

Test machine: 8 GB Memory, 2 Cores CPU

25 Concurrent

|                            |            |          | Transactions | Availability | Elapsed time | Data transferred | Response time | Transaction rate | Throughput  | Concurrency | Successful transactions: | Failed transactions | Longest transaction | Shortest transaction |
|----------------------------|------------|----------|--------------|--------------|--------------|------------------|---------------|------------------|-------------|-------------|--------------------------|---------------------|---------------------|----------------------|
| PHP-FPM                    | PostgreSQL | No Index | 154 hits     | 100.00 %     | 29.24 secs   | 0.00 MB          | 4.39 secs     | 5.27 trans/sec   | 0.00 MB/sec | 23.14       | 154                      | 0                   | 6.04                | 0.62                 |
|                            |            | Indexed  | 166 hits     | 100.00 %     | 29.91 secs   | 0.00 MB          | 4.11 secs     | 5.55 trans/sec   | 0.00 MB/sec | 22.81       | 166                      | 0                   | 6.26                | 2.91                 |
|                            | MariaDB    | No Index | 120 hits     | 100.00 %     | 29.70 secs   | 0.00 MB          | 5.60 secs     | 4.04 trans/sec   | 0.00 MB/sec | 22.61       | 120                      | 0                   | 7.39                | 1.48                 |
|                            |            | Indexed  | 170 hits     | 100.00 %     | 29.79 secs   | 0.00 MB          | 3.98 secs     | 5.71 trans/sec   | 0.00 MB/sec | 22.74       | 170                      | 0                   | 6.52                | 2.93                 |
| PHP-FPM + OpCache          | PostgreSQL | No Index | 762 hits     | 100.00 %     | 29.40 secs   | 0.00 MB          | 0.95 secs     | 25.92 trans/sec  | 0.00 MB/sec | 24.56       | 762                      | 0                   | 2.02                | 0.74                 |
|                            |            | Indexed  | 1886 hits    | 100.00 %     | 29.08 secs   | 0.01 MB          | 0.38 secs     | 64.86 trans/sec  | 0.00 MB/sec | 24.83       | 1886                     | 0                   | 1.21                | 0.27                 |
|                            | MariaDB    | No Index | 130 hits     | 100.00 %     | 29.85 secs   | 0.00 MB          | 5.12 secs     | 4.36 trans/sec   | 0.00 MB/sec | 22.3        | 130                      | 0                   | 6.66                | 1.42                 |
|                            |            | Indexed  | 206 hits     | 100.00 %     | 29.50 secs   | 0.00 MB          | 3.38 secs     | 6.98 trans/sec   | 0.00 MB/sec | 23.59       | 206                      | 0                   | 4.76                | 0.88                 |
| ReactPHP                   | PostgreSQL | No Index | 399 hits     | 100.00 %     | 29.55 secs   | 0.00 MB          | 1.80 secs     | 13.50 trans/sec  | 0.00 MB/sec | 24.31       | 399                      | 0                   | 2.7                 | 0.83                 |
|                            |            | Indexed  | 16405 hits   | 100.00 %     | 29.17 secs   | 0.06 MB          | 0.04 secs     | 562.39 trans/sec | 0.00 MB/sec | 24.95       | 16405                    | 0                   | 1.05                | 0.02                 |
|                            | MariaDB    | No Index | 138 hits     | 100.00 %     | 29.38 secs   | 0.00 MB          | 4.85 secs     | 4.70 trans/sec   | 0.00 MB/sec | 22.78       | 138                      | 0                   | 6.32                | 1.31                 |
|                            |            | Indexed  | 16390 hits   | 100.00 %     | 29.77 secs   | 0.06 MB          | 0.04 secs     | 550.55 trans/sec | 0.00 MB/sec | 22.65       | 16390                    | 0                   | 0.7                 | 0.02                 |
| ReactPHP + OpCache         | PostgreSQL | No Index | 391 hits     | 100.00 %     | 29.16 secs   | 0.00 MB          | 1.81 secs     | 13.41 trans/sec  | 0.00 MB/sec | 24.27       | 391                      | 0                   | 2.72                | 0.84                 |
