USECASE -STUDENTDB

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Listing the databases present

```
> show dbs
admin          0.000GB
config         0.000GB
local          0.000GB
studentdetails  0.000GB
> use studentdetails
switched to db studentdetails
```

Creating the collection

```
> db.createCollection("student", { capped : true, size : 9232768} )
{ "ok" : 1 }
```

Inserting the data

```
> db.studentdetails.insert({"name":"Bhuvanesh",regnumb:10,"address":"Andhra"})
WriteResult({ "nInserted" : 1 })
> db.studentdetails.insert({"name":"Guru",regnumb:11,"address":"Tamilnadu"})
WriteResult({ "nInserted" : 1 })
>
```

Inserting Multiple data

```
> db.studentdetails.insertMany([{"name":"Ramesh",regnumb:12,"address":"Telangana"},{"name":"Manas",regnumb:13,"address":"Delhi"
},{"name":"gowtam",regnumb:14,"address":"Banglore"}])
{
        "acknowledged" : true,
        "insertedIds" : [
                ObjectId("6152bdcd9fc71ae1e618ca42"),
                ObjectId("6152bdcd9fc71ae1e618ca43"),
                ObjectId("6152bdcd9fc71ae1e618ca44")
        ]
}
```

Listing the fields in json format

```
> db.studentdetails.find().forEach(printjson)
{
        "_id" : ObjectId("6152a4cf8fec3848d297cea2"),
        "name" : "Bhuvanesh",
        "regnumb" : 10,
        "address" : "Andhra"
}
{
        "_id" : ObjectId("6152a4e78fec3848d297cea3"),
        "name" : "Guru",
        "regnumb" : 11,
        "address" : "Tamilnadu"
}
{
        "_id" : ObjectId("6152a6538fec3848d297cea4"),
        "name" : "Ramesh",
        "regnumb" : 12,
        "address" : "Telangana"
}
{
        "_id" : ObjectId("6152a6538fec3848d297cea5"),
        "name" : "Manas",
        "regnumb" : 13,
        "address" : "Delhi"
}
{
        "_id" : ObjectId("6152a6538fec3848d297cea6"),
        "name" : "gowtam",
        "regnumb" : 14,
        "address" : "Banglore"
}
```

Listing the fields using pretty

```
> db.studentdetails.find().pretty()
{
        "_id" : ObjectId("6152a4cf8fec3848d297cea2"),
        "name" : "Bhuvanesh",
        "regnumb" : 10,
        "address" : "Andhra"
}
{
        "_id" : ObjectId("6152a4e78fec3848d297cea3"),
        "name" : "Guru",
        "regnumb" : 11,
        "address" : "Tamilnadu"
}
{
        "_id" : ObjectId("6152a6538fec3848d297cea4"),
        "name" : "Ramesh",
        "regnumb" : 12,
        "address" : "Telangana"
}
{
        "_id" : ObjectId("6152a6538fec3848d297cea5"),
        "name" : "Manas",
        "regnumb" : 13,
        "address" : "Delhi"
}
{
        "_id" : ObjectId("6152a6538fec3848d297cea6"),
        "name" : "gowtam",
        "regnumb" : 14,
        "address" : "Banglore"
}
```

Creation of index

```
> db.studentdetails.createIndex({regnumb:1})
{
        "numIndexesBefore" : 1,
        "numIndexesAfter" : 2,
        "createdCollectionAutomatically" : false,
        "ok" : 1
}
```

Getting information of indexes

```
> db.studentdetails.getIndexes()
[
        {
                "v" : 2,
                "key" : {
                        "_id" : 1
                },
                "name" : "_id_"
        },
        {
                "v" : 2,
                "key" : {
                        "regnumb" : 1
                },
                "name" : "regnumb_1"
        }
]
```

Dropping index

```
> db.studentdetails.dropIndex({regnumb:1})
{ "nIndexesWas" : 2, "ok" : 1 }
```

Updating fields with marks

```
> db.studentdetails.update({"name":"Bhuvanesh"},{$set:{marks1:98,marks2:67,marks3:78}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentdetails.update({"name":"Guru"},{$set:{marks1:99,marks2:79,marks3:88}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentdetails.update({"name":"Ramesh"},{$set:{marks1:79,marks2:93,marks3:68}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentdetails.update({"name":"Manas"},{$set:{marks1:94,marks2:99,marks3:91}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentdetails.update({"name":"gowtam"},{$set:{marks1:77,marks2:84,marks3:82}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
>
```

```
> db.studentdetails.find()
{ "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"), "name" : "Bhuvanesh", "regnumb" : 10, "address" : "Andhra", "marks1" : 98, "marks2" : 67, "marks3" : 78 }
{ "_id" : ObjectId("6152bdbd9fc71ae1e618ca41"), "name" : "Guru", "regnumb" : 11, "address" : "Tamilnadu", "marks1" : 99, "marks2" : 79, "marks3" : 88 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"), "name" : "Ramesh", "regnumb" : 12, "address" : "Telangana", "marks1" : 79, "marks2" : 93, "marks3" : 68 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"), "name" : "Manas", "regnumb" : 13, "address" : "Delhi", "marks1" : 94, "marks2" : 99, "marks3" : 91 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"), "name" : "gowtam", "regnumb" : 14, "address" : "Banglore", "marks1" : 77, "marks2" : 84, "marks3" : 82 }
>
```

