

BIGDATA LAB

Priyanka Dattatreya Hegde-C3

1NT20IS407

Creating database in mongoDB

use priya407

switched to db priya407

CRUD OPERATIONS:

insert one in mongodb:

```
db.priyanka.insertOne({name:"archi",usn:"1NT20IS400",
sec:"c",gender:"f",sub:"ise",age:"30
```

```
db.priyanka.find()
```

INSERT MANY INTO MONGODB:

```
> db.priyanka.insertMany([ { Name:"priya h",usn:"1NT20IS467",
sec:"c",gender:"f",sub:"ise",age:"21" },{
```

```

---
> use priya407
switched to db priya407
> db.priyanka.insertOne({name:"archi",usn:"1NT20IS400", sec:"c",gender:"f",sub:"ise",age:"30"})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("62920d3cbe129028855043c3")
}
> db.priyanka.find()
{ "_id" : ObjectId("62920d3cbe129028855043c3"), "name" : "archi", "usn" : "1NT20IS400", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "30" }

```

```
Name:"rohit",usn:"1NT20IS499", sec:"c",gender:"m",sub:"cse",age:"25"},{
```

```
Name:"riya",usn:"1NT20IS599", sec:"b",gender:"f",sub:"eee",age:"23"},{
Name:"priyuu",usn:"1NT20IS599", sec:"a",gender:"f",sub:"eee",age:"24"}})
```

```
> db.priyanka.find()
{ "_id" : ObjectId("62920d3cbe129028855043c3"), "name" : "archi", "usn" : "1NT20IS400", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "30" }
> db.priyanka.insertMany([ { Name:"priya h",usn:"1NT20IS467", sec:"c",gender:"f",sub:"ise",age:"21" }, { Name:"rohit",usn:"1NT20IS499", sec:"c",gender:"m",sub:"
b",gender:"f",sub:"eee",age:"23"}, { Name:"priyuu",usn:"1NT20IS599", sec:"a",gender:"f",sub:"eee",age:"24"} ])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("62920e18be129028855043c4"),
    ObjectId("62920e18be129028855043c5"),
    ObjectId("62920e18be129028855043c6"),
    ObjectId("62920e18be129028855043c7")
  ]
}
> db.priyanka.find().pretty()
{
  "_id" : ObjectId("62920d3cbe129028855043c3"),
  "name" : "archi",
  "usn" : "1NT20IS400",
  "sec" : "c",
  "gender" : "f",
  "sub" : "ise",
  "age" : "30"
}
{
  "_id" : ObjectId("62920e18be129028855043c4"),
  "Name" : "priya h",
  "usn" : "1NT20IS467",
  "sec" : "c",
  "gender" : "f",
  "sub" : "ise",
  "age" : "21"
}
{
  "_id" : ObjectId("62920e18be129028855043c5"),
  "Name" : "rohit",
  "usn" : "1NT20IS499",
  "sec" : "c",
  "gender" : "m",
  "sub" : "cse",
  "age" : "25"
}
{
  "_id" : ObjectId("62920e18be129028855043c6"),
  "Name" : "riya",
  "usn" : "1NT20IS599",
  "sec" : "b",
  "gender" : "f",
  "sub" : "eee",
  "age" : "23"
}
```

UPDATE ONE IN MONGODB:

```
db.priyanka.updateOne({Name:"archi"},{$set:{Name:"ranjita"}}){ \
```