|                            |            | Indexed  | 16394 hits   | 100.00 %     | 29.10 secs   | 0.06 MB          | 0.04 secs     | 563.37 trans/sec | 0.00 MB/sec | 23.32       | 16394                    | 0                   | 0.71                | 0.01                 |
|                            | MariaDB    | No Index | 141 hits     | 100.00 %     | 29.58 secs   | 0.00 MB          | 4.79 secs     | 4.77 trans/sec   | 0.00 MB/sec | 22.84       | 141                      | 0                   | 6.1                 | 1.36                 |
|                            |            | Indexed  | 16401 hits   | 100.00 %     | 29.33 secs   | 0.06 MB          | 0.04 secs     | 559.19 trans/sec | 0.00 MB/sec | 22.54       | 16401                    | 0                   | 0.94                | 0.01                 |
| ReactPHP Multi Instance(3) | PostgreSQL | No Index | 1018 hits    | 100.00 %     | 29.12 secs   | 0.00 MB          | 0.71 secs     | 34.96 trans/sec  | 0.00 MB/sec | 24.7        | 1018                     | 0                   | 2.37                | 0.32                 |
|                            |            | Indexed  | 16408 hits   | 100.00 %     | 29.54 secs   | 0.06 MB          | 0.04 secs     | 555.45 trans/sec | 0.00 MB/sec | 22.98       | 16408                    | 0                   | 0.77                | 0                    |
|                            | MariaDB    | No Index | 271 hits     | 100.00 %     | 29.80 secs   | 0.00 MB          | 2.62 secs     | 9.09 trans/sec   | 0.00 MB/sec | 23.87       | 271                      | 0                   | 4.16                | 1.41                 |
|                            |            | Indexed  | 16394 hits   | 100.00 %     | 29.90 secs   | 0.06 MB          | 0.04 secs     | 548.29 trans/sec | 0.00 MB/sec | 20.46       | 16394                    | 0                   | 1.12                | 0                    |

100 Concurrent

|                            |            |          | Transactions | Availability | Elapsed time | Data transferred | Response time | Transaction rate | Throughput  | Concurrency | Successful transactions: | Failed transactions | Longest transaction | Shortest transaction |
|----------------------------|------------|----------|--------------|--------------|--------------|------------------|---------------|------------------|-------------|-------------|--------------------------|---------------------|---------------------|----------------------|
| PHP-FPM                    | PostgreSQL | No Index | 164 hits     | 100.00 %     | 29.20 secs   | 0.00 MB          | 12.38 secs    | 5.62 trans/sec   | 0.00 MB/sec | 69.53       | 164                      | 0                   | 18.07               | 0.65                 |
|                            |            | Indexed  | 182 hits     | 100.00 %     | 29.74 secs   | 0.00 MB          | 11.98 secs    | 6.12 trans/sec   | 0.00 MB/sec | 73.31       | 182                      | 0                   | 16.54               | 0.49                 |
|                            | MariaDB    | No Index | 135 hits     | 100.00 %     | 29.99 secs   | 0.00 MB          | 14.01 secs    | 4.50 trans/sec   | 0.00 MB/sec | 63.05       | 135                      | 0                   | 22.34               | 0.67                 |
|                            |            | Indexed  | 212 hits     | 100.00 %     | 29.86 secs   | 0.00 MB          | 10.71 secs    | 7.10 trans/sec   | 0.00 MB/sec | 76.04       | 212                      | 0                   | 14.15               | 0.46                 |
| PHP-FPM + OpCache          | PostgreSQL | No Index | 819 hits     | 100.00 %     | 29.01 secs   | 0.00 MB          | 3.33 secs     | 28.23 trans/sec  | 0.00 MB/sec | 94.07       | 819                      | 0                   | 3.85                | 0.14                 |
