

mongoshd

```
test> db.books.find()
test> use bookstore
switched to db bookstore
bookstore> db.books.find()
[
  {
    _id: ObjectId('6966dea440b1cf345c2d5c41'),
    title: 'The Color of Magic',
    author: 'Terry Pratchett',
    pages: 300,
    rating: 7,
    genres: [ 'fantasy', 'magic' ]
  },
  {
    _id: ObjectId('6966e1d140b1cf345c2d5c42'),
    title: 'Wrath of Man',
    author: 'Terry Pratchett',
    pages: 310,
    rating: 3,
    genres: [ 'action', 'magic' ]
  },
  {
    _id: ObjectId('6966e1d140b1cf345c2d5c43'),
    title: 'A Tour in the World',
    author: 'Perry Pratchett',
    pages: 210,
    rating: 4,
    genres: [ 'thriller', 'action' ]
  }
]
bookstore> it
no cursor
bookstore> db.books
bookstore.books
bookstore> db.books.find()
[
  {
    _id: ObjectId('6966dea440b1cf345c2d5c41'),
    title: 'The Color of Magic',
    author: 'Terry Pratchett',
    pages: 300,
```

```
rating: 7,
genres: [ 'fantasy', 'magic' ]
},
{
  _id: ObjectId('6966e1d140b1cf345c2d5c42'),
  title: 'Wrath of Man',
  author: 'Terry Pratchett',
  pages: 310,
  rating: 3,
  genres: [ 'action', 'magic' ]
},
{
  _id: ObjectId('6966e1d140b1cf345c2d5c43'),
  title: 'A Tour in the World',
  author: 'Perry Pratchett',
  pages: 210,
  rating: 4,
  genres: [ 'thriller', 'action' ]
}
]
bookstore> db.books.find({author: "Terry Pratchett"})
[
  {
    _id: ObjectId('6966dea440b1cf345c2d5c41'),
    title: 'The Color of Magic',
    author: 'Terry Pratchett',
    pages: 300,
    rating: 7,
    genres: [ 'fantasy', 'magic' ]
  },
  {
    _id: ObjectId('6966e1d140b1cf345c2d5c42'),
    title: 'Wrath of Man',
    author: 'Terry Pratchett',
    pages: 310,
    rating: 3,
    genres: [ 'action', 'magic' ]
  }
]
bookstore> db.books.findOne(ObjectId('6966e1d140b1cf345c2d5c42'))
{
  _id: ObjectId('6966e1d140b1cf345c2d5c42'),
  title: 'Wrath of Man',
  author: 'Terry Pratchett',
```

```
pages: 310,
rating: 3,
genres: [ 'action', 'magic' ]
}
bookstore> db.books.find().count()
(node:76450) [MONGODB DRIVER] Warning: cursor.count is deprecated and will be removed
in the next major version, please use `collection.estimatedDocumentCount` or
`collection.countDocuments` instead
(Use `node --trace-warnings ...` to show where the warning was created)
3
bookstore> db.books.find().sort()
[
{
  _id: ObjectId('6966dea440b1cf345c2d5c41'),
  title: 'The Color of Magic',
  author: 'Terry Pratchett',
  pages: 300,
  rating: 7,
  genres: [ 'fantasy', 'magic' ]
},
{
  _id: ObjectId('6966e1d140b1cf345c2d5c42'),
  title: 'Wrath of Man',
  author: 'Terry Pratchett',
  pages: 310,
  rating: 3,
  genres: [ 'action', 'magic' ]
},
{
  _id: ObjectId('6966e1d140b1cf345c2d5c43'),
  title: 'A Tour in the World',
  author: 'Perry Pratchett',
  pages: 210,
  rating: 4,
  genres: [ 'thriller', 'action' ]
}
]
bookstore> db.books.find().sort({title: 1})
[
{
  _id: ObjectId('6966e1d140b1cf345c2d5c43'),
  title: 'A Tour in the World',
  author: 'Perry Pratchett',
  pages: 210,
```

```

rating: 4,
genres: [ 'thriller', 'action' ]
},
{
  _id: ObjectId('6966dea440b1cf345c2d5c41'),
  title: 'The Color of Magic',
  author: 'Terry Pratchett',
  pages: 300,
  rating: 7,
  genres: [ 'fantasy', 'magic' ]
},
{
  _id: ObjectId('6966e1d140b1cf345c2d5c42'),
  title: 'Wrath of Man',
  author: 'Terry Pratchett',
  pages: 310,
  rating: 3,
  genres: [ 'action', 'magic' ]
}
]
bookstore> db.books.find().sort({title: 1}).limit(2)
[
  {
    _id: ObjectId('6966e1d140b1cf345c2d5c43'),
    title: 'A Tour in the World',
    author: 'Perry Pratchett',
    pages: 210,
    rating: 4,
    genres: [ 'thriller', 'action' ]
  },
  {
    _id: ObjectId('6966dea440b1cf345c2d5c41'),
    title: 'The Color of Magic',
    author: 'Terry Pratchett',
    pages: 300,
    rating: 7,
    genres: [ 'fantasy', 'magic' ]
  }
]

