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

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## Scenario: 1-3jp_rjjp__g__h0ss_h0nss

## Scale factor: 1000 GB

## The 1000-query pack was generated on: 2023-11-10

## 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, 93] 10 / 13 |
| SELECT_n_of_non_aggr_func___LOWER | |
| *0* | 697 (70%) |
| *1* | 232 (23%) |
| *2* | 49 (4.9%) |
| *3* | 16 (1.6%) |
| *4* | 3 (0.3%) |
| *5* | 3 (0.3%) |
| SELECT_n_of_non_aggr_func___UPPER | |
| *0* | 675 (68%) |
| *1* | 252 (25%) |
| *10* | 1 (0.1%) |
| *2* | 53 (5.3%) |
| *3* | 16 (1.6%) |
| *4* | 2 (0.2%) |

| Query parameter or value | Descriptive statistics |
|---|---|
| *5* | 1 (0.1%) |
| SELECT_n_of_non_aggr_func___DOW | |
| *0* | 883 (88%) |
| *1* | 94 (9.4%) |
| *2* | 16 (1.6%) |
| *3* | 5 (0.5%) |
| *4* | 1 (0.1%) |
| *5* | 1 (0.1%) |
| SELECT_n_of_non_aggr_func___MONTH | |
| *0* | 847 (85%) |
| *1* | 113 (11%) |
| *2* | 26 (2.6%) |
| *3* | 6 (0.6%) |
| *4* | 7 (0.7%) |
| *5* | 1 (0.1%) |
| SELECT_n_of_non_aggr_func___RTRIM | |
| *0* | 713 (71%) |
| *1* | 213 (21%) |
| *2* | 53 (5.3%) |
| *3* | 13 (1.3%) |
| *4* | 4 (0.4%) |
| *5* | 3 (0.3%) |
| *6* | 1 (0.1%) |
| SELECT_n_of_non_aggr_func___SUBSTR | |
| *0* | 679 (68%) |
| *1* | 243 (24%) |
| *2* | 54 (5.4%) |
| *3* | 16 (1.6%) |
| *4* | 5 (0.5%) |
| *5* | 3 (0.3%) |
| SELECT_n_of_non_aggr_func___TRUNC | |
| *0* | 932 (93%) |
| *1* | 64 (6.4%) |
| *2* | 3 (0.3%) |
| *3* | 1 (0.1%) |
| SELECT_n_of_non_aggr_func___YEAR | |
| *0* | 867 (87%) |
| *1* | 100 (10%) |
| *2* | 25 (2.5%) |
| *3* | 7 (0.7%) |
| *4* | 1 (0.1%) |
| SELECT_n_of_non_aggr_func___ABS | |
| *0* | 953 (95%) |
| *1* | 44 (4.4%) |
| *2* | 2 (0.2%) |
| *3* | 1 (0.1%) |

| Query parameter or value | Descriptive statistics |
|---|---|
| SELECT_n_of_non_aggr_func___LOG | |
| *0* | 901 (90%) |
| *1* | 83 (8.3%) |
| *2* | 13 (1.3%) |
| *3* | 2 (0.2%) |
| *4* | 1 (0.1%) |
| SELECT_n_of_non_aggr_func___LTRIM | |
| *0* | 685 (69%) |
| *1* | 238 (24%) |
| *2* | 53 (5.3%) |
| *3* | 17 (1.7%) |
| *4* | 3 (0.3%) |
| *5* | 2 (0.2%) |
| *6* | 2 (0.2%) |
| SELECT_n_of_non_aggr_func___SQRT | |
| *0* | 859 (86%) |
| *1* | 107 (11%) |
| *2* | 28 (2.8%) |
| *3* | 4 (0.4%) |
| *4* | 2 (0.2%) |
| SELECT_n_of_non_aggr_func___ROUND | |
| *0* | 938 (94%) |
| *1* | 56 (5.6%) |
| *2* | 5 (0.5%) |
| *3* | 1 (0.1%) |
| SELECT_n_of_non_aggr_func___DAY | |
| *0* | 910 (91%) |
| *1* | 76 (7.6%) |
| *2* | 10 (1.0%) |
| *3* | 4 (0.4%) |
| SELECT_n_of_non_aggr_func___FLOOR | |
| *0* | 939 (94%) |
| *1* | 55 (5.5%) |
| *2* | 5 (0.5%) |
| *3* | 1 (0.1%) |
| SELECT_n_of_all_non_aggr_func | [0.0, 2.0, 37.0] 3.3 / 4.5 |
| SELECT_n_of_aggr_func___MAX | [0.00, 0.00, 9.00] 0.60 / 1.41 |
| SELECT_n_of_aggr_func___COUNT | [0.00, 0.00, 10.00] 0.71 / 1.58 |
| SELECT_n_of_aggr_func___MIN | [0.00, 0.00, 11.00] 0.65 / 1.53 |
| SELECT_n_of_aggr_func___SUM | |
| *0* | 944 (94%) |
| *1* | 40 (4.0%) |
| *2* | 14 (1.4%) |
| *3* | 1 (0.1%) |
| *4* | 1 (0.1%) |
| SELECT_n_of_aggr_func___COUNT_DISTINCT | [0.00, 0.00, 10.00] 0.60 / 1.36 |

