

```
> db.movies.findOne()  
{  
  "_id" : ObjectId("5b9f547551dfa62353d12c9a"),  
  "id" : 8,  
  "url" : "http://www.tvmaze.com/shows/8/glee",  
  "name" : "Glee",  
  "type" : "Scripted",  
  "language" : "English",  
  "genres" : [  
    "Drama",  
    "Music",  
    "Romance"  
  ],  
  "status" : "Ended",  
  "runtime" : 60,  
  "premiered" : "2009-05-19",  
  "officialSite" : "http://www.fox.com/glee",  
  "schedule" : {  
    "time" : "21:00",  
    "days" : [  
      "Tuesday"  
    ]  
  }  
}
```

```
>  
> db.movies.find().pretty()
```

```
> db.movies.find({name: "The Last Ship"})
{ "_id" : ObjectId("5b9f547551dfa62353d12cad"), "id" : 21, "url" : "http://www.tvmaze.com/shows/the-last-ship", "name" : "The Last Ship", "type" : "Scripted", "language" : "English", "genres" : [ "Action", "Thriller" ], "status" : "Running", "runtime" : 60, "premiered" : "2014-06-22", "officialSite" : "http://www.tntdrama.com/shows/the-last-ship", "schedule" : { "time" : "21:00", "days" : [ "Sunday" ] }, "rating" : { "average" : 7.8 }, "weight" : 100, "network" : { "id" : 14, "name" : "TNT", "country" : { "name" : "United States", "code" : "US", "timezone" : "America/New_York" } }, "webChannel" : null, "externals" : { "tvrage" : 33158, "thetvdb" : 269533, "imdb" : "tt2402207" }, "image" : { "medium" : "http://static.tvmaze.com/uploads/images/medium_portrait/164/412464.jpg", "original" : "http://static.tvmaze.com/uploads/images/original_untouched/164/412464.jpg" }, "summary" : "<p>The plot is simple: Find a cure. Stop the virus. Save the world. When a global pandemic wipes out eight percent of the planet's population, the crew of a lone naval destroyer must find a way to pull humanity from the brink of extinction.</p>", "updated" : 1536575637, "_links" : { "self" : { "href" : "http://api.tvmaze.com/shows/21" }, "previousepisode" : { "href" : "http://api.tvmaze.com/episodes/1499133" }, "nextepisode" : { "href" : "http://api.tvmaze.com/episodes/1499134" } } }
>
```

>

```
> db.movies.find({runtime: {$ne: 60}})
```

>

```
> db.movies.find({runtime: {$lt: 40}})
```

>

> db.movies.find({runtime: {\$lte: 42}}).pretty()

```
> db.movies.find({runtime: {$gte: 42}}).pretty()
```

>

```
> db.movies.find({"rating.average": {$gt: 7}})
```


>

```
> db.movies.find({genres: "Drama"}).pretty()
```

>

```
> db.movies.find({genres: ["Drama"]}).pretty()
```

```
{
  "_id" : ObjectId("5b9f547551dfa62353d12d7f"),
  "id" : 242,
  "url" : "http://www.tvmaze.com/shows/242/the-great-fire",
  "name" : "The Great Fire",
  "type" : "Scripted",
  "language" : "English",
  "genres" : [
    "Drama"
  ],
  "status" : "Ended",
  "runtime" : 60,
  "premiered" : "2014-10-16",
  "officialSite" : null,
  "schedule" : {
    "time" : "21:00",
    "days" : [
      "Thursday"
    ]
  }
}
```

```
>  
>
```

```
> db.movies.find({runtime: {$in: [30, 42]}}).pretty()  
_
```

```

  "status" : "Ended",
  "runtime" : 30,
  "premiered" : "2014-10-05",
  "officialSite" : null,
  "schedule" : {
    "time" : "21:30",
    "days" : [

```

```
        "Crime",  
        "Supernatural"  
    ],  
    "status" : "Ended",  
    "runtime" : 42,  
    "premiered" : "2010-07-09",  
    "officialSite" : "http://www.syfy.com/haven"  
    "schedule" : {  
        "time" : "22:00",  
        "days" : [  
            "Thursday"  
        ]  
    },  
    "rating" : {  
        "average" : 8.2
```

