

## ASSIGNMENT 10

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CLASS : TE( B ) COMP

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### CREATE DATABASE AND COLLECTION :

```
> show databases
admin      0.000GB
assign9    0.000GB
config     0.000GB
local      0.000GB
> use assign10
switched to db assign10
> db.createCollection("emp_info")
{ "ok" : 1 }
```

### INSERTING VALUES IN COLLECTION :

```
> db.emp_info.insert({emp_id:1,emp_name:"Bhavik",emp_age:20,emp_city:"Pune",emp_salary:50000})
WriteResult({ "nInserted" : 1 })
> db.emp_info.insert({emp_id:2,emp_name:"Steve",emp_age:60,emp_city:"LA",emp_salary:90000})
WriteResult({ "nInserted" : 1 })
> db.emp_info.insert({emp_id:3,emp_name:"Jeff",emp_age:40,emp_city:"Mumbai",emp_salary:40000})
WriteResult({ "nInserted" : 1 })
> db.emp_info.insert({emp_id:4,emp_name:"Dhoni",emp_age:39,emp_city:"Pune",emp_salary:99000})
WriteResult({ "nInserted" : 1 })
```

### DISPLAYING VALUES IN COLLECTION USING PRETTY :

```
> db.emp_info.find().pretty()
{
  "_id" : ObjectId("5faacfd65da66d36603e8eb"),
  "emp_id" : 1,
  "emp_name" : "Bhavik",
  "emp_age" : 20,
  "emp_city" : "Pune",
  "emp_salary" : 50000
}
{
  "_id" : ObjectId("5faad05465da66d36603e8ec"),
  "emp_id" : 2,
  "emp_name" : "Steve",
  "emp_age" : 60,
  "emp_city" : "LA",
  "emp_salary" : 90000
}
{
  "_id" : ObjectId("5faad07565da66d36603e8ed"),
  "emp_id" : 3,
  "emp_name" : "Jeff",
  "emp_age" : 40,
  "emp_city" : "Mumbai",
  "emp_salary" : 40000
}
{
  "_id" : ObjectId("5faad0db65da66d36603e8ee"),
  "emp_id" : 4,
  "emp_name" : "Dhoni",
  "emp_age" : 39,
  "emp_city" : "Pune",
  "emp_salary" : 99000
}
```

**Displaying employee info sorted on name field :**

```
> db.emp_info.aggregate({$sort:{emp_name:1}}).pretty()
{
  "_id" : ObjectId("5faacdf65da66d36603e8eb"),
  "emp_id" : 1,
  "emp_name" : "Bhavik",
  "emp_age" : 20,
  "emp_city" : "Pune",
  "emp_salary" : 50000
}
{
  "_id" : ObjectId("5faad0db65da66d36603e8ee"),
  "emp_id" : 4,
  "emp_name" : "Dhoni",
  "emp_age" : 39,
  "emp_city" : "Pune",
  "emp_salary" : 99000
}
{
  "_id" : ObjectId("5faad07565da66d36603e8ed"),
  "emp_id" : 3,
  "emp_name" : "Jeff",
  "emp_age" : 40,
  "emp_city" : "Mumbai",
  "emp_salary" : 40000
}
{
  "_id" : ObjectId("5faad05465da66d36603e8ec"),
  "emp_id" : 2,
  "emp_name" : "Steve",
  "emp_age" : 60,
  "emp_city" : "LA",
  "emp_salary" : 90000
}
```

**Display employees whose name start with “B”:**

```
> db.emp_info.find({emp_name:{$regex:/^b/i}}).pretty()
{
  "_id" : ObjectId("5faacdf65da66d36603e8eb"),
  "emp_id" : 1,
  "emp_name" : "Bhavik",
  "emp_age" : 20,
  "emp_city" : "Pune",
  "emp_salary" : 50000
}
```

**UPDATING VALUES IN THE COLLECTION :**

```
> db.emp_info.update({emp_id:2},{ $set:{emp_name:"Mukesh",emp_city:"New Mumbai"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.emp_info.find({emp_id:2}).pretty()
{
  "_id" : ObjectId("5faad05465da66d36603e8ec"),
  "emp_id" : 2,
  "emp_name" : "Mukesh",
  "emp_age" : 60,
  "emp_city" : "New Mumbai",
  "emp_salary" : 90000
}
```

## SAVE method :

- Save a New Document Specifying an `_id` Field (To avoid ObjectId) :

```
> db.emp_info.save({_id:5,emp_name:"Virat",emp_age:30,emp_city:"Punjab",emp_salary:30000})
WriteResult({ "nMatched" : 0, "nUpserted" : 1, "nModified" : 0, "_id" : 5 })
> db.emp_info.find({_id:5}).pretty()
{
  "_id" : 5,
  "emp_name" : "Virat",
  "emp_age" : 30,
  "emp_city" : "Punjab",
  "emp_salary" : 30000
}
```