```

## Using limit and count

```

bookstore> db.books.find().sort({title: 1}).limit(2).count()
2

```

```
bookstore>
bookstore> db.books.insertMany([
  {
    title: "The Way of Kings",
    author: "Brandon Sanderson",
    rating: 9,
    pages: 400,
    genres: ["fantasy"],
    reviews: [
      { name: "Yoshi", body: "Great book!!" },
      { name: "mario", body: "so so" }
    ]
  },
  {
    title: "The Light of Fantastic",
    author: "Terry Pratchett",
    pages: 250,
    rating: 6,
    genres: ["fantasy", "magic"],
    reviews: [
      { name: "luigi", body: "it was pretty good" },
      { name: "bowser", body: "loved it!!" }
    ]
  },
  {
    title: "The Name of the Wind",
    author: "Patrick Rothfuss",
    pages: 500,
    rating: 10,
    genres: ["fantasy"],
    reviews: [{ name: "peach", body: "one of my favs" }]
  },
  {
    title: "The Color of Magic",
    author: "Terry Pratchett",
    pages: 350,
    rating: 8,
    genres: ["fantasy", "magic"],
    reviews: [
      { name: "luigi", body: "it was ok" },
      { name: "bowser", body: "really good book" }
    ]
  },
  {

```

```
title: "1984",
author: "George Orwell",
pages: 300,
rating: 6,
genres: ["sci-fi", "dystopian"],
reviews: [
  { name: "peach", body: "not my cup of tea" },
  { name: "mario", body: "meh" }
]
}
])
}

{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('697541fe4e2a065434c34876'),
    '1': ObjectId('697541fe4e2a065434c34877'),
    '2': ObjectId('697541fe4e2a065434c34878'),
    '3': ObjectId('697541fe4e2a065434c34879'),
    '4': ObjectId('697541fe4e2a065434c3487a')
  }
}
}
bookstore> bookstore> db.books.find({ rating: {$gt: 7}})
[
  {
    _id: ObjectId('697541fe4e2a065434c34876'),
    title: 'The Way of Kings',
    author: 'Brandon Sanderson',
    rating: 9,
    pages: 400,
    genres: [ 'fantasy' ],
    reviews: [
      { name: 'Yoshi', body: 'Great book!!' },
      { name: 'mario', body: 'so so' }
    ]
  },
  {
    _id: ObjectId('697541fe4e2a065434c34878'),
    title: 'The Name of the Wind',
    author: 'Patrick Rothfuss',
    pages: 500,
    rating: 10,
    genres: [ 'fantasy' ],
    reviews: [ { name: 'peach', body: 'one of my favs' } ]
  }
]
```

```
},
{
  _id: ObjectId('697541fe4e2a065434c34879'),
  title: 'The Color of Magic',
  author: 'Terry Pratchett',
  pages: 350,
  rating: 8,
  genres: [ 'fantasy', 'magic' ],
  reviews: [
    { name: 'luigi', body: 'it was ok' },
    { name: 'bowser', body: 'really good book' }
  ]
}
]
bookstore> db.books.find({ rating: {$lt: 7}})
[
  {
    _id: ObjectId('697541fe4e2a065434c34877'),
    title: 'The Light of Fantastic',
    author: 'Terry Pratchett',
    pages: 250,
    rating: 6,
    genres: [ 'fantasy', 'magic' ],
    reviews: [
      { name: 'luigi', body: 'it was pretty good' },
      { name: 'bowser', body: 'loved it!!' }
    ]
  },
  {
    _id: ObjectId('697541fe4e2a065434c3487a'),
    title: '1984',
    author: 'George Orwell',
    pages: 300,
    rating: 6,
