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Assignment 6.1

Web 335

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In the text, indexes are described as being similar to indexes in a book. The similarity comes when trying to find a specific item. When we read a book, we may be able to look at the index to find a particular word and the page that it is in. The key to having an index is that we don’t have to go through the whole book to find what we need. Similarly indexes in MongoDb facilitate finding documents in a collection. Searching without an index in a book or a MongoDB database, we would have to scan through the entire collection. Finding documents by scanning through all of them is time consuming so it is crucial to use the function index. There are many different types of indexes to create an index we use the createIndex() method. To see indexes we can use getIndexes().

According to MongoDB, MongoDB supports compound indexes, where a single index structure holds references to multiple fields within a collection's documents. The usage of compound indexes are for queries that match multiple fields. An example in the mongo docs, the following operation creates an ascending index on the item and stock fields:

db.products.createIndex( { "item": 1, "stock": 1 } )

Capped collections are fixed-size collections that support high-throughput operations that insert and retrieve documents based on insertion order. Once a collection fills its allocated space, it makes room for new documents by overwriting the oldest documents in the collection. Capped collections automatically remove the oldest documents in the collection without requiring scripts or explicit remove operations.

Reference List

MongoDB Manual. “Use Indexes to Sort Query Results.” mongodb.com, Accessed 22 April 2021.

https://docs.mongodb.com/manual/core/capped-collections/

Bradshaw Shannon, Braxil Eoin & Kristina Chodorow. “MongoDB The Definitive Guide Third Edition.” O’Reilly Media, Inc. December 2019.