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

```
## Scenario: 1-6jp_ujjp__g_h0-3ss_h0nss

## Scale factor: 2000 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)
```

| Query parameter or value | Descriptive statistics | |
|--------------------------------|------------------------|--|
| SELECT_n_of_columns | [1, 8, 186] 15 / 23 | |
| SELECT_n_of_non_aggr_funcDAY | | |
| 0 | 883 (88%) | |
| 1 | 90 (9.0%) | |
| 2 | 16(1.6%) | |
| 3 | 7 (0.7%) | |
| 4 | 2~(0.2%) | |
| 5 | 1 (0.1%) | |
| 6 | 1 (0.1%) | |
| SELECT_n_of_non_aggr_funcMONTH | • | |
| 0 | 807 (81%) | |
| 1 | 130 (13%) | |
| 11 | $1 \ (0.1\%)$ | |
| 2 | $27\ (2.7\%)$ | |
| 3 | 19 (1.9%) | |
| | ` ' | |

- for higher cardinality parameters: [min, median, max] mean / SD

| Query parameter or value | Descriptive statistics |
|---|-------------------------------------|
| 4 | 5 (0.5%) |
| 5 | 4~(0.4%) |
| γ | 6~(0.6%) |
| 8 | 1 (0.1%) |
| SELECT_n_of_non_aggr_funcRTRIM | |
| θ | 620~(62%) |
| 1 | 247 (25%) |
| 2 | 77 (7.7%) |
| 3 | 35 (3.5%) |
| 4 | 7~(0.7%) |
| 5 | 5~(0.5%) |
| 6 | 5(0.5%) |
| 7 | $3\;(0.3\%)$ |
| 8 | 1~(0.1%) |
| SELECT_n_of_non_aggr_funcYEAR SELECT_n_of_non_aggr_funcLTRIM | [0.00, 0.00, 9.00] 0.28 / 0.84 |
| 0 | 624~(62%) |
| 1 | 246 (25%) |
| 10 | 1~(0.1%) |
| 2 | 81 (8.1%) |
| 3 | 27 (2.7%) |
| 4 | 5~(0.5%) |
| 5 | 5~(0.5%) |
| 6 | 6~(0.6%) |
| γ | 5~(0.5%) |
| SELECT_n_of_non_aggr_funcUPPER | [0.00,0.00,12.00]0.62/1.12 |
| SELECT_n_of_non_aggr_funcLOWER | |
| 0 | 606~(61%) |
| 1 | $232 \; (23\%)$ |
| 2 | $102\ (10\%)$ |
| 3 | $30 \; (3.0\%)$ |
| 4 | 9(0.9%) |
| 5 | 11 (1.1%) |
| 6 | 1 (0.1%) |
| 7 | 7 (0.7%) |
| 8 | 2~(0.2%) |
| SELECT_n_of_non_aggr_funcSUBSTR | |
| 0 | 611 (61%) |
| 1 | 244 (24%) |
| 2 | 86 (8.6%) |
| 3 | 25 (2.5%) |
| 4 | 18 (1.8%) |
| 5 | 4 (0.4%) |
| 6 | 6 (0.6%) |
| 7 | 4 (0.4%) |
| 8 | $2\;(0.2\%)$ |

