

Title: MongoDB Queries

Problem Statement:

Design and Develop MongoDB Queries using CRUD operations.

(Use CRUD operations, pretty function, etc)

Objectives:-

- Understand the concept of binary JSON format
- Understand the concept of MongoDB document model

SW & HW requirements:-

MongoDB, Windows-10 64 bit, 8GB RAM,
512GB SSD

Theory:-

MongoDB is a cross-platform, document oriented database that provides high performance, high availability and easy scalability. MongoDB works on concept of collection and document.

Database:-

Database is a physical container for collections. Each database gets its own set of files on the file system. A single MongoDB server typically has multiple databases.

Collection:-

Collection is a group of MongoDB documents. It is equivalent of RDBMS table. A collection exists within a single database.

Collections do not enforce a schema. Documents within a collection can have different fields. Typically, all documents in a collection are of similar or related purpose.

Document

Document is a set of key-value pairs. Documents have dynamic schema. Dynamic schema means that documents in same collection can have different schema.

RDBMS	MongoDB
Database	Database
Table	Collection
Tuple/Row	Document
Column	Field
Table Join	Embedded documents
Primary key	Primary key (-id)

CRUD operations:

- 1) db.createCollection(name, options)
- db.COLLECTION_NAME.insertOne(document)
- db.COLLECTION_NAME.insertMany([...documents])
- 2) db.COLLECTION_NAME.find()
- 3) db.COLLECTION_NAME.update(criteria, update data)
- 4) db.COLLECTION_NAME.remove(criteria)
- 5) db.COLLECTION_NAME.save({_id: ?, new data})

Conclusion - Successfully designed and developed MongoDB queries for CRUD operations.