

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

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

## Scale factor: 2000 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, 186] 15 / 23
SELECT_n_of_non_aggr_func__DAY	
0	883 (88%)
1	90 (9.0%)
2	16 (1.6%)
3	7 (0.7%)
4	2 (0.2%)
5	1 (0.1%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func__MONTH	
0	807 (81%)
1	130 (13%)
11	1 (0.1%)
2	27 (2.7%)
3	19 (1.9%)

Query parameter or value	Descriptive statistics
4	5 (0.5%)
5	4 (0.4%)
7	6 (0.6%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func__RTRIM	
0	620 (62%)
1	247 (25%)
2	77 (7.7%)
3	35 (3.5%)
4	7 (0.7%)
5	5 (0.5%)
6	5 (0.5%)
7	3 (0.3%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func__YEAR	[0.00, 0.00, 9.00] 0.28 / 0.84
SELECT_n_of_non_aggr_func__LTRIM	
0	624 (62%)
1	246 (25%)
10	1 (0.1%)
2	81 (8.1%)
3	27 (2.7%)
4	5 (0.5%)
5	5 (0.5%)
6	6 (0.6%)
7	5 (0.5%)
SELECT_n_of_non_aggr_func__UPPER	[0.00, 0.00, 12.00] 0.62 / 1.12
SELECT_n_of_non_aggr_func__LOWER	
0	606 (61%)
1	232 (23%)
2	102 (10%)
3	30 (3.0%)
4	9 (0.9%)
5	11 (1.1%)
6	1 (0.1%)
7	7 (0.7%)
8	2 (0.2%)
SELECT_n_of_non_aggr_func__SUBSTR	
0	611 (61%)
1	244 (24%)
2	86 (8.6%)
3	25 (2.5%)
4	18 (1.8%)
5	4 (0.4%)
6	6 (0.6%)
7	4 (0.4%)
8	2 (0.2%)

Query parameter or value	Descriptive statistics
SELECT__n_of__non__aggr__func__LOG	
0	873 (87%)
1	95 (9.5%)
2	18 (1.8%)
3	10 (1.0%)
4	3 (0.3%)
6	1 (0.1%)
SELECT__n_of__non__aggr__func__ABS	
0	931 (93%)
1	61 (6.1%)
2	6 (0.6%)
3	2 (0.2%)
SELECT__n_of__non__aggr__func__DOW	
0	850 (85%)
1	112 (11%)
2	19 (1.9%)
3	8 (0.8%)
4	7 (0.7%)
5	2 (0.2%)
6	1 (0.1%)
7	1 (0.1%)
SELECT__n_of__non__aggr__func__SQRT	
0	803 (80%)
1	137 (14%)
2	28 (2.8%)
3	16 (1.6%)
4	9 (0.9%)
5	4 (0.4%)
6	3 (0.3%)
SELECT__n_of__non__aggr__func__FLOOR	
0	913 (91%)
1	74 (7.4%)
2	10 (1.0%)
3	1 (0.1%)
4	2 (0.2%)
SELECT__n_of__non__aggr__func__TRUNC	
0	922 (92%)
1	66 (6.6%)
2	3 (0.3%)
3	8 (0.8%)
4	1 (0.1%)
SELECT__n_of__non__aggr__func__ROUND	
0	912 (91%)
1	72 (7.2%)
2	15 (1.5%)
3	1 (0.1%)

Query parameter or value	Descriptive statistics
SELECT_n_of_all_non_aggr_func	[0, 3, 81] 5 / 8
SELECT_n_of_aggr_func__COUNT	[0.00, 0.00, 10.00] 0.82 / 1.83
SELECT_n_of_aggr_func__COUNT_DISTINCT	[0.00, 0.00, 11.00] 0.76 / 1.76
SELECT_n_of_aggr_func__MAX	[0.00, 0.00, 13.00] 0.89 / 1.97
SELECT_n_of_aggr_func__SUM	
0	946 (95%)
1	38 (3.8%)
2	12 (1.2%)
3	3 (0.3%)
4	1 (0.1%)
SELECT_n_of_aggr_func__MIN	[0.00, 0.00, 13.00] 0.88 / 1.96
SELECT_n_of_aggr_func__AVG	
0	927 (93%)
1	48 (4.8%)
2	18 (1.8%)
3	7 (0.7%)
SELECT_n_of_all_aggr_func	[0.00, 3.00, 13.00] 3.52 / 3.00
FROM_n_of_join_paths	
1	179 (18%)
2	147 (15%)
3	176 (18%)
4	177 (18%)
5	181 (18%)
6	140 (14%)
FROM_n_of_super_joins__LEFT	
0	570 (57%)
1	299 (30%)
2	100 (10%)
3	29 (2.9%)
4	2 (0.2%)
FROM_n_of_super_joins__FULL	
0	557 (56%)
1	296 (30%)
2	120 (12%)
3	25 (2.5%)
4	2 (0.2%)
FROM_n_of_super_joins__RIGHT	
0	556 (56%)
1	313 (31%)
2	109 (11%)
3	19 (1.9%)
4	3 (0.3%)
FROM_n_of_joins__INNER	[0.00, 3.00, 11.00] 3.18 / 2.38
FROM_n_of_joins__RIGHT	[0.00, 3.00, 13.00] 3.27 / 2.48
FROM_n_of_processed_rows	[5, 18,440,027,855, 85,920,166,846] 22,604,678,718 / 18,221,486,649

