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

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## Scenario: 1-3jp_rjjp__g_hOss_hOnss

## Scale factor: 5 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, 6, 91] 10 / 13
SELECT_n_of_non_aggr_funcLOG	
0	918 (92%)
1	69~(6.9%)
2	12~(1.2%)
3	1~(0.1%)
SELECT_n_of_non_aggr_funcLOWER	
0	664~(66%)
1	252~(25%)
2	57 (5.7%)
3	20~(2.0%)
4	6~(0.6%)
6	1~(0.1%)
SELECT_n_of_non_aggr_funcUPPER	
0	693~(69%)

Query parameter or value	Descriptive statistics
1	239 (24%)
2	$50 \ (5.0\%)$
3	11 (1.1%)
4	7 (0.7%)
SELECT_n_of_non_aggr_funcDAY	
0	909 (91%)
1	79 (7.9%)
2	9~(0.9%)
3	$3\;(0.3\%)$
SELECT_n_of_non_aggr_funcMONTH	
θ	830 (83%)
1	$131 \ (13\%)$
2	22~(2.2%)
3	$11 \ (1.1\%)$
4	4~(0.4%)
7	2~(0.2%)
SELECT_n_of_non_aggr_funcRTRIM	
0	656~(66%)
1	259~(26%)
2	57 (5.7%)
3	19 (1.9%)
4	5~(0.5%)
5	4~(0.4%)
SELECT_n_of_non_aggr_funcTRUNC	
0	$936 \ (94\%)$
1	63 (6.3%)
2	1 (0.1%)
SELECT_n_of_non_aggr_funcLTRIM	(
0	705 (71%)
1	221 (22%)
2	53 (5.3%)
3	14 (1.4%)
4	3(0.3%)
5	4 (0.4%)
SELECT_n_of_non_aggr_funcABS	000 (000/)
0	932 (93%)
1	62 (6.2%)
2	5 (0.5%)
generation of DOW	1 (0.1%)
SELECT_n_of_non_aggr_funcDOW	075 (0007)
0	875 (88%)
1	97 (9.7%)
2	21 (2.1%)
3	3 (0.3%)
4	3 (0.3%)
	1 (0.1%)

Query parameter or value	Descriptive statistics
SELECT_n_of_non_aggr_funcSQRT	
0	848 (85%)
1	$115\ (12\%)$
2	$24\ (2.4\%)$
3	9 (0.9%)
4	3~(0.3%)
5	1 (0.1%)
SELECT_n_of_non_aggr_funcSUBSTR	1 (0.170)
0	684 (68%)
1	241 (24%)
2	52 (5.2%)
3	13 (1.3%)
	4 (0.4%)
4	3(0.3%)
5	,
6 SELECT p of non-agen func. VEAD	3~(0.3%)
SELECT_n_of_non_aggr_funcYEAR	966 (9701)
0	866 (87%)
1	103 (10%)
2	20 (2.0%)
3	6 (0.6%)
4	4 (0.4%)
5	1~(0.1%)
SELECT_n_of_non_aggr_funcFLOOR	
0	$929 \; (93\%)$
1	64 (6.4%)
2	5~(0.5%)
3	2~(0.2%)
SELECT_n_of_non_aggr_funcROUND	
0	940 (94%)
1	55 (5.5%)
2	4 (0.4%)
3	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0.0, 2.0, 42.0] 3.4 / 4.6
SELECT_n_of_aggr_funcMIN	[0.00, 0.00, 9.00] $[0.74 / 1.54]$
SELECT_n_of_aggr_funcCOUNT_DISTINCT	[5155, 5155, 5155] 511 1 / 1151
	756 (76%)
1	78 (7.8%)
2	56 (5.6%)
$\frac{2}{3}$	46 (4.6%)
	· · · · · · · · · · · · · · · · · · ·
4	22 (2.2%)
5	23 (2.3%)
6	9(0.9%)
7	6 (0.6%)
8	4 (0.4%)
SELECT_n_of_aggr_funcMAX	[0.00, 0.00, 9.00] 0.61 / 1.41
SELECT_n_of_aggr_funcAVG	

Query parameter or value	Descriptive statistics
0	945 (95%)
1	38 (3.8%)
2	$13\ (1.3\%)$
3	$2\;(0.2\%)$
4	2(0.2%)
SELECT_n_of_aggr_funcCOUNT	$[0.00, 0.00, 10.00] \ 0.62 \ / \ 1.44$
SELECT_n_of_aggr_funcSUM	
0	$950 \; (95\%)$
1	34 (3.4%)
2	11 (1.1%)
3	$3\ (0.3\%)$
4	1(0.1%)
5	1 (0.1%)
SELECT_n_of_all_aggr_func	[0.00, 2.00, 10.00] $[2.78 / 2.30]$
FROM_n_of_join_paths	,
1	347 (35%)
2	$326\ (33\%)$
3	$327\ (33\%)$
FROM_n_of_super_joinsLEFT	,
0	770 (77%)
1	$208\ (21\%)$
2	$22\ (2.2\%)$
FROM_n_of_super_joinsFULL	,
0	755~(76%)
1	$223\ (22\%)$
2	$22\ (2.2\%)$
FROM_n_of_super_joinsRIGHT	,
0	795 (80%)
1	187 (19%)
2	18 (1.8%)
FROM_n_of_joinsINNER	` '
0	232~(23%)
1	$254\ (25\%)$
2	$220\ (22\%)$
3	154 (15%)
4	81 (8.1%)
5	44(4.4%)
6	10 (1.0%)
γ	4 (0.4%)
8	1 (0.1%)
FROM_n_of_joinsRIGHT	, ,
0 = \Rightarrow =	237~(24%)
1	291 (29%)
2	201 (20%)
3	126 (13%)
4	88 (8.8%)
1	(/)

