

Microsoft Windows [Version 10.0.22621.2361]  
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C:\Users\santo>mongosh

Current Mongosh Log ID: 652f5a50aa597a46f96bdbfd

Connecting

to: mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionT  
imeoutMS=2000&appName=mongosh+2.0.1

Using MongoDB: 7.0.1

Using Mongosh: 2.0.1

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

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The server generated these startup warnings when booting  
2023-10-12T21:28:28.099+05:30: Access control is not enabled for the  
database. Read and write access to data and configuration is unrestricted

-----

test> use mapReduce

switched to db mapReduce

mapReduce> db.student.insertOne({"Rno" : 1, "Name" : "A", "Dept" : "Civil",  
"Marks" : 55 })

```
{
  acknowledged: true,
  insertedId: ObjectId("652f5addaa597a46f96bdbfe")
}
```

mapReduce> db.student.insertMany([{"Rno" : 2, "Name" : "b", "Dept" : "Civil",  
"Marks" : 56 }, {"Rno" : 3, "Name" : "C", "Dept" : "Civil", "Marks" :  
60}, {"Rno" : 4, "Name" : "P", "Dept" : "Comp", "Marks" : 60}, {"Rno" : 5,  
"Name" : "Q", "Dept" : "Comp", "Marks" : 61}, {"Rno" : 6, "Name" : "R", "Dept"  
: "Comp", "Marks" : 61}, {"Rno" : 7, "Name" : "S", "Dept" : "Comp", "Marks" :  
62 }, {"Rno" : 8, "Name" : "L", "Dept" : "Mech", "Marks" : 52 }, {"Rno" : 9,  
"Name" : "M", "Dept" : "Mech", "Marks" : 52 }, {"Rno" : 10, "Name" : "T",  
"Dept" : "Comp", "Marks" : 53 }, {"Rno" : 11, "Name" : "D", "Dept" : "Civil",  
"Marks" : 65 }])

```
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("652f5c47aa597a46f96bdbff"),
    '1': ObjectId("652f5c47aa597a46f96bdc00"),
    '2': ObjectId("652f5c47aa597a46f96bdc01"),
    '3': ObjectId("652f5c47aa597a46f96bdc02"),
    '4': ObjectId("652f5c47aa597a46f96bdc03"),
    '5': ObjectId("652f5c47aa597a46f96bdc04"),
    '6': ObjectId("652f5c47aa597a46f96bdc05"),
    '7': ObjectId("652f5c47aa597a46f96bdc06"),
    '8': ObjectId("652f5c47aa597a46f96bdc07"),
  }
}
```

```
    '9': ObjectId("652f5c47aa597a46f96bdc08")
  }
}
mapReduce> db.student.find({}).pretty()
[
  {
    _id: ObjectId("652f5addaa597a46f96bdbbfe"),
    Rno: 1,
    Name: 'A',
    Dept: 'Civil',
    Marks: 55
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdbbff"),
    Rno: 2,
    Name: 'b',
    Dept: 'Civil',
    Marks: 56
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdc00"),
    Rno: 3,
    Name: 'C',
    Dept: 'Civil',
    Marks: 60
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdc01"),
    Rno: 4,
    Name: 'P',
    Dept: 'Comp',
    Marks: 60
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdc02"),
    Rno: 5,
    Name: 'Q',
    Dept: 'Comp',
    Marks: 61
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdc03"),
    Rno: 6,
    Name: 'R',
    Dept: 'Comp',
    Marks: 61
  },
  {
```

```

    _id: ObjectId("652f5c47aa597a46f96bdc04"),
    Rno: 7,
    Name: 'S',
    Dept: 'Comp',
    Marks: 62
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdc05"),
    Rno: 8,
    Name: 'L',
    Dept: 'Mech',
    Marks: 52
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdc06"),
    Rno: 9,
    Name: 'M',
    Dept: 'Mech',
    Marks: 52
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdc07"),
    Rno: 10,
    Name: 'T',
    Dept: 'Comp',
    Marks: 53
  },
  {
    _id: ObjectId("652f5c47aa597a46f96bdc08"),
    Rno: 11,
    Name: 'D',
    Dept: 'Civil',
    Marks: 65
  }
]