| SELECT_n_of_non_aggr_fune_LOG 0 | Query parameter or value | Descriptive statistics |
|---|--------------------------------|---------------------------------------|
| 1 95 (9.5%) 2 18 (1.8%) 3 10 (1.0%) 4 3 (0.3%) 6 1 (0.1%) SELECT_n_of_non_aggr_func_ABS 0 931 (93%) 1 61 (6.1%) 2 6 (0.6%) 3 2 (0.2%) SELECT_n_of_non_aggr_func_DOW 0 850 (85%) 1 112 (11%) 2 19 (1.9%) 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) 8 80.8%) 4 1 (0.1%) 5 2 (2.2%) 6 3 (0.3%) 9 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) 5 5 (0.2%) 5 4 (0.4%) 6 3 (0.3%) 5 4 (0.4%) < | SELECT_n_of_non_aggr_funcLOG | |
| 2 | 0 | 873 (87%) |
| 3 | 1 | 95~(9.5%) |
| ## ## ## ## ## ## ## ## ## ## ## ## ## | 2 | 18 (1.8%) |
| 6 1 (0.1%) SELECT_n_of_non_aggr_funeABS 931 (93%) 1 61 (6.1%) 2 6 (0.6%) 3 2 (0.2%) SELECT_n_of_non_aggr_funeDOW 850 (85%) 1 112 (11%) 2 19 (1.9%) 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) 8ELECT_n_of_non_aggr_funeSQRT 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 4 (0.4%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funeFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funeTRUNC 90 0 913 (91%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 (1.01%) <t< td=""><td>3</td><td>$10 \ (1.0\%)$</td></t<> | 3 | $10 \ (1.0\%)$ |
| SELECT_n_of_non_aggr_funcABS 0 | 4 | 3 (0.3%) |
| 0 931 (93%) 1 61 (6.1%) 2 6 (0.6%) 3 2 (0.2%) SELECT_n_of_non_aggr_funcDOW 0 850 (85%) 1 112 (11%) 2 19 (1.9%) 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) 8UECT_n_of_non_aggr_funcSQRT 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 3 (0.3%) 4 1 (0.1%) | 6 | 1 (0.1%) |
| 1 61 (6.1%) 2 6 (0.6%) 3 2 (0.2%) SELECT_n_of_non_aggr_func_DOW 0 850 (85%) 1 112 (11%) 2 19 (1.9%) 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) 8ELECT_n_of_non_aggr_func_SQRT 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_func_FLOOR 913 (91%) 1 1 (0.1%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_func_TRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) 5 8 (0.8%) 4 1 (0.1%) 5 1 (0.1%) <td>SELECT_n_of_non_aggr_funcABS</td> <td></td> | SELECT_n_of_non_aggr_funcABS | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | θ | 931 (93%) |
| 3 2 (0.2%) SELECT_n_of_non_aggr_funcDOW 850 (85%) 1 112 (11%) 2 19 (1.9%) 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) SELECT_n_of_non_aggr_funcSQRT 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 1 | 61~(6.1%) |
| SELECT_n_of_non_aggr_funcDOW 0 | 2 | 6~(0.6%) |
| 0 850 (85%) 1 112 (11%) 2 19 (1.9%) 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) SELECT_n of non_aggr_func_SQRT 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n of non_aggr_func_FLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n of non_aggr_func_TRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n of non_aggr_func_ROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 3 | 2 (0.2%) |
| 1 112 (11%) 2 19 (1.9%) 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) SELECT_n_of_non_aggr_func_SQRT 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_func_FLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_func_TRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_func_ROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | SELECT_n_of_non_aggr_funcDOW | |
| 2 19 (1.9%) 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) SELECT_n_of_non_aggr_funcSQRT 0 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 0 | $850 \ (85\%)$ |
| 3 8 (0.8%) 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) SELECT_n_of_non_aggr_funcSQRT 0 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 1 | ` , |
| 4 7 (0.7%) 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) SELECT_n_of_non_aggr_funcSQRT 803 (80%) 0 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 2 | $19 \; (1.9\%)$ |
| 5 2 (0.2%) 6 1 (0.1%) 7 1 (0.1%) SELECT_n_of_non_aggr_funcSQRT 803 (80%) 0 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 3 | 8 (0.8%) |
| 6 | 4 | 7 (0.7%) |
| 7 SELECT_n_of_non_aggr_funcSQRT 0 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 0 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 3 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 0 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 5 | 2 (0.2%) |
| SELECT_n_of_non_aggr_funcSQRT 803 (80%) 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 6 | 1 (0.1%) |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | γ | 1 (0.1%) |
| 1 137 (14%) 2 28 (2.8%) 3 16 (1.6%) 4 9 (0.9%) 5 4 (0.4%) 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 0 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | SELECT_n_of_non_aggr_funcSQRT | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 0 | 803~(80%) |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 1 | 137 (14%) |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 2 | 28~(2.8%) |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | 3 | $16 \; (1.6\%)$ |
| 6 3 (0.3%) SELECT_n_of_non_aggr_funcFLOOR 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 4 | 9~(0.9%) |
| SELECT_n_of_non_aggr_funcFLOOR 0 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 5 | |
| 0 913 (91%) 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 6 | 3~(0.3%) |
| 1 74 (7.4%) 2 10 (1.0%) 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 0 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | SELECT_n_of_non_aggr_funcFLOOR | |
| 2 | 0 | $913 \; (91\%)$ |
| 3 1 (0.1%) 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 0 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | | |
| 4 2 (0.2%) SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 0 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | | , |
| SELECT_n_of_non_aggr_funcTRUNC 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 3 | , , |
| 0 922 (92%) 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | | $2\;(0.2\%)$ |
| 1 66 (6.6%) 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | SELECT_n_of_non_aggr_funcTRUNC | |
| 2 3 (0.3%) 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 0 | ` , |
| 3 8 (0.8%) 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 912 (91%) 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | | , , |
| 4 1 (0.1%) SELECT_n_of_non_aggr_funcROUND 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | | |
| SELECT_n_of_non_aggr_funcROUND 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | 3 | · · · · · · · · · · · · · · · · · · · |
| 0 912 (91%) 1 72 (7.2%) 2 15 (1.5%) | | 1~(0.1%) |
| 1 72 (7.2%) 2 15 (1.5%) | | |
| 2 15 (1.5%) | | · · · · |
| | | · · · · · · · · · · · · · · · · · · · |
| 3 	 1 (0.1%) | | ` , |
| | 3 | 1~(0.1%) |

