15) Design and Develop MongoDB Queries using CRUD operations.

yashu@Yashu-Laptop:~$ mongo

MongoDB shell version v5.0.22

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

Implicit session: session { "id" : UUID("1c16c7c8-206d-48ec-8618-1c4996eb3627") }

MongoDB server version: 5.0.22

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Warning: the "mongo" shell has been superseded by "mongosh",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

2023-11-04T13:57:14.591+05:30: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See <http://dochub.mongodb.org/core/prodnotes-filesystem>

2023-11-04T13:57:15.030+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

2023-11-04T13:57:15.031+05:30: /sys/kernel/mm/transparent\_hugepage/enabled is 'always'. We suggest setting it to 'never'

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> use assg9;

switched to db assg9

> db.createCollection('student');

{ "ok" : 1 }

> db.student.insert({'rno':1,'name':'aaa','class':'TE comp'});

WriteResult({ "nInserted" : 1 })

> db.student.insert({'rno':2,'name':'bbb','class':'TE comp'});

WriteResult({ "nInserted" : 1 })

> db.student.find();

{ "\_id" : ObjectId("6546063b4e757da8b0a71570"), "rno" : 1, "name" : "aaa", "class" : "TE comp" }

{ "\_id" : ObjectId("6546065b4e757da8b0a71571"), "rno" : 2, "name" : "bbb", "class" : "TE comp" }

> db.student.find().pretty();

{

"\_id" : ObjectId("6546063b4e757da8b0a71570"),

"rno" : 1,

"name" : "aaa",

"class" : "TE comp"

}

{

"\_id" : ObjectId("6546065b4e757da8b0a71571"),

"rno" : 2,

"name" : "bbb",

"class" : "TE comp"

}

> db.student.insert({'rno':3,'name':'ccc','class':'TE comp'});

WriteResult({ "nInserted" : 1 })

> db.student.insert({'rno':10,'name':'xxx','class':'TE it'});

WriteResult({ "nInserted" : 1 })

> db.student.find().pretty();

{

"\_id" : ObjectId("6546063b4e757da8b0a71570"),

"rno" : 1,

"name" : "aaa",

"class" : "TE comp"

}

{

"\_id" : ObjectId("6546065b4e757da8b0a71571"),

"rno" : 2,

"name" : "bbb",

"class" : "TE comp"

}

{

"\_id" : ObjectId("654606ce4e757da8b0a71572"),

"rno" : 3,

"name" : "ccc",

"class" : "TE comp"

}

{

"\_id" : ObjectId("654606e84e757da8b0a71573"),

"rno" : 10,

"name" : "xxx",

"class" : "TE it"

}

> db.student.update({'name':'ccc'},{$set:{'name':'CCC'}});

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.student.find().pretty();

{

"\_id" : ObjectId("6546063b4e757da8b0a71570"),

"rno" : 1,

"name" : "aaa",

"class" : "TE comp"

}

{

"\_id" : ObjectId("6546065b4e757da8b0a71571"),

"rno" : 2,

"name" : "bbb",

"class" : "TE comp"

}

{

"\_id" : ObjectId("654606ce4e757da8b0a71572"),

"rno" : 3,

"name" : "CCC",

"class" : "TE comp"

}

{

"\_id" : ObjectId("654606e84e757da8b0a71573"),

"rno" : 10,

"name" : "xxx",

"class" : "TE it"

}

> db.student.remove({'rno':10});

WriteResult({ "nRemoved" : 1 })

> db.student.find();

{ "\_id" : ObjectId("6546063b4e757da8b0a71570"), "rno" : 1, "name" : "aaa", "class" : "TE comp" }

{ "\_id" : ObjectId("6546065b4e757da8b0a71571"), "rno" : 2, "name" : "bbb", "class" : "TE comp" }

{ "\_id" : ObjectId("654606ce4e757da8b0a71572"), "rno" : 3, "name" : "CCC", "class" : "TE comp" }

> db.student.insert({'rno':10,'name':'xyz','class':'TE IT'});

WriteResult({ "nInserted" : 1 })

> db.student.insert({'rno':4,'name':'xyz','class':'TE comp'});

WriteResult({ "nInserted" : 1 })

> db.student.find();

{ "\_id" : ObjectId("6546063b4e757da8b0a71570"), "rno" : 1, "name" : "aaa", "class" : "TE comp" }

{ "\_id" : ObjectId("6546065b4e757da8b0a71571"), "rno" : 2, "name" : "bbb", "class" : "TE comp" }

{ "\_id" : ObjectId("654606ce4e757da8b0a71572"), "rno" : 3, "name" : "CCC", "class" : "TE comp" }

{ "\_id" : ObjectId("654608ef4e757da8b0a71574"), "rno" : 10, "name" : "xyz", "class" : "TE IT" }

{ "\_id" : ObjectId("654609064e757da8b0a71575"), "rno" : 4, "name" : "xyz", "class" : "TE comp" }

> db.student.find({'rno':3});

{ "\_id" : ObjectId("654606ce4e757da8b0a71572"), "rno" : 3, "name" : "CCC", "class" : "TE comp" }

> db.student.find({'name':'xyz'}).pretty();

{

"\_id" : ObjectId("654608ef4e757da8b0a71574"),

"rno" : 10,

"name" : "xyz",

"class" : "TE IT"

}

{

"\_id" : ObjectId("654609064e757da8b0a71575"),

"rno" : 4,

"name" : "xyz",

"class" : "TE comp"

