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

Scenario: 1-3jp_rjjp__g__h0-3ss_h0nss

Scale factor: 200 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, 6, 98] 10 / 13
SELECT_n_of_non_aggr_func___LOWER	
0	677 (68%)
1	265 (27%)
2	41 (4.1%)
3	9 (0.9%)
4	5 (0.5%)
5	2 (0.2%)
6	1 (0.1%)
SELECT_n_of_non_aggr_func___SUBSTR	
0	696 (70%)
1	216 (22%)
2	70 (7.0%)
3	11 (1.1%)
4	3 (0.3%)

Query parameter or value	Descriptive statistics
5	4 (0.4%)
SELECT_n_of_non_aggr_func___UPPER	
0	670 (67%)
1	243 (24%)
2	63 (6.3%)
3	14 (1.4%)
4	9 (0.9%)
7	1 (0.1%)
SELECT_n_of_non_aggr_func___LTRIM	
0	712 (71%)
1	228 (23%)
2	50 (5.0%)
3	7 (0.7%)
4	2 (0.2%)
5	1 (0.1%)
SELECT_n_of_non_aggr_func___RTRIM	
0	694 (69%)
1	238 (24%)
2	51 (5.1%)
3	13 (1.3%)
4	3 (0.3%)
5	1 (0.1%)
SELECT_n_of_non_aggr_func___DOW	
0	893 (89%)
1	84 (8.4%)
2	18 (1.8%)
3	4 (0.4%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func___YEAR	
0	870 (87%)
1	97 (9.7%)
2	18 (1.8%)
3	9 (0.9%)
4	5 (0.5%)
5	1 (0.1%)
SELECT_n_of_non_aggr_func___ABS	
0	948 (95%)
1	45 (4.5%)
2	4 (0.4%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func___MONTH	
0	846 (85%)
1	111 (11%)
2	25 (2.5%)
3	9 (0.9%)

Query parameter or value	Descriptive statistics
4	7 (0.7%)
5	2 (0.2%)
SELECT_n_of_non_aggr_func___DAY	
0	903 (90%)
1	76 (7.6%)
2	18 (1.8%)
3	2 (0.2%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func___LOG	
0	899 (90%)
1	78 (7.8%)
2	16 (1.6%)
3	6 (0.6%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func___ROUND	
0	935 (94%)
1	61 (6.1%)
2	4 (0.4%)
SELECT_n_of_non_aggr_func___FLOOR	
0	945 (95%)
1	50 (5.0%)
2	5 (0.5%)
SELECT_n_of_non_aggr_func___SQRT	
0	848 (85%)
1	122 (12%)
2	24 (2.4%)
3	5 (0.5%)
4	1 (0.1%)
SELECT_n_of_non_aggr_func___TRUNC	
0	949 (95%)
1	47 (4.7%)
2	2 (0.2%)
3	2 (0.2%)
SELECT_n_of_all_non_aggr_func	[0.0, 2.0, 40.0] 3.3 / 4.3
SELECT_n_of_aggr_func___COUNT	
0	752 (75%)
1	83 (8.3%)
2	52 (5.2%)
3	44 (4.4%)
4	27 (2.7%)
5	17 (1.7%)
6	15 (1.5%)
7	8 (0.8%)
8	2 (0.2%)
SELECT_n_of_aggr_func___MIN	
0	755 (76%)

Query parameter or value	Descriptive statistics
1	77 (7.7%)
2	61 (6.1%)
3	36 (3.6%)
4	27 (2.7%)
5	18 (1.8%)
6	14 (1.4%)
7	7 (0.7%)
8	5 (0.5%)
SELECT_n_of_aggr_func___SUM	
0	929 (93%)
1	49 (4.9%)
2	17 (1.7%)
3	5 (0.5%)
SELECT_n_of_aggr_func___COUNT_DISTINCT	[0.00, 0.00, 10.00] 0.60 / 1.41
SELECT_n_of_aggr_func___MAX	[0.00, 0.00, 10.00] 0.65 / 1.50
SELECT_n_of_aggr_func___AVG	
0	952 (95%)
1	37 (3.7%)
2	9 (0.9%)
3	2 (0.2%)
SELECT_n_of_all_aggr_func	[0.00, 2.00, 12.00] 2.76 / 2.32
FROM_n_of_join_paths	
1	314 (31%)
2	342 (34%)
3	344 (34%)
FROM_n_of_super_joins___FULL	
0	761 (76%)
1	214 (21%)
2	25 (2.5%)
FROM_n_of_super_joins___LEFT	
0	765 (77%)
1	218 (22%)
2	17 (1.7%)
FROM_n_of_super_joins___RIGHT	
0	766 (77%)
1	210 (21%)
2	24 (2.4%)
FROM_n_of_joins___INNER	
0	221 (22%)
1	261 (26%)
2	213 (21%)
3	162 (16%)
4	85 (8.5%)
5	42 (4.2%)
6	14 (1.4%)
7	2 (0.2%)

