

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

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

## Scale factor: 10 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, 8, 160] 15 / 23
SELECT_n_of_non_aggr_func__LOG	
0	857 (86%)
1	107 (11%)
2	21 (2.1%)
3	7 (0.7%)
4	7 (0.7%)
5	1 (0.1%)
SELECT_n_of_non_aggr_func__SUBSTR	[0.00, 0.00, 11.00] 0.60 / 1.12
SELECT_n_of_non_aggr_func__TRUNC	
0	930 (93%)
1	61 (6.1%)
2	6 (0.6%)
3	2 (0.2%)
4	1 (0.1%)

Query parameter or value	Descriptive statistics
SELECT__n_of__non_aggr_func__UPPER	[0.00, 0.00, 12.00] 0.65 / 1.19
SELECT__n_of__non_aggr_func__DAY	
0	880 (88%)
1	94 (9.4%)
2	15 (1.5%)
3	8 (0.8%)
4	1 (0.1%)
5	1 (0.1%)
6	1 (0.1%)
SELECT__n_of__non_aggr_func__DOW	
0	865 (87%)
1	93 (9.3%)
2	27 (2.7%)
3	8 (0.8%)
4	5 (0.5%)
5	1 (0.1%)
6	1 (0.1%)
SELECT__n_of__non_aggr_func__MONTH	
0	802 (80%)
1	139 (14%)
2	26 (2.6%)
3	14 (1.4%)
4	9 (0.9%)
5	2 (0.2%)
6	1 (0.1%)
7	4 (0.4%)
8	3 (0.3%)
SELECT__n_of__non_aggr_func__RTRIM	
0	618 (62%)
1	255 (26%)
2	72 (7.2%)
3	29 (2.9%)
4	11 (1.1%)
5	8 (0.8%)
6	5 (0.5%)
8	2 (0.2%)
SELECT__n_of__non_aggr_func__YEAR	[0.00, 0.00, 10.00] 0.28 / 0.89
SELECT__n_of__non_aggr_func__LTRIM	
0	608 (61%)
1	260 (26%)
11	1 (0.1%)
2	83 (8.3%)
3	21 (2.1%)
4	14 (1.4%)
5	9 (0.9%)
6	2 (0.2%)

Query parameter or value	Descriptive statistics
7	2 (0.2%)
SELECT_n_of_non_aggr_func___FLOOR	
0	926 (93%)
1	63 (6.3%)
2	10 (1.0%)
3	1 (0.1%)
SELECT_n_of_non_aggr_func___LOWER	
0	621 (62%)
1	266 (27%)
2	70 (7.0%)
3	22 (2.2%)
4	5 (0.5%)
5	7 (0.7%)
6	5 (0.5%)
7	2 (0.2%)
8	2 (0.2%)
SELECT_n_of_non_aggr_func___ROUND	
0	909 (91%)
1	76 (7.6%)
2	11 (1.1%)
3	2 (0.2%)
4	2 (0.2%)
SELECT_n_of_non_aggr_func___ABS	
0	923 (92%)
1	57 (5.7%)
2	11 (1.1%)
3	6 (0.6%)
4	2 (0.2%)
5	1 (0.1%)
SELECT_n_of_non_aggr_func___SQRT	
0	806 (81%)
1	134 (13%)
2	29 (2.9%)
3	14 (1.4%)
4	8 (0.8%)
5	6 (0.6%)
6	3 (0.3%)
SELECT_n_of_all_non_aggr_func	[0, 3, 67] 5 / 8
SELECT_n_of_aggr_func___MIN	[0.00, 0.00, 12.00] 0.84 / 1.93
SELECT_n_of_aggr_func___COUNT	[0.00, 0.00, 14.00] 0.88 / 1.99
SELECT_n_of_aggr_func___COUNT_DISTINCT	[0.00, 0.00, 11.00] 0.77 / 1.77
SELECT_n_of_aggr_func___MAX	[0.00, 0.00, 11.00] 0.85 / 1.99
SELECT_n_of_aggr_func___AVG	
0	924 (92%)
1	57 (5.7%)
2	11 (1.1%)

Query parameter or value	Descriptive statistics
3	4 (0.4%)
4	1 (0.1%)
5	2 (0.2%)
6	1 (0.1%)
SELECT_n_of_aggr_func__SUM	
0	943 (94%)
1	38 (3.8%)
2	15 (1.5%)
3	2 (0.2%)
4	2 (0.2%)
SELECT_n_of_all_aggr_func	[0.00, 3.00, 15.00] 3.53 / 3.09
FROM_n_of_join_paths	
1	176 (18%)
2	157 (16%)
3	178 (18%)
4	171 (17%)
5	162 (16%)
6	156 (16%)
FROM_n_of_super_joins__RIGHT	
0	544 (54%)
1	303 (30%)
2	111 (11%)
3	36 (3.6%)
4	6 (0.6%)
FROM_n_of_super_joins__FULL	
0	561 (56%)
1	306 (31%)
2	111 (11%)
3	21 (2.1%)
4	1 (0.1%)
FROM_n_of_super_joins__LEFT	
0	564 (56%)
1	286 (29%)
2	123 (12%)
3	22 (2.2%)
4	4 (0.4%)
5	1 (0.1%)
FROM_n_of_joins__INNER	[0.00, 3.00, 12.00] 3.24 / 2.46
FROM_n_of_joins__RIGHT	[0.00, 3.00, 11.00] 3.17 / 2.46
FROM_n_of_processed_rows	[5, 92,982,818, 448,981,828] 114,173,262 / 94,668,861
WHERE_n_of_predicates	[0.00, 3.00, 14.00] 3.79 / 2.98
WHERE_n_of_attribs_of_type__character	
0	641 (64%)
1	267 (27%)
2	74 (7.4%)
3	13 (1.3%)

