**Practical no :11**

**MapReduce functions:**

Microsoft Windows [Version 10.0.26100.6725]

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C:\Users\HP\Downloads\mongosh-2.5.8-win32-x64\mongosh-2.5.8-win32-x64\bin>mongosh

Current Mongosh Log ID: 68e7c38f8d8e96e602cebea3

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

2025-10-09T19:03:39.606+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> use bank;

switched to db bank

bank> db.bank.insertMany([{cid:101,c\_name:'priya',b\_name:'SBI',branch:'pune',bal:800000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c4dc8d8e96e602cebea4') }

}

bank> db.bank.insertMany([{cid:102,c\_name:'riya',b\_name:'HDFC',branch:'mumbai',bal:900000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c4fc8d8e96e602cebea5') }

}

bank> db.bank.insertMany([{cid:103,c\_name:'siya',b\_name:'HDFC',branch:'pune',bal:1000000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c5128d8e96e602cebea6') }

}

bank> db.bank.insertMany([{cid:104,c\_name:'miya',b\_name:'Axis',branch:'mumbai',bal:500000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c5358d8e96e602cebea7') }

}

bank> db.bank.insertMany([{cid:105,c\_name:'rohan',b\_name:'Axis',branch:'mumbai',bal:3800000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c54b8d8e96e602cebea8') }

}

bank> db.bank.insertMany([{cid:106,c\_name:'sumit',b\_name:'SBI',branch:'mumbai',bal:365000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c56a8d8e96e602cebea9') }

}

bank> db.bank.insertMany([{cid:107,c\_name:'rajesh',b\_name:'Axis',branch:'mumbai',bal:450670}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c58d8d8e96e602cebeaa') }

}

bank> db.bank.insertMany([{cid:108,c\_name:'adinath',b\_name:'HDFC',branch:'umerga',bal:543210}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c5bd8d8e96e602cebeab') }

}

bank> db.bank.insertMany([{cid:109,c\_name:'mohan',b\_name:'HDFC',branch:'umerga',bal:875630}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c5dc8d8e96e602cebeac') }

}

bank> db.bank.insertMany([{cid:110,c\_name:'avishkar',b\_name:'HDFC',branch:'latur',bal:8700030}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c6008d8e96e602cebead') }

}

bank> db.bank.insertMany([{cid:111,c\_name:'nishu',b\_name:'SBI',branch:'latur',bal:670930}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c62f8d8e96e602cebeae') }

}

bank> db.bank.insertMany([{cid:112,c\_name:'niku',b\_name:'SBI',branch:'talegoan',bal:65430930}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68e7c6608d8e96e602cebeaf') }

}

bank> db.bank.find();

[

{

\_id: ObjectId('68e7c4dc8d8e96e602cebea4'),

cid: 101,

c\_name: 'priya',

b\_name: 'SBI',

branch: 'pune',

bal: 800000

},

{

\_id: ObjectId('68e7c4fc8d8e96e602cebea5'),

cid: 102,

c\_name: 'riya',

b\_name: 'HDFC',

branch: 'mumbai',

bal: 900000

},

{

\_id: ObjectId('68e7c5128d8e96e602cebea6'),

cid: 103,

c\_name: 'siya',

b\_name: 'HDFC',

branch: 'pune',

bal: 1000000

},

{

\_id: ObjectId('68e7c5358d8e96e602cebea7'),

cid: 104,

c\_name: 'miya',

b\_name: 'Axis',

branch: 'mumbai',

bal: 500000

},

{

\_id: ObjectId('68e7c54b8d8e96e602cebea8'),

cid: 105,

c\_name: 'rohan',

b\_name: 'Axis',

branch: 'mumbai',

bal: 3800000

},

{

\_id: ObjectId('68e7c56a8d8e96e602cebea9'),

cid: 106,

c\_name: 'sumit',

b\_name: 'SBI',

branch: 'mumbai',

bal: 365000

},

{

\_id: ObjectId('68e7c58d8d8e96e602cebeaa'),

cid: 107,

c\_name: 'rajesh',

b\_name: 'Axis',

branch: 'mumbai',

bal: 450670

},

{

\_id: ObjectId('68e7c5bd8d8e96e602cebeab'),

cid: 108,

c\_name: 'adinath',

b\_name: 'HDFC',

branch: 'umerga',

bal: 543210

},

{

\_id: ObjectId('68e7c5dc8d8e96e602cebeac'),

cid: 109,

c\_name: 'mohan',

b\_name: 'HDFC',

branch: 'umerga',

bal: 875630

},

{

\_id: ObjectId('68e7c6008d8e96e602cebead'),

cid: 110,

c\_name: 'avishkar',

b\_name: 'HDFC',

branch: 'latur',

bal: 8700030

},

{

\_id: ObjectId('68e7c62f8d8e96e602cebeae'),

cid: 111,

c\_name: 'nishu',

b\_name: 'SBI',

branch: 'latur',

bal: 670930

},

{

\_id: ObjectId('68e7c6608d8e96e602cebeaf'),

cid: 112,

c\_name: 'niku',

b\_name: 'SBI',

branch: 'talegoan',

bal: 65430930

}

]

bank> var map=function(){emit(this.cid,this.bal)};

bank> var reduce=function(cid,bal){return Array.sum(bal)}

bank> db.bank.mapReduce(map,reduce,{out:'transactions'})

DeprecationWarning: Collection.mapReduce() is deprecated. Use an aggregation instead.

See https://mongodb.com/docs/manual/core/map-reduce for details.

{ result: 'transactions', ok: 1 }

bank> db.transactions.find();

[

{ \_id: 108, value: 543210 },

{ \_id: 105, value: 3800000 },

{ \_id: 103, value: 1000000 },

{ \_id: 101, value: 800000 },

{ \_id: 102, value: 900000 },

{ \_id: 106, value: 365000 },

{ \_id: 107, value: 450670 },

{ \_id: 104, value: 500000 },

{ \_id: 109, value: 875630 },

{ \_id: 110, value: 8700030 },

{ \_id: 111, value: 670930 },

{ \_id: 112, value: 65430930 }

]

Bank>