

Name:SHYAM.R  
Usn:1NT20IS413  
Subject:BIGDATA LAB

```
db.shyam20is413.insert({"Name":"Lord of the  
rings","Book_id":"B01","Book_Author":"JRR","Publication_year":"2000","Genere":"fantasy","  
No_of_copies":"3","Review":"Excellent"});
```

```
WriteResult({ "nInserted" : 1 })
```

>

```
db.shyam20is413.insert({"Name":"thor","Book_id":"B14","Book_Author":"stanly","Publication  
_year":"2011","Genere":"history","No_of_copies":"3","Review":"Excellent"});
```

```
WriteResult({ "nInserted" : 1 })
```

>

```
db.shyam20is413.insert({"Name":"loki","Book_id":"B15","Book_Author":"stanly","Publication  
_year":"2009","Genere":"history","No_of_copies":"3","Review":"Excellent"});
```

```
WriteResult({ "nInserted" : 1 })
```

```
> db.shyam20is413.find()
```

```
{ "_id" : ObjectId("62aee693cfeb0e57327f264b"), "Name" : "Lord of the rings", "Book_id" :  
"B01", "Book_Author" : "JRR", "Publication_year" : "2000", "Genere" : "fantasy",  
"No_of_copies" : "3", "Review" : "Excellent" }
```

```
{ "_id" : ObjectId("62aee6c4d39399c1e5b0d579"), "Name" : "Lord of the rings", "Book_id" :  
"B01", "Book_Author" : "JRR", "Publication_year" : "2000", "Genere" : "fantasy",  
"No_of_copies" : "3", "Review" : "Excellent" }
```

```
{ "_id" : ObjectId("62aee855d39399c1e5b0d57a"), "Name" : "The hobbit", "Book_id" : "B02",  
"Book_Author" : "rowly", "Publication_year" : "2001", "Genere" : "fantasy", "No_of_copies" :  
"2", "Review" : "Average" }
```

```
{ "_id" : ObjectId("62aee8c5d39399c1e5b0d57b"), "Name" : "the devil", "Book_id" : "B03",  
"Book_Author" : "jerry", "Publication_year" : "2002", "Genere" : "horror", "No_of_copies" :  
"2", "Review" : "Excellent" }
```

```
{ "_id" : ObjectId("62aee941d39399c1e5b0d57c"), "Name" : "avengers", "Book_id" : "B04",  
"Book_Author" : "stalin", "Publication_year" : "2003", "Genere" : "adventure", "No_of_copies" :  
"3", "Review" : "Excellent" }
```

```
{ "_id" : ObjectId("62aee99bd39399c1e5b0d57d"), "Name" : "iron man", "Book_id" : "B04",  
"Book_Author" : "stalin", "Publication_year" : "2004", "Genere" : "adventure", "No_of_copies" :  
"3", "Review" : "Average" }
```

{ "\_id" : ObjectId("62aee9fed39399c1e5b0d57e"), "Name" : "The batman", "Book\_id" : "B05",  
"Book\_Author" : "rowling", "Publication\_year" : "2005", "Genre" : "adventure",  
"No\_of\_copies" : "3", "Review" : "Excellent" }

{ "\_id" : ObjectId("62aeea4ed39399c1e5b0d57f"), "Name" : "Wonderwomen", "Book\_id" :  
"B06", "Book\_Author" : "Hawkin", "Publication\_year" : "2005", "Genre" : "adventure",  
"No\_of\_copies" : "3", "Review" : "Excellent" }

{ "\_id" : ObjectId("62aeea98d39399c1e5b0d580"), "Name" : "The might love", "Book\_id" :  
"B07", "Book\_Author" : "Js john", "Publication\_year" : "2006", "Genre" : "adventure",  
"No\_of\_copies" : "3", "Review" : "Good" }

{ "\_id" : ObjectId("62aeeadd39399c1e5b0d581"), "Name" : "The lone guy", "Book\_id" :  
"B08", "Book\_Author" : "kennady", "Publication\_year" : "2007", "Genre" : "fantasy",  
"No\_of\_copies" : "2", "Review" : "Good" }

{ "\_id" : ObjectId("62aeeb37d39399c1e5b0d582"), "Name" : "Moon Knight", "Book\_id" :  
"B09", "Book\_Author" : "joseph", "Publication\_year" : "2008", "Genre" : "History",  
"No\_of\_copies" : "3", "Review" : "Good" }

