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

Scenario: 1-6jp_ujjp__g__h0-3ss_h0nss

Scale factor: 10 GB

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

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, 8, 204] 15 / 24
SELECT_n_of_non_aggr_func___DAY	
0	898 (90%)
1	80 (8.0%)
2	15 (1.5%)
3	5 (0.5%)
4	2 (0.2%)
SELECT_n_of_non_aggr_func___LOG	
0	886 (89%)
1	84 (8.4%)
2	17 (1.7%)
3	7 (0.7%)
4	4 (0.4%)
5	2 (0.2%)
SELECT_n_of_non_aggr_func___LOWER	

Query parameter or value	Descriptive statistics
0	607 (61%)
1	264 (26%)
2	84 (8.4%)
3	20 (2.0%)
4	11 (1.1%)
5	5 (0.5%)
6	4 (0.4%)
7	3 (0.3%)
8	2 (0.2%)
SELECT_n_of_non_aggr_func___LTRIM	
0	621 (62%)
1	252 (25%)
2	81 (8.1%)
3	23 (2.3%)
4	10 (1.0%)
5	4 (0.4%)
6	6 (0.6%)
7	3 (0.3%)
SELECT_n_of_non_aggr_func___MONTH	
0	823 (82%)
1	118 (12%)
2	32 (3.2%)
3	13 (1.3%)
4	2 (0.2%)
5	8 (0.8%)
6	2 (0.2%)
7	1 (0.1%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___RTRIM	[0.00, 0.00, 14.00] 0.55 / 1.05
SELECT_n_of_non_aggr_func___SQRT	
0	810 (81%)
1	140 (14%)
2	25 (2.5%)
3	10 (1.0%)
4	9 (0.9%)
5	3 (0.3%)
6	2 (0.2%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func___SUBSTR	
0	621 (62%)
1	263 (26%)
2	69 (6.9%)
3	20 (2.0%)
4	12 (1.2%)
5	5 (0.5%)
6	6 (0.6%)

Query parameter or value	Descriptive statistics
7	3 (0.3%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___UPPER	
0	617 (62%)
1	263 (26%)
2	78 (7.8%)
3	20 (2.0%)
4	10 (1.0%)
5	5 (0.5%)
6	3 (0.3%)
7	2 (0.2%)
8	2 (0.2%)
SELECT_n_of_non_aggr_func___YEAR	
0	847 (85%)
1	112 (11%)
2	24 (2.4%)
3	8 (0.8%)
4	2 (0.2%)
5	5 (0.5%)
6	1 (0.1%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___ABS	
0	914 (91%)
1	71 (7.1%)
2	14 (1.4%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func___DOW	
0	845 (85%)
1	113 (11%)
2	26 (2.6%)
3	8 (0.8%)
4	4 (0.4%)
5	2 (0.2%)
6	2 (0.2%)
SELECT_n_of_non_aggr_func___TRUNC	
0	917 (92%)
1	69 (6.9%)
2	12 (1.2%)
3	2 (0.2%)
SELECT_n_of_non_aggr_func___ROUND	
0	920 (92%)
1	64 (6.4%)
2	13 (1.3%)
3	3 (0.3%)
SELECT_n_of_non_aggr_func___FLOOR	
0	918 (92%)

Query parameter or value	Descriptive statistics
1	65 (6.5%)
2	14 (1.4%)
3	1 (0.1%)
4	2 (0.2%)
SELECT_n_of_all_non_aggr_func	[0.0, 3.0, 83.0] 4.7 / 7.6
SELECT_n_of_aggr_func___COUNT_DISTINCT	[0.00, 0.00, 12.00] 0.81 / 1.92
SELECT_n_of_aggr_func___COUNT	[0.00, 0.00, 13.00] 0.84 / 2.00
SELECT_n_of_aggr_func___MAX	[0.00, 0.00, 10.00] 0.90 / 1.94
SELECT_n_of_aggr_func___SUM	
0	942 (94%)
1	33 (3.3%)
2	20 (2.0%)
3	4 (0.4%)
5	1 (0.1%)
SELECT_n_of_aggr_func___MIN	[0.00, 0.00, 14.00] 0.83 / 1.86
SELECT_n_of_aggr_func___AVG	
0	924 (92%)
1	50 (5.0%)
2	17 (1.7%)
3	7 (0.7%)
4	2 (0.2%)
SELECT_n_of_all_aggr_func	[0.00, 3.00, 14.00] 3.58 / 3.08
FROM_n_of_join_paths	
1	189 (19%)
2	170 (17%)
3	168 (17%)
4	169 (17%)
5	149 (15%)
6	155 (16%)
FROM_n_of_super_joins___LEFT	
0	550 (55%)
1	318 (32%)
2	94 (9.4%)
3	33 (3.3%)
4	5 (0.5%)
FROM_n_of_super_joins___RIGHT	
0	546 (55%)
1	313 (31%)
2	123 (12%)
3	15 (1.5%)
4	2 (0.2%)
5	1 (0.1%)
FROM_n_of_super_joins___FULL	
0	585 (59%)
1	282 (28%)
2	109 (11%)

