

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

Scenario: 1-3jp_ujpp__g__h0-3ss_h0-3nss

Scale factor: 1000 GB

The 1000-query pack was generated on: 2023-11-10

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__LOWER	
0	686 (69%)
1	236 (24%)
2	54 (5.4%)
3	13 (1.3%)
4	8 (0.8%)
5	2 (0.2%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func__LTRIM	
0	704 (70%)
1	227 (23%)
2	45 (4.5%)
3	10 (1.0%)
4	10 (1.0%)

Query parameter or value	Descriptive statistics
5	3 (0.3%)
6	1 (0.1%)
SELECT__n_of__non__aggr__func__MONTH	
0	868 (87%)
1	95 (9.5%)
2	22 (2.2%)
3	9 (0.9%)
4	2 (0.2%)
5	2 (0.2%)
6	1 (0.1%)
7	1 (0.1%)
SELECT__n_of__non__aggr__func__UPPER	
0	688 (69%)
1	235 (24%)
2	55 (5.5%)
3	15 (1.5%)
4	6 (0.6%)
7	1 (0.1%)
SELECT__n_of__non__aggr__func__YEAR	
0	881 (88%)
1	92 (9.2%)
2	18 (1.8%)
3	6 (0.6%)
4	1 (0.1%)
5	2 (0.2%)
SELECT__n_of__non__aggr__func__DAY	
0	921 (92%)
1	65 (6.5%)
2	11 (1.1%)
3	2 (0.2%)
4	1 (0.1%)
SELECT__n_of__non__aggr__func__RTRIM	
0	700 (70%)
1	223 (22%)
2	62 (6.2%)
3	8 (0.8%)
4	2 (0.2%)
5	3 (0.3%)
6	2 (0.2%)
SELECT__n_of__non__aggr__func__FLOOR	
0	942 (94%)
1	50 (5.0%)
2	6 (0.6%)
3	1 (0.1%)
4	1 (0.1%)
SELECT__n_of__non__aggr__func__TRUNC	

Query parameter or value	Descriptive statistics
0	944 (94%)
1	47 (4.7%)
2	9 (0.9%)
SELECT_n_of_non_aggr_func__SUBSTR	
0	693 (69%)
1	239 (24%)
2	49 (4.9%)
3	12 (1.2%)
4	6 (0.6%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func__DOW	
0	897 (90%)
1	78 (7.8%)
2	20 (2.0%)
3	4 (0.4%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func__ROUND	
0	938 (94%)
1	55 (5.5%)
2	6 (0.6%)
3	1 (0.1%)
SELECT_n_of_non_aggr_func__LOG	
0	877 (88%)
1	103 (10%)
2	17 (1.7%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func__SQRT	
0	845 (85%)
1	123 (12%)
2	23 (2.3%)
3	6 (0.6%)
4	1 (0.1%)
5	2 (0.2%)
SELECT_n_of_non_aggr_func__ABS	
0	940 (94%)
1	52 (5.2%)
2	8 (0.8%)
SELECT_n_of_all_non_aggr_func	[0.0, 2.0, 45.0] 3.3 / 4.6
SELECT_n_of_aggr_func__COUNT_DISTINCT	[0.00, 0.00, 10.00] 0.65 / 1.46
SELECT_n_of_aggr_func__MAX	
0	754 (75%)
1	86 (8.6%)
2	60 (6.0%)
3	38 (3.8%)
4	27 (2.7%)

Query parameter or value	Descriptive statistics
5	16 (1.6%)
6	13 (1.3%)
7	4 (0.4%)
8	2 (0.2%)
SELECT_n_of_aggr_func__SUM	
0	939 (94%)
1	47 (4.7%)
2	12 (1.2%)
3	2 (0.2%)
SELECT_n_of_aggr_func__MIN	[0.00, 0.00, 9.00] 0.65 / 1.44
SELECT_n_of_aggr_func__COUNT	[0.00, 0.00, 11.00] 0.60 / 1.43
SELECT_n_of_aggr_func__AVG	
0	948 (95%)
1	38 (3.8%)
2	12 (1.2%)
3	2 (0.2%)
SELECT_n_of_all_aggr_func	[0.00, 2.00, 11.00] 2.68 / 2.23
FROM_n_of_join_paths	
1	329 (33%)
2	335 (34%)
3	336 (34%)
FROM_n_of_super_joins__FULL	
0	760 (76%)
1	226 (23%)
2	14 (1.4%)
FROM_n_of_super_joins__LEFT	
0	777 (78%)
1	206 (21%)
2	17 (1.7%)
FROM_n_of_super_joins__RIGHT	
0	741 (74%)
1	237 (24%)
2	22 (2.2%)
FROM_n_of_joins__INNER	
0	245 (25%)
1	273 (27%)
2	197 (20%)
3	148 (15%)
4	73 (7.3%)
5	38 (3.8%)
6	20 (2.0%)
7	5 (0.5%)
8	1 (0.1%)
FROM_n_of_joins__RIGHT	
0	242 (24%)
1	260 (26%)

