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

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## Scenario: 1-3jp_ujjp__g_hOss_hOnss

## Scale factor: 2000 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, 113] 10 / 13
SELECT_n_of_non_aggr_funcLOWER	
0	700 (70%)
1	230(23%)
2	58 (5.8%)
3	11 (1.1%)
6	1 (0.1%)
SELECT_n_of_non_aggr_funcSQRT	
0	849 (85%)
1	$126 \ (13\%)$
2	18 (1.8%)
3	4~(0.4%)
4	2~(0.2%)
5	1 (0.1%)
$SELECT\_n\_of\_non\_aggr\_func\_\_UPPER$	

Query parameter or value	Descriptive statistics
0	713 (71%)
1	235 (24%)
2	37 (3.7%)
3	10 (1.0%)
4	$3\;(0.3\%)$
5	2~(0.2%)
SELECT_n_of_non_aggr_funcDOW	
0	901 (90%)
1	78 (7.8%)
2	$16 \ (1.6\%)$
3	3~(0.3%)
4	2~(0.2%)
SELECT_n_of_non_aggr_funcFLOOR	
0	934~(93%)
1	59 (5.9%)
2	7 (0.7%)
SELECT_n_of_non_aggr_funcLTRIM	
0	719 (72%)
1	209~(21%)
2	51 (5.1%)
3	$12 \ (1.2\%)$
4	7~(0.7%)
5	1~(0.1%)
6	1~(0.1%)
SELECT_n_of_non_aggr_funcMONTH	
0	854 (85%)
1	$106 \ (11\%)$
2	$27 \ (2.7\%)$
3	$10 \ (1.0\%)$
4	2 (0.2%)
5	1 (0.1%)
SELECT_n_of_non_aggr_funcROUND	
0	948 (95%)
1	48 (4.8%)
2	4~(0.4%)
SELECT_n_of_non_aggr_funcRTRIM	(500)
0	695 (70%)
1	232 (23%)
2	52 (5.2%)
3	15 (1.5%)
4	3 (0.3%)
5	3~(0.3%)
SELECT_n_of_non_aggr_funcSUBSTR	ann ( <b>7</b> 007)
0	698 (70%)
1	223 (22%)
2	57 (5.7%)

Query parameter or value	Descriptive statistics
3	13 (1.3%)
4	8 (0.8%)
5	1(0.1%)
SELECT_n_of_non_aggr_funcDAY	,
$0$ $=$ $=$ $=$ $\infty$ $=$ $\infty$	$920 \ (92\%)$
1	70 (7.0%)
2	9(0.9%)
3	1(0.1%)
SELECT_n_of_non_aggr_funcYEAR	,
0	880 (88%)
1	94 (9.4%)
2	16(1.6%)
3	$6\ (0.6\%)$
4	3~(0.3%)
6	1 (0.1%)
SELECT_n_of_non_aggr_funcLOG	,
0	879 (88%)
1	100 (10%)
2	14 (1.4%)
3	4 (0.4%)
4	1 (0.1%)
5	2~(0.2%)
SELECT_n_of_non_aggr_funcTRUNC	
0	946 (95%)
1	$45 \ (4.5\%)$
2	8 (0.8%)
3	1 (0.1%)
SELECT_n_of_non_aggr_funcABS	
0	$938 \ (94\%)$
1	55 (5.5%)
2	6~(0.6%)
3	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0.0,  2.0,  39.0]   3.1  /   4.4
$SELECT\_n\_of\_aggr\_func\_\_COUNT$	[0.00,  0.00,  9.00]  0.57  /  1.32
SELECT_n_of_aggr_funcCOUNT_DISTINCT	
0	765 (77%)
1	78 (7.8%)
2	61 (6.1%)
3	$38 \ (3.8\%)$
4	$23\ (2.3\%)$
5	$14 \ (1.4\%)$
6	12 (1.2%)
7	6~(0.6%)
8	3~(0.3%)
$SELECT\_n\_of\_aggr\_func\_\_MIN$	[0.00,0.00,10.00]0.75/1.60
SELECT_n_of_aggr_funcMAX	[0.00,  0.00,  9.00]  0.53  /  1.25

Query parameter or value	Descriptive statistics
SELECT_n_of_aggr_funcSUM	
0	942 (94%)
1	45~(4.5%)
2	11 (1.1%)
3	1 (0.1%)
4	1 (0.1%)
SELECT_n_of_aggr_funcAVG	
0	$939 \; (94\%)$
1	49 (4.9%)
2	11 (1.1%)
3	1 (0.1%)
SELECT_n_of_all_aggr_func FROM_n_of_join_paths	[0.00,  2.00,  11.00]   2.61  /   2.24
1	338 (34%)
2	339 (34%)
3	323 (32%)
FROM_n_of_super_joinsFULL	,
0	782 (78%)
1	197(20%)
2	21 (2.1%)
FROM_n_of_super_joinsLEFT	
0	776 (78%)
1	203~(20%)
2	$21\ (2.1\%)$
FROM_n_of_super_joinsRIGHT	
0	775 (78%)
1	203 (20%)
2 EDOM p. of ioing INNED	$22 \; (2.2\%)$
FROM_n_of_joinsINNER	995 (9907)
<i>0 1</i>	225 (23%) 244 (24%)
2	244 (24%) 250 (25%)
3	130 (13%)
4	84 (8.4%)
5 5	44 (4.4%)
6	16 (1.6%)
$\frac{\circ}{\gamma}$	6 (0.6%)
8	1 (0.1%)
FROM_n_of_joinsRIGHT	,
0 $=$ $=$ $=$ $=$	247 (25%)
1	264 (26%)
2	$221\ (22\%)$
3	$142\ (14\%)$
4	81 (8.1%)
5	34 (3.4%)
6	9 (0.9%)

