.1%)
	1 (0.1%)
ELECT_n_of_non_aggr_funcTRUNC	
	940 (94%)
	52 (5.2%)
	6~(0.6%)
3	1~(0.1%)
	1~(0.1%)
ELECT_n_of_non_aggr_funcABS	
	942 (94%)
!	55 (5.5%)
	3~(0.3%)
ELECT_n_of_non_aggr_funcROUND	,
	944 (94%)
	50 (5.0%)
	5 (0.5%)
	1 (0.1%)
ELECT_n_of_all_non_aggr_func	[0.0, 2.0, 39.0] 3.4 / 4.8
ELECT_n_of_aggr_funcCOUNT_DISTING	
ELECT_n_of_aggr_funcMAX	[0.00, 0.00, 0.00] 0.70 / 1.59 $[0.00, 0.00, 10.00] 0.70 / 1.59$
ELECT_n_of_aggr_funcAVG	[0.00, 0.00, 10.00] 0.10 / 1.09
)	931 (93%)
	` ,
	54 (5.4%)
? 3	14 (1.4%)
	1 (0.1%)
ELECT_n_of_aggr_funcMIN	[0.00, 0.00, 10.00] 0.65 / 1.45

Query parameter or value	Descriptive statistics
SELECT_n_of_aggr_funcCOUNT	
0	784 (78%)
1	86 (8.6%)
2	45~(4.5%)
3	26~(2.6%)
4	$20 \ (2.0\%)$
5	14 (1.4%)
6	$14 \ (1.4\%)$
7	8 (0.8%)
8	3~(0.3%)
SELECT_n_of_aggr_funcSUM	
0	938 (94%)
1	$40 \ (4.0\%)$
2	17 (1.7%)
3	5 (0.5%)
SELECT_n_of_all_aggr_func	[0.00, 2.00, 12.00] 2.80/ 2.36
FROM_n_of_join_paths	224 (2264)
1	321 (32%)
2	318 (32%)
3 EDOM C EHILI	361~(36%)
FROM_n_of_super_joinsFULL	769 (7607)
0	763 (76%)
1 2	$\begin{array}{c} 214 \ (21\%) \\ 23 \ (2.3\%) \end{array}$
FROM_n_of_super_joinsRIGHT	23 (2.370)
θ	754 (75%)
1	210 (21%)
2	36 (3.6%)
FROM_n_of_super_joinsLEFT	00 (0.070)
0	763 (76%)
1	211 (21%)
2	26 (2.6%)
FROM_n_of_joinsINNER	
0	227 (23%)
1	273 (27%)
2	$215\ (22\%)$
3	136 (14%)
4	81 (8.1%)
5	47 (4.7%)
6	$13 \ (1.3\%)$
7	5~(0.5%)
8	3~(0.3%)
FROM_n_of_joinsRIGHT	
0	245~(25%)
1	228 (23%)
2	$238 \ (24\%)$

Query parameter or value	Descriptive statistics
3	146 (15%)
4	82 (8.2%)
5	41 (4.1%)
6	$13 \ (1.3\%)$
7	6 (0.6%)
8	1 (0.1%)
$FROM_n_of_processed_rows$	[5, 68, 305, 230, 025] 64, 960 / 60, 434
$WHERE_n_of_predicates$	[0.00, 2.00, 10.00] 2.80 / 2.24
$WHERE_n_of_attribs_of_type__character$	
0	735 (74%)
1	204~(20%)
2	50 (5.0%)
3	10~(1.0%)
4	1 (0.1%)
$WHERE_n_of_attribs_of_type__integer$	
θ	$436 \ (44\%)$
1	331 (33%)
2	159 (16%)
3	59 (5.9%)
4	$10 \ (1.0\%)$
5	4~(0.4%)
6	1~(0.1%)
WHERE_n_of_attribs_of_typecharacter_varying	
0	$450 \ (45\%)$
1	297 (30%)
2	$155 \; (16\%)$
3	69~(6.9%)
4	$23 \ (2.3\%)$
5	6~(0.6%)
WHERE_n_of_attribs_of_typedate	
0	839~(84%)
1	130 (13%)
2	$26 \ (2.6\%)$
3	5~(0.5%)
WHERE_n_of_attribs_of_typenumeric	
0	672~(67%)
1	243~(24%)
2	65~(6.5%)
3	$18 \ (1.8\%)$
4	$2\;(0.2\%)$
WHERE_n_of_pkey_attribs	(
0	623~(62%)
1	290 (29%)
2	72 (7.2%)
3	14 (1.4%)
4	1 (0.1%)

