student db

db.stud59.insert({SRN:"R21DG001",sname:"Meghana",degree:"MSc",sem:"1st",CGPA:9.1})

db.stud59.insert({SRN:"R21DG002",sname:"Pallavi",degree:"MSc",sem:"1st",CGPA:8.1})

db.stud59.insert({SRN:"R21DC003",sname:"kiran",degree:"MCA",sem:"1st",CGPA:7.5})

db.stud59.insert({SRN:"R21DC004",sname:"Deekshi",degree:"MCA",sem:"2st",CGPA:8.1})

db.stud59.insert({SRN:"R21DB005",sname:"Pooja",degree:"BCA",sem:"1st",CGPA:7.1})

db.stud59.insert({SRN:"R21DB044",sname:"Chandhan",degree:"BCA",sem:"5th",CGPA:6.9})

db.stud59.insert({SRN:"R21DG067",sname:"Rahul",degree:"BCA",sem:"1ST",CGPA:5.8})

db.stud59.insert({SRN:"R21DB033",sname:"Anu",degree:"BCA",sem:"4th",CGPA:9.4})

db.stud59.insert({SRN:"R21DG067",sname:"Prekshith",degree:"MSc",sem:"2nd",CGPA:8.7})

db.stud59.find()

db.stud59.find({degree:"BCA"})

db.stud59.find({degree:"BCA"})

db.stud59.find().sort({sname:1})

db.stud59.find().limit(5)

db.stud59.find().skip(4).limit(3)

db.stud59.find({sname:"Rahul"},{degree:1,sname:1,\_id:0})

db.stud59.find().skip(4).limit(3).sort({CGP:-1})

db.stud59.count({degree:"BCA"})

db.stud59.find({},{\_id:0})

db.stud59.distinct("degree")

db.stud59.find({$and:[{“degree”:BCA},{CGPA:{$gt:6},{CGPA:{$lt:9}}}]}).pretty()

db.stud59.find({$and:[{degree:"BCA"},{sem:"5th"}]})

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employeee

db.emp2.insert({ "eid" : 01, "ename" : "moulya", "dept" : "production", "design" : "HR", "salary" : 40000, "yoj" : 2016, "address" : { "dno" :48,"street": 3, "locality" : "jayanagar", "city" :"bangalore"}})

db.emp2.insert({ "eid" : 02, "ename" : "anusha", "dept" : "developer", "design" : "TL", "salary" : 80000, "yoj" : 2014, "address" : { "dno" : 50, "street" : 3, "locality" : "indranagar", "cilt" : "bangalore" }})

db.emp2.insert({ "eid" : 03, "ename" : "Rahul", "dept" : "developer", "design" : "TL", "salary" : 45000, "yoj" : 2005,"address" : { "dno" : 99, "street" : 3, "locality" : "kormangala", "city" : "bangalore"}})

db.emp2.insert({ "eid" : 04, "ename" : "Pooja", "dept" : "developer", "design" : "manager", "salary" : 95000, "yoj" : 2000,"address" : { "dno" : 55, "street" : 3,"locality":"dwarakanagar","city":"bangalore"}})

db.emp2.insert({ "eid" : 05, "ename" : "Mohan", "dept" : "production", "design" : "fresher", "salary" : 35000, "yoj" : 2012, "address" : { "dno" : 108, "street" : 33, "locality" :"bagalore","city":"bengalore" }})

db.emp2.insert({ "eid" : 06, "ename" : "kiran", "dept" : "developer", "design" : "intern", "salary" : 35000, "yoj" : 2022, "address" : { "dno" : 44, "street" : 33, "locality" : "bagalore", "city":"bangalore" }})

db.emp2.insert({ "eid" : 07, "ename" : "Deekshi", "dept" : "developer", "design" : "clerk", "salary" : 35000, "yoj" : 2018, "address" : { "dno" : 44, "street" : 33, "locality" : "bagalore","city" :"bangalore"}})

