

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

## Scenario: 1-6jp\_ujpp\_\_g\_\_h0-3ss\_h0nss

## Scale factor: 1 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, 161] 16 / 24
SELECT_n_of_non_aggr_func__DAY	
0	882 (88%)
1	80 (8.0%)
2	24 (2.4%)
3	7 (0.7%)
4	4 (0.4%)
5	2 (0.2%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func__DOW	
0	840 (84%)
1	102 (10%)
2	36 (3.6%)
3	12 (1.2%)
4	7 (0.7%)

Query parameter or value	Descriptive statistics
6	2 (0.2%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func__LOG	
0	867 (87%)
1	98 (9.8%)
2	22 (2.2%)
3	7 (0.7%)
4	4 (0.4%)
5	2 (0.2%)
SELECT_n_of_non_aggr_func__MONTH	
0	787 (79%)
1	136 (14%)
2	37 (3.7%)
3	17 (1.7%)
4	10 (1.0%)
5	5 (0.5%)
6	1 (0.1%)
7	2 (0.2%)
8	5 (0.5%)
SELECT_n_of_non_aggr_func__LTRIM	
0	611 (61%)
1	266 (27%)
2	73 (7.3%)
3	23 (2.3%)
4	12 (1.2%)
5	7 (0.7%)
6	5 (0.5%)
7	2 (0.2%)
9	1 (0.1%)
SELECT_n_of_non_aggr_func__SQRT	
0	806 (81%)
1	123 (12%)
2	36 (3.6%)
3	15 (1.5%)
4	11 (1.1%)
5	6 (0.6%)
6	1 (0.1%)
7	1 (0.1%)
9	1 (0.1%)
SELECT_n_of_non_aggr_func__UPPER	[0.00, 0.00, 11.00] 0.63 / 1.16
SELECT_n_of_non_aggr_func__LOWER	
0	595 (60%)
1	282 (28%)
2	76 (7.6%)
3	25 (2.5%)
4	12 (1.2%)

Query parameter or value	Descriptive statistics
5	3 (0.3%)
6	2 (0.2%)
7	3 (0.3%)
8	2 (0.2%)
SELECT_n_of_non_aggr_func__RTRIM	[0.00, 0.00, 9.00] 0.61 / 1.05
SELECT_n_of_non_aggr_func__SUBSTR	
0	640 (64%)
1	238 (24%)
2	75 (7.5%)
3	27 (2.7%)
4	10 (1.0%)
5	4 (0.4%)
6	3 (0.3%)
8	1 (0.1%)
9	2 (0.2%)
SELECT_n_of_non_aggr_func__YEAR	
0	821 (82%)
1	112 (11%)
2	33 (3.3%)
3	19 (1.9%)
4	7 (0.7%)
5	4 (0.4%)
6	2 (0.2%)
8	1 (0.1%)
9	1 (0.1%)
SELECT_n_of_non_aggr_func__ABS	
0	916 (92%)
1	69 (6.9%)
2	13 (1.3%)
3	1 (0.1%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func__ROUND	
0	905 (91%)
1	83 (8.3%)
2	7 (0.7%)
3	5 (0.5%)
SELECT_n_of_non_aggr_func__FLOOR	
0	916 (92%)
1	65 (6.5%)
2	16 (1.6%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func__TRUNC	
0	913 (91%)
1	71 (7.1%)
2	12 (1.2%)

Query parameter or value	Descriptive statistics
3	3 (0.3%)
5	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0, 3, 65] 5 / 8
SELECT_n_of_aggr_func__COUNT_DISTINCT	[0.00, 0.00, 12.00] 0.72 / 1.72
SELECT_n_of_aggr_func__MIN	[0.00, 0.00, 13.00] 0.91 / 2.02
SELECT_n_of_aggr_func__MAX	[0.00, 0.00, 13.00] 0.77 / 1.77
SELECT_n_of_aggr_func__COUNT	[0.00, 0.00, 12.00] 0.86 / 1.93
SELECT_n_of_aggr_func__SUM	
0	932 (93%)
1	43 (4.3%)
2	20 (2.0%)
3	3 (0.3%)
4	1 (0.1%)
5	1 (0.1%)
SELECT_n_of_aggr_func__AVG	
0	940 (94%)
1	38 (3.8%)
2	15 (1.5%)
3	4 (0.4%)
4	2 (0.2%)
5	1 (0.1%)
SELECT_n_of_all_aggr_func	[0.0, 3.0, 16.0] 3.5 / 3.1
FROM_n_of_join_paths	
1	187 (19%)
2	164 (16%)
3	154 (15%)
4	170 (17%)
5	168 (17%)
6	157 (16%)
FROM_n_of_super_joins__LEFT	
0	540 (54%)
1	305 (31%)
2	118 (12%)
3	33 (3.3%)
4	4 (0.4%)
FROM_n_of_super_joins__FULL	
0	565 (57%)
1	315 (32%)
2	94 (9.4%)
3	24 (2.4%)
4	2 (0.2%)
FROM_n_of_super_joins__RIGHT	
0	573 (57%)
1	303 (30%)
2	94 (9.4%)
3	23 (2.3%)