Query parameter or value	Descriptive statistics
5	34 (3.4%)
6	17 (1.7%)
γ	$4(0.4\%)^{'}$
8	$2\ (0.2\%)$
$FROM_n_of_processed_rows$	[5, 34,050,188, 114,749,827] 33,800,719 / 30,503,330
WHERE_n_of_predicates	[0.00, 2.00, 9.00] 2.71 / 2.24
WHERE_n_of_attribs_of_type_	numeric
0	670~(67%)
1	229~(23%)
2	85~(8.5%)
3	$14 \ (1.4\%)$
4	2~(0.2%)
$WHERE_n_of_attribs_of_type_$	
θ	472 (47%)
1	$290 \ (29\%)$
2	154~(15%)
3	66~(6.6%)
4	13~(1.3%)
5	$3\;(0.3\%)$
6	2~(0.2%)
WHERE_n_of_attribs_of_type_	
0	476 (48%)
1	306 (31%)
2	$146 \ (15\%)$
3	$51 \ (5.1\%)$
4	$16 \ (1.6\%)$
5	5~(0.5%)
WHERE_n_of_attribs_of_type_	
0	717 (72%)
1	220~(22%)
2	51 (5.1%)
3	10 (1.0%)
4	$2\;(0.2\%)$
WHERE_n_of_attribs_of_type_	
0	843 (84%)
1	134 (13%)
2	20 (2.0%)
3	3~(0.3%)
WHERE_n_of_pkey_attribs	
0	650 (65%)
1	264 (26%)
2	65 (6.5%)
3	20 (2.0%)
4	$1 \; (0.1\%)$
WHERE_n_of_connect_OR	100 (100)
0	468 (47%)

Query parameter or value	Descriptive statistics
1	176 (18%)
2	126 (13%)
3	104 (10%)
4	58(5.8%)
5	$42\ (4.2\%)$
6	$16 \ (1.6\%)$
γ	$10 \ (1.0\%)$
$WHERE_n_of_operators__in$	
0	613 (61%)
1	279~(28%)
2	90 (9.0%)
3	13~(1.3%)
4	5~(0.5%)
WHERE_n_of_operatorsbetween	
0	600 (60%)
1	$283\ (28\%)$
2	$85 \ (8.5\%)$
3	$26 \ (2.6\%)$
4	5 (0.5%)
5	1~(0.1%)
WHERE_n_of_operatorsgreater_or_less	100 (100)
0	432 (43%)
1	290 (29%)
2	165 (17%)
3	76 (7.6%)
4	28 (2.8%)
5	6 (0.6%)
$rac{6}{7}$	$\begin{array}{c} 2 \ (0.2\%) \\ 1 \ (0.1\%) \end{array}$
•	1 (0.170)
WHERE_n_of_operatorslike 0	848 (85%)
1	133 (13%)
2	18 (1.8%)
2 3	16(1.8%) $1(0.1%)$
WHERE n of non aggr func FLOOR	1 (0.170)
0	975 (98%)
1	25 (2.5%)
WHERE_n_of_non_aggr_funcSQRT	20 (2.070)
0	906 (91%)
1	93 (9.3%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcDAY	(*,*)
0	974 (97%)
1	26 (2.6%)
WHERE_n_of_non_aggr_funcROUND	(,
0	976 (98%)
	(/

Query parameter or value	Descriptive statistics
1	24 (2.4%)
WHERE_n_of_non_aggr_funcMONTH	
0	980 (98%)
1	19 (1.9%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcABS	
0	968 (97%)
1	30 (3.0%)
2	2~(0.2%)
WHERE_n_of_non_aggr_funcYEAR	
θ	$983 \; (98\%)$
1	17 (1.7%)
WHERE_n_of_non_aggr_funcLOG	
θ	$948 \; (95\%)$
1	$50 \ (5.0\%)$
2	$2\;(0.2\%)$
WHERE_n_of_non_aggr_funcTRUNC	
0	969 (97%)
1	$30\ (3.0\%)$
2	1~(0.1%)
WHERE_n_of_non_aggr_funcDOW	0.0= (0=04)
0	967 (97%)
1	$33 \; (3.3\%)$
WHERE_n_of_all_non_aggr_func	700 (7907)
0	728 (73%)
1	197 (20%)
2 3	61 (6.1%) 14 (1.4%)
	[0.00, 2.00, 9.00] $[0.44 / 2.10]$
GROUP_BY_n_of_columns HAVING_n_of_main_predicates	[0.00, 2.00, 9.00] 2.44 / 2.10
0	431 (43%)
1	197 (20%)
2	189 (19%)
<i>3</i>	183 (18%)
ORDER_BY_n_of_columns	100 (1070)
0	323 (32%)
1	384 (38%)
2	213 (21%)
3	59 (5.9%)
4	14 (1.4%)
5	4 (0.4%)
6	3~(0.3%)
limit	[1, 491, 999] 501 / 289
offset	[0, 42, 1,000] 263 / 322
offset	[0, 42, 1,000] 263 / 322