OUTPUT:

```

> db.priyanka.updateOne({name:"archi"},{$set:{name:"ranjita"}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.priyanka.find().pretty()
{
  "_id" : ObjectId("62920d3cbe129028855043c3"),
  "name" : "ranjita",
  "usn" : "1NT20IS400",
  "sec" : "c",
  "gender" : "f",
  "sub" : "ise",
  "age" : "30"
}
{
  "_id" : ObjectId("62920e18be129028855043c4"),
  "Name" : "priya h",
  "usn" : "1NT20IS467",
  "sec" : "c",
  "gender" : "f",
  "sub" : "ise",
  "age" : "21"
}
{
  "_id" : ObjectId("62920e18be129028855043c5"),
  "Name" : "rohit",
  "usn" : "1NT20IS499",
  "sec" : "c",
  "gender" : "m",
  "sub" : "cse",
  "age" : "25"
}
{
  "_id" : ObjectId("62920e18be129028855043c6"),
  "Name" : "riya",
  "usn" : "1NT20IS599",
  "sec" : "b",
  "gender" : "f",
  "sub" : "eee",
  "age" : "23"
}
{
  "_id" : ObjectId("62920e18be129028855043c7"),
  "Name" : "priyuu",
  "usn" : "1NT20IS599",
  "sec" : "a",
  "gender" : "f",
  "sub" : "eee",
  "age" : "24"
}

```

UPDATEMANY IN MONGODB:

```
db.priyanka.updateMany({age:"25"},{$set:{age:"26"}},{name:"riya"},{$set:{name:"rita"}})
```

```

    "age" : "24"
  }
}
> db.priyanka.updateMany({age:"25"},{$set:{age:"26"}},{name:"riya"},{$set:{name:"rita"}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.priyanka.find()
{ "_id" : ObjectId("62920d3cbe129028855043c3"), "name" : "ranjita", "usn" : "1NT20IS400", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "30" }
{ "_id" : ObjectId("62920e18be129028855043c4"), "Name" : "priya h", "usn" : "1NT20IS467", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "21" }
{ "_id" : ObjectId("62920e18be129028855043c5"), "Name" : "rohit", "usn" : "1NT20IS499", "sec" : "c", "gender" : "m", "sub" : "cse", "age" : "26" }
{ "_id" : ObjectId("62920e18be129028855043c6"), "Name" : "riya", "usn" : "1NT20IS599", "sec" : "b", "gender" : "f", "sub" : "eee", "age" : "23" }
{ "_id" : ObjectId("62920e18be129028855043c7"), "Name" : "priyuu", "usn" : "1NT20IS599", "sec" : "a", "gender" : "f", "sub" : "eee", "age" : "24" }
> db.priyanka.insertMany([ { Name:"radha h", usn:"1NT20IS007", sec:"c", gender:"f", sub:"ise" }, { Name:"rahul", usn:"1NT20IS503", sec:"h", gender:"m", sub:"cse" } ]

```

DELETE MANY IN MONGODB:

db.priyanka.deleteMany({name:'ranjita'})

```
> db.priyanka.deleteMany({name:'ranjita'})
{ "acknowledged" : true, "deletedCount" : 1 }
> db.priyanka.find()
{ "_id" : ObjectId("62920e18be129028855043c4"), "Name" : "priya h", "usn" : "1NT20IS467", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "21" }
{ "_id" : ObjectId("62920e18be129028855043c5"), "Name" : "rohit", "usn" : "1NT20IS499", "sec" : "c", "gender" : "m", "sub" : "cse", "age" : "26" }
{ "_id" : ObjectId("62920e18be129028855043c6"), "Name" : "riya", "usn" : "1NT20IS599", "sec" : "b", "gender" : "f", "sub" : "eee", "age" : "23" }
{ "_id" : ObjectId("62920e18be129028855043c7"), "Name" : "priyuu", "usn" : "1NT20IS599", "sec" : "a", "gender" : "f", "sub" : "eee", "age" : "24" }
{ "_id" : ObjectId("6292389fbe129028855043c8"), "Name" : "radha h", "usn" : "1NT20IS007", "sec" : "c", "gender" : "f", "sub" : "ise" }
{ "_id" : ObjectId("6292389fbe129028855043c9"), "Name" : "rahul", "usn" : "1NT20IS503", "sec" : "b", "gender" : "m", "sub" : "cse" }
{ "_id" : ObjectId("6292389fbe129028855043ca"), "Name" : "nitya", "usn" : "1NT20IS679", "sec" : "1", "gender" : "f", "sub" : "eee" }
> db.priyanka.updateOne({Name:"radha"},{$unset:{Name:"rani"}})
{ "acknowledged" : true, "matchedCount" : 0, "modifiedCount" : 0 }
> db.priyanka.find()
```

