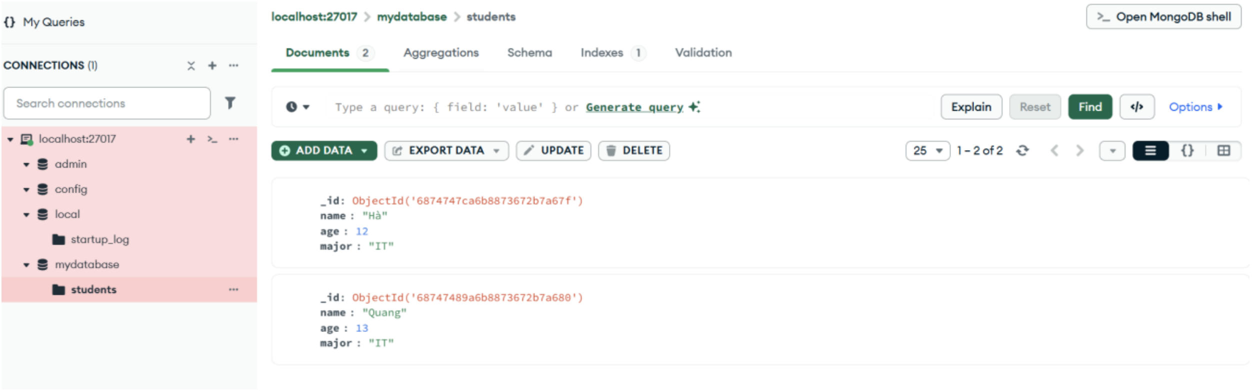
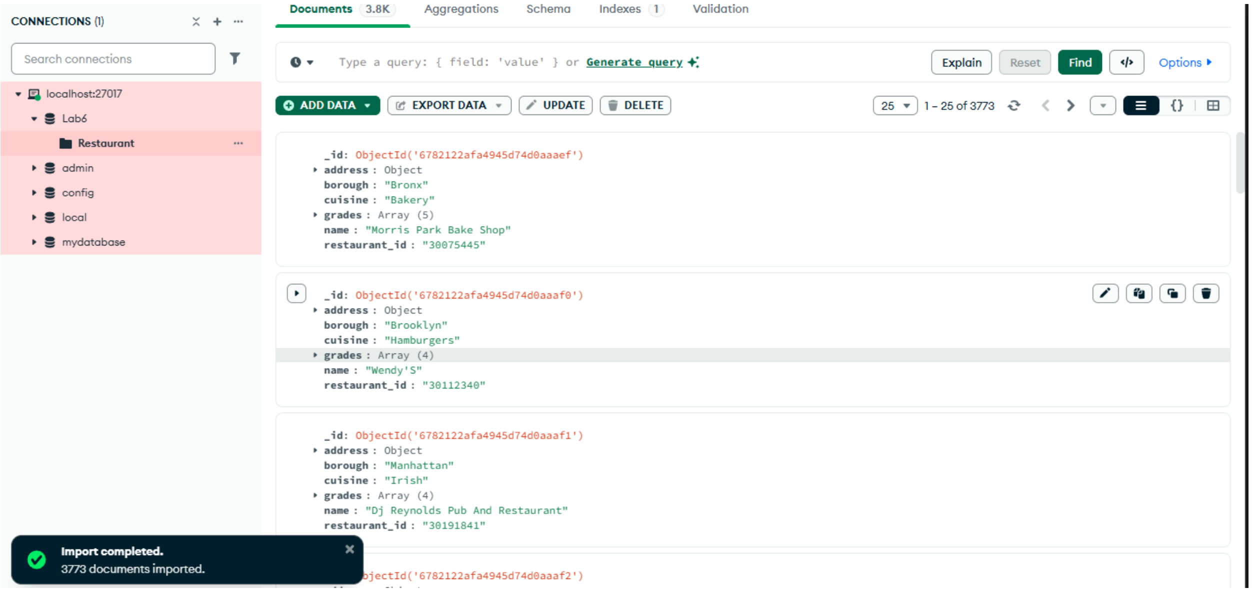
# Result of lab 7



```
_id: ObjectId('6874747ca6b8873672b7a67f')
name : "Hà"
age : 12
major : "IT"
```

```
_id: ObjectId('68747489a6b8873672b7a680')
name : "Quang"
age : 13
major : "IT"
```



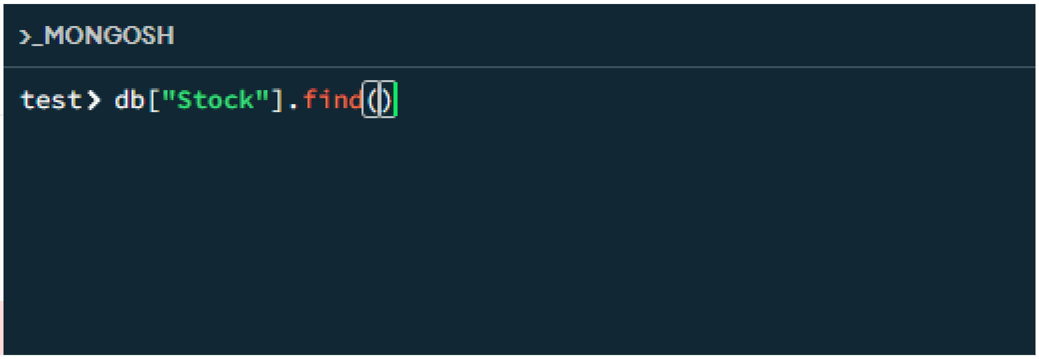
```
_id: ObjectId('6782122afa4945d74d0aaaef')
address : Object
borough : "Bronx"
cuisine : "Bakery"
grades : Array (5)
name : "Morris Park Bake Shop"
restaurant_id : "30075445"
```

```
_id: ObjectId('6782122afa4945d74d0aaaf0')
address : Object
borough : "Brooklyn"
cuisine : "Hamburgers"
grades : Array (4)
name : "Wendy'S"
restaurant_id : "30112340"
```