|                            |            | Indexed  | 2084 hits    | 100.00 %     | 29.08 secs   | 0.01 MB          | 1.36 secs     | 71.66 trans/sec  | 0.00 MB/sec | 97.55       | 2084                     | 0                   | 1.6                 | 0.05                 |
|                            | MariaDB    | No Index | 134 hits     | 100.00 %     | 29.93 secs   | 0.00 MB          | 13.99 secs    | 4.48 trans/sec   | 0.00 MB/sec | 62.64       | 134                      | 0                   | 22.46               | 0.84                 |
|                            |            | Indexed  | 212 hits     | 100.00 %     | 29.99 secs   | 0.00 MB          | 10.75 secs    | 7.07 trans/sec   | 0.00 MB/sec | 76.03       | 212                      | 0                   | 14.4                | 0.53                 |
| ReactPHP                   | PostgreSQL | No Index | 453 hits     | 100.00 %     | 29.46 secs   | 0.00 MB          | 5.79 secs     | 15.38 trans/sec  | 0.00 MB/sec | 88.96       | 453                      | 0                   | 6.66                | 0.14                 |
|                            |            | Indexed  | 16487 hits   | 100.00 %     | 29.29 secs   | 0.06 MB          | 0.18 secs     | 562.89 trans/sec | 0.00 MB/sec | 98.53       | 16487                    | 0                   | 0.29                | 0.01                 |
|                            | MariaDB    | No Index | 142 hits     | 100.00 %     | 29.41 secs   | 0.00 MB          | 13.47 secs    | 4.83 trans/sec   | 0.00 MB/sec | 65.04       | 142                      | 0                   | 20.64               | 1.43                 |
|                            |            | Indexed  | 16481 hits   | 100.00 %     | 29.27 secs   | 0.06 MB          | 0.17 secs     | 563.07 trans/sec | 0.00 MB/sec | 93          | 16481                    | 0                   | 1.2                 | 0.01                 |
| ReactPHP + OpCache         | PostgreSQL | No Index | 455 hits     | 100.00 %     | 29.54 secs   | 0.00 MB          | 5.79 secs     | 15.40 trans/sec  | 0.00 MB/sec | 89.13       | 455                      | 0                   | 6.66                | 0.27                 |
|                            |            | Indexed  | 16450 hits   | 100.00 %     | 29.25 secs   | 0.06 MB          | 0.17 secs     | 562.39 trans/sec | 0.00 MB/sec | 94.75       | 16450                    | 0                   | 0.31                | 0.01                 |
|                            | MariaDB    | No Index | 143 hits     | 100.00 %     | 29.40 secs   | 0.00 MB          | 13.55 secs    | 4.86 trans/sec   | 0.00 MB/sec | 65.88       | 143                      | 0                   | 20.65               | 1.44                 |
|                            |            | Indexed  | 16475 hits   | 100.00 %     | 29.20 secs   | 0.06 MB          | 0.16 secs     | 564.21 trans/sec | 0.00 MB/sec | 90.04       | 16475                    | 0                   | 0.31                | 0.01                 |
| ReactPHP Multi Instance(3) | PostgreSQL | No Index | 1203 hits    | 100.00 %     | 29.22 secs   | 0.00 MB          | 2.33 secs     | 41.17 trans/sec  | 0.00 MB/sec | 95.73       | 1203                     | 0                   | 2.74                | 0.09                 |
|                            |            | Indexed  | 16480 hits   | 100.00 %     | 29.34 secs   | 0.06 MB          | 0.14 secs     | 561.69 trans/sec | 0.00 MB/sec | 80.52       | 16480                    | 0                   | 0.33                | 0                    |
|                            | MariaDB    | No Index | 270 hits     | 100.00 %     | 29.42 secs   | 0.00 MB          | 8.88 secs     | 9.18 trans/sec   | 0.00 MB/sec | 81.47       | 270                      | 0                   | 11.31               | 0.23                 |
|                            |            | Indexed  | 16460 hits   | 100.00 %     | 29.24 secs   | 0.06 MB          | 0.14 secs     | 562.93 trans/sec | 0.00 MB/sec | 77.33       | 16460                    | 0                   | 1.37                | 0                    |