db.emp2.insert({ "eid" : 08, "ename" : "Thappu", "dept" : "developer", "design" : "intern", "salary" : 35000, "yoj" : 2013, "address" : { "dno" : 77, "street" : 33, "locality" :"bagalore","city":"bangalore"}})

db.emp2.insert({ "eid" : 09, "ename" : "Hemanth", "dept" : "engineer", "design" : "manager", "salary" : 35000, "yoj" : 2010, "address" : { "dno" : 77, "street" : 33, "locality" :"BSF", "city":"bangalore"}})

db.emp2.insert({ "eid" : 10, "ename" : "chandhu", "dept" : "developer", "design" : "hr", "salary" : 35000, "yoj" : 2015, "address" : { "dno" : 77, "street" : 33, "locality" :"jayanagar", "city":"bangalore"}})

db.emp2.find()

db.emp2.find({$and:[{salary:{$gt:40000}},{salary:{$lt:75000}}]})

db.emp2.find({dept:"developer"},{ename:1,dept:1,\_id:0})

db.emp2.find({ename:"Rahul"},{ename:1,salary:1,\_id:0})

db.emp.find({ename:"Rahul"},{ename:1,”address.city”:1,\_id:0})

db.emp2.update({dept:"developer"},{$inc:{salary:5000}},{multi:true})

db.emp2.update({ename:"Rahul"},{$set:{age:22}})

db.emp.update({ename:"Rahul"},{$unset:{yoj:1}})

db.emp2.update({ename:"Rahul"},{$push:{projects:"p1"}})

db.emp2.update({ename:"Rahul"},{$push:{projects:{$each:["p2","p3"]}}})

db.emp2.update({ename:"Rahul"},{$pull:{projects:"p3"}})

db.emp2.update({ename:"Rahul"},{$push:{contacts:{phone:9976553219,email:"rahul@gmail.com"}}})

db.emp2.update({ename:"Rahul"},{$addToSet:{contacts:{phone:[9901180740,9901180440]}}})

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book

db.book118.insert({isbn:12453,bname:"Python",Authore:["rama","Vishnu"],year:2010,publisher:"Thappu","price":480})

db.book118.insert({isbn:345619,bname:"Java",Authore:["herbet","kuvempu"],year:2000,publisher:"pearson","price":390})

db.book118.insert({isbn:322619,bname:"love",Authore:["herbet","rudresh"],year:2001,publisher:"My\_pub","price":800})

db.book118.insert({isbn:999619,bname:"let\_us\_see",Authore:["rama"],year:2021,publisher:"pearson","price":678})

db.book118.insert({isbn:12389,bname:"Java",Authore:["rudresh","kuvempu"],year:1998,publisher:"pearson","price":1000})

db.book118.find()

db.book118.find({},{year:0,price:0})

db.book118.find({Authore:"rudresh"},{bname:1,Authore:1,\_id:0})

db.book118.find({publisher:"pearson"},{bname:1,publisher:1,\_id:0})

db.book118.find({bname:"Java"},{publisher:1,bname:1,\_id:0})

db.book118.find({bname:"let\_us\_see"},{publisher:1,bname:1,authore:1,year:1,\_id:0})

db.book118.find({bname:"let\_us\_see"},{price:1,bname:1,\_id:0})

db.book118.find({},{bname:1,\_id:0}).sort({bname:1})

db.book118.find({},{\_id:0}).sort({price:-1}).limit(3)

db.book118.find({Authore:{$all:["herbet","kuvempu"]}},{bname:1,Authore:1,\_id:0})

db.book118.find({Authore:{$in:["herbet","kuvempu"]}},{bname:1,Authore:1,\_id:0})

db.book118.find({"Authore.0":{$eq:"rama"}},{bname:1,Authore:1,\_id:0})

