Roll No:13128

Microsoft Windows [Version 10.0.19045.6332]

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C:\Program Files\MongoDB\Server\8.2\bin>mongosh

Current Mongosh Log ID: 68e631d2130357e7ddcebea3

Connecting to: mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.5.8

Using MongoDB: 8.2.0

Using Mongosh: 2.5.8

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

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The server generated these startup warnings when booting

2025-09-26T10:01:29.579+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

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test> show dbs;

Demo 68.00 KiB

admin 48.00 KiB

aggregate 8.00 KiB

bank 80.00 KiB

company 8.00 KiB

config 72.00 KiB

demoexample 68.00 KiB

ja 8.00 KiB

james 72.00 KiB

local 72.00 KiB

query 32.00 KiB

school 200.00 KiB

test 136.00 KiB

test> use Demo1;

switched to db Demo1

Demo1> db.createCollection('employee');

{ ok: 1 }

Demo1> db.employee.insertOne({id:101,name:'Manas',salary:100000,dept:'IT'});

{

acknowledged: true,

insertedId: ObjectId('68e63255130357e7ddcebea4')

}

Demo1> db.employee.insertOne({id:102,name:'Amol',salary:80000,dept:'IT'});

{

acknowledged: true,

insertedId: ObjectId('68e6326b130357e7ddcebea5')

}

Demo1> db.employee.insertOne({id:103,name:'Swapnil',salary:87000,dept:'CS'});

{

acknowledged: true,

insertedId: ObjectId('68e6327e130357e7ddcebea6')

}

Demo1> db.employee.insertOne({id:104,name:'Jayesh',salary:90000,dept:'CS'});

{

acknowledged: true,

insertedId: ObjectId('68e6328d130357e7ddcebea7')

}

Demo1> db.employee.insertOne({id:105,name:'Karan',salary:70000,dept:'HR'});

{

acknowledged: true,

insertedId: ObjectId('68e632a4130357e7ddcebea8')

}

Demo1> db.employee.insertOne({id:106,name:'Jay',salary:76000,dept:'HR'});

{

acknowledged: true,

insertedId: ObjectId('68e632b8130357e7ddcebea9')

}

Demo1> db.employee.aggregate([{$group:{\_id:null, TotalSal:{$Sum:'$salary'}}}]);

MongoServerError[Location15952]: unknown group operator '$Sum'

Demo1> db.employee.aggregate([{$group:{\_id:null, TotalSal:{$sum:'$salary'}}}]);

[ { \_id: null, TotalSal: 503000 } ]

Demo1> db.employee.aggregate([{$group:{\_id:'$dept', TotalSal:{$sum:'$salary'}}}]);

[

{ \_id: 'CS', TotalSal: 177000 },

{ \_id: 'IT', TotalSal: 180000 },

{ \_id: 'HR', TotalSal: 146000 }

]

Demo1> db.employee.aggregate([{$group:{\_id:null, MinSal:{$min:'$salary'}}}]);

[ { \_id: null, MinSal: 70000 } ]

Demo1> db.employee.aggregate([{$group:{\_id:'$dept', MinSal:{$min:'$salary'}}}]);

[

{ \_id: 'HR', MinSal: 70000 },

{ \_id: 'IT', MinSal: 80000 },

{ \_id: 'CS', MinSal: 87000 }

]

Demo1> db.employee.aggregate([{$group:{\_id:null, MaxSal:{$max:'$salary'}}}]);

[ { \_id: null, MaxSal: 100000 } ]

Demo1> db.employee.aggregate([{$group:{\_id:'$dept', MaxSal:{$max:'$salary'}}}]);

[

{ \_id: 'CS', MaxSal: 90000 },

{ \_id: 'IT', MaxSal: 100000 },

{ \_id: 'HR', MaxSal: 76000 }

]

Demo1> db.employee.aggregate([{$group:{\_id:null, MaxSal:{$avg:'$salary'}}}]);

[ { \_id: null, MaxSal: 83833.33333333333 } ]

