Group B
Assignment 3
Problem Statement : Implement Map reduces operation with suitable example using MongoDB.

```
test> use Pratik
switched to db Pratik

Pratik> db.createCollection("Journal");
{ ok: 1 }
Pratik>
db.Journal.insert({'book_id':1,'book_name':'JavacdOOP','amt':500,'status'
:'Available'});
DeprecationWarning: Collection.insert() is deprecated. Use insertOne,
insertMany, or bulkWrite.
{
  acknowledged: true,
  insertedIds: { '0': ObjectId('66f2eac600224c6dd9c73bfc') }
}
Pratik>
db.Journal.insertOne({'book_id':1,'book_name':'JavaOOP','amt':400,'status
':'Not available'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2eb2d00224c6dd9c73bfd')
}
Pratik>
db.Journal.insertOne({'book_id':1,'book_name':'Java','amt':300,'status':'
Not available'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2eb4600224c6dd9c73bfe')
}
Pratik>
db.Journal.insertOne({'book_id':2,'book_name':'Java','amt':300,'status':'
Available'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2eb6600224c6dd9c73bff')
}
Pratik>
db.Journal.insertOne({'book_id':2,'book_name':'OOP','amt':200,'status':'A
vailable'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2ebe300224c6dd9c73c00')
}
Pratik>
db.Journal.insertOne({'book_id':2,'book_name':'C+','amt':200,'status':'Av
ailable'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2ec0800224c6dd9c73c01')
}
Pratik>
db.Journal.insertOne({'book_id':3,'book_name':'C+','amt':150,'status':'Av
ailable'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2ec2e00224c6dd9c73c02')
}
```

```
Pratik>
db.Journal.insertOne({'book_id':3,'book_name':'C++','amt':200,'status':'N
ot available'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2ec5e00224c6dd9c73c03')
}
Pratik> db.Journal.insertOne({'book_id':4,'book_name':'OOP
C++','amt':300,'status':'Not available'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2ec7d00224c6dd9c73c04')
}
Pratik> db.Journal.insertOne({'book_id':5,'book_name':'OOP
C++','amt':400,'status':'Available'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2eca300224c6dd9c73c05')
}
Pratik>
db.Journal.insertOne({'book_id':5,'book_name':'C++','amt':400,'status':'A
vailable'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2ed9300224c6dd9c73c06')
}
Pratik> db.Journal.insertOne({'book_id':5,'book_name':'C++
Java','amt':400,'status':'not available'});
{
  acknowledged: true,
  insertedId: ObjectId('66f2edb800224c6dd9c73c07')
}

Pratik> db.Journal.find();
[
  {
    _id: ObjectId('66f2eac600224c6dd9c73bfc'),
    book_id: 1,
    book_name: 'JavacdOOP',
    amt: 500,
    status: 'Available'
  },
  {
    _id: ObjectId('66f2eb2d00224c6dd9c73bfd'),
    book_id: 1,
    book_name: 'JavaOOP',
    amt: 400,
    status: 'Not available'
  },
  {
    _id: ObjectId('66f2eb4600224c6dd9c73bfe'),
    book_id: 1,
    book_name: 'Java',
    amt: 300,
    status: 'Not available'
  },
  {
    _id: ObjectId('66f2eb6600224c6dd9c73bff'),
    book_id: 2,
    book_name: 'Java',
    amt: 300,
    status: 'Available'
```

```
    },
    {
      _id: ObjectId('66f2ebe300224c6dd9c73c00'),
      book_id: 2,
      book_name: 'OOP',
      amt: 200,
      status: 'Available'
    },
    {
      _id: ObjectId('66f2ec0800224c6dd9c73c01'),
      book_id: 2,
      book_name: 'C+',
      amt: 200,
      status: 'Available'
    },
    {
      _id: ObjectId('66f2ec2e00224c6dd9c73c02'),
      book_id: 3,
      book_name: 'C+',
      amt: 150,
      status: 'Available'
    },
    {
      _id: ObjectId('66f2ec5e00224c6dd9c73c03'),
      book_id: 3,
      book_name: 'C++',
      amt: 200,
      status: 'Not available'
    },
    {
      _id: ObjectId('66f2ec7d00224c6dd9c73c04'),
      book_id: 4,
      book_name: 'OOP C++',
      amt: 300,
      status: 'Not available'
    },
    {
      _id: ObjectId('66f2eca300224c6dd9c73c05'),
      book_id: 5,
      book_name: 'OOP C++',
      amt: 400,
      status: 'Available'
    },
    {
      _id: ObjectId('66f2ed9300224c6dd9c73c06'),
      book_id: 5,
      book_name: 'C++',
      amt: 400,
      status: 'Available'
    },
    {
      _id: ObjectId('66f2edb800224c6dd9c73c07'),
      book_id: 5,
      book_name: 'C++ Java',
      amt: 400,
      status: 'not available'
    }
]
```

```
Pratik> var mapfunc = function(){emit(this.book_id,this.amt)};

Pratik> var redfunc = function(key,value){return Array.sum(value);};

Pratik> db.Journal.mapReduce(mapfunc,redfunc,{'out':'new'});
{ result: 'new', ok: 1 }

Pratik> db.new.find().pretty();
[
  { _id: 2, value: 700 },
  { _id: 4, value: 300 },
  { _id: 5, value: 1200 },
  { _id: 1, value: 1200 },
  { _id: 3, value: 350 }
]
```