Listing the fields with name "Bhuvanesh"

```
> db.studentdetails.find({"name":"Bhuvanesh"}).pretty()
{
        "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"),
        "name" : "Bhuvanesh",
        "regnumb" : 10,
        "address" : "Andhra",
        "marks1" : 98,
        "marks2" : 67,
        "marks3" : 78
}
```

Listing the fields which are having marks1 greater than 50

```
> db.studentdetails.find({marks1:{$gt:50}}).pretty()
{
        "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"),
        "name" : "Bhuvanesh",
        "regnumb" : 10,
        "address" : "Andhra",
        "marks1" : 98,
        "marks2" : 67,
        "marks3" : 78
}
{
        "_id" : ObjectId("6152bdbd9fc71ae1e618ca41"),
        "name" : "Guru",
        "regnumb" : 11,
        "address" : "Tamilnadu",
        "marks1" : 99,
        "marks2" : 79,
        "marks3" : 88
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"),
        "name" : "Ramesh",
        "regnumb" : 12,
        "address" : "Telangana",
        "marks1" : 79,
        "marks2" : 93,
        "marks3" : 68
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"),
        "name" : "Manas",
        "regnumb" : 13,
        "address" : "Delhi",
        "marks1" : 94,
        "marks2" : 99,
        "marks3" : 91
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"),
        "name" : "gowtam",
        "regnumb" : 14,
        "address" : "Banglore",
        "marks1" : 77,
        "marks2" : 84,
        "marks3" : 82
}
```

Listing the fields which are having marks1 less than 80

```
> db.studentdetails.find({marks1:{$lt:80}}).pretty()
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"),
        "name" : "Ramesh",
        "regnumb" : 12,
        "address" : "Telangana",
        "marks1" : 79,
        "marks2" : 93,
        "marks3" : 68
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"),
        "name" : "gowtam",
        "regnumb" : 14,
        "address" : "Banglore",
        "marks1" : 77,
        "marks2" : 84,
        "marks3" : 82
}
```

Listing the fields which are having marks1 greater than or equal to 94

```
> db.studentdetails.find({marks1:{$gte:94}}).pretty()
{
        "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"),
        "name" : "Bhuvanesh",
        "regnumb" : 10,
        "address" : "Andhra",
        "marks1" : 98,
        "marks2" : 67,
        "marks3" : 78
}
{
        "_id" : ObjectId("6152bdbd9fc71ae1e618ca41"),
        "name" : "Guru",
        "regnumb" : 11,
        "address" : "Tamilnadu",
        "marks1" : 99,
        "marks2" : 79,
        "marks3" : 88
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"),
        "name" : "Manas",
        "regnumb" : 13,
        "address" : "Delhi",
        "marks1" : 94,
        "marks2" : 99,
        "marks3" : 91
}
```

Listing the fields which are having marks1 lesser than or equal to 94

```
> db.studentdetails.find({marks1:{$lte:94}}).pretty()
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"),
        "name" : "Ramesh",
        "regnumb" : 12,
        "address" : "Telangana",
        "marks1" : 79,
        "marks2" : 93,
        "marks3" : 68
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"),
        "name" : "Manas",
        "regnumb" : 13,
        "address" : "Delhi",
        "marks1" : 94,
        "marks2" : 99,
        "marks3" : 91
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"),
        "name" : "gowtam",
        "regnumb" : 14,
        "address" : "Banglore",
        "marks1" : 77,
        "marks2" : 84,
        "marks3" : 82
}
```

Listing the fields which are having marks1 not equal to 99

```
> db.studentdetails.find({marks1:{$ne:99}}).pretty()
{
        "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"),
        "name" : "Bhuvanesh",
        "regnumb" : 10,
        "address" : "Andhra",
        "marks1" : 98,
        "marks2" : 67,
        "marks3" : 78
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"),
        "name" : "Ramesh",
        "regnumb" : 12,
        "address" : "Telangana",
        "marks1" : 79,
        "marks2" : 93,
        "marks3" : 68
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"),
        "name" : "Manas",
        "regnumb" : 13,
        "address" : "Delhi",
        "marks1" : 94,
        "marks2" : 99,
        "marks3" : 91
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"),
        "name" : "gowtam",
        "regnumb" : 14,
        "address" : "Banglore",
        "marks1" : 77,
        "marks2" : 84,
        "marks3" : 82
}
```

