**Assignment 7: CRUD Operations in MongoDB**

**Implement CRUD operations directly in MongoDB.**

**Understand the MongoDB shell commands for CRUD.**

MongoDB provides a powerful shell that allows you to interact with the database directly using CRUD operations. Below are examples of CRUD operations in MongoDB using the MongoDB shell commands.

Step 1: Connect to MongoDB

Make sure your MongoDB server is running. Open a terminal and run the following command to connect to the MongoDB shell:

Mongo

Step 2: Use a Database

By default, you will be connected to the test database. You can switch to a different database or create a new one using the use command:

use mydatabase

Replace mydatabase with the name of your desired database.

Step 3: CRUD Operations

Create (Insert) Operation:

db.todos.insertOne({

title: "Learn MongoDB",

description: "Explore CRUD operations",

completed: false

})

This command inserts a new document into the todos collection with the specified fields.

Read (Find) Operation:

db.todos.find()

This command retrieves all documents from the todos collection.

db.todos.find({ title: "Learn MongoDB" })

This command retrieves documents from the todos collection where the title is "Learn MongoDB".

Update Operation:

db.todos.updateOne(

{ title: "Learn MongoDB" },

{ $set: { completed: true } }

)

This command updates a document in the todos collection by setting the completed field to true.

Delete Operation:

db.todos.deleteOne({ title: "Learn MongoDB" })

This command deletes a document from the todos collection where the title is "Learn MongoDB".

Additional Examples:

Insert Multiple Documents:

db.todos.insertMany([

{ title: "Read a Book", description: "Choose a good book", completed: false },

{ title: "Exercise", description: "Go for a run", completed: true }

])

This command inserts multiple documents into the todos collection.

Update Multiple Documents:

db.todos.updateMany(

{ completed: false },

{ $set: { completed: true } }

)

This command updates multiple documents in the todos collection by setting the completed field to true for those where it was initially false.

Delete All Documents:

db.todos.deleteMany({})

This command deletes all documents from the todos collection.

Step 4: Disconnect from MongoDB

To exit the MongoDB shell, run:

quit()

Or simply press Ctrl + C twice.

These MongoDB shell commands cover the basic CRUD operations. Remember to replace collection names, field values, and database names with your actual use case. The MongoDB shell is a powerful tool for interacting directly with your MongoDB database and is useful for debugging and administrative tasks.