SET FUNCTION IN UPDATE:

db.collection.updateOne({Name:"ranjita"},{\$unset:{Name:""}})

OUTPUT:

```
{ "_id" : ObjectId("62920e18be129028855043c4"), "Name" : "priya h", "usn" : "1NT20IS467", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "21" }
> db.priyanka.updateOne({Name:"radha"},{$unset:{Name:"rani"}})
{ "acknowledged" : true, "matchedCount" : 0, "modifiedCount" : 0 }
> db.priyanka.find()
{ "_id" : ObjectId("62920e18be129028855043c4"), "Name" : "priya h", "usn" : "1NT20IS467", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "21" }
{ "_id" : ObjectId("62920e18be129028855043c5"), "Name" : "rohit", "usn" : "1NT20IS499", "sec" : "c", "gender" : "m", "sub" : "cse", "age" : "26" }
{ "_id" : ObjectId("62920e18be129028855043c6"), "Name" : "riya", "usn" : "1NT20IS599", "sec" : "b", "gender" : "f", "sub" : "eee", "age" : "23" }
{ "_id" : ObjectId("62920e18be129028855043c7"), "Name" : "priyuu", "usn" : "1NT20IS599", "sec" : "a", "gender" : "f", "sub" : "eee", "age" : "24" }
{ "_id" : ObjectId("6292389fbe129028855043c8"), "Name" : "radha h", "usn" : "1NT20IS007", "sec" : "c", "gender" : "f", "sub" : "ise" }
{ "_id" : ObjectId("6292389fbe129028855043c9"), "Name" : "rahul", "usn" : "1NT20IS503", "sec" : "b", "gender" : "m", "sub" : "cse" }
{ "_id" : ObjectId("6292389fbe129028855043ca"), "Name" : "nitya", "usn" : "1NT20IS679", "sec" : "1", "gender" : "f", "sub" : "eee" }
> db.priyanka.updateOne({Name:"radha"},{$unset:{Name:"r"}})
{ "acknowledged" : true, "matchedCount" : 0, "modifiedCount" : 0 }
> db.priyanka.updateOne({Name:"radha"},{$unset:{Name:""}})
{ "acknowledged" : true, "matchedCount" : 0, "modifiedCount" : 0 }
```

OR OPERATION:

db.priyanka.find({\$or:[{Name:'priya h'},{sec:'c'}]})

OUTPUT:

```
>
> db.priyanka.find({$or:[{Name:'priya h'},{sec:'c'}]})
{ "_id" : ObjectId("62920e18be129028855043c4"), "Name" : "priya h", "usn" : "1NT20IS467", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "21" }
{ "_id" : ObjectId("62920e18be129028855043c5"), "Name" : "rohit", "usn" : "1NT20IS499", "sec" : "c", "gender" : "m", "sub" : "cse", "age" : "26" }
{ "_id" : ObjectId("6292389fbe129028855043c8"), "usn" : "1NT20IS007", "sec" : "c", "gender" : "f", "sub" : "ise" }
```

