Assignment 12

Create a NOSQL DB on "Order management System"
using MongoDB and implement following operations
on document.

1. Insert(batch insert, insert validation)

```
> db.order_management_system.insertOne({id:56,name:"Someshwar
Gaikwad",city:"Pune",zipcode:411036,phno:7775069747})
{
    "acknowledged" : true,
    "insertedId" : ObjectId("5fa4eda5fe2ba8dbbda4fa18")
}

> db.order_management_system.insertOne({id:52,name:"Shreyas
Gaikwad",city:"Pune",zipcode:411016,phno:9275029731})
{
    "acknowledged" : true,
    "insertedId" : ObjectId("5fa4edb2fe2ba8dbbda4fa19")
}

> db.order_management_system.insertOne({id:57,name:"Sushant
Sontakke",city:"Kolhapur",zipcode:211011,phno:7272029631})
{
    "acknowledged" : true,
    "insertedId" : ObjectId("5fa4edcffe2ba8dbbda4fa1a")
}

> db.order_management_system.insertMany([{id:49,name:"Harsh
Sakhrani",city:"Pune",zipcode:411001,phno:9272129431},
{id:50,name:"Saloni
Parekh",city:"Pune",zipcode:411032,phno:7212026631}])
{
    "acknowledged" : true,
    "insertedIds" : [
        ObjectId("5fa4edd4fe2ba8dbbda4fa1b"),
        ObjectId("5fa4edd4fe2ba8dbbda4fa1c")
    ]
}

> db.order_management_system.insertOne({id:54,name:"Muskaan
Shraogi",city:"Akola",zipcode:221011,phno:8271023631})
{
    "acknowledged" : true,
    "insertedId" : ObjectId("5faa345aa5d3da31563dffb8")
```

```
        }

> db.order_management_system.find().sort({id:1}).pretty();
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1b"),
        "id" : 49,
        "name" : "Harsh Sakhrani",
        "city" : "Pune",
        "zipcode" : 411001,
        "phno" : 9272129431
}
{

        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1c"),
        "id" : 50,
        "name" : "Saloni Parekh",
        "city" : "Pune",
        "zipcode" : 411032,
        "phno" : 7212026631
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb5"),
        "id" : 51,
        "name" : "Anuj Saoii",
        "city" : "Latur",
        "zipcode" : 111302,
        "phno" : 9572226431
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb6"),
        "id" : 52,
        "name" : "Onkar Sharma",
        "city" : "Nashik",
        "zipcode" : 321456,
        "phno" : 8212026131
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb7"),
        "id" : 53,
        "name" : "Prathamesh Shiralkar",
        "city" : "Latur",
        "zipcode" : 312402,
        "phno" : 7574286431
}
{

        "_id" : ObjectId("5faa345aa5d3da31563dffb8"),
        "id" : 54,
        "name" : "Muskaan Shraogi",
        "city" : "Akola",
```

```
        "zipcode" : 221011,
        "phno" : 8271023631
}
{

        "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
        "id" : 55,
        "name" : "Shreyas Kalrao",
        "city" : "Pune",
        "zipcode" : 411016,
        "phno" : 9275029731
}
{

        "_id" : ObjectId("5fa4eda5fe2ba8dbbda4fa18"),
        "id" : 56,
        "name" : "Someshwar Gaikwad",
        "city" : "Pune",
        "zipcode" : 411036,
        "phno" : 7775069747
}
{

        "_id" : ObjectId("5fa4edcffe2ba8dbbda4fa1a"),
        "id" : 57,
        "name" : "Sushant Sontakke",
        "city" : "Kolhapur",
        "zipcode" : 211011,
        "phno" : 7272029631
}
```