>

>

> db.movies.find({runtime: {\$nin: [30, 42]}}).pretty()

```
"language" : "English",
"genres" : [
    "Drama",
    "Action",
    "Thriller"
],
"status" : "Running",
"runtime" : 60,
"premiered" : "2014-06-22",
"officialSite" : "http://www.tntdrama.com/shows/the-las
"schedule" : {
    "time" : "21:00",
    "days" : [
        "Sunday"
    ]
},
"rating" : {
    "average" : 7.8
},
"weight" : 100,
```


>

```
> db.movies.find({$or: [{"rating.average": {$lt: 5}}, {"rating.average": {$gt: 9.3}}]}).pretty()
```

```
]
```

```
},
```

```
"rating" : {
```

```
  "average" : 9.4
```

```
},
```

```
"weight" : 99,
```

```
"network" : {
```

```
  "id" : 8,
```

```
  "name" : "HBO",
```

```
  "country" : {
```

```
    "name" : "United States"
```

```
    "time" : "20:00",  
    "days" : [  
        "Monday"  
    ],  
},  
"rating" : {  
    "average" : 4.7  
},  
"weight" : 84,  
"network" : {  
    "id" : 3,  
    "name" : "ABC",  
    "country" : {  
        "name" : "United States",  
        "code" : "US"    }  
}
```

```
>  
>  
> db.movies.find({$nor: [{"rating.average": {$lt: 5}}, {"rating.average": {$gt: 9.3}}]}).pretty()
```

```
>
>
> db.movies.find().count()
240
> db.movies.find({$or: [{"rating.average": {$lt: 5}}, {"rating.average": {$gt: 9.3}}]}).count()
4
> db.movies.find({$nor: [{"rating.average": {$lt: 5}}, {"rating.average": {$gt: 9.3}}]}).count()
236
> █
```

>

>

```
> db.movies.find({$and: [{"rating.average": {$gt: 9}}, {genres: "Drama"}]}).pretty()
```

```
"language" : "English",  
"genres" : [  
  "Drama",  
  "Crime",  
  "Thriller"  
],  
"status" : "Ended",  
"runtime" : 60,  
"premiered" : "2008-01-20",  
"officialSite" : "http://www.amc.com/shows/breaking-bad",  
"schedule" : {  
  "time" : "22:00",  
  "days" : [  
    "Sunday"  
  ]  
},  
"rating" : {  
  "average" : 9.3  
}
```

```
>  
> db.movies.find({$and: [{"rating.average": {$gt: 9}}, {genres: "Drama"}]}).count()  
3  
> db.movies.find({"rating.average": {$gt: 9}, genres: "Drama").count()  
3  
> █
```


