

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

## Scenario: 1-6jp\_rjpp\_\_g\_\_h0-3ss\_h0-3nss

## 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, 164] 16 / 24
SELECT_n_of_non_aggr_func__FLOOR	
0	902 (90%)
1	79 (7.9%)
2	16 (1.6%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func__LOWER	[0.00, 0.00, 9.00] 0.66 / 1.08
SELECT_n_of_non_aggr_func__MONTH	
0	813 (81%)
1	124 (12%)
2	28 (2.8%)
3	11 (1.1%)
4	9 (0.9%)
5	7 (0.7%)

Query parameter or value	Descriptive statistics
6	3 (0.3%)
7	4 (0.4%)
8	1 (0.1%)
SELECT__n_of__non__aggr__func__SUBSTR	
0	615 (62%)
1	252 (25%)
2	83 (8.3%)
3	32 (3.2%)
4	8 (0.8%)
5	4 (0.4%)
6	4 (0.4%)
7	1 (0.1%)
9	1 (0.1%)
SELECT__n_of__non__aggr__func__UPPER	[0.00, 0.00, 10.00] 0.65 / 1.14
SELECT__n_of__non__aggr__func__LTRIM	[0.00, 0.00, 10.00] 0.60 / 1.08
SELECT__n_of__non__aggr__func__DAY	
0	891 (89%)
1	80 (8.0%)
2	16 (1.6%)
3	7 (0.7%)
4	3 (0.3%)
5	1 (0.1%)
6	2 (0.2%)
SELECT__n_of__non__aggr__func__DOW	
0	838 (84%)
1	119 (12%)
2	18 (1.8%)
3	11 (1.1%)
4	8 (0.8%)
5	4 (0.4%)
6	1 (0.1%)
7	1 (0.1%)
SELECT__n_of__non__aggr__func__LOG	
0	850 (85%)
1	107 (11%)
2	27 (2.7%)
3	12 (1.2%)
4	2 (0.2%)
5	1 (0.1%)
8	1 (0.1%)
SELECT__n_of__non__aggr__func__RTRIM	[0.00, 0.00, 9.00] 0.56 / 1.01
SELECT__n_of__non__aggr__func__SQRT	
0	801 (80%)
1	139 (14%)
2	31 (3.1%)
3	15 (1.5%)

Query parameter or value	Descriptive statistics
4	7 (0.7%)
5	4 (0.4%)
8	3 (0.3%)
SELECT_n_of_non_aggr_func__TRUNC	
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__YEAR	
0	818 (82%)
1	128 (13%)
2	23 (2.3%)
3	19 (1.9%)
4	8 (0.8%)
5	3 (0.3%)
9	1 (0.1%)
SELECT_n_of_non_aggr_func__ABS	
0	929 (93%)
1	63 (6.3%)
2	6 (0.6%)
3	1 (0.1%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func__ROUND	
0	916 (92%)
1	73 (7.3%)
2	10 (1.0%)
4	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0, 3, 63] 5 / 8
SELECT_n_of_aggr_func__COUNT_DISTINCT	[0.00, 0.00, 13.00] 0.80 / 1.89
SELECT_n_of_aggr_func__MIN	[0.00, 0.00, 13.00] 0.92 / 2.10
SELECT_n_of_aggr_func__AVG	
0	932 (93%)
1	46 (4.6%)
2	17 (1.7%)
3	3 (0.3%)
4	2 (0.2%)
SELECT_n_of_aggr_func__MAX	[0.00, 0.00, 13.00] 0.83 / 1.88
SELECT_n_of_aggr_func__COUNT	[0.00, 0.00, 11.00] 0.82 / 1.85
SELECT_n_of_aggr_func__SUM	
0	939 (94%)
1	40 (4.0%)
2	15 (1.5%)
3	6 (0.6%)
SELECT_n_of_all_aggr_func	[0.0, 3.0, 14.0] 3.6 / 3.2
FROM_n_of_join_paths	

Query parameter or value	Descriptive statistics
1	181 (18%)
2	152 (15%)
3	166 (17%)
4	158 (16%)
5	183 (18%)
6	160 (16%)
FROM_n_of_super_joins__LEFT	
0	534 (53%)
1	312 (31%)
2	112 (11%)
3	34 (3.4%)
4	7 (0.7%)
5	1 (0.1%)
FROM_n_of_super_joins__RIGHT	
0	562 (56%)
1	304 (30%)
2	108 (11%)
3	21 (2.1%)
4	4 (0.4%)
5	1 (0.1%)
FROM_n_of_super_joins__FULL	
0	570 (57%)
1	286 (29%)
2	112 (11%)
3	29 (2.9%)
4	3 (0.3%)
FROM_n_of_joins__INNER	[0.00, 3.00, 11.00] 3.25 / 2.35
FROM_n_of_joins__RIGHT	[0.00, 3.00, 14.00] 3.26 / 2.51
FROM_n_of_processed_rows	[5, 97,218, 455,575] 120,059 / 96,821
WHERE_n_of_predicates	[0.00, 3.00, 12.00] 3.80 / 2.91
WHERE_n_of_attribs_of_type__character	
0	680 (68%)
1	238 (24%)
2	58 (5.8%)
3	15 (1.5%)
4	6 (0.6%)
5	3 (0.3%)
WHERE_n_of_attribs_of_type__character_varying	
0	363 (36%)
1	300 (30%)
2	188 (19%)
3	85 (8.5%)
4	47 (4.7%)
5	12 (1.2%)
6	2 (0.2%)
7	2 (0.2%)

