```
LAB BATCH 1
----------------------------------------------------------------
NAME: KETAKI PATIL
PANEL : A
ROLL NO. : 17
BATCH : A1

----------------------------------------------------------------

---CREATE DATABASE INSTITUTE

> show dbs
admin        0.000GB
config       0.000GB
employee     0.000GB
hotel        0.000GB
local        0.000GB
restaurant   0.000GB
> use institute
switched to db institute

---CREATE COLLECTION STUDENT

> db.createCollection("student")
{ "ok" : 1 }

---INSERT 10 DOCUMENTS

>
db.student.insert({StudentId:1,StudentName:"Aakash",Branch:"CSE",Age:20,Panel:"A",A
ddress:{Area:"Majiwada",City:"Thane",Pincode:400610},Subjects:[{SubName1:"DBMS",Sco
re1:75},{SubName2:"TOC",Score2:95},{SubName3:"IS",Score3:70},{SubName4:"AI",Score4:
85}],AreaofInterest:["Cybersecurity","Cloud Computing"]})
WriteResult({ "nInserted" : 1 })
>
db.student.insert({StudentId:2,StudentName:"Apoorv",Branch:"CSE",Age:20,Panel:"A",A
ddress:{Area:"Lokhandwala",City:"Mumbai",Pincode:400400},Subjects:[{SubName1:"DBMS"
,Score1:95},{SubName2:"TOC",Score2:85},{SubName3:"IS",Score3:60},{SubName4:"AI",Sco
re4:80}],AreaofInterest:["Big Data","Cloud Computing"]})
WriteResult({ "nInserted" : 1 })
>
>
db.student.insert({StudentId:3,StudentName:"Vignesh",Branch:"CSE",Age:21,Panel:"B",
Address:{Area:"Pradhikaran",City:"Pune",Pincode:403410},Subjects:[{SubName1:"DBMS",
Score1:90},{SubName2:"TOC",Score2:80},{SubName3:"IS",Score3:79},{SubName4:"AI",Scor
e4:90}],AreaofInterest:["Big Data","Machine Learning"]})
WriteResult({ "nInserted" : 1 })
>
db.student.insert({StudentId:4,StudentName:"Shashank",Branch:"CSE",Age:22,Panel:"B"
,Address:{Area:"Bhakti
```

```
Shakti",City:"Pune",Pincode:403418},Subjects:[{SubName1:"DBMS",Score1:80},{SubName2
:"TOC",Score2:70},{SubName3:"IS",Score3:59},{SubName4:"AI",Score4:90}],AreaofIntere
st:["Artificial Intelligence","Machine Learning"]})
WriteResult({ "nInserted" : 1 })
>
>
db.student.insert({StudentId:5,StudentName:"Geeta",Branch:"CSE",Age:20,Panel:"D",Ad
dress:{Area:"Kothrud",City:"Pune",Pincode:403414},Subjects:[{SubName1:"DBMS",Score1
:90},{SubName2:"TOC",Score2:70},{SubName3:"IS",Score3:89},{SubName4:"AI",Score4:60}
],AreaofInterest:["Networking","Electronics"]})
WriteResult({ "nInserted" : 1 })
>
db.student.insert({StudentId:6,StudentName:"Gargie",Branch:"CSE",Age:21,Panel:"D",A
ddress:{Area:"Kothrud",City:"Pune",Pincode:403414},Subjects:[{SubName1:"DBMS",Score
1:90},{SubName2:"TOC",Score2:80},{SubName3:"IS",Score3:69},{SubName4:"AI",Score4:90
}],AreaofInterest:["Machine Learning","Deep Learning","Artificial Intelligence"]})
WriteResult({ "nInserted" : 1 })
>
>
db.student.insert({StudentId:7,StudentName:"Priya",Branch:"CSE",Age:20,Panel:"A",Ad
dress:{Area:"Noida",City:"Delhi",Pincode:403120},Subjects:[{SubName1:"DBMS",Score1:
70},{SubName2:"TOC",Score2:84},{SubName3:"IS",Score3:89},{SubName4:"AI",Score4:96}]
,AreaofInterest:["Artificial Intelligence"]})
WriteResult({ "nInserted" : 1 })
>
db.student.insert({StudentId:8,StudentName:"Swati",Branch:"CSE",Age:19,Panel:"A",Ad
dress:{Area:"Mahal",City:"Nagpur",Pincode:403004},Subjects:[{SubName1:"DBMS",Score1
:80},{SubName2:"TOC",Score2:89},{SubName3:"IS",Score3:65},{SubName4:"AI",Score4:87}
],AreaofInterest:["Machine Learning","Deep Learning"]})
WriteResult({ "nInserted" : 1 })
>
db.student.insert({StudentId:9,StudentName:"Pranav",Branch:"Civil",Age:19,Panel:"B"
,Address:{Area:"Kothrud",City:"Pune",Pincode:403414},Subjects:[{SubName1:"CT",Score
1:90},{SubName2:"SA"}],AreaofInterest:["Highway"]})
WriteResult({ "nInserted" : 1 })
>
db.student.insert({StudentId:10,StudentName:"Vikram",Branch:"Civil",Age:21,Panel:"C
",Address:{Area:"Kothrud",City:"Pune",Pincode:403414},Subjects:[{SubName1:"CT",Scor
e1:90},{SubName2:"SA",Score2:80},{SubName3:"GEO",Score3:69}],AreaofInterest:["Energ
y","Dam"]})
WriteResult({ "nInserted" : 1 })

---DISPLAY ALL STUDENTS INFORMARTION
> db.student.find().pretty()
{
        "_id" : ObjectId("6065c2f4269de005a89e71aa"),
        "StudentId" : 1,
        "StudentName" : "Aakash",
        "Branch" : "CSE",
        "Age" : 20,
```

```
        "Panel" : "A",
        "Address" : {
                "Area" : "Majiwada",
                "City" : "Thane",
                "Pincode" : 400610
        },
        "Subjects" : [
                {
                        "SubName1" : "DBMS",
                        "Score1" : 75
                },
                {
                        "SubName2" : "TOC",
                        "Score2" : 95
                },
                {
                        "SubName3" : "IS",
                        "Score3" : 70
                },
                {
                        "SubName4" : "AI",
                        "Score4" : 85
                }
        ],
        "AreaofInterest" : [
                "Cybersecurity",
                "Cloud Computing"
        ]
}
{

        "_id" : ObjectId("6065c38f269de005a89e71ab"),
        "StudentId" : 2,
        "StudentName" : "Apoorv",
        "Branch" : "CSE",
        "Age" : 20,
        "Panel" : "A",
        "Address" : {
                "Area" : "Lokhandwala",
                "City" : "Mumbai",
                "Pincode" : 400400
        },
        "Subjects" : [
                {
                        "SubName1" : "DBMS",
                        "Score1" : 95
                },
                {
                        "SubName2" : "TOC",
                        "Score2" : 85
                },
```

```
                {
                        "SubName3" : "IS",
                        "Score3" : 60
                },
                {
                        "SubName4" : "AI",
                        "Score4" : 80
                }
        ],
        "AreaofInterest" : [
                "Big Data",
                "Cloud Computing"
        ]
}
{
        "_id" : ObjectId("6065c3ef269de005a89e71ac"),
        "StudentId" : 3,
        "StudentName" : "Vignesh",
        "Branch" : "CSE",
        "Age" : 21,
        "Panel" : "B",
        "Address" : {
                "Area" : "Pradhikaran",
                "City" : "Pune",
                "Pincode" : 403410
        },
        "Subjects" : [
                {
                        "SubName1" : "DBMS",
                        "Score1" : 90
                },
                {
                        "SubName2" : "TOC",
                        "Score2" : 80
                },
                {
                        "SubName3" : "IS",
                        "Score3" : 79
                },
                {
                        "SubName4" : "AI",
                        "Score4" : 90
                }
        ],
        "AreaofInterest" : [
                "Big Data",
                "Machine Learning"
        ]
}
{
```

```json
        "_id" : ObjectId("6065c45b269de005a89e71ad"),
        "StudentId" : 4,
        "StudentName" : "Shashank",
        "Branch" : "CSE",
        "Age" : 22,
        "Panel" : "B",
        "Address" : {
                "Area" : "Bhakti Shakti",
                "City" : "Pune",
                "Pincode" : 403418
        },
        "Subjects" : [
                {
                        "SubName1" : "DBMS",
                        "Score1" : 80
                },
                {
                        "SubName2" : "TOC",
                        "Score2" : 70
                },
                {
                        "SubName3" : "IS",
                        "Score3" : 59
                },
                {
                        "SubName4" : "AI",
                        "Score4" : 90
                }
        ],
        "AreaofInterest" : [
                "Artificial Intelligence",
                "Machine Learning"
        ]
}
{
        "_id" : ObjectId("6065c51b269de005a89e71ae"),
        "StudentId" : 5,
        "StudentName" : "Geeta",
        "Branch" : "CSE",
        "Age" : 20,
        "Panel" : "D",
        "Address" : {
                "Area" : "Kothrud",
                "City" : "Pune",
                "Pincode" : 403414
        },
        "Subjects" : [
                {
                        "SubName1" : "DBMS",
