# PRACTICAL: 11

Please enter a MongoDB connection string (Default: mongodb://localhost/): connect

connect

Current Mongosh Log ID: 68e8cd4b1af260a91fcebea3

Connecting to: mongodb://127.0.0.1:27017/connect?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

2025-10-07T11:44:13.482+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

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connect> use DemoDB

switched to db DemoDB

DemoDB> db.createCollection('fees')

{ ok: 1 }

DemoDB> db.fees.insertOne({rollno:101,name:'sarthak',class:'TE',amount:45000,pdate:'10-06-2025'});

{

acknowledged: true,

insertedId: ObjectId('68e8d3f51af260a91fcebea4')

}

DemoDB> db.fees.insertMany([

{rollno:102,name:'heramb',class:'TE',amount:40000,pdate:'12-07-2025'},

{rollno:103,name:'ritesh',class:'BE',amount:50000,pdate:'13-07-2025'}

]);

{

acknowledged: true,

insertedIds: {

'0': ObjectId('68e8d4a81af260a91fcebea5'),

'1': ObjectId('68e8d4a81af260a91fcebea6')

}

}

DemoDB> db.fees.find();

[

{ \_id: ObjectId('68e8d3f51af260a91fcebea4'), rollno: 101, name: 'sarthak', class: 'TE', amount: 45000, pdate: '10-06-2025' },

{ \_id: ObjectId('68e8d4a81af260a91fcebea5'), rollno: 102, name: 'heramb', class: 'TE', amount: 40000, pdate: '12-07-2025' },

{ \_id: ObjectId('68e8d4a81af260a91fcebea6'), rollno: 103, name: 'ritesh', class: 'BE', amount: 50000, pdate: '13-07-2025' }

]

DemoDB> db.fees.count();

3

DemoDB> db.fees.aggregate([{$group:{\_id:null,total\_amount:{$sum:'$amount'}}}])

[ { \_id: null, total\_amount: 135000 } ]

DemoDB> db.fees.aggregate([{$group:{\_id:'$class',total\_amount:{$sum:'$amount'}}}])

[

{ \_id: 'BE', total\_amount: 50000 },

{ \_id: 'TE', total\_amount: 85000 }

]

DemoDB> db.fees.aggregate([{$group:{\_id:'$class',total\_amount:{$min:'$amount'}}}])

[

{ \_id: 'TE', total\_amount: 40000 },

{ \_id: 'BE', total\_amount: 50000 }

]

DemoDB> db.fees.aggregate([{$group:{\_id:'$class',total\_amount:{$max:'$amount'}}}])

[

{ \_id: 'BE', total\_amount: 50000 },

{ \_id: 'TE', total\_amount: 45000 }

]

DemoDB> db.fees.aggregate([{$group:{\_id:'$class',total\_amount:{$push:'$amount'}}}])

[

{ \_id: 'TE', total\_amount: [ 45000, 40000 ] },

{ \_id: 'BE', total\_amount: [ 50000 ] }

]

DemoDB> db.fees.insertOne({rollno:104,name:'ritesh',class:'BE',amount:45000,pdate:'10-06-2025'});

{

acknowledged: true,

insertedId: ObjectId('68e8d5d01af260a91fcebea7')

}

DemoDB> db.fees.aggregate([{$group:{\_id:'$class',total\_amount:{$push:'$amount'}}}])

[

{ \_id: 'TE', total\_amount: [ 45000, 40000 ] },

{ \_id: 'BE', total\_amount: [ 50000, 45000 ] }

]

DemoDB> db.fees.insertOne({rollno:105,name:'heramb',class:'TE',amount:45000,pdate:'15-06-2025'});

{

acknowledged: true,

insertedId: ObjectId('68e8d60e1af260a91fcebea8')

}

DemoDB> db.fees.aggregate([{$group:{\_id:'$class',total\_amount:{$push:'$amount'}}}])

[

{ \_id: 'BE', total\_amount: [ 50000, 45000 ] },

{ \_id: 'TE', total\_amount: [ 45000, 40000, 45000 ] }

]

DemoDB> db.fees.aggregate([{$group:{\_id:'$class',total\_amount:{$addToSet:'$amount'}}}])

[

{ \_id: 'BE', total\_amount: [ 50000, 45000 ] },

{ \_id: 'TE', total\_amount: [ 45000, 40000 ] }

]

DemoDB> db.fees.aggregate([{$group:{\_id:'$class',total\_amount:{$first:'$amount'}}}])

[

{ \_id: 'TE', total\_amount: 45000 },

{ \_id: 'BE', total\_amount: 50000 }

]

DemoDB> db.fees.aggregate([{$group:{\_id:null,total\_amount:{$first:'$amount'}}}])

[ { \_id: null, total\_amount: 45000 } ]

DemoDB> db.fees.aggregate([{$group:{\_id:null,total\_amount:{$last:'$amount'}}}])

[ { \_id: null, total\_amount: 45000 } ]

DemoDB> db.fees.createIndex({rollno:1})

rollno\_1

DemoDB> db.fees.getIndexes();

[

{ v: 2, key: { \_id: 1 }, name: '\_id\_' },

{ v: 2, key: { rollno: 1 }, name: 'rollno\_1' }

]

DemoDB> db.fees.createIndex({name:1,class:1})

name\_1\_class\_1

DemoDB> db.fees.getIndexes();

[

{ v: 2, key: { \_id: 1 }, name: '\_id\_' },

{ v: 2, key: { rollno: 1 }, name: 'rollno\_1' },

{ v: 2, key: { name: 1, class: 1 }, name: 'name\_1\_class\_1' }

]

DemoDB> db.fees.createIndex({class:1},{spare:true})

class\_1

DemoDB> db.fees.getIndexes();

[

{ v: 2, key: { \_id: 1 }, name: '\_id\_' },

{ v: 2, key: { rollno: 1 }, name: 'rollno\_1' },

{ v: 2, key: { name: 1, class: 1 }, name: 'name\_1\_class\_1' },

{ v: 2, key: { class: 1 }, name: 'class\_1' }

]