| **enro** | **Fname** | **lname** | **City** | **gender** | **contactno** | **dob** |
| --- | --- | --- | --- | --- | --- | --- |
| 4 | Isha | Motiyani | Surat | F | 9874563210 | 12/09/2000 |
| 102 | Anish | Patel | Valsad | M | 9632587410 | 06/01/2001 |
| 103 | Kalp | Shah | Baroda | M | 9630125874 | 13/10/2000 |
| 104 | Yash | Bhakta | Mumbai | M | 9987452103 | 08/05/2001 |
| 84 | Aparana | Mukherjee | Surat | F | 8563247890 | 26/06/2001 |
| 8 | Arjun | Poduval | Vapi | M | 8965230147 | 01/05/2001 |
| 105 | Riya | Agrawal | Navsari | F | 6985321470 | 02/09/2000 |
| 79 | Monis | Khan | Bardoli | M | 7895231053 | 23/11/2000 |
| 106 | Abhishek | Choksi | Surat | M | 6985327410 | 18/07/2001 |
| 49 | Om | Patel | Valsad | M | 9985632100 | 15/05/2001 |

To create DataBase::

use bmiit2023;

switched to db bmiit2023

To create Collections::

db.createCollection("Students");

{ ok: 1 }

To insert Data::

db.Students.insert({"enro":4,"fname":"Isha","lname":"Mptiyani","city":"Surat","gender":"F","contactno":9874563210,"dob":"12/09/2000"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba1f6c7c542c8ea90294e") }

}

bmiit2023> db.Students.insert({"enro":102,"fname":"Anish","lname":"Patel","city":"Valsad","gender":"M","contactno":9632587410,"dob":"06/01/2001"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba201c7c542c8ea90294f") }

}

bmiit2023> db.Students.insert({"enro":103,"fname":"Kalp","lname":"Shah","city":"Baroda","gender":"M","contactno":9630125874,"dob":"13/10/2000"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba208c7c542c8ea902950") }

}

bmiit2023> db.Students.insert({"enro":104,"fname":"Yash","lname":"Bhakta","city":"Mumbai","gender":"M","contactno":9987452103,"dob":"08/05/2001"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba20fc7c542c8ea902951") }

}

bmiit2023> db.Students.insert({"enro":84,"fname":"Aparana","lname":"Mukherjee","city":"Surat","gender":"F","contactno":8563247890,"dob":"26/06/2001"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba214c7c542c8ea902952") }

}

bmiit2023> db.Students.insert({"enro":8,"fname":"Arjun","lname":"Poduval","city":"Vapi","gender":"M","contactno":8965230147,"dob":"01/05/2001"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba21bc7c542c8ea902953") }

}

bmiit2023> db.Students.insert({"enro":105,"fname":"Riya","lname":"Agarwal","city":"Navsari","gender":"F","contactno":6985321470,"dob":"12/09/2000"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba222c7c542c8ea902954") }

}

bmiit2023> db.Students.insert({"enro":79,"fname":"Monis","lname":"Khan","city":"Bardoli","gender":"M","contactno":7895231053,"dob":"23/11/2000"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba22ec7c542c8ea902955") }

}

bmiit2023> db.Students.insert({"enro":106,"fname":"Abhishek","lname":"Choksi","city":"Surat","gender":"M","contactno":6985327410,"dob":"18/07/2001"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba232c7c542c8ea902956") }

}

bmiit2023> db.Students.insert({"enro":49,"fname":"Om","lname":"Patel","city":"Valsad","gender":"M","contactno":9985632100,"dob":"15/05/2001"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba237c7c542c8ea902957") }

}

1…To Display all the documents of the collections::

db.Students.find();

2…Show all the first name and last names::

db.Students.find({},{"fname":1,"lname":1});

[

{

\_id: ObjectId("64aba1f6c7c542c8ea90294e"),

fname: 'Isha',

lname: 'Mptiyani'

},

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

fname: 'Anish',

lname: 'Patel'

},

{

\_id: ObjectId("64aba208c7c542c8ea902950"),

fname: 'Kalp',

lname: 'Shah'