                        "Score1" : 90
```

```
                },
                {
                        "SubName2" : "TOC",
                        "Score2" : 70
                },
                {
                        "SubName3" : "IS",
                        "Score3" : 89
                },
                {
                        "SubName4" : "AI",
                        "Score4" : 60
                }
        ],
        "AreaofInterest" : [
                "Networking",
                "Electronics"
        ]
}
{
        "_id" : ObjectId("6065c589269de005a89e71af"),
        "StudentId" : 6,
        "StudentName" : "Gargie",
        "Branch" : "CSE",
        "Age" : 21,
        "Panel" : "D",
        "Address" : {
                "Area" : "Kothrud",
                "City" : "Pune",
                "Pincode" : 403414
        },
        "Subjects" : [
                {
                        "SubName1" : "DBMS",
                        "Score1" : 90
                },
                {
                        "SubName2" : "TOC",
                        "Score2" : 80
                },
                {
                        "SubName3" : "IS",
                        "Score3" : 69
                },
                {
                        "SubName4" : "AI",
                        "Score4" : 90
                }
        ],
        "AreaofInterest" : [
```

```
                        "Machine Learning",
                        "Deep Learning",
                        "Artificial Intelligence"
                ]
        }
        {
                "_id" : ObjectId("6065c757269de005a89e71b0"),
                "StudentId" : 7,
                "StudentName" : "Priya",
                "Branch" : "CSE",
                "Age" : 20,
                "Panel" : "A",
                "Address" : {
                        "Area" : "Noida",
                        "City" : "Delhi",
                        "Pincode" : 403120
                },
                "Subjects" : [
                        {
                                "SubName1" : "DBMS",
                                "Score1" : 70
                        },
                        {
                                "SubName2" : "TOC",
                                "Score2" : 84
                        },
                        {
                                "SubName3" : "IS",
                                "Score3" : 89
                        },
                        {
                                "SubName4" : "AI",
                                "Score4" : 96
                        }
                ],
                "AreaofInterest" : [
                        "Artificial Intelligence"
                ]
        }
        {
                "_id" : ObjectId("6065c75f269de005a89e71b1"),
                "StudentId" : 8,
                "StudentName" : "Swati",
                "Branch" : "CSE",
                "Age" : 19,
                "Panel" : "A",
                "Address" : {
                        "Area" : "Mahal",
                        "City" : "Nagpur",
                        "Pincode" : 403004
```

```json
        },
        "Subjects" : [
                {
                        "SubName1" : "DBMS",
                        "Score1" : 80
                },
                {
                        "SubName2" : "TOC",
                        "Score2" : 89
                },
                {
                        "SubName3" : "IS",
                        "Score3" : 65
                },
                {
                        "SubName4" : "AI",
                        "Score4" : 87
                }
        ],
        "AreaofInterest" : [
                "Machine Learning",
                "Deep Learning"
        ]
}
{

        "_id" : ObjectId("6065c766269de005a89e71b2"),
        "StudentId" : 9,
        "StudentName" : "Pranav",
        "Branch" : "Civil",
        "Age" : 19,
        "Panel" : "B",
        "Address" : {
                "Area" : "Kothrud",
                "City" : "Pune",
                "Pincode" : 403414
        },
        "Subjects" : [
                {
                        "SubName1" : "CT",
                        "Score1" : 90
                },
                {
                        "SubName2" : "SA"
                }
        ],
        "AreaofInterest" : [
                "Highway"
        ]
}
{
```

```
        "_id" : ObjectId("6065c76d269de005a89e71b3"),
        "StudentId" : 10,
        "StudentName" : "Vikram",
        "Branch" : "Civil",
        "Age" : 21,
        "Panel" : "C",
        "Address" : {
                "Area" : "Kothrud",
                "City" : "Pune",
                "Pincode" : 403414
        },
        "Subjects" : [
                {
                        "SubName1" : "CT",
                        "Score1" : 90
                },
                {
                        "SubName2" : "SA",
                        "Score2" : 80
                },
                {
                        "SubName3" : "GEO",
                        "Score3" : 69
                }
        ],
        "AreaofInterest" : [
                "Energy",
                "Dam"
        ]
}

--------------------UPDATE BY FOLLOWING CONDITIONS :

---INCREMENT VALUE OF AGE IN ONE RECORD

> db.student.update({StudentName: "Pranav"}, {$inc: {Age: 1}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.update({StudentName: "Vikram"}, {$inc: {Age: -2}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.student.find({Branch:"Civil"})
{ "_id" : ObjectId("6065c766269de005a89e71b2"), "StudentId" : 9, "StudentName" :
"Pranav", "Branch" : "Civil", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA" } ], "AreaofInterest" : [ "Highway" ] }
{ "_id" : ObjectId("6065c76d269de005a89e71b3"), "StudentId" : 10, "StudentName" :
"Vikram", "Branch" : "Civil", "Age" : 19, "Panel" : "C", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA", "Score2" : 80 }, { "SubName3" : "GEO",
"Score3" : 69 } ], "AreaofInterest" : [ "Energy", "Dam" ] }
```

```
>

---PUSH SOME MORE AREA OF INTEREST

> db.student.update({StudentId: 6},{$push:{AreaofInterest:{$each:["Big Data"]}}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.update({StudentId:
4},{$push:{AreaofInterest:{$each:["Python","Embedded Systems"]}}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.update({StudentId: 6},{$push:{AreaofInterest:{$each:["Machine
Learning"]}}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

---POP SOME SUBJECTS

> db.student.update({StudentId: 5},{$pop:{Subjects:1}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.find({StudentId:5}).pretty()
{
        "_id" : ObjectId("6065c51b269de005a89e71ae"),
        "StudentId" : 5,
        "StudentName" : "Geeta",
        "Branch" : "CSE",
        "Age" : 20,
        "Panel" : "D",
        "Address" : {
                "Area" : "Kothrud",
                "City" : "Pune",
                "Pincode" : 403414
        },
        "Subjects" : [
                {
                        "SubName1" : "DBMS",
                        "Score1" : 90
                },
                {
                        "SubName2" : "TOC",
                        "Score2" : 70
                },
                {
                        "SubName3" : "IS",
                        "Score3" : 89
                }
        ],
        "AreaofInterest" : [
                "Networking",
                "Electronics"
        ]
}
```

```
---REPLACE EXISTING RECORD WITH NEW RECORD
> db.student.find({"StudentName":"Pranav"})
{ "_id" : ObjectId("6065c766269de005a89e71b2"), "StudentId" : 9, "StudentName" :
"Pranav", "Branch" : "Civil", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA" } ], "AreaofInterest" : [ "Highway" ] }
>
db.student.update({StudentName:"Pranav"},{$set:{Branch:"CSE",Age:20,Panel:"A","Addr
ess.Area":"Majiwada","Address.City":"Thane","Address.Pincode":400610,"AreaofInteres
t.0":"Cybersecurity"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.find({"StudentName":"Pranav"})
