

MongoDb Assignment

**** Database Operations (CRUD)**

```
> db
```

```
test
```

```
> show dbs
```

```
> db
```

```
test
```

```
> use dit1
```

```
switched to db dit1
```

```
> db
```

```
dit1
```

**** Drop Database**

```
> db.dropDatabase()
```

```
{ "dropped" : "dit", "ok" : 1 }
```

```
> show collections
```

```
> db
```

```
dit1
```

```
> db.teachers
```

```
dit1.teachers
```

```
db.createCollection("teachers")
```

```
> db.teachers.insert({'name':'XYZ','dept':'comp'})
```

```
WriteResult({ "nInserted" : 1 })
```

```
> show collections
```

```
system.indexes
```

teachers

```
> db.teachers.insert({'name':'PQR','dept':'comp'})
```

```
WriteResult({ "nInserted" : 1 })
```

**** FInd>>>>>>>>>**

```
> db.teachers.find({})
```

```
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp" }
```

```
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp" }
```

```
> db.teachers.insert({'name':'XYZ','dept':'IT'})
```

```
WriteResult({ "nInserted" : 1 })
```

```
> db.teachers.find({})
```

```
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp" }
```

```
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp" }
```

```
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT" }
```

```
> db.teachers.find({dept:"comp"})
```

```
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp" }
```

```
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp" }
```

```
> db.teachers.find({name:"xyz"})
```

```
> db.teachers.find({name:'xyz'})
```

```
> db.teachers.find({dept:{$in:['COMP','IT']}})
```

```
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT" }
```

```
> db.teachers.find({dept:{$in:['COMP']}})
```

```
> db.teachers.find({dept:{$in:['it']}})
```

```
> db.teachers.find({dept:{$in:['it','comp']}})
```

```
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp" }
```

```

{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp" }
> db.teachers.find({ dept:{$in:['IT','comp']}})

{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp" }
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp" }
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT" }
> db.teachers.find({})

{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp" }
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp" }
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT" }
> db.salary.find({})

{ "_id" : ObjectId("53bd18ea30ceb4fffe373d9f"), "sal" : 10000, "name" : "xyz" }
{ "_id" : ObjectId("53bd18ef30ceb4fffe373da0"), "sal" : 1000, "name" : "pqr" }
{ "_id" : ObjectId("53bd18f530ceb4fffe373da1"), "sal" : 12000, "name" : "abc" }
db.teachers.find({ dept:{$ne:'comp'}})

{ "_id" : ObjectId("5780c1364076e275b91c3977"), "name" : "XYZ", "dept" : "IT" }
> db.salary.find({ sal:{$lt:10000}})

{ "_id" : ObjectId("53bd18ef30ceb4fffe373da0"), "sal" : 1000, "name" : "pqr" }
> db.salary.find({ name:'pqr',sal:{$lt:10000}})

{ "_id" : ObjectId("53bd18ef30ceb4fffe373da0"), "sal" : 1000, "name" : "pqr" }
> db.salary.find({ name:'xyz',sal:{$lt:10000}})

> db.salary.find( {$or: [{ sal:{$gt:1000}} ,{name:'pqr'}]})

{ "_id" : ObjectId("53bd18ea30ceb4fffe373d9f"), "sal" : 10000, "name" : "xyz" }
{ "_id" : ObjectId("53bd18ef30ceb4fffe373da0"), "sal" : 1000, "name" : "pqr" }
{ "_id" : ObjectId("53bd18f530ceb4fffe373da1"), "sal" : 12000, "name" : "abc" }