>

```
> db.movies.find({runtime: {$not: {$eq: 60}}}).count()
```

70

```
> db.movies.find({runtime: {$ne: 60}}).count()
```

70

```
> █
```

```
> use user
switched to db user
> db.users.insertMany([{name: "Max", hobbies: [{title: "Sports", frequency: 3}, {title: "Cooking", frequency: 6}], phone: 0131782734}, {name: "Manuel", hobbies: [{title: "Cooking", frequency: 5}, {title: "Cars", frequency: 2}], phone: "012177972", age: 30}])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("5b9f652dc62d13aa2e81c29d"),
    ObjectId("5b9f652dc62d13aa2e81c29e")
  ]
}
> █
```

```
}  
> db.users.find().pretty()  
{  
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29d"),  
  "name" : "Max",  
  "hobbies" : [  
    {  
      "title" : "Sports",  
      "frequency" : 3  
    },  
    {  
      "title" : "Cooking",  
      "frequency" : 6  
    }  
  ],  
  "phone" : 131782734  
}
```

```
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29e"),
  "name" : "Manuel",
  "hobbies" : [
    {
      "title" : "Cooking",
      "frequency" : 5
    },
    {
      "title" : "Cars",
      "frequency" : 2
    }
  ],
  "phone" : "012177972",
  "age" : 30
}
```

```
> db.users.find({age: {$exists: true}}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29e"),
  "name" : "Manuel",
  "hobbies" : [
    {
      "title" : "Cooking",
      "frequency" : 5
    },
    {
      "title" : "Cars",
      "frequency" : 2
    }
  ],
  "phone" : "012177972",
  "age" : 30
}
>
```

```
> db.users.find({age: {$exists: true, $gte: 30}}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29e"),
  "name" : "Manuel",
  "hobbies" : [
    {
      "title" : "Cooking",
      "frequency" : 5
    },
    {
      "title" : "Cars",
      "frequency" : 2
    }
  ],
  "phone" : "012177972",
  "age" : 30
}
```

```
>
> db.users.insertOne({name: "Anna", hobbies: [{title: "Sports", frequency: 2}, {title: "Yoga", frequency: 3}], phone: "80811987291", age: null})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("5b9f65d0c62d13aa2e81c29f")
}
```

```
{
  "_id" : ObjectId("5b9f65d0c62d13aa2e81c29f"),
  "name" : "Anna",
  "hobbies" : [
    {
      "title" : "Sports",
      "frequency" : 2
    },
    {
      "title" : "Yoga",
      "frequency" : 3
    }
  ],
  "phone" : "80811987291",
  "age" : null
}
```



```
> db.users.find({age: {$exists: true, $ne: null}}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29e"),
  "name" : "Manuel",
  "hobbies" : [
    {
      "title" : "Cooking",
      "frequency" : 5
    },
    {
      "title" : "Cars",
      "frequency" : 2
    }
  ],
  "phone" : "012177972",
  "age" : 30
}
>
```

```
> db.users.find({phone: {$type: "number"}}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29d"),
  "name" : "Max",
  "hobbies" : [
    {
      "title" : "Sports",
      "frequency" : 3
    },
    {
      "title" : "Cooking",
      "frequency" : 6
    }
  ],
  "phone" : 131782734
}
> █
```

```
> db.users.find({phone: {$type: "double"}}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29d"),
  "name" : "Max",
  "hobbies" : [
    {
      "title" : "Sports",
      "frequency" : 3
    },
    {
      "title" : "Cooking",
      "frequency" : 6
    }
  ],
  "phone" : 131782734
}
>
```

```
> db.users.find({phone: {$type: ["double", "string"]}}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29d"),
  "name" : "Max",
  "hobbies" : [
    {
      "title" : "Sports",
      "frequency" : 3
    },
    {
      "title" : "Cooking",
      "frequency" : 6
    }
  ],
  "phone" : 131782734
}
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29e"),
  "name" : "Manuel",
  "hobbies" : [
    {
      "title" : "Cooking",
      "frequency" : 5
    },
    {
      "title" : "Cars",

```

```
    },
    {
        "title" : "Cars",
        "frequency" : 2
    }
],
"phone" : "012177972",
"age" : 30
}
{
    "_id" : ObjectId("5b9f65d0c62d13aa2e81c29f"),
    "name" : "Anna",
    "hobbies" : [
        {
            "title" : "Sports",
            "frequency" : 2
        },
        {
            "title" : "Yoga",
            "frequency" : 3
        }
    ],
    "phone" : "80811987291",
    "age" : null
}
```

```
> db.movies.find({summary: {$regex: /musical/}}).pretty()
```

```
},
"image" : {
    "medium" : "http://static.tvmaze.com/uploads/images/medium_portrait/0/73.jpg",
    "original" : "http://static.tvmaze.com/uploads/images/original_untouched/0/73.jpg"
},
"summary" : "<p><b>Glee </b>is a musical comedy about a group of ambitious and talented young  
adults in search of strength, acceptance and, ultimately, their voice.</p>",
"updated" : 1536145055,
"_links" : {
    "self" : {
        "href" : "http://api.tvmaze.com/shows/8"
```

```
> db.users.find({"hobbies.title": "Sports"}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29d"),
  "name" : "Max",
  "hobbies" : [
    {
      "title" : "Sports",
      "frequency" : 3
    },
    {
      "title" : "Cooking",
      "frequency" : 6
    }
  ],
  "phone" : 131782734
}
```



```
> db.users.find({hobbies: {$size: 3}}).pretty()
{
  "_id" : ObjectId("5b9f707ead7ae74ebe5bc6c7"),
  "name" : "Chris",
  "hobbies" : [
    "Sports",
    "Cooking",
    "Hiking"
  ]
}
```

```
]
}
> db.movies.find({genre: {$all: ["action", "thriller"]}}).pretty()
```