AND OPERATION:

```
db.priyanka.find({$and:[{Name:'priya h'},{sec:'c'}]})
```

OUTPUT:

```
{ "_id" : ObjectId("62920e18be129028855043c8"), "usr" : "1NT20IS667", "sec" : "c", "gender" : "f", "sub" : "ise" }
> db.priyanka.find({$and:[{Name:'priyanka h'},{sec:'c'}]})
{ "_id" : ObjectId("62920e18be129028855043c8"), "usr" : "1NT20IS667", "sec" : "c", "gender" : "f", "sub" : "ise" }
> db.priyanka.find({$and:[{Name:'priyanka h'},{sec:'c'}]})
{ "_id" : ObjectId("62920e18be129028855043c8"), "usr" : "1NT20IS667", "sec" : "c", "gender" : "f", "sub" : "ise" }
> db.priyanka.find({$and:[{Name:'priya h'},{sec:'c'}]})
{ "_id" : ObjectId("62920e18be129028855043c4"), "Name" : "priya h", "usr" : "1NT20IS467", "sec" : "c", "gender" : "f", "sub" : "ise", "age" : "21" }
> db.priyanka.drop()
true
```

DROP OPERATION:

```
db.collection.drop()
```

```
true
```

```
{ "_id" : ObjectId("6246...
> db.collection.drop()
true
```

MAPREDUCE IN MONGODB:

```
> db.orders.insertMany([
```

```
... { _id: 1, cust_id: "Ant O. Knee", ord_date: new Date("2020-03-01"), price: 25, items: [ { sku:
"oranges", qty: 5, price: 2.5 }, { sku: "apples", qty: 5, price: 2.5 } ], status: "A" },
```

```
... { _id: 2, cust_id: "Ant O. Knee", ord_date: new Date("2020-03-08"), price: 70, items: [ { sku:
"oranges", qty: 8, price: 2.5 }, { sku: "chocolates", qty: 5, price: 10 } ], status: "A" },
```

```
... { _id: 3, cust_id: "Busby Bee", ord_date: new Date("2020-03-08"), price: 50, items: [ { sku:
"oranges", qty: 10, price: 2.5 }, { sku: "pears", qty: 10, price: 2.5 } ], status: "A" },
```

```
... { _id: 4, cust_id: "Busby Bee", ord_date: new Date("2020-03-18"), price: 25, items: [ { sku:
"oranges", qty: 10, price: 2.5 } ], status: "A" },
```

```
... { _id: 5, cust_id: "Busby Bee", ord_date: new Date("2020-03-19"), price: 50, items: [ { sku:
"chocolates", qty: 5, price: 10 } ], status: "A"},
```

```
... { _id: 6, cust_id: "Cam Elot", ord_date: new Date("2020-03-19"), price: 35, items: [ { sku:
"carrots", qty: 10, price: 1.0 }, { sku: "apples", qty: 10, price: 2.5 } ], status: "A" },
```

```

...  { _id: 7, cust_id: "Cam Elot", ord_date: new Date("2020-03-20"), price: 25, items: [ { sku:
"oranges", qty: 10, price: 2.5 } ], status: "A" },

...  { _id: 8, cust_id: "Don Quis", ord_date: new Date("2020-03-20"), price: 75, items: [ { sku:
"chocolates", qty: 5, price: 10 }, { sku: "apples", qty: 10, price: 2.5 } ], status: "A" },

...  { _id: 9, cust_id: "Don Quis", ord_date: new Date("2020-03-20"), price: 55, items: [ { sku:
"carrots", qty: 5, price: 1.0 }, { sku: "apples", qty: 10, price: 2.5 }, { sku: "oranges", qty: 10, price:
2.5 } ], status: "A" },

...  { _id: 10, cust_id: "Don Quis", ord_date: new Date("2020-03-23"), price: 25, items: [ { sku:
"oranges", qty: 10, price: 2.5 } ], status: "A" }

... ])

```

1)query

```

var mapFunction1 = function() {
...   emit(this.cust_id, this.price);
... };

> var reduceFunction1 = function(keyCustId, valuesPrices) {
...   return Array.sum(valuesPrices);
... };

> db.priyankaa.mapReduce(
    mapFunction1,
    reduceFunction1,
    { out: "example" }
)

db.example.find().sort( { _id: 1 } )