50 Concurrent

|                            |            |          | Transactions | Availability | Elapsed time | Data transferred | Response time | Transaction rate | Throughput  | Concurrency | Successful transactions: | Failed transactions | Longest transaction | Shortest transaction |
|----------------------------|------------|----------|--------------|--------------|--------------|------------------|---------------|------------------|-------------|-------------|--------------------------|---------------------|---------------------|----------------------|
| PHP-FPM                    | PostgreSQL | No Index | 149 hits     | 100.00 %     | 29.16 secs   | 0.00 MB          | 8.26 secs     | 5.11 trans/sec   | 0.00 MB/sec | 42.19       | 149                      | 0                   | 11.14               | 0.52                 |
|                            |            | Indexed  | 183 hits     | 100.00 %     | 29.57 secs   | 0.00 MB          | 6.97 secs     | 6.19 trans/sec   | 0.00 MB/sec | 43.15       | 183                      | 0                   | 8.41                | 0.5                  |
|                            | MariaDB    | No Index | 133 hits     | 100.00 %     | 30.00 secs   | 0.00 MB          | 9.11 secs     | 4.43 trans/sec   | 0.00 MB/sec | 40.4        | 133                      | 0                   | 11.76               | 0.67                 |
|                            |            | Indexed  | 197 hits     | 100.00 %     | 29.81 secs   | 0.00 MB          | 6.68 secs     | 6.61 trans/sec   | 0.00 MB/sec | 44.15       | 197                      | 0                   | 8.68                | 0.56                 |
| PHP-FPM + OpCache          | PostgreSQL | No Index | 852 hits     | 100.00 %     | 29.20 secs   | 0.00 MB          | 1.67 secs     | 29.18 trans/sec  | 0.00 MB/sec | 48.59       | 852                      | 0                   | 2.01                | 0.12                 |
|                            |            | Indexed  | 2035 hits    | 100.00 %     | 29.22 secs   | 0.01 MB          | 0.71 secs     | 69.64 trans/sec  | 0.00 MB/sec | 49.35       | 2035                     | 0                   | 0.9                 | 0.04                 |
|                            | MariaDB    | No Index | 135 hits     | 100.00 %     | 29.18 secs   | 0.00 MB          | 8.78 secs     | 4.63 trans/sec   | 0.00 MB/sec | 40.62       | 135                      | 0                   | 11.34               | 0.77                 |
|                            |            | Indexed  | 199 hits     | 100.00 %     | 29.09 secs   | 0.00 MB          | 6.40 secs     | 6.84 trans/sec   | 0.00 MB/sec | 43.8        | 199                      | 0                   | 8.35                | 0.52                 |
| ReactPHP                   | PostgreSQL | No Index | 461 hits     | 100.00 %     | 29.55 secs   | 0.00 MB          | 3.03 secs     | 15.60 trans/sec  | 0.00 MB/sec | 47.2        | 461                      | 0                   | 3.36                | 0.21                 |
|                            |            | Indexed  | 16441 hits   | 100.00 %     | 29.26 secs   | 0.06 MB          | 0.08 secs     | 561.89 trans/sec | 0.00 MB/sec | 46.2        | 16441                    | 0                   | 0.17                | 0                    |
|                            | MariaDB    | No Index | 145 hits     | 100.00 %     | 29.46 secs   | 0.00 MB          | 8.47 secs     | 4.92 trans/sec   | 0.00 MB/sec | 41.67       | 145                      | 0                   | 10.38               | 0.22                 |
|                            |            | Indexed  | 16433 hits   | 100.00 %     | 29.37 secs   | 0.06 MB          | 0.08 secs     | 559.52 trans/sec | 0.00 MB/sec | 44.24       | 16433                    | 0                   | 0.16                | 0.01                 |
| ReactPHP + OpCache         | PostgreSQL | No Index | 452 hits     | 100.00 %     | 29.49 secs   | 0.00 MB          | 3.08 secs     | 15.33 trans/sec  | 0.00 MB/sec | 47.26       | 452                      | 0                   | 3.43                | 0.21                 |
