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

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## Scenario: 1-6jp_rjjp__g_hOss_hOnss

## Scale factor: 50 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, 166] 15 / 22	
SELECT_n_of_non_aggr_funcDOW		
0	841 (84%)	
1	122~(12%)	
2	$23\ (2.3\%)$	
3	7 (0.7%)	
4	3~(0.3%)	
5	2~(0.2%)	
7	1 (0.1%)	
8	1 (0.1%)	
SELECT_n_of_non_aggr_funcLTRIM		
0	580 (58%)	
1	286 (29%)	
2	85 (8.5%)	
3	21 (2.1%)	

Query parameter or value	Descriptive statistics
4	13 (1.3%)
5	9~(0.9%)
6	2~(0.2%)
γ	2~(0.2%)
8	2~(0.2%)
SELECT_n_of_non_aggr_funcMONTH	
0	799~(80%)
1	$131 \ (13\%)$
2	42 (4.2%)
3	$14 \ (1.4\%)$
4	6~(0.6%)
5	4~(0.4%)
6	2~(0.2%)
γ	1 (0.1%)
8	1 (0.1%)
SELECT_n_of_non_aggr_funcSQRT	
0	$796 \ (80\%)$
1	152~(15%)
2	20 (2.0%)
3	12 (1.2%)
4	$14 \ (1.4\%)$
5	2~(0.2%)
6	3~(0.3%)
γ	1~(0.1%)
SELECT_n_of_non_aggr_funcUPPER	
0	597~(60%)
1	264~(26%)
2	90 (9.0%)
3	$28 \ (2.8\%)$
4	$13 \ (1.3\%)$
5	3~(0.3%)
6	3~(0.3%)
7	1~(0.1%)
8	1~(0.1%)
SELECT_n_of_non_aggr_funcYEAR	
0	817 (82%)
1	$135 \ (14\%)$
2	$27 \ (2.7\%)$
3	11 (1.1%)
4	4~(0.4%)
5	$3\ (0.3\%)$
6	2~(0.2%)
8	1~(0.1%)
SELECT_n_of_non_aggr_funcLOG	
0	873 (87%)
1	$98 \; (9.8\%)$

Query parameter or value	Descriptive statistics
2	18 (1.8%)
3	6(0.6%)
4	5~(0.5%)
SELECT_n_of_non_aggr_funcLOWER	,
0	597~(60%)
1	283 (28%)
11	1 (0.1%)
2	69~(6.9%)
3	28~(2.8%)
4	9~(0.9%)
5	7~(0.7%)
6	5~(0.5%)
8	1~(0.1%)
SELECT_n_of_non_aggr_funcSUBSTR	
0	619~(62%)
1	265~(27%)
2	82 (8.2%)
3	$12\ (1.2\%)$
4	$13 \ (1.3\%)$
5	3~(0.3%)
6	3~(0.3%)
7	2~(0.2%)
8	1~(0.1%)
SELECT_n_of_non_aggr_funcROUND	
θ	908 (91%)
1	73~(7.3%)
2	15~(1.5%)
3	2~(0.2%)
4	1~(0.1%)
5	1~(0.1%)
SELECT_n_of_non_aggr_funcRTRIM	
0	598~(60%)
1	270~(27%)
2	84 (8.4%)
3	$21 \ (2.1\%)$
4	$13 \ (1.3\%)$
5	5~(0.5%)
6	4~(0.4%)
γ	$3\;(0.3\%)$
8	2~(0.2%)
SELECT_n_of_non_aggr_funcDAY	
0	880 (88%)
1	91 (9.1%)
2	$20\ (2.0\%)$
3	4(0.4%)
4	$3\stackrel{(}{0}.3\%\stackrel{)}{)}$
	,

Query parameter or value	Descriptive statistics
5	2 (0.2%)
SELECT_n_of_non_aggr_funcABS	,
0	927~(93%)
1	$62 \ (6.2\%)$
2	6~(0.6%)
3	4 (0.4%)
4	1 (0.1%)
SELECT_n_of_non_aggr_funcFLOOR	
0	908 (91%)
1	78 (7.8%)
2	11 (1.1%)
3	3~(0.3%)
SELECT_n_of_non_aggr_funcTRUNC	
0	920 (92%)
1	68~(6.8%)
2	$10 \ (1.0\%)$
3	1 (0.1%)
4	1~(0.1%)
SELECT_n_of_all_non_aggr_func	$[0,3,66]\;5\;/\;7$
SELECT_n_of_aggr_funcMIN	[0.00, 0.00, 12.00] 0.82 / 1.84
SELECT_n_of_aggr_funcCOUNT_DISTINCT	[0.00, 0.00, 12.00] 0.84 / 2.02
SELECT_n_of_aggr_funcSUM	
0	935 (94%)
1	$41 \ (4.1\%)$
2	20~(2.0%)
3	3~(0.3%)
5	1 (0.1%)
SELECT_n_of_aggr_funcCOUNT SELECT_n_of_aggr_funcAVG	$[0.00, 0.00, 12.00] \ 0.80 \ / \ 1.88$
0	948~(95%)
1	$36\ (3.6\%)$
2	14(1.4%)
3	2 (0.2%)
SELECT_n_of_aggr_funcMAX	$[0.00, 0.00, 13.00] \ 0.98 \ / \ 2.09$
SELECT_n_of_all_aggr_func	$[0.0, 3.0, 14.0] \ 3.6 \ / \ 3.1$
FROM_n_of_join_paths	
1	157 (16%)
2	158 (16%)
3	172 (17%)
4	174 (17%)
5	170 (17%)
6	169 (17%)
FROM_n_of_super_joinsFULL	
0	532 (53%)
1	324 (32%)
2	114 (11%)

