Last login: Fri Aug 25 00:29:39 on ttys000

(base) srijangupta@Srijans-MacBook-Pro ~ % mongosh

Current Mongosh Log ID: 64e7a96a13a1b12a31d71394

Connecting to: **mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+1.10.3**

Using MongoDB: 6.0.6

**Using Mongosh**: 1.10.3

For mongosh info see: **https://docs.mongodb.com/mongodb-shell/**

**------**

**The server generated these startup warnings when booting**

2023-08-04T11:28:32.475+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

**------**

test> db.Employee.insertMany([

,

dept: { deptno: 17, dname: "Purchase", dloc: "Pune" },

Desg: "Manager",

mgr: { name: "Satish", num: 111 },

project: [

{ name: "Project-1", Hrs: 4 }

]

},

{

emono: 555,

ename: "Tina Mehta",

sal: 25000.00,

dept: { deptno: 15, dname: "Sales", dloc: "Delhi" },

Desg: "CLERK",

mgr: { name: "Rajan Sharma", num: 222 },

project: [

{ name: "project-4", Hrs: 2 }

]

}

]);

... {

... emono: 111,

... ename: "Deepali Vaidya",

... sal: 40000.00,

... dept: { deptno: 12, dname: "Hr", dloc: "Mumbai" },

... Desg: "Analyst",

... mgr: { name: "Satish", num: 111 },

... project: [

... { name: "Project-1", Hrs: 4 },

... { name: "project-2", Hrs: 4 }

... ]

... },

... {

... emono: 222,

... ename: "Rajan Sharma",

... sal: 55000.00,

... dept: { deptno: 15, dname: "Sales", dloc: "Delhi" },

... Desg: "CLERK",

... mgr: { name: "Deepali Vaidya", num: 111 },

... project: [

... { name: "Project-1", Hrs: 5 }

... ]

... },

... {

... emono: 333,

... ename: "Revati Deshpande",

... sal: 32000.00,

... dept: { deptno: 12, dname: "Hr", dloc: "Mumbai" },

... Desg: "CLERK",

... mgr: { name: "Deepali Vaidya", num: 111 },

... project: [

... { name: "project-3", Hrs: 2 }

... ]

... },

... {

... emono: 444,

... ename: "Pradeep Kumar",

... sal: 60000.00,

... dept: { deptno: 17, dname: "Purchase", dloc: "Pune" },

... Desg: "Manager",

... mgr: { name: "Satish", num: 111 },

... project: [

... { name: "Project-1", Hrs: 4 }

... ]

... },

... {

... emono: 555,

... ename: "Tina Mehta",

... sal: 25000.00,

... dept: { deptno: 15, dname: "Sales", dloc: "Delhi" },

... Desg: "CLERK",

... mgr: { name: "Rajan Sharma", num: 222 },

... project: [

... { name: "project-4", Hrs: 2 }

... ]

... }

... ]);

{

acknowledged: true,

insertedIds: {

'0': ObjectId("64e7a97c13a1b12a31d71395"),

'1': ObjectId("64e7a97c13a1b12a31d71396"),

'2': ObjectId("64e7a97c13a1b12a31d71397"),

'3': ObjectId("64e7a97c13a1b12a31d71398"),

'4': ObjectId("64e7a97c13a1b12a31d71399")

}

}

test> db.Employee.find()

[

{

\_id: ObjectId("64e7a97c13a1b12a31d71395"),

emono: 111,

ename: 'Deepali Vaidya',

sal: 40000,

dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },

Desg: 'Analyst',

mgr: { name: 'Satish', num: 111 },

project: [ { name: 'Project-1', Hrs: 4 }, { name: 'project-2', Hrs: 4 } ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71396"),

emono: 222,

ename: 'Rajan Sharma',

sal: 55000,

dept: { deptno: 15, dname: 'Sales', dloc: 'Delhi' },

Desg: 'CLERK',

mgr: { name: 'Deepali Vaidya', num: 111 },

project: [ { name: 'Project-1', Hrs: 5 } ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71397"),

emono: 333,

ename: 'Revati Deshpande',

sal: 32000,

dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },

Desg: 'CLERK',

mgr: { name: 'Deepali Vaidya', num: 111 },

project: [ { name: 'project-3', Hrs: 2 } ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71398"),

emono: 444,

ename: 'Pradeep Kumar',

sal: 60000,

dept: { deptno: 17, dname: 'Purchase', dloc: 'Pune' },

Desg: 'Manager',

mgr: { name: 'Satish', num: 111 },

project: [ { name: 'Project-1', Hrs: 4 } ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71399"),

emono: 555,

ename: 'Tina Mehta',

sal: 25000,

dept: { deptno: 15, dname: 'Sales', dloc: 'Delhi' },

Desg: 'CLERK',

mgr: { name: 'Rajan Sharma', num: 222 },

project: [ { name: 'project-4', Hrs: 2 } ]