{ "\_id" : ObjectId("62aeeb94d39399c1e5b0d583"), "Name" : "The Philosophy of love",  
"Book\_id" : "B10", "Book\_Author" : "kennath", "Publication\_year" : "2009", "Genre" :  
"romance", "No\_of\_copies" : "3", "Review" : "Bad" }

{ "\_id" : ObjectId("62aeebfdd39399c1e5b0d584"), "Name" : "captain steves adventure",  
"Book\_id" : "B11", "Book\_Author" : "stanly", "Publication\_year" : "1995", "Genre" :  
"adventure", "No\_of\_copies" : "3", "Review" : "Excellent" }

{ "\_id" : ObjectId("62aeec73d39399c1e5b0d585"), "Name" : "captain steves adventure",  
"Book\_id" : "B11", "Book\_Author" : "stanly", "Publication\_year" : "1995", "Genre" :  
"adventure", "No\_of\_copies" : "3", "Review" : "Excellent" }

{ "\_id" : ObjectId("62aeedd6bff9c0a6eddc2571"), "Name" : "the desert", "Book\_id" : "B13",  
"Book\_Author" : "steve", "Publication\_year" : "2010", "Genre" : "history", "No\_of\_copies" :  
"3", "Review" : "good" }

{ "\_id" : ObjectId("62aeee1dbff9c0a6eddc2572"), "Name" : "thor", "Book\_id" : "B14",  
"Book\_Author" : "stanly", "Publication\_year" : "2011", "Genre" : "history", "No\_of\_copies" :  
"3", "Review" : "Excellent" }

{ "\_id" : ObjectId("62aeee48bff9c0a6eddc2573"), "Name" : "loki", "Book\_id" : "B15",  
"Book\_Author" : "stanly", "Publication\_year" : "2009", "Genre" : "history", "No\_of\_copies" :  
"3", "Review" : "Excellent" }

>

```

> db.shyam20is413.find(
{
  "_id" : ObjectId("62aee693cf27f264b"), "Name" : "Lord of the rings", "Book_id" : "B01", "Book_Author" : "JRR", "Publication_year" : "2000", "Genre" : "fantasy",
  "No_of_copies" : "3", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aee6c4d39399c1e5b0d579"), "Name" : "Lord of the rings", "Book_id" : "B01", "Book_Author" : "JRR", "Publication_year" : "2000", "Genre" : "fantasy",
  "No_of_copies" : "3", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aee855d39399c1e5b0d57a"), "Name" : "The hobbit", "Book_id" : "B02", "Book_Author" : "rowly", "Publication_year" : "2001", "Genre" : "fantasy", "No_of_copies" : "2", "Review" : "Average" }
{
  "_id" : ObjectId("62aee8c5d39399c1e5b0d57b"), "Name" : "the devil", "Book_id" : "B03", "Book_Author" : "jerry", "Publication_year" : "2002", "Genre" : "horror", "No_of_copies" : "2", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aee941d39399c1e5b0d57c"), "Name" : "avengers", "Book_id" : "B04", "Book_Author" : "stalin", "Publication_year" : "2003", "Genre" : "adventure", "No_of_copies" : "3", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aee99bd39399c1e5b0d57d"), "Name" : "iron man", "Book_id" : "B04", "Book_Author" : "stalin", "Publication_year" : "2004", "Genre" : "adventure", "No_of_copies" : "3", "Review" : "Average" }
{
  "_id" : ObjectId("62aee9fed39399c1e5b0d57e"), "Name" : "The batman", "Book_id" : "B05", "Book_Author" : "rowling", "Publication_year" : "2005", "Genre" : "adventure", "No_of_copies" : "3", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aee4ed39399c1e5b0d57f"), "Name" : "Wonderwomen", "Book_id" : "B06", "Book_Author" : "Hawkin", "Publication_year" : "2005", "Genre" : "adventure", "No_of_copies" : "3", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aee98d39399c1e5b0d580"), "Name" : "The might love", "Book_id" : "B07", "Book_Author" : "Js john", "Publication_year" : "2006", "Genre" : "adventure", "No_of_copies" : "3", "Review" : "Good" }
{
  "_id" : ObjectId("62aeeadd39399c1e5b0d581"), "Name" : "The lone guy", "Book_id" : "B08", "Book_Author" : "kennady", "Publication_year" : "2007", "Genre" : "fantasy", "No_of_copies" : "2", "Review" : "Good" }
{
  "_id" : ObjectId("62aeeb37d39399c1e5b0d582"), "Name" : "Moon Knight", "Book_id" : "B09", "Book_Author" : "joseph", "Publication_year" : "2008", "Genre" : "History", "No_of_copies" : "3", "Review" : "Good" }
{
  "_id" : ObjectId("62aeeb94d39399c1e5b0d583"), "Name" : "The Philosophy of love", "Book_id" : "B10", "Book_Author" : "kennath", "Publication_year" : "2009", "Genre" : "romance", "No_of_copies" : "3", "Review" : "Bad" }
{
  "_id" : ObjectId("62aeebfdd39399c1e5b0d584"), "Name" : "captain steves adventure", "Book_id" : "B11", "Book_Author" : "stanly", "Publication_year" : "1995", "Genre" : "adventure", "No_of_copies" : "3", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aee73d39399c1e5b0d585"), "Name" : "captain steves adventure", "Book_id" : "B11", "Book_Author" : "stanly", "Publication_year" : "1995", "Genre" : "adventure", "No_of_copies" : "3", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aeeadd6bf9c0a6eddc2571"), "Name" : "the desert", "Book_id" : "B13", "Book_Author" : "steve", "Publication_year" : "2010", "Genre" : "history", "No_of_copies" : "3", "Review" : "good" }
{
  "_id" : ObjectId("62aeee48bf9c0a6eddc2573"), "Name" : "loki", "Book_id" : "B15", "Book_Author" : "stanly", "Publication_year" : "2009", "Genre" : "history", "No_of_copies" : "3", "Review" : "Excellent" }
{
  "_id" : ObjectId("62aeeef8ecf9919b9b085c23"), "Name" : "loki", "Book_id" : "B15", "Book_Author" : "stanly", "Publication_year" : "2009", "Genre" : "fiction", "No_of_copies" : "3", "Review" : "Excellent" }
}
>