|                            |            | Indexed  | 16412 hits   | 100.00 %     | 29.25 secs   | 0.06 MB          | 0.08 secs     | 561.09 trans/sec | 0.00 MB/sec | 46.07       | 16412                    | 0                   | 0.17                | 0                    |
|                            | MariaDB    | No Index | 144 hits     | 100.00 %     | 29.41 secs   | 0.00 MB          | 8.44 secs     | 4.93 trans/sec   | 0.00 MB/sec | 41.33       | 144                      | 0                   | 10.42               | 0.63                 |
|                            |            | Indexed  | 16455 hits   | 100.00 %     | 29.34 secs   | 0.06 MB          | 0.08 secs     | 560.84 trans/sec | 0.00 MB/sec | 44.21       | 16455                    | 0                   | 1.05                | 0.01                 |
| ReactPHP Multi Instance(3) | PostgreSQL | No Index | 1178 hits    | 100.00 %     | 29.40 secs   | 0.00 MB          | 1.22 secs     | 40.07 trans/sec  | 0.00 MB/sec | 48.84       | 1178                     | 0                   | 1.71                | 0.08                 |
|                            |            | Indexed  | 16431 hits   | 100.00 %     | 29.40 secs   | 0.06 MB          | 0.07 secs     | 561.55 trans/sec | 0.00 MB/sec | 41.03       | 16431                    | 0                   | 0.23                | 0                    |
|                            | MariaDB    | No Index | 274 hits     | 100.00 %     | 29.47 secs   | 0.00 MB          | 4.88 secs     | 9.30 trans/sec   | 0.00 MB/sec | 45.38       | 274                      | 0                   | 5.67                | 0.22                 |
|                            |            | Indexed  | 16425 hits   | 100.00 %     | 29.34 secs   | 0.06 MB          | 0.07 secs     | 559.82 trans/sec | 0.00 MB/sec | 37          | 16425                    | 0                   | 1.1                 | 0                    |

200 Concurrent

|                            |            |          | Transactions | Availability | Elapsed time | Data transferred | Response time | Transaction rate | Throughput  | Concurrency | Successful transactions: | Failed transactions | Longest transaction | Shortest transaction |
|----------------------------|------------|----------|--------------|--------------|--------------|------------------|---------------|------------------|-------------|-------------|--------------------------|---------------------|---------------------|----------------------|
| PHP-FPM                    | PostgreSQL | No Index | 157 hits     | 100.00 %     | 29.15 secs   | 0.00 MB          | 14.34 secs    | 5.39 trans/sec   | 0.00 MB/sec | 77.22       | 157                      | 0                   | 28.24               | 0.66                 |
|                            |            | Indexed  | 184 hits     | 100.00 %     | 30.01 secs   | 0.00 MB          | 15.12 secs    | 6.13 trans/sec   | 0.00 MB/sec | 92.72       | 184                      | 0                   | 29.91               | 0.65                 |
|                            | MariaDB    | No Index | 128 hits     | 100.00 %     | 29.92 secs   | 0.00 MB          | 15.47 secs    | 4.28 trans/sec   | 0.00 MB/sec | 66.19       | 128                      | 0                   | 29.85               | 0                    |
|                            |            | Indexed  | 207 hits     | 100.00 %     | 29.82 secs   | 0.00 MB          | 14.74 secs    | 6.94 trans/sec   | 0.00 MB/sec | 102.3       | 207                      | 0                   | 28.61               | 0.57                 |
| PHP-FPM + OpCache          | PostgreSQL | No Index | 829 hits     | 100.00 %     | 29.10 secs   | 0.00 MB          | 6.10 secs     | 28.49 trans/sec  | 0.00 MB/sec | 173.88      | 829                      | 0                   | 7.47                | 0.15                 |
