|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Hope Foundation’s**  **Finolex Academy of Management and Technology, Ratnagiri** | | | | | | | | | |
| **Information Technology Department** | | | | | | | | | |
| Subject name: Big Data Lab | | | | | | | | Subject Code: ITL801 | | | |
| Class | | BE IT | | Semester – VIII (CBSGS) | | | | Academic year: 2019-20 | | | |
| Name of Student | | **Kazi Jawwad A Rahim** | | | | | **QUIZ Score :** | | | | |
| Roll No | | **28** | | | Assignment/Experiment No. | | | | | 04 | |
| **Title:**  Installations of MongoDB NoSQL database and CRUD Operations | | | | | | | | | | | |
| **1. Course objectives applicable**  **COB4.**Understand cloud implementation, programming and mobile cloud computing  **COB3**.Understand different cloud computing services | | | | | | | | | | | |
| **2. Course outcomes applicable:**  **CO3** –To use and define different cloud computing services.  **CO6**-To memorize cloud computing, memorize different cloud services and cloud deployment models. | | | | | | | | | | | |
| **3. Learning Objectives:**  1. Create Connection String for MongoDB   1. Perform CRUD Operations on MongoDB | | | | | | | | | | | |
| **4. Practical applications of the assignment/experiment:**  MongoDB is a leading Document Database used in Unstructured Data Processing | | | | | | | | | | | |
| **5. Prerequisites**:   1. Knowledge of NoSQL Database 2. Internet Access 3. MongoDB Server Setup | | | | | | | | | | | |
| **6. Hardware Requirements**:   1. Internet Access with Browser 2. PC to install MongoDB   **7. Software Requirements:**  Browser like Chrome, Internet Explorer Edge, MongoDB Server Setup | | | | | | | | | | | |
| **8. Experiment/Assignment Evaluation:** | | | | | | | | | | | |
| **Sr. No.** | **Parameters** | | | | | | | | **Marks obtained** | | **Out of** |
| **1** | Technical Understanding (Assessment may be done based on Q & A **or** any other relevant method.) Teacher should mention the other method used - | | | | | | | |  | | 6 |
| **2** | Neatness/presentation | | | | | | | |  | | 2 |
| **3** | Punctuality | | | | | | | |  | | 2 |
| **Date of performance (DOP)** | | | **05/02/2020** | | | **Total marks obtained** | | |  | | **10** |
| **Date of checking (DOC)** | | |  | | | **Signature of teacher** | | | | | |

**10. Implementation steps–**

**Executing NoSql Commands on MongoDB shell**

ssh [test@172.16.5.154](mailto:test@172.16.5.154)

Password-test

Type mongo

**Now run CRUD operations on shell**

To see the list of databases in the system:

>show dbs

**To select a database**

> use movies

switched to db movies

> db.comedy.insert({name:"Sairat", year:2016}) WriteResult({ "nInserted" : 1 })

> db.comedy.insert({name:'The School of Rock',year:2003}) WriteResult({ "nInserted" : 1 })

> db.comedy.find()

{ "\_id" : ObjectId("59acf61f5726b577df63e869"), "name" : "Sairat", "year" : 2016}

{ "\_id" : ObjectId("59acf6395726b577df63e86a"), "name" : "The School of Rock",

"year" : 2003 }

> db.comedy.find().limit(1)

{ "\_id" : ObjectId("59acf61f5726b577df63e869"), "name" : "Sairat", "year" : 2016}

> db.comedy.findOne()

{

"\_id" : ObjectId("59acf61f5726b577df63e869"),

"name" : "Sairat",

"year" : 2016

}

* db.comedy.find({year:{$gt:1994}})

{ "\_id" : ObjectId("59acf61f5726b577df63e869"), "name" : "Sairat", "year" : 2016}

{ "\_id" : ObjectId("59acf6395726b577df63e86a"), "name" : "The School of Rock",

"year" : 2003 }

> db.comedy.find({year:{'$gt':1994}}, {name:true})

{ "\_id" : ObjectId("59acf61f5726b577df63e869"), "name" : "Sairat" }

{ "\_id" : ObjectId("59acf6395726b577df63e86a"), "name" : "The School of Rock" }

> db.comedy.insert({name:"Bill & Ted's Excellent Adventure", year:1989}) WriteResult({ "nInserted" : 1 })

