

4 A]. use assignment1

```
db.createCollection("books")
db.books.save({_id:1,Category:"Machine Learning",BookName:"Machine Learning for
Hackers",Author:"Drew Conway",qty:25,price:400,rol:30,pages:350})
db.books.save({_id:2,Category:"Business Intelligence",BookName:"Fundamentals of Business
Analytics",Author:"Seema Acharya",qty:55,price:500,rol:30,pages:250})
db.books.save({_id:3,Category:"Analytics",BookName:"Competing on
Analytics",Author:"Thomas",qty:8,price:150,rol:20,pages:150})
db.books.save({_id:4,Category:"Visualisation",BookName:"Visualising Data",Author:"Ben
Fry",qty:12,price:325,rol:6,pages:450})
db.books.save({_id:5,Category:"Web Mining",BookName:"Learning
R",Author:"Richard",qty:6,price:850,rol:10,pages:120})
db.books.find()
var map = function(){
  var category;
  if(this.pages>=300)
    category = "Big books"
  else
    category = "Small Books"
  emit(category, {
    Bookname : this.Bookname});
}
var reduce = function(key, values){
  return values.length
};

db.books.mapReduce(map, reduce, {out: "Bookcategory"})
db.Bookcategory.find()
```

4(b).

```
show dbs
use test
db.data.find()
db.data.aggregate([
  { $group : { _id: null, sum: { $sum: "$age" } } }
])
db.data.aggregate([
  { $group : { _id: "Avg of income", avg: { $avg: "$income" } } }
])
```

array

```
use arr
db.createCollection("Country")
db.Country.insert({_id:1,Cities:["Bangalore","Chennai"]})
db.Country.insert({_id:2,Cities:["Hyderabad","Mumbai","Delhi"]})
db.Country.insert({_id:3,Cities:["rajamundry","jamshedpur","Jodhpur"]})
db.Country.find()
db.Country.update({_id:1},{ $push:{population:{Bangalore:30,Chennai:45}}})
db.Country.find()
```

```
db.Country.update({_id:3},{ $pop:{Cities:1}})
db.Country.find()
db.Country.update({Cities:"Hyderabad"},{ $pull:{Cities:'Hyderabad'}})
db.Country.find()
db.Country.update({_id:1},{ $set:{'Cities.2':'Srinagar'}})
db.Country.update({_id:2},{ $addToSet:{Cities:"Trichi"}})
db.Country.find()
```