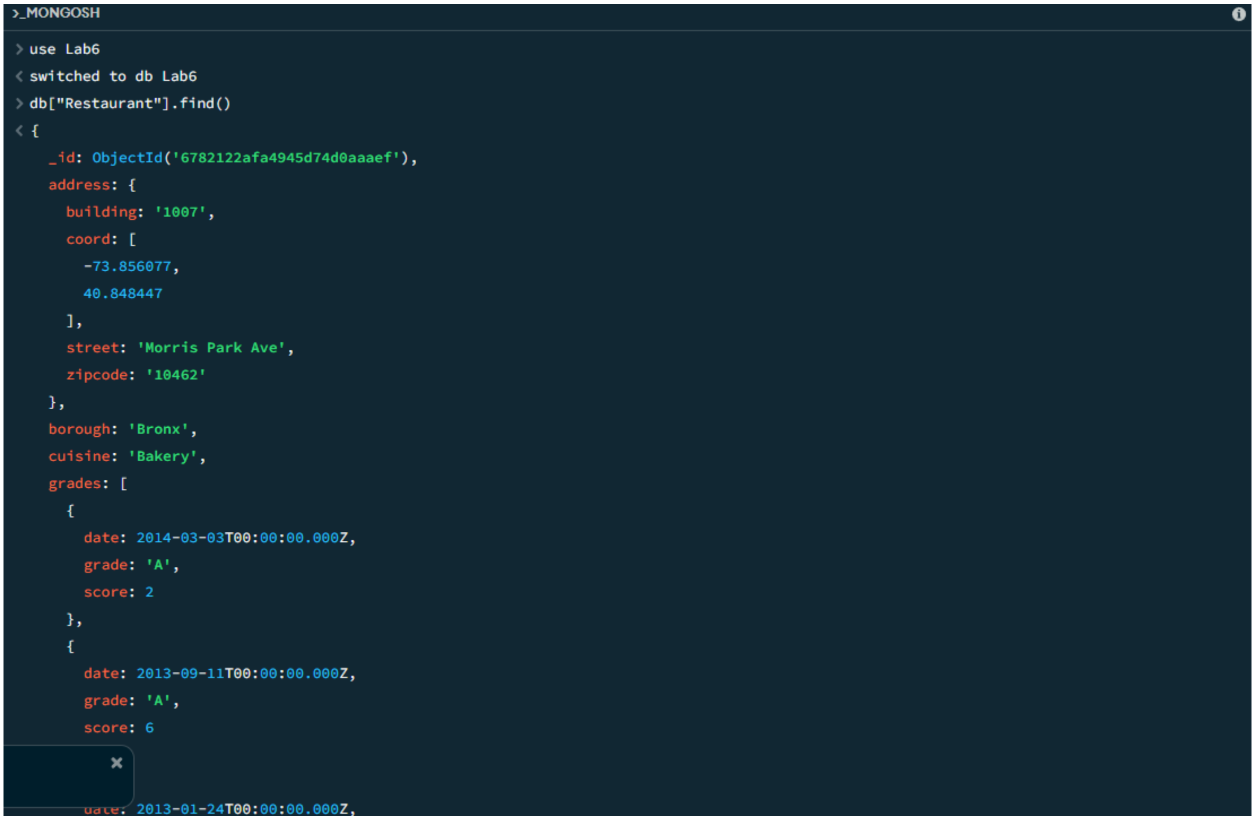
```
_id: ObjectId('6782122afa4945d74d0aaaf1')
address : Object
borough : "Manhattan"
cuisine : "Irish"
grades : Array (4)
name : "Dj Reynolds Pub And Restaurant"
restaurant_id : "30191841"
```

```
bjectId('6782122afa4945d74d0aaaf2')
```

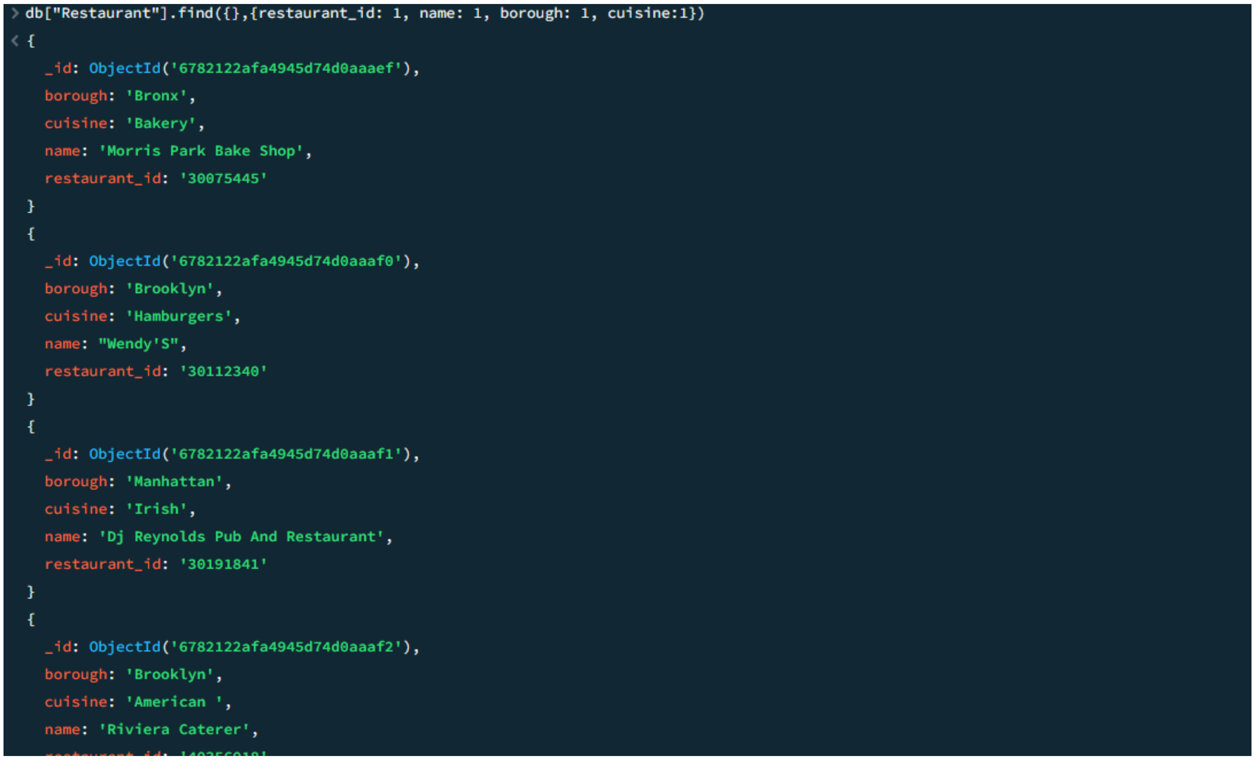
**Import completed.**
3773 documents imported.



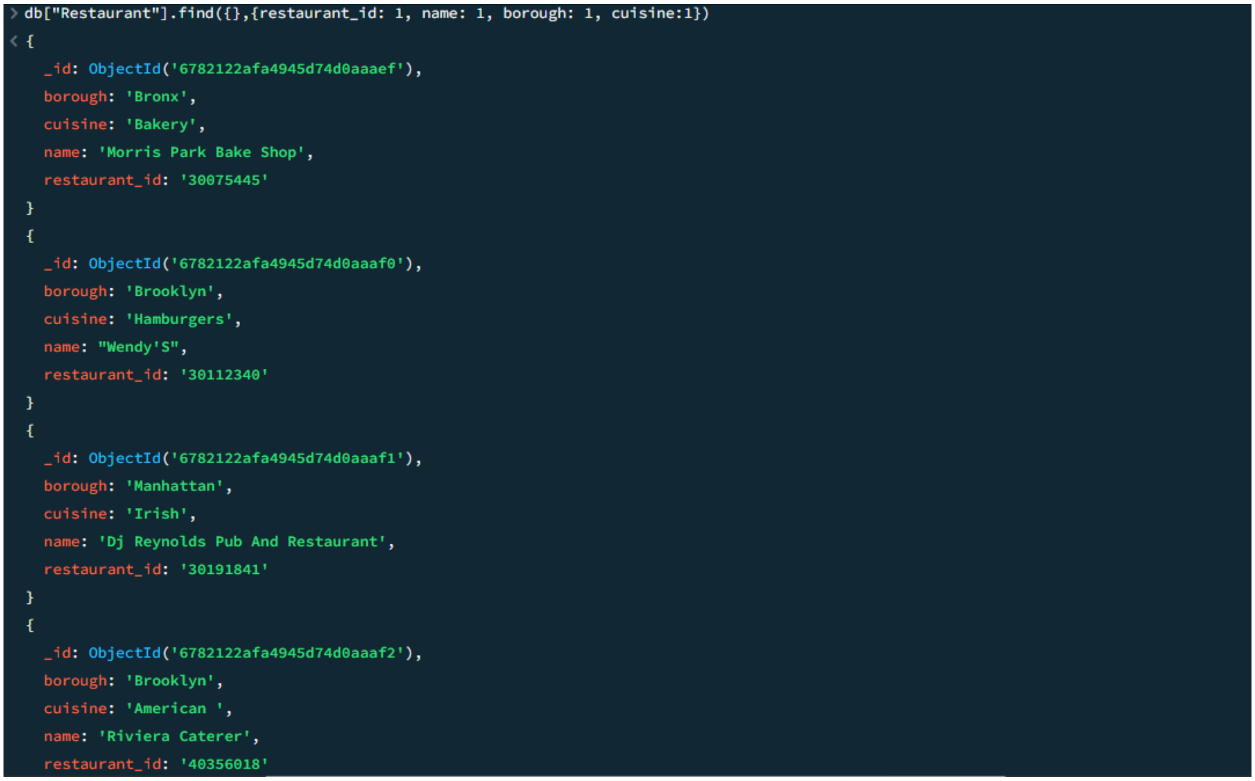
```
>_MONGOSH

test> db["Stock"].find()
```



