

Course 2 – Sprint 1 : Use a NoSQL database (MongoDB) to manage semi-structured and unstructured data

(To copy and paste command in MongoDB shell : Copy command and go to shell and press right click)

1. Show existing database in mongodb.

```
show dbs
```

2. Create a database in mongodb.

```
use products_db
```

3. Create a collection in mongodb.

```
db.createCollection('CustomerDetails')
```

4. Show collections

```
show collections
```

5. Create a collection and insert values

```
db.CustomerDetails.insert({'name' : 'james'})
```

```
db.CustomerDetails.insert({'name' : 'julia', 'age':  
24})
```

6. InsertOne command

```
db.CustomerDetails.insertOne(
```

```
... {item: "canvas", qty: 100, tags: ["cotton"],
size: {h: 28, w: 35.5}}
... )
```

7. InsertMany command

```
db.CustomerDetails.insertMany([ { title: "NoSQL
Distilled", isbn: "0-4696-7030-4"}, {title: "NoSQL
Datatype", isbn: "0-4086-6859-8"}, { title: "NoSQL
Database", isbn: "0-2504-6932-4"} ]);
```

8. Querying the Database

a. Displaying the data

```
db.CustomerDetails.find()
```

b. Displaying formatted data

```
db.CustomerDetails.find().pretty()
```

9. Conditional Querying

a. Specify Equality – Find all person's name whose age is 24.

```
db.CustomerDetails.find({'age': 24})
```

b. Specify Null – Find all person's name whose age is not specified.

```
db.CustomerDetails.find({'age': null})
```

c. Specify Conditions Using Query Operators – Find all products that have the status 'A' or 'D'.

```
db.CustomerDetails.find( {'age': { $gt : 22 } } )
```

- d. Specify Conditions Using Query Operators – Find all person's whose age is 24 and 34.qty

```
db.CustomerDetails.find( {'age': { $in: [34 , 24] } } )
```

- e. Specify AND Conditions – Find all products that have item 'canvas' and quantity less than 101.

```
db.CustomerDetails.find( { item : "canvas", qty: { $lt : 101} } )
```

- f. Specify OR Conditions – Find all products that have item 'canvas' or quantity less than 101

```
db.CustomerDetails.find( { $or: [ { item : "canvas"}, { qty: { $lt : 101 } } ] } )
```

- g. Specify AND as well as OR Conditions – Find all products that have the status 'A', or the quantity less than 30, or the item must not begin with the letter 'p'.

```
db.CustomerDetails.find( { item: "canvas",
... $or: [ { qty: { $lt: 30 } }, { "size" : { "h" : 28} } ]
... } )
```

10.Update command

- a. Specify Update – Update name of the person 'james' with name and age.

```
db.CustomerDetails.update( {'name': 'james'},
{'name': 'james', 'age': 36})
```

11. Delete Document

- a. Specify Delete – Delete specific records from the given database

```
db.CustomerDetails.delete( {'age': 24} )
```

- b. Specify Delete – Delete all documents from the collection

```
db.CustomerDetails.remove({})
```

- c. deleteOne :

```
db.CustomerDetails.deleteOne( {'name': 'julia'} )
```

```
db.CustomerDetails.deleteOne( {'age': 23} )
```

- d. deleteMany :

```
db.CustomerDetails.deleteMany( {'age': 23} )
```