```

output:

```

... )
{ "result" : "map_reduce_example", "ok" : 1 }
> var mapFunction1 = function() {
...   emit(this.cust_id, this.price);
... };
> var reduceFunction1 = function(keyCustId, valuesPrices) {
...   return Array.sum(valuesPrices);
... };
> db.priyankaa.mapReduce(
...   mapFunction1,
...   reduceFunction1,
...   { out: "example" }
... )

```

```

2) db.priyankaa.aggregate([
  { $group: { _id: "$cust_id", value: { $sum: "$price" } } },
  { $out: "agl" }])
>db.agl.find().sort( { _id: 1 } )

```

Output:

```

... ])
> db.priyankaa.aggregate([
...   { $group: { _id: "$cust_id", value: { $sum: "$price" } } },
...   { $out: "agl" }
... ])
> db.agl.find().sort( { _id: 1 } )
{ "_id" : null, "value" : 0 }
{ "_id" : "Ant O. Knee", "value" : 95 }
{ "_id" : "Busby Bee", "value" : 125 }
{ "_id" : "Cam Elot", "value" : 60 }
{ "_id" : "Don Quis", "value" : 155 }
> var mapFunction2 = function() {
...   for (var idx = 0; idx < this.items.length; idx++) {

```

```

3)var mapFunction2 = function() {
  for (var idx = 0; idx < this.items.length; idx++) {
    var key = this.items[idx].sku;
    var value = { count: 1, qty: this.items[idx].qty };
    emit(key, value); }
};

```

```
> var reduceFunction2 = function(keySKU, countObjVals) {
  reducedVal = { count: 0, qty: 0 };
  for (var idx = 0; idx < countObjVals.length; idx++) {
    reducedVal.count += countObjVals[idx].count;
    reducedVal.qty += countObjVals[idx].qty;
  }
  return reducedVal;
};

> var finalizeFunction2 = function (key, reducedVal) {
  reducedVal.avg = reducedVal.qty/reducedVal.count;
  return reducedVal;
};

> db.priyankaa.mapReduce(
  mapFunction2,
  reduceFunction2,
  {
    out: { merge: "map" },
    query: { ord_date: { $gte: new Date("2020-03-01") } },
    finalize: finalizeFunction2
  });
```



```

> db.agl.find().sort( { _id: 1 } )
{ "_id" : null, "value" : 0 }
{ "_id" : "Ant 0. Knee", "value" : 95 }
{ "_id" : "Busby Bee", "value" : 125 }
{ "_id" : "Cam Elot", "value" : 60 }
{ "_id" : "Don Quis", "value" : 155 }
> var mapFunction2 = function() {
...   for (var idx = 0; idx < this.items.length; idx++) {
...     var key = this.items[idx].sku;
...     var value = { count: 1, qty: this.items[idx].qty };
...
...     emit(key, value);
...   }
... };
> var reduceFunction2 = function(keySKU, countObjvals) {
...   reducedVal = { count: 0, qty: 0 };
...
...   for (var idx = 0; idx < countObjvals.length; idx++) {
...     reducedVal.count += countObjvals[idx].count;
...     reducedVal.qty += countObjvals[idx].qty;
...   }
...
...   return reducedVal;
... };
> var finalizeFunction2 = function (key, reducedVal) {
...   reducedVal.avg = reducedVal.qty/reducedVal.count;
...   return reducedVal;
... };
> db.priyankaa.mapReduce(
...   mapFunction2,
...   reduceFunction2,
...   {
...     out: { merge: "map" },
...     query: { ord_date: { $gte: new Date("2020-03-01") } },
...     finalize: finalizeFunction2
...   }
... );
{ "result" : "map", "ok" : 1 }
> db.map.find().sort( { _id: 1 } )
{ "_id" : "apples", "value" : { "count" : 4, "qty" : 35, "avg" : 8.75 } }
{ "_id" : "carrots", "value" : { "count" : 2, "qty" : 15, "avg" : 7.5 } }
{ "_id" : "chocolates", "value" : { "count" : 3, "qty" : 15, "avg" : 5 } }
{ "_id" : "oranges", "value" : { "count" : 7, "qty" : 63, "avg" : 9 } }
{ "_id" : "pears", "value" : { "count" : 1, "qty" : 10, "avg" : 10 } }
>