    genres: [ 'sci-fi', 'dystopian' ],
    reviews: [
      { name: 'peach', body: 'not my cup of tea' },
      { name: 'mario', body: 'meh' }
    ]
  }
]
bookstore> db.books.find({ rating: {$lte: 8}})
[
```

```

_id: ObjectId('697541fe4e2a065434c34877'),
title: 'The Light of Fantastic',
author: 'Terry Pratchett',
pages: 250,
rating: 6,
genres: [ 'fantasy', 'magic' ],
reviews: [
  { name: 'luigi', body: 'it was pretty good' },
  { name: 'bowser', body: 'loved it!!' }
]
},
{
  _id: ObjectId('697541fe4e2a065434c34879'),
  title: 'The Color of Magic',
  author: 'Terry Pratchett',
  pages: 350,
  rating: 8,
  genres: [ 'fantasy', 'magic' ],
  reviews: [
    { name: 'luigi', body: 'it was ok' },
    { name: 'bowser', body: 'really good book' }
  ]
},
{
  _id: ObjectId('697541fe4e2a065434c3487a'),
  title: '1984',
  author: 'George Orwell',
  pages: 300,
  rating: 6,
  genres: [ 'sci-fi', 'dystopian' ],
  reviews: [
    { name: 'peach', body: 'not my cup of tea' },
    { name: 'mario', body: 'meh' }
  ]
}
]

```

## Using And

```

bookstore> db.books.find( {rating: {$gt: 7}, author: "Patrick Rothfuss"})
[
{
  _id: ObjectId('697541fe4e2a065434c34878'),
  title: 'The Name of the Wind',

```

```
author: 'Patrick Rothfuss',
pages: 500,
rating: 10,
genres: [ 'fantasy' ],
reviews: [ { name: 'peach', body: 'one of my favs' } ]
}
]
```

## Using or, lt, gte, lte

```
bookstore> db.books.find({$or: [{rating: 7}, {rating: 9}]})
[
{
  _id: ObjectId('697541fe4e2a065434c34876'),
  title: 'The Way of Kings',
  author: 'Brandon Sanderson',
  rating: 9,
  pages: 400,
  genres: [ 'fantasy' ],
  reviews: [
    { name: 'Yoshi', body: 'Great book!!' },
    { name: 'mario', body: 'so so' }
  ]
}
]
```

```
bookstore> db.books.find({$or: [{rating: 7}, {author: "Terry Pratchett"}]})
[
{
  _id: ObjectId('697541fe4e2a065434c34877'),
  title: 'The Light of Fantastic',
  author: 'Terry Pratchett',
  pages: 250,
  rating: 6,
  genres: [ 'fantasy', 'magic' ],
  reviews: [
    { name: 'luigi', body: 'it was pretty good' },
    { name: 'bowser', body: 'loved it!!' }
  ]
},
{
  _id: ObjectId('697541fe4e2a065434c34879'),
  title: 'The Color of Magic',
  author: 'Terry Pratchett',
```

```

pages: 350,
rating: 8,
genres: [ 'fantasy', 'magic' ],
reviews: [
  { name: 'luigi', body: 'it was ok' },
  { name: 'bowser', body: 'really good book' }
]
}
]
]

bookstore> db.books.find({$or: [{pages: {$lt: 300}}, {pages: {$gt: 400}}]})

[
{
  _id: ObjectId('697541fe4e2a065434c34877'),
  title: 'The Light of Fantastic',
  author: 'Terry Pratchett',
  pages: 250,
  rating: 6,
  genres: [ 'fantasy', 'magic' ],
  reviews: [
    { name: 'luigi', body: 'it was pretty good' },
    { name: 'bowser', body: 'loved it!!' }
  ]
},
{
  _id: ObjectId('697541fe4e2a065434c34878'),
  title: 'The Name of the Wind',
  author: 'Patrick Rothfuss',
  pages: 500,
  rating: 10,
  genres: [ 'fantasy' ],
  reviews: [ { name: 'peach', body: 'one of my favs' } ]
}
]

