DBMSL ASSIGNMENT – 11

Roll No.: 31446

Implement Map reduces operation with suitable example using MongoDB.

INSERT SAMPLE DOCUMENT

```
test> use sales_db
switched to db sales_db

sales_db> db.sales.insertMany([
... { _id: 1, product: "Laptop", price: 60000, quantity: 2 },
... { _id: 2, product: "Mobile", price: 15000, quantity: 5 },
... { _id: 3, product: "Laptop", price: 60000, quantity: 1 },
... { _id: 4, product: "Tablet", price: 25000, quantity: 3 },
... { _id: 5, product: "Mobile", price: 15000, quantity: 2 }
... ])
{
  acknowledged: true,
  insertedIds: { '0': 1, '1': 2, '2': 3, '3': 4, '4': 5 }
}
```

Map Function

```
sales_db> var mapFunction = function() {
... var totalSale = this.price * this.quantity;
... emit(this.product, totalSale);
... };
```

Reduce function

```
sales_db> var reduceFunction = function(key, values){
... return Array.sum(values);
... };
```

mapReduce() function

```
sales_db> db.sales.mapReduce(
... mapFunction,
... reduceFunction,
... {
... out: "total_sales_per_product"
... }
... )
DeprecationWarning: Collection.mapReduce() is deprecated. Use an
aggregation instead.
See https://mongodb.com/docs/manual/core/map-reduce for details.
{ result: 'total_sales_per_product', ok: 1 }
```

RESULT

```
sales_db> db.total_sales_per_product.find()
[
  { _id: 'Tablet', value: 75000 },
  { _id: 'Laptop', value: 180000 },
  { _id: 'Mobile', value: 105000 }
]
```