},

{

\_id: ObjectId("64aba20fc7c542c8ea902951"),

fname: 'Yash',

lname: 'Bhakta'

},

{

\_id: ObjectId("64aba214c7c542c8ea902952"),

fname: 'Aparana',

lname: 'Mukherjee'

},

{

\_id: ObjectId("64aba21bc7c542c8ea902953"),

fname: 'Arjun',

lname: 'Poduval'

},

{

\_id: ObjectId("64aba222c7c542c8ea902954"),

fname: 'Riya',

lname: 'Agarwal'

},

{

\_id: ObjectId("64aba22ec7c542c8ea902955"),

fname: 'Monis',

lname: 'Khan'

},

{

\_id: ObjectId("64aba232c7c542c8ea902956"),

fname: 'Abhishek',

lname: 'Choksi'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

fname: 'Om',

lname: 'Patel'

}

]

3…Display the list of unique cities of the students.  
db.Students.distinct("city");

[

'Bardoli', 'Baroda',

'Mumbai', 'Navsari',

'Surat', 'Valsad',

'Vapi'

]

4.Retrieve the student‟s date of birth along with the student first name and last name. db.Students.find({},{"dob":1,"fname":1,"lname":1});

[

{

\_id: ObjectId("64aba1f6c7c542c8ea90294e"),

fname: 'Isha',

lname: 'Mptiyani',

dob: '12/09/2000'

},

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

fname: 'Anish',

lname: 'Patel',

dob: '06/01/2001'

},

{

\_id: ObjectId("64aba208c7c542c8ea902950"),

fname: 'Kalp',

lname: 'Shah',

dob: '13/10/2000'

},

{

\_id: ObjectId("64aba20fc7c542c8ea902951"),

fname: 'Yash',

lname: 'Bhakta',

dob: '08/05/2001'

},

{

\_id: ObjectId("64aba214c7c542c8ea902952"),

fname: 'Aparana',

lname: 'Mukherjee',

dob: '26/06/2001'

},

{

\_id: ObjectId("64aba21bc7c542c8ea902953"),

fname: 'Arjun',

lname: 'Poduval',

dob: '01/05/2001'

},

{

\_id: ObjectId("64aba222c7c542c8ea902954"),

fname: 'Riya',

lname: 'Agarwal',

dob: '12/09/2000'

},

{

\_id: ObjectId("64aba22ec7c542c8ea902955"),

fname: 'Monis',

lname: 'Khan',

dob: '23/11/2000'

},

{

\_id: ObjectId("64aba232c7c542c8ea902956"),

fname: 'Abhishek',

lname: 'Choksi',

dob: '18/07/2001'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

fname: 'Om',

lname: 'Patel',

dob: '15/05/2001'

}

]

5.Get all the details of students whose city is “Surat”.

db.Students.find({city:{$eq:"Surat"}});

[

{

\_id: ObjectId("64aba1f6c7c542c8ea90294e"),

enro: 4,

fname: 'Isha',

lname: 'Mptiyani',

city: 'Surat',

gender: 'F',

contactno: 9874563210,

dob: '12/09/2000'

},

{

\_id: ObjectId("64aba214c7c542c8ea902952"),

enro: 84,

fname: 'Aparana',

lname: 'Mukherjee',

city: 'Surat',

gender: 'F',

contactno: 8563247890,

dob: '26/06/2001'

},

{

\_id: ObjectId("64aba232c7c542c8ea902956"),

enro: 106,

fname: 'Abhishek',

lname: 'Choksi',

city: 'Surat',

gender: 'M',

contactno: 6985327410,

dob: '18/07/2001'

}

]

6.Arrange all the documents of students in ascending order using “enro” number.  
 db.Students.find().sort({enro:1});

[

{

\_id: ObjectId("64aba1f6c7c542c8ea90294e"),

enro: 4,

fname: 'Isha',

lname: 'Mptiyani',

city: 'Surat',

gender: 'F',

contactno: 9874563210,

dob: '12/09/2000'

},

{

\_id: ObjectId("64aba21bc7c542c8ea902953"),

enro: 8,

fname: 'Arjun',

lname: 'Poduval',

city: 'Vapi',

gender: 'M',

contactno: 8965230147,

dob: '01/05/2001'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

enro: 49,

fname: 'Om',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9985632100,

dob: '15/05/2001'