{ "_id" : ObjectId("6065c766269de005a89e71b2"), "StudentId" : 9, "StudentName" :
"Pranav", "Branch" : "CSE", "Age" : 20, "Panel" : "A", "Address" : { "Area" :
"Majiwada", "City" : "Thane", "Pincode" : 400610 }, "Subjects" : [ { "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA" } ], "AreaofInterest" : [
"Cybersecurity" ] }


---SET NEW PANEL B FOR STUDENTS WITH PANEL A
> db.student.update({Panel:"A"},{$set:{Panel:"B"}},{multi:true})
WriteResult({ "nMatched" : 4, "nUpserted" : 0, "nModified" : 4 })
> db.student.find({Panel:"B"})
{ "_id" : ObjectId("6065c2f4269de005a89e71aa"), "StudentId" : 1, "StudentName" :
"Aakash", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Majiwada", "City" : "Thane", "Pincode" : 400610 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 75 }, { "SubName2" : "TOC", "Score2" : 95 }, { "SubName3" :
"IS", "Score3" : 70 }, { "SubName4" : "AI", "Score4" : 85 } ], "AreaofInterest" : [
"Cybersecurity", "Cloud Computing" ] }
{ "_id" : ObjectId("6065c38f269de005a89e71ab"), "StudentId" : 2, "StudentName" :
"Apoorv", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Lokhandwala", "City" : "Mumbai", "Pincode" : 400400 }, "Subjects" : [ { "SubName1"
: "DBMS", "Score1" : 95 }, { "SubName2" : "TOC", "Score2" : 85 }, { "SubName3" :
"IS", "Score3" : 60 }, { "SubName4" : "AI", "Score4" : 80 } ], "AreaofInterest" : [
"Big Data", "Cloud Computing" ] }
{ "_id" : ObjectId("6065c3ef269de005a89e71ac"), "StudentId" : 3, "StudentName" :
"Vignesh", "Branch" : "CSE", "Age" : 21, "Panel" : "B", "Address" : { "Area" :
"Pradhikaran", "City" : "Pune", "Pincode" : 403410 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 79 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Big Data", "Machine Learning" ] }
{ "_id" : ObjectId("6065c45b269de005a89e71ad"), "StudentId" : 4, "StudentName" :
"Shashank", "Branch" : "CSE", "Age" : 22, "Panel" : "B", "Address" : { "Area" :
"Bhakti Shakti", "City" : "Pune", "Pincode" : 403418 }, "Subjects" : [ { "SubName1"
: "DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 59 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Artificial Intelligence", "Machine Learning", "Python", "Embedded Systems" ] }
{ "_id" : ObjectId("6065c757269de005a89e71b0"), "StudentId" : 7, "StudentName" :
```

```
"Priya", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Noida", "City" : "Delhi", "Pincode" : 403120 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 70 }, { "SubName2" : "TOC", "Score2" : 84 }, { "SubName3" :
"IS", "Score3" : 89 }, { "SubName4" : "AI", "Score4" : 96 } ], "AreaofInterest" : [
"Artificial Intelligence" ] }
{ "_id" : ObjectId("6065c75f269de005a89e71b1"), "StudentId" : 8, "StudentName" :
"Swati", "Branch" : "CSE", "Age" : 19, "Panel" : "B", "Address" : { "Area" :
"Mahal", "City" : "Nagpur", "Pincode" : 403004 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 89 }, { "SubName3" :
"IS", "Score3" : 65 }, { "SubName4" : "AI", "Score4" : 87 } ], "AreaofInterest" : [
"Machine Learning", "Deep Learning" ] }
{ "_id" : ObjectId("6065c766269de005a89e71b2"), "StudentId" : 9, "StudentName" :
"Pranav", "Branch" : "Civil", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA" } ], "AreaofInterest" : [ "Highway" ] }


---ADD ONE RECORD IF DOESN'T EXIST ELSE UPDATE (UPSERT)

>
db.student.updateMany({StudentName:"Roohi"},{$set:{Branch:"CSE",Age:20,Panel:"A","A
ddress.Area":"Majiwada","Address.City":"Thane","Address.Pincode":400610,"AreaofInte
rest.0":"Cybersecurity"}},{upsert:true})
{
        "acknowledged" : true,
        "matchedCount" : 0,
        "modifiedCount" : 0,
        "upsertedId" : ObjectId("6065dc20f1494dac4bd6af25")
}
> db.student.find({StudentName:"Roohi"}).pretty()
{
        "_id" : ObjectId("6065dc20f1494dac4bd6af25"),
        "StudentName" : "Roohi",
        "Address" : {
                "Area" : "Majiwada",
                "City" : "Thane",
                "Pincode" : 400610
        },
        "Age" : 20,
        "AreaofInterest" : {
                "0" : "Cybersecurity"
        },
        "Branch" : "CSE",
        "Panel" : "A"
}
>
db.student.updateMany({StudentName:"Mohit"},{$set:{Branch:"CSE",Age:20,Panel:"G","A
ddress.Area":"Itwan","Address.City":"Nagpur","Address.Pincode":405610,"Subjects.0":
{SubName1:"TOC",Score1:90},"AreaofInterest.0":"Cybersecurity"}},{upsert:true})
{
```

```
        "acknowledged" : true,
        "matchedCount" : 0,
        "modifiedCount" : 0,
        "upsertedId" : ObjectId("6065dccdf1494dac4bd6af2f")
}
> db.student.find({StudentName:"Mohit"}).pretty()
{
        "_id" : ObjectId("6065dccdf1494dac4bd6af2f"),
        "StudentName" : "Mohit",
        "Address" : {
                "Area" : "Itwan",
                "City" : "Nagpur",
                "Pincode" : 405610
        },
        "Age" : 20,
        "AreaofInterest" : {
                "0" : "Cybersecurity"
        },
        "Branch" : "CSE",
        "Panel" : "G",
        "Subjects" : {
                "0" : {
                        "SubName1" : "TOC",
                        "Score1" : 90
                }
        }
}
>
db.student.updateMany({StudentName:"Monica"},{$set:{Branch:"CSE",Age:21,Panel:"A","
Address.Area":"Itwan","Address.City":"Nagpur","Address.Pincode":405650,"Subjects.0"
:{SubName1:"CN",Score1:90},"AreaofInterest.0":"Big Data"}},{upsert:true})
{
        "acknowledged" : true,
        "matchedCount" : 0,
        "modifiedCount" : 0,
        "upsertedId" : ObjectId("6065dd09f1494dac4bd6af32")
}
> db.student.find({StudentName:"Monica"}).pretty()
{
        "_id" : ObjectId("6065dd09f1494dac4bd6af32"),
        "StudentName" : "Monica",
        "Address" : {
                "Area" : "Itwan",
                "City" : "Nagpur",
                "Pincode" : 405650
        },
        "Age" : 21,
        "AreaofInterest" : {
                "0" : "Big Data"
        },
```

```
                "Branch" : "CSE",
                "Panel" : "A",
                "Subjects" : {
                        "0" : {
                                "SubName1" : "CN",
                                "Score1" : 90
                        }
                }
        }
}
>


---REMOVE ALL DOCUMENTS WITH PANEL G

> db.student.update({StudentName:"Roohi"},{$set:{Panel:"G"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.find({StudentName:"Roohi"})
{ "_id" : ObjectId("6065dc20f1494dac4bd6af25"), "StudentName" : "Roohi", "Address"
: { "Area" : "Majiwada", "City" : "Thane", "Pincode" : 400610 }, "Age" : 20,
"AreaofInterest" : { "0" : "Cybersecurity" }, "Branch" : "CSE", "Panel" : "G" }
> db.student.remove({Panel:"G"})
WriteResult({ "nRemoved" : 2 })
> db.student.find({Panel:"G"})
>


---USE $GTE, $GT, $LT IN QUERIES

> db.student.find({Age:{$lt:20}})
{ "_id" : ObjectId("6065c75f269de005a89e71b1"), "StudentId" : 8, "StudentName" :
"Swati", "Branch" : "CSE", "Age" : 19, "Panel" : "B", "Address" : { "Area" :
"Mahal", "City" : "Nagpur", "Pincode" : 403004 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 89 }, { "SubName3" :
"IS", "Score3" : 65 }, { "SubName4" : "AI", "Score4" : 87 } ], "AreaofInterest" : [
"Machine Learning", "Deep Learning" ] }
{ "_id" : ObjectId("6065c76d269de005a89e71b3"), "StudentId" : 10, "StudentName" :
"Vikram", "Branch" : "Civil", "Age" : 19, "Panel" : "C", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA", "Score2" : 80 }, { "SubName3" : "GEO",
"Score3" : 69 } ], "AreaofInterest" : [ "Energy", "Dam" ] }

> db.student.find({"Subjects.Score1":{$gte:90}})
{ "_id" : ObjectId("6065c38f269de005a89e71ab"), "StudentId" : 2, "StudentName" :
"Apoorv", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Lokhandwala", "City" : "Mumbai", "Pincode" : 400400 }, "Subjects" : [ { "SubName1"
: "DBMS", "Score1" : 95 }, { "SubName2" : "TOC", "Score2" : 85 }, { "SubName3" :
"IS", "Score3" : 60 }, { "SubName4" : "AI", "Score4" : 80 } ], "AreaofInterest" : [
"Big Data", "Cloud Computing" ] }
{ "_id" : ObjectId("6065c3ef269de005a89e71ac"), "StudentId" : 3, "StudentName" :
"Vignesh", "Branch" : "CSE", "Age" : 21, "Panel" : "B", "Address" : { "Area" :
"Pradhikaran", "City" : "Pune", "Pincode" : 403410 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
```