- Replace an Existing Document

```
> db.emp_info.save({_id:5,emp_name:"Sachin",emp_age:47,emp_city:"Mumbai",emp_salary:80000})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.emp_info.find({_id:5}).pretty()
{
  "_id" : 5,
  "emp_name" : "Sachin",
  "emp_age" : 47,
  "emp_city" : "Mumbai",
  "emp_salary" : 80000
}
```

## LOGICAL OPERATORS :

1. \$and:

```
> db.emp_info.find({$and:[{"emp_city":"Mumbai"}, {"emp_age":{"$gt:45}}]}).pretty()
{
  "_id" : 5,
  "emp_name" : "Sachin",
  "emp_age" : 47,
  "emp_city" : "Mumbai",
  "emp_salary" : 80000
}
```

## 2. \$not:

```
> db.emp_info.find({"emp_age":{"$not":{"$lt":40}}}).pretty()
{
  "_id" : ObjectId("5faad05465da66d36603e8ec"),
  "emp_id" : 2,
  "emp_name" : "Mukesh",
  "emp_age" : 60,
  "emp_city" : "New Mumbai",
  "emp_salary" : 90000
}
{
  "_id" : ObjectId("5faad07565da66d36603e8ed"),
  "emp_id" : 3,
  "emp_name" : "Jeff",
  "emp_age" : 40,
  "emp_city" : "Mumbai",
  "emp_salary" : 40000
}
{
  "_id" : 5,
  "emp_name" : "Sachin",
  "emp_age" : 47,
  "emp_city" : "Mumbai",
  "emp_salary" : 80000
}
```

## 3. \$or :

```
> db.emp_info.find({$or:[{"emp_city":"New Mumbai"}, {"emp_age":{$lt:40}}]}).pretty()
{
  "_id" : ObjectId("5faacfd65da66d36603e8eb"),
  "emp_id" : 1,
  "emp_name" : "Bhavik",
  "emp_age" : 20,
  "emp_city" : "Pune",
  "emp_salary" : 50000
}
{
  "_id" : ObjectId("5faad05465da66d36603e8ec"),
  "emp_id" : 2,
  "emp_name" : "Mukesh",
  "emp_age" : 60,
  "emp_city" : "New Mumbai",
  "emp_salary" : 90000
}
{
  "_id" : ObjectId("5faad0db65da66d36603e8ee"),
  "emp_id" : 4,
  "emp_name" : "Dhoni",
  "emp_age" : 39,
  "emp_city" : "Pune",
  "emp_salary" : 99000
}
```

#### 4. \$nor :

```
> db.emp_info.find({"emp_city":"Mumbai", $nor : [{"emp_age":{$lt : 45}]}).pretty()
{
  "_id" : 5,
  "emp_name" : "Sachin",
  "emp_age" : 47,
  "emp_city" : "Mumbai",
  "emp_salary" : 80000
}
```

#### DISPLAY TOTAL NO OF DOCUMENTS :

```
> db.emp_info.aggregate([{$group:{_id:null,count:{$sum:1}}]})
{ "_id" : null, "count" : 5 }
```

#### REMOVING A VALUE FROM THE COLLECTION :

```

> db.emp_info.remove({_id:5})
WriteResult({ "nRemoved" : 1 })
> db.emp_info.find({_id:5}).pretty()
> db.emp_info.find().pretty()
{
  "_id" : ObjectId("5faacfd65da66d36603e8eb"),
  "emp_id" : 1,
  "emp_name" : "Bhavik",
  "emp_age" : 20,
  "emp_city" : "Pune",
  "emp_salary" : 50000
}
{
  "_id" : ObjectId("5faad05465da66d36603e8ec"),
  "emp_id" : 2,
  "emp_name" : "Mukesh",
  "emp_age" : 60,
  "emp_city" : "New Mumbai",
  "emp_salary" : 90000
}
{
  "_id" : ObjectId("5faad07565da66d36603e8ed"),
  "emp_id" : 3,
  "emp_name" : "Jeff",
  "emp_age" : 40,
  "emp_city" : "Mumbai",
  "emp_salary" : 40000
}
{
  "_id" : ObjectId("5faad0db65da66d36603e8ee"),
  "emp_id" : 4,
  "emp_name" : "Dhoni",
  "emp_age" : 39,
  "emp_city" : "Pune",
  "emp_salary" : 99000
}

```

```

*****
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```