**PRACTICAL NO.10**

* **Aggregation Function :**

Microsoft Windows [Version 10.0.19045.6332]

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

Current Mongosh Log ID: 68e4b8b640bf74e606cebea3

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

2025-10-03T16:02:33.628+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;

Bank 8.00 KiB

admin 40.00 KiB

college 8.00 KiB

company 68.00 KiB

config 108.00 KiB

Bank>

demobhakti 80.00 KiB

demoexmple 68.00 KiB

local 64.00 KiB

test 56.00 KiB

bank> use Bank;

switched to db Bank

Bank> db.createCollection('Customer');

{ ok: 1 }

Bank> db.customer.insertOne({\_id:101,name:'Sai',bal:20000,bank:'SBI',location:'Pune'});

{ acknowledged: true, insertedId: 101 }

Bank> db.customer.insertOne({\_id:102,name:'Ram',bal:3000,bank:'SBI',location:'Shirdi'});

{ acknowledged: true, insertedId: 102 }

Bank> db.customer.insertOne({\_id:103,name:'Sita',bal:4000,bank:'IBM',location:'Satara'});

{ acknowledged: true, insertedId: 103 }

Bank> db.customer.insertOne({\_id:104,name:'Geeta',bal:40000,bank:'Baroda',location:'Maval'});

{ acknowledged: true, insertedId: 104 }

Bank> db.customer.count();

DeprecationWarning: Collection.count() is deprecated. Use countDocuments or estimatedDocumentCount.

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Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$sum:'$bal'}}}]);

[ { \_id: null, total\_bal: 67000 } ]

Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$min:'$bal'}}}]);

[ { \_id: null, total\_bal: 3000 } ]

Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$max:'$bal'}}}]);

[ { \_id: null, total\_bal: 40000 } ]

Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$avg:'$bal'}}}]);

[ { \_id: null, total\_bal: 16750 } ]

Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$push:'$bal'}}}]);

[ { \_id: null, total\_bal: [ 20000, 3000, 4000, 40000 ] } ]

Bank> db.customer.insertOne({\_id:105,name:'Seema',bal:40000,bank:'Baroda',location:'Nanaj'});

{ acknowledged: true, insertedId: 105 }

Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$push:'$bal'}}}]);

[ { \_id: null, total\_bal: [ 20000, 3000, 4000, 40000, 40000 ] } ]

Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$addToSet:'$bal'}}}]);

[ { \_id: null, total\_bal: [ 3000, 20000, 4000, 40000 ] } ]

Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$first:'$bal'}}}]);

[ { \_id: null, total\_bal: 20000 } ]

Bank> db.customer.aggregate([{$group:{\_id:null,total\_bal:{$last:'$bal'}}}]);

[ { \_id: null, total\_bal: 40000 } ]

Bank> db.customer.distinct("bal");

[ 3000, 4000, 20000, 40000 ]