"IS", "Score3" : 79 }, { "SubName4" : "AI", "Score4" : 90 }], "AreaofInterest" : [
"Big Data", "Machine Learning"] }
{ "_id" : ObjectId("6065c51b269de005a89e71ae"), "StudentId" : 5, "StudentName" :
"Geeta", "Branch" : "CSE", "Age" : 20, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 89 }], "AreaofInterest" : ["Networking", "Electronics"] }
{ "_id" : ObjectId("6065c589269de005a89e71af"), "StudentId" : 6, "StudentName" :
"Gargie", "Branch" : "CSE", "Age" : 21, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 69 }, { "SubName4" : "AI", "Score4" : 90 }], "AreaofInterest" : [
"Machine Learning", "Deep Learning", "Artificial Intelligence", "Big Data"] }
{ "_id" : ObjectId("6065c766269de005a89e71b2"), "StudentId" : 9, "StudentName" :
"Pranav", "Branch" : "Civil", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA" }], "AreaofInterest" : ["Highway"] }
{ "_id" : ObjectId("6065c76d269de005a89e71b3"), "StudentId" : 10, "StudentName" :
"Vikram", "Branch" : "Civil", "Age" : 19, "Panel" : "C", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA", "Score2" : 80 }, { "SubName3" : "GEO",
"Score3" : 69 }], "AreaofInterest" : ["Energy", "Dam"] }