```

Activate Windows  
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## Queries

4. Count the number of books whose review is "Average".

```
db.shyam20is413.find({"Review":"Average"}).count()
```

```

>
> db.Books.find({"Review":"Average"}).count()
0
> db.shyam20is413.find({"Review":"Average"}).count()
2
>

```

6. . Delete a book from the database whose Book\_id is B014

```
db.shyam20is413.deleteOne({"Book_id":"B14"});
```

```
{"acknowledged" : true, "deletedCount" : 1 }
```

```

> db.shyam20is413.deleteOne({"Book_id":"B14"});
{ "acknowledged" : true, "deletedCount" : 1 }
>

```

3. List all the books belonging to the Genre Fiction.

```
db.shyam20is413.find({"Genre":"fiction"}).pretty()
{
  "_id" : ObjectId("62aeeef8c1ecf9919b9b085c23"),
  "Name" : "loki",
  "Book_id" : "B15",
  "Book_Author" : "stanly",
  "Publication_year" : "2009",

```

```

    "Genre" : "fiction",
    "No_of_copies" : "3",
    "Review" : "Excellent"
  }

```

```

> db.shyam20is413.find({"Genre":"fiction"}).pretty()
{
  "_id" : ObjectId("62aeef8c1ecf9919b9b85c23"),
  "Name" : "loki",
  "Book_id" : "B15",
  "Book_Author" : "stanly",
  "Publication_year" : "2009",
  "Genre" : "fiction",
  "No_of_copies" : "3",
  "Review" : "Excellent"
}
>

```

10. Apply Map-reduce aggregation function to project the books by their names and find the list of genres.

```

var mapf = function(){ emit(this.Name, this.Genere)}
var reducef = function(key,val) {return Array(val)}
db.shyam20is413.mapReduce(mapf,reducef,{out:"res"});
db.res.find();