```

AGGREGATE PIPELINE IN MONGODB:

Inserting values:

```
db.orders.insertMany( [{_id: 0, name: "Pepperoni", size: "small", price: 19, quantity: 10, date:
ISODate( "2021-03-13T08:14:30Z" ) },
```

```
{_id: 1, name: "Pepperoni", size: "medium", price: 20, quantity: 20, date : ISODate( "2021-03-
13T09:13:24Z" ) },
```

```
{_id: 2, name: "Pepperoni", size: "large", price: 21, quantity: 30, date : ISODate( "2021-03-
17T09:22:12Z" ) },
```

```
{_id: 3, name: "Cheese", size: "small", price: 12, quantity: 15, date : ISODate( "2021-03-
13T11:21:39.736Z" ) } {_id: 4, name: "Cheese", size: "medium", price: 13, quantity: 50, date :
ISODate( "2022-01-12T21:23:13.331Z" ) },
```

```
{_id: 5, name: "Cheese", size: "large", price: 14, quantity: 10, date : ISODate( "2022-01-
12T05:08:13Z" ) },
```

```
{_id: 6, name: "Vegan", size: "small", price: 17, quantity: 10, date : ISODate( "2021-01-13T05:08:13Z" ) },
```

```
{_id: 7, name: "Vegan", size: "medium", price: 18, quantity: 10, date : ISODate( "2021-01-13T05:10:13Z" ) }} )
```

```
❏ Select Command Prompt - mongo
return cursor;
}
> db.orders.find()
{ "_id" : 0, "name" : "Pepperoni", "size" : "small", "price" : 19, "quantity" : 10, "date" : ISODate("2021-03-13T08:14:30Z") }
{ "_id" : 1, "name" : "Pepperoni", "size" : "medium", "price" : 20, "quantity" : 20, "date" : ISODate("2021-03-13T09:13:24Z") }
{ "_id" : 2, "name" : "Pepperoni", "size" : "large", "price" : 21, "quantity" : 30, "date" : ISODate("2021-03-17T09:22:12Z") }
{ "_id" : 3, "name" : "Cheese", "size" : "small", "price" : 12, "quantity" : 15, "date" : ISODate("2021-03-13T11:21:39.736Z") }
{ "_id" : 4, "name" : "Cheese", "size" : "medium", "price" : 13, "quantity" : 50, "date" : ISODate("2022-01-12T21:23:13.331Z") }
{ "_id" : 5, "name" : "Cheese", "size" : "large", "price" : 14, "quantity" : 10, "date" : ISODate("2022-01-12T05:08:13Z") }
{ "_id" : 6, "name" : "Vegan", "size" : "small", "price" : 17, "quantity" : 10, "date" : ISODate("2021-01-13T05:08:13Z") }
{ "_id" : 7, "name" : "Vegan", "size" : "medium", "price" : 18, "quantity" : 10, "date" : ISODate("2021-01-13T05:10:13Z") }
>
```

```
1) db.orders.aggregate( [ {
  $match: { size: "medium" }
}, {
  $group: { _id: "$name", totalQuantity: { $sum: "$quantity" } }
} ] )
```