Query parameter or value	Descriptive statistics
WHERE_n_of_predicates	[0.00, 3.00, 13.00] 3.83 / 2.85
WHERE_n_of_attribs_of_type__character	
0	654 (65%)
1	258 (26%)
2	70 (7.0%)
3	14 (1.4%)
4	4 (0.4%)
WHERE_n_of_attribs_of_type__character_varying	
0	358 (36%)
1	293 (29%)
2	200 (20%)
3	96 (9.6%)
4	35 (3.5%)
5	14 (1.4%)
6	4 (0.4%)
WHERE_n_of_attribs_of_type__integer	
0	337 (34%)
1	304 (30%)
2	201 (20%)
3	104 (10%)
4	38 (3.8%)
5	15 (1.5%)
6	1 (0.1%)
WHERE_n_of_attribs_of_type__numeric	
0	561 (56%)
1	295 (30%)
2	108 (11%)
3	28 (2.8%)
4	8 (0.8%)
WHERE_n_of_attribs_of_type__date	
0	767 (77%)
1	191 (19%)
2	36 (3.6%)
3	4 (0.4%)
4	2 (0.2%)
WHERE_n_of_pkey_attribs	
0	536 (54%)
1	297 (30%)
2	118 (12%)
3	41 (4.1%)
4	8 (0.8%)
WHERE_n_of_connect_OR	[0.00, 1.00, 11.00] 2.20 / 2.37
WHERE_n_of_operators__between	
0	540 (54%)
1	267 (27%)
2	134 (13%)

Query parameter or value	Descriptive statistics
3	44 (4.4%)
4	12 (1.2%)
5	3 (0.3%)
WHERE_n_of_operators___greater_or_less	
0	297 (30%)
1	297 (30%)
2	184 (18%)
3	134 (13%)
4	60 (6.0%)
5	20 (2.0%)
6	7 (0.7%)
7	1 (0.1%)
WHERE_n_of_operators___in	
0	536 (54%)
1	307 (31%)
2	110 (11%)
3	29 (2.9%)
4	15 (1.5%)
5	3 (0.3%)
WHERE_n_of_operators___like	
0	795 (80%)
1	172 (17%)
2	28 (2.8%)
3	4 (0.4%)
5	1 (0.1%)
WHERE_n_of_non_aggr_func___TRUNC	
0	958 (96%)
1	42 (4.2%)
WHERE_n_of_non_aggr_func___LOG	
0	914 (91%)
1	85 (8.5%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___DOW	
0	964 (96%)
1	35 (3.5%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___YEAR	
0	962 (96%)
1	37 (3.7%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___ROUND	
0	957 (96%)
1	42 (4.2%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___DAY	
0	961 (96%)

Query parameter or value	Descriptive statistics
1	37 (3.7%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__SQRT	
0	887 (89%)
1	106 (11%)
2	7 (0.7%)
WHERE_n_of_non_aggr_func__ABS	
0	965 (97%)
1	35 (3.5%)
WHERE_n_of_non_aggr_func__MONTH	
0	968 (97%)
1	30 (3.0%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__FLOOR	
0	976 (98%)
1	23 (2.3%)
2	1 (0.1%)
WHERE_n_of_all_non_aggr_func	
0	628 (63%)
1	272 (27%)
2	74 (7.4%)
3	21 (2.1%)
4	4 (0.4%)
5	1 (0.1%)
GROUP_BY_n_of_columns	[0.00, 2.00, 12.00] 2.98 / 2.81
HAVING_n_of_main_predicates	
0	299 (30%)
1	91 (9.1%)
2	136 (14%)
3	165 (17%)
4	161 (16%)
5	101 (10%)
6	47 (4.7%)
HAVING_n_of_main_predicates__scalar_subquery	
0	431 (43%)
1	187 (19%)
2	185 (19%)
3	197 (20%)
HAVING_n_of_subqueries__scalar_subquery	[0.0, 1.0, 19.0] 2.4 / 3.5
HAVING_n_of_processed_rows_by_subqueries	[0.0, 240,000,034, 1,081,862,114,434] 53,390,930,328 / 112,777,259,444
ORDER_BY_n_of_columns	
0	282 (28%)
1	360 (36%)
2	246 (25%)
3	82 (8.2%)

Query parameter or value	Descriptive statistics
4	17 (1.7%)
5	8 (0.8%)
6	3 (0.3%)
7	2 (0.2%)
limit	[3, 514, 1,000] 509 / 286
offset	[0, 15, 1,000] 250 / 322