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

Scenario: 1-3jp_rjjp__g__h0-3ss_h0nss

Scale factor: 2000 GB

The 1000-query pack was generated on: 2023-11-07

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, 95] 10 / 13
SELECT_n_of_non_aggr_func___FLOOR	
0	937 (94%)
1	56 (5.6%)
2	4 (0.4%)
3	3 (0.3%)
SELECT_n_of_non_aggr_func___RTRIM	
0	705 (71%)
1	222 (22%)
2	47 (4.7%)
3	21 (2.1%)
4	3 (0.3%)
5	2 (0.2%)
SELECT_n_of_non_aggr_func___SQRT	
0	841 (84%)

Query parameter or value	Descriptive statistics
1	116 (12%)
2	24 (2.4%)
3	15 (1.5%)
4	3 (0.3%)
5	1 (0.1%)
SELECT_n_of_non_aggr_func___SUBSTR	
0	677 (68%)
1	247 (25%)
2	58 (5.8%)
3	12 (1.2%)
4	1 (0.1%)
5	3 (0.3%)
6	1 (0.1%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___DOW	
0	873 (87%)
1	97 (9.7%)
2	24 (2.4%)
3	4 (0.4%)
4	1 (0.1%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func___LOG	
0	879 (88%)
1	103 (10%)
2	11 (1.1%)
3	5 (0.5%)
4	2 (0.2%)
SELECT_n_of_non_aggr_func___MONTH	
0	854 (85%)
1	99 (9.9%)
2	22 (2.2%)
3	17 (1.7%)
4	5 (0.5%)
5	2 (0.2%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func___YEAR	
0	860 (86%)
1	103 (10%)
2	25 (2.5%)
3	8 (0.8%)
4	3 (0.3%)
5	1 (0.1%)
SELECT_n_of_non_aggr_func___ABS	
0	943 (94%)
1	46 (4.6%)
2	11 (1.1%)

Query parameter or value	Descriptive statistics
SELECT_n_of_non_aggr_func___LTRIM	
0	681 (68%)
1	240 (24%)
2	54 (5.4%)
3	17 (1.7%)
4	5 (0.5%)
5	1 (0.1%)
6	1 (0.1%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func___UPPER	
0	700 (70%)
1	207 (21%)
2	66 (6.6%)
3	20 (2.0%)
4	6 (0.6%)
5	1 (0.1%)
SELECT_n_of_non_aggr_func___DAY	
0	901 (90%)
1	84 (8.4%)
2	10 (1.0%)
3	5 (0.5%)
SELECT_n_of_non_aggr_func___LOWER	
0	712 (71%)
1	214 (21%)
2	53 (5.3%)
3	14 (1.4%)
4	5 (0.5%)
5	1 (0.1%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func___ROUND	
0	950 (95%)
1	45 (4.5%)
2	4 (0.4%)
3	1 (0.1%)
SELECT_n_of_non_aggr_func___TRUNC	
0	948 (95%)
1	45 (4.5%)
2	6 (0.6%)
3	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0.0, 2.0, 44.0] 3.4 / 5.0
SELECT_n_of_aggr_func___AVG	
0	935 (94%)
1	46 (4.6%)
2	17 (1.7%)
3	2 (0.2%)
SELECT_n_of_aggr_func___COUNT_DISTINCT	

Query parameter or value	Descriptive statistics
0	787 (79%)
1	69 (6.9%)
2	47 (4.7%)
3	39 (3.9%)
4	26 (2.6%)
5	14 (1.4%)
6	8 (0.8%)
7	7 (0.7%)
8	3 (0.3%)
SELECT_n_of_aggr_func___MIN	[0.00, 0.00, 9.00] 0.62 / 1.45
SELECT_n_of_aggr_func___MAX	[0.00, 0.00, 9.00] 0.71 / 1.56
SELECT_n_of_aggr_func___COUNT	
0	763 (76%)
1	103 (10%)
2	56 (5.6%)
3	28 (2.8%)
4	18 (1.8%)
5	14 (1.4%)
6	13 (1.3%)
7	4 (0.4%)
8	1 (0.1%)
SELECT_n_of_aggr_func___SUM	
0	942 (94%)
1	44 (4.4%)
2	11 (1.1%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_all_aggr_func	[0.00, 2.00, 10.00] 2.62 / 2.24
FROM_n_of_join_paths	
1	330 (33%)
2	336 (34%)
3	334 (33%)
FROM_n_of_super_joins___FULL	
0	782 (78%)
1	191 (19%)
2	27 (2.7%)
FROM_n_of_super_joins___RIGHT	
0	760 (76%)
1	217 (22%)
2	23 (2.3%)
FROM_n_of_super_joins___LEFT	
0	787 (79%)
1	190 (19%)
2	23 (2.3%)
FROM_n_of_joins___INNER	
0	228 (23%)

