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

Scenario: 1-3jp_rjjp__g__h0-3ss_h0-3nss

Scale factor: 2000 GB

The 1000-query pack was generated on: 2023-11-06

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, 103] 10 / 13
SELECT_n_of_non_aggr_func___LOG	
0	894 (89%)
1	91 (9.1%)
2	10 (1.0%)
3	5 (0.5%)
SELECT_n_of_non_aggr_func___ABS	
0	953 (95%)
1	40 (4.0%)
2	7 (0.7%)
SELECT_n_of_non_aggr_func___DOW	
0	902 (90%)
1	81 (8.1%)
2	10 (1.0%)
3	4 (0.4%)

Query parameter or value	Descriptive statistics
4	3 (0.3%)
SELECT_n_of_non_aggr_func___LTRIM	
0	699 (70%)
1	236 (24%)
2	42 (4.2%)
3	17 (1.7%)
4	3 (0.3%)
5	2 (0.2%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func___UPPER	
0	702 (70%)
1	229 (23%)
2	50 (5.0%)
3	13 (1.3%)
4	6 (0.6%)
SELECT_n_of_non_aggr_func___LOWER	
0	713 (71%)
1	223 (22%)
2	43 (4.3%)
3	9 (0.9%)
4	4 (0.4%)
5	5 (0.5%)
6	2 (0.2%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___MONTH	
0	853 (85%)
1	110 (11%)
2	26 (2.6%)
3	7 (0.7%)
4	1 (0.1%)
5	2 (0.2%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func___YEAR	
0	866 (87%)
1	110 (11%)
2	20 (2.0%)
3	1 (0.1%)
4	1 (0.1%)
6	1 (0.1%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___RTRIM	
0	722 (72%)
1	217 (22%)
2	43 (4.3%)
3	9 (0.9%)
4	4 (0.4%)

Query parameter or value	Descriptive statistics
5	3 (0.3%)
6	2 (0.2%)
SELECT_n_of_non_aggr_func___SQRT	
0	852 (85%)
1	109 (11%)
2	26 (2.6%)
3	7 (0.7%)
4	5 (0.5%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func___SUBSTR	
0	690 (69%)
1	238 (24%)
2	53 (5.3%)
3	12 (1.2%)
4	5 (0.5%)
5	2 (0.2%)
SELECT_n_of_non_aggr_func___FLOOR	
0	939 (94%)
1	54 (5.4%)
2	7 (0.7%)
SELECT_n_of_non_aggr_func___ROUND	
0	941 (94%)
1	56 (5.6%)
2	3 (0.3%)
SELECT_n_of_non_aggr_func___DAY	
0	922 (92%)
1	68 (6.8%)
2	7 (0.7%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func___TRUNC	
0	941 (94%)
1	53 (5.3%)
2	6 (0.6%)
SELECT_n_of_all_non_aggr_func	[0.00, 2.00, 54.00] 3.15 / 4.52
SELECT_n_of_aggr_func___COUNT	
0	764 (76%)
1	91 (9.1%)
2	57 (5.7%)
3	28 (2.8%)
4	23 (2.3%)
5	16 (1.6%)
6	9 (0.9%)
7	8 (0.8%)
8	4 (0.4%)
SELECT_n_of_aggr_func___MIN	[0.00, 0.00, 10.00] 0.65 / 1.48

Query parameter or value	Descriptive statistics
SELECT_n_of_aggr_func___MAX	[0.00, 0.00, 12.00] 0.63 / 1.48
SELECT_n_of_aggr_func___SUM	
0	945 (95%)
1	44 (4.4%)
2	8 (0.8%)
3	3 (0.3%)
SELECT_n_of_aggr_func___COUNT_DISTINCT	[0.00, 0.00, 9.00] 0.59 / 1.39
SELECT_n_of_aggr_func___AVG	
0	950 (95%)
1	40 (4.0%)
2	10 (1.0%)
SELECT_n_of_all_aggr_func	[0.00, 2.00, 13.00] 2.61 / 2.28
FROM_n_of_join_paths	
1	330 (33%)
2	368 (37%)
3	302 (30%)
FROM_n_of_super_joins___FULL	
0	763 (76%)
1	213 (21%)
2	24 (2.4%)
FROM_n_of_super_joins___LEFT	
0	792 (79%)
1	195 (20%)
2	13 (1.3%)
FROM_n_of_super_joins___RIGHT	
0	775 (78%)
1	211 (21%)
2	14 (1.4%)
FROM_n_of_joins___INNER	
0	257 (26%)
1	247 (25%)
2	232 (23%)
3	139 (14%)
4	74 (7.4%)
5	31 (3.1%)
6	10 (1.0%)
7	7 (0.7%)
8	3 (0.3%)
FROM_n_of_joins___RIGHT	
0	248 (25%)
1	259 (26%)
2	219 (22%)
3	144 (14%)
4	75 (7.5%)
5	41 (4.1%)
6	11 (1.1%)

