Group B : Lab Assignment no. 12

Title :Implement Map reduces operation with suitable example using MongoDB

dipti@dipti-VPCEG28FN:~$ mongo
MongoDB shell version v3.6.3
connecting to: mongodb://127.0.0.1:27017
MongoDB server version: 3.6.3
Server has startup warnings:
2020-10-15T14:26:28.786+0530 I STORAGE [initandlisten]
2020-10-15T14:26:28.786+0530 I STORAGE [initandlisten] ** WARNING:
Using the XFS filesystem is strongly recommended with the WiredTiger storage
engine
2020-10-15T14:26:28.786+0530 I STORAGE [initandlisten] **   See
http://dochub.mongodb.org/core/prodnotes-filesystem
2020-10-15T14:26:36.417+0530 I CONTROL [initandlisten]
2020-10-15T14:26:36.417+0530 I CONTROL [initandlisten] ** WARNING:
Access control is not enabled for the database.
2020-10-15T14:26:36.417+0530 I CONTROL [initandlisten] **   Read and
write access to data and configuration is unrestricted.
2020-10-15T14:26:36.417+0530 I CONTROL [initandlisten]
> use dbs;
switched to db dbs
> db.createCollection('Journal');
{ "ok" : 1 }
> db.Journal.insert({'book_id':1,'book_name':'JavacdOOP','amt':500,'status':'A
vailable'});
WriteResult({ "nInserted" : 1 })
> db.Journal.insert({'book_id':1,'book_name':'JavaOOP','amt':400,'status':'Not
Available'});
WriteResult({ "nInserted" : 1 })
> db.Journal.insert({'book_id':1,'book_name':'Java','amt':300,'s
tatus':'Not Available'});
WriteResult({ "nInserted" : 1 })
> db.Journal.insert({'book_id':2,'book_name':'Java','amt':300,'s
tatus':'Available'});
WriteResult({ "nInserted" : 1 })
> db.Journal.insert({'book_id':2,'book_name':'OPP','amt':200,'st
atus':'Available'});
WriteResult({ "nInserted" : 1 })
>
db.Journal.insert({'book_id':2,'book_name':'C+','amt':200,'status':'Ava
ilable'});
WriteResult({ "nInserted" : 1 })

```
>
db.Journal.insert({'book_id':3,'book_name':'C+','amt':150,'status':'Ava
ilable'});
WriteResult({ "nInserted" : 1 })
 db.Journal.insert({'book_id':4,'book_name':'OPP
 C++','amt':300,'status':'Not Available'});
 WriteResult({ "nInserted" : 1 })
 > db.Journal.insert({'book_id':5,'book_name':'OPP
 C++','amt':400,'status':'Available'}
 ... );
WriteResult({ "nInserted" : 1 })
 >
 db.Journal.insert({'book_id':5,'book_name':'C++','amt':400,'status':'Av
 ailable'});
 WriteResult({ "nInserted" : 1 })
 > db.Journal.insert({'book_id':5,'book_name':'C++
 Java','amt':400,'status':'Not Available'});
 WriteResult({ "nInserted" : 1 })
 > var mapfunction=function(){ emit(this.book_id,this.amt)};
> var reducefunction=function(key,value){return Array.sum(value);};
 > db.Journal.mapReduce(mapfunction,reducefunction, {'out':'new'});
 {
      "result" : "new",
      "timeMillis" : 919,
      "counts" : {
           "input" : 14,
           "emit" : 14,
           "reduce" : 4,
           "output" : 5
      },
      "ok" : 1
 }
 > db.Journal.mapReduce(mapfunction,reducefunction,
 {'out':'new'}).find().pretty();
 { "_id" : 1, "value" : 1200 }
 { "_id" : 2, "value" : 1100 }
 { "_id" : 3, "value" : 350 }
 { "_id" : 4, "value" : 300 }
 { "_id" : 5, "value" : 1200 }
```

```
> db.new.find().pretty();
{ "_id" : 1, "value" : 1200 }
{ "_id" : 2, "value" : 1100 }
{ "_id" : 3, "value" : 350 }
{ "_id" : 4, "value" : 300 }
{ "_id" : 5, "value" : 1200 }
>
```