

Filters and sort benchmark

Stress tests various query filters (with optional sorting and counting).

Usage

```
NUM_NODES=1000 NUM_PAGES=1000 FILTER=eq SORT=1 TEXT=1 COUNT=1 yarn bench
```

Description

All queries have `limit=100` (although some of them may return just several items or 0).

Env vars:

- **NUM_NODES**: The number of nodes created (1000 by default)
- **NUM_PAGES**: The number of pages created (1000 by default, must be \leq **NUM_NODES**)
- **FILTER**. Available values:
 - **eq**: captures 1/4 of all nodes (default)
 - **eq-id**: captures a single node by id
 - **eq-uniq**: captures a single node by unique value (e.g. **slug**)
 - **eq-two-fields**: applies **eq** filter to two fields and captures 1/4 of all nodes
 - **elemMatch-eq**: captures 1/2 of all nodes
 - **in**: captures 1/2 of all nodes
 - **gt**: the first query captures all nodes, the last one - 0 nodes
 - **lt**: the first query captures 0 nodes, the last - all nodes
 - **gt-lt**: any query captures 1000 items; last 1000 pages will capture from 999 to 0 (**gt**: **currentPage**, **lt**: **currentPage + 1000**)
 - **nin**: captures 1/2 of all nodes
 - **ne**: captures 3/4 of all nodes
 - **regex**: captures from 1/4 to 1/3 of all nodes (simple and fast regexp)
- **SORT**. Available values:
 - **0**: no sort (default)
 - **1**: sorts by random number
 - comma-separate list of fields (e.g. **SORT=fooBar,random** sorts by fields [**foo**, **bar**])
- **TEXT**. Available values:
 - **0**: small nodes without big text content (default)
 - **1**: adds 4kb of random text to each node. Note: text is returned by graphql queries, so it affects **page-data.json** file size.

- COUNT. Available values:
 - 0: query doesn't request total count of items (default)
 - 1: adds `totalCount` to query request

Example

Let's figure out time complexity of `gt` filter. To make this happen - let's run the benchmark 3 times with the same number of pages but growing number of nodes:

run 1:

```
NUM_NODES=1000 FILTER=gt yarn bench
```

run 2:

```
NUM_NODES=10000 FILTER=gt yarn bench
```

run 3:

```
NUM_NODES=100000 FILTER=gt yarn bench
```