Program 4

```
use myDB
drop database myDB
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:12,price:325,rol:6,pages:120});

db.books.find()
```

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books 0.001 sec.

	_id	Category	BookName	Author	qty	price	rol	pages
1	1.0	Machine ...	Machine ...	Drew Conway	25.0	400.0	30.0	350.0
2	2.0	Business ...	Fundamenta...	Seema ...	55.0	500.0	30.0	250.0
3	3.0	Analytics	Competing ...	Thomas	8.0	150.0	20.0	150.0
4	4.0	Visualisation	Visualising ...	Ben Fry	12.0	325.0	6.0	450.0
5	5.0	Web Mining	Learning R	Richard	12.0	325.0	6.0	120.0

```
db.books.mapReduce(
    function() {
        let key = null, value = null;
        if(this.pages >= 300){
            key = "Big books";
            value = this.pages;
        }
        else{
            key = "Small books";
            value = this.pages;
        }
        emit(key, value);
    },
    function(key, values){
        return values.length;
    },
    {
        out: "Book_Records"
    }
);
db.Book_Records.find()
```

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Book_Records 0.001 sec.

	_id	value
1	Big books	2.0
2	Small books	3.0

```
> use mongoDB
switched to db mongoDB
> db.createCollection("MongodbHandsOn")
{ "ok" : 1 }
> mongoimport -d mongoDB -c MongodbHandsOn --type csv --file bank-data.csv --headerline
2020-10-15T20:49:43.943+0530 E QUERY    [js] SyntaxError: missing ; before statement @(shell):1:15
> quit()

C:\Program Files\MongoDB\Server\4.0\bin>mongoimport -d mongoDB -c  MongoDBHandsOn --type csv --headerline --file "bank-d
ata.csv"
2020-10-15T21:06:33.033+0530    connected to: localhost
2020-10-15T21:06:33.052+0530    imported 600 documents
```

```
db.MongoDBHandsOn.aggregate([
    { $group : { _id: null, sum: {$sum:"$children"} } }
])
db.MongoDBHandsOn.aggregate([
    { $group : { _id: "Avg of Age", avg: {$avg:"$age"} } }
])
```

MongoDBHandsOn 0.002 sec.

	_id	sum
1	null	607

MongoDBHandsOn 0.003 sec.

Key	Value	Type
(1) Avg of Age	{ 2 fields }	Object
_id	Avg of Age	String
avg	42.395	Double

```
use myDB
db.createCollection("Country")

db.Country.insert({_id:1,Cities:["Delhi","Banglore"]})
db.Country.insert({_id:2,Cities:["Chennai","Mumbai","Ranchi"]})
db.Country.insert({_id:3,Cities:["Pune","Rajkot","Hyderabad"]})

db.Country.find()
```

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Country 0.001 sec.

Key	Value	Type
(1) 1.0	{ 2 fields }	Object
_id	1.0	Double
Cities	[2 elements]	Array
(2) 2.0	{ 2 fields }	Object
_id	2.0	Double
Cities	[3 elements]	Array
(3) 3.0	{ 2 fields }	Object
_id	3.0	Double
Cities	[3 elements]	Array

```
db.Country.find().limit(1)
db.Country.find().skip(2).limit(2)
```

Country 0.002 sec.

Key	Value	Type
(1) 1.0	{ 2 fields }	Object
_id	1.0	Double
Cities	[2 elements]	Array
[0]	Delhi	String
[1]	Banglore	String

Country 0 sec.

Key	Value	Type
(1) 3.0	{ 2 fields }	Object
_id	3.0	Double
Cities	[3 elements]	Array
[0]	Pune	String
[1]	Rajkot	String
[2]	Hyderabad	String

```
db.Country.update({_id:1},{$push:{population:{Delhi:30,Banglore:45}}})
db.Country.find()

db.Country.update({_id:3},{$pop:{Cities:1}})
db.Country.find()
```

db.Country.. | db.Country.. | db.Country.. | db.Country..

Country 0.002 sec.

Key	Value	Type
(1) 1.0	{ 3 fields }	Object
_id	1.0	Double
Cities	[2 elements]	Array
population	[1 element]	Array
[0]	{ 2 fields }	Object
Delhi	30.0	Double
Banglore	45.0	Double
(2) 2.0	{ 2 fields }	Object
(3) 3.0	{ 2 fields }	Object
_id	3.0	Double
Cities	[2 elements]	Array
[0]	Pune	String
[1]	Rajkot	String

```
db.Country.update({Cities:"Chennai"},{$pull:{Cities:'Chennai'}})
db.Country.find()

db.Country.update({_id:1},{$set:{'Cities.2':'Srinagar'}})
db.Country.update({_id:2},{$addToSet:{Cities:"Mysore"}})
db.Country.find()
```

db.Country.. | db.Country.. | db.Country.. | db.Country.. | db.Country..

Country 0 sec.

Key	Value	Type
Cities	[3 elements]	Array
[0]	Delhi	String
[1]	Banglore	String
[2]	Srinagar	String
population	[1 element]	Array
(2) 2.0	{ 2 fields }	Object
_id	2.0	Double
Cities	[3 elements]	Array
[0]	Mumbai	String
[1]	Ranchi	String
[2]	Mysore	String
(3) 3.0	{ 2 fields }	Object
_id	3.0	Double
Cities	[2 elements]	Array
[0]	Pune	String
[1]	Rajkot	String