Name : Sarthak Pagar

Roll No. : 34

Class : TE (IT)

Practical : 1

sarthak1594@UbuntuInWin:~$ mongosh

Current Mongosh Log ID: 670c9d4a63028c373efe6910

Connecting to: mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.3.2

Using MongoDB: 8.0.0

Using Mongosh: 2.3.2

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

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The server generated these startup warnings when booting

2024-10-14T09:53:41.649+05:30: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See http://dochub.mongodb.org/core/prodnotes-filesystem

2024-10-14T09:53:46.806+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

2024-10-14T09:53:46.806+05:30: For customers running the tcmalloc-google memory allocator, we suggest setting the contents of sysfsFile to 'always'

2024-10-14T09:53:46.808+05:30: For customers running the updated tcmalloc-google memory allocator, we suggest setting the contents of sysfsFile to 'defer+madvise'

2024-10-14T09:53:46.808+05:30: We suggest setting the contents of sysfsFile to 0.

2024-10-14T09:53:46.808+05:30: vm.max\_map\_count is too low

2024-10-14T09:53:46.809+05:30: We suggest setting swappiness to 0 or 1, as swapping can cause performance problems.

------

test> show dbs

admin 40.00 KiB

config 84.00 KiB

local 72.00 KiB

test> use college

switched to db college

college> db.createCollection("student")

{ ok: 1 }

college> show dbs

admin 40.00 KiB

college 8.00 KiB

config 84.00 KiB

local 72.00 KiB

college> db.student.insertOne({s\_id:1,s\_name:"sarthak",s\_roll:34,cgpa:8.4,age:20,address:"warje"})

{

acknowledged: true,

insertedId: ObjectId('670c9eba63028c373efe6911')

}

college> db.student.insertMany([{s\_id:2,s\_name:"prabhas",s\_roll:12,cgpa:6.5,age:21,address:"kothrud"},{s\_id:3,s\_name:"rahul",s\_roll:28,cgpa:7.0,age:19,address:"baner"},{s\_id:4,s\_name:"rohit",s\_roll:2,cgpa:7.2,age:18,address:"warje"},{s\_id:5,s\_name:"surya",s\_roll:14,cgpa:7.8,age:18,address:"katraj"},{s\_id:6,s\_name:"virat",s\_roll:44,cgpa:8.0,age:20,address:"katraj"},{s\_id:7,s\_name:"jasprit",s\_roll:27,cgpa:8.3,age:20,address:"nda"}])

{

acknowledged: true,

insertedIds: {

'0': ObjectId('670ca166bc0651aef1fe6911'),

'1': ObjectId('670ca166bc0651aef1fe6912'),

'2': ObjectId('670ca166bc0651aef1fe6913'),

'3': ObjectId('670ca166bc0651aef1fe6914'),

'4': ObjectId('670ca166bc0651aef1fe6915'),

'5': ObjectId('670ca166bc0651aef1fe6916')

}

}

college> show collections

student

college> db.student.find()

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'baner'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6916'),

s\_id: 7,

s\_name: 'jasprit',

s\_roll: 27,

cgpa: 8.3,

age: 20,

address: 'nda'

}

]

college> db.student.find({age:20})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6916'),

s\_id: 7,

s\_name: 'jasprit',

s\_roll: 27,

cgpa: 8.3,

age: 20,

address: 'nda'

}

]

college> db.student.updateOne({s\_name:"rahul"},{$set:{address:"warje"}})

{

acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

college> db.student.find({s\_name:"rahul"})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

}

]

college> db.student.updateMany({age:20},{$set:{address:"warje"}})

{

acknowledged: true,

insertedId: null,

matchedCount: 3,

modifiedCount: 2,

upsertedCount: 0

}

college> db.student.find()

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6916'),

s\_id: 7,

s\_name: 'jasprit',

s\_roll: 27,

cgpa: 8.3,

age: 20,

address: 'warje'

}

]

college> db.student.deleteOne({s\_id:7})

{ acknowledged: true, deletedCount: 1 }

college> db.student.find()

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find({cgpa:{$gt:8.0}})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

}

]

college> db.student.find({cgpa:{$lt:7.2}})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

}

]

college> db.student.find({cgpa:{$lte:7.2}})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

}

]

college> db.student.find({cgpa:{$gte:8.0}})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find({cgpa:{$gte:7.0,$lte:8.0}})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find({age:{$ne:"20"}})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find({s\_roll:{$in:[12,2,14]}})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

}

]

college> db.student.find({s\_roll:{$nin:[12,2,14]}})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find({$or:[{s\_roll:44},{age:18}]})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find({$or:[{s\_roll:{$in:[12,27]}},{age:18}]})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

}

]

college> db.student.find({$and:[{age:20},{address:"warje"}]})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find({s\_id:{$mod:[3,1]}})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

}

]

college> db.student.find({s\_id:{$not:{$mod:[3,1]}}})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find({s\_id:null})

college> db.student.find({s\_id:{$in:[null],$exists:true}})

college> db.student.find({s\_name:/ha/i})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

}

]

college> db.student.find({s\_name:/ha?/i})

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

}

]

college> db.createCollection("Fruits")

{ ok: 1 }

college> db.Fruits.insert({f\_name:["apple,banana,mango,orange"]})

{

acknowledged: true,

insertedIds: { '0': ObjectId('670caed1243620fac4fe6912') }

}

college> db.Fruits.find({f\_name:"mango"})

college> db.student.find({$where:function(){return(this.cgpa+this.age==28)}})

[

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

}

]

college> db.student.find().limit(3)

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

}

]

college> db.student.find().skip(3)

[

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670cabb9243620fac4fe6911'),

fruit: [ 'apple,banana,orange,mango' ]

}

]

college> db.student.find().sort({\_id:-1}).limit(3)

[

{

\_id: ObjectId('670cabb9243620fac4fe6911'),

fruit: [ 'apple,banana,orange,mango' ]

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

}

]

college> db.student.deleteOne({s\_id:7})

{ acknowledged: true, deletedCount: 0 }

college> db.student.find()

[

{

\_id: ObjectId('670c9eba63028c373efe6911'),

s\_id: 1,

s\_name: 'sarthak',

s\_roll: 34,

cgpa: 8.4,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6911'),

s\_id: 2,

s\_name: 'prabhas',

s\_roll: 12,

cgpa: 6.5,

age: 21,

address: 'kothrud'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6912'),

s\_id: 3,

s\_name: 'rahul',

s\_roll: 28,

cgpa: 7,

age: 19,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6913'),

s\_id: 4,

s\_name: 'rohit',

s\_roll: 2,

cgpa: 7.2,

age: 18,

address: 'warje'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6914'),

s\_id: 5,

s\_name: 'surya',

s\_roll: 14,

cgpa: 7.8,

age: 18,

address: 'katraj'

},

{

\_id: ObjectId('670ca166bc0651aef1fe6915'),

s\_id: 6,

s\_name: 'virat',

s\_roll: 44,

cgpa: 8,

age: 20,

address: 'warje'

},

{

\_id: ObjectId('670cabb9243620fac4fe6911'),

fruit: [ 'apple,banana,orange,mango' ]

}

]