2. Save

```
> db.order_management_system.save({id: 33258, name:
"Venkatesh Sooryavanshi", city: "Akola", zipcode: 32132,
phno: 32145232})
WriteResult({ "nInserted" : 1 })
> db.order_management_system.find().sort({id:1}).pretty();
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1b"),
        "id" : 49,
        "name" : "Harsh Sakhrani",
        "city" : "Pune",
        "zipcode" : 411001,
        "phno" : 9272129431
}
{

        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1c"),
        "id" : 50,
```

```
        "name" : "Saloni Parekh",
        "city" : "Pune",
        "zipcode" : 411032,
        "phno" : 7212026631
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb5"),
        "id" : 51,
        "name" : "Anuj Saoii",
        "city" : "Latur",
        "zipcode" : 111302,
        "phno" : 9572226431
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb6"),
        "id" : 52,
        "name" : "Onkar Sharma",
        "city" : "Nashik",
        "zipcode" : 321456,
        "phno" : 8212026131
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb7"),
        "id" : 53,
        "name" : "Prathamesh Shiralkar",
        "city" : "Latur",
        "zipcode" : 312402,
        "phno" : 7574286431
}
{

        "_id" : ObjectId("5faa345aa5d3da31563dffb8"),
        "id" : 54,
        "name" : "Muskaan Shraogi",
        "city" : "Akola",
        "zipcode" : 221011,
        "phno" : 8271023631
}
{

        "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
        "id" : 55,
        "name" : "Shreyas Kalrao",
        "city" : "Pune",
        "zipcode" : 411016,
        "phno" : 9275029731
}
{

        "_id" : ObjectId("5fa4eda5fe2ba8dbbda4fa18"),
        "id" : 56,
```

```
        "name" : "Someshwar Gaikwad",
        "city" : "Pune",
        "zipcode" : 411036,
        "phno" : 7775069747
}
{

        "_id" : ObjectId("5fa4edcffe2ba8dbbda4fa1a"),
        "id" : 57,
        "name" : "Sushant Sontakke",
        "city" : "Kolhapur",
        "zipcode" : 211011,
        "phno" : 7272029631
}
{

        "_id" : ObjectId("5fc65b4904c17de4cf19ced5"),
        "id" : 33258,
        "name" : "Venkatesh Sooryavanshi",
        "city" : "Akola",
        "zipcode" : 32132,
        "phno" : 32145232
}
```

3. Remove

```
> db.order_management_system.remove({id:33258})
WriteResult({ "nRemoved" : 1 })
> db.order_management_system.find().sort({id:1}).pretty();
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1b"),
        "id" : 49,
        "name" : "Harsh Sakhrani",
        "city" : "Pune",
        "zipcode" : 411001,
        "phno" : 9272129431
}
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1c"),
        "id" : 50,
        "name" : "Saloni Parekh",
        "city" : "Pune",
        "zipcode" : 411032,
        "phno" : 7212026631
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb5"),
        "id" : 51,
        "name" : "Anuj Saoii",
        "city" : "Latur",
```

```
                "zipcode" : 111302,
                "phno" : 9572226431
        }
        {

                "_id" : ObjectId("5faa3421a5d3da31563dffb6"),
                "id" : 52,
                "name" : "Onkar Sharma",
                "city" : "Nashik",
                "zipcode" : 321456,
                "phno" : 8212026131
        }
        {

                "_id" : ObjectId("5faa3421a5d3da31563dffb7"),
                "id" : 53,
                "name" : "Prathamesh Shiralkar",
                "city" : "Latur",
                "zipcode" : 312402,
                "phno" : 7574286431
        }
        {

                "_id" : ObjectId("5faa345aa5d3da31563dffb8"),
                "id" : 54,
                "name" : "Muskaan Shraogi",
                "city" : "Akola",
                "zipcode" : 221011,
                "phno" : 8271023631
        }
        {

                "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
                "id" : 55,
                "name" : "Shreyas Kalrao",
                "city" : "Pune",
                "zipcode" : 411016,
                "phno" : 9275029731
        }
        {

                "_id" : ObjectId("5fa4eda5fe2ba8dbbda4fa18"),
                "id" : 56,
                "name" : "Someshwar Gaikwad",
                "city" : "Pune",
                "zipcode" : 411036,
                "phno" : 7775069747
        }
        {

                "_id" : ObjectId("5fa4edcffe2ba8dbbda4fa1a"),
                "id" : 57,
                "name" : "Sushant Sontakke",
                "city" : "Kolhapur",
```

```
        "zipcode" : 211011,
        "phno" : 7272029631
}
```

4. Update

```
> db.order_management_system.updateOne({id:52},{$set:
{name:"Shreyas Kalrao"}})
{ "acknowledged" : true, "matchedCount" : 1,
"modifiedCount" : 1 }

> db.order_management_system.find().sort({id:1}).pretty();
{
        "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
        "id" : 52,
        "name" : "Shreyas Kalrao",
        "city" : "Pune",
        "zipcode" : 411016,
        "phno" : 9275029731
}
{
        "_id" : ObjectId("5fa4eda5fe2ba8dbbda4fa18"),
        "id" : 56,
        "name" : "Someshwar Gaikwad",
        "city" : "Pune",
        "zipcode" : 411036,
        "phno" : 7775069747
}
```