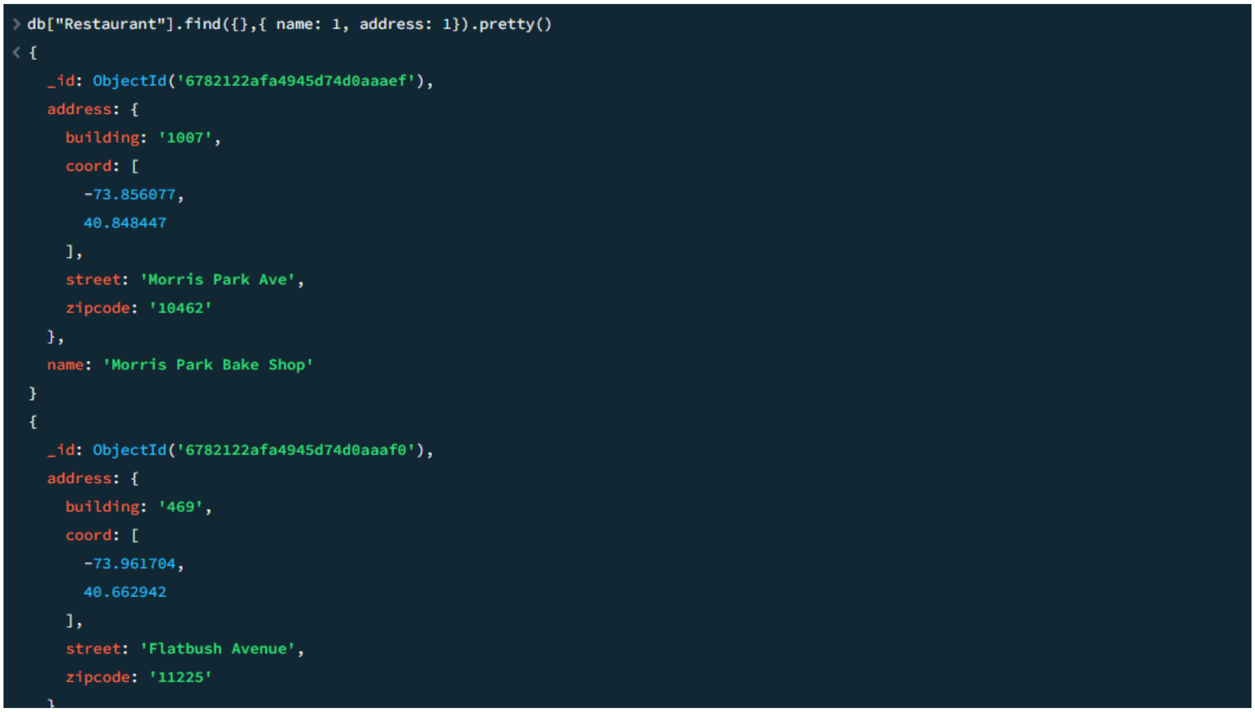
```
>_MONGOSH
> use Lab6
< switched to db Lab6
> db["Restaurant"].find()
< {
    _id: ObjectId('6782122afa4945d74d0aaaef'),
    address: {
      building: '1007',
      coord: [
        -73.856077,
        40.848447
      ],
      street: 'Morris Park Ave',
      zipcode: '10462'
    },
    borough: 'Bronx',
    cuisine: 'Bakery',
    grades: [
      {
        date: 2014-03-03T00:00:00.000Z,
        grade: 'A',
        score: 2
      },
      {
        date: 2013-09-11T00:00:00.000Z,
        grade: 'A',
        score: 6

        date: 2013-01-24T00:00:00.000Z,
```



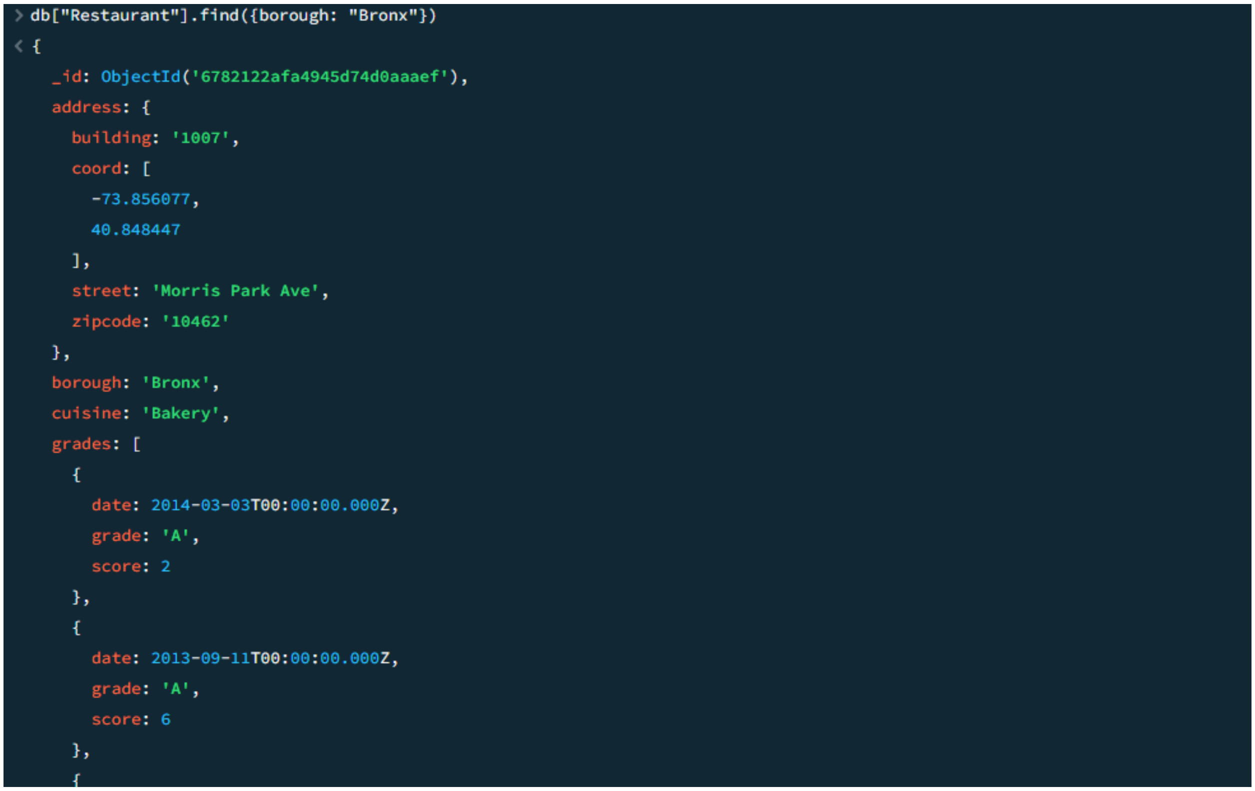
```
> db["Restaurant"].find({},{restaurant_id: 1, name: 1, borough: 1, cuisine:1})
< {
    _id: ObjectId('6782122afa4945d74d0aaaef'),
    borough: 'Bronx',
    cuisine: 'Bakery',
    name: 'Morris Park Bake Shop',
    restaurant_id: '30075445'
  }
  {
    _id: ObjectId('6782122afa4945d74d0aaaf0'),
    borough: 'Brooklyn',
    cuisine: 'Hamburgers',
    name: "Wendy'S",
    restaurant_id: '30112340'
  }
  {
    _id: ObjectId('6782122afa4945d74d0aaaf1'),
    borough: 'Manhattan',
    cuisine: 'Irish',
    name: 'Dj Reynolds Pub And Restaurant',
    restaurant_id: '30191841'
  }
  {
    _id: ObjectId('6782122afa4945d74d0aaaf2'),
    borough: 'Brooklyn',
    cuisine: 'American ',
    name: 'Riviera Caterer',
    restaurant_id: '40356018'
```