Query parameter or value	Descriptive statistics
3	26 (2.6%)
4	2(0.2%)
5	$2\stackrel{.}{(}0.2\%\stackrel{.}{)}$
FROM_n_of_super_joinsRIGHT	,
0	560~(56%)
1	308 (31%)
2	99 (9.9%)
3	$30 \; (3.0\%)$
4	3~(0.3%)
FROM_n_of_super_joinsLEFT	
0	530 (53%)
1	333~(33%)
2	104 (10%)
3	$27 \ (2.7\%)$
4	6~(0.6%)
FROM_n_of_joinsINNER	[0.00, 3.00, 13.00] 3.32 / 2.37
FROM_n_of_joinsRIGHT	[0.00, 3.00, 12.00] 3.42 / 2.56
$FROM_n_of_processed_rows$	[5, 465,031,240, 2,178,024,940] 590,479,503 /
	$486,\!382,\!553$
WHERE_n_of_predicates	[0.00,3.00,12.00]3.87/2.95
WHERE_n_of_attribs_of_typecharacter_	- v G
0	$333\ (33\%)$
1	301 (30%)
2	194 (19%)
3	105 (11%)
4	43 (4.3%)
5	20 (2.0%)
6	3 (0.3%)
7	1 (0.1%)
WHERE_n_of_attribs_of_typedate	702 (7007)
0	792 (79%)
1	168 (17%) 35 (3.5%)
2 3	59 (3.5%) 5 (0.5%)
WHERE_n_of_attribs_of_typeinteger	3(0.970)
0	362 (36%)
1	316 (32%)
2	165 (17%)
3	93 (9.3%)
4	51 (5.1%)
5	9 (0.9%)
6	4 (0.4%)
WHERE_n_of_attribs_of_typenumeric	- (~/v)
0	551 (55%)
1	295 (30%)
2	117 (12%)
	\

/HERE_n_of_attribs_of_typecharacter	28 (2.8%) 7 (0.7%) 2 (0.2%) 657 (66%)
/HERE_n_of_attribs_of_typecharacter	7 (0.7%) 2 (0.2%) 657 (66%)
/HERE_n_of_attribs_of_typecharacter	657 (66%)
HERE_n_of_attribs_of_typecharacter	657 (66%)
	,
	,
	247 (25%)
	76 (7.6%)
	15 (1.5%)
	4 (0.4%)
	1 (0.1%)
HERE_n_of_pkey_attribs	1 (0.170)
in in the state of	545 (55%)
	279 (28%)
	120 (12%)
	47 (4.7%)
	9 (0.9%)
HERE_n_of_connect_OR	[0.00, 1.00, 11.00] 2.25 / 2.43
HERE_n_of_connect_On HERE_n_of_operatorsbetween	[0.00, 1.00, 11.00] 2.23 / 2.43
TIERE_II_ol_operatorsbetween	529 (5207)
	532 (53%)
	279 (28%)
	128 (13%)
	44 (4.4%)
	15 (1.5%)
TIPDE C	$2\;(0.2\%)$
HERE_n_of_operatorsgreater_or_less	050 (0504)
	353 (35%)
	246 (25%)
	182 (18%)
	124 (12%)
	53 (5.3%)
	$33\ (3.3\%)$
	7 (0.7%)
	$2\;(0.2\%)$
HERE_n_of_operatorsin	
	521 (52%)
	293~(29%)
	129 (13%)
	$48 \ (4.8\%)$
	9~(0.9%)
HERE_n_of_operatorslike	
	784 (78%)
	184 (18%)
	30 (3.0%)
	2(0.2%)
HERE_n_of_non_aggr_funcDAY	` '
	960~(96%)

Query parameter or value	Descriptive statistics
1	37 (3.7%)
2	3(0.3%)
WHERE_n_of_non_aggr_funcSQRT	, ,
0	890 (89%)
1	101 (10%)
2	7 (0.7%)
3	2(0.2%)
WHERE_n_of_non_aggr_funcLOG	
0	939~(94%)
1	58 (5.8%)
2	$2\;(0.2\%)$
3	1 (0.1%)
WHERE_n_of_non_aggr_funcFLOOR	
0	958 (96%)
1	$42\ (4.2\%)$
WHERE_n_of_non_aggr_funcDOW	
0	969~(97%)
1	28 (2.8%)
2	3~(0.3%)
WHERE_n_of_non_aggr_funcABS	
0	959 (96%)
1	40~(4.0%)
3	1~(0.1%)
WHERE_n_of_non_aggr_funcROUND	
0	957 (96%)
1	41 (4.1%)
2	2~(0.2%)
WHERE_n_of_non_aggr_funcMONTH	
0	963~(96%)
1	37 (3.7%)
$WHERE_n_of_non_aggr_func__YEAR$	
0	964~(96%)
1	35 (3.5%)
2	1~(0.1%)
WHERE_n_of_non_aggr_funcTRUNC	
0	964~(96%)
1	$35 \; (3.5\%)$
2	1~(0.1%)
WHERE_n_of_all_non_aggr_func	
0	655~(66%)
1	227~(23%)
2	86 (8.6%)
3	$27 \ (2.7\%)$
4	2~(0.2%)
5	$2\;(0.2\%)$
6	1~(0.1%)
	1 (0.170)

Query parameter or value	Descriptive statistics
GROUP_BY_n_of_columns	[0.00, 3.00, 12.00] 3.27 / 2.92
HAVING_n_of_main_predicates	
0	438 (44%)
1	178 (18%)
2	176 (18%)
3	208 (21%)
ORDER_BY_n_of_columns	[0.00, 1.00, 9.00] 1.30 / 1.20
limit	[2, 499, 1,000] 502 / 282
offset	$[0, 102, 1{,}000] 283 / 335$