

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

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## Scenario: 1-6jp_ujpp__g__h0-3ss_h0nss

## Scale factor: 200 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, 9, 166] 15 / 23
SELECT_n_of_non_aggr_func__ROUND	
0	912 (91%)
1	76 (7.6%)
2	9 (0.9%)
3	3 (0.3%)
SELECT_n_of_non_aggr_func__SQRT	
0	816 (82%)
1	132 (13%)
2	24 (2.4%)
3	9 (0.9%)
4	10 (1.0%)
5	5 (0.5%)
6	3 (0.3%)
8	1 (0.1%)

Query parameter or value	Descriptive statistics
SELECT__n_of__non__aggr__func__LOWER	
0	621 (62%)
1	251 (25%)
2	76 (7.6%)
3	26 (2.6%)
4	9 (0.9%)
5	12 (1.2%)
6	3 (0.3%)
7	1 (0.1%)
8	1 (0.1%)
SELECT__n_of__non__aggr__func__LTRIM	
0	599 (60%)
1	248 (25%)
2	107 (11%)
3	19 (1.9%)
4	14 (1.4%)
5	7 (0.7%)
6	2 (0.2%)
7	3 (0.3%)
8	1 (0.1%)
SELECT__n_of__non__aggr__func__DAY	
0	879 (88%)
1	98 (9.8%)
2	14 (1.4%)
3	7 (0.7%)
4	2 (0.2%)
SELECT__n_of__non__aggr__func__LOG	
0	855 (86%)
1	118 (12%)
2	20 (2.0%)
3	5 (0.5%)
4	2 (0.2%)
SELECT__n_of__non__aggr__func__MONTH	
0	809 (81%)
1	132 (13%)
2	29 (2.9%)
3	18 (1.8%)
4	5 (0.5%)
5	5 (0.5%)
6	1 (0.1%)
8	1 (0.1%)
SELECT__n_of__non__aggr__func__RTRIM	
0	619 (62%)
1	254 (25%)
2	73 (7.3%)
3	30 (3.0%)

Query parameter or value	Descriptive statistics
4	10 (1.0%)
5	7 (0.7%)
6	1 (0.1%)
7	5 (0.5%)
8	1 (0.1%)
SELECT__n_of__non__aggr__func__UPPER	[0.00, 0.00, 10.00] 0.64 / 1.15
SELECT__n_of__non__aggr__func__ABS	
0	928 (93%)
1	63 (6.3%)
2	8 (0.8%)
3	1 (0.1%)
SELECT__n_of__non__aggr__func__SUBSTR	
0	620 (62%)
1	262 (26%)
2	70 (7.0%)
3	23 (2.3%)
4	10 (1.0%)
5	8 (0.8%)
6	5 (0.5%)
7	1 (0.1%)
8	1 (0.1%)
SELECT__n_of__non__aggr__func__TRUNC	
0	918 (92%)
1	69 (6.9%)
2	10 (1.0%)
3	2 (0.2%)
5	1 (0.1%)
SELECT__n_of__non__aggr__func__DOW	
0	863 (86%)
1	100 (10%)
2	22 (2.2%)
3	9 (0.9%)
4	3 (0.3%)
5	1 (0.1%)
6	1 (0.1%)
7	1 (0.1%)
SELECT__n_of__non__aggr__func__FLOOR	
0	919 (92%)
1	66 (6.6%)
2	14 (1.4%)
5	1 (0.1%)
SELECT__n_of__non__aggr__func__YEAR	
0	834 (83%)
1	114 (11%)
2	25 (2.5%)
3	19 (1.9%)

Query parameter or value	Descriptive statistics
4	4 (0.4%)
5	1 (0.1%)
6	2 (0.2%)
7	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0.0, 3.0, 61.0] 4.9 / 7.5
SELECT_n_of_aggr_func__MIN	[0.00, 0.00, 12.00] 0.80 / 1.85
SELECT_n_of_aggr_func__SUM	
0	928 (93%)
1	45 (4.5%)
2	19 (1.9%)
3	5 (0.5%)
4	2 (0.2%)
6	1 (0.1%)
SELECT_n_of_aggr_func__MAX	[0.00, 0.00, 13.00] 0.79 / 1.94
SELECT_n_of_aggr_func__COUNT_DISTINCT	[0.00, 0.00, 12.00] 0.92 / 2.05
SELECT_n_of_aggr_func__AVG	
0	928 (93%)
1	54 (5.4%)
2	14 (1.4%)
3	3 (0.3%)
5	1 (0.1%)
SELECT_n_of_aggr_func__COUNT	[0.00, 0.00, 12.00] 0.90 / 2.01
SELECT_n_of_all_aggr_func	[0.0, 3.0, 15.0] 3.6 / 3.2
FROM_n_of_join_paths	
1	160 (16%)
2	174 (17%)
3	168 (17%)
4	169 (17%)
5	168 (17%)
6	161 (16%)
FROM_n_of_super_joins__LEFT	
0	553 (55%)
1	311 (31%)
2	107 (11%)
3	27 (2.7%)
4	2 (0.2%)
FROM_n_of_super_joins__RIGHT	
0	517 (52%)
1	335 (34%)
2	126 (13%)
3	19 (1.9%)
4	3 (0.3%)
FROM_n_of_super_joins__FULL	
0	570 (57%)
1	294 (29%)
2	110 (11%)