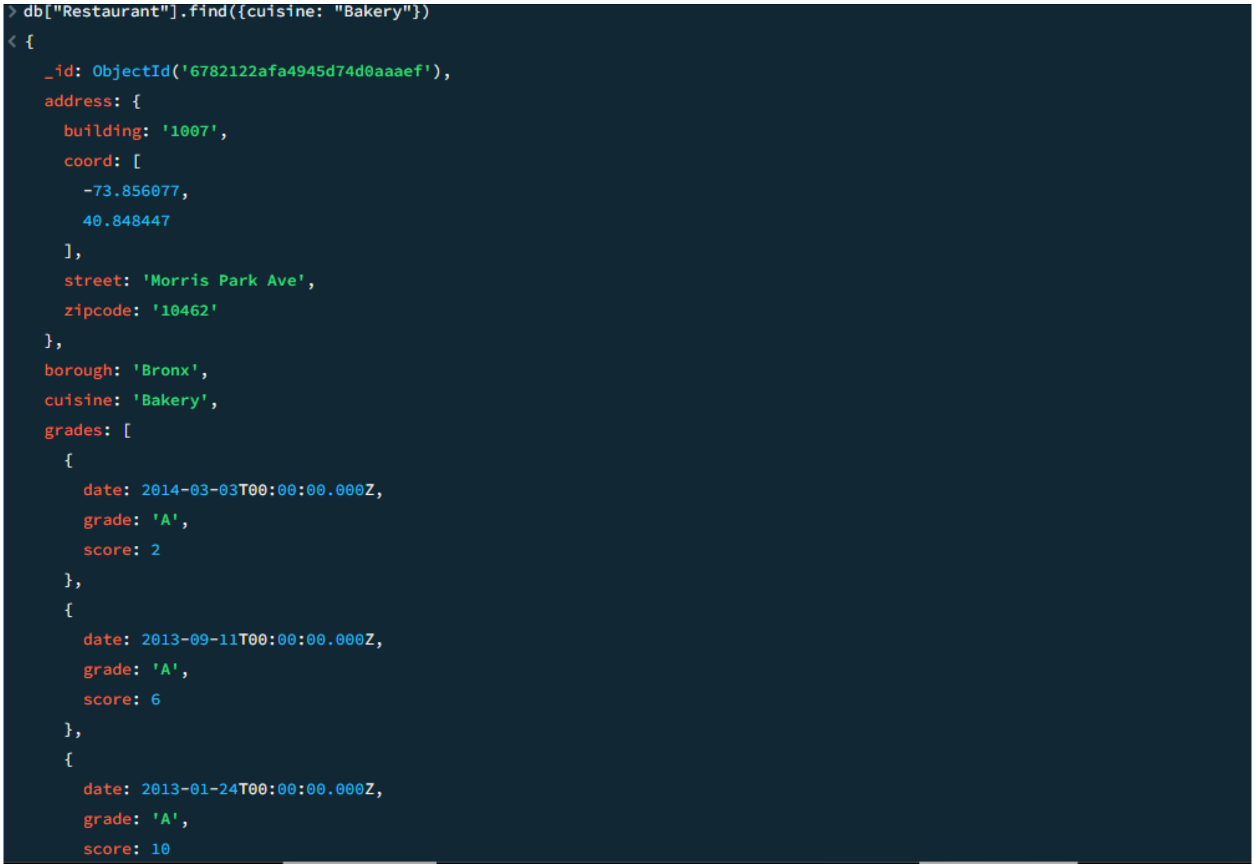
```
> db["Restaurant"].find({},{restaurant_id: 1, name: 1, borough: 1, cuisine:1})
< {
    _id: ObjectId('6782122afa4945d74d0aaaef'),
    borough: 'Bronx',
    cuisine: 'Bakery',
    name: 'Morris Park Bake Shop',
    restaurant_id: '30075445'
  }
  {
    _id: ObjectId('6782122afa4945d74d0aaaf0'),
    borough: 'Brooklyn',
    cuisine: 'Hamburgers',
    name: "Wendy'S",
    restaurant_id: '30112340'
  }
  {
    _id: ObjectId('6782122afa4945d74d0aaaf1'),
    borough: 'Manhattan',
    cuisine: 'Irish',
    name: 'Dj Reynolds Pub And Restaurant',
    restaurant_id: '30191841'
  }
  {
    _id: ObjectId('6782122afa4945d74d0aaaf2'),
    borough: 'Brooklyn',
    cuisine: 'American ',
    name: 'Riviera Caterer',
    restaurant_id: '40356018'
```



