

# 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: 1000 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, 164] 16 / 24
SELECT_n_of_non_aggr_func__DAY	
0	861 (86%)
1	100 (10%)
2	23 (2.3%)
3	6 (0.6%)
4	8 (0.8%)
5	1 (0.1%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func__LOG	
0	862 (86%)
1	96 (9.6%)
2	26 (2.6%)
3	11 (1.1%)
4	3 (0.3%)

Query parameter or value	Descriptive statistics
5	1 (0.1%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func__LOWER	[0.00, 0.00, 10.00] 0.65 / 1.18
SELECT_n_of_non_aggr_func__LTRIM	
0	636 (64%)
1	230 (23%)
2	77 (7.7%)
3	28 (2.8%)
4	13 (1.3%)
5	11 (1.1%)
6	2 (0.2%)
7	3 (0.3%)
SELECT_n_of_non_aggr_func__MONTH	[0.00, 0.00, 13.00] 0.42 / 1.06
SELECT_n_of_non_aggr_func__ROUND	
0	907 (91%)
1	78 (7.8%)
2	12 (1.2%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func__RTRIM	[0.00, 0.00, 10.00] 0.67 / 1.23
SELECT_n_of_non_aggr_func__SQRT	
0	798 (80%)
1	137 (14%)
2	31 (3.1%)
3	13 (1.3%)
4	11 (1.1%)
5	1 (0.1%)
6	4 (0.4%)
7	5 (0.5%)
SELECT_n_of_non_aggr_func__UPPER	
0	618 (62%)
1	248 (25%)
2	82 (8.2%)
3	27 (2.7%)
4	10 (1.0%)
5	7 (0.7%)
6	3 (0.3%)
7	4 (0.4%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func__YEAR	
0	800 (80%)
1	137 (14%)
2	42 (4.2%)
3	9 (0.9%)
4	4 (0.4%)
5	3 (0.3%)

Query parameter or value	Descriptive statistics
6	1 (0.1%)
7	3 (0.3%)
8	1 (0.1%)
SELECT_n_of_non_aggr_func__SUBSTR	
0	595 (60%)
1	264 (26%)
2	81 (8.1%)
3	28 (2.8%)
4	11 (1.1%)
5	10 (1.0%)
6	5 (0.5%)
7	4 (0.4%)
8	2 (0.2%)
SELECT_n_of_non_aggr_func__DOW	
0	836 (84%)
1	116 (12%)
11	1 (0.1%)
2	29 (2.9%)
3	10 (1.0%)
4	5 (0.5%)
5	2 (0.2%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func__FLOOR	
0	914 (91%)
1	74 (7.4%)
2	11 (1.1%)
3	1 (0.1%)
SELECT_n_of_non_aggr_func__ABS	
0	909 (91%)
1	79 (7.9%)
2	11 (1.1%)
3	1 (0.1%)
SELECT_n_of_non_aggr_func__TRUNC	
0	921 (92%)
1	62 (6.2%)
2	13 (1.3%)
3	3 (0.3%)
4	1 (0.1%)
SELECT_n_of_all_non_aggr_func	[0, 3, 74] 5 / 9
SELECT_n_of_aggr_func__MAX	[0.00, 0.00, 12.00] 0.84 / 1.96
SELECT_n_of_aggr_func__COUNT_DISTINCT	[0.00, 0.00, 15.00] 0.84 / 2.00
SELECT_n_of_aggr_func__MIN	[0.00, 0.00, 11.00] 0.95 / 2.03
SELECT_n_of_aggr_func__AVG	
0	933 (93%)
1	46 (4.6%)
2	18 (1.8%)

Query parameter or value	Descriptive statistics
3	1 (0.1%)
4	2 (0.2%)
SELECT__n_of__aggr_func__COUNT	[0.00, 0.00, 14.00] 0.81 / 2.02
SELECT__n_of__aggr_func__SUM	
0	931 (93%)
1	42 (4.2%)
2	20 (2.0%)
3	3 (0.3%)
4	3 (0.3%)
5	1 (0.1%)
SELECT__n_of__all_aggr_func	[0.0, 3.0, 15.0] 3.6 / 3.2
FROM__n_of__join_paths	
1	177 (18%)
2	159 (16%)
3	159 (16%)
4	156 (16%)
5	167 (17%)
6	182 (18%)
FROM__n_of__super_joins__RIGHT	
0	547 (55%)
1	302 (30%)
2	130 (13%)
3	19 (1.9%)
4	2 (0.2%)
FROM__n_of__super_joins__FULL	
0	536 (54%)
1	317 (32%)
2	117 (12%)
3	28 (2.8%)
4	2 (0.2%)
FROM__n_of__super_joins__LEFT	
0	541 (54%)
1	313 (31%)
2	108 (11%)
3	32 (3.2%)
4	6 (0.6%)
FROM__n_of__joins__INNER	[0.00, 3.00, 13.00] 3.35 / 2.51
FROM__n_of__joins__RIGHT	[0.00, 3.00, 12.00] 3.34 / 2.48
FROM__n_of__processed_rows	[5, 9,424,989,724, 42,559,938,309] 12,298,444,138 / 10,054,929,038
WHERE__n_of__predicates	[0.00, 3.00, 12.00] 3.80 / 2.94
WHERE__n_of__attribs_of_type__character_varying	
0	363 (36%)
1	295 (30%)
2	187 (19%)
3	100 (10%)

