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

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## Scenario: 1-6jp_rjjp__g__h0-3ss_h0nss

## Scale factor: 0.01 GB

## The 1000-query pack was generated on: 2023-11-07

## 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, 8, 185] 14 / 22
SELECT_n_of_non_aggr_funcFLOOR	
0	910 (91%)
1	75 (7.5%)
2	$9\ (0.9\%)$
3	5~(0.5%)
5	1~(0.1%)
SELECT_n_of_non_aggr_funcLOWER	
0	621~(62%)
1	267 (27%)
2	79~(7.9%)
3	16 (1.6%)
4	11 (1.1%)
5	$2\;(0.2\%)$
6	1(0.1%)
	•

Query parameter or value	Descriptive statistics
$\overline{\gamma}$	3 (0.3%)
SELECT_n_of_non_aggr_funcRTRIM	[0.00, 0.00, 11.00] [0.58 / 1.00]
SELECT_n_of_non_aggr_funcSQRT	
0	832 (83%)
1	125 (13%)
2	25 (2.5%)
3	9 (0.9%)
4	2~(0.2%)
5	2 (0.2%)
6	3 (0.3%)
7	2(0.2%)
SELECT_n_of_non_aggr_funcSUBSTR SELECT_n_of_non_aggr_funcABS	[0.00, 0.00, 9.00] 0.54 / 0.94
0	921 (92%)
1	71 (7.1%)
2	$5~(0.5\%)^{'}$
3	$3\ (0.3\%)$
SELECT_n_of_non_aggr_funcLTRIM	,
0	644 (64%)
1	253~(25%)
2	67~(6.7%)
3	20~(2.0%)
4	9~(0.9%)
5	$2 \; (0.2\%)$
6	3~(0.3%)
γ	$2 \; (0.2\%)$
SELECT_n_of_non_aggr_funcUPPER	[0.00,0.00,9.00]0.59/1.02
SELECT_n_of_non_aggr_funcMONTH	[0.00,0.00,12.00]0.31/0.93
SELECT_n_of_non_aggr_funcYEAR 0	844 (84%)
1	117 (12%)
2	21 (2.1%)
~ 3	8 (0.8%)
4	4 (0.4%)
5	2~(0.2%)
6	3~(0.3%)
γ	1 (0.1%)
SELECT_n_of_non_aggr_funcDAY	,
0	886 (89%)
1	91 (9.1%)
2	16 (1.6%)
3	$3\ (0.3\%)$
4	2(0.2%)
5	1 (0.1%)
6	1~(0.1%)
SELECT_n_of_non_aggr_funcLOG	

Query parameter or value	Descriptive statistics
0	866 (87%)
1	112 (11%)
2	14 (1.4%)
3	$6\ (0.6\%)$
5	2(0.2%)
SELECT_n_of_non_aggr_funcDOW	` '
0	871 (87%)
1	98 (9.8%)
2	$16\ (1.6\%)$
3	7 (0.7%)
4	6 (0.6%)
5	2(0.2%)
SELECT_n_of_non_aggr_funcROUND	_ (0.270)
0	935 (94%)
1	56 (5.6%)
z	5 (0.5%)
~ 3	2(0.2%)
<i>5</i>	2(0.2%)
SELECT_n_of_non_aggr_funcTRUNC	2 (0.270)
0	919 (92%)
<i>0</i> 1	62 (6.2%)
z	17 (1.7%)
z 3	2(0.2%)
	[0.0, 3.0, 67.0] 4.5 / 7.0
SELECT_n_of_all_non_aggr_func	,
SELECT_n_of_aggr_funcCOUNT	[0.00, 0.00, 12.00] 0.81 / 1.83
SELECT_n_of_aggr_funcMIN	[0.00, 0.00, 11.00] 0.79 / 1.85
SELECT_n_of_aggr_funcSUM	007 (0007)
0	927 (93%)
1	43 (4.3%)
2	19 (1.9%)
3	7 (0.7%)
4	3 (0.3%)
5	1 (0.1%)
SELECT_n_of_aggr_funcCOUNT_DISTINCT	$[0.00, 0.00, 13.00] \ 0.87 \ / \ 2.00$
SELECT_n_of_aggr_funcMAX	[0.00, 0.00, 15.00] 0.84 / 1.90
SELECT_n_of_aggr_funcAVG	(
0	940 (94%)
1	39~(3.9%)
2	$16 \ (1.6\%)$
3	4~(0.4%)
4	1~(0.1%)
SELECT_n_of_all_aggr_func	[0.0, 3.0, 15.0] 3.5 / 3.1
FROM_n_of_join_paths	
1	162~(16%)
2	173 (17%)
3	186 (19%)