> db.student.find({"StudentId":{$gt:7}})
{ "_id" : ObjectId("6065c75f269de005a89e71b1"), "StudentId" : 8, "StudentName" :
"Swati", "Branch" : "CSE", "Age" : 19, "Panel" : "B", "Address" : { "Area" :
"Mahal", "City" : "Nagpur", "Pincode" : 403004 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 89 }, { "SubName3" :
"IS", "Score3" : 65 }, { "SubName4" : "AI", "Score4" : 87 }], "AreaofInterest" : [
"Machine Learning", "Deep Learning"] }
{ "_id" : ObjectId("6065c766269de005a89e71b2"), "StudentId" : 9, "StudentName" :
"Pranav", "Branch" : "Civil", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA" }], "AreaofInterest" : ["Highway"] }
{ "_id" : ObjectId("6065c76d269de005a89e71b3"), "StudentId" : 10, "StudentName" :
"Vikram", "Branch" : "Civil", "Age" : 19, "Panel" : "C", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA", "Score2" : 80 }, { "SubName3" : "GEO",
"Score3" : 69 }], "AreaofInterest" : ["Energy", "Dam"] }

---FIND RECORDS HAVING SUBJECT 'DBMS'

>
db.student.find({$or:[{"Subjects.SubName1":"DBMS"},{"Subjects.SubName2":"DBMS"},{"S
ubjects.SubName3":"DBMS"},{"Subjects.SubName4":"DBMS"}]})
{ "_id" : ObjectId("6065c2f4269de005a89e71aa"), "StudentId" : 1, "StudentName" :
"Aakash", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Majiwada", "City" : "Thane", "Pincode" : 400610 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 75 }, { "SubName2" : "TOC", "Score2" : 95 }, { "SubName3" :

