

MongoDB Operators & import task

- Database Name:-shop
- Table Name:-vendors

1)Import vendorsJson file in database with vendors collection.

Query:- mongoimport --db=shop --collection=vendors --file=D:\Priyesh\MongoDB\operators_and_import_task\vendorsJson.json --jsonArray

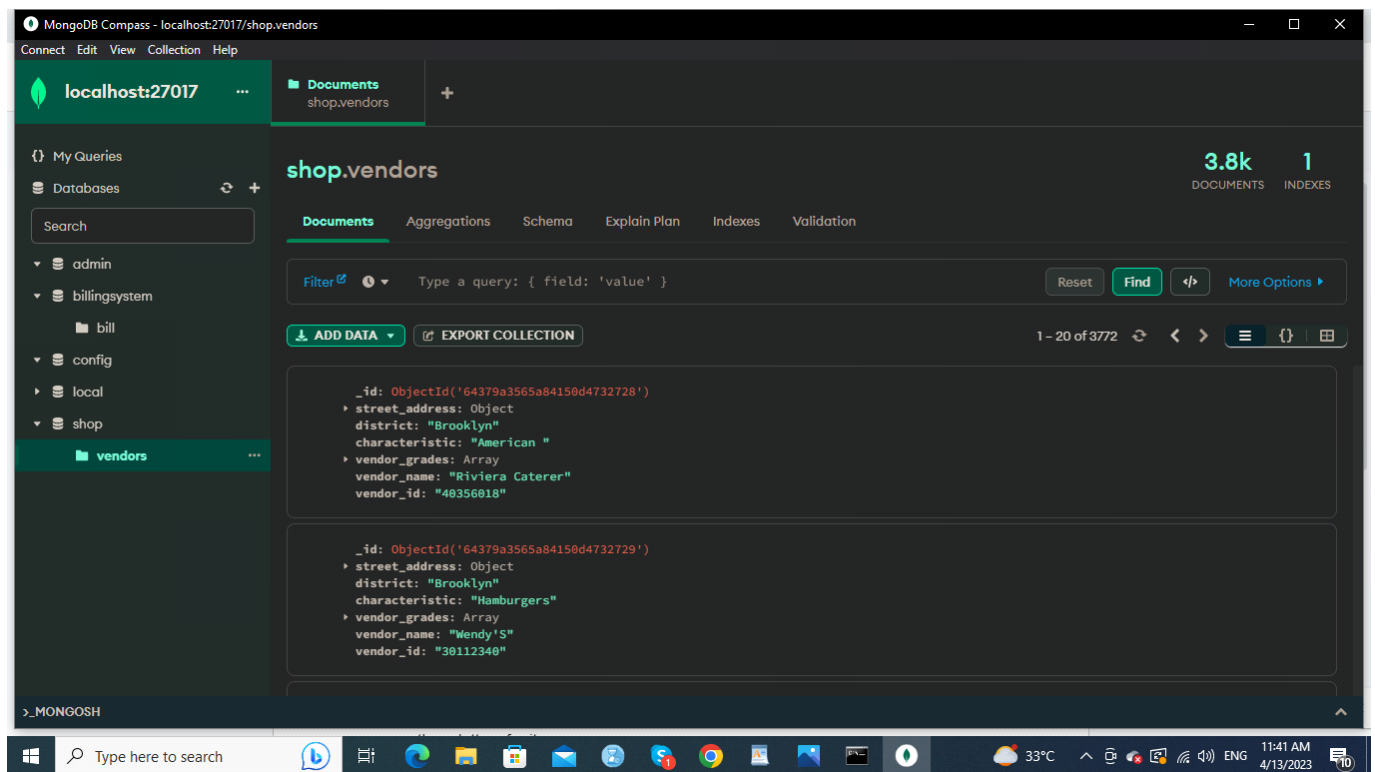
O/P:-

```
C:\Users\User40>mongoimport --db=shop --collection=vendors --file=D:\Priyesh\MongoDB\operators_and_import_task\vendorsJson.json --jsonArray
2023-04-13T11:29:17.297+0530    connected to: mongod://localhost/
2023-04-13T11:29:17.517+0530    3772 document(s) imported successfully. 0 document(s) failed to import.
```

2)Display all the documents.

