



## Experiment No. 10

**Student Name: Rishav Kumar**

**UID: 22MCC20039**

**Branch: MCA - CCD**

**Section/Group: 22MCD1 / Grp A**

**Semester: II**

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**Subject Name: AIP Lab**

**Subject Code: 22CAP-686**

### **1. Aim/Overview of the Practical**

Implement CRUD operation with database on NodeJS with MongoDB

### **2. Task to be done/Algorithm**

To create a database and table in MongoDB and then connect it with Node JS program. Perform the CRUD operation in Node JS program by connecting it with database & running the program on command prompt.

### **3. Code/Step for the Practical**

```
----- ws10.js -----  
const { MongoClient } = require('mongodb');  
// or as an es module:  
// import { MongoClient } from 'mongodb'  
  
// Connection URL  
const url = 'mongodb://127.0.0.1:27017';  
const client = new MongoClient(url);  
  
// Database Name  
const dbName = 'amar_db';  
  
async function getData()  
{  
  // Use connect method to connect to the server  
  let result=await client.connect();  
  console.log('Connected successfully to server');  
  //const db = client.db(dbName);  
  let db=result.db(dbName);  
  let collection = db.collection('new_table_name');  
  let response=await collection.find({}).toArray();
```

```
console.log(response);
}

async function insertData()
{
const myDB = client.db(dbName);
const myColl = myDB.collection('new_table_name');

const doc = { name: "Amar", section: "MCD1", UID: 20005 };
const result = await myColl.insertOne(doc);
console.log(
  `A document was INSERTED with the _id: ${result.insertedId}`,
);
}

async function deleteData()
{
const myDB = client.db(dbName);
const myColl = myDB.collection('new_table_name');

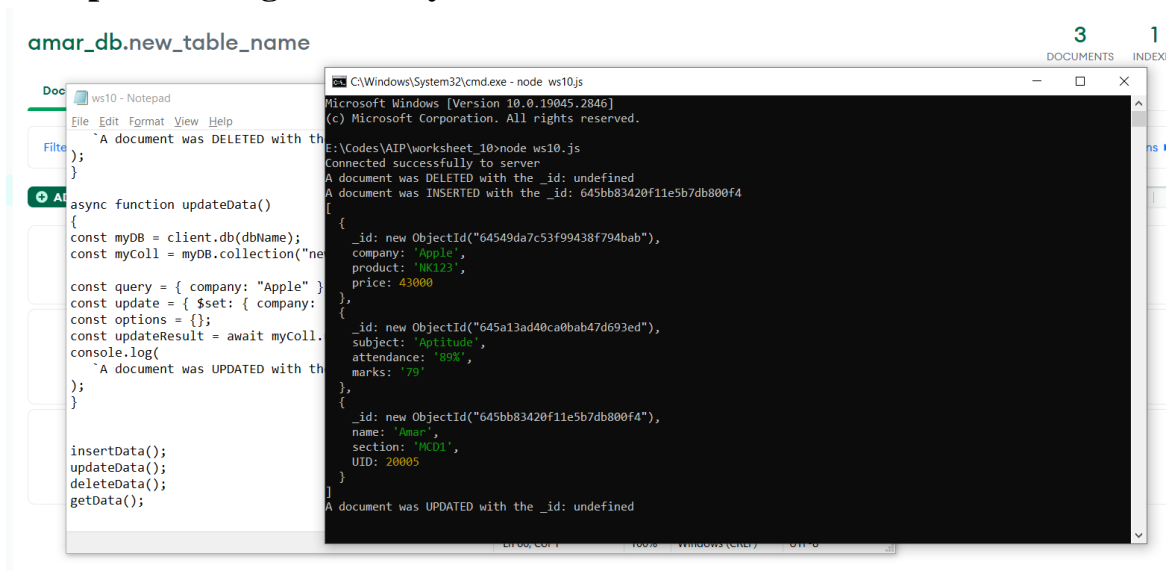
const doc = { event: "Projet Expo" };
const deleteResult = await myColl.deleteOne(doc);
console.log(
  `A document was DELETED with the _id: ${deleteResult.insertedId}`,
);
}

async function updateData()
{
const myDB = client.db(dbName);
const myColl = myDB.collection("new_table_name");

const query = { company: "Apple" };
const update = { $set: { company: "Nokia", product: "N65A", price: 63500 } };
const options = { };
const updateResult = await myColl.updateOne(query, update, options);
console.log(
  `A document was UPDATED with the _id: ${updateResult.insertedId}`,
);
}
```

```
insertData();
updateData();
deleteData();
getData();
```

## 4. Result/Output/Writing Summary



The Notepad window shows the following code:

```
amar_db.new_table_name

const query = { company: "Apple" };
const update = { $set: { company: "Nokia" } };
const options = {};
const updateResult = await myColl.updateOne(query, update, options);
console.log('A document was UPDATED with the _id: ' + updateResult._id);




insertData();
updateData();
deleteData();
getData();
```

The terminal window shows the output of the code:




```
Microsoft Windows [Version 10.0.19045.2846]
(c) Microsoft Corporation. All rights reserved.

C:\Codes\AIP\worksheet_10>node ws10.js
Connected successfully to server
A document was DELETED with the _id: undefined
A document was INSERTED with the _id: 645bb83420f11e5b7db800f4
{
  _id: new ObjectId("64549da7c53f99438f794bab"),
  company: 'Apple',
  product: 'NK123',
  price: 43000
},
{
  _id: new ObjectId("645a13ad40ca0bab47d693ed"),
  subject: 'Aptitude',
  attendance: '89%',
  marks: '79'
},
{
  _id: new ObjectId("645bb83420f11e5b7db800f4"),
  name: 'Amar',
  section: 'MCD1',
  UID: 20005
}
A document was UPDATED with the _id: undefined
```

amar\_db.new\_table\_name

Documents	Aggregations	Schema	Explain Plan	Indexes	Validation
Filter  Type a query: { field: 'value' }					
<div>  ADD DATA            EXPORT COLLECTION         </div>					
<pre>_id: ObjectId('64549b8123e90f338ad501c5') event: "Projet Expo" Date: "22 July 2023"</pre>					
<pre>_id: ObjectId('64549da7c53f99438f794bab') company: "Apple" product: "NK123" price: 43000</pre>					
<pre>_id: ObjectId('645a13ad40ca0bab47d693ed') subject: "Aptitude" attendance: "89%" marks: "79"</pre>					

amar\_db.new\_table\_name

Documents	Aggregations	Schema	Explain Plan	Indexes	Validation
Filter  Type a query: { field: 'value' }					
<div>  ADD DATA            EXPORT COLLECTION         </div>					
<pre>_id: ObjectId('64549da7c53f99438f794bab') company: "Nokia" product: "N65A" price: 63500</pre>					
<pre>_id: ObjectId('645a13ad40ca0bab47d693ed') subject: "Aptitude" attendance: "89%" marks: "79"</pre>					
<pre>_id: ObjectId('645bb83420f11e5b7db800f4') name: "Amar" section: "MCD1" UID: 20005</pre>					

## 5. Learning Outcomes (What I have learned)

⇒ I Learned to: -

- Create a node js file and write scripts.
- To connect database with NodeJS.
- To perform CRUD operation on NodeJS with MongoDB.