|                            |            | Indexed  | 2140 hits    | 100.00 %     | 29.94 secs   | 0.01 MB          | 2.66 secs     | 71.48 trans/sec  | 0.00 MB/sec | 189.8       | 2140                     | 0                   | 3.03                | 0.09                 |
|                            | MariaDB    | No Index | 130 hits     | 100.00 %     | 29.89 secs   | 0.00 MB          | 15.17 secs    | 4.35 trans/sec   | 0.00 MB/sec | 66          | 130                      | 0                   | 29.71               | 0.85                 |
|                            |            | Indexed  | 208 hits     | 100.00 %     | 30.00 secs   | 0.00 MB          | 14.64 secs    | 6.93 trans/sec   | 0.00 MB/sec | 101.5       | 208                      | 0                   | 28.92               | 0.55                 |
| ReactPHP                   | PostgreSQL | No Index | 459 hits     | 100.00 %     | 29.50 secs   | 0.00 MB          | 10.08 secs    | 15.56 trans/sec  | 0.00 MB/sec | 156.9       | 459                      | 0                   | 12.95               | 0.22                 |
|                            |            | Indexed  | 16644 hits   | 100.00 %     | 29.30 secs   | 0.06 MB          | 0.34 secs     | 568.05 trans/sec | 0.00 MB/sec | 192.3       | 16644                    | 0                   | 0.61                | 0.01                 |
|                            | MariaDB    | No Index | 147 hits     | 100.00 %     | 29.50 secs   | 0.00 MB          | 14.94 secs    | 4.98 trans/sec   | 0.00 MB/sec | 74.46       | 147                      | 0                   | 29.47               | 0.23                 |
|                            |            | Indexed  | 16577 hits   | 100.00 %     | 29.32 secs   | 0.06 MB          | 0.33 secs     | 565.38 trans/sec | 0.00 MB/sec | 188.8       | 16577                    | 0                   | 1.39                | 0.01                 |
| ReactPHP + OpCache         | PostgreSQL | No Index | 453 hits     | 100.00 %     | 29.53 secs   | 0.00 MB          | 10.23 secs    | 15.34 trans/sec  | 0.00 MB/sec | 156.9       | 453                      | 0                   | 13.31               | 0.13                 |
|                            |            | Indexed  | 16560 hits   | 100.00 %     | 29.27 secs   | 0.06 MB          | 0.32 secs     | 565.77 trans/sec | 0.00 MB/sec | 182.1       | 16560                    | 0                   | 0.47                | 0.01                 |
|                            | MariaDB    | No Index | 142 hits     | 100.00 %     | 29.32 secs   | 0.00 MB          | 14.89 secs    | 4.84 trans/sec   | 0.00 MB/sec | 72.13       | 142                      | 0                   | 29.29               | 0                    |
|                            |            | Indexed  | 16557 hits   | 100.00 %     | 29.33 secs   | 0.06 MB          | 0.33 secs     | 564.51 trans/sec | 0.00 MB/sec | 184.2       | 16557                    | 0                   | 1.32                | 0.01                 |
| ReactPHP Multi Instance(3) | PostgreSQL | No Index | 1208 hits    | 100.00 %     | 29.17 secs   | 0.01 MB          | 4.43 secs     | 41.41 trans/sec  | 0.00 MB/sec | 183.4       | 1208                     | 0                   | 5.19                | 0.13                 |
|                            |            | Indexed  | 16565 hits   | 100.00 %     | 29.33 secs   | 0.06 MB          | 0.29 secs     | 564.78 trans/sec | 0.00 MB/sec | 163.1       | 16565                    | 0                   | 0.63                | 0                    |
|                            | MariaDB    | No Index | 284 hits     | 100.00 %     | 29.35 secs   | 0.00 MB          | 13.38 secs    | 9.68 trans/sec   | 0.00 MB/sec | 129.4       | 284                      | 0                   | 20.86               | 0.87                 |
|                            |            | Indexed  | 16582 hits   | 100.00 %     | 29.31 secs   | 0.06 MB          | 0.26 secs     | 565.75 trans/sec | 0.00 MB/sec | 146.1       | 16582                    | 0                   | 0.77                | 0                    |