**Practical No:11**

**MapReduce Function:**

Microsoft Windows [Version 10.0.26200.6725]

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

Current Mongosh Log ID: 68e7cf6876cc91c4f4cebea3

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

2025-10-09T17:37:49.337+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 bankexample

switched to db bankexample

bankexample> db.bank.find()

[

{

\_id: ObjectId('68e7d17a992efd03ce7a8242'),

date: ISODate('2022-01-01T00:00:00.000Z'),

DrCr: 'Db',

amount: 10000,

balance: 473292.87,

mode: 'ATM',

Day: 1,

Month: 1,

Year: 2022,

Tday: 1

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8243'),

date: ISODate('2022-01-01T00:00:00.000Z'),

DrCr: 'Db',

amount: 10000,

balance: 463292.87,

mode: 'ATM',

Day: 1,

Month: 1,

Year: 2022,

Tday: 1

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8244'),

date: ISODate('2022-01-02T00:00:00.000Z'),

DrCr: 'Db',

amount: 930,

balance: 462362.87,

mode: 'UPI',

name: 'AYUBRAJE',

Day: 2,

Month: 1,

Year: 2022,

Tday: 2

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8245'),

date: ISODate('2022-01-07T00:00:00.000Z'),

DrCr: 'Db',

amount: 2000,

balance: 460362.87,

mode: 'UPI',

name: 'ABUTALAH',

Day: 7,

Month: 1,

Year: 2022,

Tday: 3

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8246'),

date: ISODate('2022-01-10T00:00:00.000Z'),

DrCr: 'Db',

amount: 1000,

balance: 459362.87,

mode: 'UPI',

name: 'AGRAWALB',

Day: 10,

Month: 1,

Year: 2022,

Tday: 4

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8247'),

date: ISODate('2022-01-10T00:00:00.000Z'),

DrCr: 'Db',

amount: 1800,

balance: 457562.87,

mode: 'UPI',

name: 'GOASELEC',

Day: 10,

Month: 1,

Year: 2022,

Tday: 4

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8248'),

date: ISODate('2022-01-10T00:00:00.000Z'),

DrCr: 'Db',

amount: 5000,

balance: 452562.87,

mode: 'UPI',

name: 'GOASELEC',

Day: 10,

Month: 1,

Year: 2022,

Tday: 4

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8249'),

date: ISODate('2022-01-10T00:00:00.000Z'),

DrCr: 'Db',

amount: 3000,

balance: 449562.87,

mode: 'UPI',

name: 'AGRAWALB',

Day: 10,

Month: 1,

Year: 2022,

Tday: 4

},

{

\_id: ObjectId('68e7d17a992efd03ce7a824a'),

date: ISODate('2022-01-10T00:00:00.000Z'),

DrCr: 'Cr',

amount: 2400,

balance: 451962.87,

mode: 'NEFT',

Day: 10,

Month: 1,

Year: 2022,

Tday: 4

},

{

\_id: ObjectId('68e7d17a992efd03ce7a824b'),

date: ISODate('2022-01-12T00:00:00.000Z'),

DrCr: 'Cr',

amount: 1,

balance: 451963.87,

mode: 'UPI',

name: 'NAFEESAB',

Day: 12,

Month: 1,

Year: 2022,

Tday: 5

},

{

\_id: ObjectId('68e7d17a992efd03ce7a824c'),

date: ISODate('2022-01-12T00:00:00.000Z'),

DrCr: 'Cr',

amount: 1000,

balance: 452963.87,

mode: 'UPI',

name: 'NAFEESAB',

Day: 12,

Month: 1,

Year: 2022,

Tday: 5

},

{

\_id: ObjectId('68e7d17a992efd03ce7a824d'),

date: ISODate('2022-01-12T00:00:00.000Z'),

DrCr: 'Db',

amount: 1000,

balance: 451963.87,

mode: 'UPI',

name: 'MAHAMMADH',

Day: 12,

Month: 1,

Year: 2022,

Tday: 5

},

{

\_id: ObjectId('68e7d17a992efd03ce7a824e'),

date: ISODate('2022-01-12T00:00:00.000Z'),

DrCr: 'Db',

amount: 275,

balance: 451688.87,

mode: 'UPI',

name: 'PHONEPE',

Day: 12,

Month: 1,

Year: 2022,

Tday: 5

},

{

\_id: ObjectId('68e7d17a992efd03ce7a824f'),

date: ISODate('2022-01-12T00:00:00.000Z'),

DrCr: 'Db',

amount: 85,

balance: 451603.87,

mode: 'UPI',

name: 'PHONEPE',

Day: 12,

Month: 1,

Year: 2022,

Tday: 5

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8250'),

date: ISODate('2022-01-13T00:00:00.000Z'),

DrCr: 'Db',

amount: 563,

balance: 451040.87,

mode: 'UPI',

name: 'FLIPKART',

Day: 13,

Month: 1,

Year: 2022,

Tday: 6

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8251'),

date: ISODate('2022-01-14T00:00:00.000Z'),

DrCr: 'Db',

amount: 7000,

balance: 444040.87,

mode: 'UPI',

name: 'BUDESAHEB',

Day: 14,

Month: 1,

Year: 2022,

Tday: 7

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8252'),

date: ISODate('2022-01-22T00:00:00.000Z'),

DrCr: 'Db',

amount: 189,

balance: 443851.87,

mode: 'UPI',

name: 'FLIPKART',

Day: 22,

Month: 1,

Year: 2022,

Tday: 8

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8253'),

date: ISODate('2022-01-25T00:00:00.000Z'),

DrCr: 'Cr',

amount: 7.09,

balance: 443858.96,

mode: 'ECS',

Day: 25,

Month: 1,

Year: 2022,

Tday: 9

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8254'),

date: ISODate('2022-01-29T00:00:00.000Z'),

DrCr: 'Cr',

amount: 2400,

balance: 446258.96,

mode: 'NEFT',

Day: 29,

Month: 1,

Year: 2022,

Tday: 10

},

{

\_id: ObjectId('68e7d17a992efd03ce7a8255'),

date: ISODate('2022-01-29T00:00:00.000Z'),

DrCr: 'Db',

amount: 142,

balance: 446116.96,

mode: 'DEBIT CARD ANNUAL',

Day: 29,

Month: 1,

Year: 2022,

Tday: 10

}

]

Type "it" for more

bankexample> var map=function(){emit(this.mode,this.amount)}

bankexample> var reduce=function(mode,amount){return Array.sum(amount)}

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

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

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

{ result: 'bankoutput', ok: 1 }

bankexample> db.bankoutput.find()

[

{ \_id: 'SMS CHARGES', value: 106 },

{ \_id: 'SBINT', value: 8064 },

{ \_id: 'UPI', value: 1520178.9100000001 },

{ \_id: 'ATM', value: 388059 },

{ \_id: 'NEFT', value: 1179664.1600000001 },

{ \_id: 'STOCK CHRG', value: 118 },

{ \_id: 'DEBIT CARD ANNUAL', value: 290 },

{ \_id: 'ECS', value: 1000.5100000000002 },

{ \_id: 'CHEQUE', value: 901050 },

{ \_id: 'IMPS', value: 17503 },

{ \_id: 'FUNDS TRANSFER DEBIT', value: 397230 },

{ \_id: 'OTHER', value: 20 },

{ \_id: 'UNKNOWN', value: 33571 }

]

bankexample>