```

Insert a Document with update() Method

```
db.teachers.update( {name:"XYZ"},{ $set : { exp: 10 } },{ upsert : true })

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.teachers.find({})

{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp", "exp" : 10
}

{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp" }

{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT" }

> db.teachers.update( {name:"PQR"},{ $set : { exp: 10 } })

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 0 })

> db.teachers.find({})

{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp", "exp" : 10
}

{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp", "exp" : 10
}

{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT" }

> db.teachers.update( {name:"XYZ"},{ $set : { exp: 20 } })

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.teachers.find({})

{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp", "exp" : 20
}

{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp", "exp" : 10
}

{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT" }

> db.teachers.update( {name:"XYZ",dept:"IT"},{ $set : { exp: 20 } })

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.teachers.find({})
```

```
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp", "exp" : 20
}
```

```
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp", "exp" : 10
}
```

```
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT", "exp" : 20 }
```

```
db.teachers.update( {name:"rdb"},{ $set : { exp: 10 } })
```

```
WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" : 0 })
```

```
> db.teachers.find({})
```

```
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp", "exp" : 20
}
```

```
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp", "exp" : 10
}
```

```
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT", "exp" : 20 }
```

```
{ "_id" : ObjectId("53c362931373925c33d98277"), "name" : "ABC", "exp" : 10 }
```

```
> db.teachers.update( {name:"rdb"},{ $set : { exp: 10 } },{ upsert : true })
```

```
WriteResult({
```

```
"nMatched" : 0,
```

```
"nUpserted" : 1,
```

```
"nModified" : 0,
```

```
"_id" : ObjectId("53c36afd1373925c33d98278")
```

```
})
```

```
> db.teachers.find({})
```

```
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp", "exp" : 20
}
```

```
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp", "exp" : 10
}
```

```
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT", "exp" : 20 }
```

```

{ "_id" : ObjectId("53c362931373925c33d98277"), "name" : "ABC", "exp" : 10 }
{ "_id" : ObjectId("53c36afd1373925c33d98278"), "name" : "rdb", "exp" : 10 }
db.teachers.update( {name:"ABC"},{ $set : { exp: 10 } },{ upsert : true })
WriteResult({
  "nMatched" : 0,
  "nUpserted" : 1,
  "nModified" : 0,
  "_id" : ObjectId("53c362931373925c33d98277")
})
> db.teachers.find({})
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "dept" : "comp", "exp" : 20
}
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "dept" : "comp", "exp" : 10
}
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "dept" : "IT", "exp" : 20 }
{ "_id" : ObjectId("53c362931373925c33d98277"), "name" : "ABC", "exp" : 10 }
db.teachers.update( {name:"XYZ"},{ $set : { exp: 20 } },{multi: true})
WriteResult({ "nMatched" : 2, "nUpserted" : 0, "nModified" : 0 })
> db.teachers.find({})
{ "_id" : ObjectId("559e0cc4f0848bd9a04a8dee"), "name" : "XYZ", "dept" : "comp", "exp" : 20
}
{ "_id" : ObjectId("559e0d71f0848bd9a04a8def"), "name" : "XYZ", "dept" : "comp", "exp" : 20
}

```

Return the Specified Fields and the _id Field Only

```

db.teachers.find({}, {name:1,exp:1})
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "exp" : 20 }
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "exp" : 10 }

```

```
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "exp" : 20 }  
{ "_id" : ObjectId("53c362931373925c33d98277"), "name" : "ABC", "exp" : 10 }
```

Return Specified Fields Only

```
> db.teachers.find({}, { name:1, exp:1, _id:0 })  
  
{ "name" : "XYZ", "exp" : 20 }  
  
{ "name" : "PQR", "exp" : 10 }  
  
{ "name" : "XYZ", "exp" : 20 }  
  
{ "name" : "ABC", "exp" : 10 }
```

Return All But the Excluded Field

```
> db.teachers.find({}, { name:1, exp:1, _id:0, { dept:0 } })  
  
{ "name" : "XYZ", "exp" : 20 }  
  
{ "name" : "PQR", "exp" : 10 }  
  
{ "name" : "XYZ", "exp" : 20 }  
  
{ "name" : "ABC", "exp" : 10 }  
  
> db.teachers.find({}, { dept:0 })  
  
{ "_id" : ObjectId("53bd01615f008ec565826f94"), "name" : "XYZ", "exp" : 20 }  
{ "_id" : ObjectId("53bd01b95f008ec565826f95"), "name" : "PQR", "exp" : 10 }  
{ "_id" : ObjectId("53bd02b3843ffc10d195b318"), "name" : "XYZ", "exp" : 20 }  
{ "_id" : ObjectId("53c362931373925c33d98277"), "name" : "ABC", "exp" : 10 }  
  
> db.teachers.find({}, { dept:0, _id:0 })  
  
{ "name" : "XYZ", "exp" : 20 }  
  
{ "name" : "PQR", "exp" : 10 }  
  
{ "name" : "XYZ", "exp" : 20 }  
  
{ "name" : "ABC", "exp" : 10 }
```

```
> db.teachers.find({name:"XYZ"},{dept:0,_id:0})
```

```
{ "name" : "XYZ", "exp" : 20 }
```

```
{ "name" : "XYZ", "exp" : 20 }
```