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"IS", "Score3" : 70 }, { "SubName4" : "AI", "Score4" : 85 } ], "AreaofInterest" : [
"Cybersecurity", "Cloud Computing" ] }
{ "_id" : ObjectId("6065c38f269de005a89e71ab"), "StudentId" : 2, "StudentName" :
"Apoorv", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Lokhandwala", "City" : "Mumbai", "Pincode" : 400400 }, "Subjects" : [ { "SubName1"
: "DBMS", "Score1" : 95 }, { "SubName2" : "TOC", "Score2" : 85 }, { "SubName3" :
"IS", "Score3" : 60 }, { "SubName4" : "AI", "Score4" : 80 } ], "AreaofInterest" : [
"Big Data", "Cloud Computing" ] }
{ "_id" : ObjectId("6065c3ef269de005a89e71ac"), "StudentId" : 3, "StudentName" :
"Vignesh", "Branch" : "CSE", "Age" : 21, "Panel" : "B", "Address" : { "Area" :
"Pradhikaran", "City" : "Pune", "Pincode" : 403410 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 79 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Big Data", "Machine Learning" ] }
{ "_id" : ObjectId("6065c45b269de005a89e71ad"), "StudentId" : 4, "StudentName" :
"Shashank", "Branch" : "CSE", "Age" : 22, "Panel" : "B", "Address" : { "Area" :
"Bhakti Shakti", "City" : "Pune", "Pincode" : 403418 }, "Subjects" : [ { "SubName1"
: "DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 59 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Artificial Intelligence", "Machine Learning", "Python", "Embedded Systems" ] }
{ "_id" : ObjectId("6065c51b269de005a89e71ae"), "StudentId" : 5, "StudentName" :
"Geeta", "Branch" : "CSE", "Age" : 20, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 89 } ], "AreaofInterest" : [ "Networking", "Electronics" ] }
{ "_id" : ObjectId("6065c589269de005a89e71af"), "StudentId" : 6, "StudentName" :
"Gargie", "Branch" : "CSE", "Age" : 21, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 69 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Machine Learning", "Deep Learning", "Artificial Intelligence", "Big Data" ] }
{ "_id" : ObjectId("6065c757269de005a89e71b0"), "StudentId" : 7, "StudentName" :
"Priya", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Noida", "City" : "Delhi", "Pincode" : 403120 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 70 }, { "SubName2" : "TOC", "Score2" : 84 }, { "SubName3" :
"IS", "Score3" : 89 }, { "SubName4" : "AI", "Score4" : 96 } ], "AreaofInterest" : [
"Artificial Intelligence" ] }
{ "_id" : ObjectId("6065c75f269de005a89e71b1"), "StudentId" : 8, "StudentName" :
"Swati", "Branch" : "CSE", "Age" : 19, "Panel" : "B", "Address" : { "Area" :
"Mahal", "City" : "Nagpur", "Pincode" : 403004 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 89 }, { "SubName3" :
"IS", "Score3" : 65 }, { "SubName4" : "AI", "Score4" : 87 } ], "AreaofInterest" : [
"Machine Learning", "Deep Learning" ] }

---FIND RECORDS WHERE AGE IS ABOVE 20

> db.student.find({"Age":{$gt:20}})
{ "_id" : ObjectId("6065c3ef269de005a89e71ac"), "StudentId" : 3, "StudentName" :
"Vignesh", "Branch" : "CSE", "Age" : 21, "Panel" : "B", "Address" : { "Area" :
"Pradhikaran", "City" : "Pune", "Pincode" : 403410 }, "Subjects" : [ { "SubName1" :
```

"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 79 }, { "SubName4" : "AI", "Score4" : 90 }], "AreaofInterest" : [
"Big Data", "Machine Learning"] }
{ "_id" : ObjectId("6065c45b269de005a89e71ad"), "StudentId" : 4, "StudentName" :
"Shashank", "Branch" : "CSE", "Age" : 22, "Panel" : "B", "Address" : { "Area" :
"Bhakti Shakti", "City" : "Pune", "Pincode" : 403418 }, "Subjects" : [{ "SubName1"
: "DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 59 }, { "SubName4" : "AI", "Score4" : 90 }], "AreaofInterest" : [
"Artificial Intelligence", "Machine Learning", "Python", "Embedded Systems"] }
{ "_id" : ObjectId("6065c589269de005a89e71af"), "StudentId" : 6, "StudentName" :
"Gargie", "Branch" : "CSE", "Age" : 21, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 69 }, { "SubName4" : "AI", "Score4" : 90 }], "AreaofInterest" : [
"Machine Learning", "Deep Learning", "Artificial Intelligence", "Big Data"] }
{ "_id" : ObjectId("6065dd09f1494dac4bd6af32"), "StudentName" : "Monica", "Address"
: { "Area" : "Itwan", "City" : "Nagpur", "Pincode" : 405650 }, "Age" : 21,
"AreaofInterest" : { "0" : "Big Data" }, "Branch" : "CSE", "Panel" : "A",
"Subjects" : { "0" : { "SubName1" : "CN", "Score1" : 90 } } }

---FIND ALL RECORDS STARTING WITH 'M'

> db.student.find({StudentName:{$regex:"M.*"}})
{ "_id" : ObjectId("6065dd09f1494dac4bd6af32"), "StudentName" : "Monica", "Address"
: { "Area" : "Itwan", "City" : "Nagpur", "Pincode" : 405650 }, "Age" : 21,
"AreaofInterest" : { "0" : "Big Data" }, "Branch" : "CSE", "Panel" : "A",
"Subjects" : { "0" : { "SubName1" : "CN", "Score1" : 90 } } }

---FIND TOTAL COUNT OF RECORDS IN YOUR COLLECTION

> db.student.count()
11

---FIND DOCS WHERE SIZE OF AREA OF INTEREST IS 4

> db.student.find({AreaofInterest:{$size:4}})
{ "_id" : ObjectId("6065c45b269de005a89e71ad"), "StudentId" : 4, "StudentName" :
"Shashank", "Branch" : "CSE", "Age" : 22, "Panel" : "B", "Address" : { "Area" :
"Bhakti Shakti", "City" : "Pune", "Pincode" : 403418 }, "Subjects" : [{ "SubName1"
: "DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 59 }, { "SubName4" : "AI", "Score4" : 90 }], "AreaofInterest" : [
"Artificial Intelligence", "Machine Learning", "Python", "Embedded Systems"] }
{ "_id" : ObjectId("6065c589269de005a89e71af"), "StudentId" : 6, "StudentName" :
"Gargie", "Branch" : "CSE", "Age" : 21, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 69 }, { "SubName4" : "AI", "Score4" : 90 }], "AreaofInterest" : [
"Machine Learning", "Deep Learning", "Artificial Intelligence", "Big Data"] }

---DISPLAY NAME OF STUDENT ONLY WHEN QUERING THE DOCUMENT