Query parameter or value	Descriptive statistics
4	35 (3.5%)
5	14 (1.4%)
6	4 (0.4%)
7	2 (0.2%)
WHERE_n_of_attribs_of_type__integer	
0	389 (39%)
1	289 (29%)
2	156 (16%)
3	100 (10%)
4	42 (4.2%)
5	18 (1.8%)
6	6 (0.6%)
WHERE_n_of_attribs_of_type__character	
0	630 (63%)
1	272 (27%)
2	68 (6.8%)
3	25 (2.5%)
4	5 (0.5%)
WHERE_n_of_attribs_of_type__numeric	
0	569 (57%)
1	291 (29%)
2	97 (9.7%)
3	38 (3.8%)
4	5 (0.5%)
WHERE_n_of_attribs_of_type__date	
0	778 (78%)
1	185 (19%)
2	29 (2.9%)
3	6 (0.6%)
4	2 (0.2%)
WHERE_n_of_pkey_attribs	
0	574 (57%)
1	268 (27%)
2	109 (11%)
3	35 (3.5%)
4	12 (1.2%)
5	1 (0.1%)
6	1 (0.1%)
WHERE_n_of_connect_OR	[0.00, 1.00, 11.00] 2.16 / 2.39
WHERE_n_of_operators__between	
0	519 (52%)
1	300 (30%)
2	120 (12%)
3	50 (5.0%)
4	9 (0.9%)
5	1 (0.1%)

Query parameter or value	Descriptive statistics
6	1 (0.1%)
WHERE_n_of_operators___greater_or_less	
0	317 (32%)
1	272 (27%)
2	201 (20%)
3	122 (12%)
4	48 (4.8%)
5	24 (2.4%)
6	9 (0.9%)
7	6 (0.6%)
8	1 (0.1%)
WHERE_n_of_operators___in	
0	547 (55%)
1	292 (29%)
2	105 (11%)
3	45 (4.5%)
4	7 (0.7%)
5	4 (0.4%)
WHERE_n_of_operators___like	
0	785 (79%)
1	184 (18%)
2	29 (2.9%)
3	2 (0.2%)
WHERE_n_of_non_aggr_func___SQRT	
0	884 (88%)
1	104 (10%)
2	12 (1.2%)
WHERE_n_of_non_aggr_func___FLOOR	
0	960 (96%)
1	40 (4.0%)
WHERE_n_of_non_aggr_func___TRUNC	
0	947 (95%)
1	53 (5.3%)
WHERE_n_of_non_aggr_func___ROUND	
0	948 (95%)
1	49 (4.9%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func___ABS	
0	960 (96%)
1	40 (4.0%)
WHERE_n_of_non_aggr_func___DOW	
0	967 (97%)
1	33 (3.3%)
WHERE_n_of_non_aggr_func___LOG	
0	932 (93%)
1	61 (6.1%)

Query parameter or value	Descriptive statistics
2	7 (0.7%)
WHERE_n_of_non_aggr_func__MONTH	
0	958 (96%)
1	39 (3.9%)
2	2 (0.2%)
3	1 (0.1%)
WHERE_n_of_non_aggr_func__YEAR	
0	963 (96%)
1	37 (3.7%)
WHERE_n_of_non_aggr_func__DAY	
0	963 (96%)
1	37 (3.7%)
WHERE_n_of_all_non_aggr_func	
0	646 (65%)
1	223 (22%)
2	91 (9.1%)
3	26 (2.6%)
4	9 (0.9%)
5	5 (0.5%)
GROUP_BY_n_of_columns	[0.00, 2.00, 13.00] 2.96 / 2.81
HAVING_n_of_main_predicates	
0	305 (31%)
1	94 (9.4%)
2	142 (14%)
3	159 (16%)
4	157 (16%)
5	93 (9.3%)
6	50 (5.0%)
HAVING_n_of_main_predicates__scalar_subquery	
0	462 (46%)
1	169 (17%)
2	176 (18%)
3	193 (19%)
HAVING_n_of_subqueries__scalar_subquery	[0.0, 1.0, 28.0] 2.3 / 3.7
HAVING_n_of_processed_rows_by_subquery	[0, 465,000,158, 667,249,127,050] 27,543,284,760 / 61,280,548,037
ORDER_BY_n_of_columns	
0	303 (30%)
1	327 (33%)
2	226 (23%)
3	103 (10%)
4	28 (2.8%)
5	6 (0.6%)
6	5 (0.5%)
7	1 (0.1%)
8	1 (0.1%)

Query parameter or value	Descriptive statistics
limit	[1, 512, 998] 505 / 291
offset	[0, 41, 994] 267 / 327