Query parameter or value	Descriptive statistics
4	4 (0.4%)
5	1 (0.1%)
WHERE_n_of_attribs_of_type__integer	
0	374 (37%)
1	288 (29%)
2	191 (19%)
3	90 (9.0%)
4	40 (4.0%)
5	14 (1.4%)
6	2 (0.2%)
7	1 (0.1%)
WHERE_n_of_attribs_of_type__character_varying	
0	362 (36%)
1	295 (30%)
2	184 (18%)
3	91 (9.1%)
4	42 (4.2%)
5	17 (1.7%)
6	6 (0.6%)
7	2 (0.2%)
8	1 (0.1%)
WHERE_n_of_attribs_of_type__date	
0	791 (79%)
1	166 (17%)
2	35 (3.5%)
3	6 (0.6%)
4	1 (0.1%)
5	1 (0.1%)
WHERE_n_of_attribs_of_type__numeric	
0	592 (59%)
1	256 (26%)
2	111 (11%)
3	31 (3.1%)
4	6 (0.6%)
5	3 (0.3%)
6	1 (0.1%)
WHERE_n_of_pkey_attribs	
0	544 (54%)
1	301 (30%)
2	111 (11%)
3	38 (3.8%)
4	6 (0.6%)
WHERE_n_of_connect_OR	[0.00, 1.00, 12.00] 2.16 / 2.39
WHERE_n_of_operators__greater_or_less	
0	350 (35%)
1	256 (26%)

Query parameter or value	Descriptive statistics
2	175 (18%)
3	114 (11%)
4	61 (6.1%)
5	25 (2.5%)
6	14 (1.4%)
7	5 (0.5%)
WHERE_n_of_operators__between	
0	529 (53%)
1	309 (31%)
2	124 (12%)
3	22 (2.2%)
4	13 (1.3%)
5	2 (0.2%)
6	1 (0.1%)
WHERE_n_of_operators__like	
0	771 (77%)
1	200 (20%)
2	25 (2.5%)
3	2 (0.2%)
4	2 (0.2%)
WHERE_n_of_operators__in	
0	543 (54%)
1	285 (29%)
2	113 (11%)
3	46 (4.6%)
4	8 (0.8%)
5	5 (0.5%)
WHERE_n_of_non_aggr_func__ABS	
0	961 (96%)
1	38 (3.8%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__FLOOR	
0	949 (95%)
1	49 (4.9%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__SQRT	
0	865 (87%)
1	122 (12%)
2	13 (1.3%)
WHERE_n_of_non_aggr_func__DOW	
0	959 (96%)
1	39 (3.9%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__LOG	
0	921 (92%)
1	76 (7.6%)

Query parameter or value	Descriptive statistics
2	3 (0.3%)
WHERE_n_of_non_aggr_func__ROUND	
0	968 (97%)
1	31 (3.1%)
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_non_aggr_func__DAY	
0	959 (96%)
1	40 (4.0%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__YEAR	
0	968 (97%)
1	32 (3.2%)
WHERE_n_of_non_aggr_func__MONTH	
0	965 (97%)
1	34 (3.4%)
2	1 (0.1%)
WHERE_n_of_all_non_aggr_func	
0	613 (61%)
1	264 (26%)
2	93 (9.3%)
3	26 (2.6%)
4	3 (0.3%)
6	1 (0.1%)
GROUP_BY_n_of_columns	[0.00, 2.00, 11.00] 2.95 / 2.68
HAVING_n_of_main_predicates	
0	282 (28%)
1	92 (9.2%)
2	152 (15%)
3	173 (17%)
4	148 (15%)
5	104 (10%)
6	49 (4.9%)
HAVING_n_of_main_predicates__scalar_subquery	
0	415 (42%)
1	192 (19%)
2	192 (19%)
3	201 (20%)
HAVING_n_of_subqueries__scalar_subquery	[0.0, 1.0, 24.0] 2.6 / 3.8
HAVING_n_of_processed_rows_by_subqueries	[0, 24,002,727, 3,812,073,948] 269,897,780 / 539,502,857
ORDER_BY_n_of_columns	
0	295 (30%)

Query parameter or value	Descriptive statistics
<i>1</i>	335 (34%)
<i>2</i>	239 (24%)
<i>3</i>	93 (9.3%)
<i>4</i>	18 (1.8%)
<i>5</i>	13 (1.3%)
<i>6</i>	4 (0.4%)
<i>7</i>	3 (0.3%)
limit	[2, 498, 1,000] 499 / 274
offset	[0, 5, 998] 251 / 318