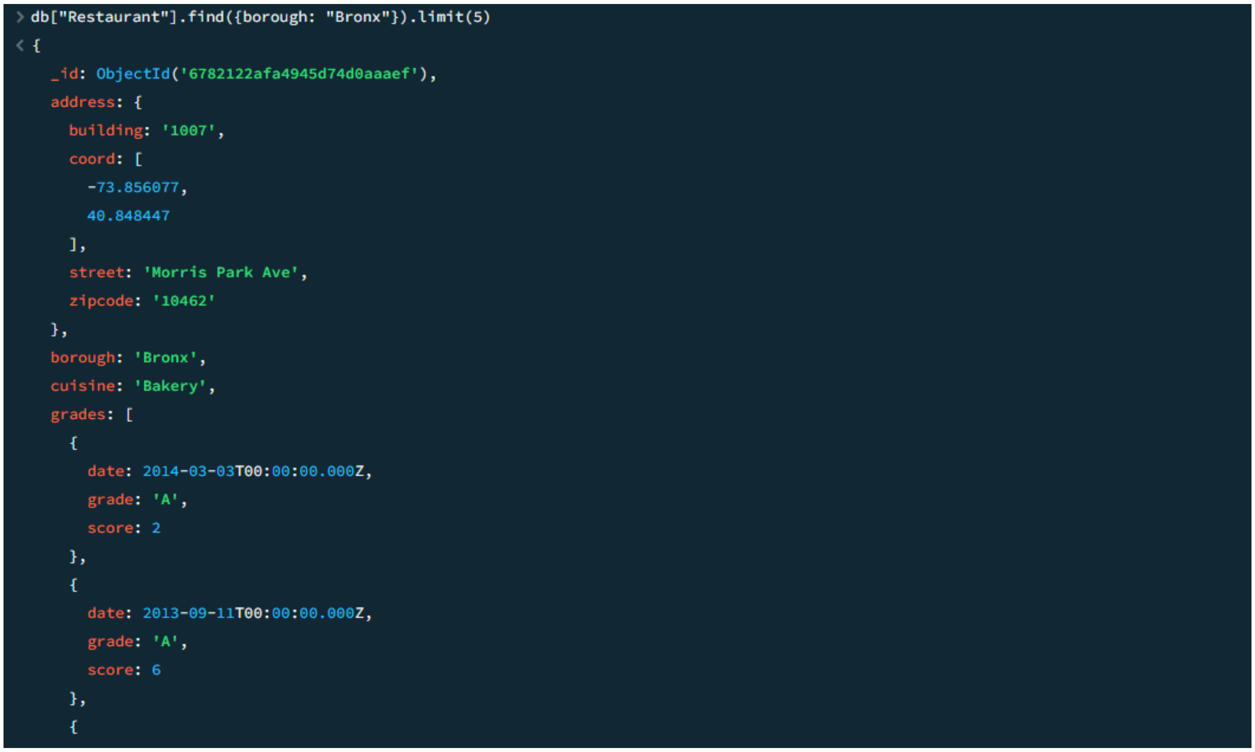
```
> db["Restaurant"].find({},{ name: 1, address: 1}).pretty()
< {
    _id: ObjectId('6782122afa4945d74d0aaaef'),
    address: {
      building: '1007',
      coord: [
        -73.856077,
        40.848447
      ],
      street: 'Morris Park Ave',
      zipcode: '10462'
    },
    name: 'Morris Park Bake Shop'
  }
  {
    _id: ObjectId('6782122afa4945d74d0aaaf0'),
    address: {
      building: '469',
      coord: [
        -73.961704,
        40.662942
      ],
      street: 'Flatbush Avenue',
      zipcode: '11225'
    }
```



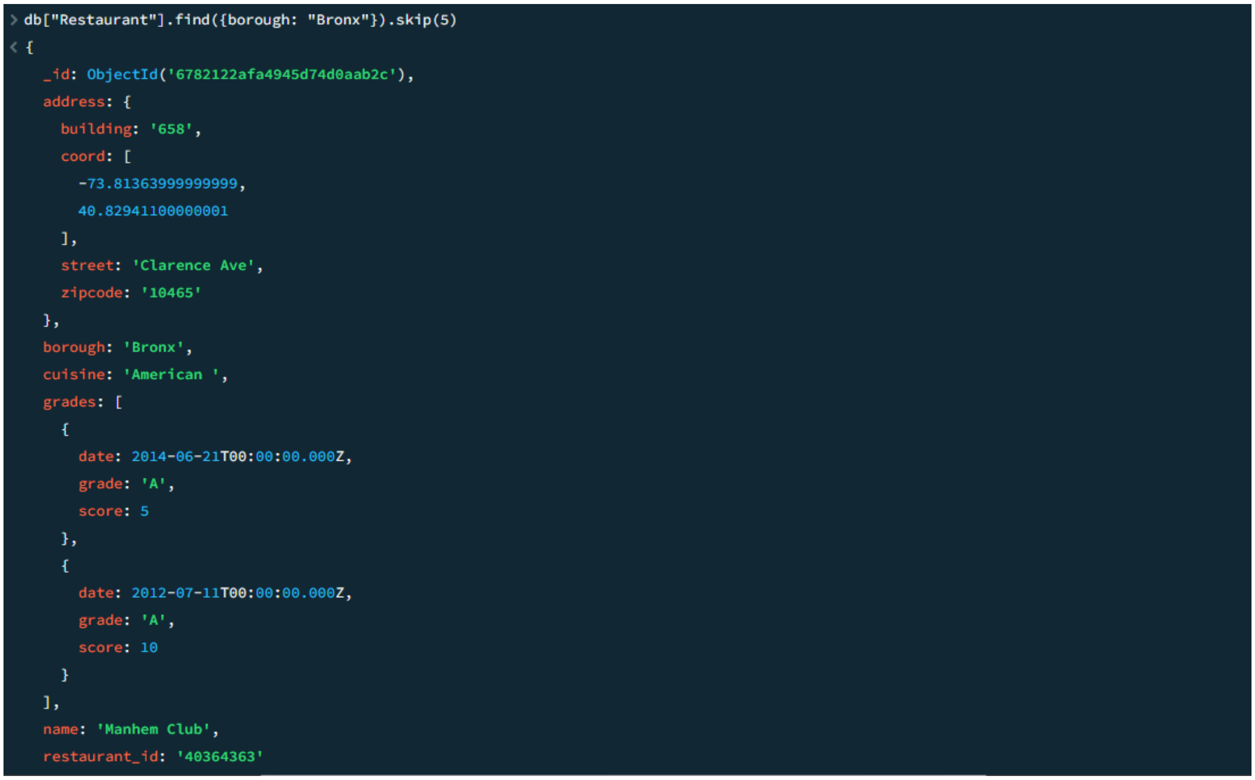
```
> db["Restaurant"].find({borough: "Bronx"})
< {
    _id: ObjectId('6782122afa4945d74d0aaaef'),
    address: {
      building: '1007',
      coord: [
        -73.856077,
        40.848447
      ],
      street: 'Morris Park Ave',
      zipcode: '10462'
    },
    borough: 'Bronx',
    cuisine: 'Bakery',
    grades: [
      {
        date: 2014-03-03T00:00:00.000Z,
        grade: 'A',
        score: 2
      },
      {
        date: 2013-09-11T00:00:00.000Z,
        grade: 'A',
        score: 6
      },
      {
```