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food

db.food11.insert({foodid:"f01", foodcat:"Indian", foodname:"Butter Chicken", chefname:["Vishnu","Thappu"], price:500, ingredients:["chicken", "butter", "spices", "veggies"], hotelname:"Mallika", hotel\_add:{no:16, street:1, locality:"Kothnur", city:"Bangalore"}})

db.food11.insert({foodid:"f02", foodcat:"Fastfood", foodname:"Burger", chefname:["Pooja","Deekshi"], price:600, ingredients:["buns", "patty", "cheese", "veggies"], hotelname:"McDonalds", hotel\_add:{no:8, street:2, locality:"Hebbal", city:"Bangalore"}})

db.food11.insert({foodid:"f03", foodcat:"Indian", foodname:"Biriyani", chefname:["X","Y"], price:450, ingredients:["rice", "chicken", "spieces", "veggies"], hotelname:"Mallika", hotel\_add:{no:16, street:1, locality:"Kothnur", city:"Bangalore"}})

db.food11.insert({foodid:"f04", foodcat:"Italian", foodname:"Pasta", chefname:["Thappu","Thippu"], price:380, ingredients:["pasta", "cheese", "milk", "veggies"], hotelname:"1522", hotel\_add:{no:15, street:7, locality:"BEL", city:"Bangalore"}})

db.food11.insert({foodid:"f05", foodcat:"American", foodname:"Steak", chefname:["Remitha","Preetham"], price:750, ingredients:["beef", "butter", "spieces", "potato"], hotelname:"Gilly's", hotel\_add:{no:22, street:17, locality:"BEL", city:"Bangalore"}})

db.food11.insert({foodid:"f06", foodcat:"Fastfood", foodname:"Shawarma", chefname:["Abhishek","Chandhu"], price:300, ingredients:["kubus", "chicken", "mayo", "veggies"], hotelname:"LOG", hotel\_add:{no:12, street:1, locality:"Yelahanka", city:"Bangalore"}})

db.food11.insert({foodid:"f07", foodcat:"Continental", foodname:"Fish&Chips", chefname:["Spoorthi","Rahul"], price:800, ingredients:["fish", "potato", "spices"], hotelname:"1522", hotel\_add:{no:15, street:1, locality:"BEL", city:"Bangalore"}})

db.food11.insert({foodid:"f08", foodcat:"Italian", foodname:"pizza", chefname:["Thappu"], price:600, ingredients:["dough", "cheese", "sauce","veggies"], hotelname:"dominos", hotel\_add:{no:2, street:7, locality:"Yel", city:"Bangalore"}})

db.food11.insert({foodid:"f09", foodcat:"Arabic", foodname:"Mandi", chefname:["dilip","kwoshi"], price:950, ingredients:["rice", "chicken", "spices", "kubus"], hotelname:"LOG", hotel\_add:{no:12, street:1, locality:"Yelahanka", city:"Bangalore"}})

db.food11.insert({foodid:"f10", foodcat:"Street", foodname:"Samosa", chefname:["Deepak","X"], price:100, ingredients:["dough", "spices", "veggies"], hotelname:"Deepak\_Samosas", hotel\_add:{no:42, street:1, locality:"Sahakarnagar", city:"Bangalore"}})

db.food11.find({foodname:"pizza"},{foodname:1,\_id:0,ingredients:1,price:1})

db.food11.find({$and:[{price:{$lte:800}},{price:{$gte:500}}]},{foodname:1,price:1,\_id:0})

db.food11.find({chefname:{$all:["X","Y"]}},{foodname:1,chefname:1,\_id:0})

db.food11.find({chefname:{$in:["X","Y"]}},{foodname:1,chefname:1,\_id:0})

db.food11.update({foodname:"pizza"},{$push:{chefname:"Shruthi"}})

db.food11.find({foodname:"pizza"},{foodname:1,\_id:0,chefname:1})

db.food11.update({foodname:"Burger"},{$addToSet:{ingredients:{$each:["otmato","onion","bun","meat"]}}})

db.food11.find({foodname:"Burger"},{foodname:1,\_id:0,ingredients:1})

db.food11.update({foodname:"Burger"},{$pop:{ingredients:1}})