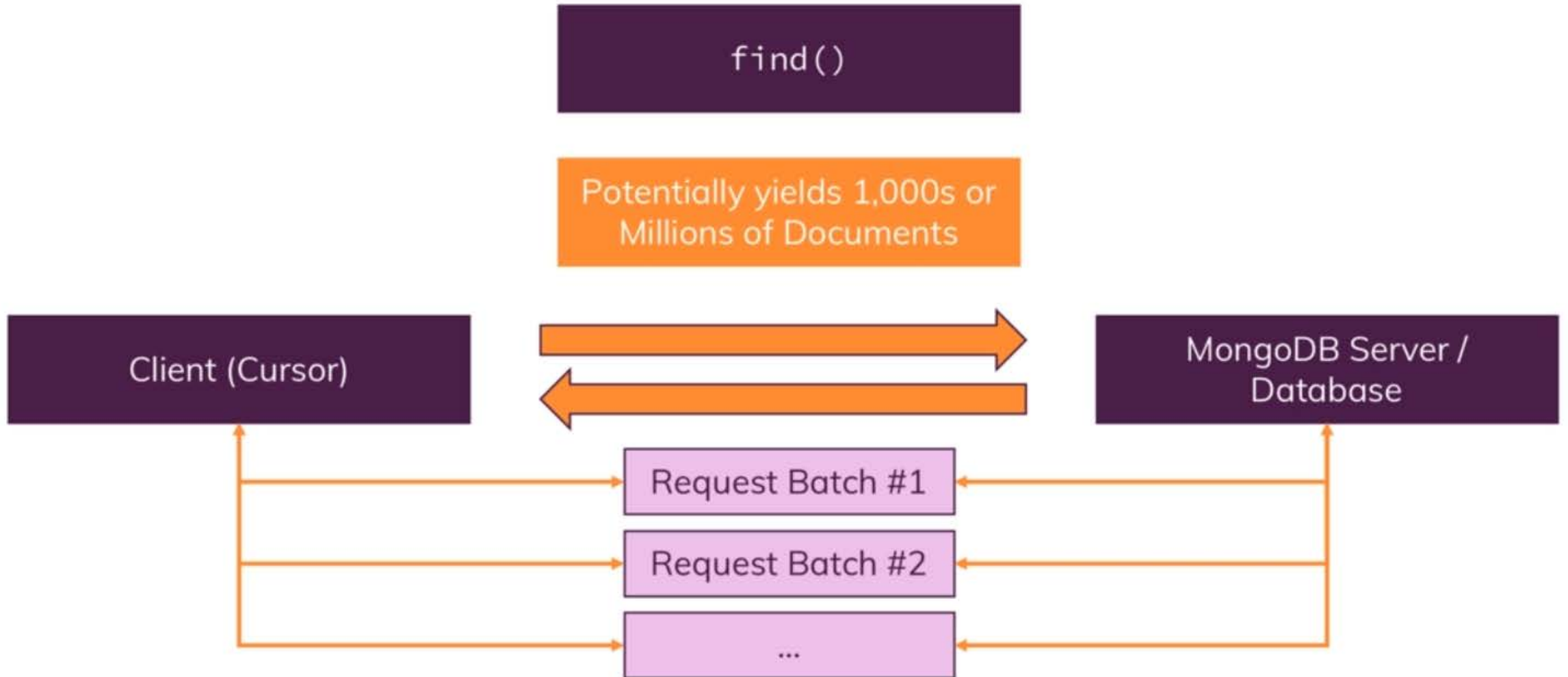
```
        "aired" : 2016,  
        "runtime" : 60  
    },  
    "visitors" : 370000,  
    "expectedVisitors" : 1000000,  
    "genre" : [  
        "thriller",  
        "action"  
    ]  
}
```

```
{  
    "_id" : ObjectId("5b9f6d1651dfa62353d12f04"),  
    "title" : "Teach me if you can",  
    "meta" : {  
        "rating" : 8.5,  
        "aired" : 2014,  
        "runtime" : 90  
    },  
    "visitors" : 590378,  
    "expectedVisitors" : 500000,  
    "genre" : [  
        "action",  
        "thriller"  
    ]  
}
```

```
>
> db.users.find({$and: [{"hobbies.title": "Sports"}, {"hobbies.frequency": {$gte: 2}}]}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29d"),
  "name" : "Max",
  "hobbies" : [
    {
      "title" : "Sports",
      "frequency" : 3
    },
    {
      "title" : "Cooking",
      "frequency" : 6
    }
  ],
  "phone" : 131782734
}
{
  "_id" : ObjectId("5b9f65d0c62d13aa2e81c29f"),
  "name" : "Anna",
  "hobbies" : [
    {
      "title" : "Sports",
      "frequency" : 2
    }
  ]
}
```

```
> db.users.find({$and: [{"hobbies.title": "Sports"}, {"hobbies.frequency": {$gte: 3}}]}).count()
2
> db.users.find({hobbies: {$elemMatch: {title: "Sports", frequency: {$gte: 3}}}}).pretty()
{
  "_id" : ObjectId("5b9f652dc62d13aa2e81c29d"),
  "name" : "Max",
  "hobbies" : [
    {
      "title" : "Sports",
      "frequency" : 3
    },
    {
      "title" : "Cooking",
      "frequency" : 6
    }
  ],
  "phone" : 131782734
}
>
```