SAVE () for inserting Document

```
db.teachers.save( { type: "book", item: "notebook", qty: 40 } )
```

```
WriteResult({ "nInserted" : 1 })
```

```
> db.teachers.find({})
```

```
{ "_id" : ObjectId("559e0cc4f0848bd9a04a8dee"), "name" : "XYZ", "dept" : "comp", "exp" : 20  
}
```

```
{ "_id" : ObjectId("559e0d71f0848bd9a04a8def"), "name" : "XYZ", "dept" : "comp", "exp" : 20  
}
```

```
{ "_id" : ObjectId("559e3778b0a9995441fdf919"), "type" : "book", "item" : "notebook", "qty" :  
40 }
```

```
>
```

SAVE () for modifying Document

```
db.teachers.save(
```

```
{ _id: 10, type: "misc",
```

```
item: "placard"
```

```
})
```

```
db.teachers.save(
```

```
{ _id: ObjectId("5784922f88fb57196aa04eb5"), type: "misc",
```

```
item: "placard"
```

```
})
```

```
db.stud.save(
```

```
{ _id: ObjectId("59a78c1e061a495125b3fedc"), roll:100
```

```
})
```


Remove()

```
db.teachers.find({})
```

```
{ "_id" : ObjectId("559e0cc4f0848bd9a04a8dee"), "name" : "XYZ", "dept" : "comp", "exp" : 20 }
```

```
{ "_id" : ObjectId("559e0d71f0848bd9a04a8def"), "name" : "XYZ", "dept" : "comp", "exp" : 20 }
```

```
{ "_id" : ObjectId("559e3778b0a9995441fdf919"), "type" : "book", "item" : "notebook", "qty" : 40 }
```

```
{ "_id" : 10, "type" : "c", "item" : "p" }
```

```
> db.teachers.remove({ "type" : "book" })
```

```
WriteResult({ "nRemoved" : 1 })
```

```
> db.teachers.find({})
```

```
{ "_id" : ObjectId("559e0cc4f0848bd9a04a8dee"), "name" : "XYZ", "dept" : "comp", "exp" : 20 }
```

```
{ "_id" : ObjectId("559e0d71f0848bd9a04a8def"), "name" : "XYZ", "dept" : "comp", "exp" : 20 }
```

```
{ "_id" : 10, "type" : "c", "item" : "p" }
```

```
db.teachers.remove({})
```

```
db.teachers.find({})
```

```
{ "_id" : ObjectId("559e0cc4f0848bd9a04a8dee"), "name" : "XYZ", "dept" : "comp", "exp" : 20 }
```

```
{ "_id" : ObjectId("559e0d71f0848bd9a04a8def"), "name" : "XYZ", "dept" : "comp", "exp" : 20 }
```

```
{ "_id" : 10, "type" : "c", "item" : "p" }
```

```
> db.teachers.remove({ "name" : "XYZ" }, 1)
```

```
WriteResult({ "nRemoved" : 1 })
```

```
> db.teachers.find({})
```

```
{ "_id" : ObjectId("559e0d71f0848bd9a04a8def"), "name" : "XYZ", "dept" : "comp", "exp" : 20
}
```

```
{ "_id" : 10, "type" : "c", "item" : "p" }
```

>

Pretty()

```
db.teachers.find().pretty()
```

```
{
```

```
"_id" : ObjectId("559e0d71f0848bd9a04a8def"),
```

```
"name" : "XYZ",
```

```
"dept" : "comp",
```

```
"exp" : 20
```

```
}
```

```
{ "_id" : 10, "type" : "c", "item" : "p" }
```

>

limit()

```
db.teachers.find().limit(1).pretty()
```

```
{
```

```
"_id" : ObjectId("559e0d71f0848bd9a04a8def"),
```

```
"name" : "XYZ",
```

```
"dept" : "comp",
```

```
"exp" : 20
```

```
}
```

sort({}) 1 for asc -1 desc

```
db.teachers.find().limit(2).pretty().sort({'name':-1})
```

```
{
```

```
"_id" : ObjectId("559e0d71f0848bd9a04a8def"),  
"name" : "XYZ",  
"dept" : "comp",  
"exp" : 20  
}  
{ "_id" : 10, "type" : "c", "item" : "p" }
```