Query parameter or value	Descriptive statistics
WHERE_n_of_connect_OR	
0	466~(47%)
1	176 (18%)
2	122~(12%)
3	102~(10%)
4	67 (6.7%)
5	43~(4.3%)
6	18 (1.8%)
7	5~(0.5%)
8	1 (0.1%)
WHERE_n_of_operatorsgreater_or_less	
0	404~(40%)
1	303~(30%)
2	183 (18%)
3	73~(7.3%)
4	29~(2.9%)
5	7 (0.7%)
6	1~(0.1%)
WHERE_n_of_operatorsin	
θ	629~(63%)
1	257~(26%)
2	95~(9.5%)
3	17~(1.7%)
4	2~(0.2%)
$WHERE_n_of_operators__between$	
0	594~(59%)
1	280~(28%)
2	103~(10%)
3	$20 \ (2.0\%)$
4	2~(0.2%)
5	1~(0.1%)
WHERE_n_of_operatorslike	
0	824~(82%)
1	159~(16%)
2	$17 \ (1.7\%)$
WHERE_n_of_non_aggr_funcLOG	
0	935~(94%)
1	62~(6.2%)
2	3~(0.3%)
WHERE_n_of_non_aggr_funcROUND	
0	972 (97%)
1	28~(2.8%)
$WHERE_n_of_non_aggr_func__DOW$	
0	967~(97%)
1	$33 \; (3.3\%)$
WHERE_n_of_non_aggr_funcSQRT	

Query parameter or value	Descriptive statistics
9	906 (91%)
1	89 (8.9%)
2	5 (0.5%)
WHERE_n_of_non_aggr_funcABS	,
)	967 (97%)
1	$32\ (3.2\%)$
	1 (0.1%)
WHERE_n_of_non_aggr_funcFLOOR	
) = = = = = = = ==	972 (97%)
1	$27\ (2.7\%)$
	1 (0.1%)
VHERE_n_of_non_aggr_funcYEAR	(- , -,
)	978 (98%)
	21 (2.1%)
	1 (0.1%)
VHERE_n_of_non_aggr_funcDAY	2 (3.270)
)	973 (97%)
	26 (2.6%)
	1 (0.1%)
VHERE_n_of_non_aggr_funcTRUNC	1 (0.170)
	975 (98%)
	24 (2.4%)
	1 (0.1%)
VHERE_n_of_non_aggr_funcMONTH	1 (0.170)
	970 (97%)
	29 (2.9%)
	1 (0.1%)
VHERE_n_of_all_non_aggr_func	1 (0.170)
)	698 (70%)
	224 (22%)
	62 (6.2%)
, }	14 (1.4%)
	14(1.4%) $1(0.1%)$
	1 (0.1%) $1 (0.1%)$
GROUP_BY_n_of_columns	[0.00, 2.00, 11.00] 2.35 / 2.07
	[0.00, 2.00, 11.00] 2.33 / 2.07
HAVING_n_of_main_predicates	287 (29%)
	,
	83 (8.3%)
	166 (17%)
	187 (19%)
	134 (13%)
	89 (8.9%)
	54 (5.4%)
HAVING_n_of_main_predicatesscalar_subquery	44 / / - 04 \
)	414 (41%)
	216~(22%)

Query parameter or value	Descriptive statistics
2	187 (19%)
3	183 (18%)
HAVING_n_of_subqueriesscalar_subquery	$[0.0, 1.0, 25.0] \ 2.5 \ / \ 3.6$
HAVING_n_of_processed_rows_by_subqueries	[0, 3, 365, 2, 147, 250] $147, 846 / 323, 195$
ORDER_BY_n_of_columns	
0	271 (27%)
1	385 (39%)
2	244 (24%)
3	$74 \ (7.4\%)$
4	18 (1.8%)
5	2~(0.2%)
6	5~(0.5%)
7	1 (0.1%)
limit	[1, 495, 1,000] 502 / 290
offset	[0, 0, 1,000] 266 / 337