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

```
## Scenario: 1-1jp__g_hOss_hOnss

## Scale factor: 1 GB

## The 1000-query pack was generated on: 2023-11-04

## 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)
```

Query parameter or value	Descriptive statistics
SELECT_n_of_columns	[1.0, 4.0, 40.0] 5.9 / 5.7
SELECT_n_of_non_aggr_funcDAY	
0	934~(93%)
1	62 (6.2%)
2	4 (0.4%)
SELECT_n_of_non_aggr_funcSUBSTR	
0	755 (76%)
1	214~(21%)
2	28 (2.8%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_funcRTRIM	, ,
0	782 (78%)
1	192 (19%)
2	22(2.2%)
	. ,

- for higher cardinality parameters: [min, median, max] mean / SD

Query parameter or value	Descriptive statistics
3	4 (0.4%)
SELECT_n_of_non_aggr_funcLTRIM	,
0	785 (79%)
1	186 (19%)
2	26 (2.6%)
3	$3\;(0.3\%)$
SELECT_n_of_non_aggr_funcDOW	
0	920 (92%)
1	$73 \ (7.3\%)$
2	6 (0.6%)
3	1 (0.1%)
SELECT_n_of_non_aggr_funcLOG	000 (000)
0	932 (93%)
1	59 (5.9%)
2	8 (0.8%)
general and the second of the	1 (0.1%)
SELECT_n_of_non_aggr_funcLOWER	705 (7007)
0 1	785 (79%) 183 (18%)
2	29 (2.9%)
3	3(0.3%)
SELECT_n_of_non_aggr_funcMONTH	3 (0.370)
0	884 (88%)
1	98 (9.8%)
2	15 (1.5%)
3	3 (0.3%)
SELECT_n_of_non_aggr_funcYEAR	
0	894 (89%)
1	$93 \ (9.3\%)$
2	11 (1.1%)
3	2~(0.2%)
SELECT_n_of_non_aggr_funcUPPER	
0	791 (79%)
1	$172 \ (17\%)$
2	32 (3.2%)
3	5~(0.5%)
SELECT_n_of_non_aggr_funcTRUNC	222 (270)
0	968 (97%)
1	30 (3.0%)
	2~(0.2%)
SELECT_n_of_non_aggr_funcROUND	000 (000)
0	960 (96%)
1	36 (3.6%)
2 CELECT p of non-agen func. CODT	4 (0.4%)
SELECT_n_of_non_aggr_funcSQRT	SU4 (SU67)
0	894 (89%)

Query parameter or value	Descriptive statistics
1	96 (9.6%)
2	9(0.9%)
4	1~(0.1%)
SELECT_n_of_non_aggr_funcABS	,
0	961 (96%)
1	$39 \ (3.9\%)$
SELECT_n_of_non_aggr_funcFLOOR	
0	974 (97%)
1	24~(2.4%)
2	2~(0.2%)
SELECT_n_of_all_non_aggr_func SELECT_n_of_aggr_funcCOUNT	$[0.00, 2.00, 17.00] \ 2.03 \ / \ 2.29$
	793 (79%)
1	108 (11%)
2	53 (5.3%)
3	26 (2.6%)
	8 (0.8%)
4 5	7 (0.7%)
6	4 (0.4%)
$\frac{\sigma}{\gamma}$	1 (0.1%)
SELECT_n_of_aggr_funcMIN	1 (0.170)
0	740 (74%)
1	135 (14%)
2	68 (6.8%)
3	$32\ (3.2\%)$
4	17 (1.7%)
5	$5~(0.5\%)^{'}$
6	2~(0.2%)
8	1 (0.1%)
SELECT_n_of_aggr_funcMAX	
0	778 (78%)
1	$116 \ (12\%)$
2	52 (5.2%)
3	23~(2.3%)
4	20~(2.0%)
5	7 (0.7%)
6	4~(0.4%)
SELECT_n_of_aggr_funcCOUNT_DISTINCT	
0	776 (78%)
1	110 (11%)
2	63~(6.3%)
3	$28 \ (2.8\%)$
4	$16 \ (1.6\%)$
5	$3\ (0.3\%)$
6	2(0.2%)
7	1 (0.1%)

Query parameter or value	Descriptive statistics
8	1 (0.1%)
SELECT_n_of_aggr_funcSUM	(* **)
0	953~(95%)
1	$40\ (4.0\%)$
2	$6\ (0.6\%)$
3	$1\ (0.1\%)$
SELECT_n_of_aggr_funcAVG	
0	$952 \ (95\%)$
1	43~(4.3%)
2	4~(0.4%)
3	1~(0.1%)
SELECT_n_of_all_aggr_func	
0	$189 \ (19\%)$
1	306~(31%)
2	224~(22%)
3	144 (14%)
4	73 (7.3%)
5	39 (3.9%)
6	18 (1.8%)
7	4 (0.4%)
8 EDOM C. C. C. C. C.	$3\;(0.3\%)$
FROM_n_of_join_paths	1 000 (1000/)
1 EDOM is of loing INNED	1,000 (100%)
FROM_n_of_joinsINNER	505 (51%)
0 1	320 (32%)
2	139 (14%)
3	34 (3.4%)
4	2(0.2%)
FROM_n_of_joinsRIGHT	2 (0.270)
0	484 (48%)
1	322 (32%)
2	151 (15%)
3	36 (3.6%)
4	7 (0.7%)
FROM_n_of_processed_rows WHERE_n_of_predicates	[5, 1,500,000, 7,650,621] 2,967,578 / 3,156,998
0 = -1	225~(23%)
1	227 (23%)
2	$223\ (22\%)$
3	179 (18%)
4	94 (9.4%)
5	40 (4.0%)
6	$12\;(1.2\%)$
$WHERE_n_of_attribs_of_type__character$	
0	806 (81%)