5. Replace Document

```
> db.order_management_system.replaceOne({id:56}, {id:33256})
{ "acknowledged" : true, "matchedCount" : 1,
"modifiedCount" : 1 }
> db.order_management_system.find().sort({id:1}).pretty();
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1b"),
        "id" : 49,
        "name" : "Harsh Sakhrani",
        "city" : "Pune",
        "zipcode" : 411001,
        "phno" : 9272129431
}
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1c"),
        "id" : 50,
        "name" : "Saloni Parekh",
```

```
                "city" : "Pune",
                "zipcode" : 411032,
                "phno" : 7212026631
        }
        {

                "_id" : ObjectId("5faa3421a5d3da31563dffb5"),
                "id" : 51,
                "name" : "Anuj Saoii",
                "city" : "Latur",
                "zipcode" : 111302,
                "phno" : 9572226431
        }
        {

                "_id" : ObjectId("5faa3421a5d3da31563dffb6"),
                "id" : 52,
                "name" : "Onkar Sharma",
                "city" : "Nashik",
                "zipcode" : 321456,
                "phno" : 8212026131
        }
        {

                "_id" : ObjectId("5faa3421a5d3da31563dffb7"),
                "id" : 53,
                "name" : "Prathamesh Shiralkar",
                "city" : "Latur",
                "zipcode" : 312402,
                "phno" : 7574286431
        }
        {

                "_id" : ObjectId("5faa345aa5d3da31563dffb8"),
                "id" : 54,
                "name" : "Muskaan Shraogi",
                "city" : "Akola",
                "zipcode" : 221011,
                "phno" : 8271023631
        }
        {

                "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
                "id" : 55,
                "name" : "Shreyas Kalrao",
                "city" : "Pune",
                "zipcode" : 411016,
                "phno" : 9275029731
        }
        {

                "_id" : ObjectId("5fa4edcffe2ba8dbbda4fa1a"),
                "id" : 57,
                "name" : "Sushant Sontakke",
```

```
        "city" : "Kolhapur",
        "zipcode" : 211011,
        "phno" : 7272029631
}
{ "_id" : ObjectId("5fa4eda5fe2ba8dbbda4fa18"), "id" :
33256 }
```

6. Usage of modifiers

We can have number of meta operation in addition to the
MongoDB Query Operators to modify the output or behaviour of
a query.

7. Upserts

```
> db.order_management_system.update({id: 10},{id: 33256,
name: "Someshwar Gaikwad", city: "Pune"})
WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" :
0 })
> db.order_management_system.update({id: 10},{id: 33256,
name: "Someshwar Gaikwad", city: "Pune"},{upsert:true})
WriteResult({
        "nMatched" : 0,
        "nUpserted" : 1,
        "nModified" : 0,
        "_id" : ObjectId("5fc65f91c1fb2c16a5f1d05b")
})
> db.order_management_system.find().sort({id:1}).pretty();
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1b"),
        "id" : 49,
        "name" : "Harsh Sakhrani",
        "city" : "Pune",
        "zipcode" : 411001,
        "phno" : 9272129431
}
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1c"),
        "id" : 50,
        "name" : "Saloni Parekh",
        "city" : "Pune",
        "zipcode" : 411032,
        "phno" : 7212026631
}
{
        "_id" : ObjectId("5faa3421a5d3da31563dffb5"),
        "id" : 51,
        "name" : "Anuj Saoii",
```

```
        "city" : "Latur",
        "zipcode" : 111302,
        "phno" : 9572226431
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb6"),
        "id" : 52,
        "name" : "Onkar Sharma",
        "city" : "Nashik",
        "zipcode" : 321456,
        "phno" : 8212026131
}
{

        "_id" : ObjectId("5faa3421a5d3da31563dffb7"),
        "id" : 53,
        "name" : "Prathamesh Shiralkar",
        "city" : "Latur",
        "zipcode" : 312402,
        "phno" : 7574286431
}
{

        "_id" : ObjectId("5faa345aa5d3da31563dffb8"),
        "id" : 54,
        "name" : "Muskaan Shraogi",
        "city" : "Akola",
        "zipcode" : 221011,
        "phno" : 8271023631
}
{

        "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
        "id" : 55,
        "name" : "Shreyas Kalrao",
        "city" : "Pune",
        "zipcode" : 411016,
        "phno" : 9275029731
}
{

        "_id" : ObjectId("5fa4edcffe2ba8dbbda4fa1a"),
        "id" : 57,
        "name" : "Sushant Sontakke",
        "city" : "Kolhapur",
        "zipcode" : 211011,
        "phno" : 7272029631
}
{ "_id" : ObjectId("5fa4eda5fe2ba8dbbda4fa18"), "id" :
33256 }
{

        "_id" : ObjectId("5fc65f91c1fb2c16a5f1d05b"),
```

```
        "id" : 33256,
        "name" : "Someshwar Gaikwad",
        "city" : "Pune"
}
```