Updating name Manas to baggu

```
> db.studentdetails.update({"name":"Manas"},{$set:{"name":"baggu"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentdetails.find()
{ "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"), "name" : "Bhuvanesh", "regnumb" : 10, "address" : "Andhra", "marks1" : 98, "marks2" : 67, "marks3" : 78 }
{ "_id" : ObjectId("6152bdbd9fc71ae1e618ca41"), "name" : "Guru", "regnumb" : 11, "address" : "Tamilnadu", "marks1" : 99, "marks2" : 79, "marks3" : 88 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"), "name" : "Ramesh", "regnumb" : 12, "address" : "Telangana", "marks1" : 79, "marks2" : 93, "marks3" : 68 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"), "name" : "baggu", "regnumb" : 13, "address" : "Delhi", "marks1" : 94, "marks2" : 99, "marks3" : 91 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"), "name" : "gowtam", "regnumb" : 14, "address" : "Banglore", "marks1" : 77, "marks2" : 84, "marks3" : 82 }
>
```

Displays only one field

```
> db.studentdetails.find({marks1:{$gt:50}}).limit(1).pretty()
{
        "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"),
        "name" : "Bhuvanesh",
        "regnumb" : 10,
        "address" : "Andhra",
        "marks1" : 98,
        "marks2" : 67,
        "marks3" : 78
}
```

Displays fields skipping first field

```
> db.studentdetails.find({marks1:{$gt:50}}).skip(1).pretty()
{
        "_id" : ObjectId("6152bdbd9fc71ae1e618ca41"),
        "name" : "Guru",
        "regnumb" : 11,
        "address" : "Tamilnadu",
        "marks1" : 99,
        "marks2" : 79,
        "marks3" : 88
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"),
        "name" : "Ramesh",
        "regnumb" : 12,
        "address" : "Telangana",
        "marks1" : 79,
        "marks2" : 93,
        "marks3" : 68
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"),
        "name" : "baggu",
        "regnumb" : 13,
        "address" : "Delhi",
        "marks1" : 94,
        "marks2" : 99,
        "marks3" : 91
}
{
        "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"),
        "name" : "gowtam",
        "regnumb" : 14,
        "address" : "Banglore",
        "marks1" : 77,
        "marks2" : 84,
        "marks3" : 82
}
```

Sorting in ascending order for marks1

```
> db.studentdetails.find({},{marks1:1}).sort({marks1:1})
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"), "marks1" : 77 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"), "marks1" : 79 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"), "marks1" : 94 }
{ "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"), "marks1" : 98 }
{ "_id" : ObjectId("6152bdbd9fc71ae1e618ca41"), "marks1" : 99 }
>
```

Sorting in descending order for marks1

```
> db.studentdetails.find({},{marks1:1}).sort({marks1:-1})
{ "_id" : ObjectId("6152bdbd9fc71ae1e618ca41"), "marks1" : 99 }
{ "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"), "marks1" : 98 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"), "marks1" : 94 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca42"), "marks1" : 79 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"), "marks1" : 77 }
```

Removes regnumb

```
> db.studentdetails.remove({regnumb:12},1)
WriteResult({ "nRemoved" : 1 })
> db.studentdetails.find()
{ "_id" : ObjectId("6152bdbb9fc71ae1e618ca40"), "name" : "Bhuvanesh", "regnumb" : 10, "address" : "Andhra", "marks1" : 98, "marks2" : 67, "marks3" : 78 }
{ "_id" : ObjectId("6152bdbd9fc71ae1e618ca41"), "name" : "Guru", "regnumb" : 11, "address" : "Tamilnadu", "marks1" : 99, "marks2" : 79, "marks3" : 88 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca43"), "name" : "baggu", "regnumb" : 13, "address" : "Delhi", "marks1" : 94, "marks2" : 99, "marks3" : 91 }
{ "_id" : ObjectId("6152bdcd9fc71ae1e618ca44"), "name" : "gowtam", "regnumb" : 14, "address" : "Banglore", "marks1" : 77, "marks2" : 84, "marks3" : 82 }
>
```

Dropping the database

```
> db.dropDatabase()
{ "ok" : 1 }
> show dbs
admin    0.000GB
config   0.000GB
local    0.000GB
```