Query parameter or value	Descriptive statistics
1	168 (17%)
2	$23\ (2.3\%)$
3	$3\ (0.3\%)$
$WHERE_n_of_attribs_of_type__date$	
0	895 (90%)
1	92 (9.2%)
2	$13 \ (1.3\%)$
WHERE_n_of_attribs_of_typecharacter_varying	
0	538 (54%)
1	$323 \; (32\%)$
2	$119 \; (12\%)$
3	$18 \ (1.8\%)$
4	2~(0.2%)
WHERE_n_of_attribs_of_typeinteger	- 12 (C. 121)
0	542 (54%)
1	337 (34%)
2	103 (10%)
3	$16 \ (1.6\%)$
4	2~(0.2%)
WHERE_n_of_attribs_of_typenumeric	
0	745 (75%)
1	219 (22%)
2	32 (3.2%)
3	4~(0.4%)
WHERE_n_of_pkey_attribs	F00 (F0M)
0	700 (70%)
1	263 (26%)
2 3	34 (3.4%)
	3 (0.3%)
WHERE_n_of_connect_OR	501 (5007)
	591 (59%)
$\frac{1}{2}$	230 (23%) 104 (10%)
$\frac{z}{3}$	104 (10%) 58 (5.8%)
4	14 (1.4%)
<i>4 5</i>	3(0.3%)
WHERE_n_of_operatorsgreater_or_less	<i>3</i> (0.970)
0	519 (52%)
1	301 (30%)
2	139 (14%)
~ 3	36 (3.6%)
4	3 (0.3%)
5	2(0.2%)
WHERE_n_of_operatorsin	_ (~,~)
0	722 (72%)
1	229 (23%)
	(

Query parameter or value	Descriptive statistics
2	40 (4.0%)
3	$9\ (0.9\%)$
$WHERE_n_of_operators__between$	
0	699~(70%)
1	239~(24%)
2	51 (5.1%)
3	10 (1.0%)
4	$1\ (0.1\%)$
WHERE_n_of_operatorslike	4
0	887 (89%)
1	109 (11%)
2	4~(0.4%)
WHERE_n_of_non_aggr_funcYEAR	(
0	984 (98%)
1	$16 \; (1.6\%)$
WHERE_n_of_non_aggr_funcLOG	074 (070)
0	954 (95%)
1	44 (4.4%)
2	1 (0.1%)
g	1 (0.1%)
WHERE_n_of_non_aggr_funcSQRT	005 (000)
0	925 (93%)
$\frac{1}{2}$	71 (7.1%)
	4 (0.4%)
WHERE_n_of_non_aggr_funcFLOOR 0	000 (0007)
1	988 (99%) 12 (1.2%)
WHERE n of non aggr func ABS	12 (1.270)
0	976 (98%)
1	23 (2.3%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcROUND	1 (0.170)
0	982 (98%)
1	18 (1.8%)
WHERE_n_of_non_aggr_funcMONTH	- · · · · · · · · · · · · · · · · · · ·
0	982 (98%)
1	18 (1.8%)
WHERE_n_of_non_aggr_funcDAY	(/
0	986 (99%)
1	14 (1.4%)
WHERE_n_of_non_aggr_funcDOW	` '
0	986 (99%)
1	$13\ (1.3\%)$
2	1 (0.1%)
WHERE_n_of_non_aggr_funcTRUNC	
0	986 (99%)

Query parameter or value	Descriptive statistics
1	14 (1.4%)
WHERE_n_of_all_non_aggr_func	,
0	781 (78%)
1	184 (18%)
2	29~(2.9%)
3	6~(0.6%)
GROUP_BY_n_of_columns	
0	250~(25%)
1	264~(26%)
2	217~(22%)
3	136 (14%)
4	85 (8.5%)
5	42~(4.2%)
6	6~(0.6%)
$HAVING_n_of_main_predicates$	
0	447~(45%)
1	173 (17%)
2	182 (18%)
3	198 (20%)
ORDER_BY_n_of_columns	
0	311 (31%)
1	455~(46%)
2	195~(20%)
3	30 (3.0%)
4	7 (0.7%)
5	$2\;(0.2\%)$
limit	[1, 529, 1,000] 520 / 283
offset	[0,0,999]249/325