1. **To retrieve student details whose marks are greater than 40 using logical operator.**

student> db.details.find({"$and":[{"m1":{"$gt":40}}]})

[

{

\_id: ObjectId("643fc1fd558a6bea334a9e78"),

name: 'surya',

course: 'BCA',

m1: 60,

m2: 70,

m3: 80,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 23,

dob: ISODate("2000-04-25T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9837648292,

'e-mail\_id': 'surya@gmail.con',

address: 'ooty'

}

},

{

\_id: ObjectId("643fc1fd558a6bea334a9e7a"),

name: 'pavithra',

course: 'B.Sc fisheries',

m1: 50,

m2: 60,

m3: 74,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 20,

dob: ISODate("2002-01-09T18:30:00.000Z"),

father\_name: 'raj',

mobile\_number: 937373383,

'e-mail\_id': 'pavi@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fc1fd558a6bea334a9e7c"),

name: 'simbu',

course: 'Mcom',

m1: 56,

m2: 84,

m3: 36,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 24,

dob: ISODate("2001-06-02T18:30:00.000Z"),

father\_name: 'rave',

mobile\_number: 8734256274,

'e-mail\_id': 'simbu@gmail.com',

address: 'gudalur'

}

},

{

\_id: ObjectId("643fc1fd558a6bea334a9e7d"),

name: 'ajay',

course: 'ME',

m1: 54,

m2: 54,

m3: 65,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 29,

dob: ISODate("2006-11-24T18:30:00.000Z"),

father\_name: 'raj',

mobile\_number: 9836373389,

'e-mail\_id': 'ajay@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fc1fd558a6bea334a9e7f"),

name: 'ammu',

course: 'B-Ed',

m1: 45,

m2: 34,

m3: 56,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 26,

dob: ISODate("2001-03-25T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9835467390,

'e-mail\_id': 'annu@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e89"),

name: 'sachin',

course: 'B-Ed',

m1: 45,

m2: 34,

m3: 56,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 26,

dob: ISODate("2001-03-25T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9835467390,

'e-mail\_id': 'annu@gmail.com',

address: 'ooty'

}

}

]

1. **To retrieve only student name and course who failed in all subjects.**

student> db.details.find({"$and":[

... {"m1":{"$lt":60}},{"m2":{"$lt":60}},{"m3":{"$lt":60}}]},{"name":1,"course":1,"\_id":0})

[

{ name: 'yogesh', course: 'B.E Mech' },

{ name: 'ammu', course: 'B-Ed' },

{ name: 'sachin', course: 'B-Ed' }

]

1. **To retrieve only student name and course who failed in only one subject.**

student> db.details.find({"$or":[{"m1":{"$lt":60}},{"m2":{"$lt":60}},{"m3":{"$lt":60}}]},{"name":1,"course":1,"\_id":0})

[

{ name: 'jeeva', course: 'BAMS' },

{ name: 'partha', course: 'BBA' },

{ name: 'pavithra', course: 'B.Sc fisheries' },

{ name: 'charles', course: 'Bsc computerScience' },

{ name: 'simbu', course: 'Mcom' },

{ name: 'ajay', course: 'ME' },

{ name: 'perin', course: 'BE CSE' },

{ name: 'sachin', course: 'B-Ed' }

]

1. **To retrieve student documents whose subjects only in HTML,MongoDB using in operator**

student> db.details.find({"subjects":{"$in":["HTML","MongoDB"]}})

[

{

\_id: ObjectId("643fe0cc558a6bea334a9e80"),

name: 'yogesh',

course: 'B.E Mech',

m1: 30,

m2: 40,

m3: 50,

subjects: [ 'HTML', 'CSS', 'MongoDB' ],

personal: {

age: 25,

dob: ISODate("1998-07-06T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9883763738,

'e-mail\_id': 'yogesh@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e81"),

name: 'jeeva',

course: 'BAMS',

m1: 20,

m2: 40,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 24,

dob: ISODate("1999-04-08T18:30:00.000Z"),

father\_name: 'sivasamy',

mobile\_number: 9873388283,

'e-mail\_id': 'jeeva@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e82"),

name: 'surya',

course: 'BCA',

m1: 60,

m2: 70,

m3: 80,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 23,

dob: ISODate("2000-04-25T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9837648292,