Output:

```
> db.orders.aggregate( [
...
...   {
...     $match: { size: "medium" }
...   },
...
...   {
...     $group: { _id: "$name", totalQuantity: { $sum: "$quantity" } }
...   }
... ] )
{ "_id" : "Pepperoni", "totalQuantity" : 20 }
{ "_id" : "Cheese", "totalQuantity" : 50 }
{ "_id" : "Vegan", "totalQuantity" : 10 }
```

```
2) db.orders.aggregate( [
  { $match: {
```

```

    "date": { $gte: new ISODate( "2020-01-30" ), $lt: new ISODate( "2022-01-30"
  ) }
  } }, {
  $group: {
    _id: { $dateToString: { format: "%Y-%m-%d", date: "$date" } },
    totalOrderValue: { $sum: { $multiply: [ "$price", "$quantity" ] } },
    averageOrderQuantity: { $avg: "$quantity" }
  }
}, {$sort: { totalOrderValue: -1 } } ] )

```

Output:

```

{ "_id" : "vegan", "totalQuantity" : 10 }
> db.orders.aggregate( [
...   {
...     $match:
...     {
...       "date": { $gte: new ISODate( "2020-01-30" ), $lt: new ISODate( "2022-01-30" ) }
...     }
...   },
...   {
...     $group:
...     {
...       _id: { $dateToString: { format: "%Y-%m-%d", date: "$date" } },
...       totalOrderValue: { $sum: { $multiply: [ "$price", "$quantity" ] } },
...       averageOrderQuantity: { $avg: "$quantity" }
...     }
...   },
...   {
...     $sort: { totalOrderValue: -1 }
...   }
... ] )
{ "_id" : "2022-01-12", "totalOrderValue" : 790, "averageOrderQuantity" : 30 }
{ "_id" : "2021-03-13", "totalOrderValue" : 770, "averageOrderQuantity" : 15 }
{ "_id" : "2021-03-17", "totalOrderValue" : 630, "averageOrderQuantity" : 30 }
{ "_id" : "2021-01-13", "totalOrderValue" : 350, "averageOrderQuantity" : 10 }
>

```

HADOOP:

Entering in to hadoop:

>Hadoop version

Hadoop 3. 2.1

>Start-all.sh

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop version
Hadoop 3.2.1
Source code repository https://gitbox.apache.org/repos/asf/hadoop.git -r b3cbbb467e22ea829b3808f4b7b01d07e0bf3842
Compiled by rohithsharmaks on 2019-09-10T15:56Z
Compiled with protoc 2.5.0
From source with checksum 776eaf9eee9c0ffc370bcb1888737
This command was run using /home/hadoop/hadoop-3.2.1/share/hadoop/common/hadoop-common-3.2.1.jar
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ start-all.sh
WARNING: Attempting to start all Apache Hadoop daemons as hadoop in 10 seconds.
WARNING: This is not a recommended production deployment configuration.
WARNING: Use CTRL-C to abort.
Starting namenodes on [localhost]
Starting datanodes
Starting secondary namenodes [admin1-HP-280-G4-MT-Business-PC]
Starting resourcemanager
Starting nodemanagers
hadoop@admin1-HP-280-G4-MT-Business-PC:~$
```

>jps

```
Starting NodeManagers
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ jps
2688 SecondaryNameNode
2304 NameNode
3027 NodeManager
3371 Jps
2444 DataNode
2878 ResourceManager
hadoop@admin1-HP-280-G4-MT-Business-PC:~$
```

CREATING DIRECTORY:

1)>hadoop fs -mkdir priyanka

>hadoop fs -ls

Output:

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -mkdir priyanka
> ^C
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -mkdir priyanka
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -ls
Found 3 items
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:31 1NT19IS126
drwxr-xr-x - hadoop supergroup 0 2022-05-27 09:53 priyanka
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:44 rakshith
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -touchz p.txt
```

2)>hadoop fs -touchz p.txt

>hadoop fs -ls

Output:

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -touchz p.txt
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -ls
Found 4 items
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:31 INT19IS126
-rw-r--r-- 1 hadoop supergroup 0 2022-05-27 09:54 p.txt
drwxr-xr-x - hadoop supergroup 0 2022-05-27 09:53 priyanka
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:44 rakshith
```

3)>hadoop fs -copyFromLocal priyanka.txt dr.txt

>hadoop fs -cat dr.txt

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -copyFromLocal priyanka.txt dr.txt
2022-05-27 09:57:39,677 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -cat dr.txt
HI
hello
```