Query parameter or value	Descriptive statistics
3	20 (2.0%)
4	4 (0.4%)
FROM_n_of_joins___INNER	[0.00, 3.00, 11.00] 3.18 / 2.40
FROM_n_of_joins___RIGHT	[0.00, 3.00, 13.00] 3.17 / 2.49
FROM_n_of_processed_rows	[5, 86,181,470, 441,880,259] 111,433,546 / 94,648,174
WHERE_n_of_predicates	[0.0, 3.0, 13.0] 3.8 / 3.0
WHERE_n_of_attribs_of_type___character	
0	652 (65%)
1	248 (25%)
2	76 (7.6%)
3	21 (2.1%)
4	3 (0.3%)
WHERE_n_of_attribs_of_type___character_varying	
0	370 (37%)
1	279 (28%)
2	187 (19%)
3	112 (11%)
4	34 (3.4%)
5	12 (1.2%)
6	2 (0.2%)
7	4 (0.4%)
WHERE_n_of_attribs_of_type___date	
0	794 (79%)
1	159 (16%)
2	32 (3.2%)
3	15 (1.5%)
WHERE_n_of_attribs_of_type___integer	
0	383 (38%)
1	296 (30%)
2	171 (17%)
3	77 (7.7%)
4	51 (5.1%)
5	16 (1.6%)
6	6 (0.6%)
WHERE_n_of_attribs_of_type___numeric	
0	587 (59%)
1	280 (28%)
2	87 (8.7%)
3	38 (3.8%)
4	7 (0.7%)
6	1 (0.1%)
WHERE_n_of_pkey_attribs	
0	558 (56%)
1	274 (27%)
2	114 (11%)
3	39 (3.9%)

Query parameter or value	Descriptive statistics
4	12 (1.2%)
5	3 (0.3%)
WHERE_n_of_connect_OR	[0.00, 1.00, 10.00] 2.14 / 2.45
WHERE_n_of_operators___between	
0	560 (56%)
1	267 (27%)
2	120 (12%)
3	45 (4.5%)
4	6 (0.6%)
5	2 (0.2%)
WHERE_n_of_operators___greater_or_less	
0	340 (34%)
1	276 (28%)
2	168 (17%)
3	119 (12%)
4	60 (6.0%)
5	24 (2.4%)
6	12 (1.2%)
7	1 (0.1%)
WHERE_n_of_operators___in	
0	560 (56%)
1	266 (27%)
2	126 (13%)
3	34 (3.4%)
4	9 (0.9%)
5	5 (0.5%)
WHERE_n_of_operators___like	
0	761 (76%)
1	202 (20%)
2	32 (3.2%)
3	5 (0.5%)
WHERE_n_of_non_aggr_func___DAY	
0	955 (96%)
1	44 (4.4%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___MONTH	
0	969 (97%)
1	30 (3.0%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___DOW	
0	965 (97%)
1	35 (3.5%)
WHERE_n_of_non_aggr_func___SQRT	
0	870 (87%)
1	121 (12%)
2	8 (0.8%)

Query parameter or value	Descriptive statistics
3	1 (0.1%)
WHERE_n_of_non_aggr_func___ABS	
0	966 (97%)
1	34 (3.4%)
WHERE_n_of_non_aggr_func___ROUND	
0	970 (97%)
1	28 (2.8%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func___TRUNC	
0	958 (96%)
1	42 (4.2%)
WHERE_n_of_non_aggr_func___YEAR	
0	970 (97%)
1	29 (2.9%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___LOG	
0	923 (92%)
1	74 (7.4%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func___FLOOR	
0	964 (96%)
1	36 (3.6%)
WHERE_n_of_all_non_aggr_func	
0	630 (63%)
1	254 (25%)
2	96 (9.6%)
3	18 (1.8%)
4	2 (0.2%)
GROUP_BY_n_of_columns	[0.00, 2.00, 12.00] 3.09 / 2.84
HAVING_n_of_main_predicates	
0	281 (28%)
1	99 (9.9%)
2	155 (16%)
3	193 (19%)
4	130 (13%)
5	89 (8.9%)
6	53 (5.3%)
HAVING_n_of_main_predicates___scalar_subquery	
0	437 (44%)
1	170 (17%)
2	193 (19%)
3	200 (20%)
HAVING_n_of_subqueries___scalar_subquery	[0.0, 1.0, 19.0] 2.3 / 3.4
HAVING_n_of_processed_rows_by_subqueries	[0, 16,202,190, 4,588,830,240] 256,825,334 / 522,348,950
ORDER_BY_n_of_columns	

Query parameter or value	Descriptive statistics
0	311 (31%)
1	344 (34%)
2	212 (21%)
3	99 (9.9%)
4	17 (1.7%)
5	10 (1.0%)
6	4 (0.4%)
7	3 (0.3%)
limit	[1, 499, 999] 497 / 288
offset	[0, 0, 999] 246 / 320