}

]

test> // 1. Update designation for employees with designation "CLERK" to "Administrative Officer"

test> db.Employee.updateMany(

... { Desg: "CLERK" },

... { $set: { Desg: "Administrative Officer" } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 3,

modifiedCount: 3,

upsertedCount: 0

}

test>

test> // 2. Change the number of hours for project-1 to 5 for all employees with designation "Analyst"

test> db.Employee.updateMany(

... { Desg: "Analyst", "project.name": "Project-1" },

... { $set: { "project.$.Hrs": 5 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

test>

test> // 3. Add 2 projects "project-3" and "project-4" for employees whose name starts with "Deep" with 2 hrs

test> db.Employee.updateMany(

... { ename: /^Deep/ },

... {

... $push: {

... project: { $each: [{ name: "project-3", Hrs: 2 }, { name: "project-4", Hrs: 2 }] }

... }

... }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

test> // 4. Add bonus based on salary conditions

test> db.Employee.updateMany(

... { sal: { $gt: 50000 } },

... { $set: { bonus: 2000 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 2,

modifiedCount: 2,

upsertedCount: 0

}

test>

test> db.Employee.updateMany(

... { sal: { $lt: 50000, $gt: 30000 } },

... { $set: { bonus: 1500 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 2,

modifiedCount: 2,

upsertedCount: 0

}

test>

test> db.Employee.updateMany(

... { $or: [{ sal: { $lt: 30000 } }, { sal: { $gt: 50000 } }] },

... { $set: { bonus: 1000 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 3,

modifiedCount: 3,

upsertedCount: 0

}

test>

test> // 5. Change manager name and number

test> db.Employee.updateMany(

... { "mgr.name": "Satish" },

... { $set: { "mgr.name": "Tushar", "mgr.num": 3333 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 2,

modifiedCount: 2,

upsertedCount: 0

}

test> // 6. Increase salary of all employees from "purchase department" by 15000

test> db.Employee.updateMany(

... { "dept.dname": "Hr", "dept.dloc": "Mumbai" },

... { $inc: { sal: 15000 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 2,

modifiedCount: 2,

upsertedCount: 0

}

test>

test> // 7. Decrease "Hrs" by 2 for all employees working on "project-2"

test> db.Employee.updateMany(

... { "project.name": "project-2" },

... { $inc: { "project.$.Hrs": -2 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

test>

test> // 8. Delete "project-2" from all employee documents if they are working on the project for 4 hrs

test> db.Employee.updateMany(

... { "project.name": "project-2", "project.Hrs": 4 },

... { $pull: { project: { name: "project-2" } } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 0,

modifiedCount: 0,

upsertedCount: 0

}

test> // 9. Change the salary of employees to 10000 only if their salary is < 10000

test> db.Employee.updateMany(

... { sal: { $lt: 10000 } },

... { $set: { sal: 10000 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 0,

modifiedCount: 0,

upsertedCount: 0

}

test> db.Employee.find()

[

{

\_id: ObjectId("64e7a97c13a1b12a31d71395"),

emono: 111,

ename: 'Deepali Vaidya',

sal: 55000,

dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },

Desg: 'Analyst',

mgr: { name: 'Tushar', num: 3333 },

project: [

{ name: 'Project-1', Hrs: 5 },

{ name: 'project-2', Hrs: 2 },

{ name: 'project-3', Hrs: 2 },

{ name: 'project-4', Hrs: 2 }

],

bonus: 1500

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71396"),

emono: 222,

ename: 'Rajan Sharma',

sal: 55000,

dept: { deptno: 15, dname: 'Sales', dloc: 'Delhi' },

Desg: 'Administrative Officer',

mgr: { name: 'Deepali Vaidya', num: 111 },

project: [ { name: 'Project-1', Hrs: 5 } ],

bonus: 1000

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71397"),

emono: 333,

ename: 'Revati Deshpande',

sal: 47000,

dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },

Desg: 'Administrative Officer',

mgr: { name: 'Deepali Vaidya', num: 111 },

project: [ { name: 'project-3', Hrs: 2 } ],

bonus: 1500

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71398"),

emono: 444,

ename: 'Pradeep Kumar',

sal: 60000,

dept: { deptno: 17, dname: 'Purchase', dloc: 'Pune' },

Desg: 'Manager',

mgr: { name: 'Tushar', num: 3333 },

project: [ { name: 'Project-1', Hrs: 4 } ],

bonus: 1000

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71399"),

emono: 555,

ename: 'Tina Mehta',

sal: 25000,

dept: { deptno: 15, dname: 'Sales', dloc: 'Delhi' },

Desg: 'Administrative Officer',

mgr: { name: 'Rajan Sharma', num: 222 },

project: [ { name: 'project-4', Hrs: 2 } ],

bonus: 1000

}

]

test> // 10. Increase bonus of all employees by 500 based on certain conditions

test> db.Employee.updateMany(

... {

... $or: [

... { bonus: { $lt: 2000 } },

... { sal: { $lt: 20000 } },

... { "dept.dname": "Sales" }

... ]

