

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

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

## Scale factor: 5 GB

## The 1000-query pack was generated on: 2023-11-07

## 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, 199] 17 / 27
SELECT_n_of_non_aggr_func__LOWER	
0	631 (63%)
1	247 (25%)
2	74 (7.4%)
3	27 (2.7%)
4	9 (0.9%)
5	6 (0.6%)
6	3 (0.3%)
7	2 (0.2%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func__MONTH	[0.00, 0.00, 11.00] 0.35 / 0.99
SELECT_n_of_non_aggr_func__DAY	
0	883 (88%)
1	91 (9.1%)

Query parameter or value	Descriptive statistics
2	16 (1.6%)
3	4 (0.4%)
4	3 (0.3%)
5	1 (0.1%)
6	2 (0.2%)
SELECT_n_of_non_aggr_func___DOW	
0	846 (85%)
1	118 (12%)
2	21 (2.1%)
3	8 (0.8%)
4	4 (0.4%)
5	1 (0.1%)
6	1 (0.1%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___FLOOR	
0	928 (93%)
1	60 (6.0%)
2	10 (1.0%)
3	2 (0.2%)
SELECT_n_of_non_aggr_func___LOG	
0	881 (88%)
1	89 (8.9%)
2	18 (1.8%)
3	4 (0.4%)
4	3 (0.3%)
5	3 (0.3%)
7	2 (0.2%)
SELECT_n_of_non_aggr_func___LTRIM	[0.00, 0.00, 10.00] 0.61 / 1.04
SELECT_n_of_non_aggr_func___RTRIM	[0.00, 0.00, 9.00] 0.55 / 1.03
SELECT_n_of_non_aggr_func___SQRT	
0	790 (79%)
1	153 (15%)
2	26 (2.6%)
3	18 (1.8%)
4	4 (0.4%)
5	6 (0.6%)
7	2 (0.2%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___SUBSTR	
0	611 (61%)
1	243 (24%)
2	84 (8.4%)
3	30 (3.0%)
4	19 (1.9%)
5	9 (0.9%)
6	2 (0.2%)

Query parameter or value	Descriptive statistics
7	2 (0.2%)
SELECT_n_of_non_aggr_func___UPPER	
0	619 (62%)
1	270 (27%)
2	64 (6.4%)
3	24 (2.4%)
4	12 (1.2%)
5	4 (0.4%)
6	2 (0.2%)
7	3 (0.3%)
8	2 (0.2%)
SELECT_n_of_non_aggr_func___YEAR	
0	840 (84%)
1	118 (12%)
2	20 (2.0%)
3	8 (0.8%)
4	5 (0.5%)
5	6 (0.6%)
6	2 (0.2%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func___ABS	
0	911 (91%)
1	72 (7.2%)
2	14 (1.4%)
3	3 (0.3%)
SELECT_n_of_non_aggr_func___TRUNC	
0	931 (93%)
1	52 (5.2%)
2	13 (1.3%)
3	2 (0.2%)
4	1 (0.1%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func___ROUND	
0	900 (90%)
1	79 (7.9%)
2	15 (1.5%)
3	5 (0.5%)
4	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0.0, 3.0, 77.0] 4.9 / 8.0
SELECT_n_of_aggr_func___COUNT	[0.00, 0.00, 12.00] 0.83 / 1.91
SELECT_n_of_aggr_func___MIN	[0.00, 0.00, 13.00] 0.77 / 1.81
SELECT_n_of_aggr_func___SUM	
0	939 (94%)
1	37 (3.7%)
2	13 (1.3%)
3	8 (0.8%)

Query parameter or value	Descriptive statistics
4	3 (0.3%)
SELECT_n_of_aggr_func__MAX	[0.00, 0.00, 10.00] 0.88 / 1.98
SELECT_n_of_aggr_func__AVG	
0	939 (94%)
1	35 (3.5%)
2	17 (1.7%)
3	8 (0.8%)
4	1 (0.1%)
SELECT_n_of_aggr_func__COUNT_DISTINCT	[0.00, 0.00, 12.00] 0.86 / 1.97
SELECT_n_of_all_aggr_func	[0.0, 3.0, 14.0] 3.5 / 3.1
FROM_n_of_join_paths	
1	157 (16%)
2	154 (15%)
3	152 (15%)
4	176 (18%)
5	181 (18%)
6	180 (18%)
FROM_n_of_super_joins__FULL	
0	508 (51%)
1	322 (32%)
2	141 (14%)
3	24 (2.4%)
4	5 (0.5%)
FROM_n_of_super_joins__RIGHT	
0	517 (52%)
1	343 (34%)
2	111 (11%)
3	26 (2.6%)
4	3 (0.3%)
FROM_n_of_super_joins__LEFT	
0	544 (54%)
1	301 (30%)
2	126 (13%)
3	22 (2.2%)
4	7 (0.7%)
FROM_n_of_joins__INNER	[0.00, 3.00, 12.00] 3.32 / 2.43
FROM_n_of_joins__RIGHT	[0.00, 3.00, 12.00] 3.47 / 2.59
FROM_n_of_processed_rows	[5, 48,050,640, 221,299,947] 61,211,594 / 49,625,329
WHERE_n_of_predicates	[0.0, 4.0, 13.0] 4.0 / 3.1
WHERE_n_of_attris_of_type__character_varying	
0	372 (37%)
1	284 (28%)
2	181 (18%)
3	98 (9.8%)
4	45 (4.5%)
5	16 (1.6%)