>hadoop fs -copyFromLocal priyanka.txt p1.txt

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -copyFromLocal priyanka.txt p1.txt
2022-05-27 09:59:38,214 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -copyToLocal dr.txt p1.txt
2022-05-27 10:00:23,450 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
```

>hadoop fs -mkdir 1nt20is407

>hadoop fs -ls

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -mkdir 1nt20is407
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -ls
Found 7 items
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:31 INT19IS126
drwxr-xr-x - hadoop supergroup 0 2022-05-27 10:00 1nt20is407
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:57 dr.txt
-rw-r--r-- 1 hadoop supergroup 0 2022-05-27 09:54 p.txt
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:59 p1.txt
drwxr-xr-x - hadoop supergroup 0 2022-05-27 09:53 priyanka
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:44 rakshith
```

>hadoop fs -mv 1nt20is407 dr

>hadoop fs -ls

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -mv 1nt20is407 dr
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -ls
Found 7 items
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:31 INT19IS126
drwxr-xr-x - hadoop supergroup 0 2022-05-27 10:00 dr
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:57 dr.txt
-rw-r--r-- 1 hadoop supergroup 0 2022-05-27 09:54 p.txt
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:59 p1.txt
drwxr-xr-x - hadoop supergroup 0 2022-05-27 09:53 priyanka
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:44 rakshith
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -cp dr.txt p2.txt
```

>hadoop fs -cp dr.txt p2.txt

>hadoop fs -cat p2.txt

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -cp dr.txt p2.txt
2022-05-27 10:02:23,691 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
2022-05-27 10:02:23,770 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -cat p2.txt
cat: 'p2.txt': No such file or directory
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -cat p2.txt
2022-05-27 10:02:48,471 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
hl
hello
```

>hadoop fs -du

```
hello
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -du
12 12 1NT19IS126
0 0 dr
12 12 dr.txt
0 0 p.txt
12 12 p1.txt
12 12 p2.txt
0 0 priyanka
12 12 rakshith
```

>hadoop fs -rmr p.txt

>hadoop fs -ls

```
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -rmr p.txt
rmr: DEPRECATED: Please use '-rm -r' instead.
Deleted p.txt
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -ls
Found 7 items
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:31 1NT19IS126
drwxr-xr-x - hadoop supergroup 0 2022-05-27 10:00 dr
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:57 dr.txt
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:59 p1.txt
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 10:02 p2.txt
drwxr-xr-x - hadoop supergroup 0 2022-05-27 09:53 priyanka
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:44 rakshith
```

>hadoop fs -stat priyanka

>hadoop fs -ls


```

hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -stat priyanka
2022-05-27 04:23:25
hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -ls
Found 7 items
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:31 1NT19IS126
drwxr-xr-x - hadoop supergroup 0 2022-05-27 10:00 dr
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:57 dr.txt
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:59 p1.txt
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 10:02 p2.txt
drwxr-xr-x - hadoop supergroup 0 2022-05-27 09:53 priyanka
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:44 rakshith

```

>hadoop fs -mv p2.txt priyanka

>hadoop fs -ls

```

hadoop@admin1-HP-280-G4-MT-Business-PC:~$ hadoop fs -mv p2.txt priyanka
Found 6 items
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:31 1NT19IS126
drwxr-xr-x - hadoop supergroup 0 2022-05-27 10:00 dr
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:57 dr.txt
-rw-r--r-- 1 hadoop supergroup 12 2022-05-27 09:59 p1.txt
drwxr-xr-x - hadoop supergroup 0 2022-05-27 10:05 priyanka
drwxr-xr-x - hadoop supergroup 0 2022-05-24 10:44 rakshith
hadoop@admin1-HP-280-G4-MT-Business-PC:~$

```