Group B : Lab Assignment no. 11

**Title :Implement Map reduces operation with suitable example using MongoDB**

**prashant@prashant-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**](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':'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':'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 }**

**>**