Query parameter or value	Descriptive statistics
1	256 (26%)
2	229 (23%)
3	159 (16%)
4	76 (7.6%)
5	39 (3.9%)
6	7 (0.7%)
7	5 (0.5%)
8	1 (0.1%)
FROM_n_of_joins___RIGHT	[0.00, 1.00, 9.00] 1.79 / 1.59
FROM_n_of_processed_rows	[5, 13,620,027,828, 45,900,083,482] 12,900,842,128 / 11,828,655,879
WHERE_n_of_predicates	[0.00, 3.00, 9.00] 2.84 / 2.24
WHERE_n_of_attribs_of_type___character	
0	738 (74%)
1	202 (20%)
2	52 (5.2%)
3	7 (0.7%)
4	1 (0.1%)
WHERE_n_of_attribs_of_type___character_varying	
0	459 (46%)
1	279 (28%)
2	177 (18%)
3	63 (6.3%)
4	17 (1.7%)
5	5 (0.5%)
WHERE_n_of_attribs_of_type___date	
0	842 (84%)
1	132 (13%)
2	22 (2.2%)
3	4 (0.4%)
WHERE_n_of_attribs_of_type___integer	
0	437 (44%)
1	310 (31%)
2	168 (17%)
3	62 (6.2%)
4	20 (2.0%)
5	3 (0.3%)
WHERE_n_of_attribs_of_type___numeric	
0	648 (65%)
1	250 (25%)
2	80 (8.0%)
3	19 (1.9%)
4	3 (0.3%)
WHERE_n_of_pkey_attribs	
0	597 (60%)
1	291 (29%)

Query parameter or value	Descriptive statistics
2	89 (8.9%)
3	21 (2.1%)
4	2 (0.2%)
WHERE_n_of_connect_OR	
0	435 (44%)
1	205 (21%)
2	134 (13%)
3	89 (8.9%)
4	73 (7.3%)
5	29 (2.9%)
6	26 (2.6%)
7	7 (0.7%)
8	2 (0.2%)
WHERE_n_of_operators___between	
0	608 (61%)
1	277 (28%)
2	95 (9.5%)
3	14 (1.4%)
4	5 (0.5%)
5	1 (0.1%)
WHERE_n_of_operators___greater_or_less	
0	395 (40%)
1	305 (31%)
2	171 (17%)
3	91 (9.1%)
4	29 (2.9%)
5	7 (0.7%)
6	2 (0.2%)
WHERE_n_of_operators___in	
0	623 (62%)
1	262 (26%)
2	96 (9.6%)
3	17 (1.7%)
4	2 (0.2%)
WHERE_n_of_operators___like	
0	839 (84%)
1	143 (14%)
2	17 (1.7%)
3	1 (0.1%)
WHERE_n_of_non_aggr_func___ROUND	
0	975 (98%)
1	25 (2.5%)
WHERE_n_of_non_aggr_func___SQRT	
0	886 (89%)
1	107 (11%)
2	7 (0.7%)

Query parameter or value	Descriptive statistics
WHERE_n_of_non_aggr_func___ABS	
0	966 (97%)
1	31 (3.1%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func___DOW	
0	981 (98%)
1	19 (1.9%)
WHERE_n_of_non_aggr_func___LOG	
0	941 (94%)
1	55 (5.5%)
2	4 (0.4%)
WHERE_n_of_non_aggr_func___DAY	
0	964 (96%)
1	35 (3.5%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___TRUNC	
0	966 (97%)
1	34 (3.4%)
WHERE_n_of_non_aggr_func___YEAR	
0	979 (98%)
1	21 (2.1%)
WHERE_n_of_non_aggr_func___FLOOR	
0	975 (98%)
1	25 (2.5%)
WHERE_n_of_non_aggr_func___MONTH	
0	978 (98%)
1	21 (2.1%)
2	1 (0.1%)
WHERE_n_of_all_non_aggr_func	
0	690 (69%)
1	227 (23%)
2	71 (7.1%)
3	12 (1.2%)
GROUP_BY_n_of_columns	[0.00, 2.00, 9.00] 2.35 / 2.08
HAVING_n_of_main_predicates	
0	297 (30%)
1	81 (8.1%)
2	134 (13%)
3	205 (21%)
4	146 (15%)
5	88 (8.8%)
6	49 (4.9%)
HAVING_n_of_main_predicates___scalar_subquery	
0	418 (42%)
1	193 (19%)
2	193 (19%)

Query parameter or value	Descriptive statistics
3	196 (20%)
HAVING_n_of_subqueries___scalar_subquery	[0.0, 1.0, 20.0] 2.5 / 3.7
HAVING_n_of_processed_rows_by_subqueries	[0, 849,999,990, 735,121,501,236] 31,528,534,718 / 69,573,544,635
ORDER_BY_n_of_columns	
0	265 (27%)
1	385 (39%)
2	247 (25%)
3	71 (7.1%)
4	21 (2.1%)
5	7 (0.7%)
6	3 (0.3%)
7	1 (0.1%)
limit	[1, 485, 1,000] 494 / 288
offset	[0, 3, 991] 253 / 327