```

## Using in, nin

```

bookstore> db.books.find({rating: {$in : [7, 8, 9]}})

[
{
  _id: ObjectId('697541fe4e2a065434c34876'),
  title: 'The Way of Kings',
  author: 'Brandon Sanderson',
  rating: 9,
}
]
```

```
pages: 400,
genres: [ 'fantasy' ],
reviews: [
  { name: 'Yoshi', body: 'Great book!!' },
  { name: 'mario', body: 'so so' }
]
},
{
  _id: ObjectId('697541fe4e2a065434c34879'),
  title: 'The Color of Magic',
  author: 'Terry Pratchett',
  pages: 350,
  rating: 8,
  genres: [ 'fantasy', 'magic' ],
  reviews: [
    { name: 'luigi', body: 'it was ok' },
    { name: 'bowser', body: 'really good book' }
  ]
}
]
```

```
bookstore> db.books.find({rating: {$nin : [7, 8, 9]}})
[
{
  _id: ObjectId('697541fe4e2a065434c34877'),
  title: 'The Light of Fantastic',
  author: 'Terry Pratchett',
  pages: 250,
  rating: 6,
  genres: [ 'fantasy', 'magic' ],
  reviews: [
    { name: 'luigi', body: 'it was pretty good' },
    { name: 'bowser', body: 'loved it!!' }
  ]
},
{
  _id: ObjectId('697541fe4e2a065434c34878'),
  title: 'The Name of the Wind',
  author: 'Patrick Rothfuss',
  pages: 500,
  rating: 10,
  genres: [ 'fantasy' ],
  reviews: [ { name: 'peach', body: 'one of my favs' } ]
},
```

```
{
  _id: ObjectId('697541fe4e2a065434c3487a'),
  title: '1984',
  author: 'George Orwell',
  pages: 300,
  rating: 6,
  genres: [ 'sci-fi', 'dystopian' ],
  reviews: [
    { name: 'peach', body: 'not my cup of tea' },
    { name: 'mario', body: 'meh' }
  ]
},
]
}
```