Query parameter or value	Descriptive statistics
8	1 (0.1%)
WHERE_n_of_attribs_of_type__integer	
0	361 (36%)
1	293 (29%)
2	194 (19%)
3	84 (8.4%)
4	49 (4.9%)
5	13 (1.3%)
6	6 (0.6%)
WHERE_n_of_attribs_of_type__numeric	
0	566 (57%)
1	299 (30%)
2	87 (8.7%)
3	35 (3.5%)
4	11 (1.1%)
5	2 (0.2%)
WHERE_n_of_attribs_of_type__date	
0	761 (76%)
1	199 (20%)
2	33 (3.3%)
3	6 (0.6%)
5	1 (0.1%)
WHERE_n_of_pkey_attribs	
0	528 (53%)
1	303 (30%)
2	126 (13%)
3	34 (3.4%)
4	7 (0.7%)
5	2 (0.2%)
WHERE_n_of_connect_OR	[0.00, 1.00, 10.00] 2.15 / 2.36
WHERE_n_of_operators__between	
0	541 (54%)
1	266 (27%)
2	126 (13%)
3	56 (5.6%)
4	11 (1.1%)
WHERE_n_of_operators__greater_or_less	
0	340 (34%)
1	264 (26%)
2	187 (19%)
3	108 (11%)
4	62 (6.2%)
5	28 (2.8%)
6	8 (0.8%)
7	2 (0.2%)
8	1 (0.1%)

Query parameter or value	Descriptive statistics
WHERE_n_of_operators_in	
0	526 (53%)
1	301 (30%)
2	129 (13%)
3	31 (3.1%)
4	10 (1.0%)
5	1 (0.1%)
6	2 (0.2%)
WHERE_n_of_operators_like	
0	782 (78%)
1	185 (19%)
2	28 (2.8%)
3	4 (0.4%)
4	1 (0.1%)
WHERE_n_of_non_aggr_func_sqrt	
0	880 (88%)
1	114 (11%)
2	6 (0.6%)
WHERE_n_of_non_aggr_func_month	
0	961 (96%)
1	38 (3.8%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func_log	
0	923 (92%)
1	70 (7.0%)
2	7 (0.7%)
WHERE_n_of_non_aggr_func_abs	
0	955 (96%)
1	42 (4.2%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func_dow	
0	963 (96%)
1	35 (3.5%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func_day	
0	959 (96%)
1	40 (4.0%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func_round	
0	955 (96%)
1	45 (4.5%)
WHERE_n_of_non_aggr_func_floor	
0	964 (96%)
1	33 (3.3%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func_trunc	

Query parameter or value	Descriptive statistics
0	963 (96%)
1	37 (3.7%)
WHERE_n_of_non_aggr_func__YEAR	
0	966 (97%)
1	34 (3.4%)
WHERE_n_of_all_non_aggr_func	
0	618 (62%)
1	261 (26%)
2	94 (9.4%)
3	23 (2.3%)
4	4 (0.4%)
GROUP_BY_n_of_columns	[0.00, 2.00, 13.00] 3.04 / 2.90
HAVING_n_of_main_predicates	[0.00, 4.00, 9.00] 3.38 / 2.54
HAVING_n_of_main_predicates__non_scalar_subquery	
0	433 (43%)
1	178 (18%)
2	191 (19%)
3	198 (20%)
HAVING_n_of_main_predicates__scalar_subquery	
0	446 (45%)
1	171 (17%)
2	203 (20%)
3	180 (18%)
HAVING_n_of_subqueries__non_scalar_subquery	
0	433 (43%)
1	178 (18%)
2	191 (19%)
3	198 (20%)
HAVING_n_of_subqueries__scalar_subquery	[0.0, 1.0, 19.0] 2.4 / 3.5
HAVING_n_of_processed_rows_by_subqueries	[0, 143,213, 4,831,910] 426,949 / 706,139
ORDER_BY_n_of_columns	
0	306 (31%)
1	320 (32%)
2	236 (24%)
3	103 (10%)
4	21 (2.1%)
5	6 (0.6%)
6	3 (0.3%)
7	2 (0.2%)
8	3 (0.3%)
limit	[1, 519, 999] 513 / 284
offset	[0, 0, 998] 242 / 324