Query parameter or value	Descriptive statistics
2	224 (22%)
3	148 (15%)
4	76 (7.6%)
5	35 (3.5%)
6	11 (1.1%)
7	2 (0.2%)
8	2 (0.2%)
FROM_n_of_processed_rows	[5, 6,809,989,734, 22,949,969,202] 6,342,662,025 / 5,843,968,789
WHERE_n_of_predicates	[0.00, 2.00, 9.00] 2.79 / 2.22
WHERE_n_of_attribs_of_type__character	
0	733 (73%)
1	210 (21%)
2	48 (4.8%)
3	9 (0.9%)
WHERE_n_of_attribs_of_type__date	
0	832 (83%)
1	138 (14%)
2	27 (2.7%)
3	3 (0.3%)
WHERE_n_of_attribs_of_type__character_varying	
0	427 (43%)
1	328 (33%)
2	157 (16%)
3	67 (6.7%)
4	19 (1.9%)
5	1 (0.1%)
6	1 (0.1%)
WHERE_n_of_attribs_of_type__integer	
0	464 (46%)
1	321 (32%)
2	143 (14%)
3	56 (5.6%)
4	13 (1.3%)
5	3 (0.3%)
WHERE_n_of_attribs_of_type__numeric	
0	651 (65%)
1	248 (25%)
2	79 (7.9%)
3	16 (1.6%)
4	5 (0.5%)
5	1 (0.1%)
WHERE_n_of_pkey_attribs	
0	647 (65%)
1	276 (28%)
2	59 (5.9%)

Query parameter or value	Descriptive statistics
3	15 (1.5%)
4	2 (0.2%)
5	1 (0.1%)
WHERE_n_of_connect_OR	
0	430 (43%)
1	219 (22%)
2	137 (14%)
3	97 (9.7%)
4	60 (6.0%)
5	32 (3.2%)
6	14 (1.4%)
7	7 (0.7%)
8	4 (0.4%)
WHERE_n_of_operators__between	
0	634 (63%)
1	273 (27%)
2	74 (7.4%)
3	15 (1.5%)
4	3 (0.3%)
5	1 (0.1%)
WHERE_n_of_operators__greater_or_less	
0	406 (41%)
1	292 (29%)
2	169 (17%)
3	88 (8.8%)
4	36 (3.6%)
5	8 (0.8%)
6	1 (0.1%)
WHERE_n_of_operators__in	
0	591 (59%)
1	282 (28%)
2	100 (10%)
3	23 (2.3%)
4	3 (0.3%)
5	1 (0.1%)
WHERE_n_of_operators__like	
0	851 (85%)
1	137 (14%)
2	12 (1.2%)
WHERE_n_of_non_aggr_func__SQRT	
0	917 (92%)
1	75 (7.5%)
2	8 (0.8%)
WHERE_n_of_non_aggr_func__DAY	
0	969 (97%)
1	31 (3.1%)

Query parameter or value	Descriptive statistics
WHERE_n_of_non_aggr_func__DOW	
0	972 (97%)
1	26 (2.6%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__FLOOR	
0	977 (98%)
1	22 (2.2%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__LOG	
0	947 (95%)
1	51 (5.1%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__MONTH	
0	975 (98%)
1	24 (2.4%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__YEAR	
0	968 (97%)
1	31 (3.1%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__ABS	
0	971 (97%)
1	28 (2.8%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__ROUND	
0	973 (97%)
1	26 (2.6%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__TRUNC	
0	965 (97%)
1	33 (3.3%)
2	2 (0.2%)
WHERE_n_of_all_non_aggr_func	
0	718 (72%)
1	206 (21%)
2	56 (5.6%)
3	16 (1.6%)
4	1 (0.1%)
5	3 (0.3%)
GROUP_BY_n_of_columns	[0.00, 2.00, 9.00] 2.31 / 2.10
HAVING_n_of_main_predicates	[0.00, 4.00, 9.00] 3.34 / 2.51
HAVING_n_of_main_predicates__non_scalar_subquery	
0	439 (44%)
1	187 (19%)
2	196 (20%)
3	178 (18%)

Query parameter or value	Descriptive statistics
HAVING_n_of_main_predicates__scalar_subquery	
0	433 (43%)
1	172 (17%)
2	224 (22%)
3	171 (17%)
HAVING_n_of_subqueries__non_scalar_subquery	
0	439 (44%)
1	187 (19%)
2	196 (20%)
3	178 (18%)
HAVING_n_of_subqueries__scalar_subquery	[0.0, 1.0, 24.0] 2.3 / 3.4
HAVING_n_of_processed_rows_by_subquery	[0, 14,860,000,150, 265,319,630,484] 22,021,132,312 / 38,286,482,016
ORDER_BY_n_of_columns	
0	305 (31%)
1	374 (37%)
2	226 (23%)
3	71 (7.1%)
4	11 (1.1%)
5	6 (0.6%)
6	5 (0.5%)
7	2 (0.2%)
limit	[1, 516, 1,000] 505 / 283
offset	[0, 0, 1,000] 234 / 308