Mini project exercise for Mongo DB lab

BASIC SECTION : How to Use AND Operator in MongoDB

Dataset:

Dataset - StudentsDetails2

```
{
  "_id" : 1,
  "std_name" : "Mukesh",
  "Gender" : "Male",
  "class" : "VI",
  "age" : 11,
  "grd_point" : 33
}

{
  "_id" : 2,
  "std_name" : "Dechamma",
  "Gender" : "Female",
  "class" : "VI",
  "age" : 13,
  "grd_point" : 30
}

{
  "_id" : 3,
  "std_name" : "Akash",
```

```json
  "Gender" : "Male",

  "class" : "V",

  "age" : 14,

  "grd_point" : 35.1257

 }


 {

  "_id" : 4,

  "std_name" : "Geetha",

  "Gender" : "Female",

  "class" : "X",

  "age" : 17,

  "grd_point" : 36.2514

 }


 {

  "_id" : 5,

  "std_name" : "Bhomika",

  "Gender" : "Female",

  "class" : "X",

  "age" : 19,

  "grd_point" : 35.5201

 }


 {

  "_id" : 6,

  "std_name" : "Nitin",

  "Gender" : "Male",   "class" : "V",
```

```
  "age" : 16,

  "grd_point" : 35.5201

}
```

21)   Demonstrate Use Of And Operator Displays Record Whose Gender Is Female And Are Studing In X STD --2 Conditions --Use Add Condition.

db.studentdetails.find({$and: [{ Gender: "Female" },{ class: "X" }]})

```
> db.studentdetails.find({$and: [{ Gender: "Female" },{ class: "X" }]})
< {
    _id: 4,
    std_name: 'Geetha',
    Gender: 'Female',
    class: 'X',
    age: 17,
    grd_point: 36.2514
  }
  {
    _id: 5,
    std_name: 'Bhomika',
    Gender: 'Female',
    class: 'X',
    age: 19,
    grd_point: 35.5201
  }
```

22)   Displays Count Regarding How Many Female Students Are There In X Std, Use Add

Condition db.studentdetails.countDocuments({$and:[{Gender:"Female" },{class: "X" }]})

```
> db.studentdetails.countDocuments({$and:[{Gender:"Female" },{class: "X" }]})
< 2
```

23)   Demonstrate AND Operator Displays Record Whose Gender Is Male And Are In X STD

db.studentdetails.find({$and:[{Gender:"Male" },{class: "X"}]})

```
> db.studentdetails.find({$and:[{Gender:"Male" },{class: "X"}]})
<
```

24)   Displays Count Regarding How Many Male Students Are There In V Std, Use Add
Condition db.studentdetails.countDocuments({

 $and: [

  { Gender: "Male" },

  { class: "V" }

 ]

})

```
> db.studentdetails.countDocuments({
    $and: [
      { Gender: "Male" },
      { class: "V" }
    ]
  })
< 2
```

25)   Query To Find Whose Gender Male",grd_point>=19 And Class=X

db.studentdetails.find({

 $and: [

  { Gender: "Male" },

  { grd_point: { $gte: 19 } },

  { class: "X" }

 ]

})

```
> db.studentdetails.find({
    $and: [
      { Gender: "Male" },
      { grd_point: { $gte: 19 } },
      { class: "X" }
    ]
  })
<
```

26)   Displays Students Details Whose Gender Is Female and grade point Greater Than Or Equal To 36 Use Add Condition.

db.studentdetails.find({

 $and: [

  { Gender: "Female" },

  { grd_point: { $gte: 36 } }

 ]

})

```
> db.studentdetails.find({
    $and: [
      { Gender: "Female" },
      { grd_point: { $gte: 36 } }
    ]
  })
< {
    _id: 4,
    std_name: 'Geetha',
    Gender: 'Female',
    class: 'X',
    age: 17,
    grd_point: 36.2514
  }
```

27)   Displays Students Details Whose grd_point between 30 and 35, Use Add Condition

```
db.studentdetails.find({
 $and: [
  { grd_point: { $gte: 30 } },
  { grd_point: { $lte: 35 } }
 ]
})
```

```
> db.studentdetails.find({
    $and: [
      { grd_point: { $gte: 30 } },
      { grd_point: { $lte: 35 } }
    ]
  })
< {
    _id: 1,
    std_name: 'Mukesh',
    Gender: 'Male',
    class: 'VI',
    age: 11,
    grd_point: 33
  }
  {
    _id: 2,
    std_name: 'Dechamma',
    Gender: 'Female',
    class: 'VI',
    age: 13,
    grd_point: 30
  }
```

28)   Displays Students Details Whose Age Between 20 And 128 db.studentdetails.find({

$and: [

  { age: { $gte: 20 } },

  { age: { $lte: 128 } }

 ]

})

```
> db.studentdetails.find({
    $and: [
      { age: { $gte: 20 } },
      { age: { $lte: 128 } }
    ]
  })
<
```

INTERMEDIATE SECTION :

Dataset:

{

"_id" : 1,

"details" : [{"name": "Bhumika", "age" : 23}],

"marks": [80, 89, 90]

},

{

"_id" : 2,

"details" : [{ "name": "Geetha", "age" : 21],

"marks": [90, 85, 70]

},

{

"_id" : 3,

"details" : [{ "name": "Mahadevawmay", "age" : 25 }],

"marks": [86, 79, 70]

},

{

"_id" : 4,

"details" : [{ "name": "Manjunath", "age" : 22}],

"marks": [88, 81, 78]

}

39)   Query Find Marks Greater Than Or Equal To 80 Using $Elemmatch

db.details.find({marks:{$elemMatch: { $gte:80 }}});

```
>_MONGOSH
< {
    _id: 1,
    details: [
      {
        name: 'bhumika',
        age: 23
      }
    ],
    marks: [
      80,
      89,
      90
    ]
  }
  {
    _id: 2,
    details: [
      {
        name: 'geetha',
        age: 21
      }
```

```
>_MONGOSH                                                                    ⓘ
    ],
    marks: [
      90,
      85,
      70
    ]
  }
  {
    _id: 3,
    details: [
      {
        name: 'mahadevaswamy',
        age: 25
      }
    ],
    marks: [
      86,
      79,
      70
    ]
  }
```

```
   }
   {
      _id: 4,
      details: [
         {
            name: 'manjunath',
            age: 22
         }
      ],
      marks: [
         88,
         81,
         78
      ]
   }
```

40)   Query To Find Marks Between 80 And 85 Using $Elemmatch

db.details.find({marks:{$elemMatch: { $gte:80,$lte:85 }}});

```
>_MONGOSH
< {
      _id: 1,
      details: [
         {
            name: 'bhumika',
            age: 23
         }
      ],
      marks: [
         80,
         89,
         90
      ]
   }
   {
      _id: 2,
      details: [
         {
            name: 'geetha',
            age: 21
         }
```

```
  ],
  marks: [
    90,
    85,
    70
  ]
}
{
  _id: 4,
  details: [
    {
      name: 'manjunath',
      age: 22
    }
  ],
  marks: [
    88,
    81,
    78
  ]
}
```