

Indexing

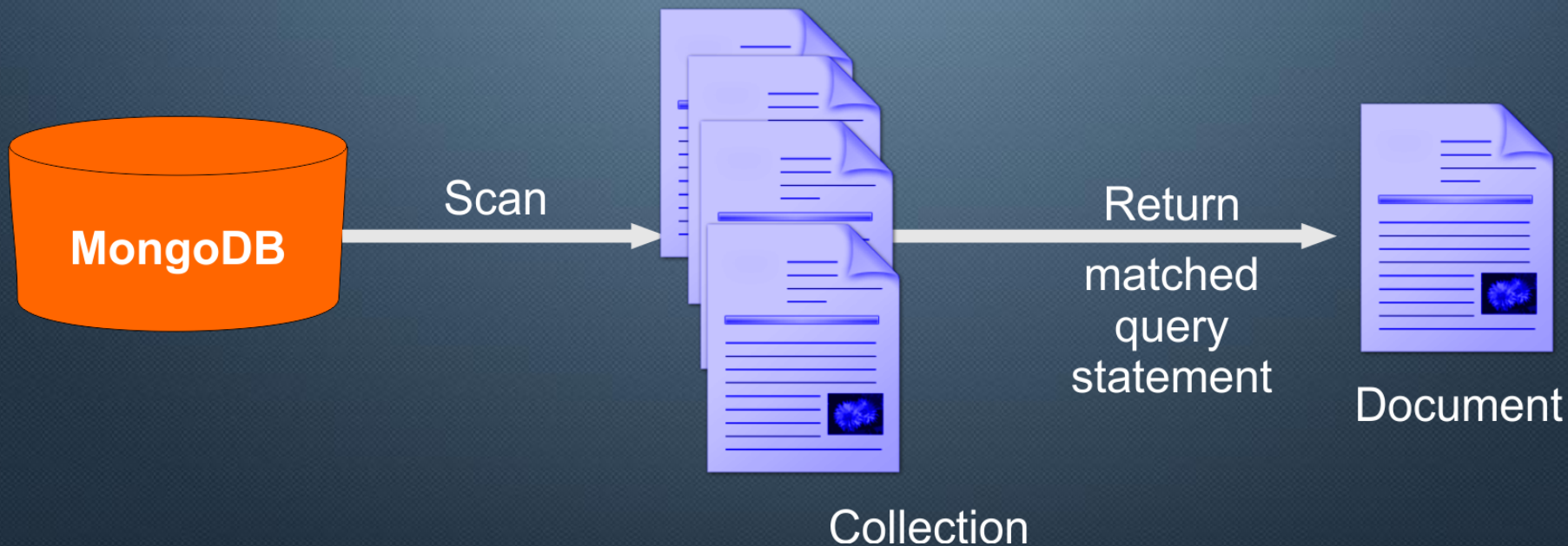


Introduction to Indexes

- ❑ Support the efficient execution of queries.
- ❑ Help you increase the speed of querying data.
- ❑ Great way to fix queries as they organize data by a given field to let MongoDB find it quickly.
- ❑ Keep all its value in a sorted order so it makes sorting documents by the indexed key much faster.
- ❑ Indexes are basically trees, with the smallest value on the leftmost leaf and the greatest on the rightmost.

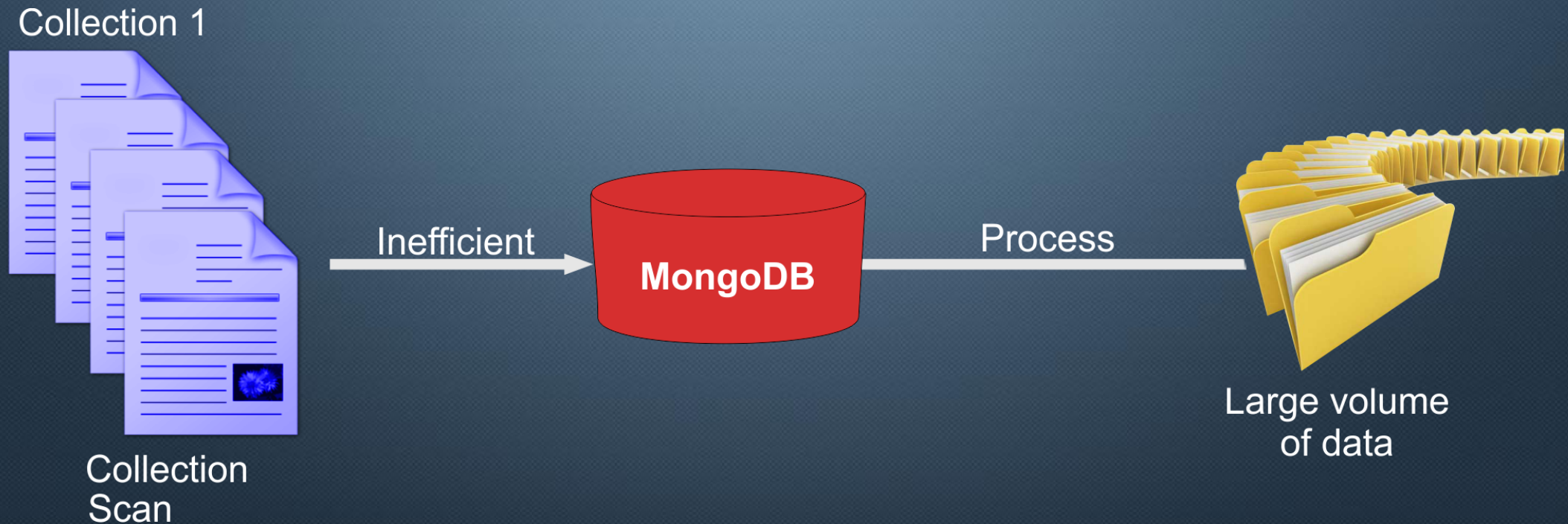
Indexes Continued

Without indexes, MongoDB must scan every document in a collection to select those documents that match the query statement.



Indexes Continued

But collection scans are inefficient because they require mongod to process a larger volume of data for each operation.



Indexes Continued

The index stores the value of a specific field or set of fields, ordered by the value of the field.



Indexes Continued

Indexes are special data structures that store a small portion of the collection's data set in an 'easy to traverse' form.

Indexes in MongoDB are similar to indexes in other database systems.

Indexes



Indexes



Relational DB

Indexes Continued

MongoDB defines indexes at the collection level and supports indexes on any field or sub-field of the documents in a MongoDB collection.

