Experiment No.3	
To install and configure MongoDB to execute NoSQL Commands	
Date of Performance:	
Date of Submission:	

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() orsave()method

Syntax

>db.COLLECTION_NAME.insert(document)

Example:

>db.post.insert([

{

```
title: 'MongoDB Overview',

description: 'MongoDB is no sql database',tags: ['mongodb', 'database', 'NoSQL'], likes:  100

},

{

title: 'NoSQL Database',

description:  'NoSQL database doesn't have tables',tags: ['mongodb', 'database', 'NoSQL'],

likes: 20, comments: [

 {

user:'user1',

message: 'My first comment', dateCreated: new Date(2022,11,10,2,35),like: 0

 }

]

}

])
```

Creating sample document:

Example

Suppose a client needs a database design for his blog website. Website has the following requirements.

☐ Every post has the unique title, description

☐

☐
   and url.Every post can have one or more tags.

   Every post has the name of its publisher and total number of likes.

☐ Every Post have comments given by users along with their name, message, data-time and likes.

☐ On each post there can be zero or more comments.

Document:

```
{

_id: POST_ID
```

title: TITLE_OF_POST,

description: POST_DESCRIPTION,by: POST_BY,

url: URL_OF_POST,

tags: [TAG1, TAG2, TAG3],

likes: TOTAL_LIKES,comments: [

{ user:'COMMENT_BY',

message: TEXT, dateCreated: DATE_TIME,like: LIKES

},
{ user:'COMMENT_BY',

message: TEXT, dateCreated: DATE_TIME,like: LIKES

}

]

}

CONCLUSION:

Explain dropdatabase () method and createdatabase() method.

createDatabase() Method

The createDatabase() method is used to create a new database in a database management system. When executed, it initializes a database with the specified name, allowing you to store tables and other database objects within it. This method is commonly used during the setup of new applications or environments and is often part of the database schema initialization process. In SQL, it corresponds to the CREATE DATABASE database_name; command, and it requires appropriate privileges to execute.

dropDatabase() Method

The dropDatabase() method is used to delete an existing database along with all its data and associated objects, such as tables, indexes, and views. This method is typically used when a database is no longer needed or during cleanup processes. Executing this method is irreversible, resulting in the permanent loss of all data within the database. In SQL, it corresponds to the DROP DATABASE database_name; command, and it also requires sufficient privileges to perform this operation.