Query parameter or value	Descriptive statistics
4	7 (0.7%)
FROM_n_of_joins__INNER	[0.00, 3.00, 11.00] 3.29 / 2.46
FROM_n_of_joins__RIGHT	[0.00, 3.00, 13.00] 3.32 / 2.51
FROM_n_of_processed_rows	[5, 9,450,671, 44,073,596] 11,783,272 / 9,457,341
WHERE_n_of_predicates	[0.00, 4.00, 12.00] 3.92 / 2.85
WHERE_n_of_attribs_of_type__character_varying	
0	347 (35%)
1	283 (28%)
2	193 (19%)
3	100 (10%)
4	51 (5.1%)
5	21 (2.1%)
6	5 (0.5%)
WHERE_n_of_attribs_of_type__integer	
0	360 (36%)
1	322 (32%)
2	174 (17%)
3	100 (10%)
4	28 (2.8%)
5	10 (1.0%)
6	3 (0.3%)
7	2 (0.2%)
8	1 (0.1%)
WHERE_n_of_attribs_of_type__date	
0	797 (80%)
1	163 (16%)
2	34 (3.4%)
3	6 (0.6%)
WHERE_n_of_attribs_of_type__numeric	
0	526 (53%)
1	306 (31%)
2	122 (12%)
3	40 (4.0%)
4	6 (0.6%)
WHERE_n_of_attribs_of_type__character	
0	633 (63%)
1	266 (27%)
2	73 (7.3%)
3	26 (2.6%)
4	1 (0.1%)
5	1 (0.1%)
WHERE_n_of_pkey_attribs	
0	546 (55%)
1	304 (30%)
2	117 (12%)
3	21 (2.1%)

Query parameter or value	Descriptive statistics
4	10 (1.0%)
5	2 (0.2%)
WHERE_n_of_connect_OR	[0.00, 2.00, 10.00] 2.25 / 2.33
WHERE_n_of_operators__between	
0	531 (53%)
1	295 (30%)
2	109 (11%)
3	52 (5.2%)
4	11 (1.1%)
5	1 (0.1%)
6	1 (0.1%)
WHERE_n_of_operators__greater_or_less	
0	314 (31%)
1	259 (26%)
2	195 (20%)
3	139 (14%)
4	56 (5.6%)
5	24 (2.4%)
6	12 (1.2%)
7	1 (0.1%)
WHERE_n_of_operators__in	
0	522 (52%)
1	283 (28%)
2	134 (13%)
3	52 (5.2%)
4	7 (0.7%)
5	1 (0.1%)
6	1 (0.1%)
WHERE_n_of_operators__like	
0	777 (78%)
1	194 (19%)
2	25 (2.5%)
3	3 (0.3%)
4	1 (0.1%)
WHERE_n_of_non_aggr_func__FLOOR	
0	950 (95%)
1	49 (4.9%)
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__SQRT	
0	887 (89%)
1	103 (10%)
2	9 (0.9%)

Query parameter or value	Descriptive statistics
3	1 (0.1%)
WHERE_n_of_non_aggr_func__ABS	
0	954 (95%)
1	45 (4.5%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__DOW	
0	969 (97%)
1	31 (3.1%)
WHERE_n_of_non_aggr_func__DAY	
0	962 (96%)
1	36 (3.6%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__LOG	
0	925 (93%)
1	69 (6.9%)
2	6 (0.6%)
WHERE_n_of_non_aggr_func__YEAR	
0	962 (96%)
1	36 (3.6%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__TRUNC	
0	954 (95%)
1	45 (4.5%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__ROUND	
0	968 (97%)
1	30 (3.0%)
2	2 (0.2%)
WHERE_n_of_all_non_aggr_func	
0	608 (61%)
1	283 (28%)
2	86 (8.6%)
3	20 (2.0%)
4	3 (0.3%)
GROUP_BY_n_of_columns	[0.00, 2.00, 12.00] 3.07 / 2.89
HAVING_n_of_main_predicates	
0	279 (28%)
1	90 (9.0%)
2	142 (14%)
3	194 (19%)
4	150 (15%)
5	101 (10%)
6	44 (4.4%)
HAVING_n_of_main_predicates__scalar_subquery	
0	422 (42%)
1	172 (17%)

Query parameter or value	Descriptive statistics
2	207 (21%)
3	199 (20%)
HAVING_n_of_subqueries__scalar_subquery	[0.0, 1.0, 26.0] 2.5 / 3.7
HAVING_n_of_processed_rows_by_subquery	[0, 2,825,000, 639,048,280] 29,954,545 / 61,906,918
ORDER_BY_n_of_columns	
0	276 (28%)
1	368 (37%)
2	229 (23%)
3	98 (9.8%)
4	16 (1.6%)
5	5 (0.5%)
6	7 (0.7%)
7	1 (0.1%)
limit	[1, 502, 997] 502 / 286
offset	[0, 28, 1,000] 255 / 323