| Query parameter or value | Descriptive statistics |
|---|---|
| SELECT_n_of_aggr_func___AVG | |
| *0* | 936 (94%) |
| *1* | 39 (3.9%) |
| *2* | 16 (1.6%) |
| *3* | 8 (0.8%) |
| *4* | 1 (0.1%) |
| SELECT_n_of_all_aggr_func | [0.00, 2.00, 12.00] 2.73 / 2.37 |
| FROM_n_of_join_paths | |
| *1* | 336 (34%) |
| *2* | 313 (31%) |
| *3* | 351 (35%) |
| FROM_n_of_super_joins___RIGHT | |
| *0* | 782 (78%) |
| *1* | 201 (20%) |
| *2* | 17 (1.7%) |
| FROM_n_of_super_joins___FULL | |
| *0* | 757 (76%) |
| *1* | 226 (23%) |
| *2* | 17 (1.7%) |
| FROM_n_of_super_joins___LEFT | |
| *0* | 767 (77%) |
| *1* | 207 (21%) |
| *2* | 26 (2.6%) |
| FROM_n_of_joins___INNER | |
| *0* | 254 (25%) |
| *1* | 260 (26%) |
| *2* | 204 (20%) |
| *3* | 136 (14%) |
| *4* | 94 (9.4%) |
| *5* | 29 (2.9%) |
| *6* | 15 (1.5%) |
| *7* | 5 (0.5%) |
| *8* | 3 (0.3%) |
| FROM_n_of_joins___RIGHT | [0.00, 1.00, 10.00] 1.74 / 1.58 |
| FROM_n_of_processed_rows | [5, 6,809,989,709, 22,949,969,202] 6,455,681,860 / 6,035,589,700 |
| WHERE_n_of_predicates | [0.00, 3.00, 10.00] 2.81 / 2.21 |
| WHERE_n_of_attribs_of_type___character | |
| *0* | 734 (73%) |
| *1* | 198 (20%) |
| *2* | 58 (5.8%) |
| *3* | 8 (0.8%) |
| *4* | 2 (0.2%) |
| WHERE_n_of_attribs_of_type___character_varying | |
| *0* | 416 (42%) |
| *1* | 322 (32%) |

| Query parameter or value | Descriptive statistics |
|---|---|
| *2* | 158 (16%) |
| *3* | 74 (7.4%) |
| *4* | 26 (2.6%) |
| *5* | 4 (0.4%) |
| WHERE_n_of_attribs_of_type___integer | |
| *0* | 467 (47%) |
| *1* | 319 (32%) |
| *2* | 150 (15%) |
| *3* | 52 (5.2%) |
| *4* | 10 (1.0%) |
| *5* | 2 (0.2%) |
| WHERE_n_of_attribs_of_type___numeric | |
| *0* | 661 (66%) |
| *1* | 235 (24%) |
| *2* | 82 (8.2%) |
| *3* | 21 (2.1%) |
| *4* | 1 (0.1%) |
| WHERE_n_of_attribs_of_type___date | |
| *0* | 834 (83%) |
| *1* | 142 (14%) |
| *2* | 21 (2.1%) |
| *3* | 3 (0.3%) |
| WHERE_n_of_pkey_attribs | |
| *0* | 626 (63%) |
| *1* | 278 (28%) |
| *2* | 76 (7.6%) |
| *3* | 18 (1.8%) |
| *4* | 2 (0.2%) |
| WHERE_n_of_connect_OR | [0.00, 1.00, 9.00] 1.36 / 1.69 |
| WHERE_n_of_operators___between | |
| *0* | 641 (64%) |
| *1* | 255 (26%) |
| *2* | 71 (7.1%) |
| *3* | 25 (2.5%) |
| *4* | 8 (0.8%) |
| WHERE_n_of_operators___in | |
| *0* | 618 (62%) |
| *1* | 268 (27%) |
| *2* | 87 (8.7%) |
| *3* | 23 (2.3%) |
| *4* | 2 (0.2%) |
| *5* | 2 (0.2%) |
| WHERE_n_of_operators___greater_or_less | |
| *0* | 417 (42%) |
| *1* | 298 (30%) |
| *2* | 179 (18%) |