**Now Update a document**

> db.comedy.update({name:"Bill & Ted's Excellent Adventure"}, {'$set':{director:'Stephen Herek',cast:['Keanu Reeves', 'Alex Winter']}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 }

> db.comedy.find()

{ "\_id" : ObjectId("59acf61f5726b577df63e869"), "name" : "Sairat", "year" : 2016}

{ "\_id" : ObjectId("59acf6395726b577df63e86a"), "name" : "The School of Rock",

"year" : 2003 }

{ "\_id" : ObjectId("59acf6ba5726b577df63e86b"), "name" : "Bill & Ted's Excellent

Adventure", "year" : 1989, "director" : "Stephen Herek", "cast" : ["Keanu Reeves", "Alex Winter" ] }

**Now remove a document**

> db.comedy.remove({name:'Sairat'})

WriteResult({ "nRemoved" : 1 })

> db.comedy.find()

{ "\_id" : ObjectId("59acf6395726b577df63e86a"), "name" : "The School of Rock",

"year" : 2003 }

{ "\_id" : ObjectId("59acf6ba5726b577df63e86b"), "name" : "Bill & Ted's Excellent Adventure", "year" : 1989, "director" : "Stephen Herek", "cast" : [ "Keanu Reeves", "Alex Winter" ] }

* db.comedy.count()

2

**Now drop a collection**

**>** db.comedy.drop()

true

* show dbs

admin 0.000GB

local 0.000GB

**11. Results:**

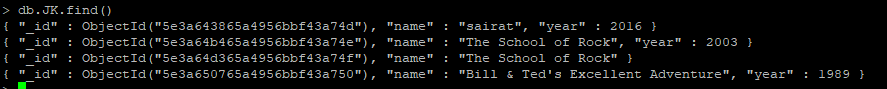
CREATE



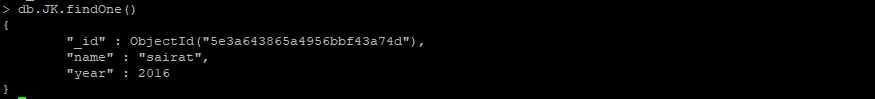




READ





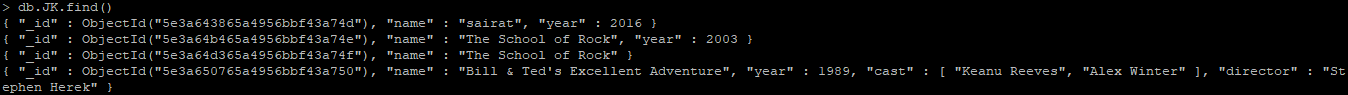






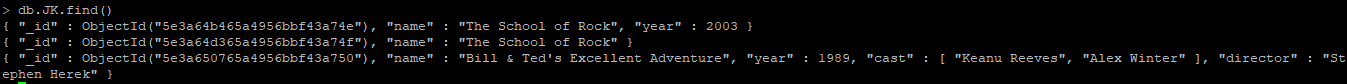
UPDATE





DELETE













**References** :

[1] http://nosql-database.org/ "NoSQL DEFINITION: Next Generation Databases mostly addressing some of the points: being non-relational, distributed, open-source and horizontally scalable"

[2]Leavitt, Neal (2010). "Will NoSQL Databases Live Up to Their Promise?" (PDF). IEEE Computer.

[3] Mohan, C. (2013). History Repeats Itself: Sensible and NonsenSQL Aspects of the NoSQL Hoopla. Proc. 16th Int'l Conf. on Extending Database Technology.

[4] "NOSQL meetup Tickets, Thu, Jun 11, 2009 at 10:00 AM". Eventbrite.com. Retrieved 2017-03-06.

[5] "Amazon Goes Back to the Future With 'NoSQL' Database". WIRED. 2012-01-19. Retrieved 2017-03-06.

[6] "RDBMS dominate the database market, but NoSQL systems are catching up". DB-Engines.com. 21 Nov 2013. Retrieved 24 Nov 2013.

[7] "NoSQL (Not Only SQL)". NoSQL database, also called Not Only SQL

[8] Fowler, Martin. "NoSQL Definition". many advocates of NoSQL say that it does not mean a "no" to SQL, rather it means Not Only SQL.