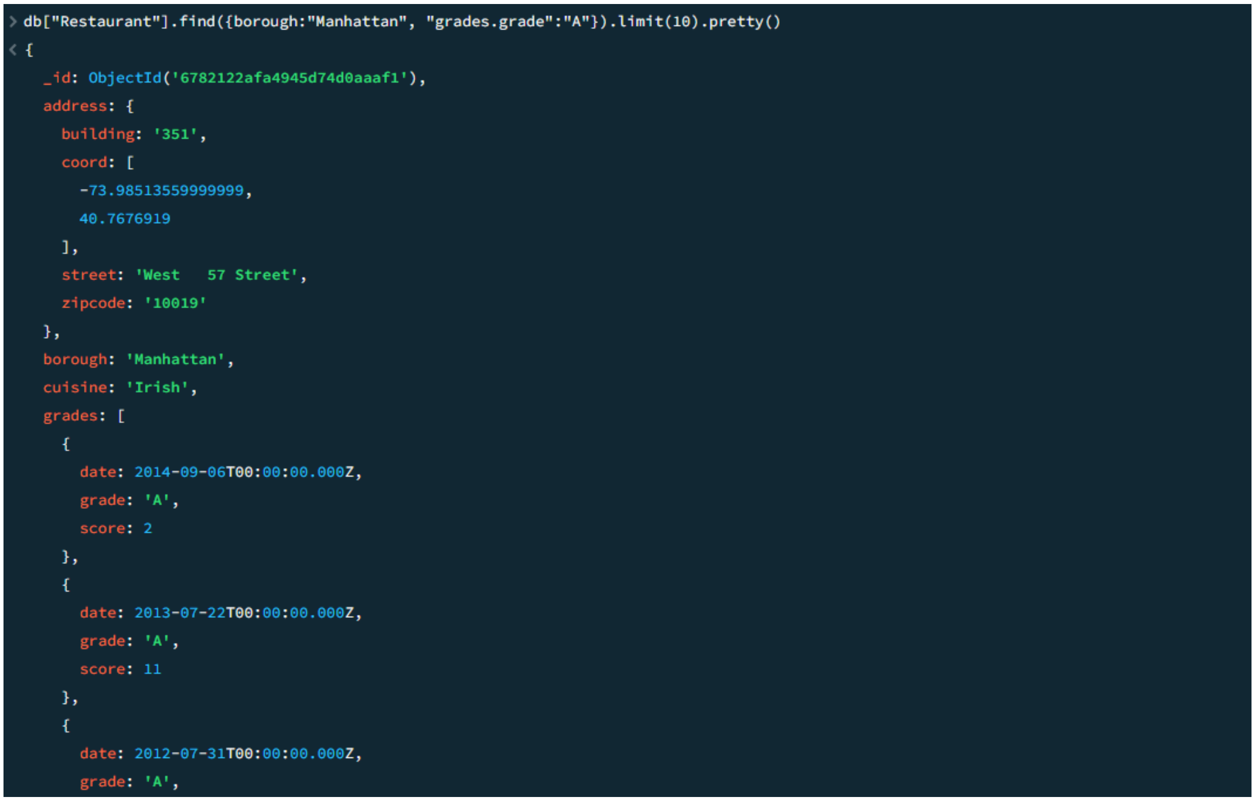
```
> db["Restaurant"].find({cuisine: "Bakery"})
< {
    _id: ObjectId('6782122afa4945d74d0aaaef'),
    address: {
      building: '1007',
      coord: [
        -73.856077,
        40.848447
      ],
      street: 'Morris Park Ave',
      zipcode: '10462'
    },
    borough: 'Bronx',
    cuisine: 'Bakery',
    grades: [
      {
        date: 2014-03-03T00:00:00.000Z,
        grade: 'A',
        score: 2
      },
      {
        date: 2013-09-11T00:00:00.000Z,
        grade: 'A',
        score: 6
      },
      {
        date: 2013-01-24T00:00:00.000Z,
        grade: 'A',
        score: 10
```



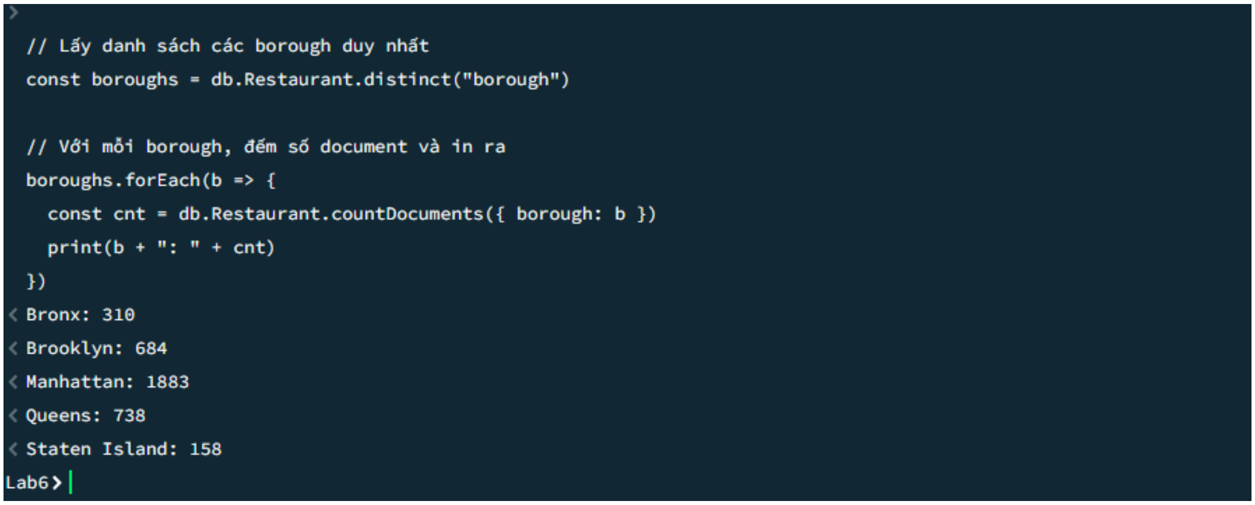
```
> db["Restaurant"].find({borough: "Bronx"}).limit(5)
< {
    _id: ObjectId('6782122afa4945d74d0aaaef'),
    address: {
      building: '1007',
      coord: [
        -73.856077,
        40.848447
      ],
      street: 'Morris Park Ave',
      zipcode: '10462'
    },
    borough: 'Bronx',
    cuisine: 'Bakery',
    grades: [
      {
        date: 2014-03-03T00:00:00.000Z,
        grade: 'A',
        score: 2
      },
      {
        date: 2013-09-11T00:00:00.000Z,
        grade: 'A',
        score: 6
      },
      {
```



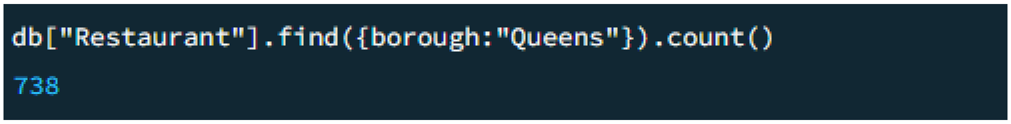
```
> db["Restaurant"].find({borough: "Bronx"}).skip(5)
< {
    _id: ObjectId('6782122afa4945d74d0aab2c'),
    address: {
      building: '658',
      coord: [
        -73.81363999999999,
        40.82941100000001
      ],
      street: 'Clarence Ave',
      zipcode: '10465'
    },
    borough: 'Bronx',
    cuisine: 'American ',
    grades: [
      {
        date: 2014-06-21T00:00:00.000Z,
        grade: 'A',
        score: 5
      },
      {
        date: 2012-07-11T00:00:00.000Z,
        grade: 'A',
        score: 10
      }
    ],
    name: 'Manhem Club',
    restaurant_id: '40364363'
```



