

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

## Scenario: 1-1jp\_\_g\_\_h0ss\_h0nss

## Scale factor: 2 GB

## The 1000-query pack was generated on: 2023-11-04

## 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	[1.0, 4.0, 43.0] 5.6 / 5.2
SELECT_n_of_non_aggr_func__LOG	
0	929 (93%)
1	65 (6.5%)
2	5 (0.5%)
3	1 (0.1%)
SELECT_n_of_non_aggr_func__UPPER	
0	775 (78%)
1	194 (19%)
2	27 (2.7%)
3	3 (0.3%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func__RTRIM	
0	793 (79%)
1	177 (18%)

Query parameter or value	Descriptive statistics
2	26 (2.6%)
3	4 (0.4%)
SELECT__n_of__non__aggr__func__DOW	
0	937 (94%)
1	52 (5.2%)
2	11 (1.1%)
SELECT__n_of__non__aggr__func__LOWER	
0	781 (78%)
1	181 (18%)
2	33 (3.3%)
3	4 (0.4%)
4	1 (0.1%)
SELECT__n_of__non__aggr__func__DAY	
0	946 (95%)
1	51 (5.1%)
2	3 (0.3%)
SELECT__n_of__non__aggr__func__MONTH	
0	920 (92%)
1	72 (7.2%)
2	7 (0.7%)
3	1 (0.1%)
SELECT__n_of__non__aggr__func__SUBSTR	
0	793 (79%)
1	182 (18%)
2	22 (2.2%)
3	3 (0.3%)
SELECT__n_of__non__aggr__func__LTRIM	
0	768 (77%)
1	206 (21%)
2	22 (2.2%)
3	4 (0.4%)
SELECT__n_of__non__aggr__func__ABS	
0	961 (96%)
1	38 (3.8%)
2	1 (0.1%)
SELECT__n_of__non__aggr__func__SQRT	
0	908 (91%)
1	83 (8.3%)
2	6 (0.6%)
3	1 (0.1%)
4	1 (0.1%)
5	1 (0.1%)
SELECT__n_of__non__aggr__func__TRUNC	
0	960 (96%)
1	39 (3.9%)
2	1 (0.1%)

Query parameter or value	Descriptive statistics
SELECT__n_of__non_aggr_func__FLOOR	
0	966 (97%)
1	34 (3.4%)
SELECT__n_of__non_aggr_func__YEAR	
0	915 (92%)
1	73 (7.3%)
2	7 (0.7%)
3	4 (0.4%)
4	1 (0.1%)
SELECT__n_of__non_aggr_func__ROUND	
0	976 (98%)
1	24 (2.4%)
SELECT__n_of__all__non_aggr_func	[0.00, 1.00, 19.00] 1.91 / 2.20
SELECT__n_of__aggr_func__COUNT	
0	773 (77%)
1	122 (12%)
2	49 (4.9%)
3	35 (3.5%)
4	15 (1.5%)
5	2 (0.2%)
6	3 (0.3%)
7	1 (0.1%)
SELECT__n_of__aggr_func__MAX	
0	775 (78%)
1	101 (10%)
2	69 (6.9%)
3	34 (3.4%)
4	18 (1.8%)
5	2 (0.2%)
6	1 (0.1%)
SELECT__n_of__aggr_func__MIN	
0	779 (78%)
1	105 (11%)
2	60 (6.0%)
3	26 (2.6%)
4	20 (2.0%)
5	7 (0.7%)
6	3 (0.3%)
SELECT__n_of__aggr_func__COUNT_DISTINCT	
0	764 (76%)
1	109 (11%)
2	75 (7.5%)
3	33 (3.3%)
4	10 (1.0%)
5	5 (0.5%)
6	3 (0.3%)

Query parameter or value	Descriptive statistics
7	1 (0.1%)
SELECT_n_of_aggr_func__AVG	
0	950 (95%)
1	42 (4.2%)
2	8 (0.8%)
SELECT_n_of_aggr_func__SUM	
0	960 (96%)
1	38 (3.8%)
2	2 (0.2%)
SELECT_n_of_all_aggr_func	
0	181 (18%)
1	312 (31%)
2	218 (22%)
3	150 (15%)
4	81 (8.1%)
5	41 (4.1%)
6	13 (1.3%)
7	4 (0.4%)
FROM_n_of_join_paths	
1	1,000 (100%)
FROM_n_of_joins__INNER	
0	464 (46%)
1	342 (34%)
2	153 (15%)
3	36 (3.6%)
4	5 (0.5%)
FROM_n_of_joins__RIGHT	
0	529 (53%)
1	314 (31%)
2	117 (12%)
3	36 (3.6%)
4	4 (0.4%)
FROM_n_of_processed_rows	[5, 1,809,880, 15,295,747] 5,524,251 / 6,244,572
WHERE_n_of_predicates	
0	238 (24%)
1	230 (23%)
2	239 (24%)
3	158 (16%)
4	88 (8.8%)
5	38 (3.8%)
6	9 (0.9%)
WHERE_n_of_attribs_of_type__character_varying	
0	551 (55%)
1	329 (33%)
2	101 (10%)
3	17 (1.7%)

