MongoDB tutorial

1. MongoDB overview

MongoDB is a document database that provides high performance, high availability, and easy scalability.

MongoDB data model:

Database

A MongoDB database can hold a set of collections. Like a traditional RDBMS, a single mongodb server can have multiple databases.

Collection

In mongodb, a collection is the equivalent of an RDBMS table. A collection can hold a set of documents. Collections do not enforce any schema. Documents within a collection can have different fields.

Document

A document is a set of key-value pairs, they have a dynamic schema. Dynamic schema means that documents in the same collection do not need to have the same set of fields or structure. Common fields in a collection's documents may hold different types of data.

Comparison of a traditional RDBMS or mongodb to gain a better understanding of the mongodb.

|  |  |
| --- | --- |
| RDBMS | MongoDB |
| Database | Database |
| Table | Collection |
| Tuple/row | Document |
| Column | Field |
| Table join | Embedded documents |
| Primary key | Primary key (default key id provided by mongodb itself) |
| Database server and client |  |
| MySqld/Oracle | Mongod |
| Mysql/sqlplus | mongo |

1. Install MongoDB

On Windows

On Linux

Tutorials

Create Collection:

Syntax: db.createCollection(name, options)

|  |  |  |
| --- | --- | --- |
| Parameter | Type | Description |
| Name | String | (required) name of the collection to be created. |
| Options | Document | (optional) specify the options about memory size and indexing. |

Example:

>use mydb

switched to db test

>db.createCOllection("myCollection1")

{ "ok" : 1}

>

List of options:

|  |  |  |
| --- | --- | --- |
| Field | Type | Description |
| Capped | Boolean | (optional) if true, enables a capped collection. Capped collection is a collection of fixed size that automatically overwrites its oldest entries when it reaches its maximum size. If capped is specified true, we need to specify the size parameter too. |
| autoIndexId | boolean | (Optional) if true , automatically create index on \_id fields. Default value is false. |
| Size | Number | (optional) specifies a maximum size in bytes for a capped collection. |
| Max | Number | (optional) specifies the maximum number of documents allowed in the capped collection. |

While inserting a document in a collection, MongoDB check the size of the capped field, then its checks max field

Example:

> db.createCollection("mycol2", { capped : true, autoIndexID : true, size : 6142800, max : 10000 } )

{"ok": 1}

\*\*show collections allows us to view/Check the collections that have been created

example:

>show collections

mycollcetion1

system.indexes

Drop Collection:

Syntax: db.COLLECTION\_NAME.drop()

Reference links:

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http://www.tutorialspoint.com/mongodb/

Quick references: http://www.tutorialspoint.com/mongodb/mongodb\_quick\_guide.htm