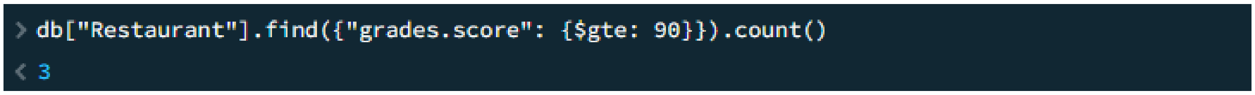
```
> db["Restaurant"].find({borough:"Manhattan", "grades.grade":"A"}).limit(10).pretty()
< {
    _id: ObjectId('6782122afa4945d74d0aaaf1'),
    address: {
      building: '351',
      coord: [
        -73.98513559999999,
        40.7676919
      ],
      street: 'West   57 Street',
      zipcode: '10019'
    },
    borough: 'Manhattan',
    cuisine: 'Irish',
    grades: [
      {
        date: 2014-09-06T00:00:00.000Z,
        grade: 'A',
        score: 2
      },
      {
        date: 2013-07-22T00:00:00.000Z,
        grade: 'A',
        score: 11
      },
      {
        date: 2012-07-31T00:00:00.000Z,
        grade: 'A',
```



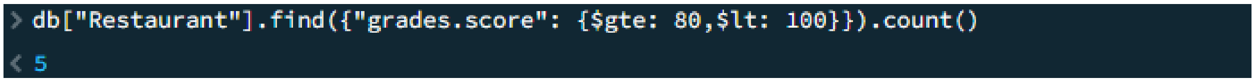
```
>
  // Lấy danh sách các borough duy nhất
  const boroughs = db.Restaurant.distinct("borough")

  // Với mỗi borough, đếm số document và in ra
  boroughs.forEach(b => {
    const cnt = db.Restaurant.countDocuments({ borough: b })
    print(b + ": " + cnt)
  })
< Bronx: 310
< Brooklyn: 684
< Manhattan: 1883
< Queens: 738
< Staten Island: 158
Lab6>
```



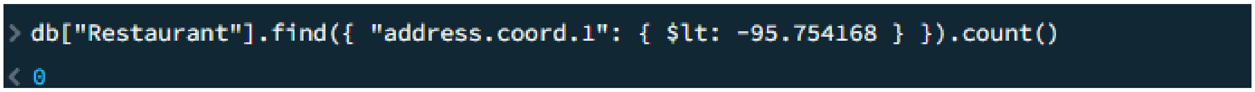
```
db["Restaurant"].find({borough:"Queens"}).count()
738
```



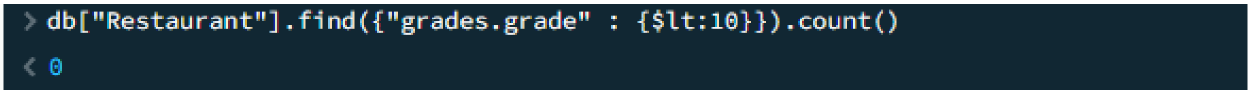
```
> db["Restaurant"].find({"grades.score": {$gte: 90}}).count()
< 3
```



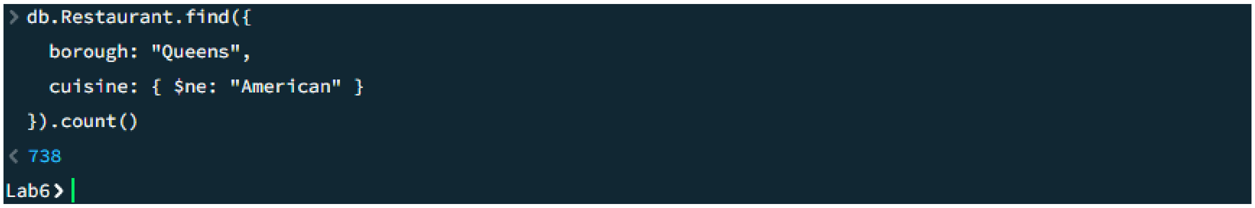
```
> db["Restaurant"].find({"grades.score": {$gte: 80,$lt: 100}}).count()
< 5
```



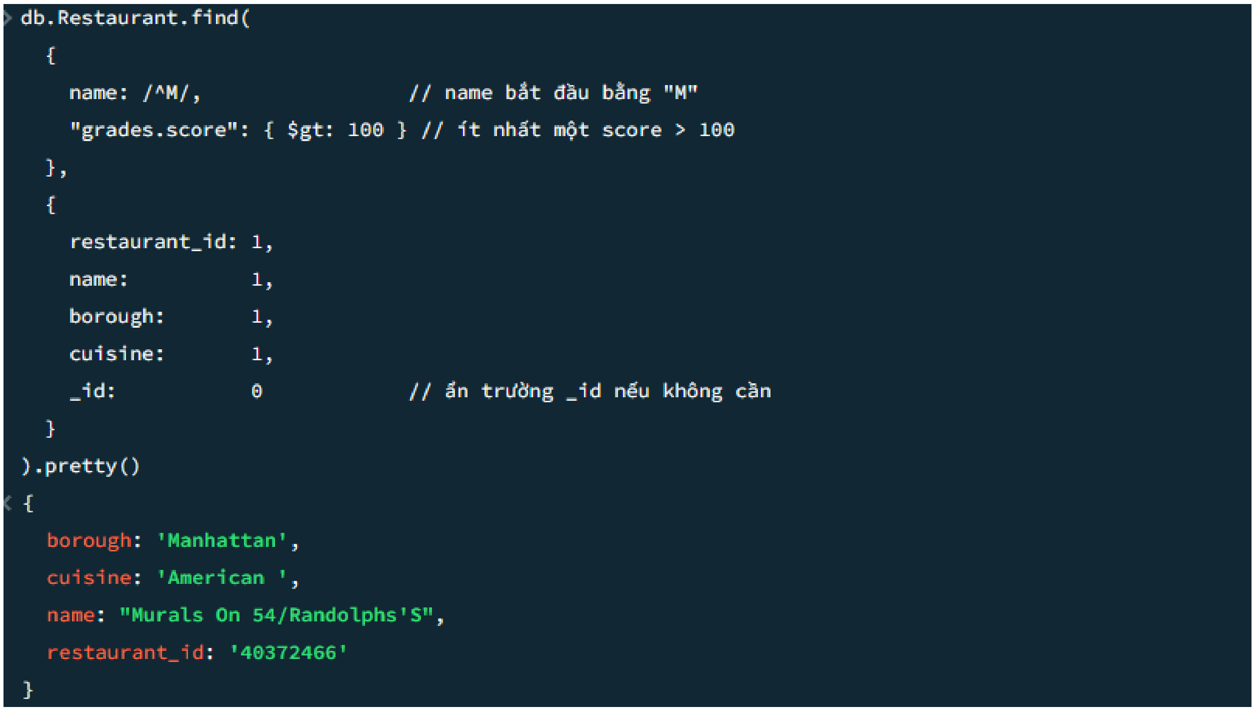
```
> db["Restaurant"].find({ "address.coord.1": { $lt: -95.754168 } }).count()
< 0
```