'e-mail\_id': 'surya@gmail.con',

address: 'ooty'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e83"),

name: 'partha',

course: 'BBA',

m1: 36,

m2: 50,

m3: 70,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 22,

dob: ISODate("2001-08-09T18:30:00.000Z"),

father\_name: 'ravi',

mobile\_number: 9393837484,

'e-mail\_id': 'partha@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e84"),

name: 'pavithra',

course: 'B.Sc fisheries',

m1: 50,

m2: 60,

m3: 74,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 20,

dob: ISODate("2002-01-09T18:30:00.000Z"),

father\_name: 'raj',

mobile\_number: 937373383,

'e-mail\_id': 'pavi@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e85"),

name: 'charles',

course: 'Bsc computerScience',

m1: 40,

m2: 50,

m3: 80,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 22,

dob: ISODate("2003-12-02T18:30:00.000Z"),

father\_name: 'sekar',

mobile\_number: 8763546728,

'e-mail\_id': 'charles@gmail.com',

address: 'gudalur'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e86"),

name: 'simbu',

course: 'Mcom',

m1: 56,

m2: 84,

m3: 36,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 24,

dob: ISODate("2001-06-02T18:30:00.000Z"),

father\_name: 'rave',

mobile\_number: 8734256274,

'e-mail\_id': 'simbu@gmail.com',

address: 'gudalur'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e87"),

name: 'ajay',

course: 'ME',

m1: 54,

m2: 54,

m3: 65,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 29,

dob: ISODate("2006-11-24T18:30:00.000Z"),

father\_name: 'raj',

mobile\_number: 9836373389,

'e-mail\_id': 'ajay@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e88"),

name: 'perin',

course: 'BE CSE',

m1: 23,

m2: 47,

m3: 65,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 26,

dob: ISODate("2007-01-24T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 98363738364,

'e-mail\_id': 'perin@gmail.com',

address: 'gudalur'

}

},

{

\_id: ObjectId("643fe0cc558a6bea334a9e89"),

name: 'sachin',

course: 'B-Ed',

m1: 45,

m2: 34,

m3: 56,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 26,

dob: ISODate("2001-03-25T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9835467390,

'e-mail\_id': 'annu@gmail.com',

address: 'ooty'

}

}

]

1. **To retrieve students documents whose age not greater than 21.**

student> db.details.find({"personal.age":{"$not":{"$gt":21}}})

[

{

\_id: ObjectId("643fc1fd558a6bea334a9e7a"),

name: 'pavithra',

course: 'B.Sc fisheries',

m1: 50,

m2: 60,

m3: 74,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 20,

dob: ISODate("2002-01-09T18:30:00.000Z"),

father\_name: 'raj',

mobile\_number: 937373383,

'e-mail\_id': 'pavi@gmail.com',

address: 'ooty'

}

}

]

1. **To display only two documents  by using limt() method.**

student> db.details.find().limit(2)

[

{

\_id: ObjectId("643fc1fd558a6bea334a9e76"),

name: 'yogesh',

course: 'B.E Mech',

m1: 30,

m2: 40,

m3: 50,

subjects: [ 'HTML', 'CSS', 'MongoDB' ],

personal: {

age: 25,

dob: ISODate("1998-07-06T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9883763738,

'e-mail\_id': 'yogesh@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fc1fd558a6bea334a9e77"),

name: 'jeeva',

course: 'BAMS',

m1: 20,

m2: 40,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 24,

dob: ISODate("1999-04-08T18:30:00.000Z"),

father\_name: 'sivasamy',

mobile\_number: 9873388283,

'e-mail\_id': 'jeeva@gmail.com',

address: 'ooty'

}

}

]

1. **To display only two documents  and skip 2 documents.**

student> db.details.find().limit(2).skip(2)

[

{

\_id: ObjectId("643fc1fd558a6bea334a9e78"),

name: 'surya',

course: 'BCA',

m1: 60,

m2: 70,

m3: 80,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 23,

dob: ISODate("2000-04-25T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9837648292,

'e-mail\_id': 'surya@gmail.con',

address: 'ooty'