Query parameter or value	Descriptive statistics
FROM_n_of_joins___RIGHT	
0	238 (24%)
1	277 (28%)
2	206 (21%)
3	149 (15%)
4	65 (6.5%)
5	46 (4.6%)
6	13 (1.3%)
7	5 (0.5%)
8	1 (0.1%)
FROM_n_of_processed_rows	[5, 1,364,018,497, 4,590,055,332] 1,345,203,479 / 1,207,300,946
WHERE_n_of_predicates	[0.00, 2.00, 9.00] 2.79 / 2.24
WHERE_n_of_attribs_of_type___character_varying	
0	429 (43%)
1	327 (33%)
2	160 (16%)
3	57 (5.7%)
4	21 (2.1%)
5	5 (0.5%)
6	1 (0.1%)
WHERE_n_of_attribs_of_type___integer	
0	465 (47%)
1	318 (32%)
2	135 (14%)
3	66 (6.6%)
4	14 (1.4%)
5	1 (0.1%)
6	1 (0.1%)
WHERE_n_of_attribs_of_type___numeric	
0	655 (66%)
1	254 (25%)
2	62 (6.2%)
3	23 (2.3%)
4	6 (0.6%)
WHERE_n_of_attribs_of_type___character	
0	724 (72%)
1	217 (22%)
2	51 (5.1%)
3	8 (0.8%)
WHERE_n_of_attribs_of_type___date	
0	838 (84%)
1	133 (13%)
2	26 (2.6%)
3	3 (0.3%)
WHERE_n_of_pkey_attribs	

Query parameter or value	Descriptive statistics
0	629 (63%)
1	283 (28%)
2	69 (6.9%)
3	17 (1.7%)
4	2 (0.2%)
WHERE_n_of_connect_OR	
0	457 (46%)
1	185 (19%)
2	139 (14%)
3	91 (9.1%)
4	60 (6.0%)
5	35 (3.5%)
6	24 (2.4%)
7	7 (0.7%)
8	2 (0.2%)
WHERE_n_of_operators___greater_or_less	
0	432 (43%)
1	300 (30%)
2	163 (16%)
3	66 (6.6%)
4	32 (3.2%)
5	6 (0.6%)
7	1 (0.1%)
WHERE_n_of_operators___in	
0	622 (62%)
1	263 (26%)
2	94 (9.4%)
3	19 (1.9%)
4	2 (0.2%)
WHERE_n_of_operators___between	
0	597 (60%)
1	284 (28%)
2	88 (8.8%)
3	24 (2.4%)
4	6 (0.6%)
5	1 (0.1%)
WHERE_n_of_operators___like	
0	839 (84%)
1	145 (15%)
2	12 (1.2%)
3	3 (0.3%)
4	1 (0.1%)
WHERE_n_of_non_aggr_func___FLOOR	
0	973 (97%)
1	26 (2.6%)
2	1 (0.1%)

Query parameter or value	Descriptive statistics
WHERE_n_of_non_aggr_func___MONTH	
0	967 (97%)
1	32 (3.2%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___ABS	
0	967 (97%)
1	32 (3.2%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___SQRT	
0	911 (91%)
1	82 (8.2%)
2	7 (0.7%)
WHERE_n_of_non_aggr_func___TRUNC	
0	961 (96%)
1	36 (3.6%)
2	3 (0.3%)
WHERE_n_of_non_aggr_func___YEAR	
0	972 (97%)
1	27 (2.7%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___LOG	
0	931 (93%)
1	68 (6.8%)
3	1 (0.1%)
WHERE_n_of_non_aggr_func___ROUND	
0	976 (98%)
1	23 (2.3%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___DAY	
0	970 (97%)
1	29 (2.9%)
2	1 (0.1%)
WHERE_n_of_non_aggr_func___DOW	
0	979 (98%)
1	17 (1.7%)
2	4 (0.4%)
WHERE_n_of_all_non_aggr_func	
0	693 (69%)
1	220 (22%)
2	68 (6.8%)
3	17 (1.7%)
4	2 (0.2%)
GROUP_BY_n_of_columns	[0.00, 2.00, 9.00] 2.45 / 2.13
HAVING_n_of_main_predicates	
0	288 (29%)
1	94 (9.4%)

7

Query parameter or value	Descriptive statistics
2	157 (16%)
3	180 (18%)
4	147 (15%)
5	93 (9.3%)
6	41 (4.1%)
HAVING_n_of_main_predicates___scalar_subquery	
0	443 (44%)
1	183 (18%)
2	176 (18%)
3	198 (20%)
HAVING_n_of_subqueries___scalar_subquery	[0.0, 1.0, 23.0] 2.5 / 3.7
HAVING_n_of_processed_rows_by_subqueries	[0, 60,000,025, 64,410,702,107] 3,300,434,046 / 6,998,575,078
ORDER_BY_n_of_columns	
0	265 (27%)
1	377 (38%)
2	268 (27%)
3	66 (6.6%)
4	15 (1.5%)
5	6 (0.6%)
6	1 (0.1%)
7	1 (0.1%)
8	1 (0.1%)
limit	[2, 504, 1,000] 503 / 289
offset	[0, 0, 998] 247 / 321