Query:- db.vendors.find()

O/P:-



3) display the fields **vendor_id**, **vendor_name**, **district** for all the documents in the collection.

Query: `-db.vendors.find({},{'vendor_id':1,'vendor_name':1,'district':1})`

Query: `-db.vendors.find({},{'vendor_id':16,'vendor_name':2,'district':2})`

O/P:-

```

> db.vendors.find({},{'vendor_id':16,'vendor_name':2,'district':2})
< {
  _id: ObjectId("64379a3565a84150d4732728"),
  district: 'Brooklyn',
  vendor_name: 'Riviera Caterer',
  vendor_id: '40356018'
}
{
  _id: ObjectId("64379a3565a84150d4732729"),
  district: 'Brooklyn',
  vendor_name: "Wendy'S",
  vendor_id: '30112340'
}

```

4)display the fields **vendor_id**, **vendor_name**,**street_address.building** but remove the field **_id** for all the documents in output.

Query:-

```
db.vendors.find({},{'vendor_id':16,'vendor_name':2,'street_address.building':2,'_id':0})
```

O/P:-

```
> db.vendors.find({},{'vendor_id':16,'vendor_name':2,'street_address.building':2,'_id':0})
< {
  street_address: {
    building: '2780'
  },
  vendor_name: 'Riviera Caterer',
  vendor_id: '40356018'
}
{
  street_address: {
    building: '469'
  },
  vendor_name: "Wendy'S",
  vendor_id: '30112340'
```

5)display all the vendors which is in the **district 'Brooklyn'**

Query:-db.vendors.find({'district':'Brooklyn'})

O/P:-

```
> db.vendors.find({'district':'Brooklyn'})
< {
  _id: ObjectId("64379a3565a84150d4732728"),
  street_address: {
    building: '2780',
    coord: [
      -73.98241999999999,
      40.579505
    ],
    street: 'Stillwell Avenue',
    zipcode: '11224'
  },
  district: 'Brooklyn',
  characteristic: 'American ',
  vendor_grades: [
    {
      date: 2014-06-10T00:00:00.000Z,
      grade: 'A',
      score: 5
    },
  ],
}
```

6)display the **first 5 vendors** which is in the **district 'Brooklyn'**

Query:-db.vendors.find({'district':'Brooklyn'}).limit(5)

O/P:-

```

> db.vendors.find({'district':'Brooklyn'}).limit(5)
< {
  _id: ObjectId("64379a3565a84150d4732728"),
  street_address: {
    building: '2780',
    coord: [
      -73.98241999999999,
      40.579505
    ],
    street: 'Stillwell Avenue',
    zipcode: '11224'
  },
  district: 'Brooklyn',
  characteristic: 'American ',
  vendor_grades: [
    {
      date: 2014-06-10T00:00:00.000Z,
      grade: 'A',
      score: 5
    }
  ],
}

```

7)display the **next 5 vendors after skipping first 5** which is in the district 'Brooklyn'

Query:-db.vendors.find({'district':'Brooklyn'}).skip(5).limit(5)

O/P:-

```
> db.vendors.find({'district':'Brooklyn'}).skip(5).limit(5)
< {
  _id: ObjectId("64379a3565a84150d4732733"),
  street_address: {
    building: '1269',
    coord: [
      -73.871194,
      40.6730975
    ],
    street: 'Sutter Avenue',
    zipcode: '11208'
  },
  district: 'Brooklyn',
  characteristic: 'Chinese',
  vendor_grades: [
    {
```

8)find the vendors who achieved a score **more than 90 in vendor_grades**

Query:-db.vendors.find({'vendor_grades.score':{\$gt:50}})

O/P:-

```
},  
  district: 'Brooklyn',  
  characteristic: 'Chinese',  
  vendor_grades: [  
    {  
      date: 2014-09-16T00:00:00.000Z,  
      grade: 'B',  
      score: 21  
    },  
    {  
      date: 2013-08-28T00:00:00.000Z,  
      grade: 'A',  
      score: 7  
    },  
    {  
      date: 2013-04-02T00:00:00.000Z,  
      grade: 'C',  
      score: 56  
    },  
    {  
      date: 2012-08-15T00:00:00.000Z,  
      grade: 'B',  
      score: 27  
    }  
  ]  
}
```

9) find the vendors that achieved a score, **more than 80 but less than 100**.

