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

```
## Scenario: 1-6jp_rjjp__g_hOss_hOnss

## Scale factor: 0.01 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, 155] 15 / 22
SELECT_n_of_non_aggr_funcLOWER	[0.00,0.00,11.00]0.57/1.07
SELECT_n_of_non_aggr_funcRTRIM	
0	630 (63%)
1	267~(27%)
10	1~(0.1%)
2	53~(5.3%)
3	26 (2.6%)
4	13~(1.3%)
5	7 (0.7%)
6	3~(0.3%)
SELECT_n_of_non_aggr_funcUPPER	[0.00,0.00,11.00]0.65/1.10
SELECT_n_of_non_aggr_funcDAY	
0	892 (89%)
1	84 (8.4%)

Query parameter or value	Descriptive statistics
2	13 (1.3%)
3	4 (0.4%)
4	7 (0.7%)
SELECT_n_of_non_aggr_funcABS	` ,
0	925 (93%)
1	65~(6.5%)
2	7 (0.7%)
3	3~(0.3%)
$SELECT_n_of_non_aggr_func__SUBSTR$	[0.00, 0.00, 9.00] 0.60 / 1.04
SELECT_n_of_non_aggr_funcLTRIM	
0	625~(63%)
1	251~(25%)
2	$74 \ (7.4\%)$
3	26~(2.6%)
4	$9\;(0.9\%)$
5	5~(0.5%)
6	5~(0.5%)
7	4~(0.4%)
9	1~(0.1%)
SELECT_n_of_non_aggr_funcDOW	~~~ (o.oM)
0	857 (86%)
1	96 (9.6%)
10	1 (0.1%)
2	27 (2.7%)
3	12 (1.2%)
4	4(0.4%)
5 6	2 (0.2%)
SELECT_n_of_non_aggr_funcMONTH	$\begin{array}{c} 1 \; (0.1\%) \\ [0.00, 0.00, 10.00] \; 0.34 \; / \; 0.94 \end{array}$
SELECT_n_of_non_aggr_funcSQRT	[0.00, 0.00, 10.00] 0.34 / 0.94
	815 (82%)
1	138 (14%)
2	19 (1.9%)
3	18 (1.8%)
4	6 (0.6%)
5	2~(0.2%)
6	1 (0.1%)
g	1 (0.1%)
SELECT_n_of_non_aggr_funcYEAR	
0	834 (83%)
1	114 (11%)
2	27~(2.7%)
3	12~(1.2%)
4	4~(0.4%)
5	4 (0.4%)
6	4~(0.4%)

Query parameter or value	Descriptive statistics
7	1 (0.1%)
SELECT_n_of_non_aggr_funcLOG	` ,
0	878 (88%)
1	95 (9.5%)
2	15 (1.5%)
3	7 (0.7%)
4	2~(0.2%)
5	3~(0.3%)
SELECT_n_of_non_aggr_funcROUND	
0	$917 \; (92\%)$
1	66~(6.6%)
2	13 (1.3%)
3	4~(0.4%)
SELECT_n_of_non_aggr_funcTRUNC	
0	915 (92%)
1	72 (7.2%)
2	11 (1.1%)
3	$2\;(0.2\%)$
SELECT_n_of_non_aggr_funcFLOOR	(
0	922 (92%)
1	69 (6.9%)
2	5 (0.5%)
	4 (0.4%)
SELECT_n_of_all_non_aggr_func	[0.0, 3.0, 67.0] 4.8 / 7.5
SELECT_n_of_aggr_funcCOUNT_DISTINCT	[0.00, 0.00, 11.00] 0.83 / 1.86
SELECT_n_of_aggr_funcMAX	[0.00, 0.00, 14.00] $0.88 / 2.06$
SELECT_n_of_aggr_funcMIN	[0.00, 0.00, 12.00] $[0.86]$ $[0.00, 0.00, 12.00]$ $[0.81]$ $[0.00, 0.00, 12.00]$
SELECT_n_of_aggr_funcCOUNT SELECT n of aggr func SUM	[0.00, 0.00, 12.00] 0.81 / 1.79
SELECT_n_of_aggr_funcSUM 0	942 (94%)
1	39 (3.9%)
2	13 (1.3%)
3	6 (0.6%)
SELECT_n_of_aggr_funcAVG	0 (0.070)
0	927 (93%)
1	52 (5.2%)
2	12 (1.2%)
3	7 (0.7%)
4	2(0.2%)
SELECT_n_of_all_aggr_func	[0.0, 3.0, 14.0] 3.6 / 3.0
FROM_n_of_join_paths	[,,],
= $=$ $=$ $=$ 1	171 (17%)
2	153 (15%)
3	199 (20%)
4	186 (19%)
5	141 (14%)
	` '

Query parameter or value	Descriptive statistics
6	150 (15%)
FROM_n_of_super_joinsLEFT	,
0	547 (55%)
1	$326\ (33\%)$
2	109 (11%)
3	17 (1.7%)
5	1~(0.1%)
$FROM_n_of_super_joins__FULL$	
0	551 (55%)
1	303~(30%)
2	119~(12%)
3	25~(2.5%)
4	2~(0.2%)
FROM_n_of_super_joinsRIGHT	
0	568 (57%)