... },

... { $inc: { bonus: 500 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 5,

modifiedCount: 5,

upsertedCount: 0

}

test> // 11. Add 2 new projects at position 2 for certain employees

test> db.Employee.updateMany(

... {

... $or: [

... { Desg: "Analyst" },

... { sal: { $in: [30000, 33000, 35000] } }

... ]

... },

... {

... $push: {

... project: {

... $each: [

... { name: "New Project 1", Hrs: 0 },

... { name: "New Project 2", Hrs: 0 }

... ],

... $position: 2

... }

... }

... }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

test> // 12. Delete last project of employees with specific conditions

test> db.Employee.updateMany(

... { "dept.dname": "Hr", "dept.dloc": "Mumbai" },

... { $pop: { project: 1 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 2,

modifiedCount: 2,

upsertedCount: 0

}

test>

test> // 13. Change designation to "senior programmer" for employees working on specific project

test> db.Employee.updateMany(

... { "project.name": "Project-1", "project.Hrs": 4 },

... { $set: { Desg: "Senior Programmer" } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

test> // 14. Add hobbies for employees whose managers are Rajan or Revati

test> db.Employee.updateMany(

... { $or: [ { "mgr.name": "Rajan Sharma" }, { "mgr.name": "Revati Deshpande" } ] },

... { $set: { hobbies: ["Reading", "Cooking"] } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

test>

test> // 15. Add skillset for employees working on specific projects

test> db.Employee.updateMany(

... {

... $or: [

... { "project.name": "project-4", "project.Hrs": 3 },

... { "project.name": "project-3", "project.Hrs": 4 }

... ]

... },

... { $set: { skillset: ["Java", "C++"] } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 0,

modifiedCount: 0,

upsertedCount: 0

}

test> // 16. Add a new hobby at a specific position for employees with specific names

test> db.Employee.updateMany(

... { $or: [ { ename: /^R|^p/i } ] },

... { $push: { hobbies: { $each: ["Blogging"], $position: 2 } } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 3,

modifiedCount: 3,

upsertedCount: 0

}

test>

test> // 17. Increase salary and decrease bonus for certain employees

test> db.Employee.updateMany(

... {

... $or: [

... { "project.name": "project-2" },

... { "project.name": "project-3" },

... { "project.name": "Project-1" }

... ]

... },

... {

... $inc: { sal: 10000 },

... $inc: { bonus: -1000 }

... }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 3,

modifiedCount: 3,

upsertedCount: 0

}

test> // 18. Remove employees working on project-1

test> db.Employee.updateMany(

... { "project.name": "Project-1" },

... { $pull: { project: { name: "Project-1" } } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 3,

modifiedCount: 3,

upsertedCount: 0

}

test>

test> // 19. Replace a document by the employee name

test> db.Employee.replaceOne(

... { ename: "Deepak" },

... {

... emono: 666,

... ename: "New Employee",

... sal: 45000.00,

... dept: { deptno: 18, dname: "IT", dloc: "Bangalore" },

... Desg: "Programmer",

... mgr: { name: "Rajan Sharma", num: 222 },

... project: [

... { name: "project-5", Hrs: 3 }

... ]

... }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 0,

modifiedCount: 0,

upsertedCount: 0

}

test> // 20. Change skill from "python" to "python 3.8" for certain employees

test> db.Employee.updateMany(

... { skillset: "python" },

... { $set: { "skillset.$": "python 3.8" } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 0,

modifiedCount: 0,

upsertedCount: 0

}

test> db.Employee.find()

[

{

\_id: ObjectId("64e7a97c13a1b12a31d71395"),

emono: 111,

ename: 'Deepali Vaidya',

sal: 55000,

dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },

Desg: 'Analyst',

mgr: { name: 'Tushar', num: 3333 },

project: [

{ name: 'project-2', Hrs: 2 },

{ name: 'New Project 1', Hrs: 0 },

{ name: 'New Project 2', Hrs: 0 },

{ name: 'project-3', Hrs: 2 }

],

bonus: 1000

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71396"),

emono: 222,

ename: 'Rajan Sharma',

sal: 55000,

dept: { deptno: 15, dname: 'Sales', dloc: 'Delhi' },

Desg: 'Administrative Officer',

mgr: { name: 'Deepali Vaidya', num: 111 },

project: [],

bonus: 500,

hobbies: [ 'Blogging' ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71397"),