Query parameter or value	Descriptive statistics
$\overline{\gamma}$	2 (0.2%)
$FROM\_n\_of\_processed\_rows$	$[5,\ 13{,}620{,}027{,}831,\ 45{,}900{,}083{,}457]\ 13{,}134{,}742{,}849\ /$
	12,082,516,681
$WHERE\_n\_of\_predicates$	[0.00,  2.00,  10.00]   2.82  /   2.30
WHERE_n_of_attribs_of_type_	
0	$453 \; (45\%)$
1	$278 \ (28\%)$
2	176 (18%)
3	69 (6.9%)
4	$20 \; (2.0\%)$
5	3~(0.3%)
6	1  (0.1%)
WHERE_n_of_attribs_of_type_	_
0	440 (44%)
1	$343\ (34\%)$
2	144 (14%)
3	44 (4.4%)
4	$27\ (2.7\%)$
5	2~(0.2%)
WHERE_n_of_attribs_of_type_	
0	647 (65%)
1	253 (25%)
2	80 (8.0%)
3	16 (1.6%)
4	4~(0.4%)
WHERE_n_of_attribs_of_type	
0	737 (74%)
1	197 (20%)
2	54 (5.4%)
3	11 (1.1%)
4	1 (0.1%)
WHERE_n_of_attribs_of_type_	_date
0	848 (85%)
1 2	$121 (12\%) \\ 31 (3.1\%)$
WHERE_n_of_pkey_attribs	31 (3.170)
0	606 (61%)
1	285 (29%)
2	83 (8.3%)
<i>3</i>	20 (2.0%)
4	6 (0.6%)
WHERE_n_of_connect_OR	0 (0.070)
0	442 (44%)
1	199 (20%)
2	120 (12%)
3	100 (10%)
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Query parameter or value	Descriptive statistics
4	58 (5.8%)
5	42(4.2%)
6	$22\ (2.2\%)$
7	$13\ (1.3\%)$
8	4 (0.4%)
WHERE_n_of_operatorsin	
0	621~(62%)
1	274~(27%)
2	80 (8.0%)
3	23~(2.3%)
4	2~(0.2%)
$WHERE\_n\_of\_operators\_\_between$	
0	605~(61%)
1	265~(27%)
2	102 (10%)
3	24 (2.4%)
4	4 (0.4%)
$WHERE\_n\_of\_operators\_\_greater\_or\_less$	
0	408 (41%)
1	317 (32%)
2	157~(16%)
3	80 (8.0%)
4	$26 \ (2.6\%)$
5	$8 \; (0.8\%)$
6	2~(0.2%)
7	2~(0.2%)
WHERE_n_of_operatorslike	
0	$821 \ (82\%)$
1	$159 \ (16\%)$
2	$20 \ (2.0\%)$
WHERE_n_of_non_aggr_funcFLOOR	
$\theta$	961 (96%)
1	37 (3.7%)
2	2 (0.2%)
WHERE_n_of_non_aggr_funcSQRT	4 . 40
0	897 (90%)
1	96 (9.6%)
2	7 (0.7%)
WHERE_n_of_non_aggr_funcDAY	201 (2021)
0	981 (98%)
1	$19 \ (1.9\%)$
WHERE_n_of_non_aggr_funcDOW	a=a (aa~)
0	976 (98%)
1	$24\ (2.4\%)$
WHERE_n_of_non_aggr_funcTRUNC	0.00 (0.00)
0	968 (97%)

Query parameter or value	Descriptive statistics
1	32 (3.2%)
WHERE_n_of_non_aggr_funcYEAR	,
0	974 (97%)
1	26 (2.6%)
WHERE_n_of_non_aggr_funcLOG	
0	948 (95%)
1	49 (4.9%)
2	$3\;(0.3\%)$
WHERE_n_of_non_aggr_funcMONTH	
0	968 (97%)
1	$31 \ (3.1\%)$
2	1~(0.1%)
WHERE_n_of_non_aggr_funcROUND	
0	980 (98%)
1	20 (2.0%)
WHERE_n_of_non_aggr_funcABS	
0	972 (97%)
1	27 (2.7%)
2	1 (0.1%)
WHERE_n_of_all_non_aggr_func	
$\theta$	704 (70%)
1	223~(22%)
2	$56 \ (5.6\%)$
3	$14 \ (1.4\%)$
4	3~(0.3%)
GROUP_BY_n_of_columns	[0.00,  2.00,  9.00]   2.34   /   2.11
HAVING_n_of_main_predicates	
0	$426 \ (43\%)$
1	179 (18%)
2	195 (20%)
3	200~(20%)
ORDER_BY_n_of_columns	
0	268~(27%)
1	$400 \; (40\%)$
2	241 (24%)
3	66~(6.6%)
4	$15 \ (1.5\%)$
5	7 (0.7%)
6	1 (0.1%)
7	2~(0.2%)
limit	[1,487,1,000]495/293
offset	[0, 0, 998] 244 / 324