1	301 (30%)
2	114 (11%)
3	14 (1.4%)
4	3~(0.3%)
FROM_n_of_joinsINNER	[0.00, 3.00, 12.00] $3.33 / 2.46$
FROM_n_of_joinsRIGHT	[0.00, 3.00, 12.00] 3.29 / 2.43
FROM_n_of_processed_rows	[5, 93,095, 443,305] 118,315 / 98,663
WHERE_n_of_predicates	[0.00, 3.00, 13.00] 3.83 / 2.95
WHERE_n_of_attribs_of_typeinteger	200 (2017)
0	380 (38%)
1	256 (26%)
$\frac{2}{3}$	193 (19%)
	112 (11%) 41 (4.1%)
<i>4 5</i>	14 (4.176)
6	4(0.4%)
WHERE_n_of_attribs_of_typenumeric	1 (0.170)
0	559 (56%)
1	293 (29%)
2	107 (11%)
~ 3	27 (2.7%)
4	13 (1.3%)
$\stackrel{'}{6}$	1 (0.1%)
WHERE n of attribs of type character varying	()
	363~(36%)
1	$298\ (30\%)$
2	$172\ (17\%)$
3	104 (10%)
4	41 (4.1%)
5	15 (1.5%)
6	5~(0.5%)

Query parameter or value	Descriptive statistics
7	2 (0.2%)
$WHERE_n_of_attribs_of_type__date$	
0	803~(80%)
1	161~(16%)
2	$31 \; (3.1\%)$
3	4~(0.4%)
4	1~(0.1%)
WHERE_n_of_attribs_of_typecharacter	
0	640 (64%)
1	263~(26%)
2	83 (8.3%)
3	11 (1.1%)
4	3~(0.3%)
WHERE_n_of_pkey_attribs	
0	545 (55%)
1	290 (29%)
2	$120 \ (12\%)$
3	$38 \ (3.8\%)$
4	6 (0.6%)
5	1 (0.1%)
WHERE_n_of_connect_OR	$[0.00, 1.00, 11.00] \ 2.23 \ / \ 2.41$
WHERE_n_of_operatorsgreater_or_less	217 (22%)
0	315 (32%)
1	287 (29%)
2	191 (19%)
3	109 (11%)
4	65 (6.5%)
5	23 (2.3%)
6	9 (0.9%)
8	1 (0.1%)
WHERE_n_of_operatorsin	700 (70°7)
0	522 (52%)
1	301 (30%)
2	131 (13%)
3	35 (3.5%)
4	7 (0.7%)
5	3(0.3%)
6	1 (0.1%)
WHERE_n_of_operatorsbetween	F 41 (F 407)
0	541 (54%)
1	283 (28%)
2	126 (13%)
3	35 (3.5%)
4 5	8 (0.8%)
	7 (0.7%)
WHERE_n_of_operatorslike	

Query parameter or value	Descriptive statistics
0	790 (79%)
1	174 (17%)
2	34 (3.4%)
3	$2\;(0.2\%)$
WHERE_n_of_non_aggr_funcSQRT	,
0	884 (88%)
1	107 (11%)
2	9 (0.9%)
WHERE_n_of_non_aggr_funcLOG	
0	927 (93%)
1	70 (7.0%)
2	$3\;(0.3\%)$
WHERE_n_of_non_aggr_funcDOW	
0	967 (97%)
1	$33\ (3.3\%)$
WHERE_n_of_non_aggr_funcTRUNC	
0	968 (97%)
1	31 (3.1%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcABS	
0	961 (96%)
1	38 (3.8%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcDAY	,
0	969~(97%)
1	31 (3.1%)
WHERE_n_of_non_aggr_funcMONTH	
0	968 (97%)
1	31 (3.1%)
2	1 (0.1%)
WHERE_n_of_non_aggr_funcROUND	
0	957 (96%)
1	43~(4.3%)
WHERE_n_of_non_aggr_funcFLOOR	
0	955~(96%)
1	45~(4.5%)
WHERE_n_of_non_aggr_funcYEAR	
0	972 (97%)
1	$26\ (2.6\%)$
2	$2\;(0.2\%)$
WHERE_n_of_all_non_aggr_func	• ,
0	652~(65%)
1	241 (24%)
2	81 (8.1%)
3	$20\ (2.0\%)$
4	$4~(0.4\%)^{'}$
r	- (0.2/0)

Query parameter or value	Descriptive statistics
5	2 (0.2%)
GROUP_BY_n_of_columns	[0.00, 3.00, 12.00] 3.24 / 2.92
HAVING_n_of_main_predicates	
0	432~(43%)
1	196 (20%)
2	181 (18%)
3	191 (19%)
ORDER_BY_n_of_columns	
0	285~(29%)
1	341 (34%)
2	247~(25%)
3	$96 \ (9.6\%)$
4	$21\ (2.1\%)$
5	7 (0.7%)
6	2~(0.2%)
9	1 (0.1%)
limit	[1, 515, 998] 513 / 291
offset	$[0, 0, 1,000] \ 250 \ / \ 323$