| Query parameter or value | Descriptive statistics |
|------------------------------------|--|
| SELECT_n_of_all_non_aggr_func | [0, 3, 81] 5 / 8 |
| SELECT_n_of_aggr_funcCOUNT | [0.00, 0.00, 10.00] 0.82 / 1.83 |
| SELECT_n_of_aggr_funcCOUNT_DISTINC | |
| SELECT_n_of_aggr_funcMAX | $[0.00, 0.00, 13.00] \ 0.89 \ / \ 1.97$ |
| SELECT_n_of_aggr_funcSUM | , |
| 0 | $946 \ (95\%)$ |
| 1 | 38 (3.8%) |
| 2 | 12(1.2%) |
| 3 | $3\ (0.3\%)$ |
| 4 | 1 (0.1%) |
| SELECT_n_of_aggr_funcMIN | $[0.00, 0.00, 13.00] \ 0.88 \ / \ 1.96$ |
| SELECT_n_of_aggr_funcAVG | , |
| 0 | 927 (93%) |
| 1 | 48 (4.8%) |
| 2 | 18 (1.8%) |
| 3 | 7 (0.7%) |
| SELECT_n_of_all_aggr_func | [0.00, 3.00, 13.00] $3.52 / 3.00$ |
| FROM_n_of_join_paths | , |
| 1 | 179 (18%) |
| 2 | 147 (15%) |
| 3 | 176 (18%) |
| 4 | 177 (18%) |
| 5 | 181 (18%) |
| 6 | 140 (14%) |
| FROM_n_of_super_joinsLEFT | , , |
| 0 | 570 (57%) |
| 1 | 299 (30%) |
| 2 | 100 (10%) |
| 3 | 29~(2.9%) |
| 4 | 2~(0.2%) |
| FROM_n_of_super_joinsFULL | |
| 0 | 557~(56%) |
| 1 | 296 (30%) |
| 2 | $120 \; (12\%)$ |
| 3 | 25~(2.5%) |
| 4 | 2~(0.2%) |
| FROM_n_of_super_joinsRIGHT | |
| 0 | $556 \ (56\%)$ |
| 1 | 313 (31%) |
| 2 | 109 (11%) |
| 3 | 19 (1.9%) |
| 4 | 3 (0.3%) |
| FROM_n_of_joinsINNER | [0.00, 3.00, 11.00] 3.18 / 2.38 |
| FROM_n_of_joinsRIGHT | $[0.00, 3.00, 13.00] \ 3.27 \ / \ 2.48$ |
| FROM_n_of_processed_rows [5, 18,44 | 10,027,855, 85,920,166,846] 22,604,678,718 / |
| | 18,221,486,649 |

