

01.create a database bookshop

02.create a collection books

Create Database

Database Name
bookshop

Collection Name
books

☐ **Time-Series**
Time-series collections efficiently store sequences of measurements over a period of time. [Learn More](#)

> **Additional preferences** (e.g. Custom collation, Clustered collections)

Cancel Create Database

03.insert the following data

```
{  
  "title": "The Hobbit",  
  "author": "J.R.R. Tolkien",  
  "published_year": 1937,  
  "genres": ["Fantasy", "Adventure"],  
  "pages": 310,  
  "available": true,  
  "rating": 4.8  
},  
{
```

```
"title": "1984",  
"author": "George Orwell",  
"published_year": 1949,  
"genres": ["Dystopian", "Political Fiction"],  
"pages": 328,  
"available": true,  
"rating": 4.7  
},
```

```
{  
  "title": "To Kill a Mockingbird",  
  "author": "Harper Lee",  
  "published_year": 1960,  
  "genres": ["Southern Gothic", "Drama"],  
  "pages": 281,  
  "available": false,  
  "rating": 4.6  
},
```

```
{  
  "title": "The Great Gatsby",  
  "author": "F. Scott Fitzgerald",  
  "published_year": 1925,  
  "genres": ["Tragedy"],  
  "pages": 180,
```



```
_id: ObjectId('6816538bae438c15a7b354fe')
title: "The Great Gatsby"
author: "F. Scott Fitzgerald"
published_year: 1925
▶ genres: Array (1)
pages: 180
available: true
rating: 4.4
```

```
▶ _id: ObjectId('6816538bae438c15a7b354ff')
title: "Brave New World"
author: "Aldous Huxley"
published_year: 1932
▶ genres: Array (2)
pages: 311
available: true
rating: 4.2
```

04.Find all books

db.books.find()

```
db.books.find()
{
  _id: ObjectId('6818da8589793f39eb096521'),
  title: 'The Hobbit',
  author: 'J.R.R. Tolkien',
  published_year: 1937,
  genres: [
    'Fantasy',
    'Adventure'
  ],
  pages: 310,
  available: true,
  rating: 4.8
}
{
  _id: ObjectId('6818da8589793f39eb096522'),
  title: '1984',
  author: 'George Orwell',
  published_year: 1949,
  genres: [
    'Dystopian',
    'Political Fiction'
  ],
```

```
    pages: 328,  
    available: true,  
    rating: 4.7  
  }  
  {  
    _id: ObjectId('6818da8589793f39eb096523'),  
    title: 'To Kill a Mockingbird',  
    author: 'Harper Lee',  
    published_year: 1960,  
    genres: [  
      'Southern Gothic',  
      'Drama'  
    ],  
    pages: 281,  
    available: false,  
    rating: 4.6  
  }  
  {  
    _id: ObjectId('6818da8589793f39eb096524'),  
    title: 'The Great Gatsby',  
    author: 'F. Scott Fitzgerald',  
    published_year: 1925,  
    genres: [  
      'Tragedy'  
    ],  
  },  
}
```

```
{
  _id: ObjectId('6818da8589793f39eb096525'),
  title: 'Brave New World',
  author: 'Aldous Huxley',
  published_year: 1932,
  genres: [
    'Science Fiction',
    'Dystopian'
  ],
  pages: 311,
  available: true,
  rating: 4.2
}
```

05.Find all books published after 1950

db.books.find({published_year:{\$gte:1950}})

```
> db.books.find({published_year:{$gte:1950}})
< {
  _id: ObjectId('6816538bae438c15a7b354fd'),
  title: 'To Kill a Mockingbird',
  author: 'Harper Lee',
  published_year: 1960,
  genres: [
    'Southern Gothic',
    'Drama'
  ],
  pages: 281,
  available: false,
  rating: 4.6
}
```

06.Find the available books

db.books.find({ "available": true });

```
> db.books.find({ "available": true });
< {
  _id: ObjectId('6816538bae438c15a7b354fb'),
  title: 'The Hobbit',
  author: 'J.R.R. Tolkien',
  published_year: 1937,
  genres: [
    'Fantasy',
    'Adventure'
  ],
  pages: 310,
  available: true,
  rating: 4.8
}
{
  _id: ObjectId('6816538bae438c15a7b354fc'),
  title: '1984',
  author: 'George Orwell',
  published_year: 1949,
  genres: [
    'Dystopian',
    'Political Fiction'
  ],
  pages: 328,
  available: true,
  rating: 4.7
}
```



```
{
  _id: ObjectId('6816538bae438c15a7b354fe'),
  title: 'The Great Gatsby',
  author: 'F. Scott Fitzgerald',
  published_year: 1925,
  genres: [
    'Tragedy'
  ],
  pages: 180,
  available: true,
  rating: 4.4
}
{
  _id: ObjectId('6816538bae438c15a7b354ff'),
  title: 'Brave New World',
  author: 'Aldous Huxley',
  published_year: 1932,
  genres: [
    'Science Fiction',
    'Dystopian'
  ],
  pages: 311,
  available: true,
  rating: 4.2
}
```

07.Find all books that belong to the "Dystopian" genre

```
db.books.find({ "genres": "Dystopian" });
```

```

> db.books.find({ "genres": "Dystopian" });
< {
  _id: ObjectId('6816538bae438c15a7b354fc'),
  title: '1984',
  author: 'George Orwell',
  published_year: 1949,
  genres: [
    'Dystopian',
    'Political Fiction'
  ],
  pages: 328,
  available: true,
  rating: 4.7
}
{
  _id: ObjectId('6816538bae438c15a7b354ff'),
  title: 'Brave New World',
  author: 'Aldous Huxley',
  published_year: 1932,
  genres: [
    'Science Fiction',
    'Dystopian'
  ],
  pages: 311,
  available: true,
  rating: 4.2
}

```

08.Project only title and author fields:

```
db.books.find({}, { "title": 1, "author": 1, "_id": 0 });
```

```
> db.books.find({}, { "title": 1, "author": 1, "_id": 0 });
< [
  {
    title: 'The Hobbit',
    author: 'J.R.R. Tolkien'
  },
  {
    title: '1984',
    author: 'George Orwell'
  },
  {
    title: 'To Kill a Mockingbird',
    author: 'Harper Lee'
  },
  {
    title: 'The Great Gatsby',
    author: 'F. Scott Fitzgerald'
  },
  {
    title: 'Brave New World',
    author: 'Aldous Huxley'
  }
]
```

09. Update the book "1984" to set available: false:

```
db.books.updateOne(
  { "title": "1984" },
  { $set: { "available": false } }
);
```

10. Increase the rating of "Brave New World" by +0.1:

```
db.books.updateOne(
  { "title": "Brave New World" },
  { $inc: { "rating": 0.1 } }
);
```

11. Add a new genre "Classic" to "The Great Gatsby":

```
db.books.updateOne(  
  { "title": "The Great Gatsby" },  
  { $addToSet: { "genres": "Classic" } }  
);
```

12. Sort books by published_year ascending:

```
db.books.find().sort({ "published_year": 1 });
```

```
> db.books.find().sort({ "published_year": 1 });  
< {  
  _id: ObjectId('6816538bae438c15a7b354fe'),  
  title: 'The Great Gatsby',  
  author: 'F. Scott Fitzgerald',  
  published_year: 1925,  
  genres: [  
    'Tragedy'  
  ],  
  pages: 180,  
  available: true,  
  rating: 4.4  
}  
{  
  _id: ObjectId('6816538bae438c15a7b354ff'),  
  title: 'Brave New World',  
  author: 'Aldous Huxley',  
  published_year: 1932,  
  genres: [  
    'Science Fiction',  
    'Dystopian'  
  ],  
  pages: 311,  
  available: true,  
  rating: 4.2  
}
```

```
>_MONGOOSH
  author: 'J.R.R. Tolkien',
  published_year: 1937,
  genres: [
    'Fantasy',
    'Adventure'
  ],
  pages: 310,
  available: true,
  rating: 4.8
}
{
  _id: ObjectId('6816538bae438c15a7b354fc'),
  title: '1984',
  author: 'George Orwell',
  published_year: 1949,
  genres: [
    'Dystopian',
    'Political Fiction'
  ],
  pages: 328,
  available: false,
  rating: 4.7
}
{
  _id: ObjectId('6816538bae438c15a7b354fd'),
  title: 'To Kill a Mockingbird',
  author: 'Harper Lee',
  published_year: 1960,
  genres: [
```

13.Sort books by rating descending:

```
db.books.find().sort({ "rating": -1 });
```

>_MONGOSH

```
> db.books.find().sort({ "rating": -1 });
```

```
< {
```

```
  _id: ObjectId('6816538bae438c15a7b354fb'),
  title: 'The Hobbit',
  author: 'J.R.R. Tolkien',
  published_year: 1937,
  genres: [
    'Fantasy',
    'Adventure'
  ],
  pages: 318,
  available: true,
  rating: 4.8
```

```
}
```

```
{
```

```
  _id: ObjectId('6816538bae438c15a7b354fc'),
  title: '1984',
  author: 'George Orwell',
  published_year: 1949,
  genres: [
    'Dystopian',
    'Political Fiction'
  ],
  pages: 328,
  available: false,
  rating: 4.7
```

```

>_MONGOSH
  author: 'Harper Lee',
  published_year: 1960,
  genres: [
    'Southern Gothic',
    'Drama'
  ],
  pages: 281,
  available: false,
  rating: 4.6
}
{
  _id: ObjectId('6816538bae438c15a7b354fe'),
  title: 'The Great Gatsby',
  author: 'F. Scott Fitzgerald',
  published_year: 1925,
  genres: [
    'Tragedy'
  ],
  pages: 180,
  available: true,
  rating: 4.4
}
{
  _id: ObjectId('6816538bae438c15a7b354ff'),
  title: 'Brave New World',
  author: 'Aldous Huxley',
  published_year: 1932,
  genres: [
    'Science Fiction'
  ],
  pages: 311,
  available: true,
  rating: 4.5
}

```

14.Delete all books with a rating lower than 4.5:

```
db.books.deleteMany({"rating": { $lt: 4.5 } });
```

```

> db.books.deleteMany({"rating": { $lt: 4.5 } });
< {
  acknowledged: true,
  deletedCount: 2
}

```