```

```
mapReduce> var stud_Map = function(){emit(this.Rno,this.Marks)}
```

```
mapReduce> var stud_Reduce = function(key,values){return Array.sum(values)}
```

```
mapReduce> db.student.mapReduce(stud_Map,stud_Reduce,{ 'out': 'Student_Result' })
```

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

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

```
{ result: 'Student_Result', ok: 1 }
```

```
mapReduce> db.student.find({}).pretty()
```

```
[
  {
```

```
_id: ObjectId("652f5addaa597a46f96bdbfe"),
Rno: 1,
Name: 'A',
Dept: 'Civil',
Marks: 55
},
{
  _id: ObjectId("652f5c47aa597a46f96bdbff"),
  Rno: 2,
  Name: 'b',
  Dept: 'Civil',
  Marks: 56
},
{
  _id: ObjectId("652f5c47aa597a46f96bdc00"),
  Rno: 3,
  Name: 'C',
  Dept: 'Civil',
  Marks: 60
},
{
  _id: ObjectId("652f5c47aa597a46f96bdc01"),
  Rno: 4,
  Name: 'P',
  Dept: 'Comp',
  Marks: 60
},
{
  _id: ObjectId("652f5c47aa597a46f96bdc02"),
  Rno: 5,
  Name: 'Q',
  Dept: 'Comp',
  Marks: 61
},
{
  _id: ObjectId("652f5c47aa597a46f96bdc03"),
  Rno: 6,
  Name: 'R',
  Dept: 'Comp',
  Marks: 61
},
{
  _id: ObjectId("652f5c47aa597a46f96bdc04"),
  Rno: 7,
  Name: 'S',
  Dept: 'Comp',
  Marks: 62
},
}
```

```

{
  _id: ObjectId("652f5c47aa597a46f96bdc05"),
  Rno: 8,
  Name: 'L',
  Dept: 'Mech',
  Marks: 52
},
{
  _id: ObjectId("652f5c47aa597a46f96bdc06"),
  Rno: 9,
  Name: 'M',
  Dept: 'Mech',
  Marks: 52
},
{
  _id: ObjectId("652f5c47aa597a46f96bdc07"),
  Rno: 10,
  Name: 'T',
  Dept: 'Comp',
  Marks: 53
},
{
  _id: ObjectId("652f5c47aa597a46f96bdc08"),
  Rno: 11,
  Name: 'D',
  Dept: 'Civil',
  Marks: 65
}
]

mapReduce> db.student.mapReduce(stud_Map,stud_Reduce,{ 'out': 'Student_Result' })
{ result: 'Student_Result', ok: 1 }
mapReduce> db.Student_Result.find({})
[
  { _id: 6, value: 61 },
  { _id: 1, value: 55 },
  { _id: 2, value: 56 },
  { _id: 7, value: 62 },
  { _id: 4, value: 60 },
  { _id: 9, value: 52 },
  { _id: 3, value: 60 },
  { _id: 5, value: 61 },
  { _id: 10, value: 53 },
  { _id: 11, value: 65 },
  { _id: 8, value: 52 }
]

```

```
mapReduce> db.student.mapReduce(stud_Map,stud_Reduce,{ query:{Dept:"Civil"},
out:'Student_Result'})
{ result: 'Student_Result', ok: 1 }
mapReduce> db.Student_Result.find({})
[
  { _id: 2, value: 56 },
  { _id: 1, value: 55 },
  { _id: 11, value: 65 },
  { _id: 3, value: 60 }
]
mapReduce> var stud_Map = function(){emit(this.Dept,this.Marks)}

mapReduce> var stud_Reduce = function(key,values){return Array.sum(values)}

mapReduce> db.student.mapReduce(stud_Map,stud_Reduce,{ 'out': 'Student_Result' }
)
{ result: 'Student_Result', ok: 1 }
mapReduce> db.Student_Result.find({})
[
  { _id: 'Mech', value: 104 },
  { _id: 'Civil', value: 236 },
  { _id: 'Comp', value: 297 }
]
mapReduce>
```