TE IT

Name : Omkar Gurav

Roll No : 8048

Implement Map reduce function with suitable example using MongoDB.

The collection books for which the document structure as shown below

db.createCollection("books");

db.books.find();

{ "_id" : ObjectId("5426522c517b30434f6a2bd7"), "name" : "Understanding JAVA", "pages" :

100 }

{ "_id" : ObjectId("54265231517b30434f6a2bd8"), "name" : "Understanding JSON", "pages" :

200 }

{ "_id" : ObjectId("54265249517b30434f6a2bd9"), "name" : "Understanding XML", "pages" :

300 }

{ "_id" : ObjectId("5426525e517b30434f6a2bda"), "name" : "Understanding Web Services",

"pages" : 400 }

{ "_id" : ObjectId("54265272517b30434f6a2bdb"), "name" : "Understanding Axis2", "pages" :

150 }

Using Map Reduce function find the number of books having pages less than 250 pages and greater

than or equal to 250 pages.

```
Command Prompt - mongo                                                        —   □   ✕

> use booksdatabase
switched to db booksdatabase
> db.createCollection("books");
{ "ok" : 1 }
> db.books.insert({ "_id" : ObjectId("5426522c517b30434f6a2bd7"), "name" : "Understanding JAVA", "pages" : 100})
WriteResult({ "nInserted" : 1 })
> db.books.insert({ "_id" : ObjectId("54265231517b30434f6a2bd8"), "name" : "Understanding JSON", "pages" : 200})
WriteResult({ "nInserted" : 1 })
> db.books.insert({ "_id" : ObjectId("54265249517b30434f6a2bd9"), "name" : "Understanding XML", "pages" : 300 })
WriteResult({ "nInserted" : 1 })
> db.books.insert({ "_id" : ObjectId("5426525e517b30434f6a2bda"), "name" : "Understanding Web Services", "pages" : 400 }
)
WriteResult({ "nInserted" : 1 })
> db.books.insert({ "_id" : ObjectId("54265272517b30434f6a2bdb"), "name" : "Understanding Axis2", "pages" : 150 })
WriteResult({ "nInserted" : 1 })
> db.books.find();
{ "_id" : ObjectId("5426522c517b30434f6a2bd7"), "name" : "Understanding JAVA", "pages" : 100 }
{ "_id" : ObjectId("54265231517b30434f6a2bd8"), "name" : "Understanding JSON", "pages" : 200 }
{ "_id" : ObjectId("54265249517b30434f6a2bd9"), "name" : "Understanding XML", "pages" : 300 }
{ "_id" : ObjectId("5426525e517b30434f6a2bda"), "name" : "Understanding Web Services", "pages" : 400 }
{ "_id" : ObjectId("54265272517b30434f6a2bdb"), "name" : "Understanding Axis2", "pages" : 150 }
> var map=function(){emit(this.pages>=250 ? "Greater than or equal to 250 pages":"Less than 250 pages",1);}
> var reduce=function(key, values){return Array.sum(values);}
> db.books.mapReduce(map, reduce, {out:"mapreduce"})
{ "result" : "mapreduce", "ok" : 1 }
> db.mapreduce.find().pretty()
{ "_id" : "Greater than or equal to 250 pages", "value" : 2 }
{ "_id" : "Less than 250 pages", "value" : 3 }
>
```