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PES1UG19CS001

DBMS Lab Week 1

1. Create Operations

db.collection.insertOne()

```
student@pessat196:~$ mongo
MongoDB Shell version v4.2.15
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("51cf899c-635b-4cad-80a7-fb8c801f8fb3") }
MongoDB server version: 4.2.15
Server has startup warnings:
2021-08-26T13:50:14.216+0530 I STORAGE [initandlisten]
2021-08-26T13:50:14.216+0530 I STORAGE [initandlisten] ** WARNING: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine
2021-08-26T13:50:14.216+0530 I STORAGE [initandlisten] ** See http://dochub.mongodb.org/core/prodnotes-filesystem
2021-08-26T13:50:16.087+0530 I CONTROL [initandlisten]
2021-08-26T13:50:16.087+0530 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2021-08-26T13:50:16.087+0530 I CONTROL [initandlisten] ** Read and write access to data and configuration is unrestricted.
2021-08-26T13:50:16.087+0530 I CONTROL [initandlisten]
...
Enable MongoDB's free cloud-based monitoring service, which will then receive and display metrics about your deployment (disk utilization, CPU, operation statistics, etc).

The monitoring data will be available on a MongoDB website with a unique URL accessible to you and anyone you share the URL with. MongoDB may use this information to make product improvements and to suggest MongoDB products and deployment options to you.

To enable free monitoring, run the following command: db.enableFreeMonitoring()
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
...
> db
test
> use naren
switched to db naren
> db
naren
> db.basketball.insertOne({Name:"Micheal Jordan",position:"Shooting Guard",Team:"Chicago Bulls"})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("6127509ab543f9babc05df5e")
}
```

db.collection.insertMany()

```
> db.basketball.insertMany([{Name:"Lebron James",position:"Small Forward",Team:"Lakers"},{Name:"Kobe Bryant",position:"Shooting Guard",Team:"Lakers"}])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("61275244b543f9babc05df5f"),
    ObjectId("61275244b543f9babc05df60")
  ]
}
```

2. Read Operations

db.collection.find()

```
> db.basketball.find()
{ "_id" : ObjectId("6127509ab543f9babc05df5e"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "position" : "Shooting Guard", "Team" : "Lakers" }
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
>
```

```
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
> db.basketball.find({position:"Small Forward"})
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
>
```

db.collection.findOne()

```
> db.basketball.findOne({Team:"Lakers"})
{
  "_id" : ObjectId("61275244b543f9babc05df5f"),
  "Name" : "Lebron James",
  "position" : "Small Forward",
  "Team" : "Lakers"
}
>
```

3.Update Operations

db.collection.updateOne()

```
> db.basketball.find()
{ "_id" : ObjectId("6127509ab543f9babc05df5e"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Golden State Warriors" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
> db.basketball.updateOne({Name:"Lebron James"},{$set:{Team:"Lakers"}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.basketball.find()
{ "_id" : ObjectId("6127509ab543f9babc05df5e"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
>
```

db.collection.updateMany()

```
> db.basketball.find()
{ "_id" : ObjectId("6127509ab543f9babc05df5e"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Golden State Warriors" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
> db.basketball.updateMany({Name:"Micheal Jordon"},{$set:{Team:"Lakers"}})
{ "acknowledged" : true, "matchedCount" : 0, "modifiedCount" : 0 }
> db.basketball.find()
{ "_id" : ObjectId("6127509ab543f9babc05df5e"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Golden State Warriors" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
>
```

db.collection.replaceOne()

```
> db.basketball.find()
{ "acknowledged" : true, "deletedCount" : 1 }
> db.basketball.findOne()
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
> db.basketball.replaceOne({Name:"Chris Paul"},{Name:"Chris Paul",position:"Point Guard",Team:"Suns"},{upsert:"True"})
{
  "acknowledged" : true,
  "matchedCount" : 0,
  "modifiedCount" : 0,
  "upsertedId" : ObjectId("6127602301a8898c70f454ed")
}
> db.basketball.find()
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
{ "_id" : ObjectId("6127602301a8898c70f454ed"), "Name" : "Chris Paul", "position" : "Point Guard", "Team" : "Suns" }
>
```

db.collection.update()

```
> db.basketball.find()
{ "_id" : ObjectId("6127509ab543f9babc05df5e"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
> db.basketball.update({Name:"Kobe Bryant"},{Name:"Kobe Bryant",Position:"Shooting Guard",Team:"Miami Heat"})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.basketball.find()
{ "_id" : ObjectId("6127509ab543f9babc05df5e"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
>
```

4.Delete Operations

db.collection.deleteOne()

```

> db.basketball.find()
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
> db.basketball.deleteOne({Team:"Miami Heat"})
{ "acknowledged" : true, "deletedCount" : 1 }
> db.basketball.find()
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
>

```

db.collection.deleteMany()

```

> db.basketball.find()
{ "_id" : ObjectId("6127509ab543f9babc05df5e"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
{ "_id" : ObjectId("612752ecb543f9babc05df61"), "Name" : "Micheal Jordan", "position" : "Shooting Guard", "Team" : "Chicago Bulls" }
> db.basketball.deleteMany({Name:"Micheal Jordan"})
{ "acknowledged" : true, "deletedCount" : 2 }
> db.basketball.find()
{ "_id" : ObjectId("61275244b543f9babc05df5f"), "Name" : "Lebron James", "position" : "Small Forward", "Team" : "Lakers" }
{ "_id" : ObjectId("61275244b543f9babc05df60"), "Name" : "Kobe Bryant", "Position" : "Shooting Guard", "Team" : "Miami Heat" }
>

```

Drop collection and Database

```

> db.basketball.drop()
true
>

```

```

> db
naren
> db.dropDatabase()
{ "dropped" : "naren", "ok" : 1 }
> db

```