Query parameter or value	Descriptive statistics
3	24 (2.4%)
4	2 (0.2%)
FROM_n_of_joins__INNER	[0.00, 3.00, 14.00] 3.30 / 2.52
FROM_n_of_joins__RIGHT	[0.00, 3.00, 13.00] 3.39 / 2.54
FROM_n_of_processed_rows	[5, 1,860,018,434, 8,950,110,659] 2,372,157,121 / 1,972,998,482
WHERE_n_of_predicates	[0.0, 3.0, 13.0] 3.8 / 3.0
WHERE_n_of_attribs_of_type__character	
0	636 (64%)
1	267 (27%)
2	68 (6.8%)
3	24 (2.4%)
4	5 (0.5%)
WHERE_n_of_attribs_of_type__numeric	
0	571 (57%)
1	276 (28%)
2	118 (12%)
3	23 (2.3%)
4	12 (1.2%)
WHERE_n_of_attribs_of_type__character_varying	
0	371 (37%)
1	296 (30%)
2	182 (18%)
3	81 (8.1%)
4	44 (4.4%)
5	15 (1.5%)
6	8 (0.8%)
7	2 (0.2%)
8	1 (0.1%)
WHERE_n_of_attribs_of_type__integer	
0	362 (36%)
1	315 (32%)
2	164 (16%)
3	94 (9.4%)
4	46 (4.6%)
5	14 (1.4%)
6	4 (0.4%)
7	1 (0.1%)
WHERE_n_of_attribs_of_type__date	
0	772 (77%)
1	182 (18%)
2	38 (3.8%)
3	6 (0.6%)
4	2 (0.2%)
WHERE_n_of_pkey_attribs	
0	530 (53%)

Query parameter or value	Descriptive statistics
1	314 (31%)
2	107 (11%)
3	40 (4.0%)
4	9 (0.9%)
WHERE_n_of_connect_OR	[0.00, 1.00, 11.00] 2.23 / 2.43
WHERE_n_of_operators___greater_or_less	
0	330 (33%)
1	265 (27%)
2	181 (18%)
3	121 (12%)
4	61 (6.1%)
5	24 (2.4%)
6	13 (1.3%)
7	5 (0.5%)
WHERE_n_of_operators___between	
0	567 (57%)
1	251 (25%)
2	127 (13%)
3	41 (4.1%)
4	10 (1.0%)
5	3 (0.3%)
7	1 (0.1%)
WHERE_n_of_operators___in	
0	529 (53%)
1	290 (29%)
2	126 (13%)
3	44 (4.4%)
4	11 (1.1%)
WHERE_n_of_operators___like	
0	802 (80%)
1	170 (17%)
2	23 (2.3%)
3	5 (0.5%)
WHERE_n_of_non_aggr_func___TRUNC	
0	967 (97%)
1	33 (3.3%)
WHERE_n_of_non_aggr_func___ROUND	
0	955 (96%)
1	45 (4.5%)
WHERE_n_of_non_aggr_func___SQRT	
0	862 (86%)
1	129 (13%)
2	8 (0.8%)
3	1 (0.1%)
WHERE_n_of_non_aggr_func___YEAR	
0	953 (95%)

Query parameter or value	Descriptive statistics
1	46 (4.6%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func__DOW	
0	963 (96%)
1	34 (3.4%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func__DAY	
0	956 (96%)
1	44 (4.4%)
WHERE_n_of_non_aggr_func__LOG	
0	917 (92%)
1	80 (8.0%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func__MONTH	
0	958 (96%)
1	40 (4.0%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__ABS	
0	958 (96%)
1	40 (4.0%)
2	2 (0.2%)
WHERE_n_of_non_aggr_func__FLOOR	
0	977 (98%)
1	23 (2.3%)
WHERE_n_of_all_non_aggr_func	
0	609 (61%)
1	261 (26%)
2	101 (10%)
3	25 (2.5%)
4	3 (0.3%)
5	1 (0.1%)
GROUP_BY_n_of_columns	[0.00, 3.00, 12.00] 3.08 / 2.85
HAVING_n_of_main_predicates	
0	295 (30%)
1	97 (9.7%)
2	126 (13%)
3	191 (19%)
4	157 (16%)
5	84 (8.4%)
6	50 (5.0%)
HAVING_n_of_main_predicates__scalar_subquery	
0	434 (43%)
1	195 (20%)
2	189 (19%)
3	182 (18%)
HAVING_n_of_subqueries__scalar_subquery	[0.0, 1.0, 23.0] 2.4 / 3.6

Query parameter or value	Descriptive statistics
HAVING_n_of_processed_rows_by_subqueries	[0, 326, 000, 050, 88, 230, 941, 069] 5,855,418,908 / 12,071,814,039
ORDER_BY_n_of_columns	[0.00, 1.00, 10.00] 1.27 / 1.24
limit	[1, 505, 1,000] 517 / 291
offset	[0, 0, 997] 252 / 326