Demo1> db.employee.aggregate([{$group:{\_id:'$dept', AvgSal:{$avg:'$salary'}}}]);

[

{ \_id: 'HR', AvgSal: 73000 },

{ \_id: 'IT', AvgSal: 90000 },

{ \_id: 'CS', AvgSal: 88500 }

]

Demo1> db.employee.aggregate([{$group:{\_id:null, Addtoset:{$addToSet:'$salary'}}}]);

[

{

\_id: null,

Addtoset: [ 90000, 87000, 100000, 80000, 70000, 76000 ]

}

]

Demo1> db.employee.aggregate([{$group:{\_id:null, Push:{$push:'$salary'}}}]);

[ { \_id: null, Push: [ 100000, 80000, 87000, 90000, 70000, 76000 ] } ]

Demo1> db.employee.aggregate([{$group:{\_id:null, ASorted:{$sort:'$salary'}}}]);

MongoServerError[Location15952]: unknown group operator '$sort'

Demo1> db.employee.find().sort({name:1});

[

{

\_id: ObjectId('68e6326b130357e7ddcebea5'),

id: 102,

name: 'Amol',

salary: 80000,

dept: 'IT'

},

{

\_id: ObjectId('68e632b8130357e7ddcebea9'),

id: 106,

name: 'Jay',

salary: 76000,

dept: 'HR'

},

{

\_id: ObjectId('68e6328d130357e7ddcebea7'),

id: 104,

name: 'Jayesh',

salary: 90000,

dept: 'CS'

},

{

\_id: ObjectId('68e632a4130357e7ddcebea8'),

id: 105,

name: 'Karan',

salary: 70000,

dept: 'HR'

},

{

\_id: ObjectId('68e63255130357e7ddcebea4'),

id: 101,

name: 'Manas',

salary: 100000,

dept: 'IT'

},

{

\_id: ObjectId('68e6327e130357e7ddcebea6'),

id: 103,

name: 'Swapnil',

salary: 87000,

dept: 'CS'

}

]

Demo1> db.employee.find().sort({salary:1});

[

{

\_id: ObjectId('68e632a4130357e7ddcebea8'),

id: 105,

name: 'Karan',

salary: 70000,

dept: 'HR'

},

{

\_id: ObjectId('68e632b8130357e7ddcebea9'),

id: 106,

name: 'Jay',

salary: 76000,

dept: 'HR'

},

{

\_id: ObjectId('68e6326b130357e7ddcebea5'),

id: 102,

name: 'Amol',

salary: 80000,

dept: 'IT'

},

{

\_id: ObjectId('68e6327e130357e7ddcebea6'),

id: 103,

name: 'Swapnil',

salary: 87000,

dept: 'CS'

},

{

\_id: ObjectId('68e6328d130357e7ddcebea7'),

id: 104,

name: 'Jayesh',

salary: 90000,

dept: 'CS'

},

{

\_id: ObjectId('68e63255130357e7ddcebea4'),

id: 101,

name: 'Manas',

salary: 100000,

dept: 'IT'

}

]

Demo1> db.employee.find().sort({salary:-1});

[

{

\_id: ObjectId('68e63255130357e7ddcebea4'),

id: 101,

name: 'Manas',

salary: 100000,

dept: 'IT'

},

{

\_id: ObjectId('68e6328d130357e7ddcebea7'),

id: 104,

name: 'Jayesh',

salary: 90000,

dept: 'CS'

},

{

\_id: ObjectId('68e6327e130357e7ddcebea6'),

id: 103,

name: 'Swapnil',

salary: 87000,

dept: 'CS'

},

{

\_id: ObjectId('68e6326b130357e7ddcebea5'),

id: 102,

name: 'Amol',

salary: 80000,

dept: 'IT'

},

{

\_id: ObjectId('68e632b8130357e7ddcebea9'),

id: 106,

name: 'Jay',

salary: 76000,

dept: 'HR'

},

{

\_id: ObjectId('68e632a4130357e7ddcebea8'),

id: 105,

name: 'Karan',

salary: 70000,

dept: 'HR'

}

]

Demo1>