| Query parameter or value | Descriptive statistics |
|--|--------------------------------------|
| WHERE_n_of_predicates | [0.00, 3.00, 13.00] 3.83 / 2.85 |
| $WHERE_n_of_attribs_of_type__character$ | |
| 0 | 654~(65%) |
| 1 | 258~(26%) |
| 2 | $70 \ (7.0\%)$ |
| 3 | $14 \ (1.4\%)$ |
| 4 | 4~(0.4%) |
| WHERE_n_of_attribs_of_typecharacter_v | |
| 0 | $358 \; (36\%)$ |
| 1 | 293~(29%) |
| 2 | 200~(20%) |
| 3 | $96 \; (9.6\%)$ |
| 4 | $35 \; (3.5\%)$ |
| 5 | $14\ (1.4\%)$ |
| 6 | 4~(0.4%) |
| WHERE_n_of_attribs_of_typeinteger | |
| 0 | 337 (34%) |
| 1 | 304 (30%) |
| 2 | 201 (20%) |
| 3 | 104 (10%) |
| 4 | 38 (3.8%) |
| 5 | 15 (1.5%) |
| | 1 (0.1%) |
| WHERE_n_of_attribs_of_typenumeric | F01 /F00/\ |
| 0 | 561 (56%) |
| 1 | 295 (30%) |
| 2 | 108 (11%) |
| 3 | $28 \ (2.8\%) \ 8 \ (0.8\%)$ |
| WHERE n_of_attribs_of_typedate | 0 (0.070) |
| 0 | 767 (77%) |
| | 191 (19%) |
| 1 2 | 36 (3.6%) |
| 3 | 4(0.4%) |
| 4 | 2(0.4%) |
| WHERE_n_of_pkey_attribs | 2 (0.270) |
| 0 | 536 (54%) |
| 1 | 297 (30%) |
| 2 | 118 (12%) |
| <i>3</i> | 41 (4.1%) |
| 4 | 8 (0.8%) |
| WHERE_n_of_connect_OR | [0.00, 1.00, 11.00] 2.20 / 2.37 |
| WHERE_n_of_operatorsbetween | t , ,j - / - |
| 0 | 540 (54%) |
| 1 | 267 (27%) |
| 2 | 134 (13%) |
| | ` ') |