8. Update Multiple documents

```
> db.order_management_system.updateMany({city:"Pune"},{$set:
{city: "Solapur"}})
{ "acknowledged" : true, "matchedCount" : 4,
"modifiedCount" : 4 }
> db.order_management_system.find().sort({id:1}).pretty();
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1b"),
        "id" : 49,
        "name" : "Harsh Sakhrani",
        "city" : "Solapur",
        "zipcode" : 411001,
        "phno" : 9272129431
}
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1c"),
        "id" : 50,
        "name" : "Saloni Parekh",
        "city" : "Solapur",
        "zipcode" : 411032,
        "phno" : 7212026631
}
{
        "_id" : ObjectId("5faa3421a5d3da31563dffb5"),
        "id" : 51,
        "name" : "Anuj Saoii",
        "city" : "Latur",
        "zipcode" : 111302,
        "phno" : 9572226431
}
{
        "_id" : ObjectId("5faa3421a5d3da31563dffb6"),
        "id" : 52,
        "name" : "Onkar Sharma",
        "city" : "Nashik",
        "zipcode" : 321456,
        "phno" : 8212026131
}
{
        "_id" : ObjectId("5faa3421a5d3da31563dffb7"),
        "id" : 53,
        "name" : "Prathamesh Shiralkar",
```

```
        "city" : "Latur",
        "zipcode" : 312402,
        "phno" : 7574286431
}
{

        "_id" : ObjectId("5faa345aa5d3da31563dffb8"),
        "id" : 54,
        "name" : "Muskaan Shraogi",
        "city" : "Akola",
        "zipcode" : 221011,
        "phno" : 8271023631
}
{

        "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
        "id" : 55,
        "name" : "Shreyas Kalrao",
        "city" : "Solapur",
        "zipcode" : 411016,
        "phno" : 9275029731
}
{

        "_id" : ObjectId("5fa4edcffe2ba8dbbda4fa1a"),
        "id" : 57,
        "name" : "Sushant Sontakke",
        "city" : "Kolhapur",
        "zipcode" : 211011,
        "phno" : 7272029631
}
{ "_id" : ObjectId("5fa4eda5fe2ba8dbbda4fa18"), "id" :
33256 }
{

        "_id" : ObjectId("5fc65f91c1fb2c16a5f1d05b"),
        "id" : 33256,
        "name" : "Someshwar Gaikwad",
        "city" : "Solapur"
}
```

9. Return updated documents

```
> db.order_management_system.findAndModify({query:
{city:"Solapur"}, update: {$set:{city:"Pune"}}});
{

        "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
        "id" : 55,
        "name" : "Shreyas Kalrao",
        "city" : "Solapur",
        "zipcode" : 411016,
        "phno" : 9275029731
```

```
    }
> db.order_management_system.find().sort({id:1}).pretty();
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1b"),
        "id" : 49,
        "name" : "Harsh Sakhrani",
        "city" : "Solapur",
        "zipcode" : 411001,
        "phno" : 9272129431
}
{
        "_id" : ObjectId("5fa4edd4fe2ba8dbbda4fa1c"),
        "id" : 50,
        "name" : "Saloni Parekh",
        "city" : "Solapur",
        "zipcode" : 411032,
        "phno" : 7212026631
}
{
        "_id" : ObjectId("5faa3421a5d3da31563dffb5"),
        "id" : 51,
        "name" : "Anuj Saoii",
        "city" : "Latur",
        "zipcode" : 111302,
        "phno" : 9572226431
}
{
        "_id" : ObjectId("5faa3421a5d3da31563dffb6"),
        "id" : 52,
        "name" : "Onkar Sharma",
        "city" : "Nashik",
        "zipcode" : 321456,
        "phno" : 8212026131
}
{
        "_id" : ObjectId("5faa3421a5d3da31563dffb7"),
        "id" : 53,
        "name" : "Prathamesh Shiralkar",
        "city" : "Latur",
        "zipcode" : 312402,
        "phno" : 7574286431
}
{
        "_id" : ObjectId("5faa345aa5d3da31563dffb8"),
        "id" : 54,
        "name" : "Muskaan Shraogi",
        "city" : "Akola",
        "zipcode" : 221011,
```

```
        "phno" : 8271023631
}
{

        "_id" : ObjectId("5fa4edb2fe2ba8dbbda4fa19"),
        "id" : 55,
        "name" : "Shreyas Kalrao",
        "city" : "Pune",
        "zipcode" : 411016,
        "phno" : 9275029731
}
{

        "_id" : ObjectId("5fa4edcffe2ba8dbbda4fa1a"),
        "id" : 57,
        "name" : "Sushant Sontakke",
        "city" : "Kolhapur",
        "zipcode" : 211011,
        "phno" : 7272029631
}
{ "_id" : ObjectId("5fa4eda5fe2ba8dbbda4fa18"), "id" :
33256 }
{

        "_id" : ObjectId("5fc65f91c1fb2c16a5f1d05b"),
        "id" : 33256,
        "name" : "Someshwar Gaikwad",
        "city" : "Solapur"
}
```