Query:- `db.vendors.find({vendor_grades:{$elemMatch:{score:{$gt:80,$lt:100}}}})`

O/P:-


```
    score: 8
  },
  {
    date: 2013-05-30T00:00:00.000Z,
    grade: 'A',
    score: 12
  },
  {
    date: 2013-04-24T00:00:00.000Z,
    grade: 'P',
    score: 2
  },
  {
    date: 2012-10-01T00:00:00.000Z,
    grade: 'A',
    score: 9
  },
  {
    date: 2012-04-06T00:00:00.000Z,
    grade: 'C',
    score: 92
  },
  {
```

10) find the vendors which are located in **latitude(coord) value less than - 92.754168**.

Query:- db.vendors.find({'street_address.coord':{'\$lt':-92.754168}})

O/P:-

```

> db.vendors.find({'street_address.coord':{'$lt:-92.754168}})
< {
  _id: ObjectId("64379a3565a84150d4732d71"),
  street_address: {
    building: '3707',
    coord: [
      -101.8945214,
      33.5197474
    ],
    street: '82 Street',
    zipcode: '11372'
  },
  district: 'Queens',
  characteristic: 'American ',
  vendor_grades: [
    {
      date: 2014-06-04T00:00:00.000Z,
      grade: 'A',
      score: 12
    }
  ]
}

```

11) find the vendors that characteristic is not 'Italian' and their grade score **more than 70 and latitude less than -65.754168**

Query:- db.vendors.find(
 {
 "characteristic " : {\$ne : "Italian"},
 "vendor_grades.score" : {\$gt: 70},
 "street_address.coord" : {\$lt : -65.754168}
 }
);

O/P:-

```

    _id: ObjectId("64379a3565a84150d47332f4"),
    street_address: {
      building: '',
      coord: [
        -74.0163793,
        40.7167671
      ],
      street: 'Hudson River',
      zipcode: '10282'
    },
    district: 'Manhattan',
    characteristic: 'American ',
    vendor_grades: [
      {
        date: 2014-06-27T00:00:00.000Z,
        grade: 'C',
        score: 89
      },
      {
        date: 2013-06-06T00:00:00.000Z,
        grade: 'A',
        score: 6
      }
    ]
  }
}

```

12)find the vendors that characteristic is not 'Italian' and their grade score more than 70 and latitude less than -65.754168.The document must be displayed according to the characteristic in descending order.

Query:-db.vendors.find(

```

{
  "characteristic" : {$ne : "Italian"},
  "vendor_grades.score" :{$gt: 70},

```

```
"street_address.coord" : {$lt : -65.754168}
}).sort ({ characteristic : -1 });
```

O/P:-

```
db.vendors.find(
    {
        "characteristic" : {$ne : "Italian"},
        "vendor_grades.score" : {$gt: 70},
        "street_address.coord" : {$lt : -65.754168}
    }).sort ({ characteristic : -1 });

< {
  _id: ObjectId("64379a3565a84150d4732a8a"),
  street_address: {
    building: '130',
    coord: [
      -73.984758,
      40.7457939
    ],
    street: 'Madison Avenue',
    zipcode: '10016'
  },
  district: 'Manhattan',
  characteristic: 'Pizza/Italian',
  vendor_grades: [
```

13) find the vendor_id, vendor_name, for those vendors which contain 'Gio' as first three letters for its name.

Query:-db.vendors.find(
{vendor_name: /^Gio/},
{
"vendor_id" : 1,

"vendor_name":1

}

);

O/P:-

```
> db.vendors.find(
  {vendor_name: /^Gio/},
  {
    "vendor_id" : 1,
    "vendor_name":1
  }
);
< {
  _id: ObjectId("64379a3565a84150d4732d7c"),
  vendor_name: 'Giovanni 25',
  vendor_id: '40535297'
}
{
  _id: ObjectId("64379a3565a84150d473304e"),
  vendor_name: "Giovanni'S Restaurant & Cafe",
  vendor_id: '40641408'
}
{
  _id: ObjectId("64379a3565a84150d4733287"),
  vendor_name: "Giorgio'S Of Gramercy",
```

14)find the vendor_id, vendor_name, for those vendors which contain 'cas' as last three letters for its name.