},

{

\_id: ObjectId("64aba22ec7c542c8ea902955"),

enro: 79,

fname: 'Monis',

lname: 'Khan',

city: 'Bardoli',

gender: 'M',

contactno: 7895231053,

dob: '23/11/2000'

},

{

\_id: ObjectId("64aba214c7c542c8ea902952"),

enro: 84,

fname: 'Aparana',

lname: 'Mukherjee',

city: 'Surat',

gender: 'F',

contactno: 8563247890,

dob: '26/06/2001'

},

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

enro: 102,

fname: 'Anish',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9632587410,

dob: '06/01/2001'

},

{

\_id: ObjectId("64aba208c7c542c8ea902950"),

enro: 103,

fname: 'Kalp',

lname: 'Shah',

city: 'Baroda',

gender: 'M',

contactno: 9630125874,

dob: '13/10/2000'

},

{

\_id: ObjectId("64aba20fc7c542c8ea902951"),

enro: 104,

fname: 'Yash',

lname: 'Bhakta',

city: 'Mumbai',

gender: 'M',

contactno: 9987452103,

dob: '08/05/2001'

},

{

\_id: ObjectId("64aba222c7c542c8ea902954"),

enro: 105,

fname: 'Riya',

lname: 'Agarwal',

city: 'Navsari',

gender: 'F',

contactno: 6985321470,

dob: '12/09/2000'

},

{

\_id: ObjectId("64aba232c7c542c8ea902956"),

enro: 106,

fname: 'Abhishek',

lname: 'Choksi',

city: 'Surat',

gender: 'M',

contactno: 6985327410,

dob: '18/07/2001'

}

]

7.Show the details of just the first five documents of the students.

db.Students.find().limit(5);

[

{

\_id: ObjectId("64aba1f6c7c542c8ea90294e"),

enro: 4,

fname: 'Isha',

lname: 'Mptiyani',

city: 'Surat',

gender: 'F',

contactno: 9874563210,

dob: '12/09/2000'

},

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

enro: 102,

fname: 'Anish',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9632587410,

dob: '06/01/2001'

},

{

\_id: ObjectId("64aba208c7c542c8ea902950"),

enro: 103,

fname: 'Kalp',

lname: 'Shah',

city: 'Baroda',

gender: 'M',

contactno: 9630125874,

dob: '13/10/2000'

},

{

\_id: ObjectId("64aba20fc7c542c8ea902951"),

enro: 104,

fname: 'Yash',

lname: 'Bhakta',

city: 'Mumbai',

gender: 'M',

contactno: 9987452103,

dob: '08/05/2001'

},

{

\_id: ObjectId("64aba214c7c542c8ea902952"),

enro: 84,

fname: 'Aparana',

lname: 'Mukherjee',

city: 'Surat',

gender: 'F',

contactno: 8563247890,

dob: '26/06/2001'

}

]

8.Display only the details of last three documents of the students.

db.Students.find().limit(3).skip(7);

[

{

\_id: ObjectId("64aba22ec7c542c8ea902955"),

enro: 79,

fname: 'Monis',

lname: 'Khan',

city: 'Bardoli',

gender: 'M',

contactno: 7895231053,

dob: '23/11/2000'

},

{

\_id: ObjectId("64aba232c7c542c8ea902956"),

enro: 106,

fname: 'Abhishek',

lname: 'Choksi',

city: 'Surat',

gender: 'M',

contactno: 6985327410,

dob: '18/07/2001'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

enro: 49,

fname: 'Om',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9985632100,

dob: '15/05/2001'

}

]

9. View the list of male students whose city is “Valsad”.

db.Students.find({$and:[{gender:"M"},{city:"Valsad"}]});

[

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

enro: 102,

fname: 'Anish',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9632587410,

dob: '06/01/2001'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

enro: 49,

fname: 'Om',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9985632100,

dob: '15/05/2001'

}

]

10.Display all the documents in descending order.

db.Students.find().sort({enro:-1})