emono: 333,

ename: 'Revati Deshpande',

sal: 47000,

dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },

Desg: 'Administrative Officer',

mgr: { name: 'Deepali Vaidya', num: 111 },

project: [],

bonus: 2000,

hobbies: [ 'Blogging' ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71398"),

emono: 444,

ename: 'Pradeep Kumar',

sal: 60000,

dept: { deptno: 17, dname: 'Purchase', dloc: 'Pune' },

Desg: 'Senior Programmer',

mgr: { name: 'Tushar', num: 3333 },

project: [],

bonus: 500,

hobbies: [ 'Blogging' ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71399"),

emono: 555,

ename: 'Tina Mehta',

sal: 25000,

dept: { deptno: 15, dname: 'Sales', dloc: 'Delhi' },

Desg: 'Administrative Officer',

mgr: { name: 'Rajan Sharma', num: 222 },

project: [ { name: 'project-4', Hrs: 2 } ],

bonus: 1500,

hobbies: [ 'Reading', 'Cooking' ]

}

]

test> // 21. Add skills "MongoDb" and "Perl" to the end of skillset array for employees in Pune

test> db.Employee.updateMany(

... { "dept.dloc": "Pune" },

... { $push: { skillset: { $each: ["MongoDb", "Perl"] } } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

test>

test> // 22. Delete the first hobby from the hobby array for employees working on specific projects

test> db.Employee.updateMany(

... { $or: [{ "project.name": "Project-1" }, { "project.name": "project-2" }] },

... { $pop: { hobbies: -1 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 0,

upsertedCount: 0

}

test>

test> // 23. Delete the last hobby from the hobbies array for employees working on a specific project

test> db.Employee.updateMany(

... { "project.1.Hrs": 4 },

... { $pop: { hobbies: 1 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 0,

modifiedCount: 0,

upsertedCount: 0

}

test>

test> // 24. Add 2 new projects to the end of the array for employees with certain skillset

test> db.Employee.updateMany(

... { skillset: { $in: ["Perl", "python"] } },

... {

... $push: {

... project: {

... $each: [

... { name: "New Project 1", Hrs: 0 },

... { name: "New Project 2", Hrs: 0 }

... ]

... }

... }

... }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

test> // 25. Change "Hrs" to 6 for project-1 for employees with specific conditions

test> db.Employee.updateMany(

... { "project.name": "Project-1", "project.Hrs": { $lt: 6 } },

... { $set: { "project.$.Hrs": 6 } }

... );

{

acknowledged: true,

insertedId: **null**,

matchedCount: 0,

modifiedCount: 0,

upsertedCount: 0

}

test> db.Employee.find()

[

{

\_id: ObjectId("64e7a97c13a1b12a31d71395"),

emono: 111,

ename: 'Deepali Vaidya',

sal: 55000,

dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },

Desg: 'Analyst',

mgr: { name: 'Tushar', num: 3333 },

project: [

{ name: 'project-2', Hrs: 2 },

{ name: 'New Project 1', Hrs: 0 },

{ name: 'New Project 2', Hrs: 0 },

{ name: 'project-3', Hrs: 2 }

],

bonus: 1000

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71396"),

emono: 222,

ename: 'Rajan Sharma',

sal: 55000,

dept: { deptno: 15, dname: 'Sales', dloc: 'Delhi' },

Desg: 'Administrative Officer',

mgr: { name: 'Deepali Vaidya', num: 111 },

project: [],

bonus: 500,

hobbies: [ 'Blogging' ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71397"),

emono: 333,

ename: 'Revati Deshpande',

sal: 47000,

dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },

Desg: 'Administrative Officer',

mgr: { name: 'Deepali Vaidya', num: 111 },

project: [],

bonus: 2000,

hobbies: [ 'Blogging' ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71398"),

emono: 444,

ename: 'Pradeep Kumar',

sal: 60000,

dept: { deptno: 17, dname: 'Purchase', dloc: 'Pune' },

Desg: 'Senior Programmer',

mgr: { name: 'Tushar', num: 3333 },

project: [

{ name: 'New Project 1', Hrs: 0 },

{ name: 'New Project 2', Hrs: 0 }

],

bonus: 500,

hobbies: [ 'Blogging' ],

skillset: [ 'MongoDb', 'Perl' ]

},

{

\_id: ObjectId("64e7a97c13a1b12a31d71399"),

emono: 555,

ename: 'Tina Mehta',

sal: 25000,

dept: { deptno: 15, dname: 'Sales', dloc: 'Delhi' },

Desg: 'Administrative Officer',

mgr: { name: 'Rajan Sharma', num: 222 },

project: [ { name: 'project-4', Hrs: 2 } ],

bonus: 1500,

hobbies: [ 'Reading', 'Cooking' ]

}

]

test>