Query parameter or value	Descriptive statistics
7	3 (0.3%)
FROM_n_of_processed_rows	[5, 13,620,027,828, 45,900,083,457] 12,806,382,154 / 12,115,752,433
WHERE_n_of_predicates	[0.00, 2.00, 10.00] 2.73 / 2.20
WHERE_n_of_attribs_of_type___character	
0	751 (75%)
1	186 (19%)
2	53 (5.3%)
3	9 (0.9%)
4	1 (0.1%)
WHERE_n_of_attribs_of_type___character_varying	
0	427 (43%)
1	340 (34%)
2	160 (16%)
3	56 (5.6%)
4	14 (1.4%)
5	3 (0.3%)
WHERE_n_of_attribs_of_type___integer	
0	466 (47%)
1	299 (30%)
2	159 (16%)
3	57 (5.7%)
4	15 (1.5%)
5	4 (0.4%)
WHERE_n_of_attribs_of_type___numeric	
0	660 (66%)
1	253 (25%)
2	71 (7.1%)
3	16 (1.6%)
WHERE_n_of_attribs_of_type___date	
0	827 (83%)
1	154 (15%)
2	17 (1.7%)
3	2 (0.2%)
WHERE_n_of_pkey_attribs	
0	631 (63%)
1	269 (27%)
2	80 (8.0%)
3	19 (1.9%)
4	1 (0.1%)
WHERE_n_of_connect_OR	
0	480 (48%)
1	174 (17%)
2	131 (13%)
3	95 (9.5%)
4	71 (7.1%)

Query parameter or value	Descriptive statistics
5	30 (3.0%)
6	13 (1.3%)
7	4 (0.4%)
8	2 (0.2%)
WHERE_n_of_operators___between	
0	642 (64%)
1	246 (25%)
2	82 (8.2%)
3	23 (2.3%)
4	7 (0.7%)
WHERE_n_of_operators___greater_or_less	
0	419 (42%)
1	299 (30%)
2	169 (17%)
3	79 (7.9%)
4	24 (2.4%)
5	9 (0.9%)
6	1 (0.1%)
WHERE_n_of_operators___in	
0	608 (61%)
1	293 (29%)
2	76 (7.6%)
3	21 (2.1%)
4	1 (0.1%)
5	1 (0.1%)
WHERE_n_of_operators___like	
0	839 (84%)
1	142 (14%)
2	16 (1.6%)
3	3 (0.3%)
WHERE_n_of_non_aggr_func___YEAR	
0	976 (98%)
1	24 (2.4%)
WHERE_n_of_non_aggr_func___LOG	
0	930 (93%)
1	68 (6.8%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func___ABS	
0	970 (97%)
1	29 (2.9%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___SQRT	
0	909 (91%)
1	90 (9.0%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___ROUND	

Query parameter or value	Descriptive statistics
0	972 (97%)
1	27 (2.7%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___DOW	
0	969 (97%)
1	30 (3.0%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___FLOOR	
0	971 (97%)
1	28 (2.8%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___MONTH	
0	970 (97%)
1	29 (2.9%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___DAY	
0	972 (97%)
1	28 (2.8%)
WHERE_n_of_non_aggr_func___TRUNC	
0	978 (98%)
1	22 (2.2%)
WHERE_n_of_all_non_aggr_func	
0	686 (69%)
1	251 (25%)
2	53 (5.3%)
3	7 (0.7%)
4	2 (0.2%)
5	1 (0.1%)
GROUP_BY_n_of_columns	[0.00, 2.00, 9.00] 2.32 / 2.09
HAVING_n_of_main_predicates	[0.00, 4.00, 9.00] 3.40 / 2.51
HAVING_n_of_main_predicates___non_scalar_subquery	
0	436 (44%)
1	195 (20%)
2	179 (18%)
3	190 (19%)
HAVING_n_of_main_predicates___scalar_subquery	
0	420 (42%)
1	195 (20%)
2	191 (19%)
3	194 (19%)
HAVING_n_of_subqueries___non_scalar_subquery	
0	436 (44%)
1	195 (20%)
2	179 (18%)
3	190 (19%)
HAVING_n_of_subqueries___scalar_subquery	[0.0, 1.0, 24.0] 2.5 / 3.7

Query parameter or value	Descriptive statistics
HAVING_n_of_processed_rows_by_subqueries	[0, 150,000,090, 627,841,334,912] 44,338,597,016 / 76,607,728,564
ORDER_BY_n_of_columns	
0	301 (30%)
1	388 (39%)
2	236 (24%)
3	58 (5.8%)
4	10 (1.0%)
5	4 (0.4%)
6	2 (0.2%)
7	1 (0.1%)
limit	[2, 508, 1,000] 507 / 293
offset	[0, 0, 998] 236 / 312