**Practical no :11**

**MapReduce functions:**

Microsoft Windows [Version 10.0.26100.6584]

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

Current Mongosh Log ID: 68ebaf36e70779e5ebcebea3

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

2025-10-04T13:36:40.538+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: 201, c\_name: 'Divya', b\_name: 'SBI', branch: 'Pune', bal: 950000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebaf8de70779e5ebcebea4') }

}

bank> db.bank.insertMany([{cid: 202, c\_name: 'Diya', b\_name: 'HDFC', branch: 'Dhule', bal: 870000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb011e70779e5ebcebea5') }

}

bank> db.bank.insertMany([{cid: 203, c\_name: 'Om', b\_name: 'Axis', branch: 'Mumbai', bal: 760000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb05de70779e5ebcebea6') }

}

bank> db.bank.insertMany([{cid: 204, c\_name: 'Nil', b\_name: 'SBI', branch: 'Pune', bal: 820000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb076e70779e5ebcebea7') }

}

bank> db.bank.insertMany([{cid: 205, c\_name: 'Sejal', b\_name: 'HDFC', branch: 'Mumbai', bal: 915000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb08de70779e5ebcebea8') }

}

bank> db.bank.insertMany([{cid: 206, c\_name: 'Kartika', b\_name: 'Axis', branch: 'Dhule', bal: 650000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb0a2e70779e5ebcebea9') }

}

bank> db.bank.insertMany([{cid: 207, c\_name: 'Gayatri', b\_name: 'SBI', branch: 'Pune', bal: 720000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb0b6e70779e5ebcebeaa') }

}

bank> db.bank.insertMany([{cid: 208, c\_name: 'Sakshi', b\_name: 'HDFC', branch: 'Mumbai', bal: 830000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb0d2e70779e5ebcebeab') }

}

bank> db.bank.insertMany([ {cid: 209, c\_name: 'Anu', b\_name: 'Axis', branch: 'Pune', bal: 780000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb0e8e70779e5ebcebeac') }

}

bank> db.bank.insertMany([{cid: 210, c\_name: 'Riya', b\_name: 'HDFC', branch: 'Dhule', bal: 890000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb10be70779e5ebcebead') }

}

bank> db.bank.insertMany([ {cid: 211, c\_name: 'Kaustubh', b\_name: 'SBI', branch: 'Mumbai', bal: 940000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb126e70779e5ebcebeae') }

}

bank> db.bank.insertMany([{cid: 212, c\_name: 'Sai', b\_name: 'Axis', branch: 'Pune', bal: 810000}]);

{

acknowledged: true,

insertedIds: { '0': ObjectId('68ebb155e70779e5ebcebeaf') }

}

bank> db.bank.find();

[

{

\_id: ObjectId('68ebaf8de70779e5ebcebea4'),

cid: 201,

c\_name: 'Divya',

b\_name: 'SBI',

branch: 'Pune',

bal: 950000

},

{

\_id: ObjectId('68ebb011e70779e5ebcebea5'),

cid: 202,

c\_name: 'Diya',

b\_name: 'HDFC',

branch: 'Dhule',

bal: 870000

},

{

\_id: ObjectId('68ebb05de70779e5ebcebea6'),

cid: 203,

c\_name: 'Om',

b\_name: 'Axis',

branch: 'Mumbai',

bal: 760000

},

{

\_id: ObjectId('68ebb076e70779e5ebcebea7'),

cid: 204,

c\_name: 'Nil',

b\_name: 'SBI',

branch: 'Pune',

bal: 820000

},

{

\_id: ObjectId('68ebb08de70779e5ebcebea8'),

cid: 205,

c\_name: 'Sejal',

b\_name: 'HDFC',

branch: 'Mumbai',

bal: 915000

},

{

\_id: ObjectId('68ebb0a2e70779e5ebcebea9'),

cid: 206,

c\_name: 'Kartika',

b\_name: 'Axis',

branch: 'Dhule',

bal: 650000

},

{

\_id: ObjectId('68ebb0b6e70779e5ebcebeaa'),

cid: 207,

c\_name: 'Gayatri',

b\_name: 'SBI',

branch: 'Pune',

bal: 720000

},

{

\_id: ObjectId('68ebb0d2e70779e5ebcebeab'),

cid: 208,

c\_name: 'Sakshi',

b\_name: 'HDFC',

branch: 'Mumbai',

bal: 830000

},

{

\_id: ObjectId('68ebb0e8e70779e5ebcebeac'),

cid: 209,

c\_name: 'Anu',

b\_name: 'Axis',

branch: 'Pune',

bal: 780000

},

{

\_id: ObjectId('68ebb10be70779e5ebcebead'),

cid: 210,

c\_name: 'Riya',

b\_name: 'HDFC',

branch: 'Dhule',

bal: 890000

},

{

\_id: ObjectId('68ebb126e70779e5ebcebeae'),

cid: 211,

c\_name: 'Kaustubh',

b\_name: 'SBI',

branch: 'Mumbai',

bal: 940000

},

{

\_id: ObjectId('68ebb155e70779e5ebcebeaf'),

cid: 212,

c\_name: 'Sai',

b\_name: 'Axis',

branch: 'Pune',

bal: 810000

}

]

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: 208, value: 830000 },

{ \_id: 205, value: 915000 },

{ \_id: 203, value: 760000 },

{ \_id: 201, value: 950000 },

{ \_id: 202, value: 870000 },

{ \_id: 206, value: 650000 },

{ \_id: 207, value: 720000 },

{ \_id: 204, value: 820000 },

{ \_id: 209, value: 780000 },

{ \_id: 210, value: 890000 },

{ \_id: 212, value: 810000 },

{ \_id: 211, value: 940000 }

]

bank>