Query:-db.vendors.find(

{vendor_name: /cas\$/},

```
{  
  "vendor_id" : 1,  
  "vendor_name":1  
}  
);
```

O/P:-

```
> db.vendors.find(  
  {vendor_name: /cas$/},  
  {  
    "vendor_id" : 1,  
    "vendor_name":1  
  }  
);  
< {  
  _id: ObjectId("64379a3565a84150d473322  
  vendor_name: 'Cositas Ricas',  
  vendor_id: '40729439'  
}
```

15)find the vendor_id, vendor_name, for those vendors which contain 'Rpg' as three letters somewhere in its name

Query:-db.vendors.find(
 {"vendor_name": /. *Rpg.*/},
 {
 "vendor_id" : 1,

```
"vendor_name":1
```

```
}
```

```
);
```

O/P:-No Data Found.

16) arrange the name of the vendors in ascending order along with all the columns.

Query:-db.vendors.find().sort({"vendor_name":1})

O/P:-

```

    {
      date: 2013-08-29T00:00:00.000Z,
      grade: 'A',
      score: 2
    },
    {
      date: 2013-03-08T00:00:00.000Z,
      grade: 'A',
      score: 7
    },
    {
      date: 2012-06-27T00:00:00.000Z,
      grade: 'A',
      score: 7
    },
    {
      date: 2011-11-17T00:00:00.000Z,
      grade: 'A',
      score: 12
    }
  ],
  vendor_name: '(Lewis Drug Store) Locanda Vini E Olii',
  vendor_id: '40804423'
}

```

17) arrange the name of the vendors in descending order along with all the columns.

Query:-`db.vendors.find().sort({"vendor_name":-1});`

O/P:-


```

    },
    {
      date: 2012-10-02T00:00:00.000Z,
      grade: 'A',
      score: 9
    },
    {
      date: 2012-05-09T00:00:00.000Z,
      grade: 'A',
      score: 13
    },
    {
      date: 2011-12-28T00:00:00.000Z,
      grade: 'B',
      score: 24
    }
  ],
  vendor_name: 'Zum Stammtisch',
  vendor_id: '40367377'
}
{
  _id: ObjectId("64379a3565a84150d473331f"),

```

18) query to know whether all the street_address contains the street or not.

Query:-db.vendors.find(

```

  {"street_address.street" :
    { $exists : true }
  }

```

);

O/P:-

```
> db.vendors.find(
    { "street_address.street" :
      { $exists : true }
    }
  );

< {
  _id: ObjectId("64379a3565a84150d4732728"),
  street_address: {
    building: '2780',
    coord: [
      -73.98241999999999,
      40.579505
    ],
    street: 'Stillwell Avenue',
    zipcode: '11224'
  },
  district: 'Brooklyn',
  characteristic: 'American ',
  vendor_grades: [
    {
```

19) query which will select all documents in the vendors collection where the 'coord' field value is Double

Query:-db.vendors.find(
 { "street_address.coord" :
 { \$type : 1 }
 }
)

);

O/P:-

```
> db.vendors.find(
      {"street_address.coord" :
        {$type : 1}
      }
    );

< {
  _id: ObjectId("64379a3565a84150d4732728"),
  street_address: {
    building: '2780',
    coord: [
      -73.98241999999999,
      40.579505
    ],
    street: 'Stillwell Avenue',
    zipcode: '11224'
  },
  district: 'Brooklyn',
  characteristic: 'American ',
  vendor_grades: [
    {
```

20) find the vendors that have at least one grade with a score of less than 5 and that are located in the district of Manhattan or Brooklyn, and their characteristics are not Italian.

Query:-db.vendors.find({

\$and: [

{

\$or: [

```
        { district: "Manhattan" },
        { district: "Brooklyn" }
    ]
},
{
    characteristic: { $ne: "Italian" }
},
{
    vendor_grades: {
        $elemMatch: {
            score: { $lt: 5 }
        }
    }
}
]
}))
```

O/P:-

```
> db.vendors.find({
  $and: [
    {
      $or: [
        { district: "Manhattan" },
        { district: "Brooklyn" }
      ]
    },
    {
      characteristic: { $ne: "Italian" }
    },
    {
      vendor_grades: {
        $elemMatch: {
          score: { $lt: 5 }
        }
      }
    }
  ]
}).count()
```

< 887

shop> |