## Querying Arrays

```
bookstore> db.books.find({genres: "fantasy"})
[
  {
    _id: ObjectId('697541fe4e2a065434c34876'),
    title: 'The Way of Kings',
    author: 'Brandon Sanderson',
    rating: 9,
    pages: 400,
    genres: [ 'fantasy' ],
    reviews: [
      { name: 'Yoshi', body: 'Great book!!' },
      { name: 'mario', body: 'so so' }
    ]
  },
  {
    _id: ObjectId('697541fe4e2a065434c34877'),
    title: 'The Light of Fantastic',
    author: 'Terry Pratchett',
    pages: 250,
    rating: 6,
    genres: [ 'fantasy', 'magic' ],
    reviews: [
      { name: 'luigi', body: 'it was pretty good' },
      { name: 'bowser', body: 'loved it!!' }
    ]
  },
  {
    _id: ObjectId('697541fe4e2a065434c34878'),
    title: 'The Last Wish',
    author: 'Andrzej Sapkowski',
    rating: 8,
    pages: 350,
    genres: [ 'fantasy', 'adventure' ],
    reviews: [
      { name: 'link', body: 'epic' },
      { name: 'zelda', body: 'definitely recommend' }
    ]
  }
]
```

```
title: 'The Name of the Wind',
author: 'Patrick Rothfuss',
pages: 500,
rating: 10,
genres: [ 'fantasy' ],
reviews: [ { name: 'peach', body: 'one of my favs' } ]
},
{
  _id: ObjectId('697541fe4e2a065434c34879'),
  title: 'The Color of Magic',
  author: 'Terry Pratchett',
  pages: 350,
  rating: 8,
  genres: [ 'fantasy', 'magic' ],
  reviews: [
    { name: 'luigi', body: 'it was ok' },
    { name: 'bowser', body: 'really good book' }
  ]
}
]
bookstore> db.books.find({genres: ["magic"]})
```

```
bookstore> db.books.find({genres: ["fantasy"]})
[
  {
    _id: ObjectId('697541fe4e2a065434c34876'),
    title: 'The Way of Kings',
    author: 'Brandon Sanderson',
    rating: 9,
    pages: 400,
    genres: [ 'fantasy' ],
    reviews: [
      { name: 'Yoshi', body: 'Great book!!' },
      { name: 'mario', body: 'so so' }
    ]
  },
  {
    _id: ObjectId('697541fe4e2a065434c34878'),
    title: 'The Name of the Wind',
    author: 'Patrick Rothfuss',
    pages: 500,
    rating: 10,
    genres: [ 'fantasy' ],
    reviews: [ { name: 'peach', body: 'one of my favs' } ]
  }
]
```

```
        }
    ]
}

bookstore> db.books.find({genres: ["fantasy", "magic"]})
[
{
    _id: ObjectId('697541fe4e2a065434c34877'),
    title: 'The Light of Fantastic',
    author: 'Terry Pratchett',
    pages: 250,
    rating: 6,
    genres: [ 'fantasy', 'magic' ],
    reviews: [
        { name: 'luigi', body: 'it was pretty good' },
        { name: 'bowser', body: 'loved it!!' }
    ]
},
{
    _id: ObjectId('697541fe4e2a065434c34879'),
    title: 'The Color of Magic',
    author: 'Terry Pratchett',
    pages: 350,
    rating: 8,
    genres: [ 'fantasy', 'magic' ],
    reviews: [
        { name: 'luigi', body: 'it was ok' },
        { name: 'bowser', body: 'really good book' }
    ]
}
]
```

Updated George Orwell - added fantasy as genres

```
bookstore> db.books.find({genres: {$all: ["fantasy", "sci-fi"]}})
```

```
[
{
    _id: ObjectId('697541fe4e2a065434c3487a'),
    title: '1984',
    author: 'George Orwell',
    pages: 300,
    rating: 6,
    genres: [ 'sci-fi', 'dystopian', 'fantasy' ],
    reviews: [
        { name: 'peach', body: 'not my cup of tea' },
        { name: 'mario', body: 'meh' }
    ]
}]
```

```
        }
    ]
bookstore> db.books.find({"reviews.name": "luigi"})
[
  {
    _id: ObjectId('697541fe4e2a065434c34877'),
    title: 'The Light of Fantastic',
    author: 'Terry Pratchett',
    pages: 250,
    rating: 6,
    genres: [ 'fantasy', 'magic' ],
    reviews: [
      { name: 'luigi', body: 'it was pretty good' },
      { name: 'bowser', body: 'loved it!!' }
    ]
  },
  {
    _id: ObjectId('697541fe4e2a065434c34879'),
    title: 'The Color of Magic',
    author: 'Terry Pratchett',
    pages: 350,
    rating: 8,
    genres: [ 'fantasy', 'magic' ],
    reviews: [
      { name: 'luigi', body: 'it was ok' },
      { name: 'bowser', body: 'really good book' }
    ]
  }
]
```

## Deleting Documents

## Updating Documents