}

> db.student.find({$and[{'name':'xyz'},{'class':'TE IT'}]}).pretty();

uncaught exception: SyntaxError: missing : after property id :

@(shell):1:21

> db.student.find({$and:[{'name':'xyz'},{'class':'TE IT'}]}).pretty();

{

"\_id" : ObjectId("654608ef4e757da8b0a71574"),

"rno" : 10,

"name" : "xyz",

"class" : "TE IT"

}

> db.student.find({$or:[{'name':'xyz'},{'class':'TE IT'}]}).pretty();

{

"\_id" : ObjectId("654608ef4e757da8b0a71574"),

"rno" : 10,

"name" : "xyz",

"class" : "TE IT"

}

{

"\_id" : ObjectId("654609064e757da8b0a71575"),

"rno" : 4,

"name" : "xyz",

"class" : "TE comp"

}

> db.student.find({'name':{$not:/^xyz\*/}});

{ "\_id" : ObjectId("6546063b4e757da8b0a71570"), "rno" : 1, "name" : "aaa", "class" : "TE comp" }

{ "\_id" : ObjectId("6546065b4e757da8b0a71571"), "rno" : 2, "name" : "bbb", "class" : "TE comp" }

{ "\_id" : ObjectId("654606ce4e757da8b0a71572"), "rno" : 3, "name" : "CCC", "class" : "TE comp" }

> db.student.find({'rno':{$lt:2}});

{ "\_id" : ObjectId("6546063b4e757da8b0a71570"), "rno" : 1, "name" : "aaa", "class" : "TE comp" }

> db.student.find({'rno':{$not:{$lt:2}}});

{ "\_id" : ObjectId("6546065b4e757da8b0a71571"), "rno" : 2, "name" : "bbb", "class" : "TE comp" }

{ "\_id" : ObjectId("654606ce4e757da8b0a71572"), "rno" : 3, "name" : "CCC", "class" : "TE comp" }

{ "\_id" : ObjectId("654608ef4e757da8b0a71574"), "rno" : 10, "name" : "xyz", "class" : "TE IT" }

{ "\_id" : ObjectId("654609064e757da8b0a71575"), "rno" : 4, "name" : "xyz", "class" : "TE comp" }

>

>

> db.student.find({'rno':{$in:[1,2]}});

{ "\_id" : ObjectId("6546063b4e757da8b0a71570"), "rno" : 1, "name" : "aaa", "class" : "TE comp" }

{ "\_id" : ObjectId("6546065b4e757da8b0a71571"), "rno" : 2, "name" : "bbb", "class" : "TE comp" }

> db.student.find({'rno':{$nin:[1,2]}});

{ "\_id" : ObjectId("654606ce4e757da8b0a71572"), "rno" : 3, "name" : "CCC", "class" : "TE comp" }

{ "\_id" : ObjectId("654608ef4e757da8b0a71574"), "rno" : 10, "name" : "xyz", "class" : "TE IT" }

{ "\_id" : ObjectId("654609064e757da8b0a71575"), "rno" : 4, "name" : "xyz", "class" : "TE comp" }

>

> db.student.save({'\_id':ObjectId('123456789abcdef123456789'),'rno':22,'name':'saved query'});

WriteResult({

"nMatched" : 0,

"nUpserted" : 1,

"nModified" : 0,

"\_id" : ObjectId("123456789abcdef123456789")

})

> db.student.find().pretty();

{

"\_id" : ObjectId("6546063b4e757da8b0a71570"),

"rno" : 1,

"name" : "aaa",

"class" : "TE comp"

}

{

"\_id" : ObjectId("6546065b4e757da8b0a71571"),

"rno" : 2,

"name" : "bbb",

"class" : "TE comp"

}

{

"\_id" : ObjectId("654606ce4e757da8b0a71572"),

"rno" : 3,

"name" : "CCC",

"class" : "TE comp"

}

{

"\_id" : ObjectId("654608ef4e757da8b0a71574"),

"rno" : 10,

"name" : "xyz",

"class" : "TE IT"

}

{

"\_id" : ObjectId("654609064e757da8b0a71575"),

"rno" : 4,

"name" : "xyz",

"class" : "TE comp"

}

{

"\_id" : ObjectId("123456789abcdef123456789"),

"rno" : 22,

"name" : "saved query"

}

>

> db.student.save({'\_id':ObjectId('654609064e757da8b0a71575'),'rno':22,'name':'saved query'});

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.student.find().pretty();

{

"\_id" : ObjectId("6546063b4e757da8b0a71570"),

"rno" : 1,

"name" : "aaa",

"class" : "TE comp"

}

{

"\_id" : ObjectId("6546065b4e757da8b0a71571"),

"rno" : 2,

"name" : "bbb",

"class" : "TE comp"

}

{

"\_id" : ObjectId("654606ce4e757da8b0a71572"),

"rno" : 3,

"name" : "CCC",

"class" : "TE comp"

}

{

"\_id" : ObjectId("654608ef4e757da8b0a71574"),

"rno" : 10,

"name" : "xyz",

"class" : "TE IT"

}

{

"\_id" : ObjectId("654609064e757da8b0a71575"),

"rno" : 22,

"name" : "saved query"

}

{

"\_id" : ObjectId("123456789abcdef123456789"),

"rno" : 22,

"name" : "saved query"

}

>