



Experiment No.3
To install and configure MongoDB to execute NoSQL commands
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**AIM:** To install and configure MongoDB/ Cassandra/ HBase/ Hypertable and to execute NoSQL commands.

**THEORY:** MongoDB can be downloaded from <https://www.mongodb.com/try/download/community2> Now open command prompt and run the following command

```
C:\>move mongodb-win64-* mongodb  
  
1 dir(s) moved.
```

MongoDB requires a data folder to store its files. The default location for the MongoDB data directory is c:\data\db. So create the folder using the Command Prompt. Execute the following command sequence

```
C:\>md data  
  
C:\>md data\db
```

In case mongodb is stored in some other location, navigate to that folder. In command prompt navigate to the bin directory present into the mongodb installation folder. Suppose the installation folder is D:\set up\mongodb

```
C:\Users\XYZ>d:  
  
D:\>cd "set up"  
  
D:\set up>cd mongodb  
  
D:\set up\mongodb>cd bin  
  
D:\set up\mongodb\bin>mongod.exe --dbpath "d:\set up\mongodb\data"
```

Now to run the mongodb, open another command prompt and issue the following command:



```
D:\set up\mongodb\bin>mongo.exe

MongoDB shell version: 2.4.6

connecting to: test

>db.test.save( { a: 1 } )

>db.test.find()

{ "_id" : ObjectId("5879b0f65a56a454"), "a" : 1 }

>
```

### **The use Command**

MongoDB use DATABASE\_NAME is used to create database. The command will create a new database, if it doesn't exist otherwise it will return the existing database

**Syntax:** use DATABASE\_NAME

### **The dropDatabase () Method**

MongoDB db.dropDatabase () command is used to drop an existing database.

#### **Syntax:**

db.dropDatabase()

### **The createCollection() Method**

MongoDB db.createCollection(name, options) is used to create collection.

**Syntax:** db.createCollection(name, options)

**Insert Document** To insert data into MongoDB collection, you need to use MongoDB's insert() or save() method

#### **Syntax**

>db.COLLECTION\_NAME.insert(document)



```
>_MONGOSH
```

```
> show databases
```

```
< homechefdb  72.00 KiB
   test       60.00 KiB
   admin      336.00 KiB
   local      27.39 GiB
```

```
Atlas atlas-5lkt14-shard-0 [primary] homechefdb> |
```

```
> db.Movies.insertOne(
  {
    "name": "Avatar: The Way of Water",
    "year": 2022,
    "IMDB": 7.6
  }
)
< {
  acknowledged: true,
  insertedId: ObjectId("653176827c00c06bd7415ead")
}
```



```
> db.Movies.insertMany([
  {
    "name": "TopGun Mavrick",
    "year": 2022,
    "IMDB": 8.3
  },
  {
    "name": "BattleShip",
    "year": 2012,
    "IMBD": 5.8
  }
])
< {
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("653177687c00c06bd7415eae"),
    '1': ObjectId("653177687c00c06bd7415eaf")
  }
}
Atlas atlas-5lkt14-shard-0 [primary] homechefdb>
```



```
> db.Movies.updateOne(  
  {  
    "name": "Top-Gun Mavrick"  
  },  
  {  
    $set: {"IMDB": 8.5}  
  }  
)
```

```
> db.Movies.find({"name": "Top-Gun Mavrick"})  
< {  
  _id: ObjectId("653177687c00c06bd7415eae"),  
  name: 'Top-Gun Mavrick',  
  year: 2022,  
  IMDB: 8.5  
}
```

```
> db.Movies.drop()  
< true  
> show collections  
< users
```



**Conclusion:**

MongoDB, a NoSQL database, is renowned for its prowess in managing vast volumes of unstructured data efficiently. The database's document-oriented design enables seamless storage and retrieval of intricate data structures, making it a favored solution for diverse applications, from web development to data analytics. MongoDB's CRUD queries, encompassing Create, Read, Update, and Delete operations, serve as the foundational toolkit for developers, offering a straightforward and consistent approach to data manipulation. The database's support for BSON data format and indexing enhances the performance of these operations, contributing to its widespread adoption. MongoDB's flexibility in adapting to dynamic schemas and its horizontal scaling capabilities further solidify its position as a versatile and robust choice for contemporary application development, prioritizing agility and scalability in data management.