Query parameter or value	Descriptive statistics
6	4 (0.4%)
WHERE_n_of_attribs_of_type__date	
0	764 (76%)
1	188 (19%)
2	46 (4.6%)
3	2 (0.2%)
WHERE_n_of_attribs_of_type__integer	
0	357 (36%)
1	280 (28%)
2	196 (20%)
3	96 (9.6%)
4	50 (5.0%)
5	17 (1.7%)
6	4 (0.4%)
WHERE_n_of_attribs_of_type__numeric	
0	556 (56%)
1	278 (28%)
2	109 (11%)
3	43 (4.3%)
4	11 (1.1%)
5	3 (0.3%)
WHERE_n_of_attribs_of_type__character	
0	651 (65%)
1	244 (24%)
2	78 (7.8%)
3	24 (2.4%)
4	2 (0.2%)
7	1 (0.1%)
WHERE_n_of_pkey_attribs	
0	501 (50%)
1	323 (32%)
2	129 (13%)
3	37 (3.7%)
4	9 (0.9%)
5	1 (0.1%)
WHERE_n_of_connect_OR	[0.00, 2.00, 11.00] 2.29 / 2.49
WHERE_n_of_operators__between	
0	521 (52%)
1	270 (27%)
2	138 (14%)
3	52 (5.2%)
4	16 (1.6%)
5	3 (0.3%)
WHERE_n_of_operators__greater_or_less	
0	330 (33%)
1	255 (26%)

Query parameter or value	Descriptive statistics
2	202 (20%)
3	121 (12%)
4	55 (5.5%)
5	18 (1.8%)
6	15 (1.5%)
7	2 (0.2%)
8	2 (0.2%)
WHERE_n_of_operators_in	
0	544 (54%)
1	269 (27%)
2	137 (14%)
3	35 (3.5%)
4	12 (1.2%)
5	3 (0.3%)
WHERE_n_of_operators_like	
0	770 (77%)
1	195 (20%)
2	31 (3.1%)
3	4 (0.4%)
WHERE_n_of_non_aggr_func_DOW	
0	965 (97%)
1	33 (3.3%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func_SQRT	
0	865 (87%)
1	128 (13%)
2	7 (0.7%)
WHERE_n_of_non_aggr_func_ABS	
0	958 (96%)
1	42 (4.2%)
WHERE_n_of_non_aggr_func_LOG	
0	915 (92%)
1	77 (7.7%)
2	8 (0.8%)
WHERE_n_of_non_aggr_func_DAY	
0	965 (97%)
1	31 (3.1%)
2	4 (0.4%)
WHERE_n_of_non_aggr_func_YEAR	
0	955 (96%)
1	43 (4.3%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func_MONTH	
0	970 (97%)
1	30 (3.0%)
WHERE_n_of_non_aggr_func_TRUNC	

Query parameter or value	Descriptive statistics
0	959 (96%)
1	35 (3.5%)
2	6 (0.6%)
WHERE_n_of_non_aggr_func__ROUND	
0	948 (95%)
1	51 (5.1%)
3	1 (0.1%)
WHERE_n_of_non_aggr_func__FLOOR	
0	951 (95%)
1	46 (4.6%)
2	3 (0.3%)
WHERE_n_of_all_non_aggr_func	
0	596 (60%)
1	272 (27%)
2	96 (9.6%)
3	26 (2.6%)
4	9 (0.9%)
5	1 (0.1%)
GROUP_BY_n_of_columns	[0.00, 2.00, 12.00] 3.01 / 2.85
HAVING_n_of_main_predicates	
0	312 (31%)
1	87 (8.7%)
2	119 (12%)
3	184 (18%)
4	152 (15%)
5	98 (9.8%)
6	48 (4.8%)
HAVING_n_of_main_predicates__scalar_subquery	
0	445 (45%)
1	173 (17%)
2	182 (18%)
3	200 (20%)
HAVING_n_of_subqueries__scalar_subquery	[0.0, 1.0, 19.0] 2.2 / 3.3
HAVING_n_of_processed_rows_by_subqueries	[0, 6,750,000, 2,809,301,963] 134,806,480 / 288,647,587
ORDER_BY_n_of_columns	[0.00, 1.00, 9.00] 1.28 / 1.24
limit	[3, 497, 1,000] 496 / 294
offset	[0, 20, 999] 247 / 320