```
> db.student.find({},{"StudentName":1})
{ "_id" : ObjectId("6065c2f4269de005a89e71aa"), "StudentName" : "Aakash" }
{ "_id" : ObjectId("6065c38f269de005a89e71ab"), "StudentName" : "Apoorv" }
{ "_id" : ObjectId("6065c3ef269de005a89e71ac"), "StudentName" : "Vignesh" }
{ "_id" : ObjectId("6065c45b269de005a89e71ad"), "StudentName" : "Shashank" }
{ "_id" : ObjectId("6065c51b269de005a89e71ae"), "StudentName" : "Geeta" }
{ "_id" : ObjectId("6065c589269de005a89e71af"), "StudentName" : "Gargie" }
{ "_id" : ObjectId("6065c757269de005a89e71b0"), "StudentName" : "Priya" }
{ "_id" : ObjectId("6065c75f269de005a89e71b1"), "StudentName" : "Swati" }
{ "_id" : ObjectId("6065c766269de005a89e71b2"), "StudentName" : "Pranav" }
{ "_id" : ObjectId("6065c76d269de005a89e71b3"), "StudentName" : "Vikram" }
{ "_id" : ObjectId("6065dd09f1494dac4bd6af32"), "StudentName" : "Monica" }
>


---DISPLAY DOCUMENTS SORTED IN DESCENDING ORDER BY NAME

> db.student.find().sort({StudentName:-1})
{ "_id" : ObjectId("6065c76d269de005a89e71b3"), "StudentId" : 10, "StudentName" :
"Vikram", "Branch" : "Civil", "Age" : 19, "Panel" : "C", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"CT", "Score1" : 90 }, { "SubName2" : "SA", "Score2" : 80 }, { "SubName3" : "GEO",
"Score3" : 69 } ], "AreaofInterest" : [ "Energy", "Dam" ] }
{ "_id" : ObjectId("6065c3ef269de005a89e71ac"), "StudentId" : 3, "StudentName" :
"Vignesh", "Branch" : "CSE", "Age" : 21, "Panel" : "B", "Address" : { "Area" :
"Pradhikaran", "City" : "Pune", "Pincode" : 403410 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 79 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Big Data", "Machine Learning" ] }
{ "_id" : ObjectId("6065c75f269de005a89e71b1"), "StudentId" : 8, "StudentName" :
"Swati", "Branch" : "CSE", "Age" : 19, "Panel" : "B", "Address" : { "Area" :
"Mahal", "City" : "Nagpur", "Pincode" : 403004 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 89 }, { "SubName3" :
"IS", "Score3" : 65 }, { "SubName4" : "AI", "Score4" : 87 } ], "AreaofInterest" : [
"Machine Learning", "Deep Learning" ] }
{ "_id" : ObjectId("6065c45b269de005a89e71ad"), "StudentId" : 4, "StudentName" :
"Shashank", "Branch" : "CSE", "Age" : 22, "Panel" : "B", "Address" : { "Area" :
"Bhakti Shakti", "City" : "Pune", "Pincode" : 403418 }, "Subjects" : [ { "SubName1"
: "DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 59 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Artificial Intelligence", "Machine Learning", "Python", "Embedded Systems" ] }
{ "_id" : ObjectId("6065c757269de005a89e71b0"), "StudentId" : 7, "StudentName" :
"Priya", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Noida", "City" : "Delhi", "Pincode" : 403120 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 70 }, { "SubName2" : "TOC", "Score2" : 84 }, { "SubName3" :
"IS", "Score3" : 89 }, { "SubName4" : "AI", "Score4" : 96 } ], "AreaofInterest" : [
"Artificial Intelligence" ] }
{ "_id" : ObjectId("6065c766269de005a89e71b2"), "StudentId" : 9, "StudentName" :
"Pranav", "Branch" : "Civil", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
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"CT", "Score1" : 90 }, { "SubName2" : "SA" }], "AreaofInterest" : ["Highway"] }
{ "_id" : ObjectId("6065dd09f1494dac4bd6af32"), "StudentName" : "Monica", "Address"
: { "Area" : "Itwan", "City" : "Nagpur", "Pincode" : 405650 }, "Age" : 21,
"AreaofInterest" : { "0" : "Big Data" }, "Branch" : "CSE", "Panel" : "A",
"Subjects" : { "0" : { "SubName1" : "CN", "Score1" : 90 } } }
{ "_id" : ObjectId("6065c51b269de005a89e71ae"), "StudentId" : 5, "StudentName" :
"Geeta", "Branch" : "CSE", "Age" : 20, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 89 }], "AreaofInterest" : ["Networking", "Electronics"] }
{ "_id" : ObjectId("6065c589269de005a89e71af"), "StudentId" : 6, "StudentName" :
"Gargie", "Branch" : "CSE", "Age" : 21, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 69 }, { "SubName4" : "AI", "Score4" : 90 }], "AreaofInterest" : [
"Machine Learning", "Deep Learning", "Artificial Intelligence", "Big Data",
"Machine Learning"] }
{ "_id" : ObjectId("6065c38f269de005a89e71ab"), "StudentId" : 2, "StudentName" :
"Apoorv", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Lokhandwala", "City" : "Mumbai", "Pincode" : 400400 }, "Subjects" : [{ "SubName1"
: "DBMS", "Score1" : 95 }, { "SubName2" : "TOC", "Score2" : 85 }, { "SubName3" :
"IS", "Score3" : 60 }, { "SubName4" : "AI", "Score4" : 80 }], "AreaofInterest" : [
"Big Data", "Cloud Computing"] }
{ "_id" : ObjectId("6065c2f4269de005a89e71aa"), "StudentId" : 1, "StudentName" :
"Aakash", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Majiwada", "City" : "Thane", "Pincode" : 400610 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 75 }, { "SubName2" : "TOC", "Score2" : 95 }, { "SubName3" :
"IS", "Score3" : 70 }, { "SubName4" : "AI", "Score4" : 85 }], "AreaofInterest" : [
"Cybersecurity", "Cloud Computing"] }