Query parameter or value	Descriptive statistics
4	2 (0.2%)
WHERE_n_of_attribs_of_type__integer	
0	560 (56%)
1	309 (31%)
2	105 (11%)
3	23 (2.3%)
4	2 (0.2%)
5	1 (0.1%)
WHERE_n_of_attribs_of_type__numeric	
0	770 (77%)
1	188 (19%)
2	35 (3.5%)
3	7 (0.7%)
WHERE_n_of_attribs_of_type__character	
0	821 (82%)
1	160 (16%)
2	18 (1.8%)
4	1 (0.1%)
WHERE_n_of_attribs_of_type__date	
0	899 (90%)
1	96 (9.6%)
2	3 (0.3%)
3	2 (0.2%)
WHERE_n_of_pkey_attribs	
0	706 (71%)
1	248 (25%)
2	41 (4.1%)
3	5 (0.5%)
WHERE_n_of_connect_OR	
0	613 (61%)
1	217 (22%)
2	116 (12%)
3	38 (3.8%)
4	14 (1.4%)
5	2 (0.2%)
WHERE_n_of_operators__between	
0	727 (73%)
1	221 (22%)
2	46 (4.6%)
3	6 (0.6%)
WHERE_n_of_operators__in	
0	730 (73%)
1	227 (23%)
2	40 (4.0%)
3	3 (0.3%)
WHERE_n_of_operators__greater_or_less	

Query parameter or value	Descriptive statistics
0	526 (53%)
1	307 (31%)
2	133 (13%)
3	25 (2.5%)
4	9 (0.9%)
WHERE_n_of_operators__like	
0	877 (88%)
1	114 (11%)
2	9 (0.9%)
WHERE_n_of_non_aggr_func__SQRT	
0	938 (94%)
1	59 (5.9%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func__TRUNC	
0	974 (97%)
1	26 (2.6%)
WHERE_n_of_non_aggr_func__MONTH	
0	981 (98%)
1	19 (1.9%)
WHERE_n_of_non_aggr_func__YEAR	
0	992 (99%)
1	8 (0.8%)
WHERE_n_of_non_aggr_func__ABS	
0	986 (99%)
1	14 (1.4%)
WHERE_n_of_non_aggr_func__DOW	
0	986 (99%)
1	14 (1.4%)
WHERE_n_of_non_aggr_func__DAY	
0	983 (98%)
1	17 (1.7%)
WHERE_n_of_non_aggr_func__LOG	
0	955 (96%)
1	45 (4.5%)
WHERE_n_of_non_aggr_func__FLOOR	
0	979 (98%)
1	21 (2.1%)
WHERE_n_of_non_aggr_func__ROUND	
0	983 (98%)
1	17 (1.7%)
WHERE_n_of_all_non_aggr_func	
0	789 (79%)
1	177 (18%)
2	33 (3.3%)
3	1 (0.1%)
GROUP_BY_n_of_columns	

Query parameter or value	Descriptive statistics
<i>0</i>	233 (23%)
<i>1</i>	283 (28%)
<i>2</i>	226 (23%)
<i>3</i>	136 (14%)
<i>4</i>	86 (8.6%)
<i>5</i>	30 (3.0%)
<i>6</i>	6 (0.6%)
HAVING_n_of_main_predicates	
<i>0</i>	422 (42%)
<i>1</i>	188 (19%)
<i>2</i>	209 (21%)
<i>3</i>	181 (18%)
ORDER_BY_n_of_columns	
<i>0</i>	296 (30%)
<i>1</i>	474 (47%)
<i>2</i>	194 (19%)
<i>3</i>	26 (2.6%)
<i>4</i>	8 (0.8%)
<i>5</i>	1 (0.1%)
<i>6</i>	1 (0.1%)
limit	[2, 492, 1,000] 500 / 287
offset	[0, 46, 997] 262 / 325