}

},

{

\_id: ObjectId("643fc1fd558a6bea334a9e79"),

name: 'partha',

course: 'BBA',

m1: 36,

m2: 50,

m3: 70,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 22,

dob: ISODate("2001-08-09T18:30:00.000Z"),

father\_name: 'ravi',

mobile\_number: 9393837484,

'e-mail\_id': 'partha@gmail.com',

address: 'ooty'

}

}

]

**8. To sort the name in ascending and descending order.**

**In accending order**:

student> db.details.find({},{"name":1,"\_id":0}).sort({"name":1})

[

{ name: 'ajay' },

{ name: 'charles' },

{ name: 'jeeva' },

{ name: 'partha' },

{ name: 'pavithra' },

{ name: 'perin' },

{ name: 'sachin' },

{ name: 'simbu' },

{ name: 'surya' },

{ name: 'yogesh' }

]

**In decending order:**

student> db.details.find({},{"name":1,"\_id":0}).sort({"name":-1})

[

{ name: 'yogesh' },

{ name: 'surya' },

{ name: 'simbu' },

{ name: 'sachin'

{ name: 'perin'

{ name: 'pavithra' },

{ name: 'partha' },

{ name: 'jeeva' },

{ name: 'charles' },

{ name: 'ajay' },

]

1. **To sort the DOB in ascending and descending order.**

**In accending order:**

*student> db.details.find({},{"personal.dob":1,"\_id":0}).sort({"personal.dob":1})*

*[*

*{ personal: { dob: ISODate("2001-08-09T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2001-08-09T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2002-01-09T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2002-01-09T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2003-12-02T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2003-12-02T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2006-11-24T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2006-11-24T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2007-01-24T18:30:00.000Z") } },*

*{ personal: { dob: ISODate("2007-01-24T18:30:00.000Z") } }*

*]*

**In decending order:**

student> db.details.find({},{"personal.dob":1,"\_id":0}).sort({"personal.dob":-1})

[

{ personal: { dob: ISODate("2001-06-02T18:30:00.000Z") } },

{ personal: { dob: ISODate("2001-06-02T18:30:00.000Z") } },

{ personal: { dob: ISODate("2001-03-25T18:30:00.000Z") } },

{ personal: { dob: ISODate("2001-03-25T18:30:00.000Z") } },

{ personal: { dob: ISODate("2000-04-25T18:30:00.000Z") } },

{ personal: { dob: ISODate("2000-04-25T18:30:00.000Z") } },

{ personal: { dob: ISODate("1999-04-08T18:30:00.000Z") } },

{ personal: { dob: ISODate("1999-04-08T18:30:00.000Z") } },

{ personal: { dob: ISODate("1998-07-06T18:30:00.000Z") } },

{ personal: { dob: ISODate("1998-07-06T18:30:00.000Z") } }

]

**10.To skip first 2 documents and display remaining 3 documents.**

student> db.details.find().limit(3).skip(2)

[

{

\_id: ObjectId("643fc1fd558a6bea334a9e78"),

name: 'surya',

course: 'BCA',

m1: 60,

m2: 70,

m3: 80,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 23,

dob: ISODate("2000-04-25T18:30:00.000Z"),

father\_name: 'siva',

mobile\_number: 9837648292,

'e-mail\_id': 'surya@gmail.con',

address: 'ooty'

}

},

{

\_id: ObjectId("643fc1fd558a6bea334a9e79"),

name: 'partha',

course: 'BBA',

m1: 36,

m2: 50,

m3: 70,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 22,

dob: ISODate("2001-08-09T18:30:00.000Z"),

father\_name: 'ravi',

mobile\_number: 9393837484,

'e-mail\_id': 'partha@gmail.com',

address: 'ooty'

}

},

{

\_id: ObjectId("643fc1fd558a6bea334a9e7a"),

name: 'pavithra',

course: 'B.Sc fisheries',

m1: 50,

m2: 60,

m3: 74,

subjects: [ 'HTML', 'CSS', 'MangoDB' ],

personal: {

age: 20,

dob: ISODate("2002-01-09T18:30:00.000Z"),

father\_name: 'raj',

mobile\_number: 937373383,

'e-mail\_id': 'pavi@gmail.com',

address: 'ooty'

}

}

]