---FIRE QUERY USING "AND" OPERATION

> db.student.find({$and:[{"Address.City":"Thane"},{"Age":{$eq:20}}]})
{ "_id" : ObjectId("6065c2f4269de005a89e71aa"), "StudentId" : 1, "StudentName" :
"Aakash", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Majiwada", "City" : "Thane", "Pincode" : 400610 }, "Subjects" : [{ "SubName1" :
"DBMS", "Score1" : 75 }, { "SubName2" : "TOC", "Score2" : 95 }, { "SubName3" :
"IS", "Score3" : 70 }, { "SubName4" : "AI", "Score4" : 85 }], "AreaofInterest" : [
"Cybersecurity", "Cloud Computing"] }

---FIRE QUERY USING "OR" OPERATION

>
db.student.find({$or:[{"Subjects.Score1":{$gt:90}},{"Subjects.Score4":{$gt:90}}]})
{ "_id" : ObjectId("6065c38f269de005a89e71ab"), "StudentId" : 2, "StudentName" :
"Apoorv", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Lokhandwala", "City" : "Mumbai", "Pincode" : 400400 }, "Subjects" : [{ "SubName1"
: "DBMS", "Score1" : 95 }, { "SubName2" : "TOC", "Score2" : 85 }, { "SubName3" :
"IS", "Score3" : 60 }, { "SubName4" : "AI", "Score4" : 80 }], "AreaofInterest" : [
"Big Data", "Cloud Computing"] }

```
{ "_id" : ObjectId("6065c757269de005a89e71b0"), "StudentId" : 7, "StudentName" :
"Priya", "Branch" : "CSE", "Age" : 20, "Panel" : "B", "Address" : { "Area" :
"Noida", "City" : "Delhi", "Pincode" : 403120 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 70 }, { "SubName2" : "TOC", "Score2" : 84 }, { "SubName3" :
"IS", "Score3" : 89 }, { "SubName4" : "AI", "Score4" : 96 } ], "AreaofInterest" : [
"Artificial Intelligence" ] }
```

---DISPLAY 2 DOCUMENTS WHILE QUERYING THE DOCUMENT

```
> db.student.find({"Address.City":"Pune"}).limit(2)
{ "_id" : ObjectId("6065c3ef269de005a89e71ac"), "StudentId" : 3, "StudentName" :
"Vignesh", "Branch" : "CSE", "Age" : 21, "Panel" : "B", "Address" : { "Area" :
"Pradhikaran", "City" : "Pune", "Pincode" : 403410 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 79 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Big Data", "Machine Learning" ] }
{ "_id" : ObjectId("6065c45b269de005a89e71ad"), "StudentId" : 4, "StudentName" :
"Shashank", "Branch" : "CSE", "Age" : 22, "Panel" : "B", "Address" : { "Area" :
"Bhakti Shakti", "City" : "Pune", "Pincode" : 403418 }, "Subjects" : [ { "SubName1"
: "DBMS", "Score1" : 80 }, { "SubName2" : "TOC", "Score2" : 70 }, { "SubName3" :
"IS", "Score3" : 59 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Artificial Intelligence", "Machine Learning", "Python", "Embedded Systems" ] }
```

---LOCATE ALL DOCUMENTS THAT CONTAIN AREA OF INTEREST AS "BIG DATA","MACHINE
LEARNING" -ALL

```
> db.student.find({AreaofInterest:{$all:["Big Data","Machine Learning"]}})
{ "_id" : ObjectId("6065c3ef269de005a89e71ac"), "StudentId" : 3, "StudentName" :
"Vignesh", "Branch" : "CSE", "Age" : 21, "Panel" : "B", "Address" : { "Area" :
"Pradhikaran", "City" : "Pune", "Pincode" : 403410 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 79 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Big Data", "Machine Learning" ] }
{ "_id" : ObjectId("6065c589269de005a89e71af"), "StudentId" : 6, "StudentName" :
"Gargie", "Branch" : "CSE", "Age" : 21, "Panel" : "D", "Address" : { "Area" :
"Kothrud", "City" : "Pune", "Pincode" : 403414 }, "Subjects" : [ { "SubName1" :
"DBMS", "Score1" : 90 }, { "SubName2" : "TOC", "Score2" : 80 }, { "SubName3" :
"IS", "Score3" : 69 }, { "SubName4" : "AI", "Score4" : 90 } ], "AreaofInterest" : [
"Machine Learning", "Deep Learning", "Artificial Intelligence", "Big Data",
"Machine Learning" ] }
```

---DROP COLLECTION
```
> db.student.drop()
```