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 Abhi
switched to db Abhi

> db.createCollection('Journal');
{ "ok" : 1 }

>db.Journal.insert({'book_id':1,'book_name':'JavacdOOP','amt':500,'status':'Available'});
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,'status':'Not Available'});
WriteResult({ "nInserted" : 1 })

>db.Journal.insert({'book_id':2,'book_name':'Java','amt':300,'status':'Available'});
WriteResult({ "nInserted" : 1 })>

>db.Journal.insert({'book_id':2,'book_name':'OPP','amt':200,'status':'Available'});
WriteResult({ "nInserted" : 1 })

>db.Journal.insert({'book_id':2,'book_name':'C+','amt':200,'status':'Available'});
WriteResult({ "nInserted" : 1 })

>db.Journal.insert({'book_id':3,'book_name':'C+','amt':150,'status':'Available'});
WriteResult({ "nInserted" : 1 })

> db.Journal.insert({'book_id':3,'book_name':'C++','amt':200,'status':'Not Available'});
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':'Available'});
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" : 49,"counts" : {
"input" : 12,
"emit" : 12,
"reduce" : 4,
"output" : 5
},
"ok" : 1
}

> db.Journal.mapReduce(mapfunction,reducefunction,
{'out':'new'}).find().pretty();
{ "_id" : 1, "value" : 1200 }
{ "_id" : 2, "value" : 700 }
{ "_id" : 3, "value" : 350 }
{ "_id" : 4, "value" : 300 }
{ "_id" : 5, "value" : 1200 }
>
>
> db.new.find().pretty();
{ "_id" : 1, "value" : 1200 }
{ "_id" : 2, "value" : 700 }
{ "_id" : 3, "value" : 350 }
{ "_id" : 4, "value" : 300 }
{ "_id" : 5, "value" : 1200 }
>
```