Assignment 10

Problem Statements:

Using Map-Reduce function comply the following requirements

1. Display the salary of employees department wise

var mapSalary = function() {

emit(this.dname, this.salary);

};

var reduceSalary = function (key, values) {

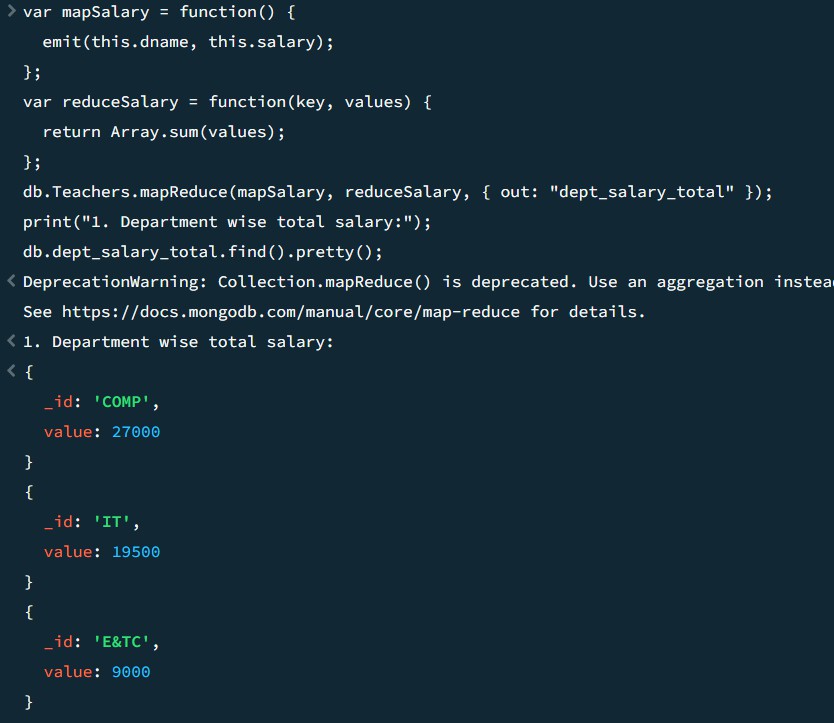
return Array.sum(values);

};

b.Teachers.mapReduce (mapSalary, reduceSalary, { out: "dept\_salary\_total" });

print("1. Department wise total salary:");

db.dept\_salary\_total.find().pretty();



1. Display the count of employees department wise

var mapCount = function() {

emit(this.dname, 1);

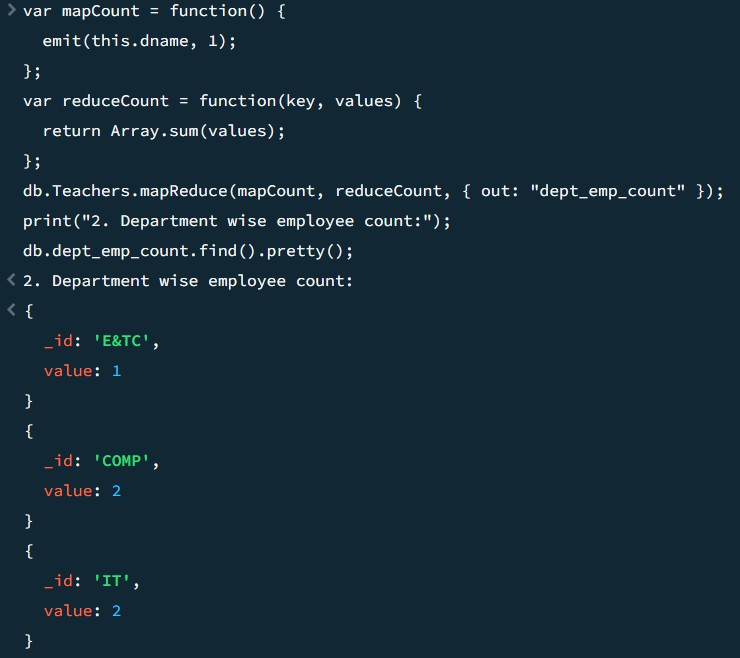
var reduceCount = function (key, values) {

return Array.sum(values);

};

db.Teachers.mapReduce(mapCount, reduceCount, { out: "dept\_emp\_count" });

print("2. Department wise employee count:");

db.dept\_emp\_count.find().pretty();

1. Consider the collection “Orders “ with the following types of doccuments

{

\_id: ObjectId("50a8240b927d5d8b5891743c"), cust\_id: "abc123",

status: 'A', price: 25,

}

Return the Total Price Per Customer

Ans:

var mapOrders = function() {

emit(this.cust\_id, this.price);

};

var reduceOrders = function (key, values) {

return Array.sum(values);

};

db.Orders.mapReduce(mapOrders, reduceOrders, { out: "cust\_total\_price" });

print("3. Total price per customer:");

db.cust\_total\_price.find().pretty();



1. Display the total salatry of employees working in the computer department.

> var mapComp = function() {

if (this.dname === "COMP") emit(this.dname, this.salary);

};

var reduceComp = function(key, values) {

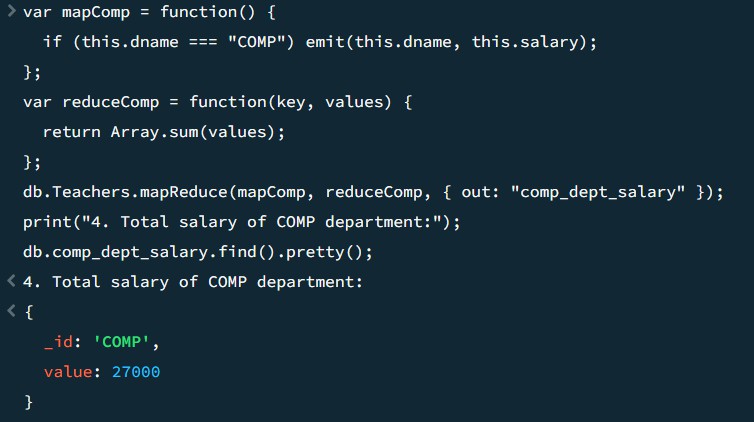
return Array.sum(values);

};

db.Teachers.mapReduce(mapComp, reduceComp, { out: "comp\_dept\_salary" });

print("4. Total salary of COMP department:");

db.comp\_dept\_salary.find().pretty();



1. Consider each document in the zipcode collection has the following form:

{

"\_id": "10180",

"city": "NEW YORK",

"state": "NY", "pop": 5574,

}

Return the city wise population of the cities in the NY state.

Ans:

> var mapNY = function() {

if (this.state === "NY") emit(this.city, this.pop);

};

var reduceNY = function (key, values) {

return Array.sum(values);

};

db.zipcode.mapReduce(mapNY, reduceNY, { out: "ny\_city\_population" });

print("5. NY state city-wise population:");

db.ny\_city\_population.find().pretty();

