

Roll No : Te31413

Assignment no 11

Aim : MongoDB Map-reduces operations: Implement Map reduces operation with suitable example using MongoDB.

```
ownDB> db.sales.find()
[
  {
    _id: ObjectId('66f0e61f9b805dfb9a964033'),
    product: 'Widget A',
    category: 'Gadgets',
    sales: 150,
    price: 30,
    status: 'active'
  },
  {
    _id: ObjectId('66f0e61f9b805dfb9a964034'),
    product: 'Widget B',
    category: 'Gadgets',
    sales: 100,
    price: 20,
    status: 'inactive'
  },
  {
    _id: ObjectId('66f0e61f9b805dfb9a964035'),
    product: 'Gadget X',
    category: 'Accessories',
    sales: 300,
    price: 15,
    status: 'active'
  },
  {
    _id: ObjectId('66f0e61f9b805dfb9a964036'),
    product: 'Gadget Y',
    category: 'Accessories',
    sales: 250,
    price: 25,
    status: 'inactive'
  }
]
```

```
db.sales.mapReduce(
function()
{
emit(this.category,this.sales);
},
function(key,value)
{
return Array.sum(values);
```

```

},
{
  query:{status:"active"},
  out:"totalsales"
})

```

```

ownDB> db.sales.mapReduce( function () { emit(this.category, this.sales); }, fun
ction (key, value) { return Array.sum(value); }, { query: { status: "active" },
out: "totalsales" })
{ result: 'totalsales', ok: 1 }
ownDB> db.totalsales.find()
[ { _id: 'Gadgets', value: 150 }, { _id: 'Accessories', value: 300 } ]
ownDB>

```

Min :

```

db.sales.mapReduce(
function()
{
  emit(this.category,this.sales);
},
function(key,value)
{
  return Math.min.apply(null, value);
},
{
  query:{status:"active"},
  out:"minsalary"
})

```

```

ownDB> db.sales.mapReduce(
... function()
... {
...   emit(this.category,this.sales);
... },
... function(key,value)
... {
...   return Math.min.apply(null, value);
... },
... {
...   query:{status:"active"},
...   out:"minsalary"
... })
{ result: 'minsalary', ok: 1 }
ownDB> db.minsalary.find()
[ { _id: 'Gadgets', value: 150 }, { _id: 'Accessories', value: 300 } ]
ownDB>

```

Regex :

```

db.sales.mapReduce(
function()
{
  emit(this.category,this.sales);

```

```
},  
function(key,value)  
{  
return Math.min.apply(null, value);  
},  
{  
query:{status:"active",product:{$regex:/^Widget/}},  
out:"minsalary"  
})
```

```
ownDB> db.sales.mapReduce(  
... function()  
... {  
... emit(this.category,this.sales);  
... },  
... function(key,value)  
... {  
... return Math.min.apply(null, value);  
... },  
... {  
... query:{status:"active",product:{$regex:/^Widget/}},  
... out:"minsalary"  
... })  
{ result: 'minsalary', ok: 1 }  
ownDB> db.minsalary.find()  
[ { _id: 'Gadgets', value: 150 } ]  
ownDB> 
```