**Using MongoDB**

Microsoft Windows [Version 10.0.18362.30]

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C:\Users\USER>mongo

MongoDB shell version v5.0.20

connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb

Implicit session: session { "id" : UUID("87f7168a-031a-4d78-8d23-f3fe624c63a3") }

MongoDB server version: 5.0.20

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Warning: the "mongo" shell has been superseded by "mongosh",

which delivers improved usability and compatibility.The "mongo" shell has been deprecated and will be removed in

an upcoming release.

For installation instructions, see

https://docs.mongodb.com/mongodb-shell/install/

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The server generated these startup warnings when booting:

2023-08-21T11:50:15.362+01:00: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

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> use my\_first\_db

switched to db my\_first\_db

>

> db.createCollection("students")

{

"ok" : 0,

"errmsg" : "Collection already exists. NS: my\_first\_db.students",

"code" : 48,

"codeName" : "NamespaceExists"

}

> db.students.insertOne({

... name: "John",

... home\_state: "California",

... lucky\_number: 7,

... birthday: {

... month: 1,

... day: 1,

... year: 2000

... }

... });

{

"acknowledged" : true,

"insertedId" : ObjectId("64e7aed0c9f2f32fe8600c14")

}

> db.students.insertMany([

... {

... name: "John",

... home\_state: "California",

... lucky\_number: 7,

... birthday: {

... month: 1,

... day: 1,

... year: 2000

... }

... },

... {

... name: "Jane",

... home\_state: "New York",

... lucky\_number: 13,

... birthday: {

... month: 2,

... day: 14,

... year: 1999

... }

... },

... {

... name: "Bob",

... home\_state: "Texas",

... lucky\_number: 21,

... birthday: {

... month: 3,

... day: 15,

... year: 1998

... }

... },

... {

... name: "Alice",

... home\_state: "Florida",

... lucky\_number: 8,

... birthday: {

... month: 4,

... day: 16,

... year: 1997

... }

... },

... {

... name: "Charlie",

... home\_state: "Washington",

... lucky\_number: 5,

... birthday: {

... month: 5,

... day: 17,

... year: 1996

... }

... }

... ]);

{

"acknowledged" : true,

"insertedIds" : [

ObjectId("64e7af17c9f2f32fe8600c15"),

ObjectId("64e7af17c9f2f32fe8600c16"),

ObjectId("64e7af17c9f2f32fe8600c17"),

ObjectId("64e7af17c9f2f32fe8600c18"),

ObjectId("64e7af17c9f2f32fe8600c19")

]

}

> db.students.find()

{ "\_id" : ObjectId("64e7aed0c9f2f32fe8600c14"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c15"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c16"), "name" : "Jane", "home\_state" : "New York", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 14, "year" : 1999 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c17"), "name" : "Bob", "home\_state" : "Texas", "lucky\_number" : 21, "birthday" : { "month" : 3, "day" : 15, "year" : 1998 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c18"), "name" : "Alice", "home\_state" : "Florida", "lucky\_number" : 8, "birthday" : { "month" : 4, "day" : 16, "year" : 1997 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c19"), "name" : "Charlie", "home\_state" : "Washington", "lucky\_number" : 5, "birthday" : { "month" : 5, "day" : 17, "year" : 1996 } }

> db.students.find({home\_state: {$in: ["California", "Washington"]}})

{ "\_id" : ObjectId("64e7aed0c9f2f32fe8600c14"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c15"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c19"), "name" : "Charlie", "home\_state" : "Washington", "lucky\_number" : 5, "birthday" : { "month" : 5, "day" : 17, "year" : 1996 } }

> db.students.find({lucky\_number: {$gt: 3}})

{ "\_id" : ObjectId("64e7aed0c9f2f32fe8600c14"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c15"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c16"), "name" : "Jane", "home\_state" : "New York", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 14, "year" : 1999 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c17"), "name" : "Bob", "home\_state" : "Texas", "lucky\_number" : 21, "birthday" : { "month" : 3, "day" : 15, "year" : 1998 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c18"), "name" : "Alice", "home\_state" : "Florida", "lucky\_number" : 8, "birthday" : { "month" : 4, "day" : 16, "year" : 1997 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c19"), "name" : "Charlie", "home\_state" : "Washington", "lucky\_number" : 5, "birthday" : { "month" : 5, "day" : 17, "year" : 1996 } }

> db.students.find({lucky\_number: {$lte: 10}})

{ "\_id" : ObjectId("64e7aed0c9f2f32fe8600c14"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c15"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c18"), "name" : "Alice", "home\_state" : "Florida", "lucky\_number" : 8, "birthday" : { "month" : 4, "day" : 16, "year" : 1997 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c19"), "name" : "Charlie", "home\_state" : "Washington", "lucky\_number" : 5, "birthday" : { "month" : 5, "day" : 17, "year" : 1996 } }

> db.students.find({lucky\_number: {$gte: 1, $lte: 9}})

{ "\_id" : ObjectId("64e7aed0c9f2f32fe8600c14"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c15"), "name" : "John", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 1, "day" : 1, "year" : 2000 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c18"), "name" : "Alice", "home\_state" : "Florida", "lucky\_number" : 8, "birthday" : { "month" : 4, "day" : 16, "year" : 1997 } }

{ "\_id" : ObjectId("64e7af17c9f2f32fe8600c19"), "name" : "Charlie", "home\_state" : "Washington", "lucky\_number" : 5, "birthday" : { "month" : 5, "day" : 17, "year" : 1996 } }

> db.students.updateMany(

... {},

... {

... $set: {

... interests: ["coding", "brunch", "MongoDB"]

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 6, "modifiedCount" : 6 }

> db.students.updateOne(

... {name: "John"},

... {

... $push: {

... interests: "hiking"

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

>

> db.students.updateOne(

... {name: "John"},

... {

... $push: {

... interests: "taxes"

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

> db.students.updateOne(

... {name: "John"},

... {

... $pull: {

... interests: "taxes"

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

> db.students.deleteMany({home\_state: "California"})

{ "acknowledged" : true, "deletedCount" : 2 }

> db.students.deleteOne({name: "John"})

{ "acknowledged" : true, "deletedCount" : 0 }

> db.students.deleteOne({lucky\_number: {$gt: 5}})

{ "acknowledged" : true, "deletedCount" : 1 }

> db.students.updateMany(

... {},

... {

... $set: {

... number\_of\_belts: 0

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 3, "modifiedCount" : 3 }

> db.students.updateMany(

... {home\_state: "Washington"},

... {

... $inc: {

... number\_of\_belts: 1

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

> db.students.updateMany(

... {},

... {

... $rename: {

... "number\_of\_belts": "belts\_earned"

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 3, "modifiedCount" : 3 }

> db.students.updateMany(

... {},

... {

... $unset: {

... lucky\_number: ""

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 3, "modifiedCount" : 3 }

> db.students.updateMany(

... {},

... {

... $set: {

... updated\_on: new Date()

... }

... }

... );

{ "acknowledged" : true, "matchedCount" : 3, "modifiedCount" : 3 }

>