Understanding Cursors



```
> const dataCursor = db.movies.find()
> dataCursor.next()
{
  "_id" : ObjectId("5b9f547551dfa62353d12c9a"),
  "id" : 8,
  "url" : "http://www.tvmaze.com/shows/8/glee",
  "name" : "Glee",
  "type" : "Scripted",
  "language" : "English",
  "genres" : [
    "Drama",
    "Music",
    "Romance"
  ],
  "status" : "Ended",
  "runtime" : 60,
  "premiered" : "2009-05-19",
  "officialSite" : "http://www.fox.com/glee",
  "schedule" : {
    "time" : "21:00",
    "days" : [
      "Tuesday"
    ]
  },
  "rating" : {
    "average" : 6.7
  },
}
```

```
}  
> dataCursor.next()  
{  
  "_id" : ObjectId("5b9f547551dfa62353d12c9b"),  
  "id" : 7,  
  "url" : "http://www.tvmaze.com/shows/7/homeland",  
  "name" : "Homeland",  
  "type" : "Scripted",  
  "language" : "English",  
  "genres" : [  
    "Drama",  
    "Thriller",  
    "Espionage"  
  ],  
  "status" : "Running",  
  "runtime" : 60,  
  "premiered" : "2011-10-02",  
  "officialSite" : "http://www.sho.com/sho/homeland/home",  
  "schedule" : {
```



```
> dataCursor.forEach(doc => {printjson(doc)})
```

```

> dataCursor.hasNext()
false
> █
```

```
> type it for movie
> db.movies.find().sort({"rating.average": -1}).pretty()
```

```
> db.movies.find().sort({"rating.average": 1, runtime: -1}).pretty()
```

```
> db.movies.find().sort({"rating.average": 1, runtime: -1}).sort({"rating.average": 1}).skip(100).limit(10).pretty()
```

>

```
> db.movies.find({}, {name: 1, genres: 1, runtime: 1, rating: 1}).pretty()
```

```
{
  "_id" : ObjectId("5b9f547551dfa62353d12cac"),
  "name" : "The Strain",
  "genres" : [
    "Drama",
    "Horror",
    "Thriller"
  ],
  "runtime" : 60,
  "rating" : {
    "average" : 7.6
  }
}
```

```
{
  "_id" : ObjectId("5b9f547551dfa62353d12cad"),
  "name" : "The Last Ship",
  "genres" : [
    "Drama",
    "Action",
    "Thriller"
  ],
  "runtime" : 60,
  "rating" : {
    "average" : 7.8
  }
}
```

Type "it" for more

1

>

```
> db.movies.find({}, {name: 1, genres: 1, runtime: 1, rating: 1, _id: 0}).pretty()
```



```
{  
  "name" : "The Strain",  
  "genres" : [  
    "Drama",  
    "Horror",  
    "Thriller"  
  ],  
  "runtime" : 60,  
  "rating" : {  
    "average" : 7.6  
  }  
}
```

```
{  
  "name" : "The Last Ship",  
  "genres" : [  
    "Drama",  
    "Action",  
    "Thriller"  
  ],  
  "runtime" : 60,  
  "rating" : {  
    "average" : 7.8  
  }  
}
```

```
> db.movies.find({}, {name: 1, genres: 1, runtime: 1, "rating.average": 1, _id: 0}).pretty()
```

```
> db.movies.find({genres: "Drama"}, {"genres.$": 1}).pretty()
{ "_id" : ObjectId("5b9f547551dfa62353d12c9a"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12c9b"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12c9c"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12c9d"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12c9e"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12c9f"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12ca0"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12ca1"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12ca2"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12ca3"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12ca4"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12ca5"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12ca6"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12ca7"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12caa"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12cab"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12cac"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12cad"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12cae"), "genres" : [ "Drama" ] }
{ "_id" : ObjectId("5b9f547551dfa62353d12cb1"), "genres" : [ "Drama" ] }
Type "it" for more
```