**CO5**

**1.In database Employee.**

> db.empdetails.update({Name:"mohan"},{$set:{dept:"designer"}});

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.empdetails.update({Name:"raju"},{$set:{dept:"tester"}});

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.empdetails.update({Name:"sithara"},{$set:{dept:"tester"}});

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.empdetails.update({Name:"sithara"},{$set:{dept:"designer"}});

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.empdetails.update({Name:"swetha"},{$set:{dept:"tester"}});

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

**1. find the average salary of each dept.**

> db.empdetails.aggregate([{$group:{\_id:"$dept","Avg\_salary":{$avg:"$salary"}}}]);

{ "\_id" : "designer", "Avg\_salary" : 22000 }

{ "\_id" : "devoleper", "Avg\_salary" : 92000 }

{ "\_id" : "tester", "Avg\_salary" : 54000 }

**2. find the minimum salary of each dept.**

> db.empdetails.aggregate([{$group:{\_id:"$dept","Min\_salary":{$min:"$salary"}}}]);

{ "\_id" : "devoleper", "Min\_salary" : 92000 }

{ "\_id" : "designer", "Min\_salary" : 12000 }

{ "\_id" : "tester", "Min\_salary" : 16000 }

**3. find the maximum salary of each dept.**

> db.empdetails.aggregate([{$group:{\_id:"$dept","Max\_salary":{$max:"$salary"}}}]);

{ "\_id" : "designer", "Max\_salary" : 32000 }

{ "\_id" : "devoleper", "Max\_salary" : 92000 }

{ "\_id" : "tester", "Max\_salary" : 92000 }

**4. find the no.of employees of each dept.**

> db.empdetails.aggregate([{$group:{\_id:"$dept","No of employees":{$sum:1}}}]);

{ "\_id" : "designer", "No of employees" : 2 }

{ "\_id" : "devoleper", "No of employees" : 1 }

{ "\_id" : "tester", "No of employees" : 2 }

**5. sort the collection empDetails in descending order of name**

> db.empdetails.find().sort({Name:-1});

{ "\_id" : ObjectId("629adae05983f0df59580db7"), "Name" : "swetha", "Age" : 22, "email" : "swetha@gmail.com", "phone" : 96565950, "salary" : 16000, "dept" : "tester" }

{ "\_id" : ObjectId("629f0d27741bf15e2bb75110"), "Name" : "sithara", "Age" : 22, "email" : "sithara@gmail.com", "phone" : 96568950, "salary" : 12000, "dept" : "designer" }

{ "\_id" : ObjectId("629ada965983f0df59580db5"), "Name" : "raju", "Age" : 24, "email" : "raju@gmail.com", "phone" : 96568950, "salary" : 92000, "dept" : "tester" }

{ "\_id" : ObjectId("629ada2a5983f0df59580db3"), "Name" : "mohan", "Age" : 57, "email" : "neil@gmail.com", "phone" : 76568950, "salary" : 32000, "dept" : "designer" }

{ "\_id" : ObjectId("629ada665983f0df59580db4"), "Name" : "bhuvan", "Age" : 23, "email" : "bhuvan@gmail.com", "phone" : 76568950, "salary" : 92000, "dept" : "devoleper"

**6. Create a text index for ‘name’ and search for names mohan and bhuvan**

> db.empdetails.find({$text:{$search:"mohan bhuvan"}});

{ "\_id" : ObjectId("629ada665983f0df59580db4"), "Name" : "bhuvan", "Age" : 23, "email" : "bhuvan@gmail.com", "phone" : 76568950, "salary" : 92000, "dept" : "devoleper" }

{ "\_id" : ObjectId("629ada2a5983f0df59580db3"), "Name" : "mohan", "Age" : 57, "email" : "neil@gmail.com", "phone" : 76568950, "salary" : 32000, "dept" : "designer" }

**2.create a database Inventory and create an orders collection. Apply MapReduce operation for finding the total purchase of each customer.**

> use inventory

switched to db inventory

> db.createCollection("order");

{ "ok" : 1 }

> db.order.insert({custid:200,name:"maya",item:"rice",price:340})

WriteResult({ "nInserted" : 1 })

> db.order.insert({custid:200,name:"maya",item:"wheat",price:250})

WriteResult({ "nInserted" : 1 })

> db.order.insert({custid:201,name:"manju",item:"sugar",price:340})

WriteResult({ "nInserted" : 1 })

> db.order.insert({custid:201,name:"manju",item:"wheat",price:340})

WriteResult({ "nInserted" : 1 })

> db.order.insert({custid:202,name:"meera",item:"wheat",price:250})

WriteResult({ "nInserted" : 1 })

> db.order.find()

{ "\_id" : ObjectId("629f1685741bf15e2bb75111"), "custid" : 200, "name" : "maya", "item" : "rice", "price" : 340 }

{ "\_id" : ObjectId("629f169a741bf15e2bb75112"), "custid" : 200, "name" : "maya", "item" : "wheat", "price" : 250 }

{ "\_id" : ObjectId("629f16c8741bf15e2bb75113"), "custid" : 201, "name" : "manju", "item" : "sugar", "price" : 340 }

{ "\_id" : ObjectId("629f173c741bf15e2bb75114"), "custid" : 201, "name" : "manju", "item" : "wheat", "price" : 340 }

{ "\_id" : ObjectId("629f17ce741bf15e2bb75115"), "custid" : 202, "name" : "meera", "item" : "wheat", "price" : 250 }

> var mapfunction1=function(){emit(this.custid,this.price);};

> var reducefunction1=function(key,values){return Array.sum(values);};

> db.order.mapReduce(mapfunction1,reducefunction1,{'out':"map\_example"});

{ "result" : "map\_example", "ok" : 1 **}**

> db.map\_example.find();

{ "\_id" : 201, "value" : 680 }

{ "\_id" : 202, "value" : 250 }

{ "\_id" : 200, "value" : 590 }

> var mapfunction1=function(){emit(this.custid,this.price);};

> var reducefunction1=function(key,values){return Array.avg(values);};

> db.order.mapReduce(mapfunction1,reducefunction1,{query:{custid:{$gt:201}},out:"map\_example1"});

{ "result" : "map\_example1", "ok" : 1 }

> db.map\_example1.find()

{ "\_id" : 202, "value" : 250 }