db.food11.find({foodname:"Burger"},{foodname:1,\_id:0,ingredients:1})

db.food11.update({foodname:"Biriyani"},{$set:{ingredients:[]}})

db.food11.find({foodname:"Biriyani"},{foodname:1,\_id:0,ingredients:1})

db.food11.update({foodname:"Burger"},{$set:{"Food\_type":"veg\_Burger"}})

db.food11.find({foodname:"Burger"})

db.food11.update({foodname:"Burger"},{$set:{"price":200}})

db.food11.find({foodname:"Burger"},{foodname:1,price:1,\_id:0})

db.food11.update({foodid:"f08"},{$set:{"Food\_type":"veg"}},{upsert:true})

db.food11.find({},{\_id:0,foodid:1,food\_type:1})

db.food11.update({foodcat:"Fastfood"},{$inc:{price:120}})

db.food11.find({foodcat:"Fastfood"},{foodname:1,foodcat:1,price:1,\_id:0})

**PART – B**

2) map reduce:-

<?php

echo extension\_loaded("mongodb") ? "extension loaded\n" : "extension not loaded\n";

$m = new MongoDB\Driver\Manager("mongodb://localhost:27017");

$c = new MongoDB\Driver\Manager("mongodb://localhost:27017");

$bulk=new MongoDB\Driver\Bulkwrite;

$contact = array(

"First Name" => "Philip",

"Address" => array(

"Street" => "681 Hinkle Lake Road",

"Place" => "Newton",

"Postal Code" => "MA 02160",

"Country" => "USA"

),

"E-Mail" => array(

"pm@example.com",

"pm@office.com",

"philip@example.com",

"philip@office.com",

"moran@example.com",

"moran@office.com",

"pmoran@example.com",

"pmoran@office.com"

),

"Phone" => "617-546-8428",

"Age" => 60

);

$bulk->insert ($contact);

$contact2 = array(

"First Name" => "Victoria",

"Last Name" => "Wood",

"Address" => array(

"Street" => "50 Ash lane",

"Place" => "Ystradgynlais",

"Postal Code" => "SA9 6XT",

"Country" => "UK"

)

,

"E-Mail" => array("vw@example.com",

"vw@office.com"

),

"Phone" => "078-8727-8049",

"Age" => 28

);

$bulk->insert($contact2);

$m->executeBulkWrite('contact.people', $bulk);

$map = new MongoDB\BSON\Javascript('function()

{

emit(this.Address.Country, 1 );

}

');

echo "map done";

$reduce = new MongoDB\BSON\Javascript ('function(key, value) {

var Totals = 0;

for(index in value) {

Totals += value[index];

}

return Totals;

}');

echo "reduce done";

//$db = $c->contact;

$cmd = new MongoDB\Driver\Command(array('mapreduce' => 'people',

'map' => $map,

'reduce' => $reduce,

'out' => 'countries'

));

$cursor=$m->executeCommand('contact',$cmd);

echo "done"

?>

Commands:-

show dbs

use contact

show collections

db.countries.find()

db.people.find()

3) employee:-

<?php

$manager = new MongoDB\Driver\Manager("mongodb://localhost:27017");

$bulk = new MongoDB\Driver\BulkWrite;

$bulk->insert(['ename' => "aaa", 'age'=>35, 'designation' => 'Manager', 'salary'=> 50000]);

$bulk->insert(['ename' => "bbb", 'age'=>40, 'designation' => 'Doctor', 'salary'=> 60000]);

$bulk->insert(['ename' => "ccc", 'age'=>50, 'designation' => 'Professor', 'salary'=> 70000]);

$bulk->insert(['ename' => "ddd", 'age'=>45, 'designation' => 'Manager', 'salary'=> 40000]);

$bulk->insert(['ename' => "eee", 'age'=>47, 'designation' => 'Professor', 'salary'=> 75000]);

$manager->executeBulkWrite('emp4.coll', $bulk);

echo "Listing all documents <br>";