[

{

\_id: ObjectId("64aba232c7c542c8ea902956"),

enro: 106,

fname: 'Abhishek',

lname: 'Choksi',

city: 'Surat',

gender: 'M',

contactno: 6985327410,

dob: '18/07/2001'

},

{

\_id: ObjectId("64aba222c7c542c8ea902954"),

enro: 105,

fname: 'Riya',

lname: 'Agarwal',

city: 'Navsari',

gender: 'F',

contactno: 6985321470,

dob: '12/09/2000'

},

{

\_id: ObjectId("64aba20fc7c542c8ea902951"),

enro: 104,

fname: 'Yash',

lname: 'Bhakta',

city: 'Mumbai',

gender: 'M',

contactno: 9987452103,

dob: '08/05/2001'

},

{

\_id: ObjectId("64aba208c7c542c8ea902950"),

enro: 103,

fname: 'Kalp',

lname: 'Shah',

city: 'Baroda',

gender: 'M',

contactno: 9630125874,

dob: '13/10/2000'

},

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

enro: 102,

fname: 'Anish',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9632587410,

dob: '06/01/2001'

},

{

\_id: ObjectId("64aba214c7c542c8ea902952"),

enro: 84,

fname: 'Aparana',

lname: 'Mukherjee',

city: 'Surat',

gender: 'F',

contactno: 8563247890,

dob: '26/06/2001'

},

{

\_id: ObjectId("64aba22ec7c542c8ea902955"),

enro: 79,

fname: 'Monis',

lname: 'Khan',

city: 'Bardoli',

gender: 'M',

contactno: 7895231053,

dob: '23/11/2000'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

enro: 49,

fname: 'Om',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9985632100,

dob: '15/05/2001'

},

{

\_id: ObjectId("64aba21bc7c542c8ea902953"),

enro: 8,

fname: 'Arjun',

lname: 'Poduval',

city: 'Vapi',

gender: 'M',

contactno: 8965230147,

dob: '01/05/2001'

},

{

\_id: ObjectId("64aba1f6c7c542c8ea90294e"),

enro: 4,

fname: 'Isha',

lname: 'Mptiyani',

city: 'Surat',

gender: 'F',

contactno: 9874563210,

dob: '12/09/2000'

}

]

1. Display the list of first four students whose city is “Valsad” in order.

db.Students.find({city:"Valsad"}).limit(4);

[

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

enro: 102,

fname: 'Anish',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9632587410,

dob: '06/01/2001'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

enro: 49,

fname: 'Om',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9985632100,

dob: '15/05/2001'

}

]

1. Update the contact number and date of birth of “Monis” to “6852987530” and  
   “06/01/1999” respectively.

db.Students.updateOne({fname:"Monis"},{$set:{contactno:6852987530,dob:"06/01/1999"}});

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

1. Find only the date of birth of “Om”.

db.Students.find({fname:{$eq:"Om"}},{dob:1});

[ { \_id: ObjectId("64aba237c7c542c8ea902957"), dob: '15/05/2001' } ]

1. Insert the document (100, Rohit, Mehera, Mumbai, 24/03/2003) in the collection.

db.Students.insert({"enro":100,"fname":"Rohit","lname":"Mehera","city":"Mumbai","dob":"24/03/2003"});

{

acknowledged: true,

insertedIds: { '0': ObjectId("64aba4d5c7c542c8ea902958") }

}

1. Display the list of male students whose last name is “Patel”.

db.Students.find({$and:[{gender:"M"},{lname:"Patel"}]});

[

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

enro: 102,

fname: 'Anish',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9632587410,

dob: '06/01/2001'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

enro: 49,

fname: 'Om',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9985632100,

dob: '15/05/2001'

}

]

1. Insert the document (35, Priyank, Mistry, Anand, 18/06/2000, 9000800001) in the  
   collection.

db.Students.insert({"enro":35,"fname":"Priyank","lname":"Mistry","city":"Anand","contactno":9000800001,"dob":"18/06/2000"});

1. Show all the details of student whose enrollment number is “102”.

db.Students.find({enro:102});

[

{

\_id: ObjectId("64aba201c7c542c8ea90294f"),

enro: 102,

fname: 'Anish',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9632587410,

dob: '06/01/2001'