Query parameter or value	Descriptive statistics
4	177 (18%)
5	152 (15%)
6	150 (15%)
FROM_n_of_super_joinsLEFT	,
0	554 (55%)
1	302 (30%)
2	121 (12%)
3	$20\ (2.0\%)$
4	3 (0.3%)
FROM_n_of_super_joinsRIGHT	,
0 = 0	553 (55%)
1	322 (32%)
2	103 (10%)
3	20(2.0%)
4	2 (0.2%)
FROM_n_of_super_joinsFULL	,
0	551 (55%)
1	317 (32%)
2	108 (11%)
3	$22\ (2.2\%)$
4	2(0.2%)
FROM_n_of_joinsINNER	[0.00, 3.00, 13.00] $3.19 / 2.47$
FROM_n_of_joinsRIGHT	[0.00, 3.00, 12.00] $3.24 / 2.42$
FROM_n_of_processed_rows	[5, 93,203, 434,985] 117,971 / 97,033
WHERE_n_of_predicates	$[0.00, 3.00, 12.00] \ 3.62 \ / \ 2.94$
WHERE_n_of_attribs_of_typecharacter	, , ,
0	676 (68%)
1	237 (24%)
2	$73\ (7.3\%)$
3	$14\ (1.4\%)$
WHERE_n_of_attribs_of_typecharacter_varying	,
0	389 (39%)
1	305 (31%)
2	165 (17%)
3	80 (8.0%)
4	$36\ (3.6\%)$
5	$19\ (1.9\%)$
6	5 (0.5%)
7	1 (0.1%)
WHERE_n_of_attribs_of_typedate	, ,
0 = 0	782 (78%)
1	182 (18%)
2	$28 \ (2.8\%)$
3	6 (0.6%)
4	2(0.2%)
WHERE_n_of_attribs_of_typeinteger	,

Query parameter or value	Descriptive statistics
0	395 (40%)
1	280 (28%)
2	181 (18%)
3	94 (9.4%)
4	$36 \ (3.6\%)$
5	$10 \; (1.0\%)$
6	4~(0.4%)
WHERE_n_of_attribs_of_typenumeric	
0	586 (59%)
1	271 (27%)
2	90 (9.0%)
3	36 (3.6%)
4	12 (1.2%)
5	3 (0.3%)
6	2~(0.2%)
WHERE_n_of_pkey_attribs	EE9 (EE07)
0 1	$553~(55\%) \ 289~(29\%)$
2	122 (12%)
3	30 (3.0%)
4	4 (0.4%)
5	2(0.2%)
WHERE_n_of_connect_OR	[0.00, 1.00, 11.00] 2.04 / 2.42
WHERE_n_of_operatorsbetween	[0.00, 1.00, 11.00] 2.01/ 2.12
0	545 (55%)
1	$303\ (30\%)$
2	100 (10%)
3	39 (3.9%)
4	9~(0.9%)
5	4~(0.4%)
$WHERE_n_of_operators__greater_or_less$	
θ	347 (35%)
1	282 (28%)
2	175 (18%)
3	96 (9.6%)
4	64 (6.4%)
5	24 (2.4%)
6	9 (0.9%)
7	3 (0.3%)
WHERE_n_of_operatorsin	564 (5607)
0 1	564 (56%) 290 (29%)
2	90 (29%) $90 (9.0%)$
3	38 (3.8%)
	15 (1.5%)
<i>4 5</i>	2(0.2%)
	2 (0.270)

Query parameter or value	Descriptive statistics
7	1 (0.1%)
WHERE_n_of_operatorslike	
0	797 (80%)
1	176 (18%)
2	25~(2.5%)
3	$2\;(0.2\%)$
WHERE_n_of_non_aggr_funcABS	4
0	$958 \ (96\%)$
1	41 (4.1%)
2	1~(0.1%)
WHERE_n_of_non_aggr_funcFLOOR	(
0	962 (96%)
1	37 (3.7%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcMONTH	000 (070)
0	969 (97%)
1	31 (3.1%)
WHERE_n_of_non_aggr_funcSQRT	970 (990/)
0	879 (88%)
1 2	103 (10%)
<i>z</i> <i>3</i>	$16 \ (1.6\%) \\ 2 \ (0.2\%)$
WHERE_n_of_non_aggr_funcLOG	2 (0.270)
	926 (93%)
1	71 (7.1%)
2	3 (0.3%)
WHERE_n_of_non_aggr_funcTRUNC	3 (0. 3 /0)
0	954 (95%)
1	46 (4.6%)
WHERE n of non aggr func DAY	- (-, 0)
0 = 0 = 0 = 0	967~(97%)
1	$29 \ (2.9\%)$
2	4 (0.4%)
WHERE_n_of_non_aggr_funcDOW	` ,
0	955~(96%)
1	$43 \ (4.3\%)$
2	2~(0.2%)
WHERE_n_of_non_aggr_funcYEAR	
0	$949 \; (95\%)$
1	50 (5.0%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcROUND	
0	960 (96%)
1	39 (3.9%)
2	$1 \; (0.1\%)$
WHERE_n_of_all_non_aggr_func	

Query parameter or value	Descriptive statistics
0	617 (62%)
1	$267\ (27\%)$
2	77 (7.7%)
3	$27\ (2.7\%)$
4	9 (0.9%)
5	$2\;(0.2\%)$
6	1 (0.1%)
GROUP_BY_n_of_columns	[0.00, 3.00, 13.00] 3.08 / 2.81
HAVING_n_of_main_predicates	
0	291~(29%)
1	121~(12%)
2	$126 \ (13\%)$
3	193~(19%)
4	122~(12%)
5	88~(8.8%)
6	59 (5.9%)
HAVING_n_of_main_predicatesscalar_subquery	
0	452~(45%)
1	197~(20%)
2	164~(16%)
3	187 (19%)
HAVING_n_of_subqueriesscalar_subquery	$[0.0, 1.0, 27.0] \ 2.3 \ / \ 3.7$
HAVING_n_of_processed_rows_by_subqueries ORDER_BY_n_of_columns	[0, 8,283, 5,187,870] 279,111 / 604,688
	302 (30%)
1	345 (35%)
2	$226\ (23\%)$
3	91 (9.1%)
4	$19\ (1.9\%)$
5	7 (0.7%)
6	8 (0.8%)
7	2(0.2%)
limit	[1, 472, 999] 482 / 291
offset	[0, 23, 1,000] 243 / 318