

ADBMS Practical 3

MongoDB

Using a database & Creating a New Collection:

```
mongosh mongodb://127.0.0.1:27017/
Microsoft Windows [Version 10.0.22621.3007]
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C:\Users\SAKSHI>mongosh
Current Mongosh Log ID: 65d8a955eb76376dbecf01fd
Connecting to:  mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.1.4
Using MongoDB: 7.0.5
Using Mongosh: 2.1.4
mongosh 2.1.5 is available for download: https://www.mongodb.com/try/download/shell
For mongosh info see: https://docs.mongodb.com/mongodb-shell/

-----
The server generated these startup warnings when booting
2024-02-18T13:31:00.624+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
-----

test> use user
switched to db user
user> db.createCollection("users")
{ ok: 1 }
user>
```

Create Operation

There are two ways to create new documents to a collection in MongoDB:

1. insertOne():

```
user> db.createCollection("users")
{ ok: 1 }
user> db.users.insertOne({
...   name: "Angela",
...   age: 27,
... });
{
  acknowledged: true,
  insertedId: ObjectId('65d8aa00eb76376dbecf01fe')
}
user> |
```

2. insertMany()

```
mongosh mongodb://127.0.0.1
user> db.users.insertMany([
...   {
...     name: "Angela",
...     age: 27,
...   },
...   {
...     name: "Dwight",
...     age: 30,
...   },
...   {
...     name: "Jim",
...     age: 29,
...   }
... ]);
```

```
mongosh mongodb://127.0.0.1
...   },
...   {
...     name: "Dwight",
...     age: 30,
...   },
...   {
...     name: "Jim",
...     age: 29,
...   }
... ];
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('65d8aa5eeb76376dbecf01ff'),
    '1': ObjectId('65d8aa5eeb76376dbecf0200'),
    '2': ObjectId('65d8aa5eeb76376dbecf0201')
  }
}
user> |
```

Read Operations

1. find()

```
user> db.users.find()
[
  {
    _id: ObjectId('65d8aa00eb76376dbecf01fe'),
    name: 'Angela',
    age: 27
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf01ff'),
    name: 'Angela',
    age: 27
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf0200'),
    name: 'Dwight',
    age: 30
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf0201'),
    name: 'Jim',
    age: 29
  }
]
user> |
```

2. findOne()

```
user> db.users.findOne({ name: "Jim" })
{ _id: ObjectId('65d8aa5eeb76376dbecf0201'), name: 'Jim', age: 29 }
user> |
```

Update Operations

1. updateOne()

```
user> db.users.updateOne({ name: "Angela" }, { $set: { email: "angela@gmail.com" } })
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
user> |
```

```
[
  {
    _id: ObjectId('65d8aa00eb76376dbecf01fe'),
    name: 'Angela',
    age: 27,
    email: 'angela@gmail.com',
    status: 'active'
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf01ff'),
    name: 'Angela',
    age: 27,
    status: 'active'
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf0200'),
    name: 'Dwight',
    age: 30,
    status: 'active'
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf0201'),
    name: 'Jim',
    age: 29,
    status: 'active'
  }
]
```

2. updateMany

```
user> db.users.updateMany({ age: { $lt: 30 } }, { $set: { status: "active" } })
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 3,
  upsertedCount: 0
}
user> db.users.find()
[
  {
    _id: ObjectId('65d8aa00eb76376dbecf01fe'),
    name: 'Angela',
    age: 27,
    email: 'angela@gmail.com',
    status: 'active'
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf01ff'),
    name: 'Angela',
    age: 27,
    status: 'active'
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf0200'),
    name: 'Dwight',
    age: 30
  },
  {

```

```
  },
  {
    _id: ObjectId('65d8aa5eeb76376dbecf0201'),
    name: 'Jim',
    age: 29,
    status: 'active'
  }
]
user>
```

Delete Operations

1. deleteOne()

```
user> db.users.deleteOne({ name: "Angela" })
{ acknowledged: true, deletedCount: 1 }
user> |
```

2. deleteMany()

```
user>
user> db.users.deleteMany({ age: { $lt: 30 } })
{ acknowledged: true, deletedCount: 2 }
user> |
```

3. drop()

```
user> db.users.drop()
true
user> |
```