| Query parameter or value | Descriptive statistics |
|---|---|
| *3* | 77 (7.7%) |
| *4* | 21 (2.1%) |
| *5* | 7 (0.7%) |
| *6* | 1 (0.1%) |
| WHERE_n_of_operators___like | |
| *0* | 804 (80%) |
| *1* | 177 (18%) |
| *2* | 17 (1.7%) |
| *3* | 2 (0.2%) |
| WHERE_n_of_non_aggr_func___SQRT | |
| *0* | 908 (91%) |
| *1* | 85 (8.5%) |
| *2* | 7 (0.7%) |
| WHERE_n_of_non_aggr_func___TRUNC | |
| *0* | 965 (97%) |
| *1* | 33 (3.3%) |
| *2* | 2 (0.2%) |
| WHERE_n_of_non_aggr_func___DAY | |
| *0* | 974 (97%) |
| *1* | 24 (2.4%) |
| *2* | 2 (0.2%) |
| WHERE_n_of_non_aggr_func___MONTH | |
| *0* | 973 (97%) |
| *1* | 26 (2.6%) |
| *2* | 1 (0.1%) |
| WHERE_n_of_non_aggr_func___LOG | |
| *0* | 948 (95%) |
| *1* | 51 (5.1%) |
| *2* | 1 (0.1%) |
| WHERE_n_of_non_aggr_func___DOW | |
| *0* | 968 (97%) |
| *1* | 31 (3.1%) |
| *2* | 1 (0.1%) |
| WHERE_n_of_non_aggr_func___ROUND | |
| *0* | 971 (97%) |
| *1* | 28 (2.8%) |
| *2* | 1 (0.1%) |
| WHERE_n_of_non_aggr_func___FLOOR | |
| *0* | 969 (97%) |
| *1* | 30 (3.0%) |
| *2* | 1 (0.1%) |
| WHERE_n_of_non_aggr_func___ABS | |
| *0* | 972 (97%) |
| *1* | 28 (2.8%) |
| WHERE_n_of_non_aggr_func___YEAR | |
| *0* | 979 (98%) |

| **Query parameter or value** | **Descriptive statistics** |
|---|---|
| *1* | 21 (2.1%) |
| WHERE_n_of_all_non_aggr_func | |
| *0* | 684 (68%) |
| *1* | 257 (26%) |
| *2* | 46 (4.6%) |
| *3* | 12 (1.2%) |
| *4* | 1 (0.1%) |
| GROUP_BY_n_of_columns | [0.00, 2.00, 9.00] 2.23 / 2.08 |
| HAVING_n_of_main_predicates | |
| *0* | 445 (45%) |
| *1* | 176 (18%) |
| *2* | 195 (20%) |
| *3* | 184 (18%) |
| ORDER_BY_n_of_columns | |
| *0* | 292 (29%) |
| *1* | 397 (40%) |
| *2* | 234 (23%) |
| *3* | 49 (4.9%) |
| *4* | 19 (1.9%) |
| *5* | 5 (0.5%) |
| *6* | 2 (0.2%) |
| *7* | 1 (0.1%) |
| *8* | 1 (0.1%) |
| limit | [1, 483, 998] 491 / 292 |
| offset | [0, 11, 1,000] 254 / 328 |