| Query parameter or value | Descriptive statistics |
|-------------------------------------|------------------------|
| 3 | 44 (4.4%) |
| 4 | 12(1.2%) |
| 5 | $3\ (0.3\%)$ |
| WHERE_n_of_operatorsgreater_or_less | , |
| 0 | 297 (30%) |
| 1 | 297 (30%) |
| 2 | 184 (18%) |
| 3 | 134 (13%) |
| 4 | 60~(6.0%) |
| 5 | 20~(2.0%) |
| 6 | 7 (0.7%) |
| 7 | 1~(0.1%) |
| WHERE_n_of_operatorsin | |
| 0 | 536 (54%) |
| 1 | 307 (31%) |
| 2 | 110 (11%) |
| 3 | 29 (2.9%) |
| 4 | $15 \ (1.5\%)$ |
| 5 | 3~(0.3%) |
| WHERE_n_of_operatorslike | |
| 0 | 795~(80%) |
| 1 | 172~(17%) |
| 2 | 28~(2.8%) |
| 3 | 4~(0.4%) |
| 5 | 1~(0.1%) |
| WHERE_n_of_non_aggr_funcTRUNC | |
| 0 | 958 (96%) |
| 1 | $42 \ (4.2\%)$ |
| WHERE_n_of_non_aggr_funcLOG | (2.04) |
| 0 | 914 (91%) |
| 1 | 85 (8.5%) |
| 2 | 1~(0.1%) |
| WHERE_n_of_non_aggr_funcDOW | 0.0.1 (0.007) |
| 0 | 964 (96%) |
| 1 | 35 (3.5%) |
| 2 NHIPDE C VEAD | 1 (0.1%) |
| WHERE_n_of_non_aggr_funcYEAR | 000 (000) |
| 0 | 962 (96%) |
| 1 | 37 (3.7%) |
| WHERE is of non-comm fund. DOUND | 1 (0.1%) |
| WHERE_n_of_non_aggr_funcROUND | 057 (0607) |
| 0 | 957 (96%) |
| 1 | 42 (4.2%) |
| 2 WHERE not non-complete DAY | 1 (0.1%) |
| WHERE_n_of_non_aggr_funcDAY | 061 (0607) |
| 0 | 961 (96%) |

| Query parameter or value | Descriptive statistics |
|--|---|
| 1 | 37 (3.7%) |
| 2 | 2 (0.2%) |
| WHERE_n_of_non_aggr_funcSQRT | , |
| 0 | 887 (89%) |
| 1 | 106 (11%) |
| 2 | 7 (0.7%) |
| WHERE_n_of_non_aggr_funcABS | |
| 0 | 965 (97%) |
| 1 | 35 (3.5%) |
| $WHERE_n_of_non_aggr_func__MONTH$ | |
| θ | $968 \; (97\%)$ |
| 1 | 30 (3.0%) |
| 2 | 2~(0.2%) |
| WHERE_n_of_non_aggr_funcFLOOR | |
| 0 | 976 (98%) |
| 1 | $23\ (2.3\%)$ |
| 2 | 1~(0.1%) |
| WHERE_n_of_all_non_aggr_func | |
| 0 | 628~(63%) |
| 1 | 272~(27%) |
| 2 | $74 \ (7.4\%)$ |
| 3 | $21 \ (2.1\%)$ |
| 4 | 4~(0.4%) |
| 5 | 1 (0.1%) |
| GROUP_BY_n_of_columns | $[0.00, 2.00, 12.00] \ 2.98 \ / \ 2.81$ |
| HAVING_n_of_main_predicates | |
| θ | 299 (30%) |
| 1 | 91 (9.1%) |
| 2 | 136 (14%) |
| 3 | 165 (17%) |
| 4 | 161 (16%) |
| 5 | 101 (10%) |
| | $47 \ (4.7\%)$ |
| HAVING_n_of_main_predicatesscalar_subquery | |
| 0 | 431 (43%) |
| 1 | 187 (19%) |
| 2 | 185 (19%) |
| 3 | 197 (20%) |
| HAVING_n_of_subqueriesscalar_subquery HAVING_n_of_processed_rows_by_sub[0]12\$40,00 | [0.0, 1.0, 19.0] 2.4 / 3.5 00,034, 1,081,862,114,434] 53,390,930,328 / |
| - | 112,777,259,444 |
| ORDER_BY_n_of_columns | |
| 0 | 282~(28%) |
| 1 | 360 (36%) |
| 2 | 246 (25%) |
| 3 | 82 (8.2%) |
| | |

| Query parameter or value | Descriptive statistics |
|--------------------------|----------------------------|
| 4 | 17 (1.7%) |
| 5 | $8 \; (0.8\%)$ |
| 6 | $3\;(0.3\%)$ |
| γ | 2~(0.2%) |
| limit | [3, 514, 1,000] 509 / 286 |
| offset | [0, 15, 1,000] $250 / 322$ |