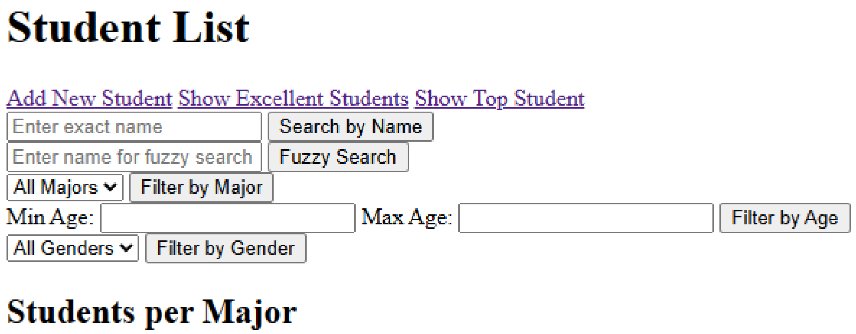
```
> db["Restaurant"].find({"grades.grade" : {$lt:10}}).count()
< 0
```



```
> db.Restaurant.find({
    borough: "Queens",
    cuisine: { $ne: "American" }
  }).count()
< 738
Lab6>
```

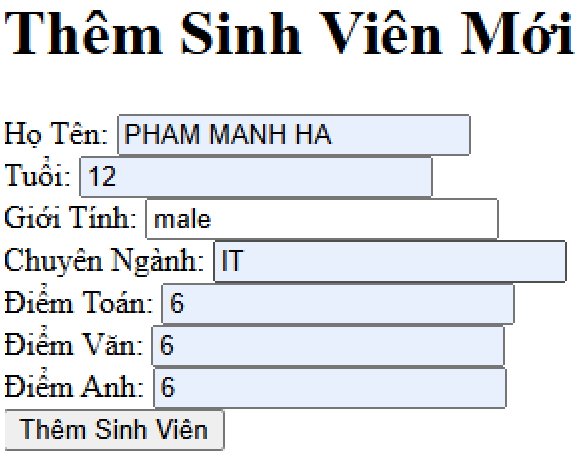


```
> db.Restaurant.find(
    {
      name: /^M/,                 // name bắt đầu bằng "M"
      "grades.score": { $gt: 100 } // ít nhất một score > 100
    },
    {
      restaurant_id: 1,
      name:          1,
      borough:       1,
      cuisine:       1,
      _id:           0            // ẩn trường _id nếu không cần
    }
  ).pretty()
< {
    borough: 'Manhattan',
    cuisine: 'American ',
    name: "Murals On 54/Randolphs'S",
    restaurant_id: '40372466'
  }
```



## Student List

### Students per Major



# Thêm Sinh Viên Mới

Họ Tên: PHAM MANH HA

Tuổi: 12

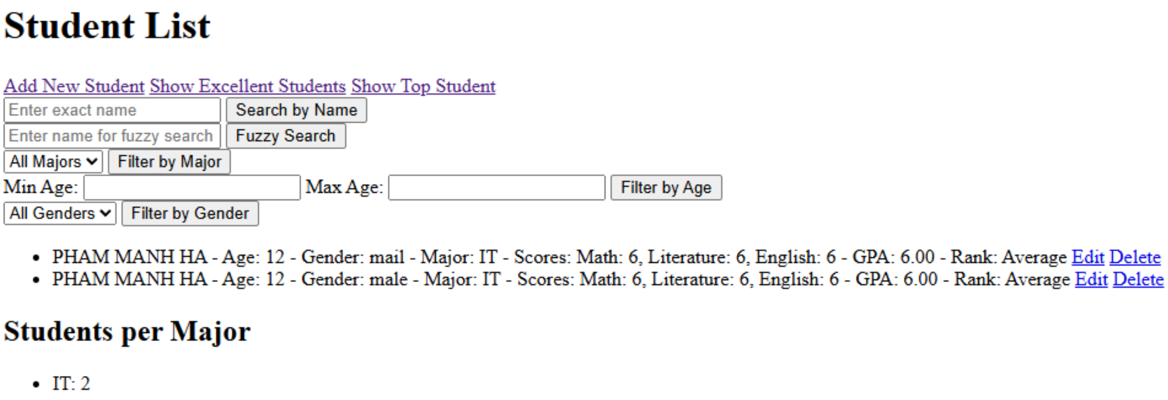
Giới Tính: male

Chuyên Ngành: IT

Điểm Toán: 6

Điểm Văn: 6

Điểm Anh: 6



# Student List

Add New Student Show Excellent Students Show Top Student

Enter exact name | Search by Name

Enter name for fuzzy search | Fuzzy Search

All Majors | Filter by Major

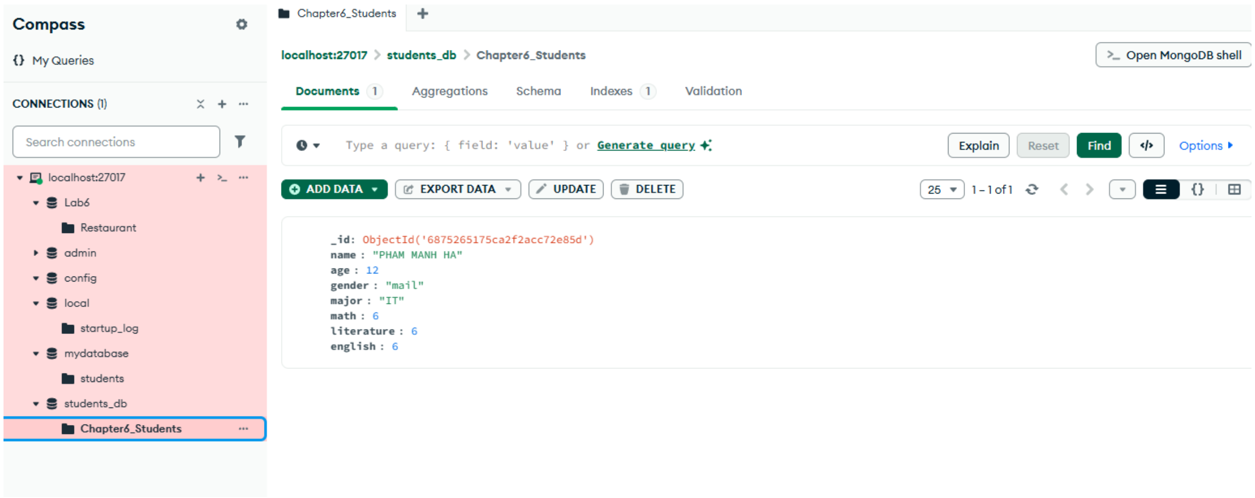
Min Age: | Max Age: | Filter by Age

All Genders | Filter by Gender

- PHAM MANH HA - Age: 12 - Gender: mail - Major: IT - Scores: Math: 6, Literature: 6, English: 6 - GPA: 6.00 - Rank: Average Edit Delete
- PHAM MANH HA - Age: 12 - Gender: male - Major: IT - Scores: Math: 6, Literature: 6, English: 6 - GPA: 6.00 - Rank: Average Edit Delete

## Students per Major

- IT: 2



```
_id: ObjectId('6875265175ca2f2acc72e85d')
name : "PHAM MANH HA"
age : 12
gender : "mail"
major : "IT"
math : 6
literature : 6
english : 6
```