}

]

1. Display the list of students whose gender in “NULL” or 0.

db.Students.find({gender:null});

[

{

\_id: ObjectId("64aba4d5c7c542c8ea902958"),

enro: 100,

fname: 'Rohit',

lname: 'Mehera',

city: 'Mumbai',

dob: '24/03/2003'

},

{

\_id: ObjectId("64aba50fc7c542c8ea902959"),

enro: 35,

fname: 'Priyank',

lname: 'Mistry',

city: 'Anand',

contactno: 9000800001,

dob: '18/06/2000'

}

]

1. Complete all details of students, if any document of student the document is incomplete.

db.Students.updateOne({fname:"Rohit"},{$set:{contactno:68585785250,gender:"M"}});

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

bmiit2023> db.Students.updateOne({fname:"Priyank"},{$set:{gender:"M"}});

{

acknowledged: true,

insertedId: **null**,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0

}

1. Remove all the details of students whose city is “Vapi”.

db.Students.find({city:"Vapi"});

[

{

\_id: ObjectId("64aba21bc7c542c8ea902953"),

enro: 8,

fname: 'Arjun',

lname: 'Poduval',

city: 'Vapi',

gender: 'M',

contactno: 8965230147,

dob: '01/05/2001'

}

]

1. Display the next five students after skipping first five which are in the collection.

db.Students.find().limit(5).skip(5);

[

{

\_id: ObjectId("64aba21bc7c542c8ea902953"),

enro: 8,

fname: 'Arjun',

lname: 'Poduval',

city: 'Vapi',

gender: 'M',

contactno: 8965230147,

dob: '01/05/2001'

},

{

\_id: ObjectId("64aba222c7c542c8ea902954"),

enro: 105,

fname: 'Riya',

lname: 'Agarwal',

city: 'Navsari',

gender: 'F',

contactno: 6985321470,

dob: '12/09/2000'

},

{

\_id: ObjectId("64aba22ec7c542c8ea902955"),

enro: 79,

fname: 'Monis',

lname: 'Khan',

city: 'Bardoli',

gender: 'M',

contactno: 6852987530,

dob: '06/01/1999'

},

{

\_id: ObjectId("64aba232c7c542c8ea902956"),

enro: 106,

fname: 'Abhishek',

lname: 'Choksi',

city: 'Surat',

gender: 'M',

contactno: 6985327410,

dob: '18/07/2001'

},

{

\_id: ObjectId("64aba237c7c542c8ea902957"),

enro: 49,

fname: 'Om',

lname: 'Patel',

city: 'Valsad',

gender: 'M',

contactno: 9985632100,

dob: '15/05/2001'

}

]

1. List the names of all the students having „a‟ as the second letter in their names.

db.Students.aggregate([{$match: {fname: {$regex: '^.[aA]'}}}]);

[

{

\_id: ObjectId("64aba208c7c542c8ea902950"),

enro: 103,

fname: 'Kalp',

lname: 'Shah',

city: 'Baroda',

gender: 'M',

contactno: 9630125874,

dob: '13/10/2000'

},

{

\_id: ObjectId("64aba20fc7c542c8ea902951"),

enro: 104,

fname: 'Yash',

lname: 'Bhakta',

city: 'Mumbai',

gender: 'M',

contactno: 9987452103,

dob: '08/05/2001'

}

]

1. List the clients who stay in a city, whose first letter is „M‟.

db.Students.aggregate([{$match: {city: {$regex: '.[mM]'}}}]);

[

{

\_id: ObjectId("64aba20fc7c542c8ea902951"),

enro: 104,

fname: 'Yash',

lname: 'Bhakta',

city: 'Mumbai',

gender: 'M',

contactno: 9987452103,

dob: '08/05/2001'

},

{

\_id: ObjectId("64aba4d5c7c542c8ea902958"),

enro: 100,

fname: 'Rohit',

lname: 'Mehera',

city: 'Mumbai',

dob: '24/03/2003',

contactno: 68585785250,

gender: 'M'

}

]

1. Count number of students in the collection.

db.Students.count();

12

1. Make the collection empty.

db.Studenst.drop();