```

```

> var mapf = function(){ emit(this.Name, this.Genere)}
> var reducef = function(key,val) {return Array(val)}
> db.shyam20is413.mapReduce(mapf,reducef,{out:"res"});
{ "result" : "res", "ok" : 1 }
> db.res.find();
{ "_id" : "the devil", "value" : [ [ "horror" ] ] }
{ "_id" : "The Philosophy of love", "value" : [ [ "romance" ] ] }
{ "_id" : "captain steves adventure", "value" : [ [ "adventure", "adventure" ] ] }
{ "_id" : "the desert", "value" : [ [ "history" ] ] }
{ "_id" : "loki", "value" : [ [ "fiction", "fiction", "fiction", "fiction", "history" ] ] }
{ "_id" : "avengers", "value" : [ [ "adventure" ] ] }
{ "_id" : "iron man", "value" : [ [ "adventure" ] ] }
{ "_id" : "Lord of the rings", "value" : [ [ "fantasy", "fantasy" ] ] }
{ "_id" : "Moon Knight", "value" : [ [ "History" ] ] }
{ "_id" : "The hobbit", "value" : [ [ "fantasy" ] ] }
{ "_id" : "Wonderwomen", "value" : [ [ "adventure" ] ] }
{ "_id" : "The batman", "value" : [ [ "adventure" ] ] }
{ "_id" : "The might love", "value" : [ [ "adventure" ] ] }
{ "_id" : "The lone guy", "value" : [ [ "fantasy" ] ] }
>

```

```

> var mapf = function(){ emit(this.Name, this.Genere)}
> var reducef = function(key,val) {return Array(val)}
> db.shyam20is413.mapReduce(mapf,reducef,{out:"res"});
{ "result" : "res", "ok" : 1 }
> db.res.find();
{ "_id" : "the devil", "value" : [ [ "horror" ] ] }
{ "_id" : "The Philosophy of love", "value" : [ [ "romance" ] ] }
{ "_id" : "captain steves adventure", "value" : [ [ "adventure", "adventure" ] ] }
{ "_id" : "the desert", "value" : [ [ "history" ] ] }
{ "_id" : "loki", "value" : [ [ "fiction", "fiction", "fiction", "fiction", "history" ] ] }
{ "_id" : "avengers", "value" : [ [ "adventure" ] ] }
{ "_id" : "iron man", "value" : [ [ "adventure" ] ] }
{ "_id" : "Lord of the rings", "value" : [ [ "fantasy", "fantasy" ] ] }
{ "_id" : "Moon Knight", "value" : [ [ "History" ] ] }
{ "_id" : "The hobbit", "value" : [ [ "fantasy" ] ] }
{ "_id" : "Wonderwomen", "value" : [ [ "adventure" ] ] }
{ "_id" : "The batman", "value" : [ [ "adventure" ] ] }
{ "_id" : "The might love", "value" : [ [ "adventure" ] ] }
{ "_id" : "The lone guy", "value" : [ [ "fantasy" ] ] }

```

9. Group all the books by their genre and identify the books with the highest review in each

```

> db.shyam20is413.aggregate([{$group: {_id: "$Genere", Highreview: {$max: "$Review"}}}])
{ "_id" : "fiction", "Highreview" : "Excellent" }
{ "_id" : "fantasy", "Highreview" : "Good" }
{ "_id" : "History", "Highreview" : "Good" }
{ "_id" : "horror", "Highreview" : "Excellent" }
{ "_id" : "adventure", "Highreview" : "Good" }
{ "_id" : "romance", "Highreview" : "Bad" }
{ "_id" : "history", "Highreview" : "good" }
>

```

```

> db.shyam20is413.aggregate([{$group: {_id: "$Genere", Highreview: {$max: "$Review"}}}])
{ "_id" : "fiction", "Highreview" : "Excellent" }
{ "_id" : "fantasy", "Highreview" : "Good" }
{ "_id" : "History", "Highreview" : "Good" }
{ "_id" : "horror", "Highreview" : "Excellent" }
{ "_id" : "adventure", "Highreview" : "Good" }
{ "_id" : "romance", "Highreview" : "Bad" }
{ "_id" : "history", "Highreview" : "good" }
>

```

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7. Update the review of the books to "Excellent" if they have more than 5 copies.

```

db.shyam20is413.updateMany({"No_of_copies": {$gt: "5"}}, {$set: {"Review": "Excellent"}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 0 }

```

```

> db.shyam20is413.updateMany({"No_of_copies": {$gt: "5"}}, {$set: {"Review": "Excellent"}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 0 }
>

```

Activate Windows  
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