

Microsoft Windows [Version 10.0.22631.4391]
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```
C:\Users\ADMIN>mongosh
Current Mongosh Log ID: 672b918575822592990d818f
Connecting to:
mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.3.3
Using MongoDB:      8.0.3
Using Mongosh:      2.3.3
```

For mongosh info see: <https://www.mongodb.com/docs/mongodb-shell/>

```
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The server generated these startup warnings when booting
2024-11-05T19:59:55.011+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 databases
admin      40.00 KiB
config     48.00 KiB
local      40.00 KiB
tea55      140.00 KiB
test> use tea55
switched to db tea55
tea55> show collections
students
teachers
test collection
tea55> // **** Map Reduce ****
```

```
tea55> db.stud.insertOne({Name: 'Ram', Marks:80, Branch:'Computer'})
{
  acknowledged: true,
  insertedId: ObjectId('672ba8e475822592990d8190')
}
tea55> db.stud.insertMany({Name:'Ravi', Marks:90, Branch:'Computer'} ,
{Name:'Rahul', Marks:70, Branch:'IT'}, {Name: 'Sachin', Marks:60, Branch:'IT'})
MongoInvalidArgumentError: Argument "docs" must be an array of documents
tea55> db.stud.insertMany([{Name:'Ravi', Marks:90, Branch:'Computer'} ,
{Name:'Rahul', Marks:70, Branch:'IT'}, {Name: 'Sachin', Marks:60, Branch:'IT'}])
```

```
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('672ba98d75822592990d8191'),
    '1': ObjectId('672ba98d75822592990d8192'),
    '2': ObjectId('672ba98d75822592990d8193')
  }
}
```

```

}
tea55> db.stud.find()
[
  {
    _id: ObjectId('672ba8e475822592990d8190'),
    Name: 'Ram',
    Marks: 80,
    Branch: 'Computer'
  },
  {
    _id: ObjectId('672ba98d75822592990d8191'),
    Name: 'Ravi',
    Marks: 90,
    Branch: 'Computer'
  },
  {
    _id: ObjectId('672ba98d75822592990d8192'),
    Name: 'Rahul',
    Marks: 70,
    Branch: 'IT'
  },
  {
    _id: ObjectId('672ba98d75822592990d8193'),
    Name: 'Sachin',
    Marks: 60,
    Branch: 'IT'
  }
]
tea55> db.stud.mapReduce(function(){emit(this.Branch, this.Marks);}, function(key,
values){return Array.sum(values)}), {query:{"Marks":{$gt:60}} , out:"Total_Marks"});
DeprecationWarning: Collection.mapReduce() is deprecated. Use an aggregation
instead.
See https://docs.mongodb.com/manual/core/map-reduce for details.
{ result: 'Total_Marks', ok: 1 }
tea55> show collections
stud
students
teachers
test collection
Total_Marks
tea55> db.Total_Marks.find().pretty()
[ { _id: 'Computer', value: 170 }, { _id: 'IT', value: 70 } ]
tea55> // ***** 2nd reduce function *****

tea55> db.stud.mapReduce(function(){emit(this.Branch, this.Marks);}, function(key,
values){return Array.avg(values)}), {query:{"Marks":{$gt:60}} , out:"Avg_Marks" });
{ result: 'Avg_Marks', ok: 1 }
tea55> show collections
Avg_Marks
stud

```

```
students
teachers
test collection
Total_Marks
tea55> db.Avg_Marks.find()
[ { _id: 'IT', value: 70 }, { _id: 'Computer', value: 85 } ]
tea55> db.stud.mapReduce(function(){emit(this.Branch, this.Marks)}, function(key,
values){return Array.avg(values)}, {query:{Marks:{$gt:60}} , out:"Avg_Marks2" });
{ result: 'Avg_Marks2', ok: 1 }
tea55> show collections
Avg_Marks
Avg_Marks2
stud
students
teachers
test collection
Total_Marks
tea55>
```