$filter = [];

$options = [];

$query = new MongoDB\Driver\Query($filter, $options);

$cursor = $manager->executeQuery('emp4.coll', $query);

foreach ($cursor as $document) {

var\_dump($document);

echo "<br>";

}

echo "Listing documents with a condition <br>";

$filter = ['salary' => ['$gt' => 60000]];

$options = [

'projection' => ['\_id' => 0],

'sort' => ['salary' => 1],

];

$query = new MongoDB\Driver\Query($filter, $options);

$cursor = $manager->executeQuery('emp4.coll', $query);

foreach ($cursor as $document) {

var\_dump($document);

echo "<br>";

}

echo "Listing two Documents in the database using LIMIT Command.<br>";

$filter1=[];

$options1 = ['sort'=>array('salary' => -1),'limit'=>2];

$query1 = new MongoDB\Driver\Query($filter1, $options1);

$cursor1 = $manager->executeQuery('emp4.coll', $query1);

foreach ($cursor1 as $document1) {

var\_dump($document1);

echo "<br>";

}

echo "Display from 5th document <br>";

$filter1=[];

$options1 = ['sort'=>array('salary' => -1),'skip'=>4];

$query1 = new MongoDB\Driver\Query($filter1, $options1);

$cursor1 = $manager->executeQuery('emp4.coll', $query1);

foreach ($cursor1 as $document1) {

var\_dump($document1);

echo "<br>";

}

$a=array('ename' => 'eee', 'designation' => 'Professor', 'salary'=> 75000, 'x'=> 1);

echo "Display the prescribed number in an array object using SLICE operator. <br>";

print\_r(array\_slice($a, 2));

echo "<br>";

?>

4) employeedata:-

<?php

$manager = new MongoDB\Driver\Manager("mongodb://localhost:27017");

$bulk = new MongoDB\Driver\BulkWrite;

$bulk->insert(["Name"=>"aaa","Age"=>22,"Desig"=>"developer","Sal"=>50000]);

$bulk->insert(["Name"=>"bbb","Age"=>23,"Desig"=>"developer","Sal"=>65000]);

$bulk->insert(["Name"=>"ccc","Age"=>45,"Desig"=>"Professor","Sal"=>45000]);

$bulk->insert(["Name"=>"ddd","Age"=>25,"Desig"=>"Intern","Sal"=>25000,"DOJ"=>"1st June 2021"]);

$bulk->insert(["Name"=>"eee","Age"=>52,"Desig"=>"CEO","Sal"=>75000]);

$manager->executeBulkWrite('Emp1.empcol', $bulk);

echo "Listing all documents<br>";

$filter = [];

$options = ['projection'=>['\_id'=>0]];

$query = new MongoDB\Driver\Query($filter,$options );

$cursor = $manager->executeQuery('Emp1.empcol', $query);

foreach($cursor as $document){

var\_dump($document);

echo "<br>";}

//------------------------------------------------------------------------

echo "<br>Listing documents with condition<br>Return records where designation is developer:<br>";

$filter = ['Desig'=>'developer'];

$options = [

'projection'=>['\_id'=>0],

'sort'=>['Sal'=>1]];

$query = new MongoDB\Driver\Query($filter,$options );

$cursor = $manager->executeQuery('Emp1.empcol', $query);

foreach($cursor as $document){

var\_dump($document);

echo "<br>";}

echo "<br>Listing using Logical operators:<br>Salary greater than 60000:<br>";

$filter = ['Sal'=>['$gt'=>60000]];

$options = [

'projection'=>['\_id'=>0],

'sort'=>['Sal'=>1]];

$query = new MongoDB\Driver\Query($filter,$options );

$cursor = $manager->executeQuery('Emp1.empcol', $query);

foreach($cursor as $document){

var\_dump($document);

echo "<br>";}

echo "<br>Age less than 30:<br>";

$filter1 = ['Age'=>['$lt'=>30]];

$options1 = ['projection'=>['\_id'=>0]];

$query1 = new MongoDB\Driver\Query($filter1,$options1 );

$cursor1 = $manager->executeQuery('Emp1.empcol', $query1);

foreach($cursor1 as $document1){

var\_dump($document1);

echo "<br>";}

echo "<br>Age greater than equal to 25:<br>";

$filter = ['Age'=>['$gte'=>25]];

$options = [

'projection'=>['\_id'=>0],

'sort'=>['Sal'=>1]];

$query = new MongoDB\Driver\Query($filter,$options );

$cursor = $manager->executeQuery('Emp1.empcol', $query);

foreach($cursor as $document){

var\_dump($document);

echo "<br>";}

echo "<br>Salary less than equal to 50000:<br>";

$filter1 = ['Sal'=>['$lte'=>50000]];

$options1 = ['projection'=>['\_id'=>0]];

$query1 = new MongoDB\Driver\Query($filter1,$options1 );

$cursor1 = $manager->executeQuery('Emp1.empcol', $query1);

foreach($cursor1 as $document1){

var\_dump($document1);

echo "<br>";}

echo "<br>Name not equal to 'ccc':<br>";

$filter1 = ['Name'=>['$ne'=>'ccc']];

$options1 = ['projection'=>['\_id'=>0]];

$query1 = new MongoDB\Driver\Query($filter1,$options1 );

$cursor1 = $manager->executeQuery('Emp1.empcol', $query1);

foreach($cursor1 as $document1){

var\_dump($document1);

echo "<br>";}

//----------------------------------------------------------------------

echo "<br>Using Boolean operators:<br>Age greater than 25 AND Salary less than 50000:<br>";

$filter1 = ['$and'=>array(['Age'=>['$gt'=>25]],['Sal'=>['$lt'=>50000]])];

$options1 = ['projection'=>['\_id'=>0]];

$query1 = new MongoDB\Driver\Query($filter1,$options1 );

$cursor1 = $manager->executeQuery('Emp1.empcol', $query1);

foreach($cursor1 as $doc1){

var\_dump($doc1);

echo "<br>";}

echo "<br>Age greater than 25 OR Salary less than 50000:<br>";

$filter1 = ['$or'=>array(['Age'=>['$gt'=>25]],['Sal'=>['$lt'=>50000]])];

$options1 = ['projection'=>['\_id'=>0]];

$query1 = new MongoDB\Driver\Query($filter1,$options1 );

$cursor1 = $manager->executeQuery('Emp1.empcol', $query1);

foreach($cursor1 as $document1){

var\_dump($document1);

echo "<br>";}

echo "<br>Listing documents with condition<br>'Rio' not in 'Name' field:<br>";

$filter = ['Name'=>['$nin'=>['Rio']]];

$options = [

'projection'=>['\_id'=>0],

'sort'=>['Sal'=>1]];

$query = new MongoDB\Driver\Query($filter );

$cursor = $manager->executeQuery('Emp1.empcol', $query);

foreach($cursor as $document){

var\_dump($document);

echo "<br>";}

echo "<br>Listing documents with condition<br>'Developer, CEO' in 'Designation':<br>";

$filter = ['Desig'=>['$in'=>['developer','CEO']]];

$options = [

'projection'=>['\_id'=>0],

'sort'=>['Sal'=>1]];

$query = new MongoDB\Driver\Query($filter,$options );

$cursor = $manager->executeQuery('Emp1.empcol', $query);

foreach($cursor as $document){

var\_dump($document);

echo "<br>";}

echo "<br>Listing documents with condition<br>EXISTS:<br>";

$filter1 = ['DOJ'=>['$exists'=>true]];

$options1 = ['projection'=>['\_id'=>0]];

$query1 = new MongoDB\Driver\Query($filter1,$options1 );

$cursor1 = $manager->executeQuery('Emp1